# TOSHIBA

# SERVICE HANDBOOK MULTIFUNCTIONAL DIGITAL COLOR SYSTEMS e-Studio3511/4511



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### GENERAL PRECAUTIONS REGARDING THE INSTALLATION AND SERVICE FOR e-STUDIO3511/4511

The installation and service should be done by a qualified service technician.

#### 1. Transportation/Installation

• When transporting/installing the equipment, employ four persons and be sure to use the positions as indicated below.

The equipment is quite heavy and weighs approximately 112kg (246 lb.), therefore pay full attention when handling it.



- Be sure not to hold the movable parts or units (e.g. the control panel, ADU or RADF) when transporting the equipment.
- Be sure to use a dedicated outlet with AC 110/13.2A, 115V or 127V/12A, 220V-240V or 240V/ 8A) for its power source.
- The equipment must be grounded for safety. Never ground it to a gas pipe or a water pipe.
- Select a suitable place for installation. Avoid excessive heat, high humidity, dust, vibration and direct sunlight.
- Also provide proper ventilation as the equipment emits a slight amount of ozone.
- To insure adequate working space for the copying operation, keep a minimum clearance of 80 cm (32") on the left, 80 cm (32") on the right and 10 cm (4") in the rear.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

#### 2. Service of Machines

- Basically, be sure to turn the main switch off and unplug the power cord during service.
- Be sure not to touch high-temperature sections such as the exposure lamp, the fuser unit, the damp heater and their periphery.
- Be sure not to touch high-voltage sections such as the chargers, transfer belt, 2nd transfer roller, developer, IH control circuit, high-voltage transformer, exposure lamp control inverter, inverter for the LCD backlight and power supply unit. Especially, the board of these components should not be touched since the electric charge may remain in the capacitors, etc. on them even after the power is turned OFF.
- Be sure not to touch rotating/operating sections such as gears, belts, pulleys, fan, etc.
- Be careful when removing the covers since there might be the parts with very sharp edges underneath.
- When servicing the machines with the main switch turned on, be sure not to touch live sections and rotating/operating sections. Avoid exposure to laser radiation.
- Use suitable measuring instruments and tools.
- Avoid exposure to laser radiation during servicing.
  - Avoid direct exposure to the beam.
  - Do not insert tools, parts, etc. that are reflective into the path of the laser beam.
  - Remove all watches, rings, bracelets, etc. that are reflective.
- Unplug the power cable and clean the area around the prongs of the plug once a year or more. A fire may occur when dust lies on this area.

#### 3. Main Service Parts for Safety

• The breaker, door switch, fuse, thermostat, thermofuse, thermistor, etc. are particularly important for safety. Be sure to handle/install them properly. If these parts are shorted circuit and/or made their functions out, they may burn down, for instance, and may result in fatal accidents. Do not allow a short circuit to occur. Do not use the parts not recommended by Toshiba TEC Corporation.

#### 4. Cautionary Labels

- During servicing, be sure to check the rating plate and the cautionary labels such as "Unplug the power cord during service", "Hot area", "Laser warning label" etc. to see if there is any dirt on their surface and whether they are properly stuck to the equipment.
- 5. Disposition of Consumable Parts, Packing Materials, Used batteries and RAM-ICs
  - Regarding the recovery and disposal of the equipment, supplies, consumable parts, packing materials, used batteries and RAM-ICs including lithium batteries, follow the relevant local regulations or rules.
- 6. When parts are disassembled, reassembly is basically the reverse of disassembly unless otherwise noted in this manual or other related documents. Be careful not to reassemble small parts such as screws, washers, pins, E-rings, star washers in the wrong places.
- 7. Basically, the machine should not be operated with any parts removed or disassembled.

#### 8. Precautions Against Static Electricity

• The PC board must be stored in an anti-electrostatic bag and handled carefully using a wristband, because the ICs on it may become damaged due to static electricity.

Caution: Before using the wristband, pull out the power cord plug of the equipment and make sure that there are no uninsulated charged objects in the vicinity.

Caution :	Dispose of used batteries and RAM-ICs including lithium batteries according to this manual.
Attention :	Se débarrasser de batteries et RAM-ICs usés y compris les batteries en lithium selon ce manuel.
Vorsicht :	Entsorgung des gebrauchten Batterien und RAM-ICs (inklusive der Lithium-Batterie) nach diesem Handbuch.

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# 1. SPECIFICATIONS/ACCESSORIES/OPTIONS/SUPPLIES

#### 1.1 Specifications

Values in [] are for e-STUDIO4511 in case that the specification is different between e-STUDIO3511 and e-STUDIO4511.

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#### • Copy speed (Copies/min.)

#### e-STUDIO3511

Paper supply Paper size	Drawer	Bypass feed (Size specified)	PFP	LCF
A4, LT, B5	35 (11)	35 (11)	35 (11)	35 (11)
A4-R, B5-R,	28 (5)	28 (5)	28 (5)	_
A5-R, LT-R, ST-R	20(3)	20(3)	20(3)	
B4, LG	24 (5)	24 (5)	24 (5)	_
A3, LD	21 (5)	21 (5)	21 (5)	-

#### e-STUDIO4511

Paper supply Paper size	Drawer	Bypass feed (Size specified)	PFP	LCF
A4, LT, B5	45 (11)	45 (11)	45 (11)	45 (11)
A4-R, B5-R,	22 ( 5 )	20 ( 5 )	20 ( E )	_
A5-R, LT-R, ST-R	32(5)	32(5)	32(5)	
B4, LG	26 ( 5 )	26 ( 5 )	26 ( 5 )	_
A3, LD	22 ( 5 )	22 ( 5 )	22 ( 5 )	_

- \* "-" means "Not acceptable".
- \* The copy speed in the above table are available when originals are manually placed for single side, continuous copying.
- \* When the Reversing Automatic Document Feeder is used, the copy speed of 35[45] sheets per minute is only available under the following conditions:
  - Original/Mode: Single-sided original/A4/LT size. APS/automatic density are not selected. /Plain paper.
  - Number of sheets: 35[45] or more at the black mode and 11 or more at the color mode.
  - Reproduction ratio: 100%
- \* The values in ( ) are available when printed at color mode.

\* System copy speed

Conv mode		Sec.			
Copy mode		e-STUDIO3511	e-STUDIO4511		
Single-sided originals	1 set	22.9 (70.3)	19.8 (70.3)		
$\downarrow$	3 sets	60.9 (181.8)	49.9 (181.8)		
Single-sided copies	5 sets	94.8 (292.2)	76.3 (292.2)		
Single-sided originals	1 set	31.3 (95.1)	30.3 (95.1)		
$\downarrow$	3 sets	70.7 (201.8)	71.9 (201.8)		
Double-sided copies	5 sets	110.1 (311.2)	101.5 (311.2)		
Double-sided originals	1 set	59.6 (149.6)	59.5 (149.6)		
$\downarrow$	3 sets	138.7 (366.6)	130.4 (366.6)		
Double-sided copies	5 sets	217.3 (584.6)	201.5 (584.6)		
Double-sided originals	1 set	51.2 (124.6)	51.5 (124.6)		
$\downarrow$	3 sets	120.8 (346.5)	105.7 (346.5)		
Single-sided copies	5 sets	188.7 (565.7)	158.5 (565.7)		

- The system copy speed is available when 10 sheets of A4/LT size original are set on the RADF and one of the copy modes in the above table is selected.

- The period of time from pressing [START] to displaying "READY" is the actually measured value.
- Setting: Automatic exposure OFF, APS/AMS OFF, Text/Photo Mode, feeding from the upper drawer and Sort Mode.
- The finisher with the saddle stitcher and hole punch unit are not installed.
- The values in () are the speeds at the color modes.
- Copy paper

	Drawer	ADU	PFP	LCF	Bypass copy	Remarks
Size					A3 to A6-R, LD to ST-R,	
	A	A3 to A5-R A4, LD to ST-R, 13" LG, LT		Δ4	13" LG, 8.5" SQ,	
	LD to			305 x 457 mm (12" x 18")		
		8.5" SQ			(Non-standard or user-	
					specified sizes can be set.)	
Weight					64 to 209 g/m <sup>2</sup> ,17 lb. Bond	
	64 to 105 g/m <sup>2</sup> 17 to 28 lb. Bond			to 110 lb. Index		
				(Continuous feeding)		
				64 to 209 g/m <sup>2</sup> , 17 lb. Bond		
					to 110 lb. Index	
					(Single paper feeding)	
Special	ecial		Labels, OHP film	Special paper recommended by		
paper	er -		(thickness: 80 µm or thicker)	Toshiba Tec		

• First copy time ...... Approx. 6.8 sec. or less (black), approx. 16.2 sec. or less (color)

(A4/LT, upper drawer, 100%, original placed manually)

- Warming-up time ...... Approx. 40 seconds (Stand-alone, temperature: 20°C)
- Multiple copying ...... Up to 999 copies; Key in set numbers

• Reproduction ratio ...... Actual ratio: 100±0.5%

Zooming: 25 - 400% in increments of 1%

(25 - 200% when using RADF)

• Resolution/Gradation ...... Read: 600 dpi

Write: Equivalent to 2400 dpi x 600 dpi (black copy)

Equivalent to 600 dpi x 600 dpi (color copy)

• Eliminated portion ...... Leading edge : 3.0±2.0 mm, Side/trailing edges: 2.0±2.0 mm (black copy)

Leading edge : 5.0±2.0 mm, Side/trailing edges: 2.0±2.0 mm (color copy) Leading/trailing edges: 5.0±2.0 mm, Side edges: 5.0±2.0 mm (black/color

print)

 Paper feeding ...... Drawers in the equipment – 2 drawers (stack height 60.5 mm, equivalent to 550 sheets; 64-80 g/m<sup>2</sup> (17-22 lb. Bond))

PFP – Option (1 or 2 drawers: stack height 60.5 mm, equivalent to 550 sheets; 64-80 g/m<sup>2</sup> (17-22 lb. Bond))

LCF – Option (stack height 137.5 mm x 2, equivalent to 2500 sheets; 64-80 g/m<sup>2</sup> (17-22 lb. Bond))

Bypass feed – Stack height 11 mm, equivalent to 100 sheets; 64-80 g/m<sup>2</sup> (17-22 lb. Bond)

• Capacity of originals in the Reversing Automatic Document Feeder (Option)

...... A3 to A5-R, LD to ST-R: 100 sheets/80 g/m<sup>2</sup> (Stack height 16mm or less)

- Automatic duplexing unit ... Stackless/switchback type
- Toner supply ...... Automatic toner density detection/supply

Toner cartridge replacing method

- Density control ...... Automatic density mode and manual density mode selectable in 11 steps
- Weight ..... Approx. 112 kg (246.9 lb.)
- Power requirements ........ AC 110V/13.2A, AC 115V or 127V/15A, 220–240V or 240V/8A (50/60 Hz) \* The acceptable value of each voltage is ±10%.
- Power consumption ........ 1.5 kW or less (100V series), 1.7 kW or less (200V series)
  - \* The electric power is supplied to the reversing automatic document feeder, finisher, PFP and LCF through the equipment.
- Total counter ..... Electronic counter

- Dimensions of the equipment ....... See the figure below (W660 x D718 x H739 mm)
- \* When the tilt angle of the control panel is 45 degrees.



Fig. 1-101

#### 1.2 Accessories

Unpacking/Setup instruction	1 set
Operator's manual	4 pcs. (except for MJD)
Operator's manual pocket	1 pc.
Power cable	1 pc.
Warranty sheet	1 pc. (for NAD)
Setup report	1 set (for NAD and MJD)
Customer satisfaction card	1 pc. (for MJD)
PM sticker	1 pc. (for MJD)
Drum (installed inside of the equipment)	1 pc.
Control panel stopper	1 pc.
Lever	1 pc.
Color developer holder	6 pcs.
Rubber plug	4 pcs.
Blind seal (small / large)	3 pcs. / 1pc.
CD-ROM	4 pcs.
Developer material (Y, M, C, K)	1 pc. each (for TWD)
Screw M3 x 8 / M4 x 8	1 pc. / 1pc.

\* Machine version

NAD: North America

MJD: Europe

AUD: Australia

ASD: Asia

TWD: Taiwan

SAD: Saudi Arabia

JPD: Japan

#### 1.3 Options

Platen cover	KA-3511PC
Reversing Automatic Document Feeder (RADF)	MR-3015
Drawer module	MY-1021
Paper Feed Pedestal (PFP)	KD-1011
Large Capacity Feeder (LCF)	KD-1012 A4/LT
Finisher (Hanging type)	MJ-1022
Finisher (Console type)	MJ-1023, MJ-1024 (with saddle stitcher)
Hole punch unit	MJ-6004 N/E/F/S
Staple cartridge	STAPLE-1600 (for hanging type)
	STAPLE-2000 (for console type)
	STAPLE-600 (for saddle stitcher)
Bridge kit	KN-3511
Key copy counter, key copy counter socket	MU-8, MU-10
Work table	KK-3511
Damp heater kit	MF-3511
FAX board	GD-1150
FAX board 2nd line	GD-1160
Expansion memory	GC-1180
Wireless LAN adapter	GN-1010
PCI slot	GO-1030
Scrambler board	GP-1030

#### Notes:

- 1. The bridge kit (KN-3511) is necessary for installation of the finisher (MJ-1022, MJ-1023 or MJ-1024).
- 2. The finisher (MJ-1023 or MJ-1024) is necessary for installation of the hole punch unit (MJ-6004N/E/F/S).
- 3. The PCI slot (GO-1030) is necessary for installation of the scrambler board (GP-1030).

#### 1.4 Supplies

Drum	PS-OD3511
Toner bag	PS-TB3511
Toner cartridge (K)	PS-ZT3511 *K, PS-ZT3511K
Toner cartridge (Y)	PS-ZT3511 *Y, PS-ZT3511Y
Toner cartridge (M)	PS-ZT3511 *M, PS-ZT3511M
Toner cartridge (C)	PS-ZT3511 *C, PS-ZT3511C

Marked \* : E, D, C and T

#### 1.5 System List



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## 2. ERROR CODE AND SELF-DIAGNOSTIC MODE

#### 2.1 Error Code List

One of the following error codes is displayed at the upper right of the screen while pressing the [CLEAR] button and the digital key [8] simultaneously when the "CLEAR PAPER" or "CALL SERVICE" symbol is blinking.

#### 2.1.1 Jam

Error code	Classification	Contents	Trouble- shooting
E010	Paper exit jam	Jam not reaching the exit sensor : The paper which has passed	Ch. 5.1.1
		through the fuser unit does not reach the exit sensor.	
E011	Other paper jam	Paper jam caused by clinging to the transfer belt: The paper	Ch. 5.1.4
		after the 2nd transfer is clinging to the transfer belt and entering	
		under the receiving tray.	
E020	Paper exit jam	Stop jam at the exit sensor: The trailing edge of the paper does	Ch. 5.1.1
		not pass the exit sensor after its leading edge has reached this	
		sensor.	
E030	Other paper jam	Power-ON jam: The paper is remaining on the paper transport	Ch. 5.1.4
		path when power is turned ON.	
E090		HDD abnormality causes jam: Image data to be printed cannot	Ch. 5.1.4
		be prepared.	
E110	Paper misfeeding	ADU misfeeding (Paper not reaching the registration sensor):	Ch. 5.1.2
		The paper which has passed through ADU does not reach the	
		registration sensor during duplex printing.	
E120		Bypass misfeeding (Paper not reaching the registration sensor):	Ch. 5.1.2
		The paper fed from the bypass tray does not reach the registra-	
		tion sensor.	
E130		Upper drawer misfeeding (Paper not reaching the upper drawer	Ch. 5.1.2
		feed sensor): The paper fed from the upper drawer does not	
		reach the upper drawer feed sensor.	
E140		Lower drawer misfeeding (Paper not reaching the lower drawer	Ch. 5.1.2
		feed sensor): The paper fed from the lower drawer does not	
		reach the lower drawer feed sensor.	
E150		PFP upper drawer misfeeding (Paper not reaching the PFP	Ch. 5.1.2
		upper drawer feed sensor): The paper fed from the PFP upper	
		drawer does not reach the PFP upper drawer feed sensor.	
E160		PFP lower drawer misfeeding (Paper not reaching the PFP	Ch. 5.1.2
		lower drawer feed sensor): The paper fed from the PFP lower	
		drawer does not reach the PFP lower drawer feed sensor.	
E190		LCF misfeeding (Paper not reaching the LCF feed sensor): The	Ch. 5.1.2
		paper fed from the LCF does not reach the LCF feed sensor.	
E200	Paper transport	Upper drawer transport jam (Paper not reaching the registration	Ch. 5.1.3
	jam	sensor): The paper does not reach the registration sensor after	
		it has passed the upper drawer feed sensor.	

Error code	Classification	Contents	Trouble- shooting
E210	Paper transport	Lower drawer transport jam (Paper not reaching the registration	Ch. 5.1.3
	jam	sensor): The paper does not reach the registration sensor after	
		it has passed the upper drawer feed sensor.	
E220		Lower drawer transport jam (Paper not reaching the upper	Ch. 5.1.3
		drawer feed sensor): The paper does not reach the upper	
		drawer feed sensor after it has passed the lower drawer feed	
		sensor.	
E300		PFP upper drawer transport jam (Paper not reaching the	Ch. 5.1.3
		registration sensor): The paper does not reach the registration	
		sensor after it has passed the upper drawer feed sensor.	
E310		PFP upper drawer transport jam (Paper not reaching the upper	Ch. 5.1.3
		drawer feed sensor): The paper does not reach the upper	
		drawer feed sensor after it has passed the lower drawer feed	
		sensor.	
E320		PFP upper drawer transport jam (Paper not reaching the lower	Ch. 5.1.3
		drawer feed sensor): The paper does not reach the lower	
		drawer feed sensor after it has passed the PFP upper drawer	
		feed sensor.	
E330		PFP lower drawer transport jam (Paper not reaching the	Ch. 5.1.3
		registration sensor): The paper does not reach the registration	
		sensor after it has passed the upper drawer feed sensor.	
E340		PFP lower drawer transport jam (Paper not reaching the upper	Ch. 5.1.3
		drawer feed sensor): The paper does not reach the upper	
		drawer feed sensor after it has passed the lower drawer feed	
		sensor.	
E350		PFP lower drawer transport jam (Paper not reaching the lower	Ch. 5.1.3
		drawer feed sensor): The paper does not reach the lower	
		drawer feed sensor after it has passed the PFP upper drawer	
		feed sensor.	
E360		PFP lower drawer transport jam (Paper not reaching the PFP	Ch. 5.1.3
		upper drawer feed sensor): The paper does not reach the PFP	
		upper drawer feed sensor after it has passed the PFP lower	
		drawer feed sensor.	
E3C0		LCF transport jam (Paper not reaching the registration sensor):	Ch. 5.1.3
		The paper does not reach the registration sensor after it has	
		passed the upper drawer feed sensor.	
E3D0		LCF transport jam (Paper not reaching the upper drawer feed	Ch. 5.1.3
		sensor): The paper does not reach the upper drawer feed	
		sensor after it has passed the lower drawer feed sensor.	
E3E0		LCF transport jam (Paper not reaching the lower drawer feed	Ch. 5.1.3
		sensor): The paper does not reach the lower drawer feed	
		sensor after it has passed the LCF feed sensor.	
E400	Cover open jam	Jam access cover open jam: The jam access cover has opened	Ch. 5.1.5
		during printing.	
E410		Front cover open jam: The front cover has opened during	Ch. 5.1.5
		printing.	

Error code	Classification	Contents	Trouble- shooting
E420	Cover open jam	PFP side cover open jam: The PFP side cover has opened	Ch. 5.1.5
		during printing.	
E430		ADU open jam: The ADU has opened during printing.	Ch. 5.1.5
E440		Side cover open jam: The side cover has opened during	Ch. 5.1.5
		printing.	
E450		LCF side cover open jam: The LCF side cover has opened	Ch. 5.1.5
		during printing.	
E480		Bridge unit open jam: The bridge unit has opened during	Ch. 5.1.5
		printing.	
E510	Paper transport	Stop jam in the ADU: The paper does not reach the ADU exit	Ch. 5.1.3
	jam (ADU section)	sensor after it has passed the ADU entrance sensor.	
E520		Jam not reaching the ADU entrance sensor: The paper does	Ch. 5.1.3
		not reach the ADU entrance sensor after it is switchbacked in	
		the exit section.	
E550	Other paper jam	Paper remaining jam on the transport path: The paper is	Ch. 5.1.4
		remaining on the transport path when printing is finished	
		(caused by a multiple paper feeding).	
E711	RADF jam	Jam not reaching the original length sensor: The original fed	Ch. 5.1.6
		from the original feeding tray does not reach the original length	
		sensor.	
E712		Jam not reaching the registration sensor: The original fed from	Ch. 5.1.6
		the original feeding tray does not reach the registration sensor.	
E713		Stop jam at the original length sensor: The trailing edge of the	Ch. 5.1.6
		original does not pass the original length sensor after its leading	
		edge has reached this sensor.	
E714		Feed signal reception jam: The feed signal is received even no	Ch. 5.1.6
		original exists on the original feeding tray.	
E721		Jam not reaching the read sensor: The original does not reach	Ch. 5.1.6
		the read sensor after it has passed the registration sensor	
		(when scanning obverse side) or the reverse sensor (when	
		scanning reverse side).	
E722		Jam not reaching the exit sensor (during scanning): The original	Ch. 5.1.6
		which passed the read sensor does not reach the exit sensor	
		when it is transported from the scanning section to exit section.	
E723		Jam not reaching the reverse sensor (during scanning): The	Ch. 5.1.6
		original which passed the read sensor does not reach the	
		reverse sensor when it is transported from the scanning section	
		to reverse section.	
E724		Stop jam at the registration sensor: The trailing edge of the	Ch. 5.1.6
		original does not pass the registration sensor after its leading	
		edge has reached this sensor.	
E725		Stop jam at the read sensor: The trailing edge of the original	Ch. 5.1.6
		does not pass the read sensor after its leading edge has	
		reached this sensor.	
E726		Transport/exit signal reception jam: RADF receives the transport/	Ch. 5.1.6
		exit reception signal from the equipment when no original is at the	
		exposure waiting position.	

Error code	Classification	Contents	Trouble- shooting
E731	RADF jam	Stop jam at the exit sensor: The trailing edge of the original	Ch. 5.1.6
		does not pass the exit sensor after its leading edge has	
		reached this sensor.	
E741	1	Stop jam at the reverse sensor: The trailing edge of the original	Ch. 5.1.6
		does not pass the reverse sensor after its leading edge has	
		reached this sensor.	
E742	1	Jam not reaching the reverse sensor (during reverse feeding):	Ch. 5.1.6
		The leading edge of the original does not reach the reverse	
		sensor when original is fed from the reverse section.	
E743		Jam not reaching the exit sensor (during reverse feeding): The	Ch. 5.1.6
		original does not reach the exit sensor after it has passed the	
		reverse sensor when the original is exited from the reverse	
		section.	
E860		Jam access cover open: The jam access cover has opened	Ch. 5.1.6
		during RADF operation.	
E870		RADF open jam: RADF has opened during RADF operation.	Ch. 5.1.6
E910	Finisher jam	Jam at the bridge unit transport sensor 1: The paper does not	Ch. 5.1.7 (1)
	(Bridge unit)	reach the bridge unit transport sensor 1 after it has passed the	
	(,	exit sensor.	
E920	1	Stop iam at the bridge unit transport sensor 1: The trailing edge	Ch. 5.1.7 (1)
		of the paper does not pass the bridge unit transport sensor 1	<b>C C</b> ( )
		after its leading edge has reached the sensor.	
E930	1	Jam at the bridge unit transport sensor 2: The trailing edge of	Ch. 5.1.7 (1)
		the namer does not reach the bridge unit transport sensor 2	<b>C C</b> ( )
		after its leading edge has reached the bridge unit transport	
		sensor 1	
F940	1	Stop iam at the bridge unit transport sensor 2: The trailing edge	Ch 51.7(1)
		of the paper does not pass the bridge unit transport sensor 2	
		after its leading edge has reached the bridge unit transport	
		concor 2	
FOFO	Finisher iam	Dunching iam: Punching is not performed properly	Ch 5 1 7 (4)
Laio	(Punch unit)	[MI 1023/1024 (when MI-6004 is installed)]	
	Einisber jam	Departmenent delay jam: The paper which has passed the bridge	Ch 5 1 7 (2)
	(Einicher section)	unit does not reach the inlet sensor [M]-1022/1023/1024]	
<b>⊢</b> Δ20			Ch 5 1 7 (2)
		(1) The paper does not pass through the inlet sensor	
		[1] The paper does not pass through the inter sensor. [M 1_1022/1022/1023]	
		(2) The paper has passed through the inlat sensor but does not	
		(2) The paper has passed unough the inter sensor but does not	
		[M   1022/1024]	
EA30	-	Dowor ON jam:	Ch 5 1 7 (2)
EAOU		(1) Paper evicts at the inlet consor when power is turned ON	
		[MJ-1022/1023/1024]	
		(2) Paper exists at the feed path sensor or processing tray	
		sensor when power is turned ON. [IVIJ-1023/1024]	

Error code	Classification	Contents	Trouble- shooting
EA40	Finisher jam	Door open jam:	Ch. 5.1.7 (2)
	(Finisher section)	(1) The finisher has been released from the equipment during	
		printing. [MJ-1022]	
		(2) The upper/front cover of the finisher section or the upper/	
		front door of the puncher section has opened during	
		printing. [MJ-1023/1024]	
EA50		Stapling jam: Stapling is not performed properly.	Ch. 5.1.7 (2)
		[MJ-1022/1023/1024]	
EA60		Early arrival jam: The inlet sensor detects the paper earlier than	Ch. 5.1.7 (2)
		a specified timing. [MJ-1022/1023/1024]	
EA70		Stack delivery jam: It cannot deliver the stack of paper on the	Ch. 5.1.7 (2)
		intermediary process tray to the stack tray. [MJ-1022]	
EA80	Finisher jam	Stapling jam: Stapling is not performed properly. [MJ-1024]	Ch. 5.1.7 (3)
EA90	(Saddle stitcher	Door open jam: The delivery cover or inlet cover has opened dur-	Ch. 5.1.7 (3)
	section)	ing printing [MJ-1024].	
EAA0		Power-ON jam: Paper exists at No.1 paper sensor, No. 2 paper	Ch. 5.1.7 (3)
		sensor, No.3 paper sensor, vertical path paper sensor or	
		delivery sensor when power is turned ON. [MJ-1024]	
EAB0		Transport stop jam: The paper which passed through the inlet	Ch. 5.1.7 (3)
		sensor does not reach or pass No.1 paper sensor, No. 2 paper	
		sensor, No.3 paper sensor or delivery sensor. [MJ-1024]	
EAC0		Transport delay jam: The paper which has reached the inlet	Ch. 5.1.7 (3)
		sensor does not pass through the inlet sensor. [MJ-1024]	
EAD0	Other paper jam	Print end command time-out jam: The printing has not finished	Ch. 5.1.4
		normally because of the communication error between the SYS	
		board and LGC board at the end of printing.	
EAE0	Finisher jam	Receiving time time-out jam: The printing has been interrupted	Ch. 5.1.7 (5)
		because of the communication error between the equipment	
		and finisher when the paper is transported from the equipment	
		to the finisher.	
EAF0	Finisher jam	Stack return jam: It cannot load the paper which passed through	Ch. 5.1.7 (2)
	(Finisher section)	the delivery roller on the intermediary process tray. [MJ-1022]	
EB30	Finisher jam	Ready time time-out jam: The equipment judges that the paper	Ch. 5.1.7 (5)
		transport to the finisher is disabled because of the communication	
		error between the equipment and finisher at the start of printing.	
EB50	Paper transport	Paper remaining on the transport path: The multiple feeding of	Ch. 5.1.3
	jam	preceding paper caused the misfeeding of upcoming paper.	
EB60		Paper remaining on the transport path: The multiple feeding of	Ch. 5.1.3
		preceding paper caused the misfeeding of upcoming paper	
		(redetection after no jam is detected at [EB50]).	

#### 2.1.2 Service call

Error code	Classification	Contents	Trouble- shooting
C010	Drive system	Main motor abnormality: The main motor is not rotating normally.	Ch. 5.1.8
C020	related service call	Developer motor abnormality: The developer motor is not	Ch. 5.1.8
		rotating normally.	
C030		Transport motor abnormality: The transport motor is not rotating	Ch. 5.1.8
		normally.	
C040	Paper feeding	PFP motor abnormality: The PFP motor is not rotating normally.	Ch. 5.1.9
	system related	(the case that paper can be fed from any drawer except the	
	service call	PFP)	
C130		Upper drawer tray abnormality: The upper drawer tray motor is	Ch. 5.1.9
		not rotating or the upper drawer tray is not moving normally.	
		(the case that paper can be fed from any drawer except the	
		upper drawer)	
C140		Lower drawer tray abnormality: The lower drawer tray motor is	Ch. 5.1.9
		not rotating or the lower drawer tray is not moving normally. (the	
		case that paper can be fed from any drawer except the lower	
		drawer)	
C150		PFP upper drawer tray abnormality: The PFP upper drawer tray	Ch. 5.1.9
		motor is not rotating or the PFP upper drawer tray is not moving	
		normally. (the case that paper can be fed from any drawer	
		except the PFP upper drawer)	
C160		PFP lower drawer tray abnormality: The PFP lower drawer tray	Ch. 5.1.9
		motor is not rotating or the PFP lower drawer tray is not moving	
		normally. (the case that paper can be fed from any drawer	
		except the PFP lower drawer)	
C180		LCF tray motor abnormality: The LCF tray motor is not rotating	Ch. 5.1.9
		or the LCF tray is not moving normally. (the case that paper can	
		be fed from any drawer except the LCF)	
C1A0		LCF end fence motor abnormality: The LCF end fence motor is	Ch. 5.1.9
		not rotating or the LCF end fence is not moving normally. (the	
		case that paper can be fed from any drawer except the LCF)	
C1B0		LCF transport motor abnormality: The LCF transport motor is	Ch. 5.1.9
		not rotating normally. (the case that paper can be fed from any	
		drawer except the LCF)	
C260	Scanning system	Peak detection error: Lighting of the exposure lamp (white refer-	Ch. 5.1.10
	related service call	ence) is not detected when power is turned ON.	
C270		Carriage home position sensor not turning OFF within a specified	Ch. 5.1.10
		period of time: The carriage does not shift from its home position	
		in a specified time.	
C280		Carriage home position sensor not turning ON within a specified	Ch. 5.1.10
		period of time: The carriage does not reach to its home position	
		in a specified period of time.	
C360	Copy process	Charger cleaner motor abnormality: Charger cleaner motor is	Ch. 5.1.18
	related service call	not rotating or wire cleaner is not moving normally.	

Error code	Classification	Contents	Trouble- shooting
C410	Fuser unit related	Thermistor or heater abnormality at power-ON: Abnormality of	Ch. 5.1.11
	service call	the thermistor is detected when power is turned ON or the	
		temperature of the fuser roller does not rise in a specified	
		period of time after power is turned ON.	
C430		Thermistor abnormality after abnormality judgment: Abnormality	Ch. 5.1.11
		of the thermistor is detected after a specified period of time has	
		passed from power-ON (including ready time or energy saving	
C140		mode).	Ch 5 1 11
0440		of the fucer roller has exceeded the range of centrel (in this case	CII. 5.1.11
		the main switch turns OFF automatically) or does not even reach	
		the range	
C450		Thermistor abnormality during printing: Abnormality of the ther-	Ch. 5.1.11
		mistor is detected during printing.	
C470		IH initialization or IH power voltage abnormality: The AC input is	Ch. 5.1.11
		not applied to the IH control circuit normally, or the input voltage	
		is too high/low.	
C480		Overheating of IGBT: The temperature of the IGBT rises abnor-	Ch. 5.1.11
		mally.	
C490		IH control circuit or IH coil abnormality: Abnormality is detected	Ch. 5.1.11
		in IH control circuit or IH coil is broken/shorted.	
C550	Optional commu-	RADF I/F error: Communication error has occurred between the	Ch. 5.1.12
(C780)	nication related	RADF and the scanner.	05 5 4 40
C570	service call	Communication error between Engine-CPU and IPC board	Ch. 5.1.12
C720		EEPPOM initialization error: EEPPOM in pat initialized normally	Ch 5 1 12
0730	service call	when performing the code 05-356	011. 0. 1. 10
C810		Fan motor abnormality: The fan motor is not rotating normally.	Ch. 5.1.13
C820		Read sensor adjustment error: The read sensor cannot be	Ch. 5.1.13
		adjusted normally when performing the code 05-356.	
C830		Original length sensor adjustment error: The original length	Ch. 5.1.13
		sensor cannot be adjusted normally when performing the code	
		05-356.	
C900	Circuit related	Connection error between SYS board and LGC board	Ch. 5.1.14
C940	service call	Engine-CPU abnormality	Ch. 5.1.14
C950		LGC board memory abnormality	Ch. 5.1.14
C960		Connection error between LGC board and DRV board, ID	Ch. 5.1.14
0070	<b>D</b>	abnormality	
C970	Process related	High-voltage transformer abnormality: Leakage of the main	Ch. 5.1.18
0050	Service call	Charger Is detected.	Ch 5 1 14
Caeo		connection error between SLG board and SYS board, ib	GII. 5.1.14
CA10	Laser ontical unit	Polygonal motor abnormality: The polygonal motor is not	Ch 5 1 15
	related service call	rotating normally.	
CA20		H-Sync detection error: H-Sync signal detection PC board	Ch. 5.1.15
		cannot detect laser beams.	

Error code	Classification	Contents	Trouble- shooting
CB20	Finisher related	Delivery motor abnormality: Delivery motor or delivery roller is	Ch. 5.1.16
	service call	not rotating normally. [MJ-1022]	
CB30	•	Tray 1/Tray 2 shift motor abnormality: Tray 1/Tray 2 shift motor	Ch. 5.1.16
		is not rotating or delivery tray is not moving normally.	
		[MJ-1023/1024]	
CB40		Rear aligning plate motor abnormality: Rear aligning plate	Ch. 5.1.16
		motor is not rotating or aligning plate is not moving normally.	
		[MJ-1023/1024]	
CB50	•	Staple motor abnormality: Staple motor is not rotating or stapler	Ch. 5.1.16
		is not moving normally. [MJ-1022/1023/1024]	
CB60		Stapler shift motor abnormality: Stapler shift motor is not	Ch. 5.1.16
		rotating or staple unit is not moving normally. [MJ-1023/1024]	
CB80	•	Backup RAM data abnormality:	Ch. 5.1.16
		(1) Abnormality of checksum value on finisher controller PC board	
		is detected when the power is turned ON. [MJ-1023/1024]	
		(2) Abnormality of checksum value on punch controller PC	
		board is detected when the power is turned ON.	
		[MJ-1023/1024 (when MJ-6004 is installed)]	
CB90		Paper pushing plate motor abnormality: Paper pushing plate	Ch. 5.1.16
		motor is not rotating or paper pushing plate is not moving	
		normally. [MJ-1024]	
CBA0		Stitch motor (front) abnormality: Stitch motor (front) is not rotating	Ch. 5.1.16
		or rotary cam is not moving normally. [MJ-1024]	
CBB0		Stitch motor (rear) abnormality: Stitch motor (rear) is not rotating	Ch. 5.1.16
		or rotary cam is not moving normally. [MJ-1024]	
CBC0		Alignment motor abnormality: Alignment motor is not rotating or	Ch. 5.1.16
		aligning plate is not moving normally. [MJ-1024]	
CBD0		Guide motor abnormality: Guide motor is not rotating or guide is	Ch. 5.1.16
		not moving normally. [MJ-1024]	
CBE0		Paper folding motor abnormality: Paper folding motor or paper	Ch. 5.1.16
		folding roller is not rotating normally. [MJ-1024]	
CBF0		Paper positioning plate motor abnormality: Paper positioning	Ch. 5.1.16
		plate motor is not rotating or paper positioning plate is not	
		moving normally. [MJ-1024]	
CC00		Sensor connector abnormality: Connector of guide home position	Ch. 5.1.16
		sensor, paper pushing plate home position sensor or paper push-	
		ing plate top position sensor is disconnected. [MJ-1024]	
CC10		Micro switch abnormality: With all covers closed, inlet door switch,	Ch. 5.1.16
		delivery door switch or front cover switch is open. [MJ-1024]	
CC20		Communication error between finisher and saddle stitcher:	Ch. 5.1.16
		Communication error between finisher controller PC board and	
		saddle stitcher controller board [MJ-1023/1024]	0
CC30		Stack processing motor abnormality: The stack processing	Ch. 5.1.16
		motor is not rotating or the stack delivery belt is not moving	
		normally. [MJ-1022]	0
CC40		Swing motor abnormality: Swing motor is not rotating or swing	Ch. 5.1.16
		unit is not moving normally. [MJ-1023/1024]	

Error code	Classification	Contents	Trouble- shooting
CC50	Finisher related service call	Horizontal registration motor abnormality: Horizontal registration motor is not rotating or puncher is not shifting normally.	Ch. 5.1.16
		[MJ-1023/1024 (when MJ-6004 is installed)]	
CC60		Punch motor abnormality: Punch motor is not rotating or	Ch. 5.1.16
		puncher is not shifting normally. [MJ-1023/1024 (when MJ-6004 is installed)]	
CC80		Front alignment motor abnormality: Front alignment motor is not	Ch. 5.1.16
		rotating or front aligning plate is not moving normally. [MJ-1022]	
		Front aligning plate motor abnormality: Front aligning plate	
		Motor is not rotating or aligning plate is not moving normally. [MJ-1023/1024]	
CC90		Upper stack tray lift motor abnormality: The upper stack tray lift	Ch. 5.1.16
		motor is not rotating or the upper stack tray is not moving normally. [MJ-1022]	
CCA0		Lower stack tray lift motor abnormality: The lower stack tray lift	Ch. 5.1.16
		motor is not rotating or the lower stack tray is not moving normally. [MJ-1022]	
CCB0		Rear jogging motor abnormality: The rear jogging motor is not	Ch. 5.1.16
0000		rotating or the rear jogging plate is not moving normally. [MJ-1022]	
CCDU		ejection roller is not rotating normally. [MJ-1023/1024]	Cn. 5.1.16
CCE0	•	Paper trailing edge assist motor abnormality: Paper trailing	Ch. 5.1.16
		edge assist motor is not rotating or paper trailing edge assist is	
		not moving normally. [MJ-1023/1024]	
CCF0		Gear changing motor abnormality: Gear changing motor is not	Ch. 5.1.16
0500		rotating normally. [MJ-1023/1024]	
CEUU		communication error between inisher and punch unit: Commu-	Cn. 5.1.16
		controller PC board [M.I-1023/1024 (when M.I-6004 is installed)]	
CE10	Image control	Image quality sensor abnormality (OFF level): The output value	Ch. 5.1.17
	related service call	of this sensor is out of a specified range when sensor light	
		source is OFF.	
CE20		Image quality sensor abnormality (no pattern level): The output	Ch. 5.1.17
		value of this sensor is out of a specified range when the image	
		quality control test pattern is not formed.	
CE40		Image quality control test pattern abnormality: The test pattern	Ch. 5.1.17
CE50		Temperature/humidity sensor abnormality: The output value of	Ch 5117
0200		this sensor is out of a specified range.	011. 0.11.17
CE90		Drum thermistor abnormality: The output value of the drum	Ch. 5.1.17
		thermistor is out of a specified range.	
CEA0	Copy process	Revolver home position detection abnormality: It cannot detect	Ch. 5.1.18
	related service call	that the revolver is at its home position.	
CEB0		Black developer unit lifting movement abnormality: The black	Ch. 5.1.18
		developer unit does not move up or down normally (lifting cam	
		does not operate normally).	

Error code	Classification	Contents	Trouble- shooting
CEC0	Copy process	2nd transfer roller position detection abnormality: The 2nd	Ch. 5.1.18
	related service call	transfer roller does not contact/release normally.	
CEE0		Transfer belt position detection abnormality (normal speed):	Ch. 5.1.18
		The home position of the transfer belt cannot be detected.	
CEE1		Transfer belt position detection abnormality (when decelerating):	Ch. 5.1.18
		Reference position of the transfer belt cannot be detected.	
CEF0		Revolver motor abnormality: Revolver motor is not rotating or	Ch. 5.1.18
		revolver is not moving normally.	
CF20	Toner density	Toner density detection voltage abnormality: The output value of	Ch. 5.1.19
	control related	the color auto-toner sensor in printing is out of a specified range.	
CF30	service call	Reference plate detection voltage abnormality: The output	Ch. 5.1.19
		value of the color auto-toner sensor against the reference plate	
		is out of a specified range at the light amount correction during	
		an auto-toner adjustment or when a print job has finished.	
CF40		Light amount correction voltage abnormality: The light amount	Ch. 5.1.19
		correction is not finished normally during an auto-toner adjust-	
		ment or when a print job has finished, or the output value of the	
		sensor is out of a specified range when the light amount	
		correction has finished.	
CF50		Color auto-toner sensor abnormality: The connection of the	Ch. 5.1.19
		color auto-toner sensor cannot be detected at the initialization,	
		or the output value of color auto-toner sensor when the revolver	
		starts rotating for initialization is out of a specified range.	
F070	Communication	Communication error between System-CPU and Engine-CPU	Ch. 5.1.12
	related service call		
F090	Circuit related	SRAM abnormality on the SYS board	Ch. 5.1.14
F091	service call	NVRAM abnormality on the SYS board	Ch. 5.1.14
F092		SRAM and NVRAM abnormality on the SYS board	Ch. 5.1.14
F100	Other service call	HDD format error: HDD cannot be initialized normally.	Ch. 5.1.20
F101		HDD unmounted: Connection of HDD cannot be detected.	Ch. 5.1.20
F102		HDD start error: HDD cannot become 'Ready' state.	Ch. 5.1.20
F103		HDD transfer time-out: Reading/writing cannot be performed in	Ch. 5.1.20
		the specified period of time.	
F104		HDD data error: Abnormality is detected in the data of HDD.	Ch. 5.1.20
F105		HDD other error	Ch. 5.1.20
F106		Point and Print partition damage	Ch. 5.1.20
F107		/SHR partition damage	Ch. 5.1.20
F108		/SHA partition damage	Ch. 5.1.20
F110	Communication	Communication error between System-CPU and Scanner-CPU	Ch. 5.1.12
F111	related service call	Scanner response abnormality	Ch. 5.1.12
F120	Other service call	Database abnormality: Database is not operating normally.	Ch. 5.1.20
F350	Circuit related	SLG board abnormality	Ch. 5.1.14
	service call		

#### 2.1.3 Error in Internet FAX / Scanning Function

#### (1) Internet FAX related error

Error code	Contents	Trouble- shooting
1C10	System access abnormality	Ch. 5.1.21 (1)
1C11	Insufficient memory	Ch. 5.1.21 (1)
1C12	Message reception error	Ch. 5.1.21 (1)
1C13	Message transmission error	Ch. 5.1.21 (1)
1C14	Invalid parameter	Ch. 5.1.21 (1)
1C15	Exceeding file capacity	Ch. 5.1.21 (1)
1C20	System management module access abnormality	Ch. 5.1.21 (1)
1C21	Job control module access abnormality	Ch. 5.1.21 (1)
1C22	Job control module access abnormality	Ch. 5.1.21 (1)
1C30	Directory creation failure	Ch. 5.1.21 (1)
1C31	File creation failure	Ch. 5.1.21 (1)
1C32	File deletion failure	Ch. 5.1.21 (1)
1C33	File access failure	Ch. 5.1.21 (1)
1C40	Image conversion abnormality	Ch. 5.1.21 (1)
1C60	HDD full failure during processing	Ch. 5.1.21 (1)
1C61	Address Book reading failure	Ch. 5.1.21 (1)
1C62	Memory acquiring failure	Ch. 5.1.21 (1)
1C63	Terminal IP address unset	Ch. 5.1.21 (1)
1C64	Terminal mail address unset	Ch. 5.1.21 (1)
1C65	SMTP address unset	Ch. 5.1.21 (1)
1C66	Server time time-out error	Ch. 5.1.21 (1)
1C67	NIC time time-out error	Ch. 5.1.21 (1)
1C68	NIC access error	Ch. 5.1.21 (1)
1C69	SMTP server connection error	Ch. 5.1.21 (1)
1C6A	HOST NAME error	Ch. 5.1.21 (1)
1C6B	Terminal mail address error	Ch. 5.1.21 (1)
1C6C	Destination mail address error	Ch. 5.1.21 (1)
1C6D	System error	Ch. 5.1.21 (1)
1C70	SMTP client OFF	Ch. 5.1.21 (1)
1C80	Internet FAX transmission failure when processing E-mail job received	Ch. 5.1.21 (1)
1C81	Onramp Gateway transmission failure	Ch. 5.1.21 (1)
1C82	Internet FAX transmission failure when processing FAX job received	Ch. 5.1.21 (1)
1CC0	Job canceling	-
1CC1	Power failure	Ch. 5.1.21 (1)

#### (2) RFC related error

Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
2500	Syntax error, command unrecognized	HOST NAME error(RFC: 500)	Ch. 5.1.21 (2)
		Destination mail address error	
		(RFC: 500)	
		Terminal mail address error	
		(RFC: 500)	
2501	Syntax error in parameters or arguments	HOST NAME error(RFC: 501)	Ch. 5.1.21 (2)
		Destination mail address error	
		(RFC: 501)	
		Terminal mail address error	
		(RFC: 501)	
2503	Bad sequence of commands	Destination mail address error	Ch. 5.1.21 (2)
		(RFC: 503)	
2504	Command parameter not implemented	HOST NAME error(RFC: 504)	Ch. 5.1.21 (2)
2550	Mailbox unavailable	Destination mail address error	Ch. 5.1.21 (2)
		(RFC: 550)	
2551	User not local	Destination mail address error	Ch. 5.1.21 (2)
		(RFC: 551)	
2552	Insufficient system storage	Terminal/Destination mail address error	Ch. 5.1.21 (2)
		(RFC: 552)	
2553	Mailbox name not allowed	Destination mail address error	Ch. 5.1.21 (2)
		(RFC: 553)	

Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
2B10	There was no applicable job.	No applicable job error in job control	Ch. 5.1.21 (3)
		module	
2B11	Job status failed.	JOB status abnormality	Ch. 5.1.21 (3)
2B20	Failed to access file.	File library function error	Ch. 5.1.21 (3)
2B30	Insufficient disk space.	Insufficient disk space in /SHR partition	Ch. 5.1.21 (3)
2B31	Failed to access Electronic Filing.	Status of specified Electronic Filing or	Ch. 5.1.21 (3)
		folder is undefined or being created/	
		deleted	
2B32	Failed to print Electronic Filing	Electronic Filing printing failure:	Ch. 5.1.21 (3)
	document.	Specified document can not be printed	
		because of client's access (being edited,	
		etc.).	
2B50	Failed to process image.	Image library error	Ch. 5.1.21 (3)
2B51	Failed to process print image.	List library error	Ch. 5.1.21 (3)
2B71	Document(s) expire(s) in a few days	Documents expiring in a few days exist	-
2B80	Hard Disk space for Electronic Filing	Hard disk space in /SHR partition is	-
	nearly full.	nearly full (90%).	
2B90	Insufficient Memory.	Insufficient memory capacity	Ch. 5.1.21 (3)
2BA0	Invalid Box password specified.	Invalid Box password	Ch. 5.1.21 (3)
2BB0	Job canceled	Job canceling	-
2BB1	Power failure occurred	Power failure	Ch. 5.1.21 (3)
2BC0	System fatal error.	Fatal failure occurred	Ch. 5.1.21 (3)
2BC1	Failed to acquire resource.	System management module resource	Ch. 5.1.21 (3)
		acquiring failure	
2BD0	Power failure occurred during e-Filing	Power failure occurred during restoring	Ch. 5.1.21 (3)
	restoring.	of Electronic Filing	
2BE0	Failed to get machine parameter.	Machine parameter reading failure	Ch.5.1.21 (3)
2BF0	Maximum number of page range is	Exceeding maximum number of pages	Ch.5.1.21 (3)
	reached.		
2BF1	Maximum number of document range is	Exceeding maximum number of docu-	Ch.5.1.21 (3)
	reached.	ments	
2BF2	Maximum number of folder range is	Exceeding maximum number of folders	Ch.5.1.21 (3)
	reached.		

#### (4) E-mail related error

Error code	Message displayed in the TopAccess	Contents	Trouble-
2C10	Illegal Job status	System access abnormality	Ch. 5.1.21 (4)
2C11	Not enough memory	Insufficient memory	Ch. 5.1.21 (4)
2C12	Illegal Job status	Message reception error	Ch. 5.1.21 (4)
2C13	Illegal Job status	Message transmission error	Ch. 5.1.21 (4)
2C14	Invalid parameter specified	Invalid parameter	Ch. 5.1.21 (4)
2C15	Message size exceeded limit or	Exceeding file capacity	Ch. 5.1.21 (4)
	maximum size		
2C20	Illegal Job status	System management module access	Ch. 5.1.21 (4)
		abnormality	
2C21	Illegal Job status	Job control module access abnormality	Ch. 5.1.21 (4)
2C22	Illegal Job status	Job control module access abnormality	Ch. 5.1.21 (4)
2C30	Failed to create directory	Directory creation failure	Ch. 5.1.21 (4)
2C31	Failed to create file	File creation failure	Ch. 5.1.21 (4)
2C32	Failed to delete file	File deletion failure	Ch. 5.1.21 (4)
2C33	Failed to create file	File access failure	Ch. 5.1.21 (4)
2C40	Failed to convert image file format	Image conversion abnormality	Ch. 5.1.21 (4)
2C60	Failed to process your Job. Insufficient	HDD full failure during processing	Ch. 5.1.21 (4)
	disk space.		
2C61	Failed to read AddressBook	Address Book reading failure	Ch. 5.1.21 (4)
2C62	Not enough memory	Memory acquiring failure	Ch. 5.1.21 (4)
2C63	Invalid Domain Address	Terminal IP address unset	Ch. 5.1.21 (4)
2C64	Invalid Domain Address	Terminal mail address unset	Ch. 5.1.21 (4)
2C65	Failed to connect to SMTP server	SMTP address unset	Ch. 5.1.21 (4)
2C66	Failed to connect to SMTP server	Server time time-out error	Ch. 5.1.21 (4)
2C67	Failed to send E-Mail message	NIC time time-out error	Ch. 5.1.21 (4)
2C68	Failed to send E-Mail message	NIC access error	Ch. 5.1.21 (4)
2C69	Failed to connect to SMTP server	SMTP server connection error	Ch. 5.1.21 (4)
2C6A	Failed to send E-Mail message	HOST NAME error (No RFC error)	Ch. 5.1.21 (4)
2C6B	Invalid address specified in From: field	Terminal mail address error	Ch. 5.1.21 (4)
2C6C	Invalid address specified in To: field	Destination mail address error	Ch. 5.1.21 (4)
		(No RFC error)	
2C6D	NIC system error	System error	Ch. 5.1.21 (4)
2C70	SMTP service is not available	SMTP client OFF	Ch. 5.1.21 (4)
2C80	Failed to process received E-mail job	E-mail transmission failure when	Ch. 5.1.21 (4)
		processing E-mail job received	
2C81	Failed to process received Fax job	Process failure of FAX job received	Ch. 5.1.21 (4)
2CC0	Job canceled	Job canceling	-
2CC1	Power failure occurred	Power failure	Ch. 5.1.21 (4)

#### (5) File sharing related error

Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
2D10	Illegal Job status	System access abnormality	Ch. 5.1.21 (5)
2D11	Not enough memory	Insufficient memory	Ch. 5.1.21 (5)
2D12	Illegal Job status	Message reception error	Ch. 5.1.21 (5)
2D13	Illegal Job status	Message transmission error	Ch. 5.1.21 (5)
2D14	Invalid parameter specified	Invalid parameter	Ch. 5.1.21 (5)
2D15	There are too many documents in the	Exceeding document number	Ch. 5.1.21 (5)
	folder. Failed in creating new document.		
2D20	Illegal Job status	System management module access	Ch. 5.1.21 (5)
0001	Illegel Job statue	abnormality	Ch = 1.01 (F)
2021	Illegal Job status	Job control module access abnormality	Ch. 5.1.21 (5)
2D22	lilegal Job status	Job control module access abnormality	Ch. 5.1.21 (5)
2D30	Failed to create directory	Directory creation failure	Ch. 5.1.21 (5)
2D31	Falled to create file		Ch. 5.1.21 (5)
2D32	Failed to delete file		Ch. 5.1.21 (5)
2D33	Failed to create file	File access failure	Ch. 5.1.21 (5)
2D40	Failed to convert image file format	Image conversion abnormality	Ch. 5.1.21 (5)
2D60	Failed to copy file	File library access abnormality	Ch. 5.1.21 (5)
2D61	Invalid parameter specified	Invalid parameter	Ch. 5.1.21 (5)
2D62	Failed to connect to network destination.	File server connection error	Ch. 5.1.21 (5)
	Check destination path		
2D63	Specified network path is invalid.	Invalid network path	Ch. 5.1.21 (5)
	Check destination path		
2D64	Logon to file server failed. Check	Login failure	Ch. 5.1.21 (5)
	username and password		
2D65	There are too many documents in the	Exceeding documents in folder:	Ch. 5.1.21 (5)
	folder. Failed in creating new document.	Creating new document is failed.	
2D66	Failed to process your Job. Insufficient	HDD full failure during processing	Ch. 5.1.21 (5)
0067	disk space.	FTD convice not evoilable	Ch = 1.01 (F)
2067	FIP service is not available	FIP service not available	Ch. 5.1.21 (5)
2D68	File Sharing service is not available	File sharing service not available	Ch. 5.1.21 (5)
2DA0	Expired scan documents deleted from	Periodical deletion of scanned	-
	share folder.	documents completed properly.	
2DA1	Expired Sent Fax documents deleted	Periodical deletion of transmitted FAX	-
	from shared folder.	documents completed properly.	
2DA2	Expired Received Fax documents	Periodical deletion of received FAX	-
	deleted from shared folder.	documents completed properly.	
2DA3	Scanned documents in shared folder	Manual deletion of scanned documents	-
	deleted upon user's request.	completed properly.	
2DA4	Sent Fax Documents in shared folder	Manual deletion of transmitted FAX	-
	deleted upon user's request.	documents completed properly.	
2DA5	Received Fax Documents in shared	Manual deletion of received FAX	-
	folder deleted upon user's request.	documents completed properly.	
2DA6	Failed to delete file.	File deletion failure	Ch. 5.1.21 (5)
2DA7	Failed to acquire resource.	Resource acquiring failure	Ch. 5.1.21 (5)
2DC0	Job canceled	Job canceling	-
2DC1	Power failure occurred	Power failure	Ch. 5.1.21 (5)

#### (6) E-mail reception related error

Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
3A10	MIME Error has been detected in the	E-mail MIME error	Ch. 5.1.21 (6)
	received mail.		
3A11	MIME Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail has been		
	transferred to the administrator.		
3A12	MIME Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail could not be		
	transferred to the administrator.		
3A20	Analyze Error has been detected in the	E-mail analysis error	Ch. 5.1.21 (6)
	received mail.		
3A21	Analyze Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail has been		
	transferred to the administrator.		
3A22	Analyze Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail could not be		
	transferred to the administrator.		
3A30	Whole partial mails were not reached by	Partial mail time-out error	Ch. 5.1.21 (6)
	timeout.		
3A40	Partial Mail Error has been detected in	Partial mail related error	Ch. 5.1.21 (6)
	the received mail.		
3A50	HDD Full Error has been occurred in this	Insufficient HDD capacity error	Ch. 5.1.21 (6)
	mail.		
3A51	HDD Full Error has been occurred in this		Ch. 5.1.21 (6)
	mail. This mail has been transferred to		
	the administrator.		
3A52	HDD Full Error has been occurred in this		Ch. 5.1.21 (6)
	mail. This mail could not be transferred		
0400	to the administrator.		$C_{\rm h}$ = 1.01 (C)
3460	HDD Full warning has been occurred in	warning of insufficient HDD capacity	Cn. 5.1.21 (6)
2461	Unis mail.		Ch = 1.01 (6)
3401	this mail. This mail could not be transforred		GII. 5. I.2 I (6)
	to the administrator		
3462	HDD Full Warning has been occurred in		Ch 5 1 21 (6)
0402	this mail. This mail could not be		011. 0. 1.2 1 (0)
	transferred to the administrator		
3A70	Receiving partial mail was aborted since	Warning of partial mail interruption	Ch. 5.1.21 (6)
	the partial mail setting has been changed		
	to Disable.		
3A80	Partial mail was received during the	Partial mail reception setting OFF	Ch. 5.1.21 (6)
	partial mail setting is disabled.		
3A81	Partial mail was received during the partial		Ch. 5.1.21 (6)
	mail setting is disabled. This mail has been		. ,
	transferred to the administrator.		
3A82	Partial mail was received during the partial		Ch. 5.1.21 (6)
	mail setting is disabled. This mail could not		. ,
	be transferred to the administrator.		
Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
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3B10	Format Error has been detected in the	E-mail format error	Ch. 5.1.21 (6)
	received mail.		
3B11	Format Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail has been		
	transferred to the administrator.		
3B12	Format Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail could not be		
	transferred to the administrator.		
3B20	Content-Type Error has been detected in	Content-Type error	Ch. 5.1.21 (6)
	the received mail.		
3B21	Content-Type Error has been detected in		Ch. 5.1.21 (6)
	the received mail. This mail has been		
	transferred to the administrator.		
3B22	Content-Type Error has been detected in		Ch. 5.1.21 (6)
	the received mail. This mail could not be		
	transferred to the administrator.		
3B30	Charset Error has been detected in the	Charset error	Ch. 5.1.21 (6)
	received mail.		
3B31	Charset Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail has been		
	transferred to the administrator.		
3B32	Charset Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail could not be		
	transferred to the administrator.		
3B40	Decode Error has been detected in the	E-mail decode error	Ch. 5.1.21 (6)
	received mail.		
3B41	Decode Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail has been		
	transferred to the administrator.		
3B42	Decode Error has been detected in the		Ch. 5.1.21 (6)
	received mail. This mail could not be		
	transferred to the administrator.		
3C10	Tiff Analyze Error has been detected in	TIFF analysis error	Ch. 5.1.21 (6)
	the received mail.		
3C11	Tiff Analyze Error has been detected in		Ch. 5.1.21 (6)
	the received mail. This mail has been		
	transferred to the administrator.		
3C12	Tiff Analyze Error has been detected in		Ch. 5.1.21 (6)
	the received mail. This mail could not be		
	transferred to the administrator.		
3C13	Tiff Analyze Error has been detected in		Ch. 5.1.21 (6)
	the received mail.		

Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
3C20	Tiff Compression Error has been	TIFF compression error	Ch. 5.1.21 (6)
	detected in the received mail.		
3C21	Tiff Compression Error has been		Ch. 5.1.21 (6)
	detected in the received mail. This mail		
	has been transferred to the administrator.		
3C22	Tiff Compression Error has been detected		Ch. 5.1.21 (6)
	in the received mail. This mail could not be		
	transferred to the administrator.		
3C30	Tiff Resolution Error has been detected	TIFF resolution error	Ch. 5.1.21 (6)
	in the received mail.		
3C31	Tiff Resolution Error has been detected		Ch. 5.1.21 (6)
	in the received mail. This mail has been		
	transferred to the administrator.		
3C32	Tiff Resolution Error has been detected		Ch. 5.1.21 (6)
	in the received mail. This mail could not		
	be transferred to the administrator.		
3C40	Tiff Paper Size Error has been detected	TIFF paper size error	Ch. 5.1.21 (6)
	in the received mail.		
3C41	Tiff Paper Size Error has been detected		Ch. 5.1.21 (6)
	in the received mail. This mail has been		
	transferred to the administrator.		
3C42	Tiff Paper Size Error has been detected		Ch. 5.1.21 (6)
	in the received mail. This mail could not		
	be transferred to the administrator.		
3C50	Offramp Destination Error has been	Offramp destination error	Ch. 5.1.21 (6)
	detected in the received mail.		
3C51	Offramp Destination Error has been		Ch. 5.1.21 (6)
	detected in the received mail. This mail		
	has been transferred to the administrator.		
3C52	Offramp Destination Error has been		Ch. 5.1.21 (6)
	detected in the received mail. This mail		
	could not be transferred to the		
	administrator.		
3C60	Offramp Security Error has been	Offramp security error	Ch. 5.1.21 (6)
	detected in the received mail.		
3C61	Offramp Security Error has been		Ch. 5.1.21 (6)
	detected in the received mail. This mail		
	has been transferred to the administrator.		
3C62	Offramp Security Error has been detected		Ch. 5.1.21 (6)
	in the received mail. This mail could not be		
	transferred to the administrator.		

Error code	Message displayed in the TopAccess screen	Contents	Trouble- shooting
3C70	Power Failure has been occurred in	Power failure error	Ch. 5.1.21 (6)
	Email receiving.		
3D10	SMTP Destination Error has been	Destination address error	Ch. 5.1.21 (6)
	detected in the received mail. This mail		
	was deleted.		
3D20	Offramp Destination limitation Error has	Offramp destination limitation error	Ch. 5.1.21 (6)
	been detected in the received mail.		
3D30	Fax Board Error has been occurred in	FAX board error	Ch. 5.1.21 (6)
	the received mail.		
3E10	POP3 Connection Error has been	POP3 server connection error	Ch. 5.1.21 (6)
	occurred in the received mail.		
3E20	POP3 Connection Timeout Error has	POP3 server connection time-out error	Ch. 5.1.21 (6)
	been occurred in the received mail.		
3E30	POP3 Login Error has been occurred in	POP3 login error	Ch. 5.1.21 (6)
	the received mail.		
3F00	File I/O Error has been occurred in this	File I/O error	Ch. 5.1.21 (6)
3F10	mail. The mail could not be received until		Ch. 5.1.21 (6)
3F20	File I/O is recovered.		Ch. 5.1.21 (6)
3F30			Ch. 5.1.21 (6)
3F40			Ch. 5.1.21 (6)

## 2.1.4 Printer function error

Following codes are displayed at the end of the user name on the print job log screen.

Error code	Contents	Trouble- shooting
402F	Page memory size error - 1200 dpi network print is performed by the equipment	Ch. 5.1.21 (6)
	with 128 MB (standard) memory.	
4031	HDD full during print - Large quantity image data by private print or invalid network	Ch. 5.1.21 (6)
	print are saved in HDD.	
4032	Private-print-only error: Jobs other than Private print jobs cannot be performed.	Ch. 5.1.21 (6)
A221	Print job cancellation - Print job (copy, list print, network print) is deleted from the	Ch. 5.1.21 (6)
	print job screen.	
A222	Print job power failure - The power of the equipment is turned OFF during print job	Ch. 5.1.21 (6)
	(copy, list print, network print).	

<<Error history>>

In the setting mode (08-253), the latest twenty groups of error data will be displayed.

Display example

<u>EA10</u>	<u>03 07 26 17 57 32</u>	<u>064</u>	<u>064</u>	<u>23621000000</u>
Error code	YY MM DD HH MM SS	MMM	NNN	ABCDEFHIJLO
4 digits	12 digits (Year is indicated	3 digits	3 digits	11 digits
	with its last two digits.)			

А	Paper source
	0: Not selected 1: Bypass feed 2: LCF 3: PFP upper drawer 4: Unused 5: PFP lower drawer
	6: Unused 7: Upper drawer 8: Lower drawer
В	Paper size code
	0: A5/ST 1: A5-R 2: ST-R 3: LT 4: A4 5: B5-R 6: LT-R 7: A4-R 8: OTHER/UNIV 9: B5
	A: FOLIO/COMP B: LG C: B4 D: LD E: A3 F: 13"LG G: Unsed H: A6-R I: Post card J: 8.5"SQ
	K: A3-wide L: 305×457 mm M: 8K N: 16K-R O: 16K Z: Not selected
С	Sort mode/staple mode
	0: Non-sort/Non-staple 1: Group 2: Sort 7: Front staple
	8: Double staple 9: Rear staple A: Saddle stitch
D	ADF mode
	0: Unused 1: AUTO FEED (SADF) 2: STACK FEED
Е	APS/AMS mode
	0: Not selected 1: APS 2: AMS
F	Duplex mode
	0: Not selected 1: Book 2: Double-sided/Single-sided 4: Double-sided/Duplex copying
	8: Single-sided/Duplex copying
G	Unused
Н	Image shift
	0: Unused 1: Book 2: Left 4: Right
1	
	0: Unused 1: Masking 2: Trimming 3: Mirror image 4: Unused
J	C: Upused 1: Edge erase 2: Dual page 2: Edge erase 8 Dual page
	0. Onused 1. Edge erase 2. Duai-page 5. Edge erase & Duai-page
ĸ	Unused
1	Function
_	0: Unused 1: Copying 2: FAX/Internet FAX transmission 3: FAX/Internet FAX/E-mail reception printing
	4: Unused 5: Printing/List print 6: Scan/E-mail transmission
MMM	Primary scanning reproduction ratio (Display in hexadecimal)
	(Mx256)+(Mx16)+M
NNN	Secondary scanning reproduction ratio (Display in hexadecimal)
	(Nx256)+(Nx16)+N
0	Color mode
	0: Auto color 1: Full color 2: Black 3: Unused 4: Twin color copy 5: Gray scale
	6: Unused 7: Image smoothing

# 2.2 Self-diagnosis Modes

Mode	For start	Contents	For exit	Display
Control panel	[0]+[1]+	All LEDs on the control panel are lit, and all	[POWER]	
check mode	[POWER]	the LCD pixels blink.	OFF/ON	
Test mode	[0]+[3]+	Checks the status of input/output signals.	[POWER]	100% C A4
	[POWER]		OFF/ON	TEST MODE
Test print	[0]+[4]+	Outputs the test patterns.	[POWER]	100% P A4
mode	[POWER]		OFF/ON	TEST PRINT
Adjustment	[0]+[5]+	Adjusts various items.	[POWER]	100% A A4
mode	[POWER]		OFF/ON	TEST MODE
Setting mode	[0]+[8]+	Sets various items.	[POWER]	100% D
	[POWER]		OFF/ON	TEST MODE
List print mode	[9]+[START]+	Prints out the data lists of the codes 05 and	[POWER]	100% UA A4
	[POWER]	08, PM support mode and pixel counter.	OFF/ON	LIST PRINT
PM support	[6]+[START]+	Clears each counter.	[POWER]	100% K
mode	[POWER]		OFF/ON	TEST MODE
Firmware	[8]+[9]+	Performs updating of the system firmware.	[POWER]	
update mode	[POWER]		OFF/ON	

## Note:

To enter the desired mode, turn ON the power while two digital keys designated to each mode (e.g. [0] and [5]) are pressed simultaneously.

<Operation procedure>

• Control panel check mode (01):



### Notes:

- 1. A mode can be canceled by [POWER] OFF/ON when the LED is lit and the LCD is blinking.
- 2. Button Check Buttons with LED

(Press to turn OFF the LED.)

Buttons without LED (Press to display the message on the control panel.)

Button on touch panel (Press to display the screen on the control panel at power-ON.)

- Test mode (03): Refer to "2.2.1. Input check (test mode 03)" and "2.2.2. Output check (test mode 03)".
- Test print mode (04): Refer to "2.2.3. Test print mode (04)".
- Adjustment mode (05): Refer to "2.2.4. Adjustment mode (05)".
- Setting mode (08): Refer to "2.2.5. Setting mode (08)".
- List print mode (9S): The procedure varies depending on the code.

[9] [START] -	/ ∽ (Code) –		→ [Digital keys]→ [ST/	ART]→[Digital key	s] 🛧 [START]	→ [POWER] OFF/ON
[POWER]	101: Adju 102: Sett	ustment mode (05)	(Key in the first	Key in the last	List starts t	o) (Exit)
	102.000					,
L	→ (Code)—					
	103: PM	support mode				
	104: Stor	ed information of p	oixel counter (toner ca	rtridge reference)		
	105: Stor	ed information of p	pixel counter (service t	echnician referen	ce)	
	106: Errc	or history				
<ul> <li>PM supp</li> </ul>	port mode	(6S):				
	Г					
[6][STAR	T]	(Code) -	[STA	RT]	[POWER]	OFF/ON
[POWEF	7]	(Code)	(Operatior	n started)	(Exi	t)
		2: PM Support So	creen			

• Firmware update mode (89): Refer to "6. FIRMWARE UPDATING".



### \*1 Turn OFF the power after using the self-diagnosis mode, and leave the equipment to the user.

## 2.2.1 Input check (Test mode 03)

The status of each input signal can be checked by pressing the [FAX] button, [COPY] button and the digital keys in the test mode (03).

<Operation procedure>



## Note:

Initialization is performed before the equipment enters the test mode.

<u>100%</u> Test N	2 Mode		
<b>A</b>	E		
В	F		
C	G		
D	Н		

## [Example of display during input check]

Items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted are listed in the following pages.

Digital	Button	Items to check	Condition
key			with highlighted button
	Α	Bypass unit connection	Not connected
	В	ADU connection	Not connected
	С	_	
	D	LCF connection	Not connected
[1]	E	_	
	F	_	
	G	_	
	н	LCF drawer detection switch	Drawer not installed
	Α	PFP upper drawer detection switch	Drawer not installed
	В		
	С	PFP upper drawer paper stock sensor	Paper almost empty
	D	PFP upper drawer feed sensor	Paper present
[2]	E	PFP connection	Not connected
	F	PFP side cover open/close switch	Cover opened
	G	PFP upper drawer empty sensor	No paper
	н	PFP upper drawer tray-up sensor	Tray at upper limit position
	Α	LCF tray bottom sensor	Tray at bottom position
	В	LCF standby side paper misload detection sensor	Properly loaded
	С		
	D	_	
[3]	E	_	
	F	_	
	G	_	
	н	Paper stock sensor at LCF feed side	Paper present
	Α	PFP lower drawer detection switch	Drawer not installed
	В	_	
	С	PFP lower drawer paper stock sensor	Paper almost empty
	D	PFP lower drawer feed sensor	Paper present
[4]	E	PFP motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation
	F		
	G	PFP lower drawer empty sensor	No paper
	Н	PFP lower drawer tray-up sensor	Tray at upper limit position
	Α	LCF end fence home position sensor	Fence home position
	В	LCF end fence stop position sensor	Fence stop position
	С	Empty sensor at LCF standby side	No paper
101	D	LCF side cover open/close switch	Cover closed
[5]	E	LCF motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation
	F	LCF tray-up sensor	Tray at upper limit position
	G	LCF feed sensor	No paper
	Н	Empty sensor at LCF feed side	No paper
	Α	Lower drawer detection switch	Drawer not installed
	В	Upper drawer detection switch	Drawer not installed
	С	Lower drawer paper stock sensor	Paper almost empty
[ [0]	D	Upper drawer paper stock sensor	Paper almost empty
[6]	E	Lower drawer empty sensor	No paper
	F	Upper drawer empty sensor	No paper
	G	Lower drawer tray-up sensor	Tray at upper limit position
	Н	Upper drawer tray-up sensor	Tray at upper limit position

## [FAX] button: OFF/[COPY] button: OFF ( [FAX] LED: OFF/[COPY] LED: OFF)

Digital	Button	Items to check	Condition
key	Dutton		with highlighted button
	A	_	
	В	_	
	С	_	
[7]	D	_	
[ [/]	E	Side cover open/close switch	Cover opened
	F	Front cover opening/closing switch	Cover opened
	G	_	
	Н	Exit sensor	Paper present
	A	Bypass feed paper width sensor 3	Refer to table 1
	В	Bypass feed paper width sensor 2	Refer to table 1
	С	Bypass feed paper width sensor 1	Refer to table 1
101	D	Bypass feed paper width sensor 0	Refer to table 1
[0]	E	Bypass sensor	No paper
	F	ADU opening/closing switch	ADU opened
	G	ADU exit sensor	Paper present
	Н	ADU entrance sensor	Paper present
	Α	—	
	В	—	
	С	—	
[0]	D	—	
[9]	E	—	
	F	Key copy counter connection	Not connected
	G	—	
	Н	Paper clinging detection sensor	No paper
	A	—	
	В	—	
[0]	С	—	
	D	—	
	E	—	
	F	_	
	G	_	
	Н	_	

Table 1. Relation between the status of the bypass paper width sensor and paper size (width).

	Bopor width oizo			
3	2	1	0	Faper width size
0	1	1	1	A3/LD
1	0	1	1	A4-R/LT-R
1	1	0	1	A5-R/ST-R
1	1	1	0	Card size
0	0	1	1	B4-R/LG
1	0	0	1	B5-R

Digital	Button	Items to check	Condition
key	•		with highlighted button
	A	2nd transfer roller position detection sensor	Released
	В	Black developer contact timing detection sensor	Releasing movement
	C	Black developer contact position detection sensor	Released position
Digital key [1] [2] [3] [4]	D	Main motor rotation status	Abnormal rotation
		(Motor is rotating at Output Mode (03))	
[1]	E	Developer motor rotation status	Abnormal rotation
		(Motor is rotating at Output Mode (03))	
		Iransport motor rotation status	Abnormal rotation
		(Motor is rotating at Output Mode (03))	
	G	Polygonal motor rotation status	Abnormal rotation
		(Motor is rotating at Output Mode (03))	
	н	24V Power supply	Power OFF
	A	IPC board connection	Not connected
	В	Color toner cartridge sensor	Normally
	С	Revolver home position sensor	Home position
[0]	D	_	
[2]	E	_	
	F	Toner bag full detection sensor	Toner bag full
	G	Black auto-toner sensor connection	Not connected
	н	_	
[3]	A	_	
	В	—	
	С	—	
	D	—	
	E	—	
	F		
	G	Lower drawer feed sensor	No paper
	Н	Upper drawer feed sensor	Paper present
	Α		
	В		
	С		
	D		
[2] [3] [5]	E	Bridge unit connection	Not connected
	F	Color auto-toner sensor connection	Not connected
	G	_	
	н	_	
	Α	_	
	В	_	
	С	_	
	D	_	
[5]	E	_	
	F	RADF connection	RADF connected
	G	Platen sensor	Platen cover opened
	H	Carriage home position sensor	Home position

# [FAX] button: ON/[COPY] button: OFF ([FAX] LED: ON/[COPY] LED: OFF)

Digital	Button	Items to check	Condition
key	Dutton	items to check	with highlighted button
	A		
	В		
Digital         key         [6]         [7]         [8]         [9]         [0]	С	_	
	D	APS sensor (APS-R)	No original
	E	APS sensor (APS-C)	No original
	F	APS sensor (APS-3)	No original
	G	APS sensor (APS-2)	No original
	н	APS sensor (APS-1)	No original
	A	RADF tray sensor	Original present
	В	RADF empty sensor	Original present
	С	RADF jam access cover switch	Cover opened
[7]	D	RADF open/close sensor	RADF opened
[ [/]	E	RADF exit sensor	Original present
	F	RADF reverse sensor	Original present
	G	RADF read sensor	Original present
	Н	RADF registration sensor	Original present
	A	_	
	В	_	
[8]	С	_	
	D		
	E	RADF original length sensor	Original present
	F	RADF original width sensor 1	Original present
	G	RADF original width sensor 2	Original present
	Н	RADF original width sensor 3	Original present
	A	Black toner cartridge switch	Cartridge not installed
	В		
	С		
101	D	Bypass feed sensor	No paper
[9]	E	Registration sensor	Paper present
	F		
	G	_	
	Н	Transfer belt home position sensor	Home position
	A	Bridge unit transport sensor 2	Paper present
	В	Bridge unit cover open/close detection switch	Cover opened
	С	Bridge unit transport sensor 1	Paper present
	D	Bridge unit paper full detection sensor	Paper not full
[0]	E		
	F	Charger cleaner front position detection switch	Cleaner home position
	G	Charger cleaner rear position detection switch	Cleaner rear position
	Н		·

# [FAX] button: OFF/[COPY] button: ON ([FAX] LED: OFF/[COPY] LED: ON)

Digital key	Items to check	Display on the touch panel				
[1]	Temperature/humidity sensor	Displays the temperature inside the equipment. (Unit: $^{\circ}$ C)				
[2]	Temperature/humidity sensor	Displays the humidity inside the equipment. (Unit: %RH)				
[3]	Drum thermistor	Displays the temperature near the drum surface. (Unit: °C)				

-

#### 2.2.2 Output check (test mode 03)

Status of the output signals can be checked by entering the following codes in the test mode 03.

<Operation procedure>
Procedure 1
[0][3]
(Code) - (START] - (Operation) - (Stop) - (START] - (Operation) - (Exit)
Procedure 2



Procedure 3



#### Procedure 4

[0][3] [POWER] → (Code) → [START] → [POWER]OFF

Code	Function	Code	Function	Procedure				
101	Main motor ON (Operational without black	151	Code No.101 function OFF	1				
	developer unit)							
102	Toner motor K (normal rotation) ON	152	Code No.102 function OFF	1				
103	Polygonal motor (600dpi) ON	153	Code No.103 function OFF	1				
108	Registration clutch ON	158	Code No.108 function OFF	1				
109	PFP motor ON	159	Code No.109 function OFF	1				
110	ADU motor ON	160	Code No.110 function OFF	1				
112	Developer motor ON (Operational with black	162	Code No.112 function OFF	1				
	developer unit)							
115	Drum cleaning brush motor ON	165	Code No.115 function OFF	1				
116	Transfer belt cleaner auger motor ON	166	Code No.116 function OFF	1				
118	Laser ON	168	Code No.118 function OFF	1				
120	Exit motor (normal rotation) ON	170	Code No.120 function OFF	1				
121	Exit motor (reversal rotation) ON	171	Code No.121 function OFF	1				
122	LCF motor ON	172	Code No.122 function OFF	1				
123	Transport motor ON	173	Code No.123 function OFF	1				
124	Toner motor K (reversal rotation) ON	174	Code No.124 function OFF	1				
125	Color auto-toner sensor shutter solenoid ON	175	Code No.125 function OFF	1				
	(open)							
126	Color auto-toner sensor LED ON	176	Code No.126 function OFF	1				
201	Upper drawer feed clutch ON/OFF	1		3				
202	Lower drawer feed clutch ON/OFF			3				
203	Lower transport clutch (high speed) ON/OFF			3				
204	Bypass feed clutch ON/OFF							
205	Lower transport clutch (low speed) ON/OFF							
206	LCF pickup solenoid ON/OFF							
207	LCF end fence reciprocating movement							
208	LCF end fence motor ON/OFF			3				
209	LCF feed clutch ON/OFF			3				
210	LCF transport clutch ON/OFF			3				
218	Key copy counter count up			2				
222	ADU clutch ON/OFF			3				
225	PFP transport clutch ON/OFF			3				
226	PFP upper drawer feed clutch ON/OFF			3				
228	PFP lower drawer feed clutch ON/OFF			3				
232	Bridge unit gate solenoid ON/OFF			3				
235	Discharge LED ON/OFF			3				
241	IH board cooling fan (low speed) ON/OFF			3				
242	Upper drawer tray-up motor ON (tray up)			2				
243	Lower drawer tray-up motor ON (tray up)			2				
248	Developer bias (Black) [+DC] ON/OFF			3				
249	Developer bias (Black) [-DC] ON/OFF			3				
252	Main charger ON/OFF			3				
261	Scan motor ON (Automatically stops at limit position, s	speed ca	h be changed by using ZOOM button)	2				
264	SLG board cooling fan / Scanner unit cooling fan	ON (hig	n/low speed)	1				
265	SLG board cooling fan / Scanner unit cooling fan	OFF		1				
267	Scanner exposure lamp UN/OFF			3				
268	Laser unit cooling tan (nigh speed) ON/OFF			3				
2/1				2				
2/8	FFF upper drawer tray-up motor ON (tray up)			2				

Code	Function	Procedure
280	PFP lower drawer tray-up motor ON (tray up)	2
281	RADF feed motor ON/OFF (normal rotation)	3
282	RADF feed motor ON/OFF (reverse rotation)	3
283	RADF read motor ON/OFF (normal rotation)	3
284	RADF reverse motor ON/OFF (normal rotation)	3
285	RADF reverse motor ON/OFF (reverse rotation)	3
294	RADF reverse solenoid ON/OFF	3
295	Power OFF mode (for 200V series)	4
297	RADF fan motor ON/OFF	3
410	Power supply cooling fan (low speed) ON/OFF	3
411	Power supply cooling fan (high speed) ON/OFF	3
412	Internal cooling fan ON/OFF (low speed)	3
413	Internal cooling fan ON/OFF (high speed)	3
416	IH board cooling fan (high speed) ON/OFF	3
417	Ozone exhaust fan (low speed) ON/OFF	3
418	Ozone exhaust fan (high speed) ON/OFF	3
419	Developer bias (Black) [AC] ON/OFF	3
420	Developer bias (Color) [+DC] ON/OFF	3
421	Developer bias (Color) [-DC1] ON/OFF	3
422	Developer bias (Color) [AC] ON/OFF	3
424	1st transfer roller bias [+] ON/OFF	3
425	1st transfer roller bias [-] ON/OFF	3
426	2nd transfer roller bias [+] ON/OFF	3
427	2nd transfer roller bias [-] ON/OFF	3
428	Drum cleaning blade bias ON/OFF	3
430	Image quality sensor shutter solenoid ON/OFF	3
431	Color developer drive clutch ON/OFF	3
432	Black developer drive clutch ON/OFF	3
433	Black developer lifting clutch ON/OFF	3
435	2nd transfer roller contact clutch ON/OFF	3
437	Transfer belt cleaner clutch ON/OFF	3
439	Upper transport clutch (high speed) ON/OFF	3
440	Upper transport clutch (low speed) ON/OFF	3
442	Color developer toner supply clutch ON/OFF	3
450	Revolver motor ON/OFF (printing operation)	3
451	Revolver motor operation (at standby position)	2
452	Revolver motor operation (at toner cartridge Y access position)	2
453	Revolver motor operation (at toner cartridge M access position)	2
454	Revolver motor operation (at toner cartridge C access position)	2
455	Revolver motor operation (at developer unit Y access position)	2
456	Revolver motor operation (at developer unit M access position)	2
457	Revolver motor operation (at developer unit C access position)	2
458	Revolver motor operation (at home position)	2
459	Revolver motor operation (at developing position)	2
460	Black developer unit lifting movement ON/OFF (continuous lifting movement)	3
461	Charger cleaner motor movement (one reciprocating movement)	2

## 2.2.3 Test print mode (test mode 04)

The embedded test pattern can be printed out by keying in the following codes in the test print mode (04).



### Notes:

- 1. When an error occurs, it is indicated on the panel, but the recovery operation is not performed. Turn OFF the power and then back ON to clear the error.
- 2. During test printing, the [CLEAR] button is disabled when "Wait adding toner" is displayed.

Code	Types of test pattern	Remarks	Remarks
142	Grid pattern (black)	Pattern width: 2 dots, Pitch: 10 mm	1
204	Grid pattern (color)	Pattern width: 1 dot, Pitch: 10 mm	2
219	6% test pattern		2
220	8% test pattern		2
231	Secondary scanning direction 33 gradation steps	3 pixels standard, Width: 10 mm	2
237	Halftone		2
262	Pattern for jitter evaluation (4 lines ON / 4 lines OFF)	1 pixel standard, for color deviation	2
		correction	
270	Image quality control test pattern	For checking the image quality	2
		control	

### 2.2.4 Adjustment mode (05)

Items in the adjustment mode list in the following pages can be corrected or changed in this adjustment mode (05). Turn ON the power with pressing the digital keys [0] and [5] simultaneously in order to enter this mode.

Procedure 1





### Procedure 6



#### Note:

The fuser roller temperature control at the adjustment mode is different from that at the normal state. Therefore, the problem of fusing efficiency may be occurred in the test copy at the adjustment mode. In that case, turn ON the power normally, leave the equipment for approx. 3 minutes after it has become ready state and then start up the adjustment mode again.

## Test print pattern in Adjustment Mode (05)

Operation: One test print is printed out when the [FAX] button is pressed after the code is keyed in at Standby Screen.

Code	Types of test pattern	Remarks
1	Grid pattern (Black)	Refer to 3.4.3 Printer related adjustment
3	Grid pattern (Black/Duplex printing)	Refer to 3.4.3 Printer related adjustment
4	For gamma adjustment (Color/Black integrated pattern)	Refer to 3.5.1 Automatic gamma adjustment
5	For gamma adjustment (Color)	Refer to 3.5.1 Automatic gamma adjustment
6	For gamma adjustment (Black)	For checking the gradation reproduction
7	For gamma adjustment (Color)	For checking the gradation reproduction
10	For gamma adjustment (Black)	Refer to 3.5.1 Automatic gamma adjustment
12	Secondary scanning direction 33 gradation steps (Y)	For checking the image of printer section
13	Secondary scanning direction 33 gradation steps (M)	For checking the image of printer section
14	Secondary scanning direction 33 gradation steps (C)	For checking the image of printer section
15	Secondary scanning direction 33 gradation steps (K)	For checking the image of printer section
47	Gamma adjustment for printer (PS/ 600 x 600 dpi)	Refer to 3.6.1 Automatic gamma adjustment
48	Gamma adjustment for printer (PS/ 1,200 x 600 dpi)	Refer to 3.6.1 Automatic gamma adjustment
49	Gamma adjustment for printer (PCL/ 600 x 600 dpi)	Refer to 3.6.1 Automatic gamma adjustment
50	Gamma adjustment for printer (PCL/ 1,200 x 600 dpi)	Refer to 3.6.1 Automatic gamma adjustment
51	Gamma checking for printer (PS/ 600 x 600 dpi)	For checking the gradation reproduction
52	Gamma checking for printer (PS/ 1,200 x 600 dpi)	For checking the gradation reproduction
55	Grid pattern (Full Color / Thick paper 2)	Refer to 3.4.2 Paper alignment at the
		registration roller
56	Grid pattern (Full Color / Thick paper 3)	Refer to 3.4.2 Paper alignment at the
		registration roller
57	Grid pattern (Full Color / OHP)	Refer to 3.4.2 Paper alignment at the
		registration roller
58	Grid pattern (Black / Thick paper 2)	Refer to 3.4.2 Paper alignment at the
		registration roller
59	Grid pattern (Black / Thick paper 3)	Refer to 3.4.2 Paper alignment at the
		registration roller
60	Grid pattern (Black / OHP)	Refer to 3.4.2 Paper alignment at the
		registration roller
62	For color deviation correction (Full Color)	Only for A3/LD size
63	For color deviation correction (Full Color)	Only for A3/LD size
64	For color deviation correction (Full Color)	Only for A3/LD size

## Notes:

- 1. The digit after the hyphen in "Code" of the following table is a sub code.
- 2. In "RAM", the NVRAM of the board in which the data of each code is stored is indicated. "M" stands for the LGC board and "SYS" stands for the SYS board.

Adjustment mode (05)								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
200	Devel-	Initialization of	All	ALL	-	M	The value starts changing approx. 3	5
	opment	color auto-toner	(Y,M,C,K)		<0-255>		minutes after this adjustment started.	
201		sensor light	Y	ALL	-	M	The value is automatically set during	5
		amount correction			<0-255>		this adjustment (approx. 2 minutes).	
202		target value	М	ALL	-	М		5
					<0-255>		(As the value increases, the sensor	
203			C	ALL	- <0-255>	M	(► Chapter 3.2)	5
204			K	ALL	-	М		5
					<0-255>			
206			YMC	ALL	-	М		5
					<0-255>			
207	Devel-	Initialization of cold	or auto-	ALL	-	М	Initializes the color auto-toner sensor	6
	opment	toner sensor light a	amount	(color)			light amount correction target value.	
		correction target va	alue					
208	Devel-	Enforced correction	n of color	ALL	-	М	Performs the color auto-toner sensor	6
	opment	auto-toner sensor	ight	(color)			light amount correction forcibly.	
		amount			-			
210	Transfer	1st transfer roller b	ias output	ALL	225	М	When the value decreases, the 1st	3
		adjustment	N		<0-225>		transfer roller bias output increases.	
		(When not transfer	red)				The adjustment value becomes	
							effective when the Setting Mode (08-	
011.0	Transfor	1 at transfor rollar	V	A1 1	140	N.4	541, 549 and 551) is 0 (invalid).	14
211-0	Iransier	hias output	T	ALL (color)	140		transfor rollor bias output incroases	14
211-1		adjustment	N		1/0	м	The adjustment value becomes	1/
211-1		(Image quality	IVI	(color)	<0-225>		effective when the Setting Mode (08-	17
211-2		control test	<u>с</u>		140	м	541, 549 and $551$ ) is 0 (invalid)	14
		pattern)	Ū.	(color)	<0-225>			
211-3		,	K	ALL	148	м		14
				(color)	<0-225>			
212	Transfer	1st transfer roller	Plain	ALL	135	М	When the value decreases, the 1st	3
		bias output	paper	(black)	<0-225>		transfer roller bias output increases.	
		adjustment					The adjustment value becomes	
214			Thick	ALL	135	М	effective when the Setting Mode (08-	3
			paper 1	(black)	<0-225>		541, 549 and 551) is 0 (invalid).	
0.15					105			
215			I NICK	ALL	135	M		3
			paper 2	(black)	<0-225>			
216			Thick	ALL	135	М		3
			paper 3	(black)	<0-225>			
			h ob er e	(				
217			OHP film	ALL	135	М		3
				(black)	<0-225>			

	Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
218-0	Transfer	1st transfer roller bias output	Y	ALL (color)	135 <0-225>	M	When the value decreases, the 1st transfer roller bias output increases.	14		
218-1	-	adjustment (Plain paper)	М	ALL (color)	140 <0-225>	М	The adjustment value becomes effective when the Setting Mode (08-	14		
218-2	-	(	С	ALL	145	м	541, 549 and 551) is 0 (invalid).	14		
218-3	-		К	ALL	150	м		14		
000.0	Tropofor	1 at transfer rollar		(color)	<0-225>	M	When the value deeres are the 1st	14		
220-0	Transier	bias output	T	(color)	<0-225>		transfer roller bias output increases.	14		
220-1		adjustment	М	ALL	140	М	The adjustment value becomes	14		
000.0	-	(Thick paper T)			<0-225>			- 14		
220-2			C	(color)	<0-225>	IVI	541, 549 and 551) is 0 (invalid).	14		
220-3	1		K	ALL	150	М	-	14		
				(color)	<0-225>					
221-0	Transfer	1st transfer roller	Y	ALL	135	M	When the value decreases, the 1st	14		
	-	bias output		(color)	<0-225>		transfer roller bias output increases.			
221-1		adjustment	М	ALL	140	M	The adjustment value becomes	14		
001.0	-	(Thick paper 2)		(color)	<0-225>		effective when the Setting Mode (08-	14		
221-2			C	ALL (color)	145 <0-225>	IVI	541, 549 and 551) is 0 (invalid).	14		
221-3	-		к		150	м		14		
				(color)	<0-225>					
222-0	Transfer	1st transfer roller	Y	ALL	135	М	When the value decreases, the 1st	14		
		bias output		(color)	<0-225>		transfer roller bias output increases.			
222-1	1	adjustment	М	ALL	140	М	The adjustment value becomes	14		
		(Thick paper 3)		(color)	<0-225>		effective when the Setting Mode (08-			
222-2			С	ALL	145	M	541, 549 and 551) is 0 (invalid).	14		
000.0	+			(color)	<0-225>	NA	-	14		
222-3			ĸ	ALL (color)	150	IVI		14		
223-0	Transfer	1st transfer roller	Y		135	M	When the value decreases, the 1st	14		
		bias output	·	(color)	<0-225>		transfer roller bias output increases.			
223-1	1	adjustment	M	ALL	140	М	The adjustment value becomes	14		
		(OHP film)		(color)	<0-225>		effective when the Setting Mode (08-			
223-2	1		С	ALL	145	М	541, 549 and 551) is 0 (invalid).	14		
				(color)	<0-225>					
223-3			К	ALL	150	M		14		
224	Transfor	and transfor roller	hing		<0-225>	M	When the value decreases, the 2nd	2		
224	Inditister	outout adjustment	(When		<pre></pre>		transfer roller bias output increases	3		
		cleaning the roller	( <b>vv</b> nen [+] )		<0.130>					
225	Transfer	2nd transfer roller	bias	ALL	196	М	When the value decreases, the 2nd	3		
_		output adjustment	(When		<159-255>		transfer roller bias output increases.	_		
		cleaning the roller	[-] )							
226	Transfer	2nd transfer roller	bias	ALL	169	М	When the value decreases, the 2nd	3		
		output adjustment	(Paper		<159-255>		transfer roller bias output increases.			
		interval/When not t	rans-							
		ferred)								

	Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
227-0	Transfer	2nd transfer roller	Single	ALL	143	М	When the value decreases, the 2nd	14		
	-	bias output	side	(black)	<0-158>		transfer roller bias output increases.			
227-1		adjustment	Reverse	ALL	116	M	The adjustment value becomes	14		
		(Plain paper)	side at	(black)	<0-158>		effective when the Setting Mode (08-			
007.0					107	N4	544, 549 and 551) is 0 (invalid).	- 14		
221-2			sido	ALL (color)	-0 159			14		
227-3			Beverse		113	м	-	14		
			side at	(color)	<0-158>					
			duplexing							
229-0	Transfer	2nd transfer roller	Single	ALL	137	м	When the value decreases, the 2nd	14		
		bias output	side	(black)	<0-158>		transfer roller bias output increases.			
229-1		adjustment	Reverse	ALL	107	М	The adjustment value becomes	14		
		(Thick paper 1)	side at	(black)	<0-158>		effective when the Setting Mode (08-			
			duplexing				544, 549 and 551) is 0 (invalid).			
229-2	]		Single	ALL	119	М		14		
			side	(color)	<0-158>					
229-3			Reverse	ALL	107	M		14		
			side at	(color)	<0-158>					
			duplexing							
230-0	Iransfer	2nd transfer roller	DIAS	ALL	143	M	When the value decreases, the 2nd	14		
220.1	-	output (Thick pape	r 2)		<0-158>	N/	The adjustment value becomes	14		
230-1				ALL (color)	-0 159		offective when the Setting Mode (09	14		
					<0-130>		544, 549 and 551) is 0 (invalid)			
231-0	Transfer	2nd transfer roller	nias	ΔΗ	143	м	When the value decreases, the 2nd	14		
2010	Indition	output (Thick pape	r 3)	(black)	<0-158>		transfer roller bias output increases.			
231-1	-		,	ALL	137	M	The adjustment value becomes	14		
				(color)	<0-158>		effective when the Setting Mode (08-			
							544, 549 and 551) is 0 (invalid).			
232-0	Transfer	2nd transfer roller l	oias	ALL	113	M	When the value decreases, the 2nd	14		
		output (OHP film)		(black)	<0-158>		transfer roller bias output increases.			
232-1				ALL	107	M	The adjustment value becomes	14		
				(color)	<0-158>		effective when the Setting Mode (08-			
							544, 549 and 551) is 0 (invalid).			
233	Transfer	1st transfer roller b	ias	ALL	5	M	Sets the offset amount of 1st transfer	1		
		offsetting		(color)	<0-10>					
							0:-500V 1:-400V 2:-300V			
							5200V 4100V 5. 0V			
							0: +100V 1. +200V 8. +300V			
234-0	Transfer	2nd transfer roller	Sinale	ALI	5	м	Sets the offset amount of 2nd	4		
		bias offsetting	side	(black)	<0-10>		transfer roller bias.	.		
234-1	1	adjustment	Reverse	ALL	5	М	0: -500V 1: -400V 2: -300V	4		
		(Plain paper)	side at	(black)	<0-10>		3: -200V 4: -100V 5: 0V			
			duplexing				6: +100V 7: +200V 8: +300V			
234-2	1		Single	ALL	5	М	9: +400V 10: +500V	4		
			side	(color)	<0-10>					
234-3			Reverse	ALL	5	М		4		
			side at	(color)	<0-10>					
			duplexing							

Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
236-0	Transfer	2nd transfer roller	Single	ALL	5	М	Sets the offset amount of 2nd	4	
		bias offsetting	side	(black)	<0-10>		transfer roller bias.		
236-1		adjustment (Thick	Reverse	ALL	5	M	0: -500V 1: -400V 2: -300V	4	
		paper 1)	side at	(black)	<0-10>		3: -200V 4: -100V 5: 0V		
			duplexing				6: +100V 7: +200V 8: +300V		
236-2			Single	ALL	5	М	9: +400V 10: +500V	4	
			side	(color)	<0-10>				
236-3			Reverse	ALL	5	M		4	
			side at	(color)	<0-10>				
			duplexing						
237-0	Transfer	2nd transfer roller	bias	ALL	5	M	Sets the offsetting amount of 2nd	4	
		offsetting adjustme	ent	(black)	<0-10>		transfer roller bias.		
237-1		(Thick paper 2)		ALL	5	M	0: -1,000 V 1: -800 V 2: -600 V	4	
				(color)	<0-10>		3: -400 V 4: -200 V 5: 0 V		
238-0	Transfer	2nd transfer roller	bias	ALL	5	M	6: +200 V 7: +400 V 8: +600 V	4	
		offsetting adjustme	ent	(black)	<0-10>		9: +800 V 10: +1,000 V		
238-1		(Thick paper 3)		ALL	5	М		4	
				(color)	<0-10>				
239-0	Transfer	2nd transfer roller	bias	ALL	5	М		4	
		offsetting adjustme	ent	(black)	<0-10>				
239-1		(OHP film)		ALL	5	М		4	
				(color)	<0-10>				
241	Main	Main charger grid	Y	ALL	78	M	As the value increases, the trans-	3	
	charger	bias adjustment			<0-255>		former output increases. The		
242			М	ALL	84	M	adjustment value becomes effective	3	
					<0-255>		only when the setting mode (08-549,		
243			С	ALL	87	Μ	551, 556, 557) is 0 (invalid).	3	
					<0-255>				
244			K	ALL	94	M		3	
					<0-255>				
245	Transfer	1st transfer roller b	ias	ALL	5	M	Sets the offsetting amount of 1st	1	
		offsetting		(black)	<0-10>		transfer roller bias.		
							0: -500 V 1: -400 V 2: -300 V 3: -200 V		
							4: -100 V 5: 0 V 6: +100 V 7: +200 V		
							8: +300 V 9: +400 V 10: +500 V		
250	Transfer	1st transfer roller	+Low	ALL	4000	M	Transformer output setting of the 1st	1	
		bias output			<1800-		transfer roller bias.		
		voltage			4400>		When replacing the high-voltage		
251			+High	ALL	400	M	transformer, the values listed in	1	
					<0-500>		attached data sheet are entered.		
							(Unit: V)		
252	Transfer	2nd transfer roller	+Low	ALL	4800	M	Transformer output setting of the 2nd	1	
		bias output			<4320-		transfer roller bias (plus output).		
		voltage			5280>		When replacing the high-voltage		
253			+High	ALL	516	M	transformer, the values listed in	1	
					<366-		attached data sheet are entered.		
					666>		(Unit: V)		

Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
254	Transfer	2nd transfer roller bias output voltage	-Low	ALL	-110 <-9999-0>	М	Transformer output setting of the 2nd transfer roller bias (minus output). When replacing the high-voltage	1	
255			-High	ALL	-2000 <-9999-0>	М	transformer, the values listed in attached data sheet are entered. (Unit: V)	1	
262-0	Transfer	1st transfer roller bias actual value	Y	ALL (color)	140 <0-225>	М	Displays the value of 1st transfer roller bias when printing is operated.	10	
262-1		display (Image quality control test	М	ALL (color)	140 <0-225>	М		10	
262-2		pattern)	С	ALL (color)	140 <0-225>	М		10	
262-3			К	ALL (color)	148 <0-225>	М		10	
263	Transfer	1st transfer roller bias actual value	Plain paper	ALL (black)	135 <0-225>	М	Displays the value of 1st transfer roller bias when printing is operated.	2	
265		display	Thick paper 1	ALL (black)	135 <0-225>	М		2	
266			Thick paper 2	ALL (black)	135 <0-225>	М		2	
267			Thick paper 3	ALL (black)	135 <0-225>	М		2	
268			OHP film	ALL (black)	135 <0-225>	М		2	
269-0	Transfer	1st transfer roller bias actual value	Y	ALL (color)	135 <0-225>	М	Displays the value of 1st transfer roller bias when printing is operated.	10	
269-1		display (Plain paper)	М	ALL (color)	140 <0-225>	М		10	
269-2			С	ALL (color)	145 <0-225>	М		10	
269-3			К	ALL (color)	150 <0-225>	М		10	
271-0	Transfer	1st transfer roller bias actual value	Y	ALL (color)	135 <0-225>	М	Displays the value of 1st transfer roller bias when printing is operated.	10	
271-1		display (Thick paper 1)	М	ALL (color)	140 <0-225>	М		10	
271-2			С	ALL (color)	145 <0-225>	М		10	
271-3			К	ALL (color)	150 <0-225>	М		10	
272-0	Transfer	1st transfer roller bias actual value	Y	ALL (color)	135 <0-225>	М	Displays the value of 1st transfer roller bias when printing is operated.	10	
272-1		display (Thick paper 2)	M	ALL (color)	140	М		10	
272-2		(	C	ALL (color)	145	М		10	
272-3			К	ALL (color)	150 <0-225>	М		10	

Adjustment mode (05)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
273-0	Transfer	1st transfer roller bias actual value	Y	ALL (color)	135 <0-225>	М	Displays the value of 1st transfer roller bias when printing is operated.	10			
273-1		display (Thick paper 3)	М	ALL (color)	140 <0-225>	М		10			
273-2			С	ALL (color)	145 <0-225>	М		10			
273-3			К	ALL (color)	150	м		10			
274-0	Transfer	1st transfer roller	Y	ALL (color)	135	М	Displays the value of 1st transfer	10			
274-1		display (OHP film)	М	ALL (color)	140	М		10			
274-2			С	ALL (color)	145	М		10			
274-3			К	ALL (color)	150	М		10			
275	Transfer	2nd transfer roller bias actual value (When cleaning	(+)	ALL	137 <0-255>	M	Displays the value of 2nd transfer roller bias when printing is operated.	2			
276		the roller)	(-)	ALL	196 <0-255>	М		2			
277-0	Transfer	2nd transfer roller bias actual value	Single side	ALL (black)	143 <0-158>	М	Displays the value of 2nd transfer roller bias when printing is operated.	10			
277-1		display (Plain paper)	Reverse side at duplexing	ALL (black)	116 <0-158>	М		10			
277-2			Single	ALL (color)	137 <0-158>	м		10			
277-3			Reverse side at duplexing	ALL (color)	113 <0-158>	М		10			
279-0	Transfer	2nd transfer roller bias actual value	Single side	ALL (black)	137 <0-158>	М	Displays the value of 2nd transfer roller bias when printing is operated.	10			
279-1		display (Thick paper 1)	Reverse side at duplexing	ALL (black)	107 <0-158>	М		10			
279-2			Single side	ALL (color)	119 <0-158>	М		10			
279-3	•		Reverse side at duplexing	ALL (color)	107 <0-158>	М		10			
284	Transfer	Transfer belt clean contact timing adju	ing unit Istment	ALL	141 <88-168>	М	When the value increases, the contact timing of transfer belt cleaning unit is delayed.	1			
285	Transfer	Transfer belt clean release timing adju	ing unit Istment	ALL	141 <88-168>	М	When the value increases, the release timing of transfer belt cleaning unit is delayed.	1			
290-0	Transfer	2nd transfer roller offsetting adjustme	bias ent	ALL (black)	143 <0-158>	М	Displays the value of 2nd transfer roller bias when printing is operated.	10			
290-1		(Thick paper 2)		ALL (color)	137 <0-158>	М		10			

Adjustment mode (05)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
291-0	Transfer	2nd transfer roller	bias	ALL	143	М	Displays the value of 2nd transfer	10			
		offsetting adjustme	ent	(black)	<0-158>		roller bias when printing is operated.				
291-1		(Thick paper 3)		ALL	137	M		10			
				(color)	<0-158>						
292-0	Transfer	2nd transfer roller	bias	ALL	113	M	Displays the value of 2nd transfer	10			
		offsetting adjustme	ent	(black)	<0-158>		roller bias when printing is operated.				
292-1		(OHP film)			107	M		10			
000.0	Turneter		Disia	(color)	<0-158>	N.4		14			
293-0	Iransier	bias correction of	Plain	ALL	95		Corrects the 2nd transfer roller bias	14			
203-1		leading/trailing	Thick	ΔΗ	×0-255> 75	м	naper (05-227, 229, 230, 231 and	1/			
290-1		edge of paper	nanor 1		/J _0_255>		232)	14			
293-2			Thick	ALI	80	м	Correcting factor: %	14			
200 2			paper 2	,	<0-255>						
293-3			Thick	ALL	80	м		14			
			paper 3		<0-255>						
293-4	-		OHP film	ALL	80	М		14			
					<0-255>						
294-0	Transfer	Actual value	Single	ALL	146	М	Displays the value of 2nd transfer	10			
		display of 2nd	side	(black)	<0-255>		roller bias on the leading/trailing				
294-1		transfer roller bias	Reverse	ALL	124	М	edge of paper when printing is	10			
		of leading/trailing	side at	(black)	<0-255>		performed.				
		edge of paper	duplex				(The value corrected in 05-293 is				
	-	(Plain paper)	printing				displayed.)				
294-2			Single	ALL	141	М		10			
004.0	-		SIDE	(color)	<0-255>	NA		10			
294-3			Reverse	ALL (color)	121			10			
			dunlex		<0-2002						
			printing								
296-0	Transfer	Actual value	Single	ALL	144	м		10			
		display of 2nd	side	(black)	<0-255>						
296-1	-	transfer roller bias	Reverse	ALL	122	М		10			
		of leading/trailing	side at	(black)	<0-255>						
		edge of paper	duplex								
		(Thick paper 1)	printing								
296-2			Single	ALL	131	M		10			
			side	(color)	<0-255>						
296-3			Reverse	ALL	122	М		10			
			side at	(color)	<0-255>						
			orinting								
207-0	Transfor	Actual value displa	printing v of 2nd		1/6	м		10			
		transfer roller bias	of	(black)	<0-255>						
297-1	-	leading/trailing edg	e of	ALL	141	М		10			
		paper (Thick paper	r 2)	(color)	<0-255>						
298-0	Transfer	Actual value displa	y of 2nd	ALL	146	М		10			
		transfer roller bias	of	(black)	<0-255>						
298-1	1	leading/trailing edg	ge of	ALL	141	М		10			
		paper (Thick paper	r 3)	(color)	<0-255>						

Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
299-0	Transfer	Actual value display	of 2nd	ALL	121	М	Displays the value of 2nd transfer	10		
	-	transfer roller bias o	f	(black)	<0-255>		roller bias on the leading/trailing edge			
299-1		leading/trailing edge	of	ALL	116	M	of paper when printing is performed.	10		
		paper (OHP film)		(color)	<0-255>		(The value corrected in 05-293 is			
305	Scanner	Image location adju	etmont	ΔΗ	12/	975	When the value increases by "1" the	1		
000	Ocariner	of secondary scanni	na		<92-164>	010	image shifts by approx 0 137mm			
		direction					toward the trailing edge of the paper.			
		(scanner section)					3 · 3 · 9 · 1			
306	Scanner	Image location adju	stment	ALL	113	SYS	When the value increases by "1", the	1		
		of secondary scanni	ng		<0-255>		image shifts by approx. 0.0423mm			
		direction					toward the front side of the paper.			
		(scanner section)								
308	Scanner	Distortion mode		ALL	-	-	Moves carriages to the adjusting	6		
000.0	luce	lasses averally .	V				position. ( Chapter 3. 4. 4.)	4		
330-0	Image	Image quality	Ŷ	ALL	3	IVI	Sets the maximum correction number	4		
330-1	Control	cioseu-ioop	М		<0-200>	N/	closed-loop control mode 2			
000-1		voltage correction/	IVI		<0-255>	111		-		
330-2	1	Mode 2 maximum	С	ALL	3	м		4		
		number of time	-		<0-255>					
330-3		corrected -	К	ALL	3	М		4		
					<0-255>					
331-0	Image	Image quality	Y	ALL	2	М	Sets the maximum correction number	4		
	control	closed-loop			<0-255>		of time of the laser power in the			
331-1		control laser	М	ALL	2	M	closed-loop control mode 2.	4		
221.0	-	Mode 2 maximum	<u> </u>		<0-255>	N4				
551-2		number of time	U		<0-255>	IVI		4		
331-3	-	corrected _	К	ALL	2	M		4		
					<0-255>					
332-0	Image	Image quality	Y	ALL	1	М	Sets the maximum correction number	4		
	control	closed-loop			<0-255>		of time of the contrast voltage in the			
332-1		control contrast	М	ALL	1	M	closed-loop control mode 1.	4		
000.0	-	voltage correction/			<0-255>					
332-2		Node I maximum	C	ALL	-0.255	IVI		4		
332-3	-	corrected	к	ALI	1	M		4		
002 0			i v	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<0-255>					
333-0	Image	Image quality	Y	ALL	1	М	Sets the maximum correction number	4		
	control	closed-loop			<0-255>		of time of the laser power in the			
333-1	1	control laser	М	ALL	1	М	closed-loop control mode 1.	4		
		power correction/			<0-255>					
333-2		Mode 1 maximum	С	ALL	1	M		4		
200.0	-	number of time	V		<0-255>	N /				
333-3		Corrected	n	ALL	-0-255	IVI		4		
334	Image	Main charger grid ca	alibration	ALI	300	м	Transformer output calibration of the	1		
	control	voltage 1 (low)			<270-330>		main charger grid bias. When	'		
335	Image	Main charger grid ca	alibration	ALL	1200	М	replacing the high-voltage trans-	1		
	control	voltage 2 (high)			<1080-		former, the values listed in attached			
					1320>		data sheet are entered. (Unit: V)			

Adjustment mode (05)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
338	Image control	Color developer bi calibration voltage	as DC (-) 1 (low)	ALL	100 <85-115>	М	Transformer output calibration of the color developer bias. When replacing	1			
339	Image control	Color developer bi calibration voltage	as DC (-) 2 (high)	ALL	900 <810-990>	М	the high-voltage transformer, the values listed in attached data sheet are entered. (Unit: V)	1			
340	Scanner	Reproduction ratio adjust- ment of secondary scanning direction (scanner section)		ALL	127 <0-255>	SYS	When the value increases by "1", the reproduction ratio in the secondary scanning direction (vertical to paper feeding direction) increases by approx. 0.223%.	1			
354	RADF	Adjustment of for single- RADF paper sided alignment original		ALL	10 <0-20>	SYS	When the value increases by "1", the aligning amount increases by approx. 0.5mm.	1			
355			for double sided original	ALL	10 <0-20>	SYS		1			
356	RADF	Automatic adjustm RADF sensor and initialization	ent of EEPROM	ALL	-	SYS	Performs the adjustment and initialization when the RADF board or RADF sensor is replaced.	6			
357	RADF	Fine adjustment of RADF transport speed		ALL	50 <0-100>	SYS	When the value increases by "1", the reproduction ratio of the secondary scanning direction on original (fed from the RADF) increases by approx. 0.1%.	1			
358	RADF	RADF sideways deviation adjustment		ALL	128 <0-255>	SYS	When the value increases by "1", the image of original fed from the RADF shifts toward the rear side of paper by approx. 0.0423mm.	1			
359	Scanner	Carriage position a during scanning from	adjustment om RADF	ALL (black)	128 <0-255>	SYS	When the value increases by "1", the carriage position shifts by approx. 0.1	1			
360				ALL (color)	128 <0-255>	SYS	mm toward the exit side when using the RADF.	1			
363	Scanner	Data transfer of characteristic valu scanner / SYS boa board	e of ırd -> SLG	SCN	-	SYS	Transfers the characteristic values of the scanner (shading correction factor / RGB color correction / reproduction ratio color aberration correction) from the NVRAM of the SYS board to the NVRAM of the SLG board.	6			
364	Scanner	Data transfer of characteristic value of scanner / SLG board -> SYS board		SCN	-	SYS	Transfers the characteristic values of the scanner (shading correction factor / RGB color correction / reproduction ratio color aberration correction) from the NVRAM of the SLG board to the NVRAM of the SYS board.	6			
365	RADF	RADF leading edge position adjustment	for single- sided original	ALL	50 <0-100>	SYS	When the value increases by "1", the copied image of original fed from the RADF shifts toward the trailing edge	1			
366			for double sided original	ALL	50 <0-100>	SYS	of paper by approx. 0.1mm.	1			

Adjustment mode (05)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
367	RADF	adjustment (Minimum)		ALL	-	-	Stores the current width of RADF original guide by keying in this code with the guide set at the minimum width. Perform this adjustment when the RADF board or volume is replaced, or when the code (05-356) is performed.	6			
368	RADF	RADF original guide width adjustment (Maximum)		ALL	-	-	Stores the current width of RADF original guide by keying in this code with the guide set at the maximum width. Perform this adjustment when the RADF board or volume is replaced, or when the code (05-356) is performed.	6			
372	Image control	Black developer bias DC (-) calibration voltage 1 (low)		ALL	100 <85-115>	M	Transformer output calibration of the black developer bias. When replac- ing the high-voltage transformer, the	1			
373	Image control	Black developer bia (-) calibration voltag (high)	s DC e 2	ALL	900 <810-990>	M	values listed in attached data sheet are entered. (Unit: V)	1			
380-0	Image control	Image quality open-loop control/	Y	ALL	320 <0-999>	М	Displays the contrast voltage initial value set by the open-loop control.	10			
380-1		contrast voltage	М	ALL	330 <0-999>	М	(Unit: V)	10			
380-2		display	С	ALL	340 <0-999>	М	-	10			
380-3		-	К	ALL	375 <0-999>	М		10			
381-0	Image control	Contrast voltage actual value	Y	ALL	320 <0-999>	М	Displays the contrast voltage when printing is operated. (Unit: V)	10			
381-1		display	М	ALL	330 <0-999>	М		10			
381-2		-	С	ALL	340 <0-999>	М		10			
381-3		-	К	ALL	375 <0-999>	М		10			
382-0	Image control	Image quality open-loop control/	Y	ALL	408 <0-999>	М	Displays the laser power initial value set by the open-loop control.	10			
382-1		laser power initial	М	ALL	408 <0-999>	М	(Unit: μW)	10			
382-2		-	С	ALL	408 <0-999>	М		10			
382-3		-	К	ALL	408	М		10			
383-0	Image	Laser power	Y	ALL	92	М	Displays the laser power when	10			
383-1		display	М	ALL	92	М	printing to operated. (bit value)	10			
383-2		-	С	ALL	92	М		10			
383-3		-	К	ALL	92 <0-255>	м		10			

	Adjustment mode (05)										
Code	Classifi- cation	ltems		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
384-0	Image	Laser power	Y	ALL	408	М	Displays the laser power when	10			
	control	actual value			<0-999>		printing is operated. (Unit: μW)				
384-1		display	М	ALL	408	М		10			
					<0-999>						
384-2			С	ALL	408	М		10			
					<0-999>						
384-3			K	ALL	408	М		10			
					<0-999>						
385-0	Image	Main charger grid	Y	ALL	78	M	Displays the main charger grid bias	10			
	control	bias actual value			<0-255>		when printing is operated. (bit value)				
385-1		display	М	ALL	84	M		10			
					<0-255>						
385-2			С	ALL	87	M		10			
					<0-255>						
385-3			K	ALL	94	M		10			
					<0-255>						
386-0	Image	Developer bias	Y	ALL	135	M	Displays the developer bias when	10			
	control	DC (-) actual			<0-255>		printing is operated. (bit value)				
386-1		value display	М	ALL	137	M		10			
					<0-255>						
386-2			С	ALL	139	M		10			
					<0-255>						
386-3			K	ALL	146	М		10			
					<0-255>						
388	Image	Output value	When	ALL	0	M	Displays the output value of image	2			
	control	display of image	the light		<0-1023>		quality sensor when the sensor light				
		quality sensor	source is				source is OFF.				
			OFF								
389			Transfer	ALL	0	M	Displays the output value of image	2			
			belt		<0-1023>		quality sensor (when there is no test				
			surface				pattern) on the transfer belt.				
390-0			High-	ALL	0	M	Displays the output value of image	10			
			density		<0-1023>		quality sensor when a high-density				
			pattern Y				test pattern is written.				
390-1			High-	ALL	0	M	The larger the value is, the smaller	10			
			density		<0-1023>		the toner amount adhered becomes.				
			pattern M								
390-2			High-	ALL	0	M		10			
			density		<0-1023>						
			pattern C								
390-3			High-	ALL	0	M		10			
			density		<0-1023>						
			pattern K								

Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
391-0	Image control	Output value display of image	Low- density	ALL	0 <0-1023>	М	Displays the output value of image quality sensor when a low-density test pattern is written	10		
391-1	-		Low- density pattern M	ALL	0 <0-1023>	М	The larger the value is, the smaller the toner amount adhered becomes.	10		
391-2	-		Low- density pattern C	ALL	0 <0-1023>	М		10		
391-3			Low- density pattern K	ALL	0 <0-1023>	М		10		
392	Image control	Light amount adju result of image qu sensor	stment ality	ALL	0 <0-255>	М	The LED light amount adjustment value of this sensor is the reference value to set the reflected light from the belt surface.	2		
393	Image control	Relative humidity of during latest close control	display d-loop	ALL	0 <0-100>	М	Displays the relative humidity at the latest performing of the closed-loop control.	2		
394	Image control	Enforced performi image quality oper control	ng of n-loop	ALL	-	М	Performs the image quality open-loop control.	6		
395	Image control	Enforced performing of image quality closed-loop control		ALL	-	М	Performs the image quality closed- loop control.	6		
396	Image control	Image quality cont initialization	rol	ALL	-	М	Performs the image quality control, initialize each control value.	6		
398-0	Image control	Target value of the high image density	e Y /	ALL	255 <220-330>	М	Sets the target value of high image density control at the time of the	4		
398-1		control	М	ALL	280 <220-330>	М	image quality control.	4		
398-2			С	ALL	295 <220-330>	М		4		
398-3			К	ALL	370 <300-420>	М		4		
401	Laser	Fine adjustment o nal motor rotation	f polygo- speed	PRT	134 <0-255>	М	When the value increases by "1", the reproduction ratio of primary scan-	1		
405		(reproduction ratio ment)	adjust-	PPC	135 <0-255>	М	ning direction increases by approx. 0.07%. (approx. 0.1mm/step)	1		
410	Laser	Adjustment of prin scanning laser wri	nary ting start	PPC	128 <0-255>	М	When the value increases by "1", the writing start position shifts to the front	1		
411	1	position	-	PRT	120 <0-255>	М	side by approx. 0.0423mm.	1		
417-0	Image	Color deviation correction 1	К	ALL	127 <118-138>	М	When the value increases by "1", the image shifts toward the trailing edge	4		
417-1	1		С	ALL	127 <118-138>	М	of the paper by 0.0423 mm (effective for all pages of continuous printing).	4		
417-2			М	ALL	128 <118-138>	М		4		
417-3	1		Y	ALL	129 <118-138>	М	•	4		

Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
418-0	Image	Color deviation correction 2	К	ALL	130 <118-138>	М	When the value increases by "1", the image shifts toward the trailing edge	4		
418-1		-	С	ALL	128	М	of the paper by 0.0423 mm (effective	4		
418-2		-	М	ALL	128	М	the continuous printing).	4		
418-3		-		ΔΗ	<118-138>			4		
410-5			'		<118-138>			-		
421	Drive	Adjustment of seco	ndary	PPC	127	М	When the value increases by "1", the	1		
		scanning direction I	reproduc-	/PRT	<0-255>		reproduction ratio of secondary			
422		tion ratio (fine adjus	stment of	FAX	128	M	scanning direction increases by	1		
		main motor speed)			<0-255>		approx. 0.04%.			
424	Drive	Fine adjustment of	exit	PPC	107	M	When the value increases by "1", the	1		
405		motor speed		/PRI	<0-255>		rotation becomes faster by approx.			
425				FAX	EUR: 140	IVI	0.05%.			
					IDNI: 120					
					Others					
					140					
					<0-255>					
426	Drive	Adiustment of seco	ndarv	PPC	153	м	When the value increases by "1". the	1		
		scanning direction i	reproduc-	/PRT	<0-255>		reproduction ratio of secondary			
427	-	tion ratio (fine adjus	stment of	FAX	139	М	scanning direction increases by	1		
		transport motor spe	ed)		<0-255>		approx. 0.04%.			
430	Image	Top margin adjustm	nent	PPC	26	М	When the value increases by "1", the	1		
		(blank area at the le	eading		<0-255>		blank area becomes wider by approx.			
		edge of the paper)					0.0423mm.			
431	Image	Left margin adjustm	nent	PPC	0	M		1		
		(blank area at the le	eft of the		<0-255>					
		paper along the paper	ber							
420	Imaga	Pight margin adjust	mont	PPC	15	N/		- 1		
432	inage	hight margin aujust	intern	FFC	-0-255					
		the naner along the	naner		<0-2002					
		feeding direction)	paper							
433	Image	Bottom margin adju	istment	PPC	43	M		1		
		(blank area at the ti	railing		<0-255>					
		edge of the paper)								
434-0	Image	Bottom margin adju	istment	PPC	EUR: 45	М		4		
		(blank area at the ti	railing	/PRT	UC: 28					
		edge of the paper)			JPN: 28					
		/Reverse side at du	plexing		Others: 45					
10.1		Distance in the second		682	<0-255>					
434-1	Image	Hight margin adjust	ment	PPC /DDT	18	M		4		
		Diarik area at the r	igni of the	/PRI	<0-255>					
		paper along the pa								
		/Reverse side at du	nlexing							
435	Image	Top margin adjustm	nent	PRT	24	м		1		
		(blank area at the le	eading		<0-255>					
		edge of the paper)	Ŭ							

Adjustment mode (05)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
436	Image	Left margin adjus	tment	PRT	0	М	When the value increases by "1", the	1			
		(blank area at the	left of the		<0-255>		blank area becomes wider by approx.				
		paper along the p	aper				0.0423mm.				
		feeding direction)									
437	Image	Right margin adju	stment	PRT	0	M		1			
		(blank area at the	right of the		<0-255>						
		paper along the p	aper								
400		feeding direction)									
438	Image	Bottom margin ac	Justment	PRI	0	IVI		1			
		(blank area at the trailing			<0-255>						
430	Imago	Bottom margin ac	) liustmont	AL 1	108	М	When the value increases by "1" the	1			
435	innaye	(blank area at the	trailing		<0-255		margin increases by approx 0.2 mm				
		edge of the paper along the			<0-2002						
		paper feeding direction)									
		when paper size i	s not								
		specified at bypas	ss feed								
440	Laser	Secondary	Upper	ALL	21	М	When the value increases by "1", the	1			
		scanning laser	drawer		<0-40>		image shifts toward the trailing edge				
441		writing start	Lower	ALL	47	М	of the paper by approx. 0.2 mm.	1			
		position	drawer		<0-80>						
442			Bypass	ALL	22	М		1			
			feeding		<0-40>						
443			LCF	ALL	20	М		1			
					<0-40>						
444			PFP	ALL	20	M		1			
					<0-40>						
445			Duplex	ALL	21	M		1			
449.0	Donor	Deper eligning	teeding	A1 1	<0-40>	N.4	When the value increases by "1" the	4			
440-0	fooding	amount adjust-	LONG	ALL	10		aligning amount increases by approx	4			
448-1	leeuing	ment at the	Middle	ΔΗ	15	м	0.8mm	4			
110 1		registration	size		<0-63>		<paper length=""></paper>	-			
448-2		section (PFP	Short	ALL	15	м	Long size: 330mm or longer	4			
		upper drawer /	size 1		<0-63>		Middle size: 220mm to 329mm				
448-3		Plain paper)	Short	ALL	15	М	Short size 1:205mm to 219mm	4			
			size 2		<0-63>		Short size 2:204mm or shorter				
449-0	Paper	Paper aligning	Long	ALL	15	М		4			
	feeding	amount adjust-	size		<0-63>						
449-1		ment at the	Middle	ALL	15	М		4			
		registration	size		<0-63>						
449-2		section (PFP	Short	ALL	15	M		4			
		lower drawer /	size 1		<0-63>		-				
449-3		Plain paper)	Short	ALL	15	M		4			
450.0	Derer	Dener elleretere	size 2	A	<0-63>	N 4					
450-0	fooding	raper aligning	Long	ALL	10			4			
150.1	reeding	amount aujust-	Middla	<u> </u>	<0-03>	N./	-				
450-1		registration	size		<0-63			+			
450-2		section (Upper	Short	ALI	18	м		4			
		drawer / Plain	size 1		<0-63>						
450-3		paper)	Short	ALL	15	М	-	4			
		. ,	size 2		<0-63>						

e-STUDIO3511/4511 ERROR CODE AND SELF-DIAGNOSTIC MODE 2 - 48

CodeClassifiePaperPaper aligningLong sizeALLTime valuesDefault valuesPAP valuePaper aligning amount increases by approx.Paper due452-1ment at the registrationsizeALL15M valueSomm.ALL15M valueSomm.ALL452-1ment at the registrationsizeALL15M valueSomm.ALL16M valueSomm.ALL452-1ment at the registrationSizeALL15M valueSomm.ALL16M valueSomm.ALL16M valueSomm.ALL30M valueMiddle size: 220mm to 329mmALL30M valueM valueSomm.ALL23M valueMode size: 230mm or longer4455-1ment at the registrationSizeALL23M valueM valueMode size: 230mm or longer4455-2Section (Duplex feeding / Plain paper)SizeALL15M valueM valueM valueMode size: 230mm or longer4458-2Paper feeding / Plain section (Bypass section (Bypass <th colspan="11">Adjustment mode (05)</th>	Adjustment mode (05)										
452-0 feeding feeding amount adjustsPaper 	Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
452-1ment at he registrationNiddle sizeALL15 $< 0.63$ M $< 0.63$ 0.8mm $< 2063$ 4452-2section (Lower paper)ShortALL15 $< 0.63$ M $< 0.63$ Long size: 330mm or longer Middle size: 220mm to 219mm4452-3size 1 $< 0.63$ M $< 0.63$ When the value increases by 1", the $< 0.63$ 4455-1paperPaper aligning ment at the registrationLongALL23 $< 0.63$ M $< 0.63$ Nont size 1:20mm to 219mm4455-1ment at the 	452-0	Paper feeding	Paper aligning amount adjust-	Long size	ALL	15 <0-63>	м	When the value increases by "1", the aligning amount increases by approx.	4		
452-2         registration section (Lower drawer / Planer         size source is section (Lower drawer / Planer         Short size         ALL         15         M consistes: 300mm or longer Middle size: 220mm to 329mm         4           452-3         Paper         Paper aligning ment at the registration paper)         Long         ALL         15         M source 204mm or shorter         4           455-0         Paper         Paper aligning amount adjust- section (Duplax         Long         ALL         23         M short size: 220mm to 329mm         4         4           455-1         ment at the registration paper)         Short         ALL         15         M co-635         M biodie size: 220mm to 329mm         4           455-1         ment at the registration sec- tion (LCF / Plain paper)         Short         ALL         15         M co-635         M co-635         M costise:         219mm or shorter         4           458-0         Paper         Paper aligning amount adjust-ment section (Bypass         Size         -0-635         M co-663         M co-66	452-1		ment at the	Middle	ALL	15	М	0.8mm.	4		
452-2         section (Lower / Plain paper)         Short Size 1         ALL co.63>         Iong size: 30mm or 100per co.603>         All Short size: 120mm to 329mm         All aligning size: 20mm to 329mm         All aligning size: 20mm to 329mm         All aligning size: 20mm to 329mm         All aligning amount of 29mm         All Aligning amount increases by 171; the aligning amount increases by 171; the registration         All size         15         M         Mont size: 120mm to 329mm         All Aligning amount increases by 171; the aligning amount increases by 2000; the registration         4           455-2         ment at the registration         Middle         All         23         M         0.8mm.         4           455-2         ment at the registration         Middle         23         M         0.8mm.         4           455-2         ment at the registration feeding / Plain         Short         All         7         0.8mm.         4           458-2         ment at the registration feeding Plain         Long         All         20         M           458-1         amount adjustment section (Bypass feeding/Plain         Short         All         20         M           460-2         Paper aligning feeding/Plain         Short         All         20         M           461-0         Paper aligning feeding/Plains         Short			registration	size		<0-63>		<paper length=""></paper>			
452-3         endewor / Plain paper)         size Short         ALL size         Co-G3> (	452-2	1	section (Lower	Short	ALL	15	М	Long size: 330mm or longer	4		
452-3paper)ShortALL15MShort size 1: 205mm to 219mm4455-0PaperPaper aligningLongALL23MWhen the value increases by '1', the4455-1ment at theSize-0-63MAll33MAgaper lengths4455-2ment at theShortALL33MCo-63>Co-63>Agaper lengths4456-1ment at the registration sec-0-63>-0-63>Midel size:20mm to 329mm or shorter14570PaperPaperaligning amount adjust mentsize-0-63>MPostard is supported only for JPN14580Paper aligningLongALL20M-0-63>Midel size:219mm or shorter44600Paper aligningLongALL20M-0-63>Midel-0-63>-4600-1Paper aligningLongALL20M-0-63>4600-1Paper aligningLongALL20M4600-1Paper aligningLongALL20M4600-1Paper aligningLongALL20M4600-1Paper aligningLongALL20M4600-1Paper aligningLongALL20M4600-1Paper aligningLongALL20M4610-1			drawer / Plain	size 1		<0-63>		Middle size: 220mm to 329mm			
Image: size size size size size size size size	452-3		paper)	Short	ALL	15	М	Short size 1:205mm to 219mm	4		
455-0 feeding feedingPaper amount adjust- sizeLung sizeALL23 co-63sM aligning amount increases by "1", the aligning amount increases by "1", the <br< td=""><td></td><td></td><td></td><td>size 2</td><td></td><td>&lt;0-63&gt;</td><td></td><td>Short size 2: 204mm or shorter</td><td></td></br<>				size 2		<0-63>		Short size 2: 204mm or shorter			
feeding 455-1feeding ment at the registration paper)Niddle sizeALL23 co-63> co-63>aligning amount increases by approx.4455-2Nome registration paper)ShortALL33 co-63>MO.8mm.4455-2Section (Duplex teeding / Plain paper)ShortALL33 co-63>MUng size:300m or longer Midel esize:4457Paper teeding / Plain ment at the registration section (LCF / Plain paper)ALL15 co-63>MNotel size:200m to soft size:14580Paper feeding amount adjustment at the registration paper)LongALL20 co-63>M44600Paper feeding/Plain amount adjustment section (Bypass sizeShortALL20 co-63>M446001Paper feeding/Plain section (Bypass section (Bypass section (Bypass sizeNotelALL20 co-63>M46101Paper feeding/Plain section (Bypass section (Bypass 	455-0	Paper	Paper aligning	Long	ALL	23	М	When the value increases by "1", the	4		
455-1ment at the registrationMiddle sizeALL2.3M $< 0.63.3$ 0.8mm.4455-2section (Duplex feeding / Plainsize $< 0.63.3$ M $< 0.63.3$ Long size: 300mm or longer Middle size: 219mm or shorter4457Paper feeding registration in (LCF / Plain paper)ALL15 $< 0.63.3$ M $< 0.63.3$ Short size: 219mm or shorter Short size: 219mm or shorter1458:0Paper feeding regeringPaper aligning amount adjust- amount adjustmentALL20 $< 0.63.3$ M $< 0.63.3$ Nodel.4458:0Paper feeding amount adjustmentSize $< 0.63.3$ M $< 0.63.3$ N $< 0.63.3$ N $< 0.63.3$ N $< 0.63.3$ A $< $		feeding	amount adjust-	size		<0-63>		aligning amount increases by approx.			
455-2registration section (Duplex paper)size $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.633$ $< 0.6$	455-1		ment at the	Middle	ALL	23	М	0.8mm.	4		
455-2         section (Duplex feeding / Plain paper)         Short size         ALL oregize: oregize         33 Middle size: size: oregize: bion (LC-P / Plain paper)         Mathef Short size: oregize: bion (LC-P / Plain paper)         ALL oregize: oregize: oregize: bion (LC-P / Plain paper)         Mathef Short oregize: oregize: bion (LC-P / Plain paper)         Mathef Short oregize: oregize: bion (LC-P / Plain paper)         Mathef Short oregize: bion (LC-P / Plain paper)         Mathef Short oregize: bion (LC-P / Plain paper)         Mathef Short oregize: bion (LC-P / Plain paper)         Mathef Short         Mathef Short oregize: bion (LC-P / Plain paper)         Mathef Short         <			registration	size		<0-63>		<paper length=""></paper>			
Image: feeding / Plain paper)size paper) $-0-63.$ Short size: 219mm or shorter457Paper feeding amount adjustmentALL15 $-0-63.$ Middle size: 220mm to 329mm or shorter1 model.458-0Paper feeding amount adjustmentLong sizeALL20 $-0-63.$ M $-0-63.$ 4458-1Paper aligning amount adjustmentLong sizeALL20 $-0-63.$ M $-0-63.$ 4458-2Paper aligning reding/PlainShortALL20 $-0-63.$ M $-0-63.$ 4460-0Paper feeding/PlainShortALL20 $-0-63.$ M $-0-63.$ 4460-1 feeding/Plain feeding/PlainSize $-0-63.$ M $-0-63.$ 4460-1 feeding/ThickMiddleALL20 $-0-63.$ M $-0-63.$ 4460-1 feeding/ThickSize $-0-63.$ M $-0-63.$ 4461-1 feeding/ThickSize $-0-63.$ M $-0-63.$ 4462-2 feeding/ThickSize $-0-63.$ M $-0-63.$ 4462-3 reeding/ThickSize $-$	455-2		section (Duplex	Short	ALL	33	М	Long size: 330mm or longer	4		
Image in the set in the registration section (LCF / Plain paper)ALL15NMShort size: 219mm or shorterPaper aligning mount adjust is supported only for JPN1458-0PaperPaper aligningLongALL20MAmount adjust is ze-0-63>-0-0458-1if eeding/PlainMiddleALL20M-0			feeding / Plain	size		<0-63>		Middle size: 220mm to 329mm			
457 feedingPaper aligning amount adjust ment at the registration sec- tion (LCF / Plain paper)Long or 0-63>ALL15 or 0-63>Model.Postcard is supported only for JPN1458-0 feeding 458-1Paper feeding/PlainLong section (Bypass sizeLong section (Bypass sizeALL20 or 0-63>MALL20 or 0-63>M458-1 feeding/PlainShort and the registration paper)Short sizeALL20 or 0-63>MM460-0 feeding/Thick feeding/Thick feeding/Thick feeding/Thick feeding/Thick section (Bypass sizeSizeCo-63> or 0-63>M460-2 feeding/Thick feeding/Thick feeding/Thick feeding/Thick section (Bypass sizeNLL20 or 0-63>M461-1 feeding/Thick feeding/Thick feeding/Thick feeding/Thick section (Bypass sizeSizeNLL20 or 0-63>M461-1 feeding/Thick feeding/Thick feeding/Thick feeding/Thick section (Bypass sizeSizeNLL20 or 0-63>M461-1 feeding/Thick feeding/Thick feeding/Thick feeding/Thick section (Bypass section (Bypa			paper)					Short size: 219mm or shorter			
	457	Paper	Paper aligning amo	unt adjust-	ALL	15	М	* Postcard is supported only for JPN	1		
458-0 feedingPaper amount adjustmentLong sizeALL20 co-63>M co-63>458-1 feeding/PlainMiddle section (BypassALL20 sizeM co-63>4458-2 feeding/PlainShott paper)ALL20 sizeM co-63>4460-0 feedingPaper aligning teeding/PlainLong sizeALL20 co-63>M co-63>4460-1 feedingPaper aligning teeding/ThickLong sizeALL20 co-63>M co-63>4460-2 feeding/Thick feeding/ThickShort sizeALL20 co-63>M co-63>4461-0 feeding/Thick feeding/ThickMiddle sizeALL20 co-63>M co-63>4461-1 feeding/Thick feeding/ThickMiddle sizeALL20 co-63>M co-63>4461-2 feeding/Thick paper 2)SizeALL20 co-63>M co-63>4461-2 feeding/Thick paper 2)SizeALL20 co-63>M co-63>4462-2 feeding/Thick paper 3)Short sizeALL20 co-63>M co-63>4462-1 feeding/Thick paper 3)Short sizeALL20 co-63>M co-63>4463-1 ment at the paper 3)Post sizeALL20 co-63>M co-63>4463-1 ment at the registration ment at the registration sizeMiddle co-63>M co-63>446		feeding	ment at the registr	ation sec-		<0-63>		model.			
458-0 feeding         Paper amount adjustment at the registration feeding/Plain         Long size         ALL Co         20 Co         M         41         41           458-1         Atthe registration feeding/Plain         Middle         ALL         20 Co         M         4         4         4           458-2         Feeding/Plain         Short         ALL         20 Co         M         4         4         4           460-0         Paper         Paper aligning teeding/Thick         Long         ALL         20 Co         M         4         4         4           460-1         Feeding         anount adjustment size         size         -         -         -         6         4         4         4           460-1         Feeding/Thick         Short         ALL         20 Co         M         4         4         4         4           460-1         Paper         Paper aligning amount adjustment size         Size         -         -         -         6         4         -         4         -         4         -         4         -         4         -         -         -         -         -         -         -         -         -         -         - </td <td></td> <td></td> <td>tion (LCF / Plain pa</td> <td>per)</td> <td></td> <td></td> <td></td> <td></td> <td></td>			tion (LCF / Plain pa	per)							
feedingamount adjustmentsize $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ $< -0-63>$ <t< td=""><td>458-0</td><td>Paper</td><td>Paper aligning</td><td>Long</td><td>ALL</td><td>20</td><td>М</td><td></td><td>4</td></t<>	458-0	Paper	Paper aligning	Long	ALL	20	М		4		
458-1     at the registration     Middle     ALL     20     M     4       458-2     action (Bypass)     size     -0-63>     4       460-0     Paper     Paper aligning     Long     ALL     20     M       460-0     feeding/     Paper aligning     Long     ALL     20     M       460-1     feeding     amount adjustment     size     -0-63>     -       460-2     feeding/Thick     Short     ALL     20     M       460-2     feeding/Thick     Short     ALL     20     M       461-0     paper 1)     size     -0-63>     -       461-0     Paper     Paper aligning     Long     ALL     20     M       461-1     paper 1)     size     -0-63>     -     -       461-1     feeding/Thick     Short     ALL     20     M       461-1     paper 2)     size     -0-63>     -       461-1     paper 2)     size     -0-63>     -       462-0     Paper     Paper aligning     Long     ALL     17     M       462-0     Paper aligning     Long     ALL     20     M       462-0     registration     size     -0-63><		feeding	amount adjustment	size		<0-63>					
458-2section (Bypass) feeding/Plainsize $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ $< -0-63 >$ <th< td=""><td>458-1</td><td></td><td>at the registration</td><td>Middle</td><td>ALL</td><td>20</td><td>М</td><td></td><td>4</td></th<>	458-1		at the registration	Middle	ALL	20	М		4		
458-2feeding/Plain paper)Short sizeALL $< 0.63>$ 20M4460-0Paper feedingPaper aligning amount adjustment section (BypassLong sizeALL $< 0.63>$ 20M4460-1action (Bypass feeding/ThickMiddle sizeALL $< 0.63>$ 20M4460-2feeding/Thick paper 1)Short sizeALL $< 0.63>$ 1044461-0Paper amount adjustment section (BypassShort sizeALL $< 0.63>$ 104461-1Paper amount adjustment section (BypassMiddle sizeALL $< 0.63>$ 20M461-2Paper aligning teeding/Thick ment at the registration feedingMiddle sizeALL $< 0.63>$ 104462-1ment at the registration paper 3)Short sizeALL $< 0.63>$ 20M462-2Paper amount adjust- sizeShort sizeALL $< 0.63>$ 104462-1ment at the registration paper 3)Short sizeALL $< 0.63>$ 104462-2Paper amount adjust- section (Bypass feeding/Thick sizeALL $< 0.63>$ 104463-0Paper registration 			section (Bypass	size		<0-63>					
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461-2section (Bypass feeding/Thick paper 2)size<-0-63>M462-0Paper feedingPaper aligning amount adjust- registrationLong sizeALL <-0-63>20M462-1Ment at the registrationMiddle sizeALL <-0-63>20M462-2Ment at the registrationMiddle sizeALL <-0-63>20M462-3Paper 3)Post registrationALL size20 <-0-63>M462-3Paper 3)Post registrationALL size20 <-0-63>M463-0Paper registrationShort sizeALL <-0-63>M463-1Paper registrationSize<-0-63>M463-1Paper registrationSize<-0-63>M463-2Paper aligning registrationLong sizeALL <-0-63>M463-1Paper aligning registrationSize<-0-63>M463-2Short at the registrationSize<-0-63>M463-1Ment at the registrationMiddle sizeALL <-0-63>M463-2Section (Bypass registrationShort sizeALL <-0-63>M463-2Section (Bypass registrationShort sizeALL <-0-63>M463-2Section (Bypass registrationShort sizeALL <-0-63>M463-2Short registrationShort sizeALL <-0-63>M463-2Short <br< td=""><td>461-1</td><td></td><td>at the registration</td><td>Middle</td><td>ALL</td><td>20</td><td>М</td><td></td><td>4</td></br<>	461-1		at the registration	Middle	ALL	20	М		4		
461-2feeding/ThickShortALL17Mpaper 2size<0-63>462-0PaperPaper aligningLongALL20Mfeedingamount adjust-size<0-63>462-1ment at theMiddleALL20Mregistrationsize<0-63>462-2section (BypassShortALL20Mfeeding/Thicksize<0-63>462-3paper 3)PostALL16Mcard<0-63>463-0Paperpaper aligningLongALL20Mfeedingamount adjust-size<0-63>463-1ment at theMiddleALL20Mfeedingamount adjust-size<0-63>463-2section (BypassShortALL20Mfeedingamount adjust-size<0-63>463-2section (BypassShortALL20Mfeeding/OHP film)size<0-63>463-2section (BypassShortALL20Mfeeding/OHP film)size<0-63>		-	section (Bypass	size		<0-63>					
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462-2section (Bypass feeding/Thick paper 3)Short sizeALL      card20        	462-1				ALL	20	IVI		4		
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462-3     paper 3)     Post ALL 16 M     4       463-0     Paper aligning feeding amount adjustment at the registration size     Long ALL 20 M     4       463-1     Middle ALL 20 M     4     4       463-2     Section (Bypass feeding/OHP film) size     Short ALL 20 M     4	402-2		section (Bypass	Short	ALL	20	IVI		4		
462-3       paper 3)       Post of card       10       M       4         463-0       Paper aligning amount adjust- feeding amount adjust- ment at the registration       size       20       M       4         463-1       Middle       ALL       20       M       4       4         463-2       Exection (Bypass feeding/OHP film)       Size       <-0-63>       4       4	460.0	-	neper 2)	Beet	A I I	<0-03>	N4				
463-0     Paper     Paper aligning amount adjust- registration     Long size     ALL CO-63>     20 CO-63>     M       463-1     Mindle     ALL     20 CO-63>     M     4       463-2     Extra the registration     Middle     ALL     20 CO-63>     M       463-2     Extra the registration     Short     ALL     20 CO-63>     M       463-2     Extra the registration     Short     ALL     20 CO-63>     M	402-3			card		<0-62>			4		
463-1     feeding     amount adjust- ment at the     size     <0-63>       463-2     Ketting     Size     <0-63>       463-2     Ketting     Size     <0-63>       463-2     Ketting     Size     <0-63>       463-2     Ketting     Short     ALL     20     M       463-2     Ketting     Short     ALL     20     M       463-2     Ketting     Short     ALL     20     M	463-0	Panor	Paper aligning		ΔΠ	20	M				
463-1     ment at the     Middle     ALL     20     M       463-2     section (Bypass Short ALL 20 M feeding/OHP film) size     <0-63>     4	-03-0	feeding	amount adjust-	size		<0-63>			-		
463-2     registration     size     <0-63>       463-2     section (Bypass     Short     ALL     20     M       463-2     feeding/OHP film)     size     <0-63>     4	463-1		ment at the	Middle		20	М		4		
463-2     section (Bypass     Short     ALL     20     M       feeding/OHP film)     size     <0-63>			registration	size		<0-63>	141				
feeding/OHP film) size   <0-63>	463-2	-	section (Bypass	Short	ALL	20	М		4		
			feeding/OHP film)	size		<0-63>					

Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
466-0	Paper	Adjustment of	Plain	ALL	143	М	When the value increases by "1", the	4		
	feeding	paper pushing	paper		<0-255>		driving speed of bypass feed roller			
466-1		amount / Bypass	Post card	ALL	198	M	increases by approx. 0.2 ms when	4		
		feeding			<0-255>		the paper transport is started from			
466-4			Thick	ALL	143	M	the registration section.	4		
	-		paper 1		<0-255>		* Post card is supported only for JPN			
466-5			Thick	ALL	143	м	model.	4		
400.0	-		paper 2	A1 1	<0-255>					
466-6			I NICK	ALL	143			4		
466.7	-			AL 1	<0-255>	N4	-	1		
400-7				ALL	-0-255			4		
467	Paper	Adjustment of pap	or	ΔΗ	128	м	When the value increases by "1" the	1		
407	feeding	nushing amount/D	unlex		<0-255>		driving speed of ADI I transport roller	'		
	localing	feeding (short size	)				increases by approx 0.2 ms when			
			/				the paper transport is started from			
							the registration section.			
468-0	Finisher	Fine adjustment	A4-R	ALL	0	М	When the value increases by "1", the	4		
		of binding position	/LT-R		<-14-14>		binding/folding position shifts toward			
468-1	-	/folding position	B4	ALL	0	М	the right page by 0.25mm.	4		
					<-14-14>					
468-2	-		A3/LD	ALL	0	М		4		
					<-14-14>					
469-0	Paper	Paper aligning	Long	ALL	18	М	When the value increases by "1", the	4		
	feeding	amount adjust-	size		<0-63>		aligning amount increases by approx.			
469-1		ment at the	Middle	ALL	18	M	0.8mm.	4		
		registration	size		<0-63>		<paper length=""></paper>			
469-2		section (Upper	Short	ALL	18	м	Long size: 330mm or longer	4		
400.0	-	drawer / Thick	SIZE 1	A1 1	<0-63>		Middle size: 220mm to 329mm			
469-3		paper I)	Snort	ALL	18		Short size 1:205mm to 219mm	4		
470.0	Papar	Papar aligning		AL 1	<0-03>	N4	Short size 2: 204mm or shorter	1		
+/0-0	feeding	amount adjust-	size		<0-63>			4		
470-1	leeuing	ment at the	Middle	ΔΗ	15	м		4		
		registration	size	,	<0-63>					
470-2	-	section (Lower	Short	ALL	15	М	-	4		
		drawer / Thick	size 1		<0-63>					
470-3	-	paper 1)	Short	ALL	15	М		4		
			size 2		<0-63>					
471-0	Paper	Paper aligning	Long	ALL	15	М		4		
	feeding	amount adjust-	size		<0-63>					
471-1		ment at the	Middle	ALL	15	М		4		
		registration	size		<0-63>					
471-2		section (PFP	Short	ALL	15	M		4		
	-	upper drawer /	size 1		<0-63>			L		
471-3		Thick paper 1)	Short	ALL	15	M		4		
			size 2		<0-63>					

Adjustment mode (05)									
Code	Classifi- cation	ltems		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
472-0	Paper	Paper aligning	Long	ALL	15	М	When the value increases by "1", the	4	
	feeding	amount adjust-	size		<0-63>		aligning amount increases by approx.		
472-1		ment at the	Middle	ALL	15	M	0.8mm.	4	
	-	registration	size		<0-63>		<paper length=""></paper>		
472-2		section (PFP	Short	ALL	15	M	Long size: 330mm or longer	4	
170.0	-	lower drawer /	size 1		<0-63>		Middle size: 220mm to 329mm		
472-3		Thick paper 1)	Short	ALL	15	M	Short size: 219mm or shorter	4	
470		<b>D</b>	size 2		<0-63>		Short size 1:205mm to 219mm		
473	Paper	Paper aligning am	ount	ALL	15	IVI	Short size 2:204mm or shorter		
	reeding	adjustment at the	-		<0-63>		"Post card is supported only for JPN		
		(LOE / Thick name	] 				model.		
474.0	Bapar	(LCF / Thick pape		A1 1	25	N/		1	
474-0	fooding	amount adjust	cizo	ALL	20			4	
171-1	leeuing	mont at the	Middlo	<u> </u>	25	M	-	1	
4/4-1		registration	sizo		2J 20-635			4	
474-2	-	section (ADLL/	Short	ΔΗ	<u>&lt;0-00&gt;</u> 33	м	-	4	
		Thick paper 1)	size		<0-63>	101		-	
475-0	Paper	Paper aligning	Thick	ΔΗ	28	м		4	
4700	feeding	amount adjust-	naper 2		<0-63>				
	looding	ment at the	l ona size						
475-1	-	registration	Thick	ALL	28	м	-	4	
		section (Bypass	paper 2		<0-63>				
		feeding)	Middle						
			size						
475-2	-		Thick	ALL	28	М	-	4	
			paper 2		<0-63>				
			Short						
			size						
475-3			Thick	ALL	28	М		4	
			paper 3		<0-63>				
			Long size						
475-4			Thick	ALL	28	М		4	
			paper 3		<0-63>				
			Middle						
			size						
475-5			Thick	ALL	28	М		4	
			paper 3		<0-63>				
			Short						
	-		size				-		
475-6			OHP film	ALL	24	M		4	
475 -	-		Long size		<0-63>				
4/5-/				ALL	24	M		4	
					<0-03>				
475 0	-			A1 1	04	N.4			
4/5-8			Short	ALL	24 20 625	IVI		4	
			sizo		<0-03>				
475-9	-		Post	ΔΙΙ	28	М	-	4	
			card		<0-63>	141			
			Jaiu						

Adjustment mode (05)								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
494	Laser	Secondary	When	ALL	135	М	When the value increases by "1", the	1
		scanning data	decelerat-		<0-255>		image shifts by approx. 0.2 mm	
		laser writing start	ing to 1/2				toward the trailing edge of the paper.	
495		position	When	ALL	135	M		1
			decelerat-		<0-255>			
	-		ing to 1/3			L		
496			When	ALL	128	M		1
			decelerat-		<0-255>			
407.0	Looor	Adjustment of		AL 1	100	N.4	When the value increases by "1" the	4
497-0	Laser	Adjustment of	Opper	ALL	128	IVI	image shifts toward the front side by	4
/07-1		deviation			128	м		1
437-1		deviation	drawer		<0-255	111	0.0423000	-
497-2			PFP	ALI	128	M		4
107 2			upper	,	<0-255>			
			drawer					
497-3			PFP	ALL	128	М		4
			lower		<0-255>			
			drawer					
497-4			LCF	ALL	128	М		4
					<0-255>			
497-5			Bypass	ALL	128	М		4
			feeding		<0-255>			
498-0	Laser	Adjustment of	Long	ALL	131	М	When the value increases by "1", the	4
		duplex feeding	size		<0-255>		image shifts toward the front side by	
498-1		sideways devia-	Short size	ALL	131	M	0.0423mm.	4
		tion	(A4/LT or		<0-255>			
504	1		smaller)		100	01/0		
501	Image	Density adjustment	Photo	(block)	128	515	of the center step density becomes	
503	-	of "manual	Toxt		<0-200> 109	976	darker	1
505		density"	/Photo	(black)	<0-255>	010	darker.	
504		/Center value	Text	PPC	128	SYS		1
				(black)	<0-255>			
505	Image	Density adjustment	Text	PPC	20	SYS	Sets the changing amount by 1 step	1
		Fine adjustment of	/Photo	(black)	<0-255>		at the density adjustment.	
506	1	"manual density"	Photo	PPC	20	SYS	When the value increases, the image	1
		/Light step value		(black)	<0-255>		of the "light" steps becomes lighter.	
507			Text	PPC	20	SYS		1
				(black)	<0-255>			
508	Image	Density adjustment	Text	PPC	20	SYS	Sets the changing amount by 1 step	1
		Fine adjustment of	/Photo	(black)	<0-255>	<b>a</b> :	at the density adjustment.	
509		"manual density"	Photo	PPC	20	SYS	When the value increases, the image	1
<b>F10</b>		/Dark step value	Taxt	(black)	<0-255>	0.10	of the "dark" steps becomes darker.	
510			iext	(block)	20	515		
510	Imaga	Donoity adjustment	Photo		<0-255>	eve	When the value increases, the image	4
512	maye	Fine adjustment of	FILLO	(black)	120	313	becomes darker	
514	•	"automatic density"	Text	PPC	128	SVS		1
		automatic density	/Photo	(black)	<0-255>	010		'
515	•		Text	PPC	128	SYS		1
			-	(black)	<0-255>			
			A	djustm	ent mode	(05)		
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Code	Classifi- cation	ltems		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
532	Image	Range correction	Text	PPC	40	SYS	When the value increases, the	1
		Background peak	/Photo	(black)	<0-255>		background of the image (low density	
533		adjustment	Photo	PPC	16	SYS	area) becomes harder to be printed	1
				(black)	<0-255>		out.	
534			lext		40	SYS		1
570	Imaga	Dance competion	Tayt	(black)	<0-255>	CVC	Cate whether the velues of the	4
570	Image	Range correction	Iexi /Photo	(block)	22	515	background pack and text pack are	
		manually sot on	FIIOLO	(DIACK)	<11-14, 01-04		fixed or not. Ono's place is an	
		the original glass			21-24,		adjustment for "automatic density"	
		line original glass			41-44\		and ten's place is for "manual	
571			Photo	PPC	12	SYS	density" Once they are fixed the	1
				(black)	<11-14.		range correction is performed with	
					21-24.		standard values. The values of the	
					31-34,		background peak and text peak affect	
					41-44>		the reproduction of the background	
572			Text	PPC	22	SYS	density and text density respectively.	1
				(black)	<11-14,		Background peak Text peak	
					21-24,		1: fixed fixed	
					31-34,		2: varied fixed	
					41-44>		3: fixed varied	
							4: varied varied	
580	Image	Automatic gamma	adjust-	PPC	-	-	Adjusts the gradation reproduction	7
		ment		(black)			automatically.	
590-0	Image	Adjustment of	L	PPC	128	SYS	When the value increases, the	4
		gamma balance		(black)	<0-255>		density in the target area becomes	
590-1		(Text/Photo)	М		128	SYS	higher.	4
500.0				(black)	<0-255>	01/0	L : Low density area	
590-2			н	(block)	128	515	M : Medium density area	4
501.0	Imaga	Adjustment of	I		100	eve		4
591-0	inage		L	(black)	-0-255	313		4
591-1		(Text)	М	PPC	128	SYS		4
0011				(black)	<0-255>			
591-2			н	PPC	128	SYS		4
				(black)	<0-255>			
592-0	Image	Adjustment of	L	PPC	128	SYS		4
		gamma balance		(black)	<0-255>			
592-1		(Photo)	М	PPC	128	SYS		4
				(black)	<0-255>			
592-2			Н	PPC	128	SYS		4
				(black)	<0-255>			
596-0	Image	Adjustment of	L	PRT	128	SYS		4
		gamma balance		(black)	<0-255>			
596-1		(PS/Smooth)	М	PRT	128	SYS		4
				(black)	<0-255>			
596-2			Н	PRT	128	SYS		4
				(black)	<0-255>			

	Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
597-0	Image	Adjustment of	L	PRT	128	SYS	When the value increases, the	4			
		gamma balance		(black)	<0-255>		density in the target area becomes				
597-1		(PS/Detail)	М	PRT	128	SYS	higher.	4			
				(black)	<0-255>		L : Low density area				
597-2			Н	PRT	128	SYS	M : Medium density area	4			
				(black)	<0-255>		H : High density area				
598-0	Image	Adjustment of	L	PRT	128	SYS		4			
		gamma balance		(black)	<0-255>						
598-1		(PCL/Smooth)	М	PRT	128	SYS		4			
				(black)	<0-255>						
598-2			Н	PRT	128	SYS		4			
				(black)	<0-255>						
599-0	Image	Adjustment of	L	PRT	128	SYS		4			
		gamma balance		(black)	<0-255>						
599-1		(PCL/Detail)	М	PRT	128	SYS		4			
				(black)	<0-255>						
599-2			Н	PRT	128	SYS		4			
				(black)	<0-255>						
604	Image	Sharpness	Text	PPC	0	SYS	When the value increases, the image	1			
	-	adjustment	/Photo	(black)	<0-31>		becomes sharper. When the value de-				
605			Text	PPC	0	SYS	creases, the image becomes softer.	1			
	-			(black)	<0-31>	0.10	The smaller the value is, the less the				
606			Photo	PPC	0	SYS	moire becomes.	1			
				(black)	<0-31>		* The default value 0 is equivalent to				
0.40	1		<b>T</b>			01/0	16 (center value).				
648	Image	Adjustment of	Iext (Discussion)	PPC	30	SYS	Adjustment of the smudged/faint text.				
		smudged/faint	/Photo	(біаск)	<0-255>		with increasing the value, the faint text				
		text					is suppressed, and with decreasing it,				
054	Imaga	A diverse and of	DC	пот	5	CVC	the smudged text is suppressed.	-			
004	mage		го		C 0	515	of text becomes wider				
<u>eee</u>	-	smuuyeu/iaim			<0-9>	eve					
055		lexi	FUL	(block)	-0.0	313					
662	Imaga	Dot cizo adjuctmo	nt in block		<0-9>	eve	Adjusts the dat size of primary				
003	Inage	Dot Size aujustine	III III DIACK	(block)	200	313	Aujusts the dot size of primary				
		printing			<0-233>		The smaller the value is the dot				
							hecomes smaller				
664	Image	Linner limit in	PS	PRT	176	SYS	When the value decreases, the	1			
	linage	toner saving	.0	(black)	<0-255	0.0	printing density becomes lighter				
665	-	mode	PCI	PRT	176	SYS		1			
				(black)	<0-255>			'			
				(black)	<0-255>						

	Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
667-0	Image	Setting beam level conversion	Beam level 0/4	PPC (black)	0 <0-255>	M	Sets the beam level for 4 divided smoothing. The primary scanning	4			
667-1			Beam	PPC	63	М	direction is divided into 4 and the dot	4			
			level 1/4	(black)	<0-255>		width is set at the 5 levels (incl. level				
667-2			Beam	PPC	127	М	"0"). The smaller the value is, the	4			
			level 2/4	(black)	<0-255>		smaller the primary scanning				
667-3			Beam	PPC	191	М	direction of the dot becomes.	4			
			level 3/4	(black)	<0-255>						
667-4			Beam	PPC	255	M		4			
		-	level 4/4	(black)	<0-255>						
693	Image	Range correction	Text	PPC	22	SYS	Sets whether the values of the back-	1			
		on original set on	/Photo	(black)	<11-14,		ground peak and text peak are fixed or				
		the RADF			21-24		not. One's place is an adjustment for				
					31-34		"automatic density" and ten's place is				
					41-44>		for "manual density". Once they are				
604			Dhoto	DDC	10	eve	lixed, the range correction is performed	4			
094			FIIOIO	(block)	12	515	The values of the background peak	1			
				(Diack)	<11-14, 01-04		and toxt poak affect the reproduction				
					21-24,		of the background density and text				
					41-445		density respectively				
							Background peak Text peak				
695			Text	PPC	22	SYS	1: fixed fixed	1			
				(black)	<11-14.		2: varied fixed	-			
					21-24,		3: fixed varied				
					31-34		4: varied varied				
					41-44>						
700	Image	Adjustment of	Center	FAX	125	SYS	When the value increases, the image	1			
		binarized thresh-	value	(black)	<0-255>		of center value density becomes				
		old					darker.				
701		(Text)	Light	FAX	20	SYS	Sets the changing amount by 1 step	1			
			step	(black)	<0-255>		at the density adjustment.				
			value				When the value increases, the image				
	-						of "light" side becomes lighter.				
702			Dark	FAX	20	SYS	Sets the changing amount by 1 step	1			
			step	(біаск)	<0-255>		at the density adjustment.				
			value				when the value increases, the image				
710	Imago	Doneity adjust-	Photo	EAY	108	976	When the value increases, the image	1			
	maye	ment "manual	1 11010	(black)	<0-255	013	of the center step density becomes				
		density" fine			<0 <u>2</u> 00>		darker				
714	-	adjustment/Center	Text	FAX	128	SYS		1			
		value	/Photo	(black)	<0-255>						
715	Image	Density adjust-	Photo	FAX	20	SYS	Sets the changing amount by 1 step	1			
		ment "manual		(black)	<0-255>		at the density adjustment.				
		density" fine					When the value increases, the image				
719	1	adjustment/Light	Text	FAX	20	SYS	of the "light" steps becomes lighter.	1			
		step value	/Photo	(black)	<0-255>						

Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
720	Image	Density adjust-	Photo	FAX	20	SYS	Sets the changing amount by 1 step	1	
		ment "manual		(black)	<0-255>		at the density adjustment.		
		density" fine				0.10	When the value increases, the image		
724		adjustment/Dark	lext	FAX	20	SYS	of the "dark" steps becomes darker.	1	
		step value	Photo	(black)	<0-255>				
725	Image	Density adjust-	Photo	FAX	128	SYS	When the value increases, the image	1	
		ment "automatic		(black)	<0-255>		becomes darker.		
729		density" fine	Text	FAX	128	SYS		1	
005	1	adjustment	/Photo	(black)	<0-255>	01/0			
825	Image	Range correction	lext /Dhata	SCN	12	SYS	Sets whether the values of the	1	
		on original	Photo	(DIACK)	<11-14,		fixed or not. One's place is an		
		the original glass			21-24,		adjustment for "automatic density"		
		line original glass			41-44		and ten's place is for "manual		
826			Text	SCN	12	SYS	density". Once they are fixed, the	1	
010			10/11	(black)	<11-14.	0.0	range correction is performed with		
				(*****,	21-24,		standard values. The values of the		
					31-34,		background peak and text peak		
					41-44>		affect the reproduction of the		
827			Photo	SCN	12	SYS	background density and text density	1	
				(black)	<11-14,		respectively.		
					21-24,		Background peak Text peak		
					31-34,		1: fixed fixed		
					41-44>		2: varied fixed		
828			Gray	SCN	12	SYS	3: fixed varied	1	
			scale	(black)	<11-14,		4: varied varied		
					21-24,				
					31-34, 41 445				
830	Image	Bange correction	Text	SCN	12	SVS	Sets whether the values of the	1	
000	inage	on original set on	/Photo	(black)	<11-14	010	background neak and text neak are	•	
		the RADF	/1 11010		21-24.		fixed or not. One's place is an		
					31-34,		adjustment for "automatic density"		
					41-44>		and ten's place is for "manual		
831			Text	SCN	12	SYS	density". Once they are fixed, the	1	
				(black)	<11-14,		range correction is performed with		
					21-24,		standard values.		
					31-34,		The values of the background peak		
					41-44>	<b>a</b> : /-	and text peak affect the reproduction		
832			Photo	SCN	12	SYS	of the background density and text	1	
				(DIACK)	<11-14,		density respectively.		
					21-24,		background peak lext peak		
					41- <i>11</i> ~		2. varied fixed		
833			Grav	SCN	12	SYS	3: fixed varied	1	
			scale	(black)	<11-14		4: varied varied		
					21-24.				
					31-34,				
					41-44>				

	Adjustment mode (05)										
Code	Classifi- cation	ltems		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
835	Image	Range correction	Text	SCN	56	SYS	When the value increases, the	1			
		Background peak	/Photo	(black)	<0-255>		background of the image (low density				
836		adjustment	Text	SCN	64	SYS	area) becomes harder to be printed	1			
				(black)	<0-255>		out.				
837			Photo	SCN	48	SYS		1			
				(black)	<0-255>						
838			Gray	SCN	48	SYS		1			
0.40	lassa	Ohamanaaa	scale	(black)	<0-255>	01/0		4			
040	image	odiustmont	Photo	(block)	-0.21s	515	becomes charper When the value	'			
8/1	-	aujustment	Tovt	SCN	0	975	decreases the image becomes	1			
041			IEAL	(black)	<0-31	010	softer	'			
842	-		Photo	SCN	0	SYS	The smaller the value is the less the	1			
0.2			1 11010	(black)	<0-31>	0.0	moire becomes.	.			
843	-		Grav	SCN	0	SYS	* The default value 0 is equivalent to	1			
			scale	(black)	<0-31>		16 (center value).				
845	Image	Density adjust-	Text	SCN	128	SYS	When the value increases, the image	1			
	_	ment "manual	/Photo	(black)	<0-255>		becomes darker.				
846	1	density" fine	Text	SCN	128	SYS		1			
		adjustment/Center		(black)	<0-255>						
847		value	Photo	SCN	128	SYS		1			
				(black)	<0-255>						
848	Image	Fine adjustment of	f back-	SCN	128	SYS	When the value increases, the	1			
		ground / Center va	alue	(black)	<0-255>		background becomes darker.				
850	Image	Density adjust-	lext	SCN	20	SYS	When the value increases, the image	1			
051	-	ment "manual	/Photo	(black)	<0-255>	eve	of the "light" steps becomes lighter.	-			
001		adjustment/Light	lexi	(black)	20	515		'			
852	-	sten value	Photo	SCN	20	SYS		1			
002			1 11010	(black)	<0-255>	0.0		.			
853	Image	Fine adjustment of	f back-	SCN	35	SYS	Sets the changing amount by 1 step	1			
		ground / Light step	value	(black)	<0-255>		at background adjustment. When the				
		(Image smoothing	)				value increases, the background of				
							the "light" steps becomes lighter.				
855	Image	Density adjust-	Text	SCN	20	SYS	When the value increases, the image	1			
		ment "manual	/Photo	(black)	<0-255>		of the "dark" steps becomes darker.				
856		density" fine	Text	SCN	20	SYS		1			
	-	adjustment/Dark		(black)	<0-255>			L .			
857		step value	Photo	SCN	20	SYS		1			
950	Image	Fino adjustment of	fback	(DIACK)	<0-255>	eve	Sate the changing amount by 1 stop	-			
000	inage	around / Dark ster		(black)	20 20-255	313	at background adjustment. When the	'			
		(Image smoothing	) value		<0-2002		value increases the background of				
			/				the "dark" steps becomes darker.				
860	Image	Density adjust-	Text	SCN	128	SYS	When the value increases, the image	1			
-		ment "automatic	/Photo	(black)	<0-255>		becomes darker.				
861	1	density" fine	Text	SCN	128	SYS	1	1			
		adjustment		(black)	<0-255>						
862	1		Photo	SCN	128	SYS		1			
				(black)	<0-255>						

Adjustment mode (05)								
Code	Classifi- cation	Ite	ms	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
880-0	Image	Adjustment of	L	SCN	128	SYS	When the value increases, the density	4
		gamma balan	ce	(black)	<0-255>		in the target area becomes higher.	
880-1		(Text/Photo)	М	SCN	128	SYS	L : Low density area	4
				(black)	<0-255>		M : Medium density area	
880-2			Н	SCN	128	SYS	H : High density area	4
				(black)	<0-255>			
881-0	Image	Adjustment of	L	SCN	128	SYS		4
	-	gamma balan	ce	(black)	<0-255>		-	
881-1		(Text)	M	SCN	128	SYS		4
	-			(black)	<0-255>	0.10	-	<u> </u>
881-2			н	SCN	128	SYS		4
				(black)	<0-255>	0)/0	-	
882-0	Image	Adjustment of	L	SCN	128	SYS		4
		gamma balan	ce	(black)	<0-255>	01/0	-	
882-1		(Photo)	IVI	SCN	128	SYS		4
000.0	-			(black)	<0-255>	01/0	-	
882-2			н	SCN	128	515		4
000.0	Image	Adiustraant of		(DIACK)	<0-255>	<u>ovo</u>		
883-0	Image	Adjustment of	L	SCN (block)	128	515		4
000.1	-	gamma balan			<0-255>	<u>ovo</u>	-	
883-1		(Gray scale)	IVI	(block)	128	515		4
883-3	-				<0-200>	975	-	1
003-2			П	(black)	120	313		4
884	Image	Benroduction	ratio fino		128	975	When the value increases by "1" the	1
	inage	adjustment of	nrimary	(black)	<0-255>	010	reproduction ratio of primary scanning	'
		scanning direc	ction				direction increases by approx 0.1%	
							Effective with the resolution other	
							than 600 dpi.	
976	Mainte-	Equipment nu	mber (serial	ALL	_	SYS	When this adjustment is performed	1
	nance	number) displa	av				with this code, the setting code (08-	
			,				995) is also performed automatically.	
							(10 digits)	
1000	Image	Automatic	PS	PRT	-	SYS	Adjusts the gradation reproduction	7
	Ū	gamma	/600x600dp	(color)			for each color, Y, M, C and K.	
1001	-	adjustment	PS	PRT	-	SYS		7
			/1200x600d	pi (color)				
1002	-		PCL	PRT	-	SYS		7
			/600x600dp	(color)				
1003	•		PCL	PRT	-	SYS		7
			/1200x600d	pi (color)				
1010-0	Image	Color balance	L	PRT	128	SYS	The target color, mode and density	4
		adjustment for	r "Y"	(color)	<0-255>		area become darker as the value	
1010-1		(PS/600x600c	dpi/ M	PRT	128	SYS	increases.	4
		Smooth)		(color)	<0-255>		L : Low density area	
1010-2			Н	PRT	128	SYS	M : Medium density area	4
				(color)	<0-255>		H : High density area	

Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1011-0	Image	Color balance adjustment for "M"	L	PRT (color)	128 <0-255>	SYS	The target color, mode and density area become darker as the value	4	
1011-1		(PS/600x600dpi/ Smooth)	М	PRT (color)	128 <0-255>	SYS	increases. L : Low density area	4	
1011-2			Н	PRT (color)	128 <0-255>	SYS	M: Medium density area H : High density area	4	
1012-0	Image	Color balance adjustment for "C"	L	PRT (color)	128 <0-255>	SYS		4	
1012-1		(PS/600x600dpi/	М	PRT (color)	128 <0-255>	SYS		4	
1012-2			Н	PRT (color)	128	SYS		4	
1013-0	Image	Color balance adjustment for "K"	L	PRT (color)	128	SYS		4	
1013-1		(PS/600x600dpi/ <sup>–</sup> Smooth)	М	PRT (color)	128 <0-255>	SYS		4	
1013-2			Н	PRT (color)	128 <0-255>	SYS		4	
1014-0	Image	Color balance adjustment for "Y"	L	PRT (color)	128 <0-255>	SYS		4	
1014-1		(PS/600x600dpi/ Detail)	М	PRT (color)	128 <0-255>	SYS		4	
1014-2		-	Н	PRT (color)	128 <0-255>	SYS		4	
1015-0	Image	Color balance adjustment for "M"	L	PRT (color)	128 <0-255>	SYS		4	
1015-1		(PS/600x600dpi/	М	PRT (color)	128 <0-255>	SYS		4	
1015-2			Н	PRT (color)	128 <0-255>	SYS		4	
1016-0	Image	Color balance	L	PRT (color)	128	SYS		4	
1016-1		(PS/600x600dpi/	М	PRT (color)	128	SYS		4	
1016-2			Н	PRT (color)	128	SYS		4	
1017-0	Image	Color balance adjustment for "K"	L	PRT (color)	128	SYS		4	
1017-1		(PS/600x600dpi/	М	PRT (color)	128	SYS		4	
1017-2			Н	PRT (color)	128	SYS		4	
1018-0	Image	Color balance adjustment for "Y"	L	PRT (color)	128	SYS		4	
1018-1		(PS/1200x600dpi/ Smooth)	М	PRT (color)	128	SYS		4	
1018-2		-	Н	PRT (color)	128 <0-255>	SYS		4	

Code     Classifi- cation     Items     Func- tion     Default <acceptable value&gt;     RAM     Contents     Pro- du       1019-0     Image     Color balance     L     PRT     128     SYS     The target color, mode and density area become darker as the value     4</acceptable 	roce- lure 4
1019-0         Image         Color balance         L         PRT         128         SYS         The target color, mode and density         4           adjustment for "M"         (color)         <0-255>         area become darker as the value         4	4
adjustment for "M" (color) <0-255> area become darker as the value	
1019-1 (PS/1200x600dpi/ M PRT 128 SYS increases. 4	4
Smooth) (color) <0-255> L : Low density area	
H PRT 128 SYS M : Medium density area 4	4
(color) <0-255> H : High density area	
1020-0 Image Color balance L PRI 128 SYS	4
	4
1020-1 (PS/1200x600dpl/ M PR1 128 SYS 4	4
Siliouli) (Color) <0-255>	4
1020-2 H PRI 128 515 4	4
(C0101) <0-233>	1
1021-0 Image Color balance L FRT 120 STS 4	4
1021-1 (PS/1200v600dpi/ M PBT 128 SVS	1
Smooth) (rol/1200x000000// IN 1111 120 010	4
1021-2 H PBT 128 SYS	4
(color) <0-255>	-
1022-0 Image Color balance I PBT 128 SYS	4
adjustment for "Y" (color) <0-255>	•
1022-1 (PS/1200x600dpi/ M PBT 128 SYS	4
Detail) (color) <0-255>	-
1022-2 H PRT 128 SYS	4
(color) <0-255>	
1023-0 Image Color balance L PRT 128 SYS	4
adjustment for "M" (color) <0-255>	
1023-1 (PS/1200x600dpi/ M PRT 128 SYS 4	4
Detail) (color) <0-255>	
1023-2 H PRT 128 SYS 4	4
(color) <0-255>	
1024-0ImageColor balanceLPRT128SYS4	4
adjustment for "C" (color) <0-255>	
1024-1 (PS/1200x600dpi/ M PRT 128 SYS 4	4
Detail) (color) <0-255>	
1024-2 H PRT 128 SYS 4	4
(color) <0-255>	
1025-0 Image Color balance L PRI 128 SYS 4	4
adjustment for "K" (color) <0-255>	
1025-1   (PS/1200x600api/ M PR1 128 SYS   4	4
Detail) (Color) <0-255>	4
$\begin{bmatrix} 1023^{-2} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $	4
(0000) <0-2000	1
$\begin{bmatrix} 1020^{-0} & \text{image color balance } L & 1111 & 120 & 313 \\ \text{adjustment for "Y"} & (color) & <0.255 \\ \end{bmatrix}$	4
1026-1 (PCI /600x600dpi/ M PRT 128 SVS	4
Smooth)	т
1026-2 H PBT 128 SYS	4
(color) <0-255>	

Default	
Code         Classifi- cation         Items         Func- tion         Contents Contents	Proce- dure
1027-0 Image Color balance L PRT 128 SYS The target color, mode and density	4
adjustment for "M" (color) <0-255> area become darker as the value	
1027-1 (PCL/600x600dpi/ M PRT 128 SYS increases.	4
Smooth) (color) <0-255> L : Low density area	
1027-2 H PRT 128 SYS M : Medium density area	4
(color) <0-255> H : High density area	
1028-0 Image Color balance L PRT 128 SYS	4
adjustment for "C" (color) <0-255>	
1028-1 (PCL/600x600dpi/ M PRT 128 SYS	4
Smooth) (color) <0-255>	
H PRI 128 SYS	4
(COIOr) <0-255>	
1029-0 Image Color balance L PRI 128 SYS	4
	4
1023-1 (FCL/600x60000pl/ MI FRI 126 515	4
	4
	-
1030-0 Image Color balance I PBT 128 SYS	4
adjustment for "Y" (color) <0-255	-
1030-1 (PCL/600x600dpi/ M PBT 128 SYS	4
Detail) (color) <0-255>	
1030-2 H PRT 128 SYS	4
(color) <0-255>	
1031-0 Image Color balance L PRT 128 SYS	4
adjustment for "M" (color) <0-255>	
1031-1 (PCL/600x600dpi/ M PRT 128 SYS	4
Detail) (color) <0-255>	
1031-2 H PRT 128 SYS	4
(color) <0-255>	
1032-0 Image Color balance L PRT 128 SYS	4
adjustment for "C" (color) <0-255>	
1032-1 (PCL/600x600dpi/ M PRT 128 SYS	4
Detail) (color) <0-255>	
1032-2 H PRT 128 SYS	4
(color) <0-255>	
1033-0 Image Color balance L PRI 128 SYS	4
1033-1 (PCL/600x600dpl/ M PRI 128 SYS	4
	-
	4
1034-0 Image Color balance I PBT 128 SVS	1
adjustment for "V" (color) <0-255	4
1034-1 (PCL/ M PRT 128 SVS	Δ
1200x600dpi/ (color) <0-255>	
1034-2 Smooth) H PRT 128 SYS	4
(color) <0-255>	

	Adjustment mode (05)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
1035-0	Image	Color balance adjustment for "M"	L	PRT (color)	128 <0-255>	SYS	The target color, mode and density area become darker as the value	4		
1035-1		(PCL/	М	PRT (color)	128 <0-255>	SYS	increases. L : Low density area	4		
1035-2		Smooth)	Н	PRT (color)	128 <0-255>	SYS	M : Medium density area H : High density area	4		
1036-0	Image	Color balance	L	PRT (color)	128	SYS		4		
1036-1		(PCL/	М	PRT	128	SYS		4		
1036-2		Smooth)	Н	PRT (color)	128	SYS		4		
1037-0	Image	Color balance adjustment for "K"	L	PRT (color)	128 <0-255>	SYS		4		
1037-1		(PCL/ - 1200x600dpi/	М	PRT (color)	128 <0-255>	SYS		4		
1037-2		Smooth)	Н	PRT (color)	128 <0-255>	SYS		4		
1038-0	Image	Color balance	L	PRT (color)	128 <0-255>	SYS		4		
1038-1	-	(PCL/ 1200x600dpi/	М	PRT (color)	128 <0-255>	SYS		4		
1038-2	-	Detail)	Н	PRT (color)	128	SYS		4		
1039-0	Image	Color balance	L	PRT (color)	128	SYS		4		
1039-1	-	(PCL/ 1200x600dpi/	М	PRT (color)	128	SYS		4		
1039-2	-	Detail)	Н	PRT (color)	128	SYS		4		
1040-0	Image	Color balance	L	PRT (color)	128	SYS		4		
1040-1	-	(PCL/ 1200x600dpi/	М	PRT (color)	128	SYS		4		
1040-2		Detail)	Н	PRT (color)	128	SYS		4		
1041-0	Image	Color balance	L	PRT	128	SYS		4		
1041-1		(PCL/ -	М	PRT	128	SYS		4		
1041-2		Detail)	Н	PRT	128	SYS		4		
1046-0	Image	Adjustment of	PS	PRT	255	SYS	When the value decreases, the	4		
1046-1	-	amount	PCL	PRT	255	SYS	Note:	4		
1047-0	Image	Adjustment of	PS	PRT	255	SYS	offsetting may occur.	4		
1047-1		amount	PCL	(color) PRT (color)	<0-255> 255 <0-255>	SYS		4		

	Adjustment mode (05)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
1048-0	Image	Adjustment of	PS	PRT	255	SYS	When the value decreases, the	4			
		maximum toner		(color)	<0-255>		image becomes lighter.				
1048-1		amount	PCL	PRT	255	SYS	Note:	4			
		(Thick paper 2)		(color)	<0-255>		When the value increases, the image				
1049-0	Image	Adjustment of	PS	PRT	255	SYS	offsetting may occur.	4			
	-	maximum toner		(color)	<0-255>	0.10					
1049-1		amount	PCL		255	SYS		4			
1050.0	Imaga	(Thick paper 3)		(COIOT)	<0-255>	CVC		-			
1050-0	Inage		FO		200	515		4			
1050-1	-	amount			200	975					
1030-1		(OHP film)	TOL	(color)	<0-255	010		-			
1055	Image	Upper limit		PBT	176	SYS	When the value decreases, the	1			
1000	linage	in toner		(color)	<0-255>	0.0	printing density becomes lighter.				
1056	-	saving mode		PRT	176	SYS		1			
				(color)	<0-255>						
1057	-			PRT	176	SYS		1			
				(color)	<0-255>						
1058	-			PRT	176	SYS		1			
				(color)	<0-255>						
1060	Image	Reproduction ratio	fine	SCN	128	SYS	When the value increases by "1", the	1			
		adjustment of prim	nary	(color)	<0-255>		reproduction ratio of primary scanning				
		scanning direction					direction increases by approx. 0.1%.				
							Effective with the resolution other				
							than 600 dpi.				
1065	Image	Judgment thresho	ld for ACS	SCN	70	SYS	When the value increases, originals	1			
				(color)	<0-255>		tend to be judged as monochrome,				
1000	lass a sta			0.01	70	0.20	and when the value decreases, they	-			
1066	Image	Judgment thresho		SCN (color)	10	515	tend to be judged as color in auto-				
		on onginal set on			<0-200>						
1070	Image	Fine adjustment	Toxt	SCN	0	975	Adjusts the level of background When	1			
1070	inage	of background	IEAL	(color)	<0-50>	010	the value increases the background.				
1071	-	of Buonground	Printed	SCN	0	SYS	becomes more brightened.	1			
			image	(color)	<0-50>						
1072	-		Photo	SCN	0	SYS		1			
				(color)	<0-50>						
1075	Image	Fine adjustment	Text	SCN	0	SYS	Adjusts the black density of the	1			
		of black density		(color)	<0-4>		scanned image. When the value				
1076			Printed	SCN	0	SYS	increases, the black density becomes	1			
			image	(color)	<0-4>		darker.				
1077			Photo	SCN	0	SYS		1			
			_	(color)	<0-4>						
1080	Image	RGB conversion	Text	SCN	0	SYS	Sets the color space format of the	1			
		method selection		(color)	<0-3>		output image.				
1081			Printed	SCN	0	SYS	0: sRGB 1: AppleRGB	1			
1000	-		Image	(color)	<0-3>	0.42	2: ROMMRGB 3: AdobeRGB				
1082			Photo	SCN		SYS		1			
				(color)	<0-3>						

Code cation         Items         Funce cation         Collasiti- cation         Number cation         Contents         Produce due           1086         Shappess         Text         SCN         0         SYS         When the value increases, the image becomess shapper. When the value increases, the image becomes         1           1087         Printed         SCN         0         SYS         Setter.         The default value 0 is equivalent to incre becomes         1           1088         Image         Density adjust- ment "manual         Text         PC         128         SYS         Setter.         1           1550         Image         Density adjust- adjustment/Center         Text         PPC         128         SYS         SYS         Setter.         1           1553         Image         Density adjust- adjustment/Canter         Text         PPC         128         SYS         Setter changing amount by 1me (color)         1           1553         Density adjust- value         Text         PPC         20         SYS         Setter changing amount by 1me (color)         1           1561         Image         Density adjust- ment "manual         Proto         PPC         20         SYS         Sette changing amount by 1me (color)         1         1 <th></th> <th colspan="11">Adjustment mode (05)</th>		Adjustment mode (05)										
1086         Image adjustment         Shappness adjustment         Text (color)         SCN (color)         SVS (color)         When the value increases, the image becomes sharper. When the value is, the less the more becomes         1           1087         Image         Density adjust- ment "manual density" fine adjustment/Center value         Text         PPC         128         SYS (color)         When the value increases, the image becomes astrper. When the value is, the less the more becomes.         1           1550         Image         Density adjust- ment "manual density" fine adjustment/Center value         Text         PPC         128         SYS (color)         When the value increases, the image the density adjust- value         1           1551         Image         Density adjust- ment "manual density" fine adjustment/Center value         Text         PPC         128         SYS (color)         When the value increases, the image the density adjust- ment "manual         1           1554         Image         Density adjust- ment "manual         Text         PPC         128         SYS (color)         Sets the changing amount by 1 step the density adjustment.         1           1563         Image         Density adjust- ment "manual density" fine adjustment/Line         Text         PPC         20         SYS (color)         Sets the changing amount by 1 step the density adjustment.         1           15	Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
1087         Image         Printed image         SCN         0         SYS         softer.         The smaller the value is, the less the inorice becomes.         1           1088         Image         Density adjust- ment "manual density" fine adjustment/Center         PPC         128         SYS         When the value increases, the image         1           1551         Image         Density adjust- ment "manual density" fine adjustment/Center         PPC         128         SYS         When the value increases, the image         1           1552         Value         Printed         PPC         128         SYS         SYS         Image         1           1553         Value         Printed         PPC         128         SYS         SYS         Image         1           1551         Image         Density adjust- ment "manual density" fine adjustment/Dark         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1561         Image         Density adjust- ment "manual density" fine adjustment/Light         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1561         Image         Density adjust- ment "manual density" fine         Text	1086	Image	Sharpness adjustment	Text	SCN (color)	0 <0-31>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes	1			
image         image         (color)         c-0-31>         The smaller the value is, the less the more becomes.           1088         Photo         SCN         0 (color)         c-0-31>         SCN         16 (center value).         1           1550         Image         Density adjust- ment "manual density" fine         Text         PPC         128         SYS         When the value increases, the image         1           1551         image         Density adjust- ment "manual density" fine         Text         PPC         128         SYS         SYS         image         SYS         image         1           1553         image         Color)         -0-255-         SYS         SYS         image         image         SYS         image         SYS	1087			Printed	SCN	0	SYS	softer.	1			
1088         Image         Density adjust- ment "manual density fine adjustment/Center value         Text (Photo         PPC (color)         128 (-0-255)         SYS (color)         * The default value 0 is equivalent to 16 (center value).         1           1550         Image         Density adjust- ment "manual density fine adjustment/Center value         Text (Photo         PPC         128 (Color)         SYS (color)         * O-255- (Color)         * O-255- (Color)         1           1551         Proto         PPC         128 (Color)         SYS (color)         * O-255- (Color)         *         1           1553         Photo         PPC         128 (Color)         SYS (color)         *         *         1           1561         Image         Density adjust- ment "manual density fine adjustment/Dark step value         Text         PPC         20 (Color)         SYS (color)         Sets the changing amount by 1 step at the density adjustment.         1           1562         Image         Density adjust- ment "manual density fine adjustment/Dark step value         Text         PPC         20 SYS (color)         SYS (color)         Sets the changing amount by 1 step at the density adjustment.         1           1570         Image         Density adjust- ment "manual density fine adjustment/Light step value         Text         PPC         20 SYS (color)         S				image	(color)	<0-31>		The smaller the value is, the less the moire becomes.				
1550Image ment "manual density" fine adjustment/Centr valueText (PhotoPPC (color) (-0-255-SVS (Vertice) (color) (-0-255-When the value increases, the image becomes darker.11551Image adjustment/Centr valueFixt (color)PPC (color) (-0-255-SVS (color) (-0-255-Image (color) (-0-255-Image (color)Image (color) (-0-255-Image (color) <td< td=""><td>1088</td><td></td><td></td><td>Photo</td><td>SCN</td><td>0</td><td>SYS</td><td>* The default value 0 is equivalent to</td><td>1</td></td<>	1088			Photo	SCN	0	SYS	* The default value 0 is equivalent to	1			
1550 1551Image ment "manual density" fine adjustment/Center valueText (Color)PPC (Color)128 (Color)SYS ecomes darker.Mehen the value increases, the image becomes darker.115511553Pinted (Color)PPC (Color)128 (Color)SYS (Color)SYS (Color)128 (Color)SYS (Color)11553Photo (Color)PPC (Color)128 (Color)SYS (Color)111554Photo (Color)PPC (Color)128 (Color)SYS (Color)111554Pentity adjust- (Color)Text (Color)PPC (Color)20 (Color)SYS (Color)Sets the changing amount by 1 step (Text (Color)11561Pinted (Color)PPC (Color)20 (Color)SYS (Color)Sets the changing amount by 1 step (Text (Color)11564Pentity adjust- (Color)PPC (Color)20 (Color)SYS (Color)Sets the changing amount by 1 step (Color)11574Pentity adjust- (Color)Text (Color)PPC (Color)SYS (Color)SYS (Color)SYS (Color)SYS (Color)SYS (The density adjustment.11571Image (Color)PPC (Color)20 (Color)SYS (Color)SYS (Color)SYS (Color)SYS (Color)SYS (Color)SYS (Color)SYS (The density adjustment.11571Image (Color)PPC (Color)20 (Color) <td></td> <td></td> <td></td> <td></td> <td>(color)</td> <td>&lt;0-31&gt;</td> <td></td> <td>16 (center value).</td> <td></td>					(color)	<0-31>		16 (center value).				
Instant in the intermet intermet in the intermet inter	1550	Image	Density adjust-	Text	PPC	128	SYS	When the value increases, the image	1			
1551 1552         adjustnent/Center value         Text adjustnent/Center value         Price Printed (color)         0-2555 (color)         SYS (color)         SYS (color)         1           1553         Photo         PPC         128 (color)         SYS (color)         SYS         1           1554         Photo         PPC         128 (color)         SYS         1         1           1556         Map         PPC         128 (color)         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1560         Image         Density adjust- ment "manual adjustment/Dark step value         Text         PPC         20 (color)         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1561         Step value         Printed         PPC         20 (color)         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1563         Image         Color)         <0-255			ment "manual	/Photo	(color)	<0-255>		becomes darker.				
instant (Center)         (color)         (-0-255)	1551		density" fine	Text	PPC	128	SYS		1			
1552     value     Pinted image     PPC     128     SYS     1       1553     image     (color)     <0-255>     1       1554     PPC     128     SYS     1       1554     Map     PPC     128     SYS     1       1554     Map     PPC     128     SYS     1       1554     Map     PPC     128     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1560     Map     PPC     20     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1561     Image     Density adjust- ment "manual adjustment/Dark step value     Pinted     PPC     20     SYS       1564     Pinted     PPC     20     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1564     Pinted     PPC     20     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1574     Image     Density adjust- ment "manual density" fine adjustment/Light     Text     PPC     20     SYS       1577     Image     Density adjust- ment "automatic density" fine adjustment/Light     PPC     20     SYS       1574     Image     Density adjust- ment "automatic     PPC     20     S		-	adjustment/Center		(color)	<0-255>						
1553         Fhoto         PPC         128         SYS         Sys         1           1554         Map         PPC         128         SYS         1         1           1554         Map         PPC         128         SYS         1         1           1554         Map         PPC         128         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1561         ment "manual density" fine adjustment/Dark step value         Frinted         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1563         Frinted         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1563         Frinted         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1564         Frinted         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1570         Image         Density adjust         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1571         Iment "manual density" fine adju	1552		value	Printed image	PPC (color)	128 <0-255>	SYS		1			
Instant	1553			Photo	PPC	128	SYS		1			
1554     Image     Density adjust- ment "manual density" fine adjustment/Dark 1561     Text     PPC     20 (color)     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1561     Text     PPC     20 (color)     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1562     Finited     PPC     20 (color)     SYS     SYS     When the value increases, the image of the "dark" steps becomes darker.     1       1563     Step value     Finited     PPC     20 (color)     SYS     SYS     Image     1       1564     Finited     PPC     20 (color)     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1570     Image     Density adjust- ment "manual density" fine adjustment/Light     Text     PPC     20 (color)     SYS     Sets the changing amount by 1 step at the density adjustment.     1       1571     Image     Density adjust- ment "manual     (Photo     (color)     <-255					(color)	<0-255>						
1560ImageDensity adjust- ment "manual density" fine adjustment/Dark step valueTextPPC20SYS a the density adjustment.11561ImageDensity" fine adjustment/Dark step valueTextPPC20SYS (color)SYS (col	1554			Мар	PPC	128	SYS		1			
1560         Image ment "manual density" fine adjustment/Dark step value         Text (color)         PPC (color)         20 (color)         SYS (color)         Sets the changing amount by 1 step at the density adjustment.         1           1561         adjustment/Dark adjustment/Dark step value         Printed (color)         PPC         20         SYS         When the value increases, the image of the "dark" steps becomes darker.         1           1562         step value         Printed (color)         PPC         20         SYS         Sets the changing amount by 1 step of the "dark" steps becomes darker.         1           1563         Image         Printed         PPC         20         SYS         Sets the changing amount by 1 step of the "dark" steps becomes darker.         1           1564         Image         Density adjust         Text         PPC         20         SYS           1570         Image         Density adjust         Text         PPC         20         SYS           1577         step value         Pinted         PPC         20         SYS           1573         step value         Pinted         PPC         20         SYS           1573         Step value         Pinted         PPC         20         SYS           1573         Image					(color)	<0-255>						
Instant 	1560	Image	Density adjust-	Text	PPC	20	SYS	Sets the changing amount by 1 step	1			
1561         density' frue         lext         PPC         20         SYS         When the value increases, the image of the "dark" steps becomes darker.         1           1563         step value         Printed         PPC         20         SYS         of the "dark" steps becomes darker.         1           1563         Photo         PPC         20         SYS         of the "dark" steps becomes darker.         1           1563         Photo         PPC         20         SYS         SYS         1           1563         Photo         PPC         20         SYS         SYS         1           1564         Photo         PPC         20         SYS         SYS         1           1570         Image         Density adjust-ment "manual density" fine adjustment/Light         Text         PPC         20         SYS           1571         density" fine adjust-ment "manual duststrep value         Printed         PPC         20         SYS           1572         step value         Printed         PPC         20         SYS         SYS           1573         Image         Density adjust-ment.         Text         PPC         20         SYS           1574         Penot         PPC	1501	-	ment "manual	/Photo	(color)	<0-255>		at the density adjustment.				
Industment/Dark         Color)         Color) <t< td=""><td>1561</td><td></td><td>density" fine</td><td>lext</td><td>PPC</td><td>20</td><td>SYS</td><td>When the value increases, the image</td><td>  1</td></t<>	1561		density" fine	lext	PPC	20	SYS	When the value increases, the image	1			
1562         step value         image	1500	-	adjustment/Dark	Duinted	(color)	<0-255>	0.70	of the "dark" steps becomes darker.				
1563         Image         (color)         <0-255>           1           1564         Map         PPC         20         SYS         (color)         <0-255>         1         1           1564         Map         PPC         20         SYS         (color)         <0-255>         1         1           1570         Image         Density adjust- ment "manual density" fine         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1571         density fine         Text         PPC         20         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1572         Printed         PPC         20         SYS         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1573         Step value         Printed         PPC         20         SYS         SYS           1573         Image         Color)         <0-255>         SYS         SYS         1           1574         Density adjust- ment "automation"         Text         PPC         128         SYS         SYS           1581         Image         Color)	1562		step value	Printed	PPC (color)	20	515					
$ \begin{array}{ c c c c } \hline 1303 \\ \hline 1564 \\ \hline 166 \\ $	1563	-		Photo		<0-255> 20	<u>eve</u>		1			
$ \begin{array}{ c c c c } \hline 1564 \\ \hline 1570 \\ \hline 1570 \\ \hline 1571 \\ \hline 1572 \\ \hline 1573 \\ \hline 1572 \\ \hline 1574 \\ \hline 1572 \\ \hline 1574 \\ \hline 1575 \\ \hline 157$	1303			FIIOLO	(color)	<0-255>	515					
1501         Image         Density adjust- ment "manual density" fine adjustment/Light         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1571         Image         Density adjust- ment "manual density" fine adjustment/Light         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1571         density" fine adjustment/Light         Text         PPC         20         SYS         Sets the changing amount by 1 step at the density adjustment.         1           1572         step value         Printed         PPC         20         SYS         SYS         Men the value increases, the image of the "light" steps becomes lighter.         1           1573         step value         Printed         PPC         20         SYS         SYS         1           1573         image         (color)         <0-255>         SYS         SYS         1         1           1574         Proto         PPC         20         SYS         SYS         1         1           1580         Image         Density adjust- ment "automatic density" fine adjustment         Text         PPC         128         SYS         SYS         1         1	1564			Man	PPC	20	SYS		1			
1570         Image         Density adjust- ment "manual density" fine adjustment/Light step value         Text (color)         PPC         20 20         SYS         Sets the changing amount by 1 step         1           1571         ment "manual density" fine adjustment/Light step value         Text Printed         PPC         20         SYS         Sets the changing amount by 1 step         1           1571         step value         Printed         PPC         20         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1573         step value         Printed         PPC         20         SYS         SYS           1573         ment "automatic density" fine adjustment         Printed         PPC         20         SYS         SYS         1           1580         Image         Density adjust- ment "automatic density" fine adjustment         Text         PPC         128         SYS         SYS         SYS         1           1580         Image         Density adjust- ment "automatic density" fine adjustment         Text         PPC         128         SYS         SYS         1           1583         Image         Color)         <0-255>         SYS         1         1           1584         Printed				Map	(color)	<0-255>	0.0		'			
Index         ment "manual density" fine adjustment/Light step value         /Photo         (color)         <0-255>         at the density adjustment.         at the density adjustment.         1           1571         density" fine adjustment/Light step value         Text         PPC         20         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1572         image         (color)         <0-255>         5         1           1573         Printed         PPC         20         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1574         Printed         PPC         20         SYS         1           1574         Photo         PPC         20         SYS         1           1574         Photo         PPC         20         SYS         1           1574         Map         PPC         128         SYS         When the value increases, the image becomes darker.         1           1580         Image         Color)         <0-255>         1         1           1581         density" fine adjustment         Text         PPC         128         SYS         1           1582         Photo         PPC	1570	Image	Density adjust-	Text	PPC	20	SYS	Sets the changing amount by 1 step	1			
1571         density" fine adjustment/Light         Text         PPC         20         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1572         step value         Printed         PPC         20         SYS         When the value increases, the image of the "light" steps becomes lighter.         1           1573         image         (color)         <0-255>         1         1           1573         Photo         PPC         20         SYS         1           1574         Photo         PPC         20         SYS         1           1574         Photo         PPC         20         SYS         1           1574         Photo         PPC         20         SYS         1           1580         Image         Density adjust- ment "automatic density" fine adjustment         Text         PPC         128         SYS           1581         Printed         PPC         128         SYS         Inage         1           1583         Map         PPC         128         SYS         Inage         1           1584         Image         (color)         <0-255>         Inage         SYS         Inage         Inage		Junige	ment "manual	/Photo	(color)	<0-255>		at the density adjustment.				
International step value         adjustment/Light step value         reading of the "light" steps becomes lighter.         formational step value         formation step value         formational step value	1571	-	density" fine	Text	PPC	20	SYS	When the value increases, the image	1			
1572 1573step valuePrinted imagePPC (color)20 $<-255>$ SYS (color)115731573PhotoPPC (color)20 $<-255>$ SYS (color)11574MapPPC (color)20 $<-255>$ SYS (color)11580ImageDensity adjust- ment "automatic density" fine adjustmentText (color)PPC $<-255>$ 128 (color)SYS (color)When the value increases, the image becomes darker.11581ImageDensity adjust- ment "automatic density" fine adjustmentText (color)PPC $<-255>$ 128 (color)SYS (color)11582PhotoPPC (color)128 (color)SYS $<-255>$ 11583MapPPC (color)128 (color)SYS $<-255>$ 11584MapPPC (color)128 (color)SYS $<-255>$ 1			adjustment/Light		(color)	<0-255>		of the "light" steps becomes lighter.				
$ \begin{array}{ c c c c }\hline 1573 \\ \hline 1573 \\ \hline 1573 \\ \hline 1574 \\ \hline 1574$	1572	-	step value	Printed	PPC	20	SYS		1			
$ \begin{array}{ c c c c }\hline 1573 \\ \hline 1574 \\ \hline 1574$				image	(color)	<0-255>						
$ \begin{array}{ c c c } \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	1573	1		Photo	PPC	20	SYS		1			
$ \begin{array}{ c c c c } 1574 \\ 1574 \\ 1580 \\ 1580 \\ 1580 \\ 1581 \\ 1581 \\ 1581 \\ 1581 \\ 1581 \\ 1581 \\ 1582 \\ 1583 \\ 1584 \\ 1584 \\ 1584 \\ 1584 \\ 1584 \\ 1584 \\ 1584 \\ 1582 \\ 1584 \\ 1582 \\ 1584 \\ 1582 \\ 168 \\ 178 \\ 188 \\ $					(color)	<0-255>						
ImageDensity adjust- ment "automatic density" fine adjustmentTextPPC128SYSWhen the value increases, the image becomes darker.11581Ment "automatic density" fine adjustment/Photo(color)<0-255>00011582Printed imagePPC128SYS11111583Printed imagePPC128SYS1111584MapPPC128SYS1111584MapPPC128SYS1111584MapPPC128SYS1111584MapPPC128SYS111	1574			Мар	PPC	20	SYS		1			
1580       Image       Density adjust- ment "automatic density" fine adjustment       Text       PPC       128       SYS       When the value increases, the image       1         1581       density" fine adjustment       Text       PPC       128       SYS       becomes darker.       1         1582       Text       PPC       128       SYS       SYS       1       1         1583       Printed       PPC       128       SYS       1       1       1       1         1584       Printed       PPC       128       SYS       1					(color)	<0-255>						
Instruction         /Photo         (color)         <0-255>         becomes darker.           1581         density" fine         Text         PPC         128         SYS           1582         adjustment         -         (color)         <0-255>         -           1583         Printed         PPC         128         SYS         1           1583         Photo         PPC         128         SYS         1           1584         Map         PPC         128         SYS         1	1580	Image	Density adjust-	Text	PPC	128	SYS	When the value increases, the image	1			
1581       density" fine adjustment       Text       PPC       128       SYS       1         1582       adjustment       (color)       <0-255>       1       1         1583       Printed       PPC       128       SYS       1         1583       Photo       PPC       128       SYS       1         1584       Map       PPC       128       SYS       1		-	ment "automatic	/Photo	(color)	<0-255>		becomes darker.				
adjustment         (color)         <0-255>           1582         Printed         PPC         128         SYS           1583         (color)         <0-255>         1           1584         Photo         PPC         128         SYS           1584         Map         PPC         128         SYS           (color)         <0-255>         1	1581		density" fine	lext		128	SYS		1			
1582     Printed     PPC     128     SYS     1       image     (color)     <0-255>     1       1583     Photo     PPC     128     SYS       1584     Map     PPC     128     SYS       (color)     <0-255>     1	1500	-	adjustment	Duint!	(color)	<0-255>	01/0		-			
1583         Photo         PPC         128         SYS         1           1584         Map         PPC         128         SYS         1           (color)         <0-255>         1         1         1	1582			image		120	515		'			
1584         Map         PPC         126         S13         1           (color)         <0-255>           1	1592	-		Photo		<0-200>	976		1			
1584 Map PPC 128 SYS 1 (color) <0-255>	1303			1 11010		<0-255\	513		'			
(color) <0-255>	1584	-		Мар	PPC	128	SYS		1			
				····P	(color)	<0-255>						

			A	djustm	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1612	Image	Adjustment of	Plain	PPC	255	SYS	When the value decreases, the	1
		maximum toner	paper	(color)	<0-255>		image becomes lighter.	
1613		amount	Thick	PPC	249	SYS	Note:	1
			paper 1	(color)	<0-255>		When the value increases, image	
1614			Thick	PPC	237	SYS	offsetting may occur.	1
			paper 2	(color)	<0-255>			
1615			Thick	PPC	237	SYS		1
			paper 3	(color)	<0-255>			
1616			OHP film	PPC	249	SYS		1
				(color)	<0-255>			
1630	Image	Maximum text	Y	PPC	5	SYS	When the value increases by "1", the	1
		density adjust-		(color)	<0-10>		maximum text density of each color	
1631		ment	М	PPC	5	SYS	becomes darker.	1
				(color)	<0-10>			
1632			С	PPC	5	SYS		1
				(color)	<0-10>			
1633			K	PPC	5	SYS		1
				(color)	<0-10>			
1642	Image	Automatic gamma	a Color/	PPC	-	SYS	Automatic adjustment of gradation	7
		adjustment	Black				reproduction in the Full Color Mode	
							(each color of Y, M, C and K) and	
							Black Mode.	
1643			Color	PPC	-	SYS	Automatic adjustment of gradation	7
							reproduction in the Full Color Mode	
							(each color of Y, M, C and K).	
1675	Image	Judgment thresho	old for ACS	PPC	70	SYS	When the value increases, originals	1
				(color)	<0-255>		tend to be judged as black, and when	
1676	Image	Judgment thresho	old for ACS	PPC	70	SYS	the value decreases, they tend to be	1
		on original set on	the RADF	(color)	<0-255>	0.10	judged as color in auto-color mode.	
1688	Image	Automatic	lext	PPC	128	SYS	When the value increases, the	1
1000		offsetting adjust-	/Photo	(color)	<0-255>	01/0	background becomes darker.	
1689		ment for back-	lext	PPC	128	SYS		1
1000		ground process-	D data d	(color)	<0-255>	01/0	-	
1690		ing (background	Printed	PPC	128	SYS		1
1001		density)	Image	(color)	<0-255>	0.70	-	-
1691			Photo	(aslar)	128	515		
1600			Man		<0-200>	eve	-	
1092			iviap		120	313		
1603	Imago	Automatic	Toxt		109	976	When the value increases, the text	1
1095	maye	offsetting adjust-	/Photo		<0-255	010	hecomes darker	
169/		ment for back	Text		128	975		1
1034		around process	ICAL		<0-255	010		
1695		ing (text density)	Printed	PPC	128	SVS	4	1
1035			image	(color)	<0-255	010		
1696			Photo	PPC	128	SYS	4	1
			1 11010	(color)	<0-255>			'
1697			Мар	PPC	128	SYS	1	1
				(color)	<0-255>			.
	1			( /		1	1	1

Adjustment mode (05)           Code         Classifi- classifi- adjustment for processing         Items         Func. (color)         Default (color)         RAM         Contents         Proce- dura           1699         Image         Manual offsetting         Text. (color)         PPC         128         SYS         When the value increases, the background becomes darker.         1           1699         image         Manual offsetting         Text. (color)         PPC         128         SYS         1           1700         image         Manual offsetting         Text. (color)         PPC         128         SYS         1           1702         Map         PPC         128         SYS         1         1           1702         Map         PPC         128         SYS         1         1           1702         Map         PPC         128         SYS         1         1           1703         Image         Manual offsetting         Text         PPC         128         SYS         1         1           1710         Photo         PPC         128         SYS         1         1         1           1711         Image         Text/PPC         128									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1698	Image	Manual offsetting adjustment for	Text /Photo	PPC (color)	128 <0-255>	SYS	When the value increases, the background becomes darker.	1	
1699	-	background	Text	PPC	128	SYS		1	
1700	-	(background	Printed	PPC	128	SYS		1	
		density)	image	(color)	<0-255>				
1701			Photo	PPC	128	SYS		1	
1702	-		Man	(color)	<0-255>	975		1	
1702			ινιαρ	(color)	<0-255>	313			
1708	Image	Manual offsetting	Text	PPC	128	SYS	When the value increases, the text	1	
		adjustment for	/Photo	(color)	<0-255>		becomes darker.		
1709		background	Text	PPC	128	SYS		1	
		processing (text		(color)	<0-255>				
1710		density)	Printed	PPC	128	SYS		1	
	-		image	(color)	<0-255>				
1711			Photo	PPC	128	SYS		1	
1710	-		Man	(COIOT)	<0-255>	0.70		-	
1/12			wap	(color)	120	515			
1725	Image	Text/Photo reprod	uction	PPC	0	SYS	0: Default	1	
	linage	level adjustment		(color)	<0-5>		1: Photo oriented 2 (The printed image		
							reproduction level higher than that		
							of the Photo oriented 1)		
							2: Photo oriented 1 (The printed image		
							reproduction level higher than that		
							of the Default)		
							3: Equivalent to the Default		
							4: lext oriented 1 (The text reproduc-		
							fault)		
							5: Text oriented 2 (The text reproduc-		
							tion level higher than that of the Text		
							oriented 1)		
1737	Image	Sharpness	Text	PPC	0	SYS	When the value increases, the image	1	
	-	adjustment / Full	/Photo	(color)	<0-31>		becomes sharper. When the value de-		
1738		Color Mode	Text	PPC	0	SYS	creases, the image becomes softer.	1	
1720	-		Drintod	(COIOF)	<0-31>	eve	ne smaller the value is, the less the		
1739			image	(color)	<0-31>	515		'	
1740	1		Photo	PPC	0	SYS	*The default value 0 is equivalent to	1	
				(color)	<0-31>		16 (center value).		
1741	1		Мар	PPC	0	SYS		1	
				(color)	<0-31>				
1757	Image	Sharpness adjustr	ment /Auto	PPC	EUR: 0	SYS	When the value increases, the image	1	
		Color Mode (Text/	Photo)	(color)	UC: 0		becomes sharper. When the value		
					JAPN: 22		decreases, the image becomes		
					<0-31>		solier. The smaller the value is, the		
							* The default value 0 is equivalent to		
							16(center value).		

			A	Adjustmo	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1761	Image	Black reproduction	switching	PPC	0	SYS	0: Default	1
				(color)	<0-1>		1: Black reproduction oriented	
1769	Image	Setting for	Vivid	PPC	0	SYS	Sets the reproduction mode for	1
		highlighter		(color)	<0-2>		highlighter for four types of one touch	
1770			Clear	PPC	0	SYS	adjustment.	1
				(color)	<0-2>		0: Default	
1771			Warm	PPC	0	SYS	1: Highlighter 1	1
				(color)	<0-2>	0.10	2: Highlighter 2	
1//2			Cool	PPC	0	SYS		1
1770.0	Image	Color bolonoo		(COIOT)	<0-2>	<u>ovo</u>	The torget color mode and density	4
1779-0	Image	Color balance	L	PPC (aplar)	128	515	The target color, mode and density	4
1770 1		(Text/Dhote)	N		<0-255>	eve	area become darker as the value	
1779-1			IVI	(color)	120	515	L : Low donaity area	4
1770-2					109	975	M : Modium donsity area	1
1119-2			11	(color)	<pre>/20 /0-255</pre>	515	H : High density area	4
1780-0	Image	Color balance			128	975		
1700-0	inage	adjustment for "V"	L	(color)	<0-255	010		-
1780-1		(Text)	M	PPC	128	SYS		4
			141	(color)	<0-255>			
1780-2			н	PPC	128	SYS		4
11002			••	(color)	<0-255>			
1781-0	Image	Color balance	L	PPC	128	SYS		4
		adjustment for "Y"	_	(color)	<0-255>			
1781-1		(Printed image)	М	PPC	128	SYS		4
_				(color)	<0-255>			
1781-2			Н	PPC	128	SYS		4
				(color)	<0-255>			
1782-0	Image	Color balance	L	PPC	128	SYS		4
		adjustment for "Y"		(color)	<0-255>			
1782-1		(Photo)	Μ	PPC	128	SYS		4
				(color)	<0-255>			
1782-2			Н	PPC	128	SYS		4
				(color)	<0-255>			
1783-0	Image	Color balance	L	PPC	128	SYS		4
		adjustment for "Y"		(color)	<0-255>			
1783-1		(Map)	М	PPC	128	SYS		4
				(color)	<0-255>	<b>.</b>		
1783-2			Н	PPC	128	SYS		4
17010	1			(color)	<0-255>	0)/2		
1784-0	Image	Color balance	L	PPC	128	SYS		4
1704 1		adjustment for "M"	N 4	(COIOT)	<0-255>	0.70		
1/84-1			IVI		128	515		4
1704.0					100	eve		
1704-2			п		120 20-255	010		4
1785-0	Image	Color balance			128	975		
1,03-0	maye	adjustment for "M"	L	(color)	<0-255	013		-
1785-1		(Text)	M	PPC	128	SYS		4
				(color)	<0-255>			
1785-2			н	PPC	128	SYS		4
				(color)	<0-255>			

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2 - 67 e-STUDIO3511/4511 ERROR CODE AND SELF-DIAGNOSTIC MODE

				Adjustm	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1786-0	Image	Color balance adjustment for "M"	L	PPC (color)	128 <0-255>	SYS	The target color, mode and density area become darker as the value	4
1786-1	-	(Printed image)	М	PPC	128	SYS	increases.	4
		(		(color)	<0-255>		L : Low density area	
1786-2	-		Н	PPC	128	SYS	M : Medium density area	4
				(color)	<0-255>		H : High density area	
1787-0	Image	Color balance	L	PPC	128	SYS		4
	_	adjustment for "M"		(color)	<0-255>			
1787-1		(Photo)	М	PPC	128	SYS		4
				(color)	<0-255>			
1787-2	1	-	Н	PPC	128	SYS		4
				(color)	<0-255>			
1788-0	Image	Color balance	L	PPC	128	SYS		4
		adjustment for "M"		(color)	<0-255>			
1788-1		(Map)	М	PPC	128	SYS		4
		_		(color)	<0-255>			
1788-2			Н	PPC	128	SYS		4
				(color)	<0-255>			
1789-0	Image	Color balance	L	PPC	128	SYS		4
		adjustment for "C"		(color)	<0-255>			
1789-1		(Text/Photo)	М	PPC	128	SYS		4
	-	_		(color)	<0-255>			
1789-2			Н	PPC	128	SYS		4
				(color)	<0-255>	0.40		
1790-0	Image	Color balance	L	PPC	128	SYS		4
1700.1	-	adjustment for "C"		(color)	<0-255>	01/0		
1790-1		(lext)	M	PPC	128	SYS		4
1700.0				(color)	<0-255>	0.20		
1790-2			н	PPC (aslar)	128	515		4
1701.0	Imaga	Color bolonoo	1		<0-255>	eve		
1791-0	inage	color balance	L		-0.255	313		4
1701-1		(Printed image)	M		109	<u>eve</u>		4
1731-1		(Finited image)	IVI	(color)	<pre>//20 /0-255&gt;</pre>	515		4
1791-2	-		н	PPC	128	SYS		4
17012				(color)	<0-255>	0.0		
1792-0	Image	Color balance	L	PPC	128	SYS		4
	linage	adjustment for "C"	-	(color)	<0-255>			
1792-1	1	(Photo)	М	PPC	128	SYS		4
				(color)	<0-255>			
1792-2	1		Н	PPC	128	SYS		4
				(color)	<0-255>			
1793-0	Image	Color balance	L	PPC	128	SYS		4
		adjustment for "C"		(color)	<0-255>			
1793-1	1	(Map)	М	PPC	128	SYS		4
				(color)	<0-255>			
1793-2		_	Н	PPC	128	SYS		4
				(color)	<0-255>			

	Adjustment mode (05)CodeClassifi- cationItemsFunc- valuesDefault valuesContentsProc- dure794-0ImageColor balance adjustment for "K"LPPC128SYSThe target color, mode and density area become darker as the value4794-1(Color) $\sim 0-255$ Increases.LLLow density area4794-2MPPC128SYSMMediani density area4794-2MPPC128SYSMHHeight density area4794-2MPPC128SYSMHHeight density area4794-2MPPC128SYSMHHeight density area4795-1(Color) $\sim 0-255$ MPPC128SYS4795-1(Text)MPPC128SYS4795-2(Text)MPPC128SYS4796-1(Text)MPPC128SYS4796-1(Color) $\sim 0-255$ (Color) $\sim 0-255$ 4797-0ImageColor balance adjustment for "K"LPPC128SYS4797-1(Photo)MPPC128SYS4797-1(Color balance (Color)LPPC128SYS4797-1(Map)PPC128SYS4798-1(Map)PPC128<										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
1794-0	Image	Color balance	L	PPC	128	SYS	The target color, mode and density	4			
		adjustment for "K"		(color)	<0-255>		area become darker as the value				
1794-1		(Text/Photo)	М	PPC	128	SYS	increases.	4			
		_		(color)	<0-255>		L : Low density area				
1794-2			Н	PPC	128	SYS	M : Medium density area	4			
				(color)	<0-255>		H : High density area				
1795-0	Image	Color balance	L	PPC	128	SYS		4			
		adjustment for "K"		(color)	<0-255>		-				
1795-1		(Text)	М	PPC	128	SYS		4			
		_		(color)	<0-255>		-				
1795-2			Н	PPC	128	SYS		4			
				(color)	<0-255>						
1796-0	Image	Color balance	L	PPC	128	SYS		4			
		adjustment for "K"		(color)	<0-255>						
1796-1		(Printed image)	Μ	PPC	128	SYS		4			
		_		(color)	<0-255>						
1796-2			Н	PPC	128	SYS		4			
				(color)	<0-255>		-				
1797-0	Image	Color balance	L	PPC	128	SYS		4			
		adjustment for "K"		(color)	<0-255>		-				
1797-1		(Photo)	М	PPC	128	SYS		4			
		_		(color)	<0-255>		-				
1797-2			Н	PPC	128	SYS		4			
				(color)	<0-255>		-				
1798-0	Image	Color balance	L	PPC	128	SYS		4			
		adjustment for "K"		(color)	<0-255>		-				
1798-1		(Map)	М	PPC	128	SYS		4			
		_		(color)	<0-255>		-				
1798-2			н	PPC	128	SYS		4			
				(color)	<0-255>						
1800-0	Image	Upper limit value	Y	ALL	650	M	Sets the upper limit value of the	4			
1000.1	control	of contrast voltage_			<0-999>		contrast voltage at the image quality				
1800-1			M	ALL	650	M	control. (Unit: V)	4			
1000.0				A1 1	<0-999>	N.4	-	-			
1000-2			U	ALL				4			
1000.2			K		<0-999>	N.4	-				
1000-3			r.	ALL				4			
1901 0	Imaga	Lower limit value	v	AL 1	100	NA	Sate the lower limit value of the	1			
1001-0	control	of contract voltage	I		-0-000-		contrast voltage at the image quality	4			
1801-1	CONTROL		M	Διι	100	NA	control (Unit: V)				
1001-1			IVI		-0-000-			4			
1801-2				Διι	100	NA	-				
1001-2			U		-0-000~			4			
1801-3			к	ALL	120	м	-	4			
					<0-999>						
1		1				1	1	1			

	Adjustment mode (05)           Code         Calassifi- classifi- control         Items         Func- ton         Default Normation         PAM         Contents         Proce- during           1802-0         Image control         Upper limit value of laser power         Y         ALL         800         M         Sets the upper limit value of the laser power at the image quality control.         4           1802-1         M         ALL         800         M         Co-9995-         (Unit: $\mu$ W)         4           1802-2         M         ALL         800         M								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1802-0	Image control	Upper limit value of laser power	Y	ALL	800 <0-999>	М	Sets the upper limit value of the laser power at the image quality control.	4	
1802-1			М	ALL	800 <0-999>	М	(Unit: μW)	4	
1802-2		-	С	ALL	800 <0-999>	М		4	
1802-3		-	K	ALL	800 <0-999>	М		4	
1803-0	Image	Lower limit value	Y	ALL	350 <0-999>	М	Sets the lower limit value of the laser	4	
1803-1		_	М	ALL	350	М	(Unit: µW)	4	
1803-2		_	С	ALL	350	М		4	
1803-3		-	К	ALL	350	М		4	
1804-0	Image	Background	Y	ALL	125	М	Displays the background voltage	10	
1804-1	Control	value display	М	ALL	125	М		10	
1804-2		-	С	ALL	125	М		10	
1804-3		-	К	ALL	125	М		10	
1805-0	Image	Drum surface	Y	ALL	979	М	Displays the slope factor of the	10	
1805-1	Control	teristic/slope	М	ALL	979	М	surface potential to the main charger	10	
1805-2		-	С	ALL	979	М		10	
1805-3		-	К	ALL	990	М		10	
1806-0	Image	Drum surface	Y	ALL	-6	М	Displays the offset factor of the	10	
1806-1	Control	teristic/offset	М	ALL	-6 -000-000	M	surface potential to the main charger	10	
1806-2		-	С	ALL	-6 -000-000	M		10	
1806-3		-	К	ALL	-4	M		10	
1807-0	Image	Drum exposure	Y	ALL	58	М	Displays the slope factor of the	10	
1807-1	CONTROL	istic/slope factor	М	ALL	58	M	exposure voltage to the main charger	10	
1807-2		charger grid low	С	ALL	<0-999> 58	М	gno vollage at the open-loop control.	10	
1807-3		vollage area) 	К	ALL	<0-999> <0-999>	М		10	

			4	Adjustm	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1808-0	Image	Drum exposure	Y	ALL	35	М	Displays the offset factor of the	10
	control	voltage character-			<-999-999>		approximate expression of the drum	
1808-1		istic/offset factor	М	ALL	35	M	exposure voltage to the main charger	10
		display (main			<-999-999>		grid voltage at the open-loop control.	
1808-2		charger grid low	С	ALL	35	M		10
1000.0		voltage area)	14		<-999-999>		-	10
1808-3			ĸ	ALL	42	M		10
1800-0	Imago		V	ΔΗ	<-333-3332 /Q	м	Displays the slope factor of the	10
	control	voltage character-			<0-999>	101	approximate expression of the drum	
1809-1	oonaoi	istic/slope factor	М	ALL	49	м	exposure voltage to the main charger	10
		display (main			<0-999>		grid voltage at the open-loop control.	
1809-2		charger grid high	С	ALL	49	М		10
		voltage area)			<0-999>			
1809-3			К	ALL	53	М		10
					<0-999>			
1810-0	Image	Drum exposure	Y	ALL	41	М	Displays the offset factor of the	10
	control	voltage character-			<-999-999>		approximate expression of the drum	
1810-1		istic/offset factor	М	ALL	41	М	exposure voltage to the main charger	10
		display (main			<-999-999>		grid voltage at the open-loop control.	
1810-2		charger grid high	С	ALL	41	М		10
		voltage area)			<-999-999>			
1810-3			K	ALL	47	M		10
					<-999-999>			
1811-0	Image	Contrast voltage/	Y	ALL	500	M	Displays the upper limit value of the	10
10111	control	upper limit actual			<0-999>		contrast voltage when printing is	10
1811-1		value display	IVI	ALL	500	INI	operated. (Unit: V)	10
1011.0			<u> </u>		<0-999>	N4	-	10
1011-2			C		-0-000			10
1811-3		-	ĸ	ΔΗ	600	м	-	10
			IX.		<0-999>			
1812-0	Image	Contrast voltage/	Y	ALL	120	м	Displays the lower limit value of the	10
	control	lower limit actual			<0-999>		contrast voltage when printing is	
1812-1		value display	М	ALL	120	М	operated. (Unit: V)	10
					<0-999>			
1812-2			С	ALL	120	М		10
					<0-999>			
1812-3		_	К	ALL	120	М		10
					<0-999>			
1813-0	Image	Display of	Y	ALL	170	Μ	Displays the upper limit value of the	10
	control	background			<0-999>		background voltage when printing is	
1813-1		voltage/upper limit	М	ALL	170	M	operated. (Unit: V)	10
1010.0		actual value		A1 1	<0-999>		-	
1813-2			C	ALL	1/0	M		10
1912.2		–	ĸ		<0-999>	N4	4	10
1013-3			r.		-0-000×			
1	1	1		1	0-3332			

			A	djustm	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1814-0	Image	Background	Y	ALL	80	М	Displays the lower limit value of the	10
	control	voltage/lower limit			<0-999>		background voltage when printing is	
1814-1		actual value	М	ALL	80	M	operated. (Unit: V)	10
		display			<0-999>		-	
1814-2			С	ALL	80	M		10
101/ 0					<0-999>	N.4	-	10
1014-3			ĸ	ALL	00 _0_000	IVI		10
1815-0	Image	Contrast voltage/	Y		0-3332	м	Displays the actual number of time	10
	control	correction number			<0-255>		the contrast voltage has been	
1815-1		of time display	М	ALL	0	М	corrected at the closed-loop control.	10
					<0-255>		•	
1815-2			С	ALL	0	М		10
					<0-255>			
1815-3			К	ALL	0	М	*	10
					<0-255>			
1816-0	Image	Laser power	Y	ALL	0	М	Displays the actual number of time	10
	control	correction/number			<0-255>		the laser power has been corrected	
1816-1		of time display	М	ALL	0	M	at the closed-loop control.	10
1010.0					<0-255>		-	- 10
1816-2			C	ALL	0 255	IVI		10
1916-2			ĸ	A1 1	<0-255>	M	-	10
1010-5			K		<0-255>	IVI		
1817	Image	Laser power actua	l value	PPC	92	м	Displays the laser power value when	2
	control	display		(black)	<0-255>		copying in the Black Mode.	
				,			(Bit value)	
1819	Image	Laser power correc	cting	PPC	100	М	Perform the correction of the setting	1
	control	factor		(black)	<100-255>		05-1817. (Unit: %)	
1820	Image	Laser power actua	l value	PRT	92	М	Displays the laser power value when	2
	control	display		(black)	<0-255>		printing in the Black Mode.	
	-	-					(Bit value)	
1821	Image	Laser power correc	cting	PRT	100	M	Perform the correction of the setting	1
1000.0	control	factor	Disia	(black)	<100-255>		05-1820. (Unit: %)	
1822-0	iranster	∠nd transfer roller	Plain	ALL	100	IVI	Corrects the 2nd transfer foller blas	14
1822-1		trailing edge of	Thick	ΔΠ	<0-200>	M	(05-227 229 230 231 and 232)	11
1022-1		namer	paper 1		<0-255>		Correction factor: %	
1822-2			Thick	ALL	90	м		14
			paper 2		<0-255>			
1822-3			Thick	ALL	90	М	+	14
			paper 3		<0-255>			
1822-4	1		OHP film	ALL	90	М	1	14
					<0-255>			

			P	djustme	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1823-0	Transfer	Display of	Single	ALL	145	M	Displays the value of 2nd transfer	10
		intermediate level	side	(black)	<0-255>		roller bias when the actual printing is	
1823-1		of 2nd transfer	Reverse	ALL	120	M	operated.	10
		roller bias actual	side at	(black)	<0-255>		(The value corrected in 05-1822 is	
		value of trailing	duplexing				displayed.)	
1823-2		edge of paper	Single	ALL	139	M		10
		(Plain paper)	side	(color)	<0-255>			
1823-3			Reverse	ALL	118	M		10
			side at	(color)	<0-255>			
			duplexing					
1825-0	Transfer	Display of	Single	ALL	138	M		10
		intermediate level	side	(black)	<0-255>			
1825-1		of 2nd transfer	Reverse	ALL	112	М		10
		roller bias actual	side at	(black)	<0-255>			
		value of trailing	duplexing					
1825-2		edge of paper	Single	ALL	123	М		10
		(Thick paper 1)	side	(color)	<0-255>			
1825-3			Reverse	ALL	112	М		10
			side at	(color)	<0-255>			
			duplexing	( )				
1826-0	Transfer	Display of intermed	liate level	ALL	145	М	Displays the value of 2nd transfer	10
		of 2nd transfer rolle	r bias	(black)	<0-255>		roller bias when the actual printing is	
1826-1		actual value of trail	ing edge	ALL	139	М	operated.	10
		of paper (Thick pap	er 2)	(color)	<0-255>		(The value corrected in 05-1822 is	
1827-0	Transfer	Display of intermed	iate level	ALL	145	M	displayed.)	10
		of 2nd transfer rolle	er bias	(black)	<0-255>			
1827-1		actual value of trail	ing edge	ALL	139	M		10
		of paper (Thick pap	er 3)	(color)	<0-255>			
1828-0	Transfer	Display of intermed	iate level	ALL	118	M		10
		of 2nd transfer rolle	er bias	(black)	<0-255>			
1828-1		actual value of trail	ing edge	ALL	112	M		10
		of paper (OHP film)		(color)	<0-255>			
1829-0	Iransfer	1st transter roller	Ihick	ALL	40	M	Corrects the 1st transfer roller bias	14
1000 1		bias correction at	paper 2		<0-100>		output.	- 14
1829-1		ueceleration		ALL	60			14
1000.0			paper 3		<0-100>	N4		14
1029-2			00P film	ALL	40			14
1821	Transfor	1st transfer roller bi	as actual	ΔΙΙ	100>	М	Displays the value of 1st transfer	2
1001	Indinsier	value display at de		(black)	<0-255		roller higs at deceleration when the	<u> </u>
		(Thick naner 2)	Soloration	(DIGOR)			actual printing is operated	
1832	Transfer	1st transfer roller bi	as actual	ALI	180	м	(The value corrected in 05-1829 is	2
		value display at dec	celeration	(black)	<0-255>		displayed.)	-
		(Thick paper 3)	5.0.4001	(2.2010)				
1833					1	1		
1000	Transfer	1st transfer roller bi	as actual	ALL	200	M		2
1000	Transfer	1st transfer roller bi value display at dec	as actual celeration	ALL (black)	200 <0-255>	М		2

			Δ	djustm	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1834	Transfer	1st transfer roller b adjustment in low- color printing (Plain paper / Thic	vias output speed k paper 1)	ALL (color)	175 <0-255>	M	Adjusts the output value of the 1st transfer roller bias when the transfers of all colors (Y, M, C and K) have finished. When the value decreases, the 1st transfer roller bias output increases. This adjustment is valid only when the value of the code 08-497 is "1" (6 pages/minute).	1
1835	Transfer	1st transfer roller b offsetting in low-sp printing (Plain paper / Thic	vias eed color k paper 1)	ALL (color)	5 <0-10>	Μ	Sets the offset amount of the 1st transfer roller bias when the transfers of all colors (Y, M, C and K) have finished. This adjustment is valid only when the value of the code 08-497 is "1" (6 pages/minute). 0: -500 V 1: -400 V 2: -300 V 3: -200 V 4: -100 V 5: 0 V 6: +100 V 7: +200 V 8: +300 V 9: +400 V 10: +500 V	1
1836	Transfer	1st transfer roller b value display in lov color printing (Plain paper / Thic	ias actual v-speed k paper 1)	ALL (color)	175 <0-255>	М	Displays the actual value of the 1st transfer roller bias when the transfers of all colors (Y, M, C and K) have finished. This adjustment is valid only when the value of the code 08-497 is "1" (6 pages/minute).	2
1837	Transfer	1st transfer roller b adjustment (Tab paper)	ias output	ALL (black)	135 <0-225>	М	As the value decreases, the 1st transfer roller bias output increases correspondingly. The adjustment value becomes effective when the Setting Mode (08- 541, 549 and 551) is 0 (invalid).	3
1838-0	Transfer	1st transfer roller bias output	Y	ALL (color)	135 <0-225>	М	As the value decreases, the 1st transfer roller bias output increases	14
1838-1		adjustment (Tab paper)	М	ALL (color)	140 <0-225>	М	correspondingly. The adjustment value becomes	14
1838-2			С	ALL (color)	145 <0-225>	М	effective when the Setting Mode (08- 541, 549 and 551) is 0 (invalid).	14
1838-3			К	ALL (color)	150 <0-225>	М		14
1839-0	Transfer	2nd transfer roller bias correction of leading/trailing edge of paper (Tab paper)	Intermedi- ate level bias of trailing edge	ALL	100 <0-100>	M	Corrects the 2nd transfer roller bias output of leading/trailing edge of paper (05-1840). (Correcting factor: %)	14
1839-1			Bias of leading/ trailing edge	ALL	90 <0-100>	M		14

			A	djustme	ent mode	(05)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1840-0	Transfer	2nd transfer roller b	oias	ALL	143	M	As the value decreases, the 2nd	14
		output adjustment		(black)	<0-158>		transfer roller bias output increases	
		(Tab paper)					correspondingly.	
1840-1				ALL	137	M	The adjustment value becomes	14
				(color)	<0-158>		effective when the Setting Mode (08-	
							544, 549 and 551) is 0 (invalid).	
1841-0	Transfer	2nd transfer roller b	oias	ALL	5	М	Sets the offset amount of 2nd transfer	4
		offsetting adjustme	nt	(black)	<0-10>		roller bias.	
		(Tab paper)					0: -500V 1: -400V 2: -300V	
1841-1				ALL	5	M	3: -200V 4: -100V 5: 0V	4
				(color)	<0-10>		6: +100V 7: +200V 8: +300V	
							9: +400V 10: +500V	
1842-0	Transfer	Actual value	Interme-	ALL	143	М	Displays the value of 2nd transfer	10
		display of 2nd	diate	(black)	<0-225>		roller bias on the leading/trailing edge	
		transfer roller bias	level bias				of paper when printing is performed.	
		of leading/trailing	of trailing				(The value corrected in 05-1839 is	
		edge of paper	edge				displayed.)	
1842-1		(Tab paper)	Bias of	ALL	145	M		10
			leading/	(black)	<0-225>			
			trailing					
			edge					
1842-2			Interme-	ALL	137	M		10
			diate	(color)	<0-225>			
			level bias					
			of trailing					
			edge					
1842-3			Bias of	ALL	140	M		10
			leading/	(color)	<0-225>			
			trailing					
			edge					
1843	Transfer	1st transfer roller bi	ias actual	ALL	135	M	Displays the value of 1st transfer	2
		value display		(black)	<0-225>		roller bias when printing is operated.	
1011.0	<del></del> ,	(lab paper)			105			10
1844-0	Iranster	1st transfer roller	Y	ALL	135	M	Displays the value of 1st transfer	10
10111		bias actual value		(color)	<0-225>		roller bias when printing is operated.	- 10
1844-1		display	IVI	ALL	140	M		10
1011.0		(lab paper)		(color)	<0-225>		-	10
1844-2			C	ALL	145			10
1044.0					<0-225>	N.4		10
1844-3			n	ALL	100			
1045 0	Transfer	and transfer roll			<0-225>	N.4	Displays the value of and transfer	10
1845-0	rransier	Znu transfer roller t	nas ,	ALL (block)	143		Displays the value of 2nd transfer	
19/5 1		(Tab paper)	/		127	N.4		10
1040-1					13/			
				(color)	<0-158>			

## 2.2.5 Setting mode (08)





## Notes:

1. The digit after the hyphen in "Code" of the following table is a sub code.

2. In "RAM", the NVRAM of the board in which the data of each code is stored is indicated. "M" stands for the LGC board, "SYS" and "UTY" stands for the SYS board and "NIC" stands for the NIC board.

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
200	General	Date and time setting	ALL	-	-	Year/month/date/day/hour/minute/	5
				<13 digits>		second	
						Example: 03 07 0 13 13 27 48	
						"Day" - "0" is for "Sunday". Proceeds Mon-	
						day through Saturday from "1" to "6".	
201	General	Destination selection	ALL	EUR: 0	М	0: EUR 1: UC	1
				UC: 1		2: JPN 3: Other	
				JPN: 2			
				<0-3>			
202	User	Counter installed externally	ALL	0	M	0: No external counter	1
	interface			<0-4>		1: Coin controller	
						2: Copy key card	
						3: Key copy counter	
						4: Key card for OEM1	
203	General	Line adjustment mode	ALL	0	M	0: For factory shipment 1: For line	1
				<0-1>	0.40	*Field: "0" must be selected	
204	User	Auto-clear timer setting	ALL	3	SYS	Timer to return the equipment to the	1
	interface			<0-10>		default settings when the [START]	
						button is not pressed after the	
						function and the mode are set	
						0: Not cleared	
					0.40	1 to 10: Set number x 15 sec.	
205	User	Auto power save mode timer	ALL	11	SYS	limer to automatically switch to the	1
	Interface	setting		<0, 6-15>		energy saving mode when the	
						equipment has not been used	
						0: Invalid 6: 3min. 7: 4min.	
						8: 5min. 9: 7min. 10: 10min.	
						11: 15min. 12: 20min. 13: 30min.	
206	Lloor	Auto Chut Off Mada timor	A1 1	Defer to	eve	14: 45mm. 15: 60mm.	- 1
200	intorfago	Auto Shut On Mode limer	ALL		515	automatically when the aguinment	1
	Intenace	setting (Sleep Mode)				has not been used	
				<0-20>		0: 3min 1: 5min 2: 10min	
						2: 15min 4: 20min 5: 25min	
						6: 30min 7: 40min 8: 50min	
						9: 60min 10: 70min 11: 80min	
						12. 90min 13. 100min 14. 110min	
						15: 120min 16: 150min 17: 180min	
						18: 210min, 19: 240min	
						20: Not used	
						<default value=""></default>	
						e-STUDIO3511: 9	
						e-STUDIO4511: 12	

	Setting mode (08)											
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure					
207	User interface	Highlighting display on LCD	ALL	0 <0-1>	SYS	0: Black letter on white background 1: White letter on black background	1					
209	User	Default setting of filing	ALL	0	SYS	0:TIFF (Multi) 1:PDF	1					
	interface	format when E-mailing	(color)	<0-1>								
		(common in all color modes)										
210	Paper	Paper size (A6-R)	PRT	148/105	М		10					
	feeding	feeding/widthwise direction		<148-432/								
				105-297>								
216	Paper	Tab paper print	ALL	130	SYS		1					
	feeding	Tab width setting (Bypass feeding)		<100-200>								
217	Paper	Tab paper print	ALL	1300	SYS		1					
	feeding	Shift width setting (Bypass feeding)		<0-3000>								
218	User	Default setting of filing	SCN	1	SYS	0: TIFF (Multi) 1: PDF 2: JPG	1					
	interface	format when storing files (at	(color)	<0-3>		3:TIFF (Single)						
		color/ACS modes)										
219	User	Default setting of filing	ALL	0	SYS	0: TIFF (Multi) 1: PDF 2: JPG	1					
	interface	format when storing files (at black mode)	(black)	<0-3>		3:TIFF (Single)						
220	User	Language displayed at	ALL	EUR: 0	SYS	0: Language 1 1: Language 2	1					
	interface	power-ON		UC: 0		2: Language 3 3: Language 4						
				JPN: 5		4: Language 5 5: Language 6						
				<0-6>		6: Language 7						
221	User	Language selection in UI	ALL	EUR: 0	SYS	0: Language 1 1: Language 2	1					
	interface	data at Web power ON		UC: 0		2: Language 3 3: Language 4						
				JPN: 5		4: Language 5 5: Language 6						
		0.11.1.1.1.1.1.1		<0-6>		6: Language 7						
223	Mainte-	Switching of output pages/	ALL	0	M	Selects the reference to notify the PM	1					
	nance	driving counts at PM		<0-1>		timing. (The message is displayed on						
						Ine LCD screen.)						
						0. FM counter (The humber of output						
						1: PM time counter						
						(The timing is set at 08-375)						
224	Paper	Paper size for bypass feed	PPC		SYS	Press the button on the LCD to	9					
	feeding			0.102	0.0	select the size.	Ŭ					
225	Paper	Paper size for upper drawer	ALL	EUR:A4	М	Press the button on the LCD to	9					
	feeding			UC:LT		select the size.						
				JPN:A4								
226	Paper	Paper size for lower drawer	ALL	EUR:A3	М	Press the button on the LCD to	9					
	feeding			UC:LD		select the size.						
				JPN:A3								
227	Paper	Paper size for PFP upper	ALL	EUR: A4-R	М	Press the button on the LCD to	9					
	feeding	drawer		UC: LT-R		select the size.						
				JPN: A4-R								
228	Paper	Paper size for PFP lower	ALL	EUR:A4	М	Press the button on the LCD to	9					
	feeding	drawer		UC:LG		select the size.						
				JPN:B4								
229	Paper	Paper size (A3)	ALL	420/297	M		10					
	teeding	teeding/widthwise direction		<182-432/								
				140-297>								

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
230	Paper	Paper size (A4-R)	ALL	297/210	М		10				
	feeding	feeding/widthwise direction		<182-432/							
				140-297>							
231	Paper	Paper size (A5-R)	ALL	210/148	M		10				
	feeding	feeding/widthwise direction		<182-432/							
000	Dener	Deperaine (D4)		140-297>	N.4		10				
232	Faper	Faper Size (B4)		304/257	IVI		10				
	leeuing	leeding/widinwise direction		140-297							
233	Paper	Paper size (B5-B)	ALI	257/182	м		10				
200	feeding	feeding/widthwise direction		<182-432/							
	J			140-297>							
234	Paper	Paper size (LT-R)	ALL	279/216	М		10				
	feeding	feeding/widthwise direction		<182-432/							
	_			140-297>							
235	Paper	Paper size (LD)	ALL	432/279	Μ		10				
	feeding	feeding/widthwise direction		<182-432/							
				140-297>							
236	Paper	Paper size (LG)	ALL	356/216	М		10				
	feeding	feeding/widthwise direction		<182-432/							
				140-297>							
237	Paper	Paper size (ST-R)	ALL	216/140	M		10				
	feeding	feeding/widthwise direction		<182-432/							
000	Donor	Deperation (COMPLITED)		140-297>	N/		10				
230	fooding	fooding/widthwise direction		300/207 -182-//22/	IVI		10				
	leeuing			140-297>							
239	Paper	Paper size (FOLIO)	ALI	330/210	м		10				
	feeding	feeding/widthwise direction		<182-432/							
	5			140-297>							
240	Paper	Paper size (13"LG)	ALL	330/216	М		10				
	feeding	feeding/widthwise direction		<182-432/							
				140-297>							
241	Paper	Paper size (8.5"X8.5")	ALL	216/216	M		10				
	feeding	feeding/widthwise direction		<182-432/							
0.40				140-297>	0.10		10				
242	Paper	Paper size (Non-standard)	ALL	432/279	SYS		10				
	reeding	reeding/widthwise direction		<148-432/							
2/3	Paper	Memory 1	ΔΗ	1/18/100	975	Begisters the paper size of hypass	10				
240	feeding	Paper size (bypass feeding/		<148-432/	010	feed (non-standard type) into					
	locally	non-standard type)		100-297>		[MEMORY 1].					
		feeding/widthwise direction				[					
244	Paper	Paper size (8K)	ALL	390/270	М		10				
	feeding	feeding/widthwise direction		<182-432/							
				140-297>							
245	Paper	Paper size (16K-R)	ALL	270/195	М		10				
	feeding	feeding/widthwise direction		<182-432/							
		-		140-297>							
246	Paper	Paper size (A3-wide)	ALL	457/305	M		10				
	teeding	teeding/widthwise direction		<182-457/							
				140-305>							

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
247	Paper feeding	Memory 2 Paper size (bypass feeding/ non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 2].	10				
248	Paper feeding	Memory 3 Paper size (bypass feeding/ non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 3].	10				
249	Paper feeding	Memory 4 Paper size (bypass feeding/ non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 4].	10				
250	Mainte- nance	Service technician telephone number	ALL	0 <32 digits>	SYS	A telephone number can be entered up to 32 digits. Use the [MONITOR/ PAUSE] button to enter a hyphen(-).	11				
251	Mainte- nance	Setting value of PM counter	ALL	Refer to content <8 digits>	М	<default> e-STUDIO3511 UC, EUR: 120000 JPN: 0 e-STUDIO4511 UC, EUR: 150000 JPN: 0</default>	1				
252	Mainte- nance	Current value of PM counter Display/0 clearing	ALL	0 <8 digits>	М	Counts up when the registration sensor is ON.	1				
253	Mainte- nance	Error history display	ALL	-	SYS	Displays the latest 20 errors data	2				
254	Paper feeding	LT ↔ A4/LD ↔ A3	PRT	0 <0-1>	SYS	<ul> <li>Sets whether the data is printed on the different but similar size paper or not when the paper of corresponding size is not available.</li> <li>O: Valid (The data is printed on A4/A3 when LT/LD is selected or vice versa.)</li> <li>1: Invalid (The message to use the selected paper size is displayed.)</li> </ul>	1				
255	Paper feeding	PFP/LCF installation	ALL	0 <0-4>	M	0: Automatic 1: PFP single-drawer type installed 2: PFP dual-drawer type installed 3: LCF installed 4: Not installed	1				
256	Paper feeding	Paper size setting /LCF	ALL	EUR:A4 UC:LT JPN:A4	M	Press the icon on the LCD to select the size.	9				
257	Counter	Counter copy	ALL	- <1-2>	-	1: Electrical counter -> Backup counter 2: Backup counter -> Electrical counter ( ► Page 2-153)	-				
258	Mainte- nance	FSMS acceptance	ALL	1 <0-2>	SYS	Sets whether the FSMS connection is accepted or not. 0: Prohibited 1: Accepted (serial connection only) 2: Accepted (both serial and USB connections) 0: No limits 1 to 30: 1 to 30 days	1				
		private		<0-30>							

Code         Classifi- cation         Items         Func- values         Default values         PAM         Contents         Proc- due           260         Network         Web data retention period         ALL         10 SYS         When a certain period of time has passed without operation after accessing TopAccess, the data baing registered is automatically reset. This period is set at this code. (Unit: Minute)         1           261         Network         Web data in Electronic Filing retention period         ALL         10 SYS         When a certain period of time has passed without operation after accessing Electronic Filing, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)         1           262         Network         TWAIN data retention period         ALL         10 SYS         SYMen a certain period of time has passed without operation after accessing TUNIA and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)         1           263         User interface         Administrator's password interface         ALL         30 SYS         SYS bit in file period is set at this code.         11           266         Network         Maximum data capacity at interface         ALL         30 SYS         SYS 0 No limits         1           266         Network         Maximum data capacity		Setting mode (08)									
260       Network       Web data retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing TopAccess, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         261       Network       Web data in Electronic Filing retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing Electronic Filing, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         262       Network       TWAIN data retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         263       User       Administrator's password (Maximum 10 digits)       ALL       120       SYS       When a certain period of time has passed without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         264       Network       File retention period       ALL       20       SYS       SYS       Network without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         264       Network       Maximum data capacity ath	Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
261       Network       Web data in Electronic Filing retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing TopAccess, the data both control is set at this code. (Unit: Minute)         261       Network       Web data in Electronic Filing retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing TopAccess. This period is set at this code. (Unit: Minute)       1         262       Network       TWAIN data retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         263       User       Administrator's password       ALL       123456       -       The password can be entered in a cocessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         264       Network       File retention period       ALL       30       SYS       1No binits       1         265       Network       Maximum data capacity at miscure       ALL       30       SYS       21:30 M bytes       1         266       Network       Maximum data capacity at miscure       ALL       30       SYS       SYS       21:30 M byt	260	Network	Web data retention period	ALL	10	SYS	When a certain period of time has	1			
261       Network       Web data in Electronic Filing retention period       ALL solut:       10 -3 digits- solut:       SYS Network       Web data in Electronic Filing retention period       10 -3 digits- solut:       SYS Network       SYS passed without operation after accessing Floctronic Filing, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         262       Network       TWAIN data retention period       ALL solution       10 -3 digits- solution       SYS solution       SYS period is set at this code. (Unit: Minute)       1         263       User interface       Administrator's password (Maximum 10 digits)       ALL solution       123456 -1       -1       10 -1       SYS period is set at this code. (Unit: Minute)       11         264       Network       File retention period       ALL solution       30       SYS solution to digits.       11         265       Network       File retention period       ALL solution       30       SYS solution to digits.       1         266       Network       Maximum data capacity at in Electronic Filing when HDD is full       ALL solution       30       SYS solution       SYS solution       SYS solution       1         267       Electronic Filing when HDD is full       ALL solution       30       SYS solution       SYS solution the solutonic level when editing the files in the Electronic ret					<3 digits>		passed without operation after				
261         Network         Web data in Electronic Filing retention period         ALL ALL ALL ALL ALL ALL ALL ALL ALL ALL							accessing TopAccess, the data being				
Image: Section of the sectio							registered is automatically reset. This				
Image: Constraint of the second sec							period is set at this code.				
261       Network       Web data in Electronic Filing referition period       ALL solution       10 (3 digits)       SYS       When a certain period or time has passed without operation after accessing Electronic Filing, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         262       Network       TWAIN data retention period       ALL solution       10 (SYS       SYS       When a certain period of time has passed without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         263       User       Administrator's password interface       ALL       123456       -       The password can be entered in alphabets and figures (A-Z, a-Z, 0-9) within 10 digits.       11         264       Network       File retention period       ALL       30       SYS       10 obj95: 10 obj96 days       1         265       Network       File retention period       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at filing       ALL       30       SYS       2 to 30 M bytes       1         267       Electronic Filing when HDD is full       ALL       30       SYS       Sets the file enterted in level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution), 0: Not Mill retained 1: Fully r							(Unit: Minute)				
Image: Section of the section of th	261	Network	Web data in Electronic Filing	ALL	10	SYS	When a certain period of time has	1			
accessing Electronic Filing, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)262NetworkTWAIN data retention periodALL10 <3 digits			retention period		<3 digits>		passed without operation after				
262NetworkTWAIN data retention periodALL10  <3 digits>SYSWhen a certain period is set at this code. (Unit: Minute)1 accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)1 accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)11 alphabets and figures (A-Z, a-Z, 0-9) within 10 digits.11 alphabets and figures (A-Z, a-Z, 0-9) within 10 digits.11 alph							accessing Electronic Filing, the data				
262       Network       TWAIN data retention period       ALL       10       seased without operatina period of time has passed without operatina particular after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       1         263       User       Administrator's password interface       ALL       123456       -       The password can be entered in alphabets and figures (A-Z, a-Z, 0-9) within 10 digits.       11         264       Network       File retention period       ALL       30       SYS       0. No limits       1         265       Network       Maximum data capacity at interface       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at interfere FAX       ALL       30       SYS       2 to 30 M bytes       1         267       Full guarantee of documents in Electronic Filing when HDD is full       ALL       0       SYS       Sets the file retention level when eit in the Electronic Filing when HDD is full       <-1-b							being registered is automatically				
262NetworkTWAIN data retention periodALL10 statistic statusSYSWhen a certain period of time has passed without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)1263User interfaceAdministrator's password (Maximum 10 digits)ALL123456-The password can be entered in alphabets and figures (A-Z, a-z, 0-9) within 10 digits.11 1 to 999: 1 to 999 days11264NetworkFile retention periodALL30 SYS2 to 30 M bytes1265NetworkMaximum data capacity at Internet FAXALL30 SYS2 to 30 M bytes1266NetworkMaximum data capacity at Internet FAXALL30 SYSS to 30 M bytes1266NetworkMaximum data capacity at Internet FAXALL30 SYSS to 30 M bytes1267ElectronicFull guarantee of documents in Electronic Filing when HDD is fullALL30 SYSS to 30 M bytes1268User InterfaceBinarizing level selection (When judging as black in the ACS Mode)ALL3 SYSS to 10 M bytes1268User InterfaceDefault setting of user box, retention periodALL3 SYSS Ste 11 retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when "1's iset. <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>reset. This period is set at this code.</td><td></td></td<>							reset. This period is set at this code.				
262       Network       TWAIN data retention period       ALL       10       SYS       When a certain period of time has passed without operation after accessing TWAIN and File Downloader, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)       11         263       User       Administrator's password (Maximum 10 digits)       ALL       123456       The password can be entered in alphabets and figures (A-Z, a-z, 0-9) within 10 digits.       11         264       Network       File retention period       ALL       30       SYS       0: No limits 10 digits.       1         265       Network       Maximum data capacity at Emailing       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       Sets the file retention level when ethered in etherod in the Electronic Filing when HDD is full       1       -2-30-       Sets the file retention level when excution, or box ommand is completed.       1         266       Network       Filing       Full guarantee of documents in the Electronic Filing when HDD is full       ALL       0       SYS       Sets the file retention level when excution, or box ommand is completed.       1         267       Electronic       Full guarantee of documents in the ACS Mode)       ALL       3       SYS       Sets t							(Unit: Minute)				
SectorSecto	262	Network	TWAIN data retention period	ALL	10	SYS	When a certain period of time has	1			
263       User       Administrator's password       ALL       123456       -					<3 digits>		passed without operation after				
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Image: Section of the section of th							Downloader, the data being				
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263       User       Administrator's password       ALL       123456       -       The password can be entered in alphabets and figures (A-Z, a-Z, 0-9) within 10 digits.       11         264       Network       File retention period       ALL       30       SYS       0: No limits       1         265       Network       Maximum data capacity at E-mailing       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       2 to 30 M bytes       1         267       Electronic       Full guarantee of documents in Electronic Filing when HDD is full       ALL       0       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       1         268       User       Binarizing level selection interface       Muten judging as black in the ACS Mode)       ALL       3       SYS       Sets the data retention period (unit: Day)         270       Electronic       Default setting of user box filing       ALL       0       SYS       Sets the data retention period (unit: Day)         270       Electronic       Default setting of user box filing       ALL       0       SYS       Sets the data retention period (unit: Day)         271       General							(Unit: Minute)				
interface       (Maximum 10 digits)       <10 digits>       alphabets and figures (A-Z, a-z, 0-9)         264       Network       File retention period       ALL       30       SYS       0: No limits       1         265       Network       Maximum data capacity at E-mailing       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       2 to 30 M bytes       1         267       Electronic       Full guarantee of documents filing       ALL       0       SYS       SYS       Sets the file retention level when editing the files in the Electronic       1         100       in Electronic Filing when HDD is full       ALL       0       SYS       Sets the file retention level when editing the files in the Electronic       1         268       User       Binarizing level selection interface       ALL       3       SYS       SYS       0: Step -2       1: Step -1       1         268       User       Binarizing level selection interface       ALL       3       SYS       SYS       Sets the data retention period when '1'' is set.         270       Electronic       Default setting of user box filing       ALL       0       SYS       Sets the data retention period (U	263	User	Administrator's password	ALL	123456	-	The password can be entered in	11			
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264       Network       File retention period       ALL       30       SYS       0: No limits       1         265       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       2 to 30 M bytes       1         267       Electronic       Full guarantee of documents filing       ALL       0       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       1         268       Electronic       Full guarantee of documents file       ALL       0       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       0: Not full retained 1: Fully retained execution of command when execution of command when "1" is set.         268       User       Binarizing level selection interface       ALL       3       SYS       Sets the data retention period when creating a user box. 0: Not deleted       1         270       Electronic       Default setting of user box file       ALL       0       SYS       Sets the data retention period when creating a user box. 0: Not deleted       1         271       General       Warning display of the HDD capacity to be filled <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>within 10 digits.</td><td></td></td<>							within 10 digits.				
265       Network       Maximum data capacity at E-mailing       ALL ALL       30 <2-30>       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at Internet FAX       ALL ALL       30 <2-30>       SYS       2 to 30 M bytes       1         267       Electronic filing       Full guarantee of documents in Electronic Filing when HDD is full       ALL       0       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       1         268       User interface       Binarizing level selection the ACS Mode)       ALL       3       SYS       SYS       0: Step -2       1: Step -1         270       Electronic filing       Default setting of user box filing       ALL       0       SYS       SYS       Sets the data retention period (Unit: Day)         271       General       Warning display of the HDD capacity to be filled       ALL       90       SYS       Sets the percentage of the HDD       1         271       General       Warning display of the HDD       ALL       90       SYS       Sets the percentage of the HDD       1         271       General       Warning display of the HDD       ALL       90       SYS       Sets the percentage of the HDD       1         271	264	Network	File retention period	ALL	30	SYS	0: No limits	1			
265       Network       Maximum data capacity at E-mailing       ALL       30       SYS       2 to 30 M bytes       1         266       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       2 to 30 M bytes       1         267       Electronic filing       Full guarantee of documents in Electronic Filing when HDD is full       ALL       0       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       1         268       User interface       Binarizing level selection the ACS Mode)       ALL       3       SYS       SYS       Sets the data retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       0       Not full retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command when "1" is set.         268       User       Binarizing level selection interface       ALL       3       SYS       0: Step -2       1: Step -1       1         270       Electronic filing       Default setting of user box retention period       ALL       0       SYS       Sets the data retention period (Unit: Day)         271       General       Warning display of the HDD capacity to be filled       ALL       90       SYS       Sets the percentage of the HDD capacity filed which warning is displayed       SYS       Sets the					<0-999>		1 to 999: 1 to 999 days				
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266       Network       Maximum data capacity at Internet FAX       ALL       30       SYS       2 to 30 M bytes       1         267       Electronic       Full guarantee of documents in Electronic Filing when HDD is full       ALL       0       SYS       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       1         268       User interface       Binarizing level selection the ACS Mode)       ALL       3       SYS       SYS       Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution).       0: Not full retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command when "1" is set.         268       User interface       Binarizing level selection the ACS Mode)       ALL       3       SYS       0: Step -2       1: Step -1       1         270       Electronic filing retention period       Default setting of user box filing retention period       ALL       0       SYS       Sets the data retention period when to 999: Retention period (Unit: Day)       1         271       General       Warning display of the HDD capacity to be filled       ALL       90       SYS       Sets the percentage of the HDD capacity filed which warning is displayed       1			E-mailing		<2-30>						
267Electronic filingFull guarantee of documents in Electronic Filing when HDD is fullALL0  <0-1>SYSSets the file retention level when editing the files in the Electronic Filing (at CutDoc/SaveDoc command execution). 0: Not full retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when "1" is set.268User interfaceBinarizing level selection the ACS Mode)ALL3 SYSO: Step -2 to mand when "1" is set.1 1 2: Step 0 (center) 3: Step 1 4: Step 2 * The binarizing level of each step is set at 08-609.1 creating a user box. 0: Not deleted to 999>1 creating a user box. 0: Not deleted to 999>SYSSets the data retention period (Unit: Day)270Electronic filing filingDefault setting of user box capacity to be filledALL90 <0-100>SYSSets the percentage of the HDD capacity filed which warning is displayed 0. The 100 %/1 capacity to be filled	266	Network	Maximum data capacity at	ALL	30	SYS	2 to 30 M bytes	1			
267       Electronic       Full guarantee of documents       ALL       0       SYS       Sets the file retention level when       1         filing       in Electronic Filing when       HDD is full       -0-1>       editing the files in the Electronic       Filing (at CutDoc/SaveDoc command execution).       0: Not full retained 1: Fully retained       -         0       Not full retained 1: Fully retained       - Retains the source file until CutDoc/SaveDoc command is completed.       -       The file is not deleted even if the HDD has become full during the execution of command when "1" is set.         268       User       Binarizing level selection       ALL       3       SYS       0: Step 2       1: Step -1       1         268       User       Binarizing level selection       ALL       3       SYS       0: Step 0 (center) 3: Step 1       1         268       User       Binarizing level solection       ALL       3       SYS       Sets the data retention period when       1         270       Electronic       Default setting of user box       ALL       0       SYS       Sets the data retention period (Unit: Day)         271       General       Warning display of the HDD       ALL       90       SYS       Sets the percentage of the HDD       1         capacity to be filled       capacity to be filled <td></td> <td></td> <td>Internet FAX</td> <td></td> <td>&lt;2-30&gt;</td> <td>01/0</td> <td></td> <td></td>			Internet FAX		<2-30>	01/0					
filing HDD is fullin Electronic Filing when HDD is full<0-1> HDD is fullediting the files in the Electronic Filing (at CutDoc/SaveDoc command execution). 0: Not full retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when "1" is set.268User interfaceBinarizing level selection (When judging as black in the ACS Mode)ALL3 SYS0: Step -2 21: Step -1 2: Step 0 (center) 3: Step 1 4: Step 2 * The binarizing level of each step is set at 08-609.1 creating a user box. 0: Not deleted to 999>1 creating a user box. 0: Not deleted to 999: Retention period (Unit: Day)271General Warning display of the HDD 	267	Electronic	Full guarantee of documents	ALL	0	SYS	Sets the file retention level when	1			
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268User interfaceBinarizing level selection (When judging as black in the ACS Mode)ALL3 ( ( ( He are and the area and th							- Retains the source file until CutDoc/				
268User interfaceBinarizing level selection (When judging as black in the ACS Mode)ALL3 SYS0: Step -21: Step -11268User interfaceBinarizing level selection (When judging as black in the ACS Mode)ALL3 <1-5>SYS0: Step -21: Step -11270Electronic filing retention periodDefault setting of user box retention periodALL0 SYSSets the data retention period when creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)1 capacity to be filled0 SYSSets the percentage of the HDD capacity to be filled1 1 capacity to be filled0 SYSSets the percentage of the HDD capacity filled which warning is displayed1 capacity filled which warning is displayed0 to 100>0 to 100 %							SaveDoc command is completed.				
268User interfaceBinarizing level selection (When judging as black in the ACS Mode)ALL3 SYS0: Step -21: Step -11268User interface(When judging as black in the ACS Mode)ALL3 <1-5>SYS0: Step -21: Step -11270Electronic filingDefault setting of user box retention periodALL0 SYSSets the data retention period when creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)1 271General capacity to be filledALL90 SYSSets the percentage of the HDD capacity filled which warning is displayed 0 to 100 by1 capacity filled which warning is displayed 0 to 100 by1							* The file is not deleted even if the HDD				
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200       Oser       Binarizing level selection       ALL       3       SYS       0: Step -2       1: Step -1       1         interface       (When judging as black in the ACS Mode)        <1-5>       2: Step 0 (center) 3: Step 1       4: Step 2         270       Electronic       Default setting of user box filling       ALL       0       SYS       SYS       Sets the data retention period when creating a user box.       1         271       General       Warning display of the HDD capacity to be filled       ALL       90       SYS       Sets the percentage of the HDD capacity filled which warning is displayed       1		1.	Dispering laws last states			0.70	or command when "1" is set.				
270       Electronic       Default setting of user box       ALL       0       SYS       Sets the data retention period when creating a user box.       1         271       General       Warning display of the HDD capacity to be filled       ALL       90       SYS       Sets the percentage of the HDD capacity filled which warning is displayed       1	268	User	Dinarizing level selection	ALL	3	515	U: Step -2 1: Step -1				
270Electronic filing retention periodDefault setting of user box retention periodALL ALL0 <0-999>SYS creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)1271General capacity to be filledALL voltable90 <0-100>SYS capacity filled which warning is displayed 0 to 100 %10 capacity filled which warning is displayed 0 to 100 %		menace	(when judging as black in		<1-2>		2. Step 0 (center) 3: Step 1				
270       Electronic       Default setting of user box       ALL       0       SYS       Sets the data retention period when       1         filing       retention period       <0-999>       <0-999>       <0-999>       <0.000			ule ACS Mode)				4. SIEP 2				
270       Electronic filing       Default setting of user box retention period       ALL       0       SYS       Sets the data retention period when creating a user box.       1         271       General       Warning display of the HDD capacity to be filled       ALL       90       SYS       Sets the percentage of the HDD capacity filled which warning is displayed       1							set at 08-609				
Error     Error     Or of the data retention period when period when period when period when period when period when period (Unit: Day)       271     General     Warning display of the HDD capacity to be filled     ALL     90     SYS     Sets the data retention period (Unit: Day)       271     General     Warning display of the HDD capacity to be filled     ALL     90     SYS     Sets the percentage of the HDD 1       capacity to be filled     Co-100>     Co-100>     Co-100>     Co-100 %	270	Electronic	Default setting of user box	ΔΙΙ	0	SVS	Sets the data retention period when	1			
271     General     Warning display of the HDD     ALL     90     SYS     Sets the percentage of the HDD     1       26-3032     Cleating a doer box.     0: Not deleted     1 to 999: Retention period (Unit: Day)       271     General     Warning display of the HDD     ALL     90     SYS     Sets the percentage of the HDD     1       capacity to be filled     <0-100>     <0-100>     Capacity filled which warning is displayed     0: to 100 %	210	filing	retention neriod		<0-000	010	creating a user box	'			
271     General     Warning display of the HDD capacity to be filled     ALL     90     SYS     Sets the percentage of the HDD     1       271     General     Warning display of the HDD capacity to be filled     ALL     90     SYS     Sets the percentage of the HDD     1       271     General     Warning display of the HDD     ALL     90     SYS     Sets the percentage of the HDD     1       271     General     Warning display of the HDD     ALL     90     SYS     Sets the percentage of the HDD     1       271     General     Warning display of the HDD     ALL     90     SYS     Sets the percentage of the HDD     1		l			~~ ~~ ~~ ~~ ~~ ~~ ~~ ~~ ~~ ~~ ~~ ~~ ~~		0: Not deleted				
271       General       Warning display of the HDD       ALL       90       SYS       Sets the percentage of the HDD       1         capacity to be filled       <0-100>       capacity filled which warning is displayed							1 to 999: Retention period (Unit: Day)				
capacity to be filled <0-100> capacity filled which warning is displayed	271	General	Warning display of the HDD	ALL	90	SYS	Sets the percentage of the HDD	1			
displayed			capacity to be filled		<0-100>		capacity filled which warning is				
							displayed				
							0 to 100: 0 to 100 %				

	Setting mode (08)									
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
272	Scanning	Notification setting of E-mail saving time limit	ALL	3 <0-99>	SYS	Sets the days left the notification of E-mail saving time limit appears	1			
						0 to 99: 0 to 99 days				
273	Scanning	Default setting of partial size	ALL	0	SYS	Sets the default value for the partial	1			
		when transmitting E-mail		<0-6>		size of E-mail to be transmitted when				
						creating a template.				
						0: Not divided				
						1: 64 2: 128 3: 256 4: 512				
274	EAY	Default sotting of page by		0	<u>eve</u>	5: 1024 6: 2048 (Utili: KB)	1			
2/4		nade when transmitting		<0-4>	515	nade of Internet FAX to be transmitted				
		Internet FAX		~~~~		when creating a template				
						0: Not divided				
						1: 256 2: 512 3: 1024				
						4: 2048 (Unit: KB)				
275	FAX	Default setting of encode	FAX	0	SYS	0: MH 1: MR 2: MMR 3: JBIG	1			
		method		<0-3>						
276	User	Default setting of density	SCN	0	SYS	0: Automatic density 1: Step -5	1			
	interface	adjustment (Black)	(black)	<0-11>		2: Step -4 3: Step -3				
						4: Step -2 5: Step -1				
						6: Step 0 (center) 7: Step +1				
						8: Step +2 9: Step +3				
						10: Step +4 11: Step +5				
			0.011		0.10	(1 to 11: Manual density)				
277	User	Default setting of	SCN	3	SYS	1: Step -2 2: Step -1	1			
	Interface	Eull Color)		<1-2>		3: Step 0 (center) 4: Step $\pm 1$				
278	User	Default setting of color	SCN	0	SYS	0: Black 1: Grav Scale 2: Unused	1			
2/0	interface	mode		<0-4>		3: Full Color 4: Auto Color				
279	User	Default setting of resolution	SCN	2	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi	1			
	interface	(Full Color)	(color)	<0-3>		3: 300dpi				
280	User	Default setting of resolution	SCN	2	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi	1			
	interface	(Gray Scale)	(black)	<0-4>		3: 300dpi 4: 400 dpi				
281	User	Default setting of resolution	SCN	1	SYS	0: 150 dpi 1: 200 dpi 2: 300 dpi	1			
	interface	(Black)	(black)	<0-4>		3: 400dpi 4: 600 dpi				
282	User	Default setting of original	SCN		SYS	U: Iext 1: Photo 2: Printed Image	1			
202	Llear	Default setting of original		<0-2>	eve	0: Taxt 1: Taxt/Photo 0: Photo	4			
203	interface	mode (Black)		-0-2	1313					
284	User	Default setting of scanning	SCN	0	SYS	0: Single 1: Book 2 <sup>.</sup> Tablet	1			
201	interface	mode		<0-2>						
285	User	Default setting of rotation	SCN	0	SYS	0: 0 degree 1: 90 degrees	1			
	interface	mode		<0-3>		2: 180 degrees 3: 270 degrees				
286	User	Default setting of original	ALL	0	SYS	0: Automatic 1: A3 2: A4	1			
	interface	paper size		<0-22>		3: LD 4: LT 5: A4-R				
						6: A5-R 7: LT-R 8: LG				
						9: B4 10: B5 11: ST-R				
						12: COMP 13: B5-R 14: FOLIO				
						15: 13"LG 16: 8.5"x 8.5"				
						18: A6-R 19: Size mixed				
						20: 8K 21: 16K 22: 16K-R				

	Setting mode (08)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
288	General	Searching interval	of	ALL	12	SYS	Sets the search interval of expired	1			
		deleting expired file	es		<1-24>		files. Deletes if expired file is found.				
			1			0)/0	(Unit: Hour)				
289	User	Default setting of b	аск-	ALL	3	SYS	1: Step -2 2: Step -1				
	Intenace	(Grav Scale)			<1-5>		5: Step +2				
290	Network	Raw printing job (C	)uplex)	PBT	1	SYS	0: Valid 1: Invalid	1			
		p	apron)		<0-1>	0.0					
291	Network	Raw printing job		PRT	EUR: 6	SYS	0: LD 1: LG 2: LT 3: COMP	1			
		(Paper size)			UC: 2		4: ST 5: A3 6: A4 7: A5				
					JPN: 6		8: A6 9: B4 10: B5 11: FOLIO				
		-			<0 -13>		12: 13 "LG 13: 8.5" x 8.5"				
292	Network	Raw printing job		PRI	0	SYS	0: Plain paper 1: Thick paper 1	1			
		(Paper type)			<0-4>		4: OHP film				
293	Network	Raw printing job		PRT	0	SYS	0: Portrait 1: Landscape	1			
		(Paper direction)			<0-1>						
294	Network	Raw printing job (S	staple)	PRT	1	SYS	0: Valid 1: Invalid	1			
005	Natural	Deve eviction into (F	·	DDT	<0-1>	0.70	Or here are trace				
295	Network	Raw printing job (E	xit tray)	PRI	-0-2>	515	U: Inner tray				
296	Network	Raw printing job		PRT	1200	SYS	Sets the number of form lines from 5	1			
200		(Number of form lir	nes)		<500-	0.0	to 128. (A hundredfold of the number	.			
		`	,		12800>		of form lines is defined as the setting				
							value.)				
297	Network	Raw printing job		PRT	1000	SYS	Sets the font pitch from 0.44 to	1			
		(PCL font pitch)			<44-9999>		99.99. (A hundredfold of the font				
	Naturali	Dow printing ich		DDT	1000	CVC	pitch is defined as the setting value.)	4			
298	Network	Raw printing job		PRI	-400-	515	A hundredfold of the font size is				
					99975>		defined as the setting value )				
299	Network	Raw printing job		PRT	0	SYS	Sets the PCL font number.	1			
		(PCL font number)			<0-79>						
300	User	Maximum number	of copy	PPC	0	SYS	0: 999 1: 99 2: 9	1			
	interface	volume (MAX9)			<0-2>		-				
301-0	Counter	Number of output	A3	PPC	0	SYS	Counts the output pages at the Full	4			
201.1	Countor	pages at Full		(COIOT)	<8 algits>	eve	Color Mode in the Copier Function				
301-1	Counter	Conier Function	A4	(color)	-8 digits	515	setting for the count setting of large-	4			
301-2	Counter		A5	PPC	0	SYS	sized paper (08-352) and the	4			
				(color)	<8 digits>		definition setting of large-sized paper				
301-3	Counter		A6	PPC	0	SYS	(08-353).	4			
				(color)	<8 digits>						
301-4	Counter		B4	PPC	0	SYS		4			
001 5	Country			(color)	<8 digits>	01/0					
301-5	Counter		В2	(color)	U S diaite>	515		4			
301-6	Counter		FOLIO	PPC	0 0 0 0	SYS		4			
				(color)	<8 digits>			.			
301-7	Counter	1	LD	PPC	0	SYS	1	4			
				(color)	<8 digits>						

	Setting mode (08)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
301-8	Counter	Number of output	LG	PPC	0	SYS	Counts the output pages at the Full	4			
		pages at Full		(color)	<8 digits>		Color Mode in the Copier Function				
301-9	Counter	Color Mode in	LT	PPC	0	SYS	for each paper size according to the	4			
		Copier Function		(color)	<8 digits>		setting for the count setting of large-				
301-10	Counter		ST	PPC	0	SYS	sized paper (08-352) and the	4			
		-		(color)	<8 digits>		definition setting of large-sized paper				
301-11	Counter		COMP	PPC	0	SYS	(08-353).	4			
		-		(color)	<8 digits>	0.10					
301-12	Counter		13"LG	PPC	0	SYS		4			
001.10		-	0.5" 0.5"	(color)	<8 digits>	01/0					
301-13	Counter		8.5"X8.5"	PPC		SYS		4			
001.14	Ocuration	-	101/	(color)	<8 aigits>	0.00					
301-14	Counter		16K	PPC		SYS		4			
001.15	Ocuration	-	01/	(color)	<8 aigits>	0.20					
301-15	Counter		86	PPC (aslar)	U O diaita	515		4			
001.10	Countor	-	Others		<8 aigits>	CVC		4			
301-10	Counter		Others		0 29 digitas	515		4			
200	Lloor	Original countar di	oploy			CVC	Sate whather the original counter is	4			
302	intorface		spiay	PFC		515	displayed or not				
	Interface						0: Not displayed 2: Displayed				
							0. Not displayed 2. Displayed				
303-0	Countor	Number of output	43	PBT	0, 2>	976	Counts the output pages at the Full	4			
303-0	Counter	nages at Full	70	(color)	<pre>cetinin 8</pre>	515	Color Mode in the Printer Function	4			
303-1	Counter	Color Mode in	Δ4	PRT		878	for each paper size according to the	4			
	Counter	Printer Function	/	(color)	<rbody>&lt;</rbody>	010	setting for the count setting of large-	-			
303-2	Counter		A5	PRT		SYS	sized paper (08-352) and the	4			
0000				(color)	<8 digits>		definition setting of large-sized paper				
303-3	Counter	-	A6	PRT	0	SYS	(08-353).	4			
			-	(color)	<8 digits>						
303-4	Counter	-	B4	PRT	0	SYS		4			
				(color)	<8 digits>						
303-5	Counter		B5	PRT	0	SYS		4			
				(color)	<8 digits>						
303-6	Counter		FOLIO	PRT	0	SYS		4			
				(color)	<8 digits>						
303-7	Counter		LD	PRT	0	SYS		4			
				(color)	<8 digits>						
303-8	Counter		LG	PRT	0	SYS		4			
				(color)	<8 digits>						
303-9	Counter		LT	PRT	0	SYS		4			
				(color)	<8 digits>						
303-10	Counter		ST	PRT	0	SYS		4			
				(color)	<8 digits>						
303-11	Counter		COMP	PRT	0	SYS		4			
				(color)	<8 digits>						
303-12	Counter		13"LG	PRT	0	SYS		4			
				(color)	<8 digits>						

	Setting mode (08)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
303-13	Counter	Number of output	8.5"x8.5"	PRT	0	SYS	Counts the output pages at the Full	4				
		pages at Full		(color)	<8 digits>		Color Mode in the Printer Function					
303-14	Counter	Color Mode in	16K	PRT	0	SYS	for each paper size according to the	4				
		Printer Function		(color)	<8 digits>		setting for the count setting of large-					
303-15	Counter		8K	PRT	0	SYS	sized paper (08-352) and the	4				
				(color)	<8 digits>		definition setting of large-sized paper					
303-16	Counter		Others	PRT	0	SYS	(08-353).	4				
				(color)	<8 digits>	0.10						
304-0	Counter	Number of output	A3	PPC		SYS	Counts the output pages at the Twin	4				
004.1	Countor	pages at Twin				CVC	for each paper size according to the	4				
304-1	Counter	Color Mode In	A4	(color)	U P digitas	515	for each paper size according to the	4				
204.0	Countor					eve	sized paper (08,252) and the	4				
304-2	Counter		Ab	(color)	U 29 digitos	515	definition setting of large sized paper	4				
204.2	Countor					eve		4				
304-3	Counter		AU	(color)		515	(00-333).	4				
304-4	Counter			PPC		975	-	1				
004-4	Counter		DŦ	(color)	<pre>cation 8&gt;</pre>	010		-				
304-5	Counter			PPC		SYS		4				
0010	Counter		20	(color)	<8 digits>							
304-6	Counter		FOLIO	PPC	0	SYS		4				
				(color)	<8 digits>							
304-7	Counter		LD	PPC	0	SYS		4				
				(color)	<8 digits>							
304-8	Counter		LG	PPC	0	SYS		4				
				(color)	<8 digits>							
304-9	Counter		LT	PPC	0	SYS		4				
				(color)	<8 digits>							
304-10	Counter		ST	PPC	0	SYS		4				
				(color)	<8 digits>							
304-11	Counter		COMP	PPC	0	SYS		4				
				(color)	<8 digits>		-					
304-12	Counter		13"LG	PPC	0	SYS		4				
				(color)	<8 digits>		-					
304-13	Counter		8.5"x8.5"	PPC		SYS		4				
004.14	Osuntan			(COIOT)	<8 aigits>	0.70	-					
304-14	Counter		701	(color)	U 28 digitos	515		4				
304-15	Countar		 			976	-					
304-15	Counter		ON		v stinite>	515		4				
304-16	Counter		Others	PPC		272	-	4				
1004 10	Counter		Outoro	(color)	<rbody></rbody>	010		-				
305-0	Counter	Number of output	A3	PPC		SYS	Counts the output pages at the Black	4				
		pages at Black		(black)	<8 digits>		Mode in the Copier Function for each					
305-1	Counter	Mode in Copier	A4	PPC	0	SYS	paper size according to the setting	4				
		Function		(black)	<8 digits>		for the count setting of large-sized					
305-2	Counter	1	A5	PPC	0	SYS	paper (08-352) and the definition	4				
				(black)	<8 digits>		setting of large-sized paper (08-353).					
305-3	Counter		A6	PPC	0	SYS		4				
				(black)	<8 digits>							
305-4	Counter		B4	PPC	0	SYS		4				
				(black)	<8 digits>							

	Setting mode (08)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
305-5	Counter	Number of output pages at Black	B5	PPC (black)	0 <8 digits>	SYS	Counts the output pages at the Black Mode in the Copier Function for each	4				
305-6	Counter	Mode in Copier Function	FOLIO	PPC (black)	0 <8 digits>	SYS	paper size according to the setting for the count setting of large-sized	4				
305-7	Counter	-	LD	PPC	0	SYS	paper (08-352) and the definition	4				
				(black)	<8 digits>		setting of large-sized paper (08-353).					
305-8	Counter		LG	PPC	0	SYS	-	4				
				(black)	<8 digits>							
305-9	Counter		LT	PPC	0	SYS		4				
005.40	<u> </u>	-		(black)	<8 digits>	0.10						
305-10	Counter		51	(block)	0 29 digitas	SYS		4				
205 11	Countor	-	COMP			eve	-	4				
305-11	Counter		CONF	(black)	-2 digits	515		4				
305-12	Counter	-	13"I G	PPC		SYS		4				
000 12	Counter		10 20	(black)	<8 digits>	010		-				
305-13	Counter	-	8.5"x8.5"	PPC	0	SYS	-	4				
				(black)	<8 digits>							
305-14	Counter	-	16K	PPC	0	SYS		4				
				(black)	<8 digits>							
305-15	Counter		8K	PPC	0	SYS	-	4				
				(black)	<8 digits>							
305-16	Counter		Others	PPC	0	SYS		4				
				(black)	<8 digits>							
306-0	Counter	Number of output	A3	PRI	0	SYS	Counts the output pages at the Black	4				
000.1	Countor	pages at Black		(ріаск)		CVC	Mode in the Printer Function for each	4				
300-1	Counter	Function	A4	(black)		515	for the count sotting of large-sized	4				
306-2	Counter		Δ5	PRT		SYS	naper (08-352) and the definition	4				
0002	Counter		7.0	(black)	<8 digits>	0.0	setting of large-sized paper (08-353).					
306-3	Counter	-	A6	PRT	0	SYS		4				
				(black)	<8 digits>							
306-4	Counter		B4	PRT	0	SYS		4				
				(black)	<8 digits>							
306-5	Counter		B5	PRT	0	SYS		4				
		-		(black)	<8 digits>							
306-6	Counter		FOLIO	PRT	0	SYS		4				
000 -		1		(black)	<8 digits>	0)/2						
306-7	Counter		LD			SYS		4				
306.9	Counter	-		(раск)		eve		A				
000-0			LG	(black)	-etinih 8>	515		4				
306-9	Counter	{	LT	PRT	0	SYS		4				
				(black)	<8 diaits>							
306-10	Counter	1	ST	PRT	0	SYS	1	4				
				(black)	<8 digits>							
306-11	Counter	1	COMP	PRT	0	SYS		4				
				(black)	<8 digits>							
306-12	Counter		13"LG	PRT	0	SYS		4				
				(black)	<8 digits>							

	Setting mode (08)											
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
306-13	Counter	Number of output	8.5"x8.5"	PRT	0	SYS	Counts the output pages at the Black	4				
		pages at Black		(black)	<8 digits>		Mode in the Printer Function for each					
306-14	Counter	Mode in Printer	16K	PRT	0	SYS	paper size according to the setting	4				
		Function		(black)	<8 digits>		for the count setting of large-sized					
306-15	Counter		8K	PRI	0	SYS	paper (08-352) and the definition	4				
000.10	Ocurtor		Othere	(black)	<8 algits>	0.70	setting of large-sized paper (08-353).					
306-16	Counter		Others	(block)	U 29 digitos	515		4				
307-0	Counter	Number of output	Δ3	PRT		975	Counts the output nages at the List	1				
	Counter	pages at List Print	710	(black)	<8 digits>		Print Mode for each paper size	-				
307-1	Counter	Mode	A4	PRT	0	SYS	according to the setting for the count	4				
				(black)	<8 digits>		setting of large-sized paper (08-352)					
307-2	Counter		A5	PRT	0	SYS	and the definition setting of large-	4				
				(black)	<8 digits>		sized paper (08-353).					
307-3	Counter		A6	PRT	0	SYS		4				
				(black)	<8 digits>							
307-4	Counter		B4	PRT	0	SYS		4				
				(black)	<8 digits>							
307-5	Counter		B5	PRT	0	SYS		4				
				(black)	<8 digits>							
307-6	Counter		FOLIO	PRT	0	SYS		4				
				(black)	<8 digits>							
307-7	Counter		LD	PRT	0	SYS		4				
007.0				(black)	<8 digits>	0)/0						
307-8	Counter		LG		U A digitas	515		4				
307-0	Countor					<u>eve</u>		4				
007-3	Counter		L1	(black)	<pre>cetinib 8&gt;</pre>	010		-				
307-10	Counter		ST	PRT		SYS		4				
				(black)	<8 digits>							
307-11	Counter		COMP	PRT	0	SYS		4				
				(black)	<8 digits>							
307-12	Counter		13"LG	PRT	0	SYS		4				
				(black)	<8 digits>							
307-13	Counter		8.5"x8.5"	PRT	0	SYS		4				
				(black)	<8 digits>							
307-14	Counter		16K	PRT	0	SYS		4				
	<b>a</b> .			(black)	<8 digits>							
307-15	Counter		8K	PRT	0	SYS		4				
007.10				(black)	<8 digits>	0)/0						
307-16	Counter		Others	(block)	U 29 digitos	515		4				
308-0	Countor	Number of output	Δ3			<u>eve</u>	Counts the output pages in the EAX	4				
500-0	Counter	nages in FAX	AU		<etinib 8=""></etinib>	010	Function for each paper size accord-	-				
308-1	Counter	Function	A4	FAX	0	SYS	ing to the setting for the count setting	4				
			·		<8 digits>		of large-sized paper (08-352) and the					
308-2	Counter		A5	FAX	0 0	SYS	definition setting of large-sized paper	4				
					8 digits>		(08-353).					
308-3	Counter		A6	FAX	0	SYS		4				
					<8 digits>							
308-4	Counter		B4	FAX	0	SYS		4				
					<8 digits>							
	Setting mode (08)           Code cation         Classifi- tems         Items         Func- tion         Default values         RAM cocceptable values         Contents         Proce- dure           308-6         Counter         Number of output pages in FAX         B5         FAX         0         SYS         Countent or each paper size accord- function for each paper size accord- function for each paper size accord- function or each paper size accord- function or each paper size accord- function or each paper (08-352) and the cast digits>         4           308-6         Counter         FOLIO         FAX         0         SYS         definition setting of the count setting of large-sized paper (08-352) and the cast digits>         4           308-8         Counter         LG         FAX         0         SYS         definition setting of large-sized paper (08-353).         4           308-9         Counter         LG         FAX         0         SYS         definition setting of large-sized paper (08-353).         4           308-10         Counter         ST         FAX         0         SYS         definition setting of large-sized paper (08-353).         4           308-11         Counter         ST         FAX         0         SYS         defigits>         4           308-12         Counter         Sis*s.5*											
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Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
308-5	Counter	Number of output pages in FAX	B5	FAX	0 <8 digits>	SYS	Counts the output pages in the FAX Function for each paper size accord-	4				
308-6	Counter	Function	FOLIO	FAX	0	SYS	ing to the setting for the count setting	4				
					<8 digits>		of large-sized paper (08-352) and the					
308-7	Counter		LD	FAX	0	SYS	definition setting of large-sized paper	4				
		-			<8 digits>		(08-353).					
308-8	Counter		LG	FAX	0	SYS		4				
	<u> </u>			= 1 \	<8 digits>	0.10						
308-9	Counter		LI	FAX	U 19. digitas	SYS		4				
200 10	Countor	-	<u>ет</u>			eve		4				
306-10	Counter		31		0 A digites	515		4				
308-11	Counter	-	COMP	FΔX		SVS		4				
500-11	Oounter		COM		<etinib 8=""></etinib>	010		-				
308-12	Counter	-	13"I G	FAX		SYS		4				
000 12				1700	<8 digits>	0.0						
308-13	Counter	-	8.5"x8.5"	FAX	0	SYS		4				
					<8 digits>							
308-14	Counter		16K	FAX	0	SYS		4				
					<8 digits>							
308-15	Counter		8K	FAX	0	SYS		4				
					<8 digits>							
308-16	Counter		Others	FAX	0	SYS		4				
					<8 digits>							
309-0	Counter	Number of	A3	PPC	0	SYS	Counts the scanning pages at the Full	4				
		scanning pages at		(color)	<8 digits>		Color Mode in the Copier Function for					
309-1	Counter	Full Color Mode in	A4	PPC	0	SYS	each paper size according to the set-	4				
	<u> </u>	Copier Function		(color)	<8 digits>	0.40	ting for the count setting of large-sized					
309-2	Counter		A5	(color)	U U distitu	SYS	paper (08-352) and the definition set-	4				
200.2	Countor	-				eve	ling of large-sized paper (08-353).	4				
309-3	Counter		AU	(color)	0 A digites	515		4				
309-4	Counter	-		PPC		975		1				
003-4	Oounter		DŦ	(color)	<etinib 8=""></etinib>	010		-				
309-5	Counter	-	B5	PPC		SYS		4				
				(color)	<8 digits>							
309-6	Counter	1	FOLIO	PPC	0	SYS	1	4				
				(color)	<8 digits>							
309-7	Counter	1	LD	PPC	0	SYS		4				
				(color)	<8 digits>							
309-8	Counter		LG	PPC	0	SYS		4				
				(color)	<8 digits>							
309-9	Counter		LT	PPC	0	SYS		4				
				(color)	<8 digits>							
309-10	Counter		ST	PPC	0	SYS		4				
		4		(color)	<8 digits>							
309-11	Counter		COMP	PPC	0	SYS		4				
			1011 0	(color)	<8 digits>	0)/2						
309-12	Counter		13"LG	PPC	0	SYS		4				
				(color)	<v aigits=""></v>							

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
309-13	Counter	Number of	8.5"x8.5"	PPC	0	SYS	Counts the scanning pages at the Full	4
		scanning pages at		(color)	<8 digits>		Color Mode in the Copier Function for	
309-14	Counter	Full Color Mode in	16K	PPC	0	SYS	each paper size according to the set-	4
		Copier Function		(color)	<8 digits>		ting for the count setting of large-sized	
309-15	Counter		8K	PPC	0	SYS	paper (08-352) and the definition set-	4
				(color)	<8 digits>		ting of large-sized paper (08-353).	
309-16	Counter		Others	PPC	0	SYS		4
				(color)	<8 digits>			
310-0	Counter	Number of	A3	SCN	0	SYS	Counts the scanning pages at the	4
		scanning pages at		(color)	<8 digits>		Full Color Mode in the Scanning	
310-1	Counter	Full Color Mode in	A4	SCN	0	SYS	Function for each paper size accord-	4
		Scanning Function		(color)	<8 digits>		ing to the setting for the count setting	
310-2	Counter		A5	SCN	0	SYS	of large-sized paper (08-352) and the	4
				(color)	<8 digits>		definition setting of large-sized paper	
310-3	Counter		A6	SCN	0	SYS	(08-353).	4
				(color)	<8 digits>			
310-4	Counter		B4	SCN	0	SYS		4
	-			(color)	<8 digits>			
310-5	Counter		B5	SCN	0	SYS		4
	<u> </u>			(color)	<8 digits>	01/0		
310-6	Counter		FOLIO	SCN		SYS		4
010 7	0			(color)	<8 algits>	01/0		
310-7	Counter		LD	SCN (color)	U U diaita	SYS		4
010.0	Countor					<u>ovo</u>		4
310-0	Counter		LG	(color)	-8 digites	515		4
310-0	Countor					eve		4
510-5	Counter		L1	(color)	<pre>cetinits</pre>	010		-
310-10	Counter		ST	SCN		272		4
	Counter		0.	(color)	<8 digits>	0.0		
310-11	Counter		COMP	SCN	0	SYS		4
				(color)	<8 digits>			
310-12	Counter		13"LG	SCN	0	SYS		4
				(color)	<8 digits>			
310-13	Counter		8.5"x8.5"	SCN	0	SYS		4
				(color)	<8 digits>			
310-14	Counter		16K	SCN	0	SYS		4
				(color)	<8 digits>			
310-15	Counter		8K	SCN	0	SYS		4
				(color)	<8 digits>			
310-16	Counter		Others	SCN	0	SYS		4
				(color)	<8 digits>			
311-0	Counter	Number of	A3	PPC	0	SYS	Counts the scanning pages at the	4
		scanning pages at		(color)	<8 digits>		Iwin Color Mode in the Copier	
311-1	Counter	Iwin Color Mode	A4	PPC	0	SYS	Function for each paper size accord-	4
		in Copier Function		(color)	<8 digits>	0)/2	ing to the setting for the count setting	
311-2	Counter		A5		0	SYS	or large-sized paper (08-352) and the	4
011.0	Counter				<ol> <li>vigits&gt;</li> </ol>	eve	uennition setting of large-sized paper	
311-3	Counter		AD		U 28 digitos	515	(00-353).	4
311-4	Counter			PPC		SVS	-	<u> </u>
			Τ	(color)	<pre> / / / / / / / / / / / / / / / / / / /</pre>			-
1	1	1			so argito/	1	1	

Setting mode (08)           Code         Classifi- classifi- scanning pages at scanning pages at min Color Mode         Func. B5         PPC         0         SYS         Countents the Color de digits.         Proce- dure           311-5         Counter         Number of scanning pages at in Color Mode         B5         PPC         0         SYS         Counts the scanning pages at in Color Mode         4           311-6         Counter         Twin Color Mode in Color Function         FOLIO         PPC         0         SYS         Function for each paper size accord- ing to the setting for the count setting         4           311-7         Counter         LG         PPC         0         SYS         (08-353).         4           311-10         Counter         LG         PPC         0         SYS         (08-353).         4           311-10         Counter         13'L OPC         0         SYS         (08-353).         4           311-11         Counter         13'L OPC         0         SYS         (08-353).         4           311-12         Counter         13'L OPC         0         SYS         (08-353).         4           311-14         Counter         13'L OPC         0         SYS         (08-353).								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
311-5	Counter	Number of scanning pages at	B5	PPC (color)	0 <8 digits>	SYS	Counts the scanning pages at the Twin Color Mode in the Copier	4
311-6	Counter	Twin Color Mode	FOLIO	PPC (color)	0 <8 diaits>	SYS	Function for each paper size accord- ing to the setting for the count setting	4
311-7	Counter		LD	PPC	0	SYS	of large-sized paper (08-352) and the	4
		-		(color)	<8 digits>		definition setting of large-sized paper	
311-8	Counter		LG	PPC	0	SYS	(08-353).	4
011.0		-	1 -	(color)	<8 digits>	0)/0		
311-9	Counter		LI	(color)	v cetinib 8>	515		4
311-10	Counter	-	ST	PPC		SYS		4
	Counter		01	(color)	<8 diaits>			
311-11	Counter	-	COMP	PPC	0	SYS		4
				(color)	<8 digits>			
311-12	Counter	-	13"LG	PPC	0	SYS		4
				(color)	<8 digits>			
311-13	Counter		8.5"x8.5"	PPC	0	SYS		4
				(color)	<8 digits>			
311-14	Counter		16K	PPC	0	SYS		4
		-		(color)	<8 digits>			
311-15	Counter		8K	PPC	0	SYS		4
011.10		-	01	(color)	<8 digits>	0)/0		
311-16	Counter		Others	(color)	U A digites	515		4
312-0	Counter	Number of	Δ3	PPC		SVS	Counts the scanning pages at the	4
0120	Counter	scanning pages at	70	(black)	<8 diaits>		Black Mode in the Copier Function	
312-1	Counter	Black Mode in	A4	PPC	0	SYS	for each paper size according to the	4
		Copier Function		(black)	<8 digits>		setting for the count setting of large-	
312-2	Counter		A5	PPC	0	SYS	sized paper (08-352) and the	4
				(black)	<8 digits>		definition setting of large-sized paper	
312-3	Counter		A6	PPC	0	SYS	(08-353).	4
		_		(black)	<8 digits>			
312-4	Counter		B4	PPC	0	SYS		4
		-		(black)	<8 digits>			
312-5	Counter		B5			SYS		4
212.6	Counter	-	EOUIO			eve		
0-210	Counter		FULIU	(black)	v stinib 82	515		4
312-7	Counter	-	١D	PPC	0 0 0	SYS		4
			20	(black)	<8 diaits>			
312-8	Counter	-	LG	PPC	0	SYS	-	4
-			-	(black)	<8 digits>			
312-9	Counter		LT	PPC	0	SYS		4
				(black)	<8 digits>			
312-10	Counter		ST	PPC	0	SYS		4
		-		(black)	<8 digits>			
312-11	Counter		COMP	PPC	0	SYS		4
		-	4011 0	(black)	<8 digits>	0.42	-	
312-12	Counter		13"LG		0	SYS		4
				(DIACK)	<v aigits=""></v>			

Setting mode (08)								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
312-13	Counter	Number of	8.5"x8.5"	PPC	0	SYS	Counts the scanning pages at the	4
		scanning pages at		(black)	<8 digits>		Black Mode in the Copier Function	
312-14	Counter	Black Mode in	16K	PPC	0	SYS	for each paper size according to the	4
		Copier Function		(black)	<8 digits>		setting for the count setting of large-	
312-15	Counter		8K	PPC	0	SYS	sized paper (08-352) and the	4
				(black)	<8 digits>		definition setting of large-sized paper	
312-16	Counter		Others	PPC	0	SYS	(08-353).	4
010.0	0	Niversia en ef	- 10	(black)	<8 aigits>	01/0		
313-0	Counter	Number of	A3	(block)	U P digitas	SYS	Counts the scanning pages at the	4
010.1	Countor	Scanning pages in	A	(DIACK)		eve	for each paper size according to the	4
313-1	Counter		A4	(black)	-8 digites	515	sotting for the count sotting of large-	4
212.0	Countor		<u>^</u>	(DIACK)		eve	sized paper (08-352) and the	4
515-2	Counter		AS	(black)	-8 digites	515	definition setting of largo-sized paper	4
212.2	Countor			(DIACK)		eve	(08-353)	4
313-3	Counter		AU	(black)	o Zetinih 8-	515	(00-333).	4
313-/	Counter			SCN		975	-	1
515-4	Counter		D4	(black)	<pre>cetinib 8&gt;</pre>	515		4
313-5	Counter		<b>B</b> 5	SCN		272	-	4
010 0	Counter		50	(black)	<rbody></rbody>			-
313-6	Counter		FOLIO	SCN		SYS		4
				(black)	<8 digits>			
313-7	Counter		LD	SCN	0	SYS		4
				(black)	<8 digits>			
313-8	Counter		LG	SCN	0	SYS		4
				(black)	<8 digits>			
313-9	Counter		LT	SCN	0	SYS		4
				(black)	<8 digits>			
313-10	Counter		ST	SCN	0	SYS		4
				(black)	<8 digits>			
313-11	Counter		COMP	SCN	0	SYS		4
	-			(black)	<8 digits>		-	
313-12	Counter		13"LG	SCN	0	SYS		4
010.10			0.5" 0.5"	(black)	<8 aigits>	01/0		
313-13	Counter		8.5°X8.5°	(block)	U P digitas	SYS		4
010 14	Countor		161	(DIACK)		eve	-	4
1313-14			TOR	(black)	v /etinib 8>	513		+
313-15	Counter		8K	SCN	0 0 0 0 0 0	SYS	4	4
	Counter		UIX	(black)	<8 dinits>			
313-16	Counter		Others	SCN	0	SYS	-	4
				(black)	<8 digits>			
314-0	Counter	Number of	A3	FAX	0	SYS	Counts the scanning pages in the	4
		scanning pages in			<8 digits>		FAX Function for each paper size	
314-1	Counter	FAX Function	A4	FAX	0	SYS	according to the setting for the count	4
					<8 digits>		setting of large-sized paper (08-352)	
314-2	Counter		A5	FAX	0	SYS	and the definition setting of large-	4
					<8 digits>		sized paper (08-353).	
314-3	Counter		A6	FAX	0	SYS		4
					<8 digits>		-	
314-4	Counter		B4	FAX	0	SYS		4
					<8 digits>			

Setting mode (08)           Code         Classifi- cashing pages in FAX Function         Items         Func. tion         Default value value         AAM         Contents         Proce- durate           314-5         Counter         Number of scanning pages in FAX Function for each paper size according to the setting for the count B5         FAX         0         SYS         according to the setting for the count 4           314-6         Counter         FOLIO         FAX         0         SYS         according to the setting for the count 4           314-7         Counter         FOLIO         FAX         0         SYS         according to the setting for the count 4           314-8         Counter         LG         FAX         0         SYS         according to the setting of large- sized paper (08-353).         4           314-10         Counter         ST         FAX         0         SYS         sized paper (08-353).         4           314-11         Counter         ST         FAX         0         SYS         4           314-12         Counter         STS         FAX         0         SYS         4           314-13         Counter         STS         SK         FAX         0								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
314-5	Counter	Number of scanning pages in	B5	FAX	0 <8 digits>	SYS	Counts the scanning pages in the FAX Function for each paper size	4
314-6	Counter	FAX Function	FOLIO	FAX	0 <8 digits>	SYS	according to the setting for the count setting of large-sized paper (08-352)	4
314-7	Counter	•	LD	FAX	0 <8 diaits>	SYS	and the definition setting of large- sized paper (08-353).	4
314-8	Counter		LG	FAX	0 <8 digits>	SYS		4
314-9	Counter		LT	FAX	0 <8 digits>	SYS		4
314-10	Counter		ST	FAX	0 <8 digits>	SYS		4
314-11	Counter		COMP	FAX	0 <8 digits>	SYS		4
314-12	Counter		13"LG	FAX	0 0	SYS		4
314-13	Counter	-	8.5"x8.5"	FAX	0 0	SYS		4
314-14	Counter	-	16K	FAX	0	SYS		4
314-15	Counter	-	8K	FAX	0	SYS		4
314-16	Counter		Others	FAX	0	SYS		4
315-0	Counter	Number of	A3	FAX	0	SYS	Counts the transmitted pages in the	4
315-1	Counter	in FAX Function	A4	FAX	0	SYS	according to the setting for the count	4
315-2	Counter		A5	FAX	0	SYS	and the definition setting of large-	4
315-3	Counter		A6	FAX	0	SYS	Sizeu paper (00-333).	4
315-4	Counter	-	B4	FAX	0 0	SYS		4
315-5	Counter		B5	FAX	0 <8 digits>	SYS		4
315-6	Counter		FOLIO	FAX	0 <8 diaits>	SYS		4
315-7	Counter		LD	FAX	0 <8 diaits>	SYS		4
315-8	Counter		LG	FAX	0 <8 diaits>	SYS		4
315-9	Counter		LT	FAX	0 <8 digits>	SYS		4
315-10	Counter		ST	FAX	0 <8 diaits>	SYS		4
315-11	Counter		COMP	FAX	0 <8 diaits>	SYS		4
315-12	Counter	- 	13"LG	FAX	0 <8 digits>	SYS		4

	Setting mode (08)           ode         Classifi- cation         Items         Func- tion         Default -Acceptable values         RAM values         Contents         Proce- dure           5-13         Counter         Number of transmitted pages         8.5"x8.5"         FAX         0         SYS         Counts the transmitted pages in the fAX Function for each paper size         4           5-14         Counter         in FAX Function         16K         FAX         0         SYS         according to the setting for the count setting of large-sized paper (08-353).         4           5-16         Counter         0         SYS         SYS         and the definition setting of large- sized paper (08-353).         4           16-0         Counter         Number of received pages in received pages in face ived pages in face ived pages in received pages in face ived pages ived page (08-352).         4           66-1         Counter         FAX Function         A4         FAX         0         SYS         according to the setting for the count setting of large-sized pager (08-352).         4           16-3         Counter         FAX         0         SYS         according the def									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
315-13	Counter	Number of	8.5"x8.5"	FAX	0	SYS	Counts the transmitted pages in the	4		
		transmitted pages			<8 digits>		FAX Function for each paper size			
315-14	Counter	in FAX Function	16K	FAX	0	SYS	according to the setting for the count	4		
					<8 digits>		setting of large-sized paper (08-352)			
315-15	Counter		8K	FAX	0	SYS	and the definition setting of large-	4		
	-	-			<8 digits>		sized paper (08-353).			
315-16	Counter		Others	FAX	0	SYS		4		
		-			<8 digits>	0.10				
316-0	Counter		A3	FAX	0	SYS		4		
		NL sub-sus f		= 4 \	<8 digits>	0.10				
316-1	Counter	Number of	A4	FAX	0	SYS	Counts the received pages in the	4		
010.0	0	received pages in			<8 algits>	01/0	FAX Function for each paper size			
316-2	Counter	FAX Function	A5	FAX	U O diaita	SYS	according to the setting for the count	4		
010.0	Countor	-				CVC	setting of large-sized paper (08-352)			
310-3	Counter		Ab	FAX	U P digitas	515	and the deminion setting of large-	4		
216.4	Countar	-				eve	Sized paper (06-353).	- 1		
316-4	Counter		В4	FAX	U 29 digitos	515		4		
216.5	Countor	-	P6	EAV		eve		4		
310-5	Counter		D0	FAA	<pre>v</pre>	515		4		
316-6	Counter	-	FOLIO	FΔX		SVS		4		
	Counter		I OLIO		<8 digits >	010		-		
316-7	Counter	-		FAX	0	SYS		4		
					<8 diaits>					
316-8	Counter	-	LG	FAX	0	SYS		4		
			-		<8 digits>					
316-9	Counter		LT	FAX	0	SYS		4		
					<8 digits>					
316-10	Counter		ST	FAX	0	SYS		4		
					<8 digits>					
316-11	Counter		COMP	FAX	0	SYS		4		
					<8 digits>					
316-12	Counter		13"LG	FAX	0	SYS		4		
					<8 digits>					
316-13	Counter		8.5"x8.5"	FAX	0	SYS		4		
					<8 digits>					
316-14	Counter		16K	FAX	0	SYS		4		
					<8 digits>					
316-15	Counter		8K	FAX	0	SYS		4		
					<8 digits>					
316-16	Counter		Others	FAX	0	SYS		4		
					<8 digits>					

	_			Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
317-0	Counter	Display of number of output pages at Full Color Mode in Copier Function	Large	PPC (color)	0 <8 digits>	SYS	Counts the number of output pages at the Full Color Mode in the Copier Function according to its size (large/ small).	14
317-1	Counter		Small	PPC (color)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
317-2	Counter		Total	PPC (color)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
318-0	Counter	Display of number of output pages at Full Color Mode in Printer Function	Large	PRT (color)	0 <8 digits>	SYS	Counts the number of output pages at the Full Color Mode in the Printer Function according to its size (large/ small).	14
318-1	Counter		Small	PRT (color)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
318-2	Counter		Total	PRT (color)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
319-0	Counter	Display of number of output pages at Twin Color Mode in Copier Function	Large	PPC (color)	0 <8 digits>	SYS	Counts the number of output pages at the Twin Color Mode in the Copier Function according to its size (large/ small).	14
319-1	Counter	-	Small	PPC (color)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
319-2	Counter	-	Total	PPC (color)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
320-0	Counter	Display of number of output pages at Black Mode in Copier Function	Large	PPC (black)	0 <8 digits>	SYS	Counts the number of output pages at the Black Mode in the Copier Function according to its size (large/ small).	14
320-1	Counter		Small	PPC (black)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
320-2	Counter		Total	PPC (black)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
321-0	Counter	Display of number of output pages at Black Mode in Printer Function	Large	PRT (black)	0 <8 digits>	SYS	Counts the number of output pages at the Black Mode in the Printer Function according to its size (large/ small).	14
321-1	Counter		Small	PRT (black)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
321-2	Counter		Total	PRT (black)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
322-0	Counter	Display of number of output pages at List Print Mode	Large	PRT (black)	0 <8 digits>	SYS	Counts the number of output pages at the List Print Mode Function according to its size (large/small). Large: Number of output pages of	14
322-1	Counter		Small	PRT (black)	0 <8 digits>	SYS	large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper	14
322-2	Counter		Total	PRT (black)	0 <8 digits>	SYS	Total: Total number output pages of all paper sizes.	14
323-0	Counter	Display of number of output pages in FAX Function	Large	FAX	0 <8 digits>	SYS	Counts the number of output pages in the FAX Function according to its size (large/small). Large: Number of output pages of	14
323-1	Counter		Small	FAX	0 <8 digits>	SYS	large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper	14
323-2	Counter		Total	FAX	0 <8 digits>	SYS	Total: Total number output pages of all paper sizes.	14
324-0	Counter	Display of number of scanning pages at Full Color Mode in Copier	Large	PPC (color)	0 <8 digits>	SYS	Counts the number of scanning pages at the Full Color Mode in the Copier Function according to its size (large/small).	14
324-1	Counter	Function	Small	PPC (color)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
324-2	Counter		Total	PPC (color)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14

	-	-		Setting	g mode (08	3)	-	
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
325-0	Counter	Display of number of scanning pages at Full Color Mode in Scanning	Large	SCN (color)	0 <8 digits>	SYS	Counts the number of scanning pages at the Full Color Mode in the Scanning Function according to its size (large/small).	14
325-1	Counter	Function	Small	SCN (color)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
325-2	Counter		Total	SCN (color)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
326-0	Counter	Display of number of scanning pages at Twin Color Mode in Copier	Large	PPC (color)	0 <8 digits>	SYS	Counts the number of scanning pages at the Twin Color Mode in the Copier Function according to its size (large/small).	14
326-1	Counter	Function	Small	PPC (color)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
326-2	Counter	·       -	Total	PPC (color)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
327-0	Counter	Display of number of scanning pages at Black Mode in Copier Function	Large	PPC (black)	0 <8 digits>	SYS	Counts the number of scanning pages at the Black Mode in the Copier Function according to its size (large/small).	14
327-1	Counter	·       -	Small	PPC (black)	0 <8 digits>	SYS	Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other	14
327-2	Counter		Total	PPC (black)	0 <8 digits>	SYS	than set as large-sized paper Total: Total number output pages of all paper sizes.	14
328-0	Counter	Display of number of scanning pages in FAX Function	Large	FAX	0 <8 digits>	SYS	Counts the number of scanning pages in the FAX Function according to its size (large/small). Large: Number of output pages of	14
328-1	Counter		Small	FAX	0 <8 digits>	SYS	large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper	14
328-2	Counter		Total	FAX	0 <8 digits>	SYS	Total: Total number output pages of all paper sizes.	14

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
329-0	Counter	Display of number of scanning pages in Scanning Function	Large	SCN (black)	0 <8 digits>	SYS	Counts the number of scanning pages in the Scanning Function according to its size (large/small). Large: Number of output pages of	14
329-1	Counter		Small	SCN (black)	0 <8 digits>	SYS	large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper	14
329-2	Counter		Total	SCN (black)	0 <8 digits>	SYS	Total: Total number output pages of all paper sizes.	14
330-0	Counter	Display of number of transmitted pages in FAX Function	Large	FAX	0 <8 digits>	SYS	Counts the number of transmitted pages in the FAX Function according to its size (large/small). Large: Number of output pages of	14
330-1	Counter		Small	FAX	0 <8 digits>	SYS	large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper	14
330-2	Counter		Total	FAX	0 <8 digits>	SYS	Total: Total number output pages of all paper sizes.	14
331	User interface	Default setting of so	reen	ALL	0 <0-3>	SYS	Sets the screen to be displayed after the auto-clear time has passed or it has recovered from the energy saving mode or sleep mode. 0: Copier 1: Fax 2: Scan 3: Box	1
332-0	Counter	Display of number of received pages in FAX Function	Large	FAX	0 <8 digits>	SYS	Counts the number of received pages in the FAX Function according to its size (large/small). Large: Number of output pages of	14
332-1	Counter		Small	FAX	0 <8 digits>	SYS	large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper	14
332-2	Counter		Total	FAX	0 <8 digits>	SYS	Total: Total number output pages of all paper sizes.	14
333-0	Counter	Display of total number of pages	Large	ALL (color)	0 <8 digits>	SYS	Displays the total number of pages at Full Color Mode in the Copier/Printer/	14
333-1	Counter	at Full Color Mode	Small	ALL (color)	0 <8 digits>	SYS	Scanning Functions.	14
333-2	Counter		Total	ALL (color)	0 <8 digits>	SYS		14

				Setting	g mode (08	8)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
334-0	Counter	Display of total	Large	ALL	0	SYS	Displays the total number of pages at	14
		number of pages		(color)	<8 digits>		Twin Color Mode in the Copier	
334-1	Counter	at Twin Color	Small	ALL	0	SYS	Function.	14
		Mode		(color)	<8 digits>			
334-2	Counter		Total	ALL	0	SYS		14
	-			(color)	<8 digits>			
335-0	Counter	Display of total	Large		0	SYS	Displays the total number of pages at	14
005.4	0	number of pages	0	(black)	<8 aigits>	01/0	Black Mode in the Copier/Printer/	
335-1	Counter	at Black Mode	Small	ALL (block)	U O diaita	SYS	Scanning/FAX Functions.	14
005.0	Countor		Tatal			CVC		14
335-2	Counter		Iotai		U P digitas	515		14
244	Countor	Count potting of tak	nanor			M	0: Counted as 1	4
344	Counter		paper		-0-1s		1: Counted as 2	
346	Counter	Count setting of lar	horizon	ΔΗ	1	м	0: Counted as 1	1
540	Counter	naper (PM)	ge-sizeu		-0-1>		1: Counted as 2	
347	Counter	Definition setting of	largo-	ΔΗ	1	м		1
547	Oounter	sized paper (PM)	large-		<0-1>			
348	Counter	Count setting of this	k naner	ALI	1	м	0: Counted as 1 1: Counted as 2	1
040	Counter	(PM)	n paper		<0-1>			'
349	Counter	Count setting of OF	IP film	ALL	1	м	0: Counted as 1 1: Counted as 2	1
0.0		(PM)			<0-1>			
352	Counter	Count setting of lar	ge-sized	ALL	JPN: 0	м	0: Counted as 1 1: Counted as 2	1
		paper (Fee chargin	g system		OTHER: 1		2: Counted as 1 (Mechanical counter	
		counter)	5,		<0-2>		is double counter)	
353	Counter	Definition setting of	large-	ALL	0	М	0: A3/LD	1
		sized paper (Fee cl	narging		<0-1>		1: A3/LD/B4/LG/FOLIO/COMP/8K	
		system counter)						
356	Counter	Counter for upper c	lrawer	ALL	0	M	Counts the number of sheets fed	2
		feeding			<8 digits>		from upper drawer	
357	Counter	Counter for lower d	rawer	ALL	0	M	Counts the number of sheets fed	2
		feeding			<8 digits>		from lower drawer	
358	Counter	Counter for bypass	feeding	ALL	0	M	Counts the number of sheets fed	2
					<8 digits>		from bypass feed	
359	Counter	Counter for LCF fee	eding	ALL	0	M	Counts the number of sheets fed	2
					<8 digits>		from LCF	
360	Counter	Counter for PFP up	per	ALL	0	M	Counts the number of sheets fed	2
070	<u> </u>	drawer feeding			<8 digits>		from PFP upper drawer	
370	Counter	Counter for PFP Io	ver	ALL			Counts the number of sheets fed	2
070	Countor	drawer feeding			<8 algits>	N 4	from PFP lower drawer	
372	Counter	Counter for ADU		ALL	U P digitas		counts the number of output pages	2
374	Countor	Counter for PADE				975	Counts the number of originals fed	2
5/4	Counter				-8 digites	313	from BADE	
375	Mainte-	Setting value of PM	l time	ALI	Refer to	м	<default></default>	1
	nance	counter display/0 cl	earing		content		e-STUDIO3511	'
			9		<8 digits>		JPN: 0 UC. EUR: 315.000	
					a construction		e-STUDIO4511	
							JPN: 0 UC, EUR: 315.000	
376	Mainte-	Current value of PM	1 time	ALL	0	М	Counts the drum driving time (main	1
1	1	I .			<pre>cation 8&gt;</pre>		motor ON).	

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
381	Counter	Setting for counter installed	ALL	1	М	Selects the job to count up for the	1
		externally		<0-7>		external counter.	
						0: Not selected 1: Copier 2: FAX	
						3: Copier/FAX 4: Printer	
						5: Copier/Printer 6: Printer/FAX	
						7: Copier/Printer/FAX	
390	Counter	Number of errors in HDD (Copying)	PPC	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
391	Counter	Number of errors in HDD	FAX	0	SYS		2
		(FAX)		<8 digits>			
392	Counter	Number of errors in HDD	SCN	0	SYS		2
		(Scanning)		<8 digits>			
393	Counter	Number of errors in HDD	PRT	0	SYS		2
		(Printer)		<8 digits>			
398	Laser	Number of polygonal motor	ALL	0	M	Counts the number of time the	2
		rotational speed switching		<8 digits>		polygonal motor has switched its	
						rotational speed between normal	
						rotation and standby rotation.	
399	Laser	Accumulated time of	ALL	0	M	Accumulates the time the polygonal	2
		polygonal motor at normal		<8 digits>		motor has rotated at normal rotation.	
400	Fueer		A1.1	0	N.4	0: No orrege 1: 0410 (Open)	4
400	Fuser		ALL	-0.10		0: No error 1: C410 (Once)	
		Counter		<0-19>			
						6: C450 7: C440 8: C450	
						0: C430 7: C440 8: C430 9: C440 10: C470 11: C470	
						12: C480 13: C490 14: C470	
						15: C480 16: C490 17: C470	
						18: C480 19: C490	
409	Fuser	Fuser roller temperature at a	ALL	13	м	0: OFF 1: 40°C 2: 45°C	1
		energy saver mode (Center		<0-16>		3: 50°C 4: 55°C 5: 60°C	
		thermistor)				6: 65°C 7: 70°C 8: 75°C	
						9: 80°C 10: 85°C 11: 90°C	
						12: 95°C 13: 100°C 14: 105°C	
						15: 110°C 16:115°C	
410-0	Fuser	Fuser roller temperature	ALL	12	М	0: 120°C 1: 125°C 2: 130°C	4
		during printing (Center	(black)	<0-16>		3: 135°C 4: 140°C 5: 145°C	
		thermistor/Plain paper)				6: 150°C 7: 155°C 8: 160°C	
410-1			ALL	12	М	9: 165°C 10: 170°C 11: 175°C	4
			(color)	<0-16>		12: 180°C 13: 185°C 14: 190°C	
						15: 195°C 16: 200°C	
411	Fuser	Fuser roller temperature on	ALL	12	Μ	0: 120°C 1: 125°C 2: 130°C	1
		standby		<0-16>		3: 135°C 4: 140°C 5: 145°C	
		(Center thermistor)				6: 150°C 7: 155°C 8: 160°C	
						9: 165°C 10: 170°C 11: 175°C	
						12: 180°C 13: 185°C 14: 190°C	
						15: 195°C 16: 200°C	

			Setting	g mode (08	3)				
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM		Contents		Proce- dure
412-0	Fuser	Fuser roller temperature	ALL	12	M	0: 120°C	1: 125°C	2: 130°C	4
		during printing	(black)	<0-16>		3: 135°C	4: 140°C	5: 145°C	
		(Center thermistor/Thick				6: 150°C	7: 155°C	8: 160°C	
412-1		paper 3)	ALL	12	M	9: 165°C	10: 170°C	11: 175°C	4
			(color)	<0-16>		12: 180°C	13: 185°C	14: 190°C	
						15: 195°C	16: 200°C		
413-0	Fuser	Fuser roller temperature	ALL	12	M	0: 120°C	1: 125°C	2: 130°C	4
		during printing	(black)	<0-16>		3: 135°C	4: 140°C	5: 145°C	
		(Center thermistor/Thick				6: 150°C	7: 155°C	8: 160°C	
413-1		paper 1)	ALL	13	M	9: 165°C	10: 170°C	11: 175°C	4
			(color)	<0-16>		12: 180°C	13: 185°C	14: 190°C	
						15: 195°C	16: 200°C		
415-0	Fuser	Period of time retaining	ALL	3	M	0: Invalid	1: 1 sec.	2: 2 sec	4
		print-start temperature	(black)	<0-10>		3: 3 sec	4: 4 sec.	5: 5 sec.	
		(Thick paper 3)				6: 6 sec.	7: 7 sec.	8: 8 sec.	
						9: 9 sec.	10: 10 sec.		
415-1			ALL	2	M	0: Invalid	1: 1 sec.	2: 2 sec.	4
			(color)	<0-10>		3: 3 sec.	4: 4 sec.	5: 5 sec.	
						6: 6 sec.	7: 7 sec.	8: 8 sec.	
						9: 9 sec.	10: 10 sec.		
416	Fuser	Temperature setting to start	ALL	9	M	0: 120°C	1: 125°C	2: 130°C	1
		solving abnormality		<0-12>		3: 135°C	4: 140°C	5: 145°C	
		(Center/Side thermistor/				6: 150°C	7: 155°C	8: 160°C	
		Thick paper 3)				9: 165°C	10: 170°C	11: 175°C	
						12: Invalid			
417-0	Fuser	Pre-running time for first	ALL	16	M	0: Invalid	0 sec.	2: 2 sec.	4
		printing	(black)	<0-16>		3: 3 sec.	4:4 sec.	5: 5 sec.	
		(Thick paper 3)				6: 6 sec.	7: 7 sec.	8: 8 sec.	
417-1			ALL	0	M	9: 10 sec.	10: 12 sec.	11: 14 sec.	4
			(color)	<0-16>		12: 16 sec.	13: 18 sec.	14: 20 sec.	
						15: 25 sec.	16: 30 sec.		
422	Fuser	Fuser roller temperature	ALL	9	M	0: 120°C	1: 125°C	2: 130°C	1
		setting at the end of pre-		<0-16>		3: 135°C	4: 140°C	5: 145°C	
		running during warming-up				6: 150°C	7: 155°C	8: 160°C	
						9: 165°C	10: 170°C	11: 175°C	
						12: 180°C	13: 185°C	14: 190°C	
				-		15: 195°C	16: 200°C		
428-0	Fuser	Period of time retaining	ALL	3	M	0: Invalid	1:1 s	ec. 2: 2 sec.	4
		print-start temperature	(black)	<0-10>		3: 3 sec. 4:	4 sec. 5:5 s	ec. 6: 6 sec.	
		(Thick paper 2)				7: 7 sec. 8:	8 sec. 9:9 s	ec.	
						10: 10 sec.			
428-1			ALL	2	M	0: Invalid	1:1 s	ec. 2: 2 sec.	4
			(color)	<0-10>		3: 3 sec. 4:	4 sec. 5:5 s	ec. 6:6 sec.	
						7: 7 sec. 8:	8 sec. 9:9 s	ec.	
						10: 10 sec.			

			Setting	g mode (08	3)				
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM		Contents		Proce- dure
430	Fuser	Transport motor speed	ALL	1	М	Sets decele	eration ratio o	of paper	1
		deceleration	(color)	<0-3>		transport sp	beed.		
		(OHP film)				0: 1/1 1: 1	/2 2: 1/3	3: 1/4	
431	Fuser	Transport motor speed	ALL	1	M				1
		deceleration	(color)	<0-3>					
400	<b>_</b>	(Thick paper 2)							
432	Fuser	Iransport motor speed	ALL	2	IVI				1
		(Thick paper 2)		<0-3>					
136	Eucor	Tomporature setting to start		0	N/	0.12000	1.125°C	2: 130°C	1
430	i usei	solving apportable v(Center/		-0-12>		0. 120 C	1. 123 C	2. 130 C	'
		Side thermistor/Thick paper		<0-122		6: 150°C	7. 155°C	3: 143 C	
		2)				9. 165°C	10· 170°C	11· 175°C	
						12: Invalid	10. 170 0		
437-0	Fuser	Fuser roller temperature	ALL	12	м	0: 120°C	1: 125°C	2: 130°C	4
		during printing	(black)	<0-16>		3: 135°C	4: 140°C	5: 145°C	
		(Center thermistor /Thick				6: 150°C	7: 155°C	8: 160°C	
437-1		paper 2)	ALL	12	М	9: 165°C	10: 170°C	11: 175°C	4
			(color)	<0-16>		12: 180°C	13: 185°C	14: 190°C	
						15: 195°C	16: 200°C		
438-0	Fuser	Fuser roller temperature	ALL	12	М	0: 120°C	1: 125°C	2: 130°C	4
		during printing	(black)	<0-16>		3: 135°C	4: 140°C	5: 145°C	
		(Center thermistor/OHP film)				6: 150°C	7: 155°C	8: 160°C	
438-1			ALL	10	М	9: 165°C	10: 170°C	11: 175°C	4
			(color)	<0-16>		12: 180°C	13: 185°C	14: 190°C	
	_	-				15: 195°C	16: 200°C		
439-0	Fuser	Pre-running time for first	ALL	14	м	0: Invalid	1: 0 sec.	2: 2 sec.	4
		printing	(black)	<0-16>		3: 3 sec.	4: 4 sec.	5: 5 sec.	
400.1	-	(Thick paper 2)			N.4	6: 6 Sec.	/: / SeC.	8:8 sec.	
439-1			ALL (color)	-0.16	IVI	9: 10 Sec.	10: 12 Sec.	11: 14 sec.	4
				<0-10>		15: 25 600	16: 30 sec.	14. 20 360.	
440-0	Fuser	Pre-running time for first		12	М	0. Invalid	1.0 sec	2.2 sec	4
110 0	1 4001	printing	(black)	<0-16>		3: 3 sec	4: 4 sec	5: 5 sec	
		(Plain paper/Low tempera-				6: 6 sec.	7: 7 sec.	8: 8 sec.	
440-1		ture environment)	ALL	0	М	9: 10 sec.	10: 12 sec.	11: 14 sec.	4
		,	(color)	<0-16>		12: 16 sec.	13: 18 sec.	14: 20 sec.	
						15: 25 sec.	16: 30 sec.		
441-0	Fuser	Pre-running time for first	ALL	9	М	0: Invalid	1: 0 sec.	2: 2 sec.	4
		printing	(black)	<0-16>		3: 3 sec.	4: 4 sec.	5: 5 sec.	
		(Thick paper 1)				6: 6 sec.	7: 7 sec.	8: 8 sec.	
441-1			ALL	5	М	9: 10 sec.	10: 12 sec.	11: 14 sec.	4
			(color)	<0-16>		12: 16 sec.	13: 18 sec.	14: 20 sec.	
						15: 25 sec.	16: 30 sec.		

	Setting mode (08)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
458	Fuser	Threshold for warn temperature(Low-te	ning-up empera-	ALL	6 <0-11>	M	0: 0°C 1: 5°C 2: 9°C 3: 10°C 4: 12°C 5: 14°C 6: 15°C 7: 16°C	1		
450	Eusor	ture environment)	0.00/-		7	N4	8: 17°C 9: 18°C 10: 19°C 11: 20°C	1		
435	i usei	temperature enviro	nment)		<0-11>		2: 40 sec 3: 50 sec 4: 60 sec	1		
			millionty				5: 70 sec. 6: 80 sec. 7: 90 sec.			
							8: 100 sec. 9: 120 sec. 10: 180 sec.			
							11: 300 sec.			
460	Fuser	Threshold of tempe	erature for	ALL	9	М	0: 0°C 1: 5°C 2: 9°C 3: 10°C	1		
		pre-running time fo	r first		<0-11>		4: 12°C 5: 14°C 6: 15°C 7: 16°C			
		printing(Low-tempe	erature				8: 17°C 9: 18°C 10: 19°C 11: 20°C			
		environment)								
461	Fuser	Pre-running time fo	or first	ALL	8	M	0: Invalid (always) 1: 0 min.	1		
		printing(Plain pape	r/Low-		<0-11>		2: 0.5 min. 3: 1 min. 4: 2 min.			
		temperature enviro	nment)				5: 3 min. 6: 5 min. 7: 7 min.			
							8: 10 min. 9: 15 min.			
460		Sotting for owitable	- ok		0	eve	10: 30 min. 11: 60 min.	1		
402		operation to copy r	nived-		<0-1>	515	original length by transporting without	+ '		
		sized original on R			×012		scanning in reverse when finding A4			
							B/FOLIO paper.			
							0: Invalid- Judges as A4-R without			
							transporting in reverse with no			
							scanning.			
							1: Valid- Judges whether it is A4-R o			
							FOLIO size by transporting in			
							reverse with no scanning.			
							* The original is transported in			
							reverse with no scanning when			
							detecting LI-LG size-paper in LI,			
462.0	Papar	Ecoding rota	Plain		5	N4	regardless of this setting.	4		
403-0	feeding	number setting	naner		<0-5>		feeding retry from the upper drawer	4		
463-1	localing	(upper drawer)	Others	ALL	5	м		4		
		(			<0-5>					
464-0	Paper	Feeding retry	Plain	ALL	5	М	Sets the number of times of the	4		
	feeding	number setting	paper		<0-5>		feeding retry from the lower drawer.			
464-1	]	(lower drawer)	Others	ALL	5	М		4		
					<0-5>					
465-0	Paper	Feeding retry	Plain	ALL	5	М	Sets the number of times of the	4		
	feeding	number setting	paper		<0-5>		feeding retry from the PFP upper			
465-1		(PFP upper	Others		5	M	arawer.	4		
466-0	Papar	Feeding retry	Plain	Διι	<0-0>	N/	Sets the number of times of the	1		
+00-0	feeding	number setting	paper		<0-5>		feeding retry from the PFP lower	1		
466-1	l	(PFP lower	Others	ALL	5	М	drawer.	4		
		drawer)			<0-5>					
467-0	Paper	Feeding retry	Plain	ALL	5	М	Sets the number of times of the	4		
	feeding	number setting	paper		<0-5>		feeding retry from the bypass tray.			
467-1		(bypass feed)	Others	ALL	5	М		4		
					<0-5>					

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
468-0	Paper	Feeding retry Plain	ALL	5	M	Sets the number of times of the	4
	feeding	number setting paper		<0-5>		feeding retry from the LCF.	
468-1		(LCF) Others	ALL	5	M		4
470	Deven			<0-5>			10
470	Paper	Paper Size (305x457 mm)	ALL	457/305	IVI		10
	reeding			< 140-457/			
471	Paner	Paper size (Post card)		148/100	М	* Post card is supported only for IPN	10
	feeding	feeding/widthwise direction		<148-432/		model	
	localing			100-297>			
478	Laser	Judged number of polygona	ALL	0	М	Displays the error [CA10] when the	1
		motor rotation error (Normal		<0-1>		set number of rotation error has been	
		rotation)				detected.	
						0: 2 times 1: 12 times	
479	Laser	Judged number of polygona	ALL	0	М	0: Waiting time for polygonal motor	1
		motor rotation error (At		<0-1>		rotation overshooting 0.6 sec.	
		acceleration/deceleration)				1: Waiting time for polygonal motor	
			_			rotation overshooting 2.2 sec.	
480	Paper	Default setting of paper	PPC	0	SYS	0: A4/LT 1: LCF	1
	feeding	source		<0-5>		2: Upper drawer 3: Lower drawer	
						4: PFP upper drawer	
404	Dana				01/0	5: PFP lower drawer	
481	Paper	Automatic change of paper	PPC		515	Sets whether or not changing the	I
	leeding	source		<0-2>		drawer automatically to the other	
						size when naner in the selected	
						drawer has run out	
						0: OFF	
						1: ON (Changes to the drawer with	
						the same paper direction and size:	
						ex. A4 to A4)	
						2: ON (Changes to the drawer with	
						the same paper size. Paper with	
						the different direction is acceptable	
						as long as the size is the same:	
						ex., A4 to A4-R, LT-R to LT. "1" is	
						applied when the staple/hole-	
400	Daman			0		punch is specified.)	
482	feeding	reearing retry setting	ALL	U 1>	IVI		
483	Laser	Pre-running rotation of		0	SYS	Sets whether or not switching the	1
		polygonal motor		<0-2>		polygonal motor from the standby	
						rotation to the normal rotation when	
						the original is set on the RADF or the	
						platen cover is opened.	
						0: Valid (when using RADF and the	
						original is set manually)	
						1: Invalid	
						2: Valid (when using RADF only)	

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
484	Laser	Polygonal motor rotational	ALL	0	SYS	Sets whether or not switching the	1
		status switching at the Auto		<0-1>		polygonal motor from the normal	
		Clear Mode				rotation to the standby rotation at the	
						Auto Clear Mode.	
105	Looor	Detetional status of	A1 1	0	eve	U: Valid 1: Invalid	4
465	Lasei	notational status of	ALL	<0-1>	515	nolygonal motor on standby	1
		polygonal motor on standby		<b>NO-12</b>		0: Botated (The rotational speed is	
						set at 08-490.)	
						1: Stopped	
486	Laser	Timing of auto-clearing of	ALL	0	SYS	Switches the polygonal motor to the	1
		polygonal motor pre-running		<0-2>		standby rotation when a certain	
		rotation				period of time has passed from the	
						pre-running. At this code, the period	
						to switch the status to the standby	
						rotation is set.	
						0: 15 sec. 1: 30 sec. 2: 45 sec.	
						* This setting is effective when "0" or	
107	Transfor	Selection of porforming the		0	N4	<sup>2</sup> Is set at 08-483.	- 1
407	Transier	2nd transfer roller cleaning		<0-1>		designated	1
		(Bypass feed)		1012		1: Performs regardless of designa-	
		(Bypace loca)				tion of paper size	
488	Laser	Setting of polygonal motor	ALL	3	М	Set the type of polygonal motor.	1
		type		<2-3>		2: 2 clock type 3: 3 clock type	
489	Laser	Polygonal motor rotation	ALL	5	М	0: 38090.55rpm 1: 35000rpm	1
		number on standby		<0-5>		2: 30000rpm 3: 25000rpm	
						4: 20000rpm 5: 10000rpm	
490	Laser	Polygonal motor rotation in	ALL	0	M	0: Stopped 1: 10000rpm	1
107		the energy saving mode		<0-1>			
497	General	Speed switching for color	ALL	0	M	Sets the speed for color printing.	1
		printing		<0-1>		0: 11 pages/minute	
502	Image	Error diffusion and dither	PPC	0	SVS	Sets the image reproduction method	1
502	inage	setting at photo mode	(black)	<0-1>		at photo mode	
						0: Error diffusion 1: Dither	
503	User	Default setting of density	PPC	0	SYS	0: Automatic	1
	interface	adjustment	(black)	<0-1>		1: Manual (Center)	
511	Main	Main charger wire auto-	ALL	1	М	0: Invalid	1
	charger	cleaning setting		<0-1>		1: Valid	
526-0	Fuser	Pre-running time for first	ALL	16	M	0: Invalid 1: 0 sec. 2: 2 sec.	4
		printing	(black)	<0-16>		3: 3 sec. 4: 4 sec. 5: 5 sec.	
500 f		(OHP film)				6: 6 sec. 7: 7 sec. 8: 8 sec.	
526-1					M	Y:         IU         Sec.         11:         14         sec.           12:         16         200         12:         18         200         14:         20         20	4
			(color)	<01.0>		12. 10 Sec. 13: 18 Sec. 14: 20 Sec.	
5/1	Image	Environment correction	ΔΙΙ	1	N/	Sets whether or not correcting the 1st	1
541	control	control of 1st transfer roller		<0-1>		transfer roller bias depending on the	1
		bias				environment.	
						0: Invalid 1: Valid	
	1		l.		1	I	

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Acceptable value>	RAM	Contents	Proce- dure
542	Image control	Transfer belt life correction of 1st transfer roller bias	ALL	1 <0-1>	М	Sets whether or not correcting the 1st transfer roller bias depending on the transfer belt life. 0: Invalid 1: Valid	1
543	Image control	1st transfer roller life correction of 1st transfer roller bias	ALL	1 <0-1>	М	Sets whether or not correcting the 1st transfer roller bias depending on the 1st transfer roller life. 0: Invalid 1: Valid	1
544	Image control	Environment correction control of 2nd transfer roller bias	ALL	1 <0-1>	М	Sets whether or not correcting the 2nd transfer roller bias depending on the environment. 0: Invalid 1: Valid	1
545	Image control	Transfer belt life correction of 2nd transfer roller bias	ALL	1 <0-1>	М	Sets whether or not correcting the 2nd transfer roller bias depending on the transfer belt life. 0: Invalid 1: Valid	1
546	Image control	2nd transfer roller life correction of 2nd transfer roller bias	ALL	1 <0-1>	М	Sets whether or not correcting the 2nd transfer roller bias depending on the 2nd transfer roller life. 0: Invalid 1: Valid	1
548	Transfer	Setting of 2nd transfer roller bias table (for each destination/paper thickness)	ALL	EUR: 0 UC: 1 JPN: 2 <0-2>	М	0:80 g/m² (21.3 lb.)/EUR 1:75 g/m² (20 lb.)/UC 2:64 g/m² (17.1 lb.)/JPN	1
549	Image control	Image quality control/open- loop control 1	ALL	1 <0-1>	М	Sets whether or not performing the open-loop control 1.The open-loop control 1 is performed in advance of the closed-loop control. 0: Invalid 1: Valid	1
550	Image	Default setting of Original mode	PPC (black)	0 <0-3>	SYS	0: Text/Photo 1: Photo 2: Text 3: Gray Scale	1
551	Image control	Image quality control/open- loop control 2	ALL	1 <0-1>	М	Sets whether or not performing the open-loop control 2. The open-loop control 2 is performed before or during printing. 0: Invalid 1: Valid	1
552	Image control	Drum life correction control	ALL	1 <0-1>	М	Sets whether or not correcting the drum voltage depending on the drum life in open-loop control. 0: Invalid 1: Valid	1
553	Image control	Drum temperature correc- tion control	ALL	1 <0-1>	М	Sets whether or not correcting the drum voltage depending on the drum surface temperature in open-loop control. 0: Invalid 1: Valid	1
554	Image control	Image quality open-loop control/Contrast voltage initial value	ALL	1 <0-1>	M	Sets whether or not deciding the initial value of contrast voltage in open-loop control. 0: Invalid 1: Valid	1

			Setting	g mode (08	3)		
Code	Classifi- cation	ltems	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
555	Image control	Drum life correction of laser power initial value	ALL	1 <0-1>	M	Sets whether or not correcting the laser power depending on the drum life when the laser power initial value is set in open-loop control. 0: Invalid 1: Valid	1
556	Image control	Image quality closed-loop control/Contrast voltage	ALL	1 <0-1>	М	Sets whether or not correcting the contrast voltage in closed-loop control. 0: Invalid 1: Valid	1
557	Image control	Image quality closed-loop control/Laser power	ALL	1 <0-1>	М	Sets whether or not correcting the laser power in closed-loop control. 0: Invalid 1: Valid	1
558	Image control	Contrast voltage/Correction gain environment setting	ALL	1 <0-1>	М	Sets whether or not switching the correction amount once at contrast voltage correction depending on the environment. 0: Invalid 1: Valid	1
559	Image control	Image quality closed-loop control automatic start-up/At power-ON	ALL (color)	1 <0-2>	М	Sets whether performing closed-loop control automatically at power-ON when the fuser roller temperature becomes below the specified level. 0: Invalid 1: Valid (at mode 1) 2: Valid (at mode 2)	1
560	Image	Process switching for image smoothing (Text/Photo)	PPC (black)	1 <0-1>	М	Sets whether or not performing a smoothing process (primary scanning direction, 2,400 dpi or equivalent). 0: Invalid 1: Valid	1
561	Image	Process switching for image smoothing (Photo)	PPC (black)	0 <0-1>	М	Sets whether or not performing a smoothing process (primary scanning direction, 2,400 dpi or equivalent).	1
562	Image	Process switching for image smoothing (Text)	PPC (black)	1 <0-1>	М	0: Invalid 1: Valid	1
565	Image control	Image quality closed-loop control automatic start-up/ Relative humidity variation	ALL (color)	1 <0-2>	М	Sets whether or not performing closed-loop control automatically when the relative humidity becomes below the specified level from the previous control. 0: Invalid 1: Valid (at mode 1) 2: Valid (at mode 2)	1
566	Image control	Image quality closed-loop control automatic start-up/ Period of time unattended	ALL (color)	1 <0-2>	Μ	Sets whether or not performing closed-loop control automatically when the equipment has not been used for a specified period of time. 0: Invalid 1: Valid (at mode 1) 2: Valid (at mode 2)	1
567	Image control	Image quality closed-loop control automatic start-up/ Accumulated print volume	ALL (color)	2 <0-2>	М	Sets whether or not performing closed-loop control automatically when the specified number of sheets has been printed out from the previous control. 0: Invalid 1: Valid (at mode 1) 2: Valid (at mode 2)	1

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
568	Image	Image quality closed-loop	ALL	2	M	Sets whether or not performing	1
	control	control automatic start-up/	(color)	<0-2>		closed-loop control automatically	
		When recovered from "Toner				when recovered from "Toner empty".	
		empty"				0: Invalid 1: Valid (at mode 1)	
						2: Valid (at mode 2)	
569	Image	Image quality closed-loop		8	M	Sets the fuser roller temperature to	1
	control	control automatic start-up/	(color)	<0-20>		perform closed-loop control when "1"	
		Temperature setting of fuser				or "2" (Valid) is set in 08-559.	
		roller at power-ON					
						3: 35°C 4: 40°C 5: 45°C	
						6: 50°C 7: 55°C 8: 60°C	
						9:65°C 10:70°C 11:75°C	
						12: 80°C 13: 85°C 14: 90°C	
						15: 95°C 16: 100°C 17: 105°C	
570	1	Landa a Phone Landa Landa				18: 110°C 19: 115°C 20: 120°C	
570	Image	Image quality closed-loop	ALL	4	IVI	Sets the relative numidity difference	1
	control	Control automatic start-up/	(COIOF)	<0-0>		to perform the closed-loop control	
		Relative number of the rence					
		Setting					
						0.0% $1.5%$ $2.10%$ $3.15%$	
571	Imago	Imago quality closed-loop		1	М	4. 20% 5. 25% 6. 30%	1
571	control	control automatic start-up/		-0-24		perform closed-loop control when "1"	
	control	Setting of period of time		NO 242		or "2" (valid) is set in 08-566	
		unattended				Setting value x 1 (hour)	
572	Image	Image quality closed-loop	ALL	10	м	Sets the number of accumulated print	1
-	control	control automatic start-up/	(color)	<0-30>		volume to perform closed-loop	
		Setting of accumulated print				control when "1" or "2" (valid) is set in	
		volume				08-567.	
						Setting value x 100 (pages)	
573	Image	Abnormality detection count	ALL	0	М	Counts the abnormality detection of	1
	control	(Y)		<0-16>		image quality control. Accumulating	
		Display/0 clearing				total of [CE10], [CE20] and [CE40]	
574	Image	Abnormality detection count	ALL	0	М	Counts the abnormality detection of	1
	control	(M)		<0-16>		image quality control. Accumulating	
		Display/0 clearing				total of [CE10], [CE20] and [CE40]	
575	Image	Abnormality detection count	ALL	0	M	Counts the abnormality detection of	1
	control			<0-16>		image quality control. Accumulating	
570	1	Display/0 clearing		0	N 4	total of [CE10], [CE20] and [CE40]	4
5/6	Image	Abnormality detection count	ALL	0	IVI	Counts the abnormality detection of	1
	control	(K) Diaplay/O algoring		<0-16>		Image quality control. Accumulating	
583-0	Fusor	Pro-rupping time Transport		1	м		4
303-0	1 4301	at nower-ON and motor		<0-10\		3. 12 sec 4. 15 sec 5. 18 sec	-
		ready status speed 1/1		<0.102		6: 21 sec. 7: 24 sec. 8: 27 sec.	
583-1		Transport	ALL	4	м	9: 30 sec. 10: 33 sec.	4
		motor		<0-10>			
		speed 1/2					
583-2		Transport	ALL	7	М		4
		motor		<0-10>			
		speed 1/3					

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
584	Fuser	Transport motor speed of	ALL	0	М	0: Decelerating to 1/1	1
		pre-running at ready status		<0-2>		1: Decelerating to 1/2	
						2: Decelerating to 1/3	
585	User	Default setting of Original	PPC	0	SYS	0: Text/Photo 1: Text	1
	interface	mode	(color)	<0-4>		2: Printed image 3: Photo	
						4: Map	
586	Image	Image quality switching	PPC	0	SYS	Selects the method of image	1
		when selecting the Image	(black)	<0-1>		processing when the Image Smooth-	
		Smoothing Mode				ing is selected in the original modes.	
						0: Processing for Image Smoothing	
						1: Processing when judging as black	
						in the ACS Mode	
587	User	Default setting of Density	PPC	1	SYS	0: Automatic	1
	interface	mode	(color)	<0-1>		1: Manual (Center)	
588	User	Default setting of Color	PPC	1	SYS	0: Auto color 1: Black	1
	interface	mode		<0-2>		2: Full color	
589	Image	Image quality switching	PPC	1	SYS	Selects the method of image	1
		when judging as black in the	(black)	<0-1>		processing when the original is	
		ACS Mode				judged as black in the ACS Mode.	
						0: Processing for Image Smoothing	
						1: Processing when judging as black	
						in the ACS Mode	
595	Image	Scanning operation	PPC	0	SYS	0: Scanning color/black integrated	1
		switching at automatic	(Color)	<0-1>		pattern	
		calibration				1: Scanning color pattern only	
597	Image	Gamma correction table all	PRT	-	SYS	Initializes the status of automatic	3
		clearing	(color)			gamma adjustment in color printing.	
602	User	Screen setting for automatic	ALL	EUR:0	SYS	0: OFF 1: ON	1
	interface	energy saver/automatic		UC:1			
		power OFF		JPN:1			
				<0-1>			
603	User	Setting for automatic	ALL	0	SYS	0: Invalid	1
	interface	duplexing mode		<0-3>		1: Single-sided to duplex copying	
						2: Two-sided to duplex copying	
						3: User selection	
604	User	Default setting for APS/AMS	ALL	0	SYS	0: APS (Automatic Paper Selection)	1
	interface			<0-2>		1: AMS (Automatic Magnification	
						Selection)	
						2: Not selected	
605	User	Centering printing of primary/	PPC	1	SYS	0: Invalid 1: Valid	1
	interface	secondary direction at AMS		<0-1>			
607	User	Default setting of RADF	PPC	0	SYS	0: Continuous feeding	1
	interface	mode		<0-1>		(by pressing the [START] button)	
						1: Single feeding	
						(by setting original on the tray)	

	Setting mode (08)									
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
609-0	Image	Binarizing level	Step	ALL	88	SYS	Sets the binarizing level of each step.	4		
	-	setting	-2		<0-255>		When the value increases, the image			
609-1		(When judging as	Step	ALL	108	SYS	becomes darker. When the value	4		
	-	black in the ACS	-1 	A1.1	<0-255>	CVC	decreases, the image becomes			
609-2		Mode)	Step	ALL	148	515	IIgnter.	4		
609-3	-		Sten		178	SYS		4		
			+1		<0-255>					
609-4	-		Step	ALL	208	SYS		4		
			+2		<0-255>					
610	User	Key touch sound o	f control	ALL	1	SYS	0: OFF	1		
	interface	panel			<0-1>		1: ON			
611	User	Book type original	priority	PPC	0	SYS	0: Left page to right page	1		
	interface				<0-1>		1: Right page to left page			
612	General	Summer time moo	le	ALL	0	SYS	0: Not summer time	1		
010		Descrite	. (		<0-1>	0)/0	1: Summer time			
613	User	Paper size selectio	on for	PPC	EUR:	SYS	Press the icon on the LCD to select	9		
	Interface				FULIO		the size.			
					IPN A5-R					
614	Network	Local I/F time-out	period	ALL	6	SYS	Sets the period of time when the job	1		
_					<1-50>		is judged as completed in local I/F			
							printing (USB or parallel).			
							1: 1.0 sec. 2: 1.5 sec 50: 25.5 sec.			
							(in increments of 0.5 sec.)			
615	General	Size information of	main	ALL	-	SYS	Displays the sizes of the main	2		
		memory and page	memory				memory and page memory. Enables			
							to check if each memory is properly			
010	Osuntan		. Tuin			0.70	recognized.			
010	Counter	Counting method i	n iwin			515	Color Mode with the Limitation	1		
		(Limitation Functio	n)		FUB: 0					
			,		<0-1>		0: Count as color			
							1: Count as black			
617	User	Print setting withou	it depart-	ALL	0	SYS	0: Printed	1		
	interface	ment code			<0-1>		1: Not printed			
618	User	Default setting of F	RADF	PPC	0	SYS	0: Same size originals	1		
	interface	original size			<0-1>		1: Mixed size originals			
619	Paper	Time lag before au	to-start of	ALL	4	SYS	Sets the time taken to add paper	1		
	feeding	bypass feeding			<0-10>		feeding when paper in the bypass			
							tray has run out during the bypass			
							O: Reportion pot drown in unloss			
							the [START] button is pressed			
							1-10: Setting value x 0.5sec			
620	User	Department manage	gement	PPC	1	SYS	0: Invalid 1: Valid	1		
	interface	setting (Copier)			<0-1>					
621	User	Department manag	gement	FAX	1	SYS	0: Invalid 1: Valid	1		
	interface	setting (FAX)			<0-1>					
622	User	Department manag	gement	PRT	1	SYS	0: Invalid 1: Valid	1		
	interface	setting (Printer)			<0-1>					
623	User	Department manag	gement	SCN		SYS	0: Invalid 1: Valid	1		
	Interface	setting (Scanner)			<0-1>					

	Setting mode (08)									
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
624	User	Department management	PRT	1	SYS	0: Invalid 1: Valid	1			
COF	Interface	setting (List print)		<0-1>	CVC		4			
025	User	made during PADE imming	PPC	-0.1	515	U: OFF	1			
	Intenace			<0-1>		scanning of each page is finished)				
627	User	Rotation printing at the non-	ALI	0	SYS	0: Not rotating 1: Botating	1			
027	interface	sorting	,	<0-1>						
628	User	Direction priority of original	PPC	0	SYS	0: Automatic 1: Portrait	1			
	interface	image		<0-1>						
629	User	Department management	ALL	0	SYS	0: Invalid 1: Valid	1			
	interface	setting		<0-1>						
632	User	Automatic calibration	PPC	1	SYS	Sets the disclosing level of automatic	1			
	interface	disclosure level		<0-2>		calibration.				
						0: Service technician				
00.4	11	1			0.10	1: Administrator 2: User				
634	User	Inner receiving tray priority	ALL	0	SYS	U: Normal	1			
636	lleor	Width softing for image shift	PPC	<0-1>	976		1			
030	interface	conving (linkage of front side	FFO	<0-1>	010		'			
		and back side)								
638	General	Time differences	ALL	EUR: 24	SYS	0: +12.0h 1: +11.5h 2: +11.0h	1			
				UC: 40		3: +10.5h 4: +10.0h 5: 9.5h				
				JPN: 6		6: +9.0h 7: +8.5h 8: +8.0h				
				<0-47>		9: +7.5h 10: +7.0h 11: +6.5h				
						12: +6.0h 13: +5.5h 14: +5.0h				
						15: +4.5h 16: +4.0h 17: +3.5h				
						18: +3.0h 19: +2.5h 20: +2.0h				
						21: +1.5h 22: +1.0h 23: +0.5h				
						24: 0.0h 25:-0.5h 26: -1.0h				
						27: -1.5n 28: -2.0n 29: -2.5n				
						30: -3.011 31: -3.011 32: -4.011				
						36: -6.0h 37: -6.5h 38: -7.0h				
						39: -7.5h 40: -8.0h 41: -8.5h				
						42: -9.0h 43: -9.5h 44: -10.0h				
						45: -10.5h 46: -11.0h 47: -11.5h				
640	User	Date display format	ALL	EUR:1	SYS	0: YYYY.MM.DD. 1: DD.MM.YYYY	1			
	interface			UC:2		2: MM.DD.YYYY				
				JPN:0						
				<0-2>						
641	User	Automatic Sorting Mode	PPC	2	SYS	0: Invalid 1: STAPLE	1			
	Interface	setting (RADF)		<0-4>		2:SURI 3: GROUP				
642	lleor	Default setting of Sorter	PPC	0	975	4. NON-SORT 1. STAPLE	1			
072	interface	Mode		<0-4>		2: SOBT 3: GROUP				
						4: ROTATE SORT				
643	User	Color 1 at twin color	PPC	0	SYS	0: K 1: Y 2: M 3: C	1			
_	interface	selection (Select what color	(color)	<0-6>		4: R 5: G 6: B				
		black in original is copied)								
644	User	Color 2 at twin color	PPC	4	SYS	0: K 1: Y 2: M 3: C	1			
	interface	selection (Select what color	(color)	<0-6>		4: R 5: G 6: B				
		other than black in original is								
		copied)								

			Setting	g mode (0	8)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
645	User interface	Correction of reproduction ratio in editing copy	PPC	10 <0-10>	SYS	Sets the reproduction ratio for the "X           in 1" printing (including magazine           sort) to the "Reproduction ratio x           Correction ratio".           0: 90% 1: 91% 2: 92% 3: 93%           4: 94% 5: 95% 6: 96% 7: 97%           8: 98% 9: 99% 10: 100%	1
646	User interface	Image position in editing	PPC	0 <0-1>	SYS	Sets the page pasted position for "X in 1" to the upper left corner/center. 0: Cornering 1: Centering	1
647	User interface	Rotation of paper direction for BOX printing	ALL	1 <0-1>	SYS	0: Rotation OFF 1: Rotation ON	1
648	User interface	Returning finisher tray when printing is finished	ALL	0 <0-1>	SYS	Sets whether or not returning the finisher tray to the bin 1 when printing is finished. 0: Not returned 1: Returned	1
649	User interface	Magazine sort setting	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
650	User interface	2 in 1/4 in 1 page allocating order setting	PPC	0 <0-1>	SYS	0: Horizontal 1: Vertical	1
651	User interface	Printing format setting for Time Stamp and Page Number	PPC	2 <0-3>	SYS	Hyphen     Dropout       (with page number)(with date, time and page number)     0:       0:     OFF       1:     ON       2:     OFF       3:     ON       Note:     Hyphen printing format       ON: -1-     OFF: 1	1
652	User interface	Cascade operation setting	PPC	0 <0-1>	SYS	0: OFF 1: ON	1
653	User interface	Cascade operation setting	PRT	0 <0-1>	SYS	0: OFF 1: ON	1
657	User interface	Default setting of printing direction for Time Stamp and Page Number	PPC	0 <0-1>	SYS	0: Short edge 1: Long edge	1
658	User interface	Auto-start setting for bypass feed printing	PRT	0 <0-1>	SYS	<ul> <li>Sets whether or not feeding a paper automatically into the copier when it is placed on the bypass tray.</li> <li>0: OFF (Press the [START] button to start feeding.)</li> <li>1: ON (Automatical feeding)</li> </ul>	1
659	User interface	Auto-start setting for bypass feed printing	PPC	1 <0-1>	SYS	<ul> <li>Sets whether or not feeding a paper automatically into the copier when it is placed on the bypass tray.</li> <li>0: OFF (Press the [START] button to start feeding.)</li> <li>1: ON (Automatical feeding)</li> </ul>	1
660	Network	Auto-forwarding setting of received FAX	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
661	Network	Auto-forwarding setting of received E-mail	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
662	General	Clearing of SMS p	partition	ALL	-	SYS	Clears SMS partition. (Performs	3
							when the service call [F106] has	
							occurred.)	
663	Counter	Counting method	in Twin	PPC	0	SYS	Sets the counting method of fee	1
		Color Mode			<0-2>		charging or department count in Twin Color Mode.	
							0: Count as Twin Color Mode	
							1: Count as Black Mode	
							2: Count as Full Color Mode	
665	General	M/SYS all clearing	9	ALL	-	M/	Initializes all the adjustment modes	3
						SYS	and the setting modes.	
666	General	/SHR partition cle	aring	ALL	-	SYS	Initializes the Electronic Filing.	3
667	General	/SHA partition clea	aring	ALL	-	SYS	Initializes the shared folder.	3
669	General	System all clearin	g	ALL	-	SYS	Initializes system NVRAM area.	3
670	General	HDD diagnostic m	nenu	ALL	-	SYS	Display the HDD information	2
		display						
671	User	Size indicator		ALL	0	SYS	0: Invalid 1: Valid	1
	interface				<0-1>			
672	General	Initialization of de	partment	-	-	SYS	Initializing of the department man-	3
		management info	rmation				agement information	
							* Enter the code with the digital keys	
							and press the [INITIALIZE] button to	
							perform the initialization.	
							If the area storing the department	
							management information is	
							destroyed for some reason, "Enter	
							Department Code" is displayed on	
							the control panel even if the	
							department management function is	
							not set on. In this case, initialize the	
							area with this code. This area is	
075.0	Damar	Castad Danar	Linner			<u>ovo</u>	normally initialized at the factory.	4
075-0	fooding	Mode cotting for	drawor		-0.1>	313	Costed Paper Mode to each paper	4
	leeuing		urawer		<0-1>			
675-1	-	paper source	Lower		0	975	0: Normal mode	1
0/01			drawer		<0-1>		1: Coated Paper Mode	- T
			arawer				* Coated Paper Mode - This mode is	
675-2	ł		PFP	ALL	0	SYS	selected when the paper which often	4
			upper		<0-1>		causes the misfeeding (ex. coated	
			drawer				paper) is used. The occurrence of	
675-3	ł		PFP	ALL	0	SYS	misfeeding is reduced by lengthening	4
'			lower		<0-1>		the jam detection time. However, the	
			drawer				printing speed is lowered since the	
675-4	1		LCF	ALL	0	SYS	printing cycle is also lengthened with	4
					<0-1>		the lengthened jam detection time.	

				Setting	g mode (0	8)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
676	Paper	Bypass copy print	ing	PPC	0	SYS	Sets whether or not displaying the	1
	feeding	[COATED] button	display		<0-1>		[COATED] button on the LCD screen	
							at bypass feeding.	
							0: Not displayed	
							1: Displayed (The Coated Paper Mode	
							is applied by pressing the [COATED]	
							button at bypass feeding.)	
							* Coated Paper Mode - This mode is	
							selected when the paper which often	
							causes the misfeeding (ex. coated	
							paper) is used. The occurrence of	
							misfeeding is reduced by lengthening	
							the jam detection time. However, the	
							printing speed is lowered since the	
							printing cycle is also lengthened with	
							the lengthened jam detection time.	
677-0	Paper	Coated Paper	Plain	PRT	0	SYS	Sets whether or not applying the	4
	feeding	Mode setting at	paper		<0-1>		Coated Paper Mode on each paper	
		bypass feeding					type at bypass printing.	
677-1			Thick	PRT	0	SYS	0: Normal mode	4
			paper 1		<0-1>		1: Coated Paper Mode	
							* Coated Paper Mode - This mode is	
677-2			Thick	PRT	0	SYS	selected when the paper which	4
			paper 2		<0-1>		often causes the misfeeding (ex.	
							coated paper) is used. The occur-	
677-3			Thick	PRT	0	SYS	rence of misfeeding is reduced by	4
			paper 3		<0-1>		lengthening the jam detection time.	
							However, the printing speed is	
677-4			OHP film	PRT	0	SYS	lowered since the printing cycle is	4
					<0-1>		also lengthened with the lengthened	
							jam detection time.	
677-5			Envelope	PRT	0	SYS		4
					<0-1>			
678	General	Setting of banner	advertis-	ALL	0	SYS	Sets whether or not displaying the	1
		ing display			<0-1>		banner advertising. The setting	
							contents of 08-679 and 08-680 are	
							displayed at the time display section	
							on the right top of the screen. When	
							both are set, each content is dis-	
							played alternately.	
							0: Not displayed	
							1: Displayed	
679	General	Banner advertisin	g display 1	ALL	-	SYS	Maximum 27 letters	11
							(one-byte character)	
680	General	Banner advertisin	g display 2	ALL	-	SYS	Maximum 27 letters	11
							(one-byte character)	
681	General	Display of [BANN	ER	ALL	0	SYS	0: Not displayed 1: Displayed	1
		MESSAGE] butto	n		<0-1>		* This button enables the entry of	
							"Banner advertising display 1(08-	
							679)" and "Banner advertising	
							display 2 (08-680)" on the control	
							panel.	

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
682	User interface	Offsetting between jobs	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1				
683	General	Duplex printing setting when coin controller is used	ALL	1 <0-1>	SYS	When the duplex printing is short paid with a coin controller, reverse side of the original is not printed and is considered as a defect (printing job may be cleared). To solve this problem, the selection of printing method is enabled with this setting. 0: Invalid (Both sides printed)	1				
						1: Valid (Only one side printed)					
684	General	Rebuilding all databases	ALL	-	SYS	Rebuilds all databases.	3				
685	General	Rebuilding all databases related to Address Book	ALL	-	SYS	Rebuilds all databases related to the Address Book.	3				
686	General	Rebuilding all databases related to log	ALL	-	SYS	Rebuilds all databases related to the logs.	3				
689	FAX	Adaptation of paper source priority selection	FAX	0 <0-1>	SYS	0: Not subjected for APS judgment 1: Subjected for APS judgment	1				
690	General	HDD formatting	ALL	- <2>	SYS	2: Normal formatting	7				
691	General	HDD type display	ALL	- <0-2>	SYS	0: Not formatted 1: Not used 2: Normal format	7				
692	Mainte- nance	Performing panel calibration	ALL	-	SYS	Performs the calibration of the pressing position on the touch panel (LCD screen). The calibration is performed by pressing 2 reference positions after this code is started up.	1				
693	General	Initialization of NIC informa- tion	ALL	-	SYS	Returns the value to the factory shipping default value.	3				
694	General	Performing HDD testing	ALL	-	SYS	Checks the bad sector.	3				
696	Scrambler	Installation of scrambler	ALL	0	-	0: Not installed	2				
	board	board (Option)		<0-1>		1: Installed					
697	Paper feeding	Paper type priority	PPC	1 <1-2>	SYS	Sets the paper type priority during copying. 1: Normal paper 2: Thick paper 1	1				
698	Scrambler board	Entering the key code for scrambler board	ALL	-	-	Start up this code and have the user enter the key code. Once the key code has been set, this code cannot be set again on security grounds.	5				
699	Scrambler board	Erasing all data in HDD	ALL	-	-	This setting is effective only when the scrambler board is installed.	3				
701	FAX	Destination setting for FAX	FAX	EUR: 5 UC: 4 JPN: 0 Other: 1 <0-25>	SYS	0: Japan1: Asia2: Australia3: Hong Kong4: U.S.A./Canada5: Germany6: U.K.7: Italy8: Belgium9: Netherlands10: Finland11: Spain12: Austria13: Switzerland14: Sweden15: Denmark16: Norway17: Portugal18: France19: Greece20: Poland21: Hungary22: Czech23: Turkey24: South Africa25: Taiwan	1				

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
702	Mainte-	Remote-controlled service	ALL	2	SYS	0: Valid (Remote-controlled server)	1				
	nance	function		<0-2>		1: Valid (L2) 2: Invalid					
703	Mainte-	Remote-controlled service	ALL	-	SYS	Maximum 256 Bytes	11				
	nance	HTTP server URL setting									
707	Mainte-	Remote-controlled service	ALL	https://	SYS	Maximum 256 Bytes	11				
	nance	HTTP initially-registered		device.mfp-							
		server		support.com:							
		URL setting		443/device/							
				firstregist.ashx							
710	Mainte-	Short time interval setting of	ALL	24	SYS	Sets the time interval to recover from	1				
	nance	recovery from Emergency		<1-48>		the Emergency Mode to the Normal					
		Mode				Mode.					
						(Unit: Hour)					
711	Mainte-	Short time interval setting of	ALL	60	SYS	Unit: Minute	1				
	nance	Emergency Mode		<30-360>							
715	Mainte-	Remote-controlled service	ALL	1230	SYS	0 (0:00) to 2359 (23:59)	1				
	nance	periodical polling timing									
		(Hour/Hour/Minute/Minute)									
716	Mainte-	Remote-controlled service	ALL	0	SYS	0: Prohibited 1: Accepted	1				
-	nance	Writing data of self-		<0-1>							
		diagnostic code									
717	Mainte-	Remote-controlled service	ALI	3	SYS	Unit: Minute	1				
,	nance	response waiting time	,	<1-30>	0.0		.				
		(Timeout)									
718	Mainte-	Remote-controlled service	ALL	0	SYS	0: OFF_1: Start	1				
	nance	initial registration		<0-1>		2: Only certification is scanned					
719	Mainte-	Remote-controlled service	ALL	-	SYS	Maximum 10 letters	11				
	nance	tentative password									
720	Mainte-	Status of remote-controlled	ALL	0	SYS	0: Not registered	2				
	nance	service initial registration		<0-1>		1: Reaistered					
		(Display only)									
721	Mainte-	Service center call function	ALL	2	SYS	0: OFF	1				
	nance			<0-2>		1. Notifies all service calls					
	nanoo			10 24		2: Notifies all but paper jams					
723	Mainte-	Service center call	ALI	-	SYS	Maximum 256 letters	11				
120	nance	HTTP server UBL setting	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0.0						
726	Mainte-	HTTP proxy setting	ALI	1	SYS	0: Valid 1: Invalid	1				
	nance			<0-1>	0.0						
727	Mainte-	HTTP proxy IP address	ALI	-	SYS	000 000 000 000 - 255 255 255 255	11				
	nance	setting			0.0	(Default value 000 000 000 000)					
728	Mainte-	HTTP proxy port number	ALI	0	SYS		1				
120	nance	setting		<0-65535>	0.0		'				
729	Mainte-	HTTP proxy ID setting	ΔΠ		SYS	Maximum 30 letters	11				
120	nance				0.0						
730	Mainte-	HTTP proxy password	ΔΠ	_	SYS	Maximum 30 letters	11				
100	nance	setting			0.0						
731	Mainte-	HTTP proxy panel display	ALI	1	SYS	0: Valid 1: Invalid	1				
101	nance			<0-1>	0.0		·				
732	Mainte-	Automatic ordering function	ALI	3	SYS	0. Ordered by FAX	1				
	nance	of supplies		<0-3>		1: Ordered by F-mail	'				
	(Remote)					2: Ordered by HTTP					
						3: OFF					

CodeClassifi- cationItemsFunc- tionDefault caluesRAMContentsProce- dure733Mainte- nanceAutomatic ordering function of suppliesALL-SYSMaximum 32 digits11734Mainte- nanceAutomatic ordering function of suppliesALL-SYSMaximum 192 letters11734Mainte- nance of supplies (Remote)Automatic ordering function of suppliesALL-SYSMaximum 192 letters11738Mainte- nance of supplies (Remote)Automatic ordering function of supplies (Remote)ALL-SYSMaximum 50 letters11739Mainte- nance of supplies (Remote)Automatic ordering function of supplies (Remote)ALL-SYSMaximum 32 digits text 256 digits11739Mainte- nance of supplies (Remote)Automatic ordering function of supplies (Remote)ALL-SYSMaximum 32 digits text 256 digits11740Mainte- nance of supplies (Remote)Automatic ordering function of supplies (Remote)ALL-SYSMaximum 100 letters11741Mainte- nance of supplies (Remote)Automatic ordering function of supplies (Remote)ALL-SYSMaximum 100 letters11742Mainte- nance of supplies (Remote)Automatic ordering function of supplies (Remote)ALL0 softSYSMaximum 5 digits11 <t< th=""></t<>
733       Mainte- nance of supplies (Remote)       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 32 digits Enter hyphen with the [Monitor/ Pause] button       11         734       Mainte- nance of supplies (Remote)       Automatic ordering function of supplies       ALL       -       SYS       Maximum 192 letters List: 256 digits       11         738       Mainte- nance of supplies (Remote)       Latter and the set user's name       ALL       -       SYS       Maximum 50 letters       11         739       Mainte- nance of supplies (Remote)       User's name       ALL       -       SYS       Maximum 32 digits       11         740       Mainte- nance of supplies (Remote)       User's telephone number       ALL       -       SYS       Maximum 192 letters       11         741       Mainte- nance of supplies (Remote)       Automatic ordering function of supplies       ALL       -       SYS       Maximum 100 letters       11         741       Mainte- nance of supplies (Remote)       User's address       ALL       -       SYS       Maximum 100 letters       11         742       Mainte- nance (Remote)       Automatic ordering function nance (Remote)       ALL       0       SYS       Maximum 5 digits       11         742       Mainte- nan
(Hemote)       FAX number       Pause] button         734       Mainte- nance       Automatic ordering function of supplies       ALL       -       SYS       Maximum 192 letters       11         nance       of supplies       E-mail address       11       List: 256 digits       11         738       Mainte- nance       Automatic ordering function of supplies       ALL       -       SYS       Maximum 50 letters       11         738       Mainte- nance       of supplies       -       SYS       Maximum 32 digits       11         739       Mainte- nance       of supplies       -       SYS       Maximum 32 digits       11         740       Mainte- nance       of supplies       -       SYS       Maximum 192 letters       11         740       Mainte- nance       of supplies       -       SYS       Maximum 192 letters       11         741       Mainte- nance       of supplies       -       SYS       Maximum 100 letters       11         742       Mainte- nance       of supplies       -       SYS       Maximum 100 letters       11         742       Mainte- nance       Automatic ordering function nance       ALL       -       SYS       Maximum 100 letters       11
734       Mainte-       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 192 letters       11         738       Mainte-       Automatic ordering function nance       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 50 letters       11         738       Mainte-       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 50 letters       11         739       Mainte-       Automatic ordering function nance       ALL       -       SYS       Maximum 32 digits       11         740       Mainte-       Automatic ordering function nance       ALL       -       SYS       Maximum 192 letters       11         740       Mainte-       Automatic ordering function nance       ALL       -       SYS       Maximum 192 letters       11         741       Mainte-       Automatic ordering function nance       ALL       -       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function nance       ALL       -       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function nance       ALL       0       SYS       Maximum 5 digits       11<
Traitee       of supplies       E-mail address       Ist. 256 digits         738       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 50 letters       11         738       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 50 letters       11         739       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 32 digits       11         739       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 32 digits       11         740       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 192 letters       11         740       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 192 letters       11         nance       of supplies       -       SYS       Maximum 100 letters       11         nance       of supplies       -       SYS       Maximum 100 letters       11         remote)       User's address       -       SYS       Maximum 5 digits       11         remote)       User's address       -       SYS       Maximum 5 digits       11
738       Mainte- nance (Remote)       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 50 letters       11         739       Mainte- nance of supplies (Remote)       User's name       ALL       -       SYS       Maximum 32 digits       11         739       Mainte- nance of supplies       Automatic ordering function of supplies       ALL       -       SYS       Maximum 32 digits       11         740       Mainte- nance of supplies       Automatic ordering function of supplies       ALL       -       SYS       Maximum 192 letters       11         740       Mainte- nance of supplies       Automatic ordering function nance       ALL       -       SYS       Maximum 100 letters       11         741       Mainte- nance       Automatic ordering function nance       ALL       -       SYS       Maximum 100 letters       11         742       Mainte- nance       Genyplies       -       SYS       Maximum 5 digits       11         742       Mainte- nance       Genyplies       -       SYS       Maximum 5 digits       11         742       Mainte- nance       Genyplies       -       SYS       Maximum 5 digits       11         742       Mainte- (Remote)       Service number
700       Mainter Automatic ordering function       ALL       010       Mainter Solitors       11         739       Mainte- Automatic ordering function       ALL       -       SYS       Maximum 32 digits       11         739       Mainte- Automatic ordering function       ALL       -       SYS       Maximum 32 digits       11         nance       of supplies       -       SYS       Maximum 32 digits       11         nance       of supplies       -       SYS       Maximum 32 digits       11         nance       of supplies       -       SYS       Maximum 192 letters       11         nance       of supplies       -       SYS       Maximum 192 letters       11         nance       of supplies       -       SYS       Maximum 100 letters       11         nance       of supplies       -       SYS       Maximum 100 letters       11         nance       of supplies       -       SYS       Maximum 5 digits       11         rate       -       SYS       Maximum 100 letters       11         nance       of supplies       -       SYS       Maximum 5 digits       11         rate       -       SYS       Maximum 5 digits
Inductor       of oupplied         (Remote)       User's name         739       Mainte-         nance       of supplies         (Remote)       User's telephone number         740       Mainte-         nance       of supplies         (Remote)       User's telephone number         740       Mainte-         nance       of supplies         (Remote)       User's telephone number         740       Mainte-         nance       of supplies         (Remote)       User's E-mail address         741       Mainte-         nance       of supplies         (Remote)       User's E-mail address         741       Mainte-         nance       of supplies         (Remote)       User's address         742       Mainte-         nance       of supplies         (Remote)       User's address         742       Mainte-         nance       of supplies         (Remote)       Service number         Automatic ordering function       ALL         <5 digits>       SYS         Maximum 5 digits       11         nance
739       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       -       SYS       Maximum 32 digits       11         740       Mainte- nance (Remote)       User's telephone number       ALL       -       SYS       Maximum 32 digits       11         740       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       -       SYS       Maximum 192 letters       11         741       Mainte- nance (Remote)       User's E-mail address       -       SYS       Maximum 100 letters       11         741       Mainte- nance (Remote)       User's address       -       SYS       Maximum 100 letters       11         742       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits       11         742       Mainte- (Remote)       Service number       ALL       0       SYS       Maximum 5 digits       11         742       Mainte- (Remote)       Service number       ALL       0       SYS       Maximum 5 digits       11
nance       of supplies       Enter hyphen with the [Monitor/ Pause] button         740       Mainte-       Automatic ordering function of supplies       ALL       -       SYS       Maximum 192 letters List: 256 digits       11         741       Mainte-       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 192 letters List: 256 digits       11         741       Mainte-       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function of supplies (Remote)       ALL       0       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function of supplies (Remote)       ALL       0       SYS       Maximum 5 digits       11         742       Mainte-       Automatic ordering function of supplies (Remote)       ALL       0       SYS       Maximum 5 digits       11         742       Mainte-       Automatic ordering function of supplies (Remote)       ALL       0       SYS       Maximum 5 digits       11         742       Mainte-       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits
(Remote)       User's telephone number       Pause] button         740       Mainte-       Automatic ordering function of supplies       ALL       -       SYS       Maximum 192 letters       11         nance       of supplies       User's E-mail address       -       SYS       Maximum 100 letters       11         741       Mainte-       Automatic ordering function of supplies       ALL       -       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function of supplies       ALL       -       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function nance of supplies       ALL       0       SYS       Maximum 5 digits       11         742       Mainte-       Automatic ordering function nance of supplies       ALL       0       SYS       Maximum 5 digits       11         110       Service number
740       Mainte- nance (Remote)       Automatic ordering function of supplies User's E-mail address       ALL       -       SYS       Maximum 192 letters List: 256 digits       11         741       Mainte- nance (Remote)       Automatic ordering function of supplies (Remote)       ALL       -       SYS       Maximum 100 letters       11         742       Mainte- nance (Remote)       Automatic ordering function User's address       ALL       -       SYS       Maximum 100 letters       11         742       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits       11         742       Mainte- (Remote)       Service number       ALL       0       SYS       Maximum 5 digits       11
nance       of supplies       List: 256 digits       List: 256 digits         741       Mainte-       Automatic ordering function       ALL       -       SYS       Maximum 100 letters       11         nance       of supplies       -       SYS       Maximum 100 letters       11         742       Mainte-       Automatic ordering function       ALL       0       SYS       Maximum 5 digits       11         742       Mainte-       Automatic ordering function       ALL       0       SYS       Maximum 5 digits       11         742       Mainte-       Automatic ordering function       ALL       0       SYS       Maximum 5 digits       11         nance       of supplies       -       -       5 digits>       -       -       -         11       Nance       Service number       -       -       -       -       -       -         11       -       -       -       -       -       -       -       -       -       -       -         11       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -
(Remote)       User's E-mail address       -       SYS       Maximum 100 letters       11         741       Mainte- nance       Automatic ordering function of supplies       ALL       -       SYS       Maximum 100 letters       11         742       Mainte- nance       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits       11         742       Mainte- nance       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits       11         742       Meximum       Service number       -       -       SYS       Maximum 5 digits       11
741       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       -       SYS       Maximum 100 letters       11         742       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits       11         742       Mainte- nance (Remote)       Automatic ordering function of supplies       ALL       0       SYS       Maximum 5 digits       11
nance       of supplies       Image: Constraint of supplies
(Remote)       User's address       Image: Constraint of the second seco
742     Mainte- nance     Automatic ordering function of supplies     ALL     0     SYS     Maximum 5 digits     11       (Remote)     Service number     <5 digits>
nance     of supplies     <5 digits>       (Remote)     Service number
(Remote) Service number
743 Mainte- Automatic ordering function ALL - SYS Maximum 50 letters 11
nance of supplies
(Remote) Service technician's name
744 Mainte- Automatic ordering function ALL - SYS Maximum 32 digits 11
nance of supplies Enter hyphen with the [Monitor/
(Remote) Service technician's Pausej button
Telephone number         SYS         Maximum 102 latters         11
nance of supplies
(Remote) Service technician's E-mail
address
746 Mainte- Automatic ordering function ALL - SYS Maximum 50 letters 11
nance of supplies
(Remote) Supplier's name
747 Mainte- Automatic ordering function ALL - SYS Maximum 100 letters 11
nance of supplies
(Remote) Supplier's address
748 Mainte- Automatic ordering function ALL - SYS Maximum 128 letters 11
nance of supplies
(Remote) Notes
749     Mainte-     Information about supplies     ALL     -     SYS     Maximum 20 digits     11
nance Part number of toner
(Remote) cartridge C
/50     Mainte- Information about supplies     ALL     1     SYS       1     Outlow supplies     ALL     1     SYS
nance Order quantity of toner
(Heinote) (Cartriage U       751     Mainta Information about augulias       ALL     1
751     Information about supplies     ALL     1     SYS     1       nanco     Condition number of tonor     <1.00
(Romoto) contridge C
752 Mainte- Information about supplies ALL - SVS Maximum 20 digits 11
nance Part number of toner
(Remote) cartridge M

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
753	Mainte- nance (Remote)	Information about supplies Order quantity of toner cartridge M	ALL	1 <1-99>	SYS		1				
754	Mainte- nance (Remote)	Information about supplies Condition number of toner cartridge M	ALL	1 <1-99>	SYS		1				
755	Mainte- nance (Remote)	Information about supplies Part number of toner cartridge Y	ALL	-	SYS	Maximum 20 digits	11				
756	Mainte- nance (Remote)	Information about supplies Order quantity of toner cartridge Y	ALL	1 <1-99>	SYS		1				
757	Mainte- nance (Remote)	Information about supplies Condition number of toner cartridge Y	ALL	1 <1-99>	SYS		1				
758	Mainte- nance (Remote)	Information about supplies Part number of toner cartridge K	ALL	-	SYS	Maximum 20 digits	11				
759	Mainte- nance (Remote)	Information about supplies Order quantity of toner cartridge K	ALL	1 <1-99>	SYS		1				
760	Mainte- nance (Remote)	Information about supplies Condition number of toner cartridge K	ALL	1 <1-99>	SYS		1				
761	Mainte- nance (Remote)	Information about supplies Part number of toner bag	ALL	-	SYS	Maximum 20 digits	11				
762	Mainte- nance (Remote)	Information about supplies Order quantity of toner bag	ALL	1 <1-99>	SYS		1				
763	Mainte- nance (Remote)	Information about supplies Condition number of toner bag	ALL	1 <1-99>	SYS		1				
764	Mainte- nance (Remote)	Automatic ordering supplies Result table printout	ALL	1 <0-2>	SYS	0: OFF 1: Always 2: ON Error	1				
765	Mainte- nance (Remote)	Automatic ordering supplies Display	ALL	2 <0-2>	SYS	0: Valid (FAX/Internet FAX) 1: Valid (FAX/Internet FAX/HTTP) 2: Invalid	1				
767	Mainte- nance (Remote)	Service Notification setting	ALL	0 <0-2>	SYS	Enables to set up to 3 E-mail addresses to be sent. (08-768, 777, 778) 0: Invalid 1: Valid (E-mail) 2: Valid (FAX)	1				
768	Mainte- nance (Remote)	Destination E-mail address 1	ALL	-	SYS	Maximum 192 letters	11				
769	Mainte- nance (Remote)	Total counter information transmission setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1				
770	Mainte- nance (Remote)	Total counter transmission date setting	ALL	1 <1-31>	SYS	1 to 31	1				

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
771	Mainte-	PM counter notification	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	setting		<0-1>			
	(Remote)						
772	Mainte-	Dealer's name	ALL	-	SYS	Maximum 100 letters	11
770	nance				01/0	Needed at initial registration	44
//3	Mainte-	Login name	ALL	-	SYS	Maximum 20 letters	11
774	nance	Diaplay actting of Carries		0	CVC	Needed at Initial registration	4
//4	mainte-	Display setting of [Service	ALL	-0.1	515	0: Not displayed 1: Displayed	
	(Remote)	Notification button		<0-1>			
775	Mainte-	Sending error contents of	ΔΗ	0	SVS	0: Invalid 1: Valid	1
115	nance	equipment		<0-1>	010		'
	(Remote)	equipment		<b>NO 12</b>			
776	Mainte-	Setting total counter	ALL	-	SYS		1
	nance	transmission interval					
	(Remote)	(Hour/Hour/Minute/Minute)					
777	Mainte-	Destination E-mail address 2	ALL	-	SYS	Maximum 192 letters	11
	nance						
	(Remote)						
778	Mainte-	Destination E-mail address 3	ALL	-	SYS	Maximum 192 letters	11
	nance						
	(Remote)						
779	Mainte-	Notification format selection	ALL	0	SYS	0: Text	1
	nance			<0-1>		1: Text + XML data	
	(Remote)	-					
780	Mainte-	Remote-controlled service	ALL	0	SYS	0: OFF	1
	nance	polling day selection		<0-31>		1 to 31: 1st to 31st of a month	
701	Mainta	Day-1	AL 1	0	eve	0: 0EE	1
/01	nanco	nelling day soloction	ALL	0-31	515	1 to 31: 1st to 31st of a month	
	Tance	Day-2		<0-312			
782	Mainte-	Bemote-controlled service	ΔΗ	0	SYS	0: OFF	1
102	nance	polling day selection	/ LL	<0-31>	0.0	1 to 31: 1st to 31st of a month	
		Dav-3					
783	Mainte-	Remote-controlled service	ALL	0	SYS	0: OFF	1
	nance	polling day selection		<0-31>		1 to 31: 1st to 31st of a month	
		Day-4					
784	Mainte-	Remote-controlled service	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	polling day selection		<0-1>			
		Sunday					
785	Mainte-	Remote-controlled service	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	polling day selection		<0-1>			
		Monday					
786	Mainte-	Remote-controlled service	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	polling day selection		<0-1>			
707	Mainte	Iuesday	A		01/0		4
187	mainte-	Hemote-controlled service	ALL		515	u: invalid 1: Valid	1
	nance	Wodposday		<0-1>			
		weunesuay					

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
788	Mainte- nance	Remote-controlled se polling day selection	ervice	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
789	Mainte-	Remote-controlled se	ervice	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	polling day selection Friday			<0-1>			
790	Mainte- nance	Remote-controlled se polling day selection Saturday	ervice	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
791	Mainte-	Information of supplie	es	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	setting of toner cartri	dge C		<0-1>			
792	Mainte-	Information of supplie	es	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	setting of toner cartri	dge M		<0-1>			
793	Mainte-	Information of supplie	es	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	setting of toner cartri	dge Y		<0-1>			
794	Mainte-	Information of supplie	əs	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	setting of toner cartri	dge K		<0-1>			
795	Mainte-	Information of supplie	es	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	setting of toner bag			<0-1>			
796	Mainte-	Remote-controlled se	ervice	ALL	0	SYS	0: Invalid 1: Valid	1
	nance	lengthened interval p (End of month)	olling		<0-1>			
797	Mainte-	Firmware download		ALL	0	SYS	0: Accepted 1: Prohibited	1
	nance				<0-1>			
810	Image control	Transfer bias correct table setting	ion	ALL	2 <1-3>	М	1:TYPE1 2:TYPE2 3:TYPE3	1
819-0	Develop-	Color auto-toner	Y	ALL	256	М	Sets the target output value of color	4
	ment	sensor output		(color)	<0-1023>		auto-toner sensor to the sleeve in th	e
819-1		setting for initial	М	ALL	256	М	auto-toner control. (This is set when	4
		developer		(color)	<0-1023>		performing the automatic adjustmen	t
819-2		material	С	ALL	256	М	of auto-toner sensor.)	4
				(color)	<0-1023>			
820-0	Develop-	Color auto-toner	Y	ALL	-	M	Displays the output value of the colo	r 4
	ment	sensor output		(color)	<0-1023>		auto-toner sensor to the sleeve in	
820-1		display for	М	ALL	-	M	color printing.	4
	-	developer material		(color)	<0-1023>			
820-2			С		-	M		4
001	Develop		<i>1</i>	(color)	<0-1023>	•		
821	Develop-	ON/OFF of the mode	or	ALL	0	M	Sets whether or not performing an	1
	ment	developer material		(COIOF)	<0-1>		aging to stabilize the status of	
		Stabilization					density is unoven or the topor	
							charging amount is loworod	
							0: ON 1: OFF	
822-0	Develop-	Number of times	Y	ALL	0	М	Displays the number of times the	4
	ment	the mode for		(color)	<0-255>		developer material stabilization is	
822-1		developer material	Μ		0	M	performed.	4
000.0	-	stabilization is		(color)	<0-255>			
022-2		penomea	U		0-255			4
					~~ 2007			

	-			Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
823-0	Develop- ment	Color auto-toner sensor/light	Y	ALL (color)	0 <0-1>	М	Displays "1" when the abnormal output voltage is detected for the	4
823-1		amount correction	М	ALL (color)	0 <0-1>	М	color auto-toner sensor light amount correction. (ICF40] error)	4
823-2	-	detection	С	ALL	0	М	0: Normal	4
				(color)	<0-1>		1: Abnormality detected	
824-0	Develop-	Color auto-toner	Y	ALL	0	М	Displays "1" when the abnormal	4
	ment	sensor/toner		(color)	<0-1>		toner density detection voltage is	
824-1		density detection	М	ALL	0	М	detected. ([CF20] error)	4
		voltage abnormal		(color)	<0-1>		0: Normal	
824-2		detection	С	ALL	0	M	1: Abnormality detected	4
				(color)	<0-1>			
849	Fuser	Fusing control swite	hing for	ALL	Other than	M		1
		TWD and SAD mod	lels		TWD and			
					SAD: 0			
					TWD and			
					SAD: 1			
050.0	Develop	Tanaramatu	V		<0-1>		December "1" when detecting the	
858-0	Develop-	Ioner empty	Y	ALL (color)	0	M	Becomes "I" when detecting the	14
050 1	ment		NA		<0-1>	N.4	0: Normal	14
828-1			IVI	ALL (color)	-0.1		1: Empty detected	14
858-2	-	-	<u> </u>		0	N/		1/
030-2			U	(color)	<0-1>			14
859-0	Develop-	Color toner forced	Y	ALL	0	м	Becomes "1" when the toner density	14
	ment	supply level	•	(color)	<0-1>		decreases and it is judged forced	
859-1		display	М	ALL	0	М	toner supply is needed.	14
				(color)	<0-1>		0: Normal level	
859-2		-	С	ALL	0	М	1: Forced supply level	14
				(color)	<0-1>			
860-0	Develop-	Color auto-toner	Upper	ALL	20	М	Sets the range for judging whether	4
	ment	sensor/proper	limit	(color)	<0-1023>		the sensor output value when the	
860-1		range setting of	Lower	ALL	0	M	sensor light source is OFF is correct	4
		OFF level voltage	limit	(color)	<0-1023>		or not.	
861-0	Develop-	Color auto-toner	Upper	ALL	205	M	Sets the range for judging whether	4
	ment	sensor/proper	limit	(color)	<0-255>		the adjustment result of sensor light	
061.1	-	standard light	Lowor		40	N.4		1
001-1		amount voltage	limit		40 ~0-255>			4
		amount voltage	mm		<0-2002			
862-0	Develop-	Color auto-toner	Upper	ALL	820	м	Sets the range for judging whether	4
	ment	sensor/proper	limit	(color)	<0-1023>		the sensor output value for the	
		range setting of		/			reference plate is correct or not.	
862-1	1	reference plate	Lower	ALL	205	М		4
		output	limit	(color)	<0-1023>			
863-0	Develop-	Color auto-toner	Upper	ALL	450	М	Sets the range for judging whether	4
	ment	sensor/proper	limit	(color)	<0-1023>		the sensor output value for the	
863-1		range setting of	Lower	ALL	155	М	sleeve is correct or not.	4
		developer output	limit	(color)	<0-1023>			

				Setting	y mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
864	Develop-	Color auto-toner sensor/		ALL	-	Μ	Displays the sensor output value	2
	ment	sensor OFF output value		(color)	<0-1023>		when the sensor light source is OFF	
		display at power ON					at power ON.	
865	Develop-	Color auto-toner sensor/		ALL	-	M	Displays the sensor output value with	2
	ment	reference plate output va	lue	(color)	<0-1023>		the standard light amount for the	
		display at power ON					reference plate at power ON.	
866-0	Develop-	Color auto-toner Upp	ber	ALL	820	M	Sets the range for judging whether	4
	ment	sensor/abnormal lim	nit	(color)	<0-1023>		the difference between the sensor	
	-	detection potential					output when the sensor light source	
866-1		difference setting Low	ver	ALL	205	M	is OFF and the sensor output for the	4
		of reference plate lim	nit	(color)	<0-1023>		reference plate is correct or not.	
		output					• · · · ·	
867	Develop-	Color auto-toner control	.	ALL	0	M	Sets whether the sensor light amount	1
	ment	environment and life light	t	(color)	<0-1>		is corrected or not depending on the	
		amount correction setting					environment and life.	
							0: Correction 1: No correction	
868	Develop-	Color auto-toner adjustm	ent	ALL	4	M	Sets the difference from the target	1
	ment	tinishing range setting		(color)	<0-255>		value for judging whether the color	
							auto-toner adjustment finishes	
							correctly or not.	
869	Develop-	Color auto-toner control		ALL	5		Sets the difference from the target	1
	ment	environment and life light		(color)	<0-255>		value for judging whether the light	
		amount correction/correct	uon				amount correction linishes correctly	
070	Davalan	Inishing range setting		A1 1	2		Or NOL.	4
870	Develop-	color auto-toner sensor/	o of	ALL (color)	-0 255×		Sets the number of times of	
	ment	setting of number of time	501	(0001)	<0-255>		light amount correction obnormality in	
		amount correction					displayed	
871	Develop-	Color auto-toner control		ΔΗ	0	м	Displayed.	2
0/1	ment	environment and life light	.	(color)	<0-255		reference plate detection error for the	<u> </u>
	mont	amount correction/display	vof	(0001)	<0 2002		environment and life light amount	
		number of times of refere	nce				correction	
		plate detection error						
872	Develop-	Color auto-toner control		ALL	0	м	Displays the number of times of the	2
0.1	ment	environment and life light	t	(color)	<0-255>		light amount control voltage	
		amount correction/displa	v of	()			adjustment error for the environment	
		number of times of light	,				and life light amount correction.	
		amount control voltage						
		adjustment error						
873-0	Develop-	Color auto-toner Y	,	ALL	256	М	Sets the initial developer output	4
	ment	control/developer		(color)	<0-1023>		target value.	
873-1	1	initial output M	1	ALL	256	М		4
		setting		(color)	<0-1023>			
873-2	1	C	;	ALL	256	М		4
				(color)	<0-1023>			

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
874	Develop-	Color developer life	correc-	ALL	0	M	Sets whether the toner density	1
	ment	tion		(color)	<0-1>		detection voltage correction is	
							performed or not depending on the	
							developer life in the color auto-toner	
							control.	
							0: Corrected 1: Not corrected	
875-0	Develop- ment	Color developer life correction	Y	ALL (color)	0 <-512-511>	M	Sets the correction amount of the toner density detection voltage	4
875-1		value (segment 0)	М	ALL	0	м	depending on the developer life. In	4
		( 0 )		(color)	<-512-511>		this code, the life count within 0-2000	
875-2		-	С	ALL	0	м	is set as the correction amount.	4
			-	(color)	<-512-511>			
876-0	Develop-	Color developer	Y	ALL	-4	м	Sets the correction amount of the	4
	ment	life correction		(color)	<-512-511>		toner density detection voltage	
876-1		value (segment 1)	М	ALL	-2	м	depending on the developer life. In	4
0.0.		······		(color)			this code, the life count within 2001-	
876-2		-	С	ALL	-2	м	5000 is set as the correction amount.	4
0.02			Ũ	(color)	_ <-512-511>			
877-0	Develop-	Color developer	Y	ALL	-6	м	Sets the correction amount of the	4
	ment	life correction		(color)	<-512-511>		toner density detection voltage	
877-1		value (segment 2)	М	ALL	-3	м	depending on the developer life. In	4
••••		, , ,		(color)	<-512-511>		this code, the life count within 5001-	
877-2		-	С	ALL	-3	м	10000 is set as the correction	4
			C C	(color)	<-512-511>		amount.	
878-0	Develop-	Color developer	Y	ALL	-8	м	Sets the correction amount of the	4
	ment	life correction		(color)	<-512-511>		toner density detection voltage	
878-1		value (segment 3)	М	ALL	-4	м	depending on the developer life. In	4
		( 0 )		(color)	<-512-511>		this code, the life count within 10001-	
878-2		-	С	ALL	-4	м	20000 is set as the correction	4
				(color)	<-512-511>		amount.	
879-0	Develop-	Color developer	Y	ALL	-10	М	Sets the correction amount of the	4
	ment	life correction		(color)	<-512-511>		toner density detection voltage	
879-1		value (segment 4)	М	ALL	-5	М	depending on the developer life. In	4
				(color)	<-512-511>		this code, the life count within 20001-	
879-2		-	С	ALL	-5	М	30000 is set as the correction	4
				(color)	<-512-511>		amount.	
880-0	Develop-	Color developer	Y	ALL	-12	М	Sets the correction amount of the	4
	ment	life correction		(color)	<-512-511>		toner density detection voltage	
880-1		value (segment 5)	М	ALL	-6	М	depending on the developer life. In	4
				(color)	<-512-511>		this code, the life count within 30001-	
880-2		-	С	ALL	-6	М	37500 is set as the correction	4
				(color)	<-512-511>		amount.	
881-0	Develop-	Color developer	Y	ALL	-12	М	Sets the correction amount of the	4
	ment	life correction		(color)	<-512-511>		toner density detection voltage	
881-1	]	value (segment 6)	М	ALL	-6	М	depending on the developer life. In	4
				(color)	<-512-511>		this code, the life count 37501 or	
881-2		-	С	ALL	-6	М	more is set as the correction amount.	4
				(color)	<-512-511>			
900	Version	System firmware R	OM	ALL	-	-	JPN: T350SY0JXXX	2
		version					UC: T350SY0UXXX	
							EUR: T350SY0EXXX	
							Others: T350SY0XXXX	

	Setting mode (08)									
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
903	Version	Engine ROM version	ALL	-	-	350M-XXX	2			
905	Version	Scanner ROM version	ALL	-	-	350S-XXX	2			
907	Version	RADF ROM version	ALL	-	-	DF-XXXX	2			
908	Version	Finisher ROM version	ALL	-	-	SDL-XX FIN-XX	2			
915	Version	FAX board ROM version	FAX	-	-	F562-XXX	2			
916	Version	NIC board ROM version	ALL	-	-	X.XXX	2			
920	Version	FROM basic section	ALL	-	-	VX.XX/X.XX	2			
921	Version	FROM internal program	ALL	-	-	VXXX.XXX X	2			
922	Version	UI data fixed section version	ALL	-	-	VXXX.XXX X	2			
923	Version	UI data common section	ALL	-	-	VXXX.XXX X	2			
924	Version	Version of UI data language	ALL	-	-	VXXX.XXX X	2			
925	Version	Version of UI data language	ALL	-	-	VXXX.XXX X	2			
926	Version	Version of UI data language	ALL	-	-	VXXX.XXX X	2			
927	Version	Version of UI data language	ALL	-	-	VXXX.XXX X	2			
928	Version	Version of UI data language	ALL	-	-	VXXX.XXX X	2			
929	Version	Version of UI data language 6 in HDD	ALL	-	-	VXXX.XXX X	2			
930	Version	Version of UI data in FROM	ALL	-	-	VXXX.XXX X	2			
931	Version	Version of UI data language 7 in HDD	ALL	-	-	VXXX.XXX X	2			
933	Version	Web data whole version	ALL	-	-	VXXX.XXX X	2			
934	Version	Web UI data in HDD Version: Language 1	ALL	-	-	VXXX.XXX X	2			
935	Version	Web UI data in HDD Version: Language 2	ALL	-	-	VXXX.XXX X	2			
936	Version	Web UI data in HDD	ALL	-	-	VXXX.XXX X	2			
937	Version	Web UI data in HDD	ALL	-	-	VXXX.XXX X	2			
938	Version	Web UI data in HDD	ALL	-	-	VXXX.XXX X	2			
939	Version	Web UI data in HDD Version: Language 6	ALL	-	-	VXXX.XXX X	2			
			Setting	g mode (08	8)					
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Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
944	Version	HD version	ALL	-	-	JPN: T350HD0JXXX	2			
						UC: T350HD0UXXX				
						EUR: T350HD0EXXX				
						Others: T350HD0XXXX				
945	Network	Two-way setting of RawPort 9100	ALL	1 <1-2>	UTY	1: Valid 2: Invalid	12			
947	General	Initialization after software	ALL	-	-	Perform this code when the software	3			
		version upgrade				in this equipment has been up- graded.				
948	General	Mode setting by pressing	ALL	0	SYS	Sets the mode to enter when the	1			
		[Energy Saver] button for a		<0-1>		[Energy Saver] button is pressed for				
		while				a while.				
						0: Sleep Mode				
						1: Auto Shut Off Mode				
949	General	Automatic interruption page	ALL	0	SYS	Sets the number of pages to interrupt	1			
		setting during black printing		<0-100>		the printing automatically.				
						0-100: 0 to 100 pages				
950	Elec-	Start-up method of Elec-	ALL	0	SYS	Sets the start-up method of the	1			
	tronic	tronic Filing		<0-3>		Electronic Filing.				
	filing					0: Standard				
						1: Forced start-up (Not recovered)				
						2: Forced start-up (Recovered)				
						3: Data update				
951	User	Image setting for Electronic	ALL	0	SYS	0: General 1: Photograph	1			
	interface	Filing printing		<0-3>		2: Presentation 3: Line art				
		(Only for color image)								
953	User	Access code entry for	ALL	0	SYS	0: Renewed automatically	1			
	Interface	Electronic Filing printing		<0-1>	0.10	1: Enter every time				
954	User	Clearing timing for files and	ALL	1	SYS	0: Immediately after the completion	1			
	Interface	Electronic Filing Agent		<0-1>		of scanning				
000		<b>F</b>			01/0	1: Cleared by Auto Clear				
969	User	Error sound	ALL	1	SYS	0: OFF 1: ON	1			
070	Interface	Sound potting when owitching	A1 1	<0-1>	eve		1			
970	User	to Energy Souring Mode	ALL	10.15	515	U. OFF T. ON				
072	Notwork	PCL line feed code setting	DDT	<0-1>	975	Sats the PCL line feed code	1			
3/3	INCIMUK			<0_2	013	0. Automatic setting				
				<0-3>						
975	General	. Job handling when printing	ΔΙΙ	1	SVS	Sets whether nause or stop the	1			
5/5	General	is short naid with coin		<0-1		nrinting job when it is short paid	'			
		controller				using a coin controller				
						0: Pause the job 1. Stop the job				
976	Elec-	Equipment name setting to	ALL	0	SYS	Sets whether or not adding the	1			
	tronic	a folder when saving files	,	<0-1>		equipment name to the folder when	'			
	Filing	a leader thron buying mod				saving files.				
	· ·····9					0: Not add 1: Add				
977	Network	Switching of extended ASCI	ALL	0	SYS	0: ISO8859-1	1			
		code in catFs filesvstem		<0-1>		1: ISO8859-2				
	1	,		1						

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
978	Network	Raw printing job	PRT	0	SYS	0: AUTO	1				
		(Paper feeding drawer)		<0-5>		1: Upper drawer					
						2: Lower drawer					
						3: PFP upper drawer					
						4: PFP lower drawer					
						5: 1 CE					
979	Network	Baw printing job	PBT	0	SYS	0: Boman-8	1				
		(PCL symbol set)		<0-39>		1: ISO 8859/1 Latin 1	.				
						2: ISO 8859/2 Latin 2					
						3: ISO 8859/9 Latin 5					
						4: BC 9, Codo Bogo 427					
						4. FC-8, Code Fage 437					
						5: PC-8 D/N, Danish/Norwegian					
						6: PC-850, Multilingual					
						7: PC-852, Latin2					
						8: PC-8 lurkish					
						9: Windows 3.1 Latin 1					
						10: Windows 3.1 Latin 2					
						11: Windows 3.1 Latin 5					
						12: DeskTop					
						13: PS Text					
						14: Ventura International					
						15: Ventura US					
						16: Microsoft Publishing					
						17: Math-8					
						18: PS Math					
						19: Ventura Math					
						20: Pi Font					
						21: Legal					
						22: ISO 4: United Kingdom					
						23: ISO 6: ASCII					
						24: ISO 11					
						25: ISO 15: Italian					
						26: ISO 17					
						27: ISO 21: Cormon					
						29: ISO 60: Denich/Nerwagian					
						20. ISO 60. Dariish/Norwegian					
						29. ISO 69. French					
						30. WINDOWS 3.0 LATIN 1					
						33: ITC Zapt Dingbats					
						34: ISO 8859/10 Latin 6					
						35: PC-775					
						36: PC-1004					
						37: Symbol					
						38: Windows Baltic					
						39: Wingdings					
986	General	Copy function setting	PPC	0	SYS	Sets the copy function to be invalid.	1				
				<0-1>		0: Valid					
						1: Invalid					
988	Paper	Setting of paper size	ALL	0	SYS	0: Not switched	1				
	feeding	switching to 13" LG		<0-2>		1: LG→13"LG					
						2: FOLIO→13"LG					

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
989	Scram- bler board	Scrambler board initial setting	ALL	-	-	Performs the initial setting of the scrambler board.	3
995	Mainte-	Equipment number (serial	ALL	0	SYS	This code can be also keyed in from	11
	nance	number) display		<10 digits>		the adjustment mode (05-976). 10 digits	
999	Mainte- nance	FSMS total counter	ALL	0 <8 digits>	SYS	Refer to values of total counter.	1
1001	Network	Reset of NIC board	ALL	3 <1-3>	NIC	1: Cold 2: Warm 3: Not reset	12
1002	Network	Selection of NIC board status information	ALL	1 <1-2>	NIC	<ol> <li>Not printed out when the copier is restarted</li> <li>Printed out when the copier is restarted</li> </ol>	12
1003	Network	Speed setting of Ethernet	ALL	3 <1-3>	NIC	1: 10 MBPS 2: 100 MBPS 3: Automatic	12
1004	Network	NIC Web password	ALL	-	NIC	Writing only (Current setting is not displayed.) Maximum 31 letters	12
1005	Network	Availability of IP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1006	Network	Address Mode	ALL	2 <1-5>	NIC	<ol> <li>1: Fixed IP address</li> <li>2: Dynamic IP address</li> <li>3: Dynamic IP address without AutoIP</li> <li>4: Dynamic IP address without BOOTP</li> <li>5: Dynamic IP address without DHCP</li> </ol>	12
1007	Network	Domain name	ALL	-	NIC	Maximum 96 letters	12
1008	Network	IP address	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1009	Network	Subnet mask	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1010	Network	Gateway	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1011	Network	Availability of IPX	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1012	Network	Network frame type	ALL	1 <1-5>	NIC	1: Automatic         2: IEEE802.3           3: Ethernet II         4: IEEE802.3 SNAP           5: IEEE802.2	12
1013	Network	Availability of NCP Burst	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1014	Network	Availability of AppleTalk	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1015	Network	Zone setting of AppleTalk	ALL	*	NIC	Maximum 32 letters *: Wildcard character	12
1016	Network	Availability of LDAP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1017	Network	Availability of DNS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1018	Network	IP address to DNS server (Primary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1019	Network	IP address to DNS server (Secondary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12

	Setting mode (08)									
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
1020	Network	DDNS Desired level	ALL	1	NIC	1: Invalid 2: Via DHCP	12			
				<1-5>		3: Insecure DDNS 4: Secure DDNS				
						5: Multi-secure DDNS				
1021	Network	Availability of SLP	ALL	1	NIC	1: Available 2: Not available	12			
				<1-2>						
1023	Network	NetBios name	ALL	-	UTY	Maximum 15 letters	12			
1024	Network	Name of WINS server or IP	ALL	-	UTY	Maximum 128 letters	12			
		address (Primary)								
1025	Network	Name of WINS server or IP	ALL	-	UTY	Maximum 128 letters	12			
		address (Secondary)								
1026	Network	Availability of Bindery	ALL	1	NIC	1: Available 2: Not available	12			
				<1-2>						
1027	Network	Availability of NDS	ALL	1	NIC	1: Available 2: Not available	12			
				<1-2>						
1028	Network	Directory service context	ALL	-	NIC	Maximum 127 letters	12			
1029	Network	Directory service tree	ALL	-	NIC	Maximum 47 letters	12			
1030	Network	Availability of HTTP server	ALL	1	NIC	1: Available 2: Not available	12			
				<1-2>						
1031	Network	Port number to NIC HTTP	ALL	80	NIC		12			
		server		<1-65535>						
1032	Network	Port number to system	ALL	8080	SYS		1			
		HTTP server		<1-65535>						
1033	Network	Availability of NIC HTTP	ALL	2	NIC	1: Available 2: Not available	12			
		client		<1-2>						
1034	Network	TCP port number to Control-	ALL	80	UTY		12			
		ler HTTP client		<1-65535>						
1035	Network	IP address to HIIP server	ALL	-	NIC	000.000.000.000-255.255.255.255	12			
1007		(Primary)				(Default value 000.000.000.000)	10			
1037	Network	Availability of SMTP client	ALL	1	NIC	1: Available 2: Not available	12			
1000	Natural			<1-2>		Maximum 100 Dites	10			
1038	Network	FQDN or IP address to	ALL	-		Maximum 128 Bytes	12			
1000	Notwork	SMIP server		05			10			
1039	Network	ICP port number of SMTP	ALL	20			12			
1040	Notwork	Client		<1-000305>		1. Available - O: Not available	10			
1040	Network	Availability of SWTP Server	ALL	1 0	UIT	1: Available 2: Not available	12			
1041	Notwork	TCP port number of SMTP		<1-2>			10			
1041	INCLIVITE	sonvor		20			12			
1042	Notwork	E-mail box name to SMTP		<1-000000>		Maximum 192 lottors	12			
1042	INCLIVITE	E-mail box hame to SWTF		-			12			
1042	Notwork	Availability of Offramp		0		1: Available 2: Not available	10			
1043	INCLIVITE	Availability of Offramp		2 .1 0			12			
1044	Notwork	Offramp socurity		1		1: Available 2: Not available	12			
1044	INCLIVIT	Childrift Security		<1-2>	011		12			
1045	Network	Printing at Offramp	ΔΠ	1		1: Available 2: Not available	12			
1045	1 Stwork			<1-2~						
1046	Network	Availability of POP3 clients	ΔΠ	1	NIC	1: Available 2: Not available	12			
				<1-2>			'-			
1047	Network	FODN or IP address to	ALL	-	NIC	Maximum 128 Bytes	12			
		POP3 server								
1048	Network	Types of POP3 server	ALL	1	NIC	1: Automatic 2: POP3	12			
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<1-3>		3: APOP				

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
1049	Network	Login name to POP3 server	ALL	-	NIC	Maximum 96 letters	12				
1050	Network	Login password to POP3	ALL	-	NIC	Maximum 96 letters	12				
1051	Network	E-mail reception interval	ALL	5 <0-4096>	NIC	Unit: Minute	12				
1052	Network	TCP port number of POP3 client	ALL	110 <1-65535>	NIC		12				
1053	Network	Availability of FTP client	ALL	1 <1-2>	NIC	1: Available 2: Not available	12				
1054	Network	FQDN or IP address to FTP server	ALL	-	NIC	Maximum 128 letters	12				
1055	Network	TCP port number of FTP client	ALL	21 <1-65535>	UTY		12				
1056	Network	Data port number of FTP client	ALL	0 <0-65535>	UTY		12				
1057	Network	Login name to FTP server	ALL	-	SYS	Maximum 31 letters	11				
1058	Network	Login password to FTP server	ALL	-	SYS	Maximum 31 letters	11				
1059	Network	Availability of FTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12				
1060	Network	TCP port number of FTP server	ALL	21 <1-65535>	UTY		12				
1061	Network	Login name to FTP client	ALL	-	SYS	Maximum 31 letters	11				
1062	Network	Login password to FTP client	ALL	-	SYS	Maximum 31 letters	11				
1063	Network	MIB function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1065	Network	Setting of read Community	ALL	public	NIC	Maximum 31 letters	12				
1066	Network	Setting of read/Write Community	ALL	private	NIC	Maximum 31 letters	12				
1067	Network	Authentication TRAP function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1068	Network	ALERTS TRAP function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1069	Network	TRAP destination IP address	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12				
1070	Network	Community setting of TRAP (via IP)	ALL	public	NIC	Maximum 31 letters	12				
1073	Network	Availability of Raw/TCP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1074	Network	TCP port number of Raw	ALL	9100 <1-65535>	NIC		12				
1075	Network	Availability of LPD client	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1076	Network	TCP port number of LPD	ALL	515 <1-65535>	NIC		12				
1077	Network	LPD queue name	ALL	-	NIC	Maximum 31 letters	12				
1078	Network	Availability of IPP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1079	Network	Availability of IPP port number "80"	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1080	Network	TCP port number of IPP	ALL	631 <1-65535>	NIC		12				

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
1081	Network	IPP printer name	ALL	-	NIC	Maximum 127 letters	12				
1082	Network	IPP printer location	ALL	-	NIC	Maximum 127 letters	12				
1083	Network	IPP printer information	ALL	-	NIC	Maximum 127 letters	12				
1084	Network	IPP printer information (more)	ALL	-	NIC	Maximum 127 letters	12				
1085	Network	Installer of IPP printer driver	ALL	-	NIC	Maximum 127 letters	12				
1086	Network	IPP printer "Make and Model"	ALL	-	NIC	Maximum 127 letters	12				
1087	Network	IPP printer information (more) MFGR	ALL	-	NIC	Maximum 127 letters	12				
1088	Network	IPP message from operator	ALL	-	NIC	Maximum 127 letters	12				
1089	Network	Availability of FTP print	ALL	1 <1-2>	NIC	1: Available 2: Not available	12				
1090	Network	Printer user name of FTP	ALL	print	NIC	Maximum 31 letters	12				
1091	Network	Printer user password of FTP	ALL	-	NIC	Maximum 31 letters	12				
1092	Network	TCP port number to FTP print server	ALL	21 <1-65535>	NIC		12				
1093	Network	Login name to Novell print server	ALL	-	NIC	Maximum 47 letters	12				
1094	Network	Login password to Novell print server	ALL	-	NIC	Maximum 31 letters	12				
1095	Network	Name of SearchRoot server	ALL	-	NIC	Maximum 31 letters	12				
1096	Network	Scan rate setting of print gueue	ALL	5 <1-255>	NIC	Unit: Second	12				
1097	Network	Page number limitation for printing text of received E- mail	ALL	5 <1-99>	UTY		12				
1098	Network	MDN return mail setting when receiving E-mail	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12				
1099	Network	Trap destination of IPX	ALL	-	UTY	Maximum 24 letters	12				
		•				(Valid from 0 to 9 and from A to F)					
1100	Network	Method of SMTP server	ALL	5	NIC	1: Plain	12				
		authentication		<1-5>		2: Login					
						3; Cram-MD5					
						4: Digest MD5					
						5: Disable					
1101	Network	Login name for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12				
1102	Network	Login password for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12				
1103	Network	Rendezvous setting	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12				
1104	Network	Link local host name	ALL	MFP_serial	NIC	Maximum 127 letters	12				
1105	Network	Service name setting	ALL	Refer to	NIC	Maximum 63 letters	12				
				contents		<default value=""></default>					
						e-STUDIO3511:					
						TOSHIBA e-STUDIO3511					
						e-STUDIO4511:					
						TOSHIBA e-STUDIO4511					
1107	Network	FTP server login name 1	ALL	Tiger	UTY	Maximum 64 letters	12				
1108	Network	FTP server login password 1	ALL	Woods	UTY	Maximum 32 letters	12				

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1109	Network	FTP server login name 2	ALL	Shigeki	UTY	Maximum 64 letters	12
1110	Network	FTP server login password 2	ALL	Maruyama	UTY	Maximum 32 letters	12
1111	Network	POP Before SMTP setting	ALL	2 <1-2>	NIC	1: Valid 2: Invalid	12
1112	Network	Host name	ALL	MFP_serial	NIC	Maximum 63 letters	12
1114	Network	Sending mail text of InternetFAX	ALL	1 <0-1>	SYS	0: Invalid 1: Valid	1
1117	Network	SMB time-out period	ALL	300 <1-9999>	SYS	Unit: Second	1
1120	Network	Backup/Restore of NIC setting information	ALL	0 <0-1>	SYS	<ul> <li>0: Read (Reads all of the setting information in NIC and create a file NAM1B (no extension) in USB)</li> <li>1: Write (Writes all of the setting information read from a file NAM1B (no extension) in USB)</li> </ul>	1
1124	Network	Workgroup name	ALL	workgroup	UTY	Maximum 15 letters	12
1130	User interface	Job Build Function	ALL	1 <0-1>	SYS	Sets the Job Build Function. 0: Invalid 1: Valid	1
1131	User interface	Maximum number of time job build performed	ALL	1000 <5-1000>	SYS	Sets the maximum number of time a job build has been performed. 5-1000: 5 to 1000 times	1
1132	General	Default screen selection of the User Function menu	ALL	1 <0-1>	SYS	Selects the default screen when entering the User Function menu by pressing the [USER FUNCTIONS] button. 0: ADDRESS 1: COUNTER	1
1135	Paper feeding	Default setting of drawers (Printer/BOX)	PRT	1 <1-5>	SYS	1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1
1136	Network	Number of lines simultaneously	ALL	13	SYS		1
		connectable when using SMB		<0-16>			
1137	Network	Memory partition size when using Samba	ALL	16 <8-20>	SYS	8-20 M bytes	1
1138	Network	LDAP search method setting	ALL	0 <0-3>	SYS	Sets the search method when performing a LDAP search. 0: Partial match 1: Prefix match 2: Suffix match 3: Full match	1
1139	Network	LDAP authentication setting	ALL	0 <0-1>	SYS	0: Not authenticated 1: Authenticated	1
1140	User interface	Restriction of the template function with the administra- tor privilege	ALL	0 <0-1>	SYS	<ul><li>Selects the restriction of the template function usage setting.</li><li>0: No restriction</li><li>1: Only available with the administrator privilege.</li></ul>	1
1145	Mainte- nance (Remote)	Counter notification Remote FAX setting	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [MONITOR/PAUSE] button.	11
1370	Image process- ing	Image quality control time accumulating counter	ALL	0 <8 digits>	М	Counts driving count of the drum (image quality control time). Counts up when drum motor and image quality control are ON.	1

	Setting mode (08)										
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure				
1371	Image	Accumulated counter of	ALL	0	М	Cleared to "0" by the image quality	2				
	process-	output pages since the		<4 digits>		closed-loop control. Counts up with					
	ing	performing of image quality				the number of printing job received					
		control				after this control.					
1372	Image	Heater and energizing time	ALL	0	M	Counts up the heater control time	1				
	process-	accumulating counter		<8 aigits>		accumulated (when power of the copier					
	ing	Display/0 cleaning				Mode. When the counter value of the					
						fuser belt is cleared this counter value is					
						also cleared in sync at PM support mode					
1378	Image	Fuser roller ready	ALL	0	м	Counts up the heater control time	2				
10/0	process-	temperature time		<8 diaits>		accumulated (on standby). When the	-				
	ina	accumulating counter		, a signer		counter value of the fuser belt is					
		<b>3</b> • • • •				cleared, this counter value is also					
						cleared in sync at PM support mode.					
1380	Image	Fuser roller printing	ALL	0	М	Counts up the heater control time	2				
	process-	temperature time		<8 digits>		accumulated (during printing). When					
	ing	accumulating counter				the counter value of the fuser belt is					
						cleared, this counter value is also					
						cleared in sync at PM support mode.					
1382	Image	Fuser roller energy saving	ALL	0	М	Counts up the heater control time	2				
	process-	temperature time		<8 digits>		accumulated (at energy saving					
	ing	accumulating counter				mode). When the counter value of					
		Display/0 clearing				the fuser belt is cleared, this counter					
						value is also cleared in sync at PM					
						support mode.					
1385	Image	Number of output pages	ALL	0	M	Counts up when the registration	1				
	process-	(Thick paper 1)		<8 digits>		sensor is ON. When the counter					
	ing					value of the fuser belt is cleared, this					
						counter value is also cleared in sync					
1286	Imago	Number of output pages		0	M	at FW support mode.	1				
1300	nrocess	(Thick paper 2)		-8 digites		sensor is ON. When the counter					
	ing					value of the fuser belt is cleared this					
	l ling					counter value is also cleared in sync					
						at PM support mode.					
1387	Image	Number of output pages	ALL	0	М	Counts up when the registration	1				
	process-	(Thick paper 3)		<8 digits>		sensor is ON. When the counter					
	ing					value of the fuser belt is cleared, this					
						counter value is also cleared in sync					
						at PM support mode.					
1388	Image	Number of output pages	ALL	0	М	Counts up when the registration	1				
	process-	(OHP film)		<8 digits>		sensor is ON. When the counter					
	ing					value of the fuser belt is cleared, this					
						counter value is also cleared in sync					
						at PM support mode.					
1389	Main	Main charger wire cleaning	ALL	0	M	Does not count up when cleaning is	1				
1000	charger	counter display/0 clearing		<5 digits>		not effective.					
1390	Paper	reeding retry counter	ALL	ل منابع (م	M	Counts the number of times of the					
1201	Papar	(upper drawer)	A1 1		N./	Counts the number of times of the	-				
1391	feeding	lower drawer)		v stinib 8		feeding retry from the lower drawer	'				
	feeding	(lower drawer)		<8 digits>		feeding retry from the lower drawer.					

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1392	Paper feeding	Feeding retry counter (PFP upper drawer)	ALL	0 <8 diaits>	М	Counts the number of times of the feeding retry from the PFP upper	1
	locality					drawer.	
1393	Paper	Feeding retry counter	ALL	0	M	Counts the number of times of the	1
	feeding	(PFP lower drawer)		<8 digits>		feeding retry from the PFP lower drawer.	
1394	Paper	Feeding retry counter	ALL	0 O digita	М	Counts the number of times of the	1
1205	Deper	(bypass leed)	A1 1		N.4	Counto the number of times of the	4
1395	feeding		ALL	o Zetinih 8-		feeding retry from the LCE	'
1396	Paper	Feeding retry counter upper	ALI	10	м	When the number of feeding retry	1
	feeding	limit value (upper drawer)		<8 digits>		(08-1390 to 08-1395) exceeds the	
1397	Paper	Feeding retry counter upper	ALL	10	М	setting value, the feeding retry will	1
	feeding	limit value (lower drawer)		<8 digits>		not be performed subsequently. In	
1398	Paper	Feeding retry counter upper	ALL	10	М	case "0" is set as a setting value,	1
	feeding	limit value (PFP upper drawer)		<8 digits>		however, the feeding retry continues	
1399	Paper	Feeding retry counter upper	ALL	10	М	regardless of the counter setting	1
	feeding	limit value (PFP lower drawer)		<8 digits>		value.	
1400	Paper	Feeding retry counter upper	ALL	10	М	Refer to (Note 1).	1
	feeding	limit value (bypass feed)		<8 digits>			
1401	Paper	Feeding retry counter upper	ALL	10	M		1
	feeding	limit value (LCF)		<8 digits>			
1410	Counter	Black toner cartridge drive	ALL	<8 digits>	M		1
1412	Counter	Counter for tab paper	ALI	0	м	Counts up when the registration	1
=				<8 digits>		sensor is ON.	
						When the counter value of the fuser	
						roller is reset, this counter is reset in	
						sync at the PM support mode.	
1414	Image	Toner cartridge wrong	ALL	0	М	0: ON	1
	process-	installation detection ON/		<0-1>		1: OFF	
	ing	OFF setting					
1415	Image	Detection/control that the	ALL	1	M	Sets ON or OFF of the detection/	1
	process-	toner cartridge is nearly		<0-1>		control that the toner cartridge is	
	ing	empty				nearly empty.	
						0: OFF 1: ON	
1416	Image	I hreshold for detecting that	ALL	<8 digits>	M		1
	process-	black toner cartridge is					
1/32	Network	Mode only for Private Print	ΔΗ	0	975	0: Normal mode	1
1452	INCLIVIT			<0-1>	010	1: Mode for Private Print	
1433	Network	"Disable e-Filing" function	ALI	0	SYS	0: Function OFF (no restriction on	1
				<0-1>	0.0	data saving or other operations)	
				-		1: Function ON (Data saving or other	
						operations are restricted)	
1434	Network	"Disable local file save"	ALL	0	SYS	0: Function OFF (no restriction on	1
		function		<0-1>		data saving or other operations)	
						1: Function ON (Data saving or other	
						operations are restricted)	
1484	Network	Authentication method of	ALL	0	SYS	0: Disable	1
		"Scan to Email"		<0-2>		1: SMTP authentication	
						2: LDAP authentication	

Setting mode (08)										
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure		
1485	Network	Setting whether use	of Internet	ALL	0	SYS	0: Not permitted	1		
		FAX is permitted or	not when it		<0-1>		1: Permitted			
		is given an authenti	cation							
1486	Network	Server setting for L	DAP user	ALL	0	SYS		2		
		authentication			<0-					
					4294967295>					
1487	Network	"From" address as	signment	ALL	0	SYS	0: "User name" + @ + "Domain name"	1		
		method when it is g	given an		<0-2>		1: LDAP search			
		authentication					2: Use the address registered in			
							"From" field of E-mail setting			
1488	Network	ID setting of LDAP	server for	ALL	0	SYS		2		
		"From" address as	signment		<0-					
		-			4294967295>					
1489	Network	Setting for "From"	address	ALL	0	SYS	0: Not permitted	1		
		edit at "Scan to En	naıl"		<0-1>	0)/0				
1491	Network	E-mail domain nan	ne	ALL	-	SYS	96+2 (delimiter) character	11		
1000.0							ASCII sequence only			
1800-0	Image	Color toner forced	Y	ALL		M	Sets the motor driving time of the	4		
1000 1	process-	supply time		(color)	<0-255>		developer unit at the time of the color			
1800-1	ing	seung	IVI	ALL (color)	70	IVI	Control of the supply.	4		
1900.2					<0-255> 70	N.4	0-255. Setting value x 0.1 seconds	4		
1000-2			U	(color)	<0-255>	IVI		4		
1801	Image	Color toner forced	supply	ALL	7	М	Sets the number of times of the color	1		
	process-	count setting		(color)	<1-10>		toner forced supply.			
	ing									
1802-0	Image	Start up setting of	Level	ALL	3	М	Sets the performing level of the	4		
	process-	the developer			<2-8>		developer material stabilizing			
	ing	material stabiliz-					operation.			
1802-1		ing mode.	Pattern	ALL	50	М	Set the interval time between	4		
			interval		<0-100>		performances of developer material			
							stabilizing operation.			
1802-2			Number of	ALL	10	М	Set the number of repeating times of	4		
			repeating		<0-20>		the developer material stabilizing			
			time				operation.			

#### (Note 1)

In this equipment, a toner image is formed on the transfer belt prior to a paper feeding.

When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process.

After that, the toner image formation is retried while the paper is waited.

In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed.

Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit).

The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.

# << Pixel counter related code>> ( > Chapter 2.2.6)

Note: In the pixel counter function, the twin color copy mode is regarded as the full color mode.

	Setting mode (08)									
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure			
1500	Pixel	Standard paper size setting	ALL	EUR: 0	SYS	Selects the standard paper size to	1			
	counter			UC: 1		convert it into the pixel count (%).				
				JPN: 0		0: A4 1: LI				
1501	Dival	Divel counter all clearing		<0-1>	CVC	Clears all information related to the				
1501	counter	Pixel counter all cleaning	ALL	-	515	pixel counter.	3			
1502	Pixel	Service technician reference	ALL	-	SYS	Clears all information related to the	3			
	counter	counter clearing				service technician reference pixel				
		-				counter.				
1503	Pixel	Toner cartridge reference	ALL	-	SYS	Clears all information related to the	3			
	counter	counter clearing				toner cartridge reference pixel				
						counter.				
1504	Pixel	Pixel counter display setting	ALL	1	SYS	Selects whether or not to display the	1			
	counter			<0-1>		pixel counter on the LCD screen.				
1505	D' I				0.10	0: Displayed 1: Not displayed				
1505	Pixei	Displayed reference setting	ALL	0	SYS	Selects the reference when display-	1			
	counter			<0-1>						
						0: Service technician reference				
						1: Toner cartridge reference				
1506	Pixel	Toner empty determination	ALI	0	SYS	Selects the counter to determine	1			
	counter	counter setting		<0-1>	0.0	toner empty.				
		g				0: Output pages 1: Pixel counter				
1507	Pixel	Threshold setting for toner	ALL	500	SYS	Sets the number of output pages to	1			
	counter	empty determination (Output		<0-999>		determine toner empty. This setting is				
		pages)				valid when "0" is set at 08-1506.				
1508	Pixel	Threshold setting for toner	ALL	21500	SYS	Sets the number of output pages to	1			
	counter	empty determination (Pixel		<0-60000>		determine toner empty. This setting is				
		counter)		-		valid when "1" is set at 08-1506.				
1509	Pixel	Pixel counter clear flag/	ALL	0	SYS	Becomes "1" when 08-1502 is	2			
	counter	Service technician reference		<0-1>		performed.				
1510	Pixel	Service technician reference	ALI	-	SYS	Displays the date on which 08-1502	2			
	counter	cleared date			0.0	was performed.				
1511	Pixel	Toner cartridge reference	ALL	-	SYS	Displays the date on which 08-1503	2			
	counter	cleared date (Y)	(color)			was performed.				
1512	Pixel	Toner cartridge reference	ALL	-	SYS	Displays the date on which 08-1503	2			
	counter	cleared date (M)	(color)			was performed.				
1513	Pixel	Toner cartridge reference	ALL	-	SYS	Displays the date on which 08-1503	2			
	counter	cleared date (C)	(color)			was performed.				
1514	Pixel	Toner cartridge reference	ALL	-	SYS	Displays the date on which 08-1503	2			
4545	counter	cleared date (K)			0)/2	was performed.				
1515	Pixel	ioner cartriage reference	ALL	-	SYS	Displays the date on which 08-1503	2			
1516	Pivol	Toper certridge reference			eve	was performed.				
1310	counter	count started date (M)		-	515	was performed				
1517	Pixel	Toner cartridge reference		_	SYS	Displays the date on which 08-1503	2			
	counter	count started date (C)	(color)			was performed.				

			Setting	g mode (08	3)		
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1518	Pixel counter	Toner cartridge reference count started date (K)	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1547	Pixel counter	Number of output pages/full color (Service technician reference)	PPC (color)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode and service technician reference. [Unit. page]	2
1548	Pixel counter	Number of output pages/ black (Service technician reference)	PPC (black)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function, black mode and service technician reference. [Unit. page]	2
1549	Pixel counter	Number of output pages/full color (Service technician reference)	PRT (color)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode and service technician reference. [Unit. page]	2
1550	Pixel counter	Number of output pages/ black (Service technician reference)	PRT (black)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function, black mode and service technician reference. [Unit. page]	2
1551	Pixel counter	Number of output pages/ black (Service technician reference)	FAX (black)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function, black mode and service technician reference. [Unit. page]	2
1552	Pixel counter	Number of output pages/full color (K) (Toner cartridge reference)	PPC (color)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode, toner K and toner cartridge reference. [Unit. page]	2
1553	Pixel counter	Number of output pages/ black (Toner cartridge reference)	PPC (black)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function, black mode and toner cartridge reference. [Unit. page]	2
1554	Pixel counter	Number of output pages/full color (K) (Toner cartridge reference)	PRT (color)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode, toner K and toner cartridge reference. [Unit. page]	2
1555	Pixel counter	Number of output pages/ black (Toner cartridge reference)	PRT (black)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function, black mode and toner cartridge reference. [Unit. page]	2
1556	Pixel counter	Number of output pages/ black (Toner cartridge reference)	FAX (black)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function, black mode and toner cartridge reference. [Unit. page]	2

	Setting mode (08)							
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1557	Pixel counter	Number of output pages/full color (Y) (Toner cartridge	PPC (color)	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size	2	
	oountor	reference)	(00101)			in the copy function, full color mode.		
		,				toner Y and toner cartridge reference.		
						[Unit. page]		
1558	Pixel	Number of output pages/full	PRT	<8 digits>	SYS	Counts the number of output pages	2	
	counter	color (Y) (Toner cartridge	(color)			converted to the standard paper size		
		reference)				in the printer function, full color		
						mode, toner Y and toner cartridge		
						reference. [Unit. page]	-	
1559	Pixel	Number of output pages/full	PPC	<8 digits>	SYS	Counts the number of output pages	2	
	counter	color (M) (Toner cartridge	(color)			converted to the standard paper size		
		reterence)				In the copy function, full color mode,		
						ence [  Init_nade]		
1560	Pixel	Number of output pages/full	PRT	<8 diaits>	SYS	Counts the number of output pages	2	
	counter	color (M) (Toner cartridge	(color)	, a signer		converted to the standard paper size	_	
		reference)	· · ·			in the printer function, full color		
						mode, toner M and toner cartridge		
						reference. [Unit. page]		
1561	Pixel	Number of output pages/full	PPC	<8 digits>	SYS	Counts the number of output pages	2	
	counter	color (C) (Toner cartridge	(color)			converted to the standard paper size		
		reference)				in the copy function, full color mode,		
						toner C and toner cartridge refer-		
1500	Dival	Number of output pages/full	DDT	.0 disito	<u>ovo</u>	ence. [Unit. page]	0	
1502	Pixei	Number of output pages/full	(color)	<8 aigits>	515	converted to the standard paper size	2	
	counter	reference)	(0001)			in the printer function full color		
						mode, toner C and toner cartridge		
						reference. [Unit. page]		
1563	Pixel	Toner cartridge Y	ALL	<3 digits>	SYS	Counts the number of time of the	2	
	counter	replacement counter	(color)			toner cartridge Y replacement.		
1564	Pixel	Toner cartridge M	ALL	<3 digits>	SYS	Counts the number of time of the	2	
	counter	replacement counter	(color)			toner cartridge M replacement.		
1565	Pixel	Toner cartridge C	ALL	<3 digits>	SYS	Counts the number of time of the	2	
1500	Counter	replacement counter	(color)	2 digita	eve	toner cartridge C replacement.		
1000	counter	renlacement counter	ALL	<3 uigits>	515	toper cartridge K replacement	2	
1577	Pixel	Average pixel count/full color	PPC	0	SYS	Displays the average pixel count in	2	
	counter	(Y+M+C+K) (Service	(color)	<0-10000>		the copy function, full color mode, all	_	
		technician reference)	()			toner and service technician refer-		
		,				ence. [Unit: 0.01%]		
1578	Pixel	Average pixel count/full color	PPC	0	SYS	Displays the average pixel count in	2	
	counter	(Y) (Service technician	(color)	<0-10000>		the copy function, full color mode,		
		reference)				toner Y and service technician		
		A			0.75	reference. [Unit: 0.01%]		
1579	Pixel	Average pixel count/full	PPC	0	SYS	Displays the average pixel count in	2	
	counter	color (IVI) (Service technician	(color)	<0-10000>		the copy function, full color mode,		
		reierence)				toner ivi and service technician		

	Setting mode (08)						
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1580	Pixel	Average pixel count/full color	PPC	0	SYS	Displays the average pixel count in	2
	counter	(C) (Service technician	(color)	<0-10000>		the copy function, full color mode,	
		reference)				toner C and service technician	
						reference. [Unit: 0.01%]	
1581	Pixel	Average pixel count/full color	PPC	0	SYS	Displays the average pixel count in	2
	counter	(K) (Service technician	(color)	<0-10000>		the copy function, full color mode,	
		reterence)				toner K and service technician	
1590	Divol	Average pixel count/full color	DDT	0	eve	Pieplave the average pixel count in	2
1502		(X M C K) (Sonvice		-0-10000	313	the printer function full color mode	2
	counter	(1+M+C+R) (Service		<0-10000>		all toper and service technician	
						reference [Unit: 0.01%]	
1583	Pixel	Average pixel count/full color	PRT	0	SYS	Displays the average pixel count in	2
1000	counter	(Y) (Service technician	(color)	<0-10000>		the printer function full color mode	2
	oountor	reference)		<0 100002		toner Y and service technician	
						reference. [Unit: 0.01%]	
1584	Pixel	Average pixel count/full color	PRT	0	SYS	Displays the average pixel count in	2
	counter	(M) (Service technician	(color)	<0-10000>		the printer function. full color mode.	
		reference)	()			toner M and service technician	
		,				reference. [Unit: 0.01%]	
1585	Pixel	Average pixel count/full color	PRT	0	SYS	Displays the average pixel count in	2
	counter	(C) (Service technician	(color)	<0-10000>		the printer function, full color mode,	
		reference)	, ,			toner C and service technician	
						reference. [Unit: 0.01%]	
1586	Pixel	Average pixel count/full color	PRT	0	SYS	Displays the average pixel count in	2
	counter	(K) (Service technician	(color)	<0-10000>		the printer function, full color mode,	
		reference)				toner K and service technician	
						reference. [Unit: 0.01%]	
1587	Pixel	Average pixel count/full color	PPC/	0	SYS	Displays the average pixel count in	2
	counter	(Y+M+C+K) (Service	PRT	<0-10000>		the copy/printer function, full color	
		technician reference)	(color)			mode, all toner and service techni-	
						cian reference. [Unit: 0.01%]	
1588	Pixel	Average pixel count/full color	PPC/	0	SYS	Displays the average pixel count in	2
	counter	(Y) (Service technician	PRT	<0-10000>		the copy/printer function, full color	
		reference)	(color)			mode, toner Y and service technician	
						reference. [Unit: 0.01%]	
1589	Pixel	Average pixel count/full color	PPC/	0	SYS	Displays the average pixel count in	2
	counter	(M) (Service technician	PRI	<0-10000>		the copy/printer function, full color	
		reference)	(color)			mode, toner M and service techni-	
1500	D' I				01/0	cian reference. [Unit: 0.01%]	
1590	Pixel	Average pixel count/full color	PPC/	0	SYS	Displays the average pixel count in	2
	counter	(C) (Service technician	PRI	<0-10000>		the copy/printer function, full color	
		reierence)	(color)			reference. [Unit: 0.01%]	
1501	Divol	Average nivel count/full color		0	976	Displays the average nivel count in	2
1391	COUNTOR	(K) (Service technician		-0-10000-	515	the conv/printer function full color	
	Counter	reference)		~0-10000>		mode toper K and sonvice technician	
						reference [  Init: 0.01%]	
1592	Pivol	Average nixel count/black	PPC	0	SVS	Displays the average nivel count in	2
	counter	(Service technician refer-	(black)	<0-10000		the copy function black mode and	
		ence)				service technician reference	
						[Unit: 0.01%]	
	1			1	1	[ L	

	Setting mode (08)							
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1593	Pixel counter	Average pixel count/black (Service technician refer- ence)	PRT (black)	0 <0-10000>	SYS	Displays the average pixel count in the printer function, black mode and service technician reference. [Unit: 0.01%]	2	
1594	Pixel counter	Average pixel count/black (Service technician refer- ence)	FAX (black)	0 <0-10000>	SYS	Displays the average pixel count in the FAX function, black mode and service technician reference. [Unit: 0.01%]	2	
1595	Pixel counter	Average pixel count/black (Service technician refer- ence)	PPC/ PRT/ FAX (black)	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function, black mode and service technician reference. [Unit: 0.01%]	2	
1596	Pixel counter	Latest pixel count/full color (Y+M+C+K) (Service technician reference)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, all toner and service technician refer- ence. [Unit: 0.01%]	2	
1597	Pixel counter	Latest pixel count/full color (Y) (Service technician reference)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
1598	Pixel counter	Latest pixel count/full color (M) (Service technician reference)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
1599	Pixel counter	Latest pixel count/full color (C) (Service technician reference)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	
1600	Pixel counter	Latest pixel count/full color (K) (Service technician reference)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	
1601	Pixel counter	Latest pixel count/full color (Y+M+C+K) (Service technician reference)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, all toner and service technician refer- ence. [Unit: 0.01%]	2	
1602	Pixel counter	Latest pixel count/full color (Y) (Service technician reference)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
1603	Pixel counter	Latest pixel count/full color (M) (Service technician reference)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
1604	Pixel counter	Latest pixel count/full color (C) (Service technician reference)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	
1605	Pixel counter	Latest pixel count/full color (K) (Service technician reference)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	

	Setting mode (08)							
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1606	Pixel counter	Latest pixel count/black (Service technician refer- ence)	PPC (black)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, black mode and service technician reference. [Unit: 0.01%]	2	
1607	Pixel counter	Latest pixel count/black (Service technician refer- ence)	PRT (black)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, black mode and service technician reference. [Unit: 0.01%]	2	
1608	Pixel counter	Latest pixel count/black (Service technician refer- ence)	FAX (black)	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function, black mode and service technician reference. [Unit: 0.01%]	2	
1609	Pixel counter	Average pixel count/full color (Y) (Toner cartridge reference)	PPC (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy function, full color mode, toner Y and toner cartridge refer- ence. [Unit: 0.01%]	2	
1610	Pixel counter	Average pixel count/full color (M) (Toner cartridge reference)	PPC (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy function, full color mode, toner M and toner cartridge refer- ence. [Unit: 0.01%]	2	
1611	Pixel counter	Average pixel count/full color (C) (Toner cartridge reference)	PPC (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy function, full color mode, toner C and toner cartridge refer- ence. [Unit: 0.01%]	2	
1612	Pixel counter	Average pixel count/full color (K) (Toner cartridge reference)	PPC (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy function, full color mode, toner K and toner cartridge refer- ence. [Unit: 0.01%]	2	
1613	Pixel counter	Average pixel count/black (Toner cartridge reference)	PPC (black)	0 <0-10000>	SYS	Displays the average pixel count in the copy function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
1614	Pixel counter	Average pixel count/full color (K)+black (Toner cartridge reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function, full color/black mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
1615	Pixel counter	Average pixel count/full color (Y) (Toner cartridge reference)	PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the printer function, full color mode, toner Y and toner cartridge refer- ence. [Unit: 0.01%]	2	
1616	Pixel counter	Average pixel count/full color (M) (Toner cartridge reference)	PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the printer function, full color mode, toner M and toner cartridge refer- ence. [Unit: 0.01%]	2	
1617	Pixel counter	Average pixel count/full color (C) (Toner cartridge reference)	PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the printer function, full color mode, toner C and toner cartridge refer- ence. [Unit: 0.01%]	2	
1618	Pixel counter	Average pixel count/full color (K) (Toner cartridge reference)	PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the printer function, full color mode, toner K and toner cartridge refer- ence. [Unit: 0.01%]	2	

	Setting mode (08)							
Code	Classifi- cation	Items	Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure	
1619	Pixel counter	Average pixel count/black (Toner cartridge reference)	PRT (black)	0 <0-10000>	SYS	Displays the average pixel count in the printer function, black mode and toner cartridge reference.	2	
1620	Pixel counter	Average pixel count/full color (K)+black (Toner cartridge reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function, full color/black mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
1621	Pixel counter	Average pixel count/full color (Y) (Toner cartridge reference)	PPC/ PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	
1622	Pixel counter	Average pixel count/full color (M) (Toner cartridge reference)	PPC/ PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
1623	Pixel counter	Average pixel count/full color (C) (Toner cartridge reference)	PPC/ PRT (color)	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
1624	Pixel counter	Average pixel count/full color (K)+black (Toner cartridge reference)	PPC/ PRT/ FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function, black mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
1625	Pixel counter	Average pixel count/black (Toner cartridge reference)	FAX (black)	0 <0-10000>	SYS	Displays the average pixel count in the FAX function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
1626	Pixel counter	Latest pixel count/full color (Y) (Toner cartridge refer- ence)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	
1627	Pixel counter	Latest pixel count/full color (M) (Toner cartridge reference)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
1628	Pixel counter	Latest pixel count/full color (C) (Toner cartridge refer- ence)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
1629	Pixel counter	Latest pixel count/full color (K) (Toner cartridge refer- ence)	PPC (color)	0 <0-10000>	SYS	Displays the latest pixel count in the copy function, full color mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
1630	Pixel counter	Latest pixel count/full color (Y) (Toner cartridge refer- ence)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	
1631	Pixel counter	Latest pixel count/full color (M) (Toner cartridge reference)	PRT (color)	0 <0-10000>	SYS	Displays the latest pixel count in the printer function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	

Setting mode (08)								
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1632	Pixel	Latest pixel count/	full color	PRT	0	SYS	Displays the latest pixel count in the	2
	counter	(C) (Toner cartridg	je refer-	(color)	<0-10000>		printer function, full color mode, toner	
		ence)					C and toner cartridge reference.	
							[Unit: 0.01%]	
1633	Pixel	Latest pixel count/	full color	PRT	0	SYS	Displays the latest pixel count in the	2
	counter	(K) (Toner cartridg	e refer-	(color)	<0-10000>		printer function, full color mode, toner	
		ence)					K and toner cartridge reference.	
							[Unit: 0.01%]	
1634	Pixel	Latest pixel count/	black	FAX	0	SYS	Displays the latest pixel count in the	2
	counter	(Toner cartridge re	eference)	(black)	<0-10000>		FAX function, black mode and toner	
							cartridge reference. [Unit: 0.01%]	
1639	Pixel	Latest pixel count/	black	PPC	0	SYS	Displays the latest pixel count in the	2
	counter	(Ioner cartridge re	eterence)	(black)	<0-10000>		copy function, black mode and toner	
10.10							cartridge reference. [Unit: 0.01%]	
1640	Pixel	Latest pixel count/	black	PRI	0	SYS	Displays the latest pixel count in the	2
	counter	(Ioner cartridge re	eterence)	(black)	<0-10000>		printer function, black mode and	
							toner cartridge reference.	
1011.0	Divel	Divelence	0.50/	000		01/0	[Unit: 0.01%]	
1641-0	Pixei	Pixel count	0-5%	PPC (a a la a)	<8 aigits>	SYS	The pixel count data are divided into	14
1041.1	counter		E 1 100/		.O. distrito	<u>ovo</u>	To ranges. The number of output	14
1041-1			5.1-10%	(color)	<8 alglis>	515	this code, the distributions in the	14
1641.0			10 1 15%		49 digitas	eve	any function full color mode and	14
1041-2			10.1-15 /6	(color)		313	topor V are displayed [Unit: page]	14
16/1-2			15 1-20%		<8 digites	<u>eve</u>	toner i are displayed. [Onit: page]	1/
1041-5			13.1-20 /0	(color)		515		14
1641-4			20 1-25%	PPC	<8 diaits>	SVS		14
1041 4			20.1 2070	(color)				17
1641-5			25,1-30%	PPC	<8 digits>	SYS		14
			2011 0070	(color)	to algree			
1641-6			30.1-40%	PPC	<8 diaits>	SYS		14
			- ,-	(color)				
1641-7			40.1-60%	PPC	<8 digits>	SYS		14
				(color)				
1641-8			60.1-80%	PPC	<8 digits>	SYS		14
				(color)	_			
1641-9			80.1-100%	PPC	<8 digits>	SYS		14
				(color)				

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1642-0	Pixel	Pixel count	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/full		(color)			10 ranges. The number of output	
1642-1		color (M)	5.1-10%	PPC	<8 digits>	SYS	pages in each range is displayed. In	14
				(color)			this code, the distributions in the	
1642-2			10.1-15%	PPC	<8 digits>	SYS	copy function, full color mode and	14
				(color)			toner M are displayed. [Unit: page]	
1642-3			15.1-20%	PPC	<8 digits>	SYS		14
				(color)				
1642-4			20.1-25%	PPC	<8 digits>	SYS		14
				(color)				
1642-5			25.1-30%	PPC	<8 digits>	SYS		14
				(color)				
1642-6			30.1-40%	PPC	<8 digits>	SYS		14
				(color)				
1642-7			40.1-60%	PPC	<8 digits>	SYS		14
				(color)				
1642-8			60.1-80%	PPC	<8 digits>	SYS		14
				(color)			-	
1642-9			80.1-100%	PPC	<8 digits>	SYS		14
		<b>-</b>		(color)				
1643-0	Pixel	Pixel count	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/full		(color)		0.10	10 ranges. The number of output	
1643-1		color (C)	5.1-10%	PPC	<8 digits>	SYS	pages in each range is displayed. In	14
			10 1 150	(color)		0.10	this code, the distributions in the	
1643-2			10.1-15%	PPC	<8 digits>	SYS	copy function, full color mode and	14
			15 4 000/	(color)		0.10	toner C are displayed. [Unit: page]	
1643-3			15.1-20%	PPC (aalar)	<8 digits>	SYS		14
1040.4			00.4.050/	(color)	0.11.11.	01/0	-	
1643-4			20.1-25%		<8 aigits>	515		14
1040 5			05 1 00%		.O. diaita	CVC	-	- 14
1643-5			25.1-30%	PPC	<8 algits>	515		14
1040.0			00 1 400/		.O. diaita	CVC	-	14
1643-6			30.1-40%	(color)	<8 alglis>	515		14
1642 7			10 1 60%		<8 digitas	eve	-	11
1043-7			40.1-00%			515		14
1642.0			60 1 909/		<8 digitas	eve	-	11
1043-0			00.1-00%			515		14
1642-0			80 1,100%		<8 digites	976	-	11
1043-9			00.1-100%	(color)		313		14
L								

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1644-0	Pixel	Pixel count	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/full		(color)			10 ranges. The number of output	
1644-1		color (K)	5.1-10%	PPC	<8 digits>	SYS	pages in each range is displayed. In	14
				(color)			this code, the distributions in the	
1644-2			10.1-15%	PPC	<8 digits>	SYS	copy function, full color mode and	14
				(color)			toner K are displayed. [Unit: page]	
1644-3			15.1-20%	PPC	<8 digits>	SYS		14
				(color)				
1644-4			20.1-25%	PPC	<8 digits>	SYS		14
				(color)				
1644-5			25.1-30%	PPC	<8 digits>	SYS		14
				(color)				
1644-6			30.1-40%	PPC	<8 digits>	SYS		14
				(color)				
1644-7			40.1-60%	PPC	<8 digits>	SYS		14
				(color)				
1644-8			60.1-80%	PPC	<8 digits>	SYS		14
				(color)		0.40		
1644-9			80.1-100%	PPC	<8 digits>	SYS		14
1015.0	D' I	D'alas al	0.50/	(color)		0.10		
1645-0	Pixel	Pixel count	0-5%	PRI	<8 digits>	SYS	The pixel count data are divided into	14
1045.4	counter	distribution/full	<b>E 4 400</b> /	(color)	0.11.11.	01/0	10 ranges. The number of output	
1645-1		color (Y)	5.1-10%	PRI	<8 aigits>	SYS	pages in each range is displayed. In	14
1045.0			10 1 150/		O disite	0.00	this code, the distributions in the	
1645-2			10.1-15%	PRI	<8 aigits>	SYS	printer function, full color mode and	14
1045.0			15 1 000/		O disite	0.00	loner Y are displayed. [Onit: page]	
1045-3			13.1-20%		<o aigits=""></o>	515		14
1645 4			20 1 25%		<0 digitas	eve		14
1045-4			20.1-23%		<o นเนเร=""></o>	515		14
1645-5			25 1-20%		<8 digites	976		1/
1045-5			23.1-30 /0	(color)		515		14
1645-6			30 1-40%	PRT	<8 diaite>	272		14
1045			00. I- <del>-</del> 0 /0	(color)		010		"
1645-7	ł		40 1-60%	PRT	<8 dinite>	SYS		14
			10.1 00 /0	(color)				''
1645-8	ł		60 1-80%	PRT	<8 diaite>	SYS		14
			00.1 00/0	(color)	so aigitoz			
1645-9			80.1-00%	PRT	<8 diaits>	SYS		14
				(color)	in anglior			

				Setting	g mode (08	3)		
Code	Classifi- cation	ltems		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1646-0	Pixel	Pixel count	0-5%	PRT	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/full		(color)			10 ranges. The number of output	
1646-1		color (M)	5.1-10%	PRT	<8 digits>	SYS	pages in each range is displayed. In	14
				(color)			this code, the distributions in the	
1646-2			10.1-15%	PRT	<8 digits>	SYS	printer function, full color mode and	14
				(color)			toner M are displayed. [Unit: page]	
1646-3			15.1-20%	PRT	<8 digits>	SYS		14
				(color)				
1646-4			20.1-25%	PRT	<8 digits>	SYS		14
				(color)				
1646-5			25.1-30%	PRT	<8 digits>	SYS		14
				(color)				
1646-6			30.1-40%	PRT	<8 digits>	SYS		14
				(color)			-	
1646-7			40.1-60%	PRT	<8 digits>	SYS		14
				(color)				
1646-8			60.1-80%	PRT	<8 digits>	SYS		14
				(color)				
1646-9			80.1-100%	PRI	<8 digits>	SYS		14
10.17.0	<b>D</b> ' 1	D'alla alla		(color)	0	01/0		
1647-0	Pixei	Pixel count	0-5%	PRI	<8 aigits>	SYS	The pixel count data are divided into	14
1047.1	counter		<b>F 1 100</b> /		0 41 41 44	01/0	To ranges. The number of output	14
1647-1			5.1-10%		<8 aigits>	515	this and the distributions in the	14
1647.0			10 1 15%		40 digitas	eve	uns code, the distributions in the	14
1047-2			10.1-15%	(color)	<o uigits=""></o>	515	topor C are displayed [Upit: page]	14
1647.0			15 1 00%		40 digitas	eve	ioner C are displayed. [Onit. page]	14
1047-3			15.1-20%	(color)		515		14
1647-4			20 1-25%	PRT	<8 diaite>	975		1/
104/-4			20.1-23/0	(color)		013		'4
1647-5			25 1-30%	PRT	<8 diaite>	SVS		14
			20.1 00 /0	(color)				14
1647-6			30 1-40%	PRT	<pre>catinih 8&gt;</pre>	SYS		14
1047 0			00.1 4070	(color)				
1647-7			40.1-60%	PRT	<8 diaits>	SYS		14
				(color)	ie aignor			
1647-8			60.1-80%	PRT	<8 digits>	SYS	-	14
				(color)	a anglior			
1647-9			80.1-100%	PRT	<8 diaits>	SYS	4	14
				(color)				

				Setting	g mode (0	B)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1648-0	Pixel	Pixel count	0-5%	PRT	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/full		(color)			10 ranges. The number of output	
1648-1		color (K)	5.1-10%	PRT	<8 digits>	SYS	pages in each range is displayed. In	14
				(color)			this code, the distributions in the	
1648-2			10.1-15%	PRT	<8 digits>	SYS	printer function, full color mode and	14
				(color)			toner K are displayed. [Unit: page]	
1648-3			15.1-20%	PRT	<8 digits>	SYS		14
				(color)				
1648-4			20.1-25%	PRT	<8 digits>	SYS		14
				(color)				
1648-5			25.1-30%	PRT	<8 digits>	SYS		14
				(color)				
1648-6			30.1-40%	PRT	<8 digits>	SYS		14
				(color)				
1648-7			40.1-60%	PRT	<8 digits>	SYS		14
				(color)				
1648-8			60.1-80%	PRT	<8 digits>	SYS		14
				(color)				
1648-9			80.1-100%	PRT	<8 digits>	SYS		14
				(color)				
1649-0	Pixel	Pixel count	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/black		(black)			10 ranges. The number of output	
1649-1			5.1-10%	PPC	<8 digits>	SYS	pages in each range is displayed. In	14
				(black)			this code, the distributions in the	
1649-2			10.1-15%		<8 digits>	SYS	copy function and black mode are	14
			15 4 000/	(black)	a	0.10	displayed. [Unit: page]	
1649-3			15.1-20%		<8 digits>	SYS		14
			00.4.050/	(black)	<b>a</b>	0.10		
1649-4			20.1-25%		<8 digits>	SYS		14
1040 5			05 4 000/	(black)	0.11.11.	0)/0		
1649-5			25.1-30%	PPC (black)	<8 aigits>	SYS		14
1040.0			00.1.400/	(DIACK)	O all'arita	0.70		4.4
1649-6			30.1-40%	(block)	<v aigits=""></v>	515		14
1640 7			40 1 000/		مانمانه	eve		14
1049-7			40.1-00%		<o uigits=""></o>	515		14
1640.0			60 1 900/		20 diaita	eve		11
1049-8			00.1-80%	(blook)		515		14
1640.0			00 1 1000/		20 diaita	eve		11
1049-9			00.1-100%		<o uigits=""></o>	515		14
				(Diack)				

				Setting	g mode (08	3)		
Code	Classifi- cation	Items		Func- tion	Default <acceptable value&gt;</acceptable 	RAM	Contents	Proce- dure
1650-0	Pixel	Pixel count	0-5%	PRT	<8 digits>	SYS	The pixel count data are divided into	14
	counter	distribution/black		(black)			10 ranges. The number of output	
1650-1			5.1-10%	PRT	<8 digits>	SYS	pages in each range is displayed. In	14
				(black)			this code, the distributions in the	
1650-2			10.1-15%	PRT	<8 digits>	SYS	printer function and black mode are	14
				(black)			displayed. [Unit: page]	
1650-3			15.1-20%	PRT	<8 digits>	SYS		14
				(black)				
1650-4			20.1-25%	PRT	<8 digits>	SYS		14
				(black)				
1650-5			25.1-30%	PRT	<8 digits>	SYS		14
				(black)				
1650-6			30.1-40%	PRT	<8 digits>	SYS		14
				(black)				
1650-7			40.1-60%	PRT	<8 digits>	SYS		14
				(black)				
1650-8			60.1-80%	PRT	<8 digits>	SYS		14
				(black)				
1650-9			80.1-100%		<8 digits>	SYS		14
1051.0	<b>D</b> ' 1	D'alas a	0.50/	(black)		0.10		
1651-0	Pixel	Pixel count	0-5%	FAX	<8 digits>	SYS	The pixel count data are divided into	14
1051 1	counter	distribution/black	<b>F 1 100</b> /	(DIACK)	O all'arita	0.00	To ranges. The number of output	
1651-1			5.1-10%		<8 aigits>	515	pages in each range is displayed. In	14
1051.0			10 1 150/		.O. distrito	<u>ovo</u>	function and black mode are dia	
1051-2			10.1-15%	(blook)	<8 alglis>	515	nunction and black mode are dis-	14
1651.0			15 1 00%		40 digitas	eve		14
1051-5			15.1-20 /0	(black)		515		14
1651-4			20 1-25%	(DIACK)	<8 digites	<u>eve</u>		1/
1031-4			20.1-25/0	(black)		515		14
1651-5			25 1-30%	FAX	<8 digites	975		1/
1031-3			23.1-30 /0	(black)		515		14
1651-6			30 1-/10%	FAX	<8 diaite>	975		1/
			00.1 +0 /0	(black)				17
1651-7			40.1-60%	FAX	<8 diaits>	SYS		14
			10.1 00 /0	(black)	le aigitoz			
1651-8			60.1-80%	FAX	<8 diaits>	SYS		14
			55.1 0070	(black)	le aigitoz			
1651-9			80.1-100%	FAX	<8 diaits>	SYS		14
				(black)				

## <<PM support mode related code>>

The management items at PM support mode can also be operated at setting mode (08). The following items are displayed or set by using sub-codes at PM management setting in the table below.

## <Sub-codes>

- 0: Present number of output pages
  - Means the present number of output pages.
- 1: Recommended number of output pages for replacement
  - Means the recommended number of output pages for replacement.
- 2: Number of output pages at the last replacement
  - Means the number of output pages at the last replacement.
- 3: Present drive counts
  - Means the present drive counts (1 count = 2 seconds).
- 4: Recommended drive counts to be replaced
  - Means the recommended drive counts for replacement (1 count = 2 seconds).
- 5: Driving counts at the last replacement
  - Means the drive counts at the last replacement.
- 6: Present output pages for control
  - Means the present number of output pages for controlling.
- 7: Present drive counts for control
  - Means the present drive counts for controlling (1 count = 2 seconds).
- 8: Number of times replaced
  - Counts up when clearing the counter of each unit in the PM Support Mode Screen.

#### Notes:

- Sub-code 3 is equivalent to sub-code 7.
- When the value of sub-code 3 is changed, the value of sub-code 7 is also updated and vice versa.
- When "0" is set at one of sub-codes 0, 3, 6 and 7, the rest of them are automatically updated to "0".

Items	PM management setting <procedure 4=""> *Indicated in 8 digits</procedure>	Date of previous replacement <procedure 2=""></procedure>	Remarks
Photoconductive drum	1150-0 to 8	1151	<default (e-studio3511="" 1150="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 160000/200000
			Sub-code 4: 315000/315000
Drum cleaning blade	1158-0 to 8	1159	<default (e-studio3511="" 1158="" 4511)="" code="" of="" values=""></default>
5			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 160000/200000
			Sub-code 4: 315000/315000
Drum cleaner brush	1166-0 to 8	1167	<default (e-studio3511="" 1166="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8; 0/0
			Sub-code 1: 160000/200000
			Sub-code 4: 315000/315000
Main charger grid	1174-0 to 8	1175	<pre><default (e-studio3511="" 1174="" 4511)="" code="" of="" values=""></default></pre>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 160000/200000
			Sub-code 4: 315000/315000
Main charger wire	1182-0 to 8	1183	Contraction of code 1182 (e-STLIDIO3511/4511)
	1102 010 0	1100	Sub-codes 0, 2, 3, 5, 6, 7, 8: $0/0$
			Sub-code 1: 160000/200000
			Sub-code 1: 100000/200000
Main charger wire cleaning	1100 0 to 9	1101	Sub-code 4. 315000/315000
nod	1190-0108	1191	Cub and a 0, 2, 2, 5, 6, 7, 8, 0/0
pad			Sub-codes 0, 2, 3, 5, 6, 7, 8, 0/0
			Sub-code 1. 160000/200000
Ozono filtor	1109.0 to 9	1100	Sub-code 4. 315000/315000
	1190-0100	1199	Cub addes 0, 0, 0, 5, 6, 7, 9; 0/0
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 160000/200000
Develop on motorial K	1000.0.1-0	1001	Sub-code 4: 315000/315000
Developer material K	1200-0 to 8	1201	<pre><default (e-s10d103511="" 1200="" 4511)="" code="" of="" values=""></default></pre>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
	1000.01.0	1000	Sub-code 4: 116000/116000
Developer material Y	1202-0 to 8	1203	<default (e-studio3511="" 1202="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 30000/37500
			Sub-code 4: 28000/28000
Developer material M	1204-0 to 8	1205	<default (e-studio3511="" 1204="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 30000/37500
			Sub-code 4: 28000/28000
Developer material C	1206-0 to 8	1207	<detault (e-studio3511="" 1206="" 4511)="" code="" of="" values=""></detault>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 30000/37500
			Sub-code 4: 28000/28000
1st transfer roller	1214-0 to 8	1215	<default (e-studio3511="" 1214="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 480000/600000
			Sub-code 4: 1010000/1010000

Items	PM management setting <procedure 4=""> *Indicated in 8 digits</procedure>	Date of previous replacement <procedure 2=""></procedure>	Remarks
Transfer belt	1228-0 to 8	1229	<default (e-studio3511="" 1228="" 4511)="" code="" of="" values=""></default>
		_	Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 480000/600000
			Sub-code 4: 1010000/1010000
Transfer belt driving roller	1230-0 to 8	1231	<default (e-studio3511="" 1230="" 4511)="" code="" of="" values=""></default>
cleaning brush			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
-			Sub-code 1: 240000/300000
			Sub-code 4: 505000/505000
Transfer belt cleaning blade	1232-0 to 8	1233	<default (e-studio3511="" 1232="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 160000/200000
			Sub-code 4: 337000/337000
2nd transfer roller	1240-0 to 8	1241	<default (e-studio3511="" 1240="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 240000/300000
			Sub-code 4: 312000/312000
2nd transfer roller cleaning	1244-0 to 8	1245	<default (e-studio3511="" 1244="" 4511)="" code="" of="" values=""></default>
brush			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 240000/300000
			Sub-code 4: 312000/312000
Pressure roller	1250-0 to 8	1251	<default (e-studio3511="" 1250="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Oil roller	1258-0 to 8	1259	<default (e-studio3511="" 1258="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Cleaning roller	1260-0 to 8	1261	<default (e-studio3511="" 1260="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Pressure roller separation	1270-0 to 8	1271	<default (e-studio3511="" 1270="" 4511)="" code="" of="" values=""></default>
finger			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Fuser belt	1272-0 to 8	1273	<default (e-studio3511="" 1272="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Fuser belt guide	1276-0 to 8	1277	<default (e-studio3511="" 1276="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Pressure roller scraper	1278-0 to 8	1279	<default (e-studio3511="" 1278="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0
			Sub-code 1: 120000/150000
			Sub-code 4: 285000/285000
Pickup roller (RADF)	1282-0, 1, 2, 8	1283	<default (e-studio3511="" 1282="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 120000/120000

Items	PM management setting <procedure 4=""> *Indicated in 8 digits</procedure>	Date of previous replacement <procedure 2=""></procedure>	Remarks
Feed roller (RADF)	1284-0, 1, 2, 8	1285	<default (e-studio3511="" 1284="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 120000/120000
Separation roller (RADF)	1286-0, 1, 2, 8	1287	<default (e-studio3511="" 1286="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 120000/120000
Pickup roller (Upper drawer)	1290-0, 1, 2, 8	1291	<default (e-studio3511="" 1290="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Pickup roller (Lower drawer)	1292-0, 1, 2, 8	1293	<default (e-studio3511="" 1292="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Pickup roller (LCF)	1294-0, 1, 2, 8	1295	<default (e-studio3511="" 1294="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 160000/160000
Feed roller (Upper drawer)	1298-0, 1, 2, 8	1299	<default (e-studio3511="" 1298="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Feed roller (Lower drawer)	1300-0, 1, 2, 8	1301	<default (e-studio3511="" 1300="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Feed roller (LCF)	1302-0, 1, 2, 8	1303	<default (e-studio3511="" 1302="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 160000/160000
Separation roller	1306-0, 1, 2, 8	1307	<default (e-studio3511="" 1306="" 4511)="" code="" of="" values=""></default>
(Upper drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Separation roller	1308-0, 1, 2, 8	1309	<default (e-studio3511="" 1308="" 4511)="" code="" of="" values=""></default>
(Lower drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Separation roller (LCF)	1310-0, 1, 2, 8	1311	<default (e-studio3511="" 1310="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 160000/160000
Separation roller	1312-0, 1, 2, 8	1313	<default (e-studio3511="" 1312="" 4511)="" code="" of="" values=""></default>
(PFP upper drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Separation roller	1314-0, 1, 2, 8	1315	<default (e-studio3511="" 1314="" 4511)="" code="" of="" values=""></default>
(PFP lower drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Separation roller	1316-0, 1, 2, 8	1317	<default (e-studio3511="" 1316="" 4511)="" code="" of="" values=""></default>
(Bypass unit)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Feed roller	1320-0, 1, 2, 8	1321	<default (e-studio3511="" 1320="" 4511)="" code="" of="" values=""></default>
(PFP upper drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Feed roller	1322-0, 1, 2, 8	1323	<default (e-studio3511="" 1322="" 4511)="" code="" of="" values=""></default>
(PFP lower drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Feed roller (Bypass unit)	1324-0, 1, 2, 8	1325	<default (e-studio3511="" 1324="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000

Items	PM management setting <procedure 4=""> *Indicated in 8 digits</procedure>	Date of previous replacement <procedure 2=""></procedure>	Remarks
Pickup roller	1328-0, 1, 2, 8	1329	<default (e-studio3511="" 1328="" 4511)="" code="" of="" values=""></default>
(PFP upper drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Pickup roller	1330-0, 1, 2, 8	1331	<default (e-studio3511="" 1330="" 4511)="" code="" of="" values=""></default>
(PFP lower drawer)			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000
Pickup roller (Bypass unit)	1332-0, 1, 2, 8	1333	<default (e-studio3511="" 1332="" 4511)="" code="" of="" values=""></default>
			Sub-codes 0, 2, 8: 0/0
			Sub-code 1: 80000/80000

<<Procedure to copy the total counter value (08-257)>>

- 1. Turn ON the power while [0] and [8] are pressed simultaneously.
- 2. Key in the code "257" and press the [START] button (the following is displayed).

## Note:

Before performing the following operations, note the current counter values.

<u>    0%     257  </u> System mode
99999999 99999999
CANCEL

3. Key in the value "1" or "2" and press the [START] button.

The value entered is displayed on the left of the "%", and the [ENTER] button is displayed.

# Note:

The value can be erased by pressing the [CLEAR] button to change as long as the [START] button is not pressed. (The value on the left of the "%" is reset to "0" by pressing the [CLEAR] button.)

• Key in "1" to copy the value of the total counter (LGC board) (A) onto the value of the backup counter (SYS board) (B).



- Key in "2" to copy the value of the backup counter (SYS board) (B) onto the value of the total counter (LGC board) (A).
- 4. Press the [ENTER] button to complete overwriting of the counter value.

#### Note:

The screen returns to the code entry screen without copying (overwriting) the value when the [CANCEL] button is pressed.



## 2.2.6 Pixel counter

(1) Outline

Pixel counter is a function that counts the number of dots emitted by the laser and converts it into the print ratio (%) per standard paper size. This "Print ratio (%) per standard paper size" is called Pixel count (%).

This function enables you to know how each user uses the equipment and to grasp the tendency of toner consumption (number of output pages per cartridge).

# (2) Factors affecting toner consumption

Standard number of output pages per cartridge shows the average number of output pages under the condition that the data of print ratio 6% is printed on the standard paper size (A4/LT) at a normal temperature and humidity.

However, users do not always print under the above condition. As for the type of original, copy/print mode and environment, each user has different tendency, and as a result, the number of output pages per cartridge becomes different depending on the user.

The major factors affecting toner consumption are as follows:

- (a) Original/Data coverage
- (b) Original/Data density
- (c) Original/Print mode
- (d) Density setting

Also there are other factors in addition to the above, such as environment, individual difference of equipment, difference in lot quality of materials, toner density and drum surface potential.

The general relations between the above 4 factors and toner consumption per output page in the copy function are as follows:



Fig. 2-203 Factors affecting toner consumption and the tendency

- (3) Details of pixel counter
  - (a) Toner cartridge reference and service technician reference

The pixel counter function in this equipment has 2 references, toner cartridge reference and service technician reference.

• Toner cartridge reference

This is a system that accumulates data on each color between the installation of a new toner cartridge and next installation.

The installation of new toner cartridge is judged when the total number of pixel count or output pages after the detection of toner empty has exceeded the threshold.

The threshold to be used is selectable in the setting mode (08-1506) between the pixel count and output pages (0: Output pages 1: Pixel counter). The threshold of pixel count is set in the setting mode (08-1508) and that of output pages is set in the setting mode (08-1507).

When the new toner cartridge is judged as installed, the data related with the previous cartridge is cleared and replaced with the data after the installation of new cartridge.

Clearing of the counter of the toner cartridge reference is performed in the setting mode (08-1503).

• Service technician reference

This is a system that accumulates data between clearing the counter of the service technician reference by service technician and subsequently clearing the same counter. Clearing of the counter of the service technician reference is performed in the setting mode (08-1502).

#### (b) Print count (number of output pages)

The number of output pages shown at the pixel counter is counted after converting all paper sizes to the standard size (A4/LT). Printing on other than the standard size is converted by paper area ratio. The standard size is set in the setting mode (08-1500). The examples of conversion are as follows:

- Ex.) 1. "1" is added to the print count when printing on A4/LT size.
  - 2. "2" is added to the print count when printing on A3/LD size. (area ratio to A4/LT: 200%)
  - 3. "1.49" is added to the print count when printing on B4 size. (area ratio to A4: 149%)
  - 4. "1.27" is added to the print count when printing on LG size. (area ratio to LT: 127%)

(c) Pixel count (%)

Pixel count (%) shows the ratio of laser emitting pixels to all pixels on standard paper. The examples of pixel count are as follows:

- **Note:** In the following examples, 'solid copy' is considered to be 100%. But since the image has 4 margins, it never becomes 100% actually.
- Ex.) 1. Printing 5 pages on A4/LT size with solid copy (Laser emits to all pixels.)  $\rightarrow$  Pixel count: 100%, Print count: 5
  - 2. Printing 5 pages on A4/LT size with blank copy (Laser never emits.)
     → Pixel count: 0%, Print count: 5
  - 3. Printing 2 pages on A4/LT size with solid copy (Laser emits to all pixels.)
     Printing 2 pages on A4/LT size with blank copy (Laser never emits.)
     → Pixel count: 50%, Print count: 4
  - 4. Printing 3 pages on A4/LT size with 6% of laser emission
    Printing 1 page on A4/LT size with 2% of laser emission
    → Pixel count: 5%, Print count: 4
  - 5. Printing 2 pages on A3/LD size with solid copy (Laser emits to all pixels.)
     → Pixel count: 100%, Print count: 4
  - 6. Printing 2 pages on A3/LD size with 6% of laser emission
     → Pixel count: 6%, Print count: 4
- (d) Average pixel count (%) and latest pixel count (%)

There are 2 types of the value calculated as the pixel count, average pixel count (%) and latest pixel count (%).

1. Average pixel count (%)

The average value of all pixel count data after each reference data is cleared is calculated and displayed.

2. Latest pixel count (%)

The value is displayed for printing just before the pixel counter is confirmed.

(e) Type of calculated data

Since this is multifunctional and color equipment, the data of pixel count is calculated for each function and color.

The following list is the information that can be confirmed by LCD screen. But actually, more information can be confirmed by the setting mode (08).

See after-mentioned (5)-(c) for details.

$\cap$ :	With	data	
$\bigcirc$		autu	

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	-	~ ~ ~					

	Ton	or oartrid	no roforo	200		Servi	ce techni	cian refe	rence	
	ioner carindge reference			Full color/Twin color				Black		
	Yellow	Magenta	Cyan	Black	Total	Yellow	Magenta	Cyan	Black	DIACK
Copy function	0	0	0	0	0	0	0	0	0	0
Printer function	0	0	0	0	0	0	0	0	0	0
FAX function	_	—	_	0	_	_	_	_	_	0
Total	0	0	0	0	0	0	0	0	0	0

#### Table 2-201 Type of calculated data

- (f) Setting related with the pixel counter function
  - (f-1) Standard paper size setting

The standard paper size (A4 or LT) to convert it into the pixel count is selected (08-1500).

(f-2) Pixel counter display setting

Whether or not to display the pixel counter on the LCD screen is selected (08-1504).

(f-3) Display reference setting

The reference when displaying the pixel counter on the LCD screen (toner cartridge reference or service technician reference) is selected (08-1505).

(f-4) Determination counter of toner empty

This is the counter to determine the replacement of new toner cartridge after the toner empty is detected.

After the toner empty is detected by the auto-toner sensor, this counter checks if toner empty is not detected one more time while the specified number of pixel count or output pages is counted.

(f-5) Pixel counter clearing

There are 3 types for the pixel count clear as follows:

08-1501: All information related to the pixel count is cleared.

08-1502: All information related to the service technician reference pixel count is cleared.

08-1503: All information related to the toner cartridge reference pixel count is cleared.

#### (4) Relation between pixel count and toner consumption

The user's printing out the image with large coverage or high density may cause the large value of pixel count. And the setting that toner consumption becomes high in the original mode or density setting may cause it as well.

In this case, the replacement cycle of toner cartridge is faster than the standard number of output pages. Therefore, this trend needs to be grasped for the service.

The relation between pixel count and number of output pages per cartridge is as follows:



Fig. 2-204 Pixel count and number of output pages per cartridge

- (5) Pixel counter confirmation
  - (a) Display on LCD screen

Whether or not to display the pixel counter on the LCD screen is selected (0: Displayed, 1: Not displayed) in the setting mode (08-1504), and whether or not to display it at the service technician reference or toner cartridge reference is selected (0: Service technician reference, 1: Toner cartridge reference) in the setting mode (08-1505).

The following screen is displayed when the buttons, [USER FUNCTIONS], [COUNTER] and [PIXEL COUNTER] are pressed in this order after "Displayed" is selected with the code above and the power is, as usual, turned ON. (The displayed buttons are depending on the setting of 08-1505.)

			09.19.2003	22:05
	USER	ADMIN		
PIXEL COUNTER				
RETURN				
			00 10 0000	10.10
			09.19.2003	19:19
		<i></i>	09.19.2003	19:19
	USER	ADMIN	09.19.2003	19:19
ADDRESS COUNTER	USER	ADMIN	09.19.2003	19:19
ADDRESS COUNTER	USER		09.19.2003	19:19

Table 2-205 Reference selection screen

When selecting and pressing the button in the above screen, each pixel counter screen is displayed.

[TONER CARTRIDGE] button: Information screen of toner cartridge reference is displayed. [SERVICE (COLOR)] button: Information screen of service technician reference (full color) is displayed.

[SERVICE (BLACK)] button: Information screen of service technician reference (black) is displayed.
The following screen is displayed when pressing the [TONER CARTRIDGE] button.

		09.	19.2003 22:05	
	USER	ADMIN		
TONER CARTRIDGE				
	Сору	Printer	Total	YELLOW(Y)
Print Count [LT/A4]	228	2	230	
Average Pixel Count [%]	0.00	0.00	0.00	
Latest Pixel Count [%]	0.00	0.00	0.00	CYAN(C)
L			•	BLACK(K)
RETURN				

Table 2-206 Information screen of toner cartridge reference

The following screen is displayed when pressing the [SERVICE (COLOR)] button.

		09.1	19.2003 19:19	
	USER	ADMIN		
SERVICE(COLOR)				TOTAL
	Сору	Printer	Total	YELLOW(Y)
Print Count [LT/A4]	228	2	230	MACENTA/M)
Average Pixel Count [%]	0.00	0.00	0.00	
Latest Pixel Count [%]	0.00	0.00	0.00	CYAN(C)
	•			BLACK(K)
RETURN				

Table 2-207 Information screen of service technician reference (full color)

The following screen is displayed when pressing the [SERVICE (BLACK)] button.

	09.19.2003 19:20			
	USER	ADMIN		
SERVICE(BLACK)				
	Сору	Printer	Fax	Total
Print Count [LT/A4]	91	224	0	315
Average Pixel Count [%]	0.00	0.00	0.00	0.00
Latest Pixel Count [%]	0.00	0.00	0.00	0.00
	•	•		
RETURN				



(b) Data list printing

The data for pixel counter can be printed in the list print mode (9S).

9S-104: The data of the toner cartridge reference is printed.

9S-105: The data of service technician reference is printed.

	PIXEL COUNTER CODE LIST						
2003.4.23 09:55							
TO	NERCARTI	RIDGE					
No	DATE	Col.		PPC	PRN	FAX	TOTAL
0 2	20030423	Y	Print Count [LT/A4]	12345	23456		45678
1 2	20030423	Y	Average Pixel Count [%]	12345	23456		45678
2 2	20030423	Y	Latest Pixel Count [%]	12345	23456		45678
9 2	20030423	К	Print Count [LT/A4]	12345	23456	12345	45678
10 2	20030423	K	Average Pixel Count [%]	12345	23456	12345	45678
11 2	20030423	K	Latest Pixel Count [%]	12345	23456	12345	45678

#### Table 2-209 Data list of toner cartridge reference

20	003.4.23 09	:55					
SI	ERVICEMAN	١					
No	DATE	Col.		PPC	PRN	FAX	TOTAL
0	20030423	Y	Print Count [LT/A4]	12345	23456		45678
1	20030423	Y	Average Pixel Count [%]	12345	23456		45678
2	20030423	Υ	Latest Pixel Count [%]	12345	23456		45678
9	20030423	К	Print Count [LT/A4]	12345	23456	12345	45678
10	20030423	К	Average Pixel Count [%]	12345	23456	12345	45678
11	20030423	K	Latest Pixel Count [%]	12345	23456	12345	45678

Table 2-210 Data list of service technician reference

#### (c) Display in the setting mode (08)

Information of pixel count can be also checked in the setting mode (08). For details, see "2.2.5 Setting mode (08)".

	Full color/Twin color					Black	
		Yellow	Magenta	Cyan	Black	Black	+ Black
	Print count (page)	1557	1559	1561	1552	1553	-
Copy function	Average pixel count (%)	1609	1610	1611	1612	1613	1614
	Latest pixel count (%)	1626	1627	1628	1629	1639	-
	Print count (page)	1558	1560	1562	1554	1555	-
Printer function	Average pixel count (%)	1615	1616	1617	1618	1619	1620
	Latest pixel count (%)	1630	1631	1632	1633	1640	-
	Print count (page)	-	-	-	-	1556	-
FAX function	Average pixel count (%)	-	-	-	-	1625	-
	Latest pixel count (%)	-	-	-	-	1634	-
Total	Average pixel count (%)	1621	1622	1623	-	-	1624

(c-1) Print count, pixel count

 Table 2-202 Pixel count code table (toner cartridge reference)

			Ful	l color/Twin c	olor		5	
		Total	Yellow	Magenta	Cyan	Black	Біаск	
	Print count (page)	1547	-	-	-	-	1548	
Copy function	Average pixel count (%)	1577	1578	1579	1580	1581	1592	
	Latest pixel count (%)	1596	1597	1598	1599	1600	1606	
Printer function	Print count (page)	1549	-	-	-	-	1550	
	Average pixel count (%)	1582	1583	1584	1585	1586	1593	
	Latest pixel count (%)	1601	1602	1603	1604	1605	1607	
FAX function	Print count (page)	-	-	-	-	-	1551	
	Average pixel count (%)	-	-	-	-	-	1594	
	Latest pixel count (%)	-	-	-	-	-	1608	
Total	Average pixel count (%)	1587	1588	1598	1590	1591	1595	

Table 2-203 Pixel count code table (service technician reference)

(c-2) Pixel count distribution

			Full color/	Twin color		Diack
		Yellow	Magenta	Cyan	Black	Баск
Сору	Pixel count distribution	1641	1640	1642	1644	1640
function	(page)	1041	1042	1043	1044	1049
Printer	Pixel count distribution	1645	1646	1647	1649	1650
function	(page)	1045	1040	1047	1040	1050
FAX	Pixel count distribution					1651
function	(page)	-	-	-	-	1051

#### Table 2-204 Pixel count code table

**Note:** By entering the sub code at the above code, the pixel count distribution can be displayed dividing into 10 ranges. The sub codes are as follows.

0: 0 - 5%	1: 5.1 - 10%	2: 10.1 - 15%	3: 15.1 - 20%	4: 20.1 - 25%
5: 25.1 - 30%	6: 30.1 - 40%	7: 40.1 - 60%	8: 60.1- 80%	9: 80.1 - 100%

#### (c-3) Other information

• Toner cartridge replacement counter

The toner cartridge replacement count is displayed.

08-1563: Toner cartridge Y	08-1564: Toner cartridge M
08-1565: Toner cartridge C	08-1566: Toner cartridge K

• Toner cartridge reference count started date

The toner cartridge reference count started date is displayed.

- 08-1517: Toner cartridge C 05-1518: Toner cartridge K
- Service technician reference cleared date
   The service technician reference cleared date (08-1510) is displayed.
   The date (08-1502 was performed) is stored.
- Toner cartridge reference cleared date
   The toner cartridge reference cleared date is displayed.
   The date (08-1503 was performed) is stored.

08-1511: Toner cartridge Y	05-1512: Toner cartridge M
08-1513: Toner cartridge C	05-1514: Toner cartridge K

Classification	Adjustment Mode (05)	Setting Mode (08)
User interface		Setting Mode (08)           [Date/Time] 200, 638, 640           [Timer] 204, 205, 206, 260, 261, 262           [Screen] 207, 602, 1132           [File] 209, 218, 219, 264, 288           [Language] 220, 221 [Administrator] 263           [Scanning] 265, 266, 273, 274           [Box] 267, 270, 950, 976           [HDD] 271 [E-mail] 272, 1097, 1098           [Default setting] 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 289, 331, 480, 503, 550, 585, 587, 588, 603, 604, 607, 618, 642, 986, 989, 1135, 1414, 1415, 1416, 1800-0 to 2, 1801-0 to 2           [Raw printing] 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 973, 978, 979           [Copy volume] 300 [Original counter] 302           [Automatic calibration] 595, 632           [AMS] 605 [Sound] 610, 969, 970           [Book duplexing] 611 [Summer time] 612           [Paper size] 613           [Department management] 617, 620, 621, 622, 623, 624, 672           [Sorting] 627, 634, 641, 649           [Original direction] 628 [Image shift] 636           [Color specification] 643, 644           [Edit copying] 645, 646           [Box printing] 647, 951, 953, 954 [X in 1] 650           [Annotation] 651, 657           [Automatic transferring] 660, 661           [Indicator] 671 [Priority drawer] 689           [Paper type] 697 [Offsetting between jobs] 682
Scanner	[Image position] 305, 306 [Distortion] 308 [Reproduction ratio] 340, 884, 1060 [Carriage position] 359, 360 [Fixed value] 364, 363	
шауе	[Margin] 430, 431, 432, 433, 434-0 to 1, 435, 436, 437, 438, 439 [Image density] 501, 503, 504, 505, 506, 507, 508, 509, 510, 512, 514, 515, 710, 714, 715, 719, 720, 724, 725, 729, 845, 846, 847, 850, 851, 852, 855, 856, 857, 860, 861, 862, 1550, 1551, 1552, 1553, 1554, 1560, 1561, 1562, 1563, 1564, 1570, 1571, 1572, 1573, 1574, 1580, 1581, 1582, 1583, 1584 [Range correction] 532, 533, 534, 570, 571, 572, 693, 694, 695, 825, 826, 827, 828, 830, 831, 832, 833, 835, 836, 837, 838 [Color deviation correction] 417-0 to 3, 418-0 to 3 [Gamma adjustment] 580, 1000, 1001, 1002, 1003, 1642, 1643	[ACS] 268, 609-0 to 4 [Smoothing] 560, 561, 562 [Image quality] 586, 589 [Gamma correction] 597

# 2.2.7 Classification List of Adjustment Mode (05) / Setting Mode (08)

Classification	Adjustment Mode (05)	Setting Mode (08)
Image	[Gamma balance] 590-0 to 2, 591-0 to 2, 592-0	
	to 2, 596-0 to 2, 597-0 to 2, 598-0 to 2, 599-0 to	
	2, 880-0 to 2, 881-0 to 2, 882-0 to 2, 883-0 to 2	
	[Sharpness] 604, 605, 606, 840, 841, 842, 843,	
	1086, 1087, 1088, 1737, 1738, 1739, 1740,	
	1741, 1757	
	[Smudged/faint text] 648, 654, 655	
	[Toner saving] 664, 665, 1055, 1056, 1057, 1058	
	[Pixel size] 663	
	[Smoothing] 667-0 to 4	
	[Binarization] 700, 701, 702	
	[Background adjustment] 848, 853, 858	
	[Color balance] 1010-0 to 2, 1011-0 to 2, 1012-0	
	to 2, 1013-0 to 2, 1014-0 to 2, 1015-0 to 2,	
	2, 1020-0 to 2, 1021-0 to 2, 1022-0 to 2, 1023-0	
	102, 1024-0 102, 1025-0 102, 1020-0 102, 1027 0 to 2, 1028 0 to 2, 1020 0 to 2, 1020 0 to	
	2 1031-0 to 2 1032-0 to 2 1033-0 to 2 1034-0	
	to 2 1035-0 to 2 1036-0 to 2 1037-0 to 2	
	1038-0 to 2, 1039-0 to 2, 1040-0 to 2, 1041-0 to	
	2, 1779-0 to 2, 1780-0 to 2, 1781-0 to 2, 1782-0	
	to 2. 1783-0 to 2. 1784-0 to 2. 1785-0 to 2.	
	1786-0 to 2, 1787-0 to 2, 1788-0 to 2, 1789-0 to	
	2, 1790-0 to 2, 1791-0 to 2, 1792-0 to 2, 1793-0	
	to 2, 1794-0 to 2, 1795-0 to 2, 1796-0 to 2,	
	1797-0 to 2, 1798-0 to 2	
	[Toner amount] 1046-0 to 1, 1047-0 to 1, 1048-0	
	to 1, 1049-0 to 1, 1050-0 to 1, 1612, 1613, 1614,	
	1615, 1616	
	[ACS] 1065, 1066, 1675, 1676	
	[Background/Black density] 1070, 1071, 1072,	
	1075, 1076, 1077	
	[RGB] 1080, 1081, 1082	
	[Maximum text density] 1630, 1631, 1632, 1633	
	[Background processing] 1688, 1689, 1690, 1691,	
	1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699,	
	[Highlight pop] 1769, 1770, 1771, 1772	
	[Reproduction level adjustment] 1725	
	[Black reproduction switching] 1761	
Image control	[Contrast voltage] 330-0 to 3, 332-0 to 3, 380-0	[1st transfer] 541, 542, 543
	to 3, 381-0 to 3, 1800-0 to 3, 1801-0 to 3, 1811-0	[2nd transfer] 544, 545, 546, 548
	to 3, 1812-0 to 3, 1815-0 to 3	[Setting] 549, 551
	[Laser power] 331-0 to 3, 333-0 to 3, 382-0 to 3,	[Automatic starting] 559, 565, 566, 567, 568, 569,
	383-0 to 3, 384-0 to 3, 1802-0 to 3, 1803-0 to 3,	570, 571, 572
	1816-0 to 3, 1817, 1819, 1820, 1821	[Drum] 552, 553
	[Main charger] 385-0 to 3, 1805-0 to 3,	[Contrast voltage] 554, 556, 558
	1806-0 to 3, 1807-0 to 3, 1808-0 to 3,	[Laser power] 555, 557
	1809-0 to 3, 1810-0 to 3	[Abnormality detection] 573, 574, 575, 576
	[Developer] 386-0 to 3	[Counter] 1370, 1371
	[Sensor] 388, 389, 390-0 to 3, 390-1 to 3, 392	
	[Temperature/Humidity] 393	

Classification	Adjustment Mode (05)	Setting Mode (08)
Image control	[Performing] 394, 395, 396, 398-0 to 3	
	[Background voltage] 1804-0 to 3, 1813-0 to 3,	
	1814-0 to 3	
Drive system	[Main motor] 421, 422	
	[Exit motor] 424, 425	
<b></b>	[Transport motor] 426, 427	
Feeding system	[Aligning amount] 448-0 to 3, 449-0 to 3, 450-0	[Paper dimension] 210, 229, 230, 231, 232, 233,
	to 3, 452-0 to 3, 455-0 to 2, 457, 458-0 to 2,	234, 235, 236, 237, 238, 239, 240, 241, 242, 243,
	460-0 to 2, 461-0 to 2, 462-0 to 3, 463-0 to 2,	244, 245, 246, 247, 248, 249, 470, 471
	409-0 10 3, 470-0 10 3, 471-0 10 3, 472-0 10 3, 473, 474-0 to 2, 475-0 to 9	[Feeding Setting] 254, 255, 461, 619, 656, 659,
	[Paper pushing amount] 466-0 to 7, 467	[Paper retry] 463-0 to 1 464-0 to 1 465-0 to 1
		466-0 to 1 467-0 to 1 468-0 to 1 482 1390 1391
		1392 1393 1394 1395 1396 1397 1398 1399
		1400, 1401
		[Coated paper Mode] 675-0 to 4, 676, 677-0 to 5
		[Paper size] 216, 217, 224, 225, 226, 227, 228,
		256
		[Blank copy prevention] 625
Laser	[Polygonal motor] 401, 405	[Polygonal motor] 398, 399, 478, 479, 483, 484,
	[Write start] 410, 411, 440, 441, 442, 443, 444,	485, 486, 488, 489, 490
	445, 494, 495, 496, 498-0 to 1	
	[Sideways deviation] 497-0 to 5	
Main charger	[Grid] 241, 242, 243, 244	[Cleaning] 511
Developer	[Auto-toner] 200, 201, 202, 203, 204, 206	[Color auto-toner] 819-0 to 2, 820-0 to 2, 822-0 to
	[Color auto-toner] 207, 208	2, 823-0 to 2, 824-0 to 2, 858-0 to 2, 859-0 to 2,
		860-0 to 1, 861-0 to 1, 862-0 to 1, 863-0 to 1, 864,
		805, 800-0 10 1, 807, 808, 809, 870, 871, 872, 872 0 to 2, 874, 875 0 to 2, 876 0 to 2, 877 0 to 2
		878-0 to 2, 879-0 to 2, 880-0 to 2, 881-0 to 2
		[Stabilization] 821
High-voltage	[Grid] 334, 335	[Transfer] 810
transformer	[Color developer] 338, 339	
	[Black developer] 372, 373	
	[1st transfer] 250, 251	
	[2nd transfer] 252, 253, 254, 255	
Transfer	[1st transfer] 210, 211-0 to 3, 212, 214, 215,	[Cleaning] 487
	216, 217, 218-0 to 3, 220-0 to 3, 221-0 to 3,	
	222-0 to 3, 223-0 to 3, 233, 245, 262-0 to 3,	
	263, 265, 266, 267, 268, 269-0 to 3, 271-0 to 3,	
	272-0 to 3, 273-0 to 3, 274-0 to 3, 1829-0 to 2,	
	1831, 1832, 1833, 1834, 1835, 1836, 1837,	
	1838-0 to 3, 1843, 1844-0 to 3	
	[2nd transfer] 224, 225, 226, 227-0 to 3, 229-0	
	100, 200-0101, 201-0101, 202-0101, 204-010	
	275 276 277-0 to 3 279-0 to 3 200-0 to 1	
	291-0 to 1, 292-0 to 1, 293-0 to 4, 294-0 to 3	
	296-0 to 3, 297-0 to 1, 298-0 to 1, 299-0 to 1	
	1822-0 to 4, 1823-0 to 3. 1825-0 to 3. 1826-0 to	
	1, 1827-0 to 1, 1828-0 to 1, 1839-0 to 1, 1840-0	
	to 1, 1841-0 to 1, 1842-0 to 3, 1845-0 to 1	
	[Cleaning] 284, 285	
	1	

Classification	Adjustment Mode (05)	Setting Mode (08)
Fuser		[Status counter] 400
		[Temperature] 409, 410-0 to 1, 411, 412-0 to 1,
		413-0 to 1, 415-0 to 1, 416, 422, 428-0 to 1,
		436, 437-0 to 1, 438-0 to 1
		[Transport speed] 430, 431, 432
		[Pre-running] 417-0 to 1, 439-0 to 1, 440-0 to 1,
		441-0 to 1, 460, 461, 526-0 to 1, 583-0 to 2, 584
		[Warming-up] 458, 459
		[Fusing control switching] 849
RADF	[Aligning amount] 354, 355	[Switchback] 462
	[Sensor/EEPROM] 356, 367, 368	
	[Transporting] 357, 358, 365, 366	
Finisher	[Binding/Folding position] 468-0 to 2	[Tray reset] 648 [Cascade] 652, 653
Network		[NIC] 1001, 1002, 1003, 1004, 1120
		[IP address] 1005, 1006, 1007, 1008, 1009, 1010
		[IPX] 1011, 1099 [Frame type] 1012
		[NCP] 1013 [AppleTalk] 1014, 1015
		[LDAP] 1016, 1138, 1139, 1486
		[DNS] 1017, 1018, 1019 [DDNS] 1020
		[SLP] 1021 [NetBios] 1023
		[WINS] 1024, 1025 [Bindery] 1026
		[NDS] 1027 [Directory] 1028, 1029
		[HTTP] 1030, 1031, 1032, 1033, 1034, 1035
		[SMTP] 1037, 1038, 1039, 1040, 1041, 1042,
		1100, 1101, 1102 [Offramp] 1043, 1044, 1045
		[POP3] 1046, 1047, 1048, 1049, 1050, 1051,
		1059, 1060, 1061, 1062, 1089, 1090, 1091,
		1092, 1107, 1108, 1109, 1110
		[IRAP] 1067, 1068, 1069, 1070
		[Raw/ICP] 945, 1073, 1074
		1084, 1085, 1086, 1087, 1088
		[Noveli] 1093, 1094 [SerciRool] 1095
		[Print queue] 1096 [ASCII code] 977
		[Service name] 1105 [Host name] 1112
		[Service name] 1105 [Host name] 1112
		[Internet FAA] 1114, 1405 [Style] 1117, 1130
		[Private print] 1432 [Function] 1433 1434
		[Scan to E-mail] 1/8/
		[Scall to E-mail] 1404
		[F-mail domain] 1491
Counter		[External counter] 202 381 683 975
Counter		[Counter copy] 257
		[Paper size] 301-0 to 16, 303-0 to 16, 304-0 to
		16 305-0 to 16 306-0 to 16 307-0 to 16 308-0
		to 16, 309-0 to 16, 310-0 to 16, 311-0 to 16
		312-0 to 16, 313-0 to 16, 314-0 to 16, 315-0 to
		16. 316-0 to 16

Classification	Adjustment Mode (05)	Setting Mode (08)		
Counter		[Large/Small size] 317-0 to 2, 318-0 to 2, 319-0		
		to 2, 320-0 to 2, 321-0 to 2, 322-0 to 2, 323-0 to		
		2, 324-0 to 2, 325-0 to 2, 326-0 to 2, 327-0 to 2,		
		328-0 to 2, 329-0 to 2, 330-0 to 2, 332-0 to 2,		
		333-0 to 2, 334-0 to 2, 335-0 to 2		
		[Double count] 344, 346, 347, 348, 349, 352,		
		353		
		[Paper source] 356, 357, 358, 359, 360, 370,		
		372, 374		
		[HDD] 390, 391, 392, 393		
		[Count method] 616, 663		
		[Department management] 629		
		[Fuser] 1372, 1378, 1380, 1382		
		[Paper type] 1385, 1386, 1387, 1388, 1412		
		[Main charger] 1389		
		[Toner cartrige drive counts] 1410		
Version		[System] 900, 920, 921, 922, 923, 924, 925,		
		926, 927, 928, 929, 930, 931, 933, 934, 935,		
		936, 937, 938, 939, 944		
		[Engine] 903, 905, 907, 908		
		[FAX] 915 [NIC] 916		
Maintenance		[PM counter] 223, 251, 252, 375, 376		
		[Telephone] 250 [Error history] 253		
		[FSMS] 258, 999		
		[Service notification] 702, 703, 707, 710, 711,		
		715, 716, 717, 718, 719, 720, 721, 723, 767,		
		768, 769, 770, 771, 772, 773, 774, 775, 776,		
		777, 778, 779, 780, 781, 782, 783, 784, 785,		
		786, 787, 788, 789, 790, 791, 792, 793, 794,		
		795, 796, 1145		
		[HTTP] 726, 727, 728, 729, 730, 731		
		[Supply order] 732, 733, 734, 738, 739, 740, 741,		
		742, 743, 744, 745, 746, 747, 748, 749, 750, 751,		
		752, 753, 754, 755, 756, 757, 758, 759, 760, 761,		
		762, 763, 764, 765, 794, 795		
0.1		[Downloading] 797		
Others	[Equipment number] 976	[Destination] 201, 701		
		[Line] 203 [Private] 259 [Local I/F] 614		
		[Memory] 615 [Partition] 662, 666, 667		
		[Clearing] 665, 669, 693		
		[HDD] 670, 690, 691, 694		
		Control partel 692		
		[Solamble: Dualu] 090, 098, 099		
		[Equipment number] 990		
		[Opecu Switching] 497 [Rannor] 678 670 680		
		[Datiliel] 0/0, 0/3, 000 [Massage button] 691		
		[Initialization] 047		
		[Mode setting] 948 949		
		[Ivioue setting] 940, 949		
		[remplate] 1140		

# 3. ADJUSTMENT

# 3.1 Adjustment Order (Image Related Adjustment)

This chapter mainly explains the procedures for image related adjustment. When replacing components which have other specified instructions for adjustment, those specified instructions are to be obeyed in priority.

In the following diagram, the solid lines with arrow lead to essential adjustments, while the dotted lines lead to adjustments to be performed if necessary.



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### 3.2 Adjustment of the Auto-Toner Sensor

When the developer material is replaced, adjust the auto-toner sensor in the following procedure.

(1) Install the cleaner and developer unit.

#### Note:

Do not install the toner cartridge.

(2) While pressing [0] and [5] simultaneously, turn the power ON. The following message will be displayed.

[0] [5]		100%	А	A3
[POWER]	$\rightarrow$	TEST MODE		

(3) Key in a code and press the [START] button.
 Code 200: All developer materials 201: Developer material Y 202: Developer material M
 203: Developer material C 204: Developer material K 206: Developer material Y, M, C

			100%	200	A3
$\text{(Code)} \rightarrow$	[START]	$\rightarrow$	TEST MODE		

- (4) Adjustment for "K" (Magnetometric sensor control)
  - The following message will be displayed approx. 2 minutes later.

(B)	$\rightarrow$	K: xxxV
(C)	$\rightarrow$	
(A)	$\rightarrow$	K: zzzV

- (B): Current sensor voltage (V)
- (C): No display
- (A): Target values (V) for adjustment reference voltage

#### Note:

The current sensor voltage (V) shown in (B) automatically changes, gradually approaching the target value for adjustment reference voltage shown in (A).

• In 30 to 60 seconds, the current sensor voltage (V) in (B) is converged. Then the sensor output control value (bit value) corresponding to the initial developer material is displayed in (C).

(B) $\rightarrow$	K: xxxV
(C) $\rightarrow$	К: ууу
$(A) \qquad \rightarrow \qquad$	K: zzzV

(B): Current sensor voltage (V)

(C): Sensor output control value (bit value)

(A): Target value (V) for adjustment reference voltage

#### Note:

Be careful that the values in (A), (B) and (C) vary with humidity.

- In case of single-color adjustment, press the [ENTER] button to store the adjustment results in memory when the control value is displayed. In case of multiple-color adjustment, it is automatically proceeded to the adjustment of next color.
- (5) Adjustments for "Y", "M" and "C" (light sensor control)
  - In 15 to 45 seconds, the following message will be displayed (The time varies with the number of colors to be adjusted).

(B)	$\rightarrow$	Y:
(C)	$\rightarrow$	
(A)	$\rightarrow$	Y:
		(B): Current sensor voltage (V)

(C): No display

(A): Target value (V) for adjustment reference voltage

#### Note:

The current sensor voltage (V) shown in (B) automatically changes, gradually approaching the target value for adjustment reference voltage shown in (A).

• After approx. 5 seconds have passed, the current sensor voltage (V) in (B) is converged. Then the sensor output control value (bit value) corresponding to the initial developer material is displayed in (C).

(B)	$\rightarrow$	Y: xxxV
(C)	$\rightarrow$	Ү: ууу
(A)	$\rightarrow$	Y: zzzV

(B): Current sensor voltage (V)

(C): Sensor output control value (bit value)

(A): Target value (V) for adjustment reference voltage

 In case of single-color adjustment, press the [ENTER] button to store the adjustment results in memory when the control value is displayed. In case of multiple-color adjustment, it is automatically proceeded to the adjustment of next color. When the adjustments of all colors have finished and [ENTER] is lit, press [ENTER] button to store the adjustment results in memory.

#### (6) Standard of adjustment value range

(A): Adjustment reference voltages (V)

Humidity(%)	К	Y	М	С
29.9 or below	2.47	1.25	1.25	1.25
30.0-44.9	2.49			
45.0-59.9	2.50			
60.0-74.9	2.69			
75.0 or above	2.86			

#### Note:

Since the adjustments for "Y", "M" and "C" are controlled by the light sensor, the humidity correction is not performed.

(B): Current sensor voltages (V)

Humidity(%)	К	Y	М	С
29.9 or below	2.37-2.57	1.15-1.35	1.15-1.35	1.15-1.35
30.0-44.9	2.39-2.59			
45.0-59.9	2.40-2.60			
60.0-74.9	2.59-2.79			
75.0 or above	2.76-2.96			

#### Note:

Since the adjustments for "Y", "M" and "C" are controlled by the light sensor, the humidity correction is not performed.

- (7) Turn the power OFF.
- (8) Install the toner cartridges.

## 3.3 Performing Image Quality Control

#### (1) When unpacking

Prior to image dimensional adjustment, perform the "Automatic initialization of image quality control (05-396)" procedure.

- (2) When any of the following parts is replaced, be sure to perform the "Automatic initialization of image quality control (05-396)" procedure.
  - Photoconductive drum
- Developer material
- Image quality sensor
- Transfer belt
- Main charger
- Laser optical unit
- 1st transfer roller
- Main charger grid

- 2nd transfer roller
   Ma
- Drum cleaning blade
   Drum cleaner brush

#### Note:

When performing "Automatic gamma adjustment" in addition, "Automatic initialization of image quality control (05-396)" should be done first.

(3) When performing "Automatic gamma adjustment" in cases no parts written above are replaced, do the "Forced performing of image quality closed-loop control (05-395)" procedure before "Automatic gamma adjustment".

Code	Item to be adjusted	Contents
395	Forced performing of image quality closed-loop control	<ul> <li><procedure></procedure></li> <li>(1) While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode</li> <li>(2) Key in [395] and press the [START] button.</li> <li>(3) "WAIT" is displayed.</li> <li>(4) When the adjustment finishes normally, the equipment returns to the initial state of Adjustment Mode. If an error has occurred, take appropriate action by referring to "5. TROUBLESHOOTING".</li> </ul>
396	Automatic initialization of image quality control	<ul> <li><procedure></procedure></li> <li>(1) While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode</li> <li>(2) Key in [396] and press the [START] button.</li> <li>(3) "WAIT" is displayed.</li> <li>(4) When the adjustment finishes normally, the equipment will return to initial state of the Adjustment Mode. If an error has occurred, take appropriate action by referring to "5. TROUBLESHOOTING".</li> </ul>

# 3.4 Image Dimensional Adjustment

#### 3.4.1 General description

There are several adjustment items in the image dimensional adjustment, as listed below. Prior to this image dimensional adjustment, perform the "Automatic initialization of image quality control (05-396)". When adjusting these items, the following adjustment order should strictly be observed.

		Code in mode 05	
1 Paper	align	448, 449, 450, 452, 455,	
		457, 458, 459, 460, 461,	
			462, 463
	(a)	Reproduction ratio of primary scanning direction	401
		(Fine adjustment of polygonal motor rotation speed)	
g	(b)	Primary scanning data laser writing start position	411
nt late	(c)	Reproduction ratio of secondary scanning direction	421
r re mer		(Fine adjustment of main motor rotation speed)	
nte ust	(d)	Transfer belt cleaning unit contact timing adjustment	284
) Pri adj	(e)	Transfer belt cleaning unit release timing adjustment	285
$(\mathbf{N})$	(f)	Secondary scanning data laser writing start position	441, 440, 444, 443, 442,
			445
	(g)	Primary scanning data laser writing start position at duplexing	498
	(a)	Image distortion	-
	(b)	Reproduction ratio of primary scanning direction	405
ent	(c)	Image location of primary scanning direction	306
ed	(d)	Reproduction ratio of secondary scanning direction	340
scar elate djus	(e)	Image location of secondary scanning direction	305
<u>ଜ</u> ୁ ଅ	(f)	Top margin	430
	(g)	Right margin	432
	(h)	Bottom margin	433

#### [Procedure to key in adjustment values]

In accordance with the procedure described below, make adjustment of each adjustment item so that the measured values obtained from test copies satisfy the specification. By pressing the [FAX] button, immediately after starting the Adjustment Mode (05), single-sided test copying can be performed (normal copy mode).



Power OFF/ON : Exit the Adjustment Mode.

#### 3.4.2 Paper alignment at the registration roller

Paper	Weight	Upper	Lower	PFP upper	PFP lower	LCF	ADU	Bypas	s feed
type		drawer	drawer	drawer	drawer			Black	Color
Plain	64-80 g/m <sup>2</sup>	450 (*4)	452 (*4)	448 (*4)	449 (*4)	457	455 (*1)	458	(*1)
paper	17-20 lb.								
Thick	81-105 g/m <sup>2</sup>	469 (*4)	470 (*4)	471 (*4)	472 (*4)	473	474 (*1)	460	(*1)
paper 1	21-28 lb.								
Thick	106-163 g/m <sup>2</sup>	-	-	-	-	-	-	461 (*1)	475 (*3)
paper 2	29-43 lb.								
Thick	164-209 g/m <sup>2</sup>	-	-	-	-	-	-	462 (*2)	475 (*3)
paper 3	44-55 lb.								
OHP film	-	-	-	-	-	-	-	463 (*1)	475 (*3)

The aligning amount is adjusted by using the following codes in Adjustment Mode (05).

Sub-code

- (\*1) 0: Long size
- (\*2) 0: Long size 1: Middle size
- (\*3) 0: Long size of thick paper 2 2: Short size of thick paper 2
  - 4: Middle size of thick paper 3
  - 6: Long size of OHP film
  - 8: Short size of OHP film
- (\*4) 0: Long size 1: Middle size

- 2: Short size
- 2: Short size 3: Post card
- 1: Middle size of thick paper 2
- 3: Long size of thick paper 3
- 5: Short size of thick paper 3
- 7: Middle size of OHP film
- 9: Post card
- 2: Short size 1 3: Short size 2

#### Notes:

1. Long size: 330 mm or longer (13.0 inches or longer) Middle size: 220-329 mm (8.7-12.9 inches) Short size: 219 mm or shorter (8.6 inches or shorter) Short size 1: 205-219 mm (8.1-8.6 inches or shorter) Short size 2: 204 mm or shorter (8.0 inches or shorter)

1: Middle size

2. The adjustment of "Post card" is for Japan only.

#### <Procedure>



- (\*5) 1: Single-sided grid pattern in Black Mode
  - 3: Double-sided grid pattern in Black Mode
  - 55: Grid pattern of thick paper 2 in Full Color Mode
  - 56: Grid pattern of thick paper 3 in Full Color Mode
  - 57: Grid pattern of OHP film in Full Color Mode
  - 58: Single-sided grid pattern of thick paper 2 in Black Mode
  - 59: Single-sided grid pattern of thick paper 3 in Black Mode
  - 60: Single-sided grid pattern of OHP film in Black Mode

#### Note:

If the aligning amount is too large, abnormal noise (paper-folding noise) or actual paper folding may occur during paper feeding. If the aligning amount is too small, on the other hand, a skew, an image dislocation in feeding direction or a paper exit jam (E010) may occur. Pay attention to the above and select the appropriate value.

#### 3.4.3 Printer related adjustment

# (a) Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed (Printer))

- 1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)
- Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer.)
- 3. Measure the distance A from the 1st line to the 21st line of the grid pattern.
- 4. Check if the distance A is within 200±0.5 mm.
- 5. If not, use the following procedure to change values and measure the distance A again.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [401])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values: 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - $\rightarrow$  "100% A" is displayed.
  - $\rightarrow$  Press [1]  $\rightarrow$  [FAX]  $\rightarrow$  (A grid pattern is printed out.)
  - \*\* The larger the adjustment value is, the longer the distance A becomes (approx. 0.05 mm/step).

#### (b) Primary scanning data laser writing start position (Printer)

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON. \rightarrow (Adjustment Mode)$
- Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer.)
- 3. Measure the distance B from the left edge of the paper to the 6th line of the grid pattern.
- 4. Check if the distance B is within 52±0.5 mm.
- 5. If not, use the following procedure to change values and measure the distance B again.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [411])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values: 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - $\rightarrow$  "100% A" is displayed
  - $\rightarrow$  Press [1]  $\rightarrow$  [FAX]  $\rightarrow$  (A grid pattern is printed out.)
  - \* The larger the adjustment value is, the longer the distance B becomes (approx. 0.04 mm/step).
- 6. After the adjustment for the code 411 is completed, apply the same adjustment value for the code 410.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [410])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in the same value in the step 5 above)
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)

#### Note:

Make sure the 1st line of the grid pattern is printed out since the line is occasionally vanished.

- (c) Reproduction ratio of secondary scanning direction (Fine adjustment of main motor rotation speed (Printer))
  - 1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)
  - 2. Press [1]  $\rightarrow$  [FAX]. (A grid pattern with 10mm squares is printed out. Use A3/LD from the lower drawer.)
  - 3. Measure the distance C from the 2nd line at the leading edge of the paper to the 22nd line of the grid pattern.

\* Normally, the 1st line of the grid pattern is not printed.

- 4. Check if the distance C is within 200±0.5 mm.
- 5. If not, use the following procedure to change values and measure the distance C again.

(Adjustment Mode)  $\rightarrow$  (Key in the code [426])  $\rightarrow$  [START] <Procedure>

- \* Confirm that the input value is [153]. If not, key in [153].
- $\rightarrow$  (Key in [153])
- $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
- $\rightarrow$  (Key in the code [421])  $\rightarrow$  [START]
- $\rightarrow$  (Key in a value (recommended values: 110 to 140 / acceptable values: 0 to 255))
- $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
- \* When the value is not within the recommended values, the trailing edge area of the image may be out of position for the paper length or the density at the trailing edge area of the image may become lower. Perform the adjustment confirming the image.
- $\rightarrow$  "100% A" is displayed
- $\rightarrow$  Press [1]  $\rightarrow$  [FAX]  $\rightarrow$  (A grid pattern is printed out.)
- \*\* The larger the adjustment value is, the longer the distance C becomes (approx. 0.5 mm/6 steps).

#### (d) Transfer belt cleaning unit contact timing adjustment

This adjustment has to be performed after "Adjustment of secondary scanning direction reproduction ratio (421)". Acceptable values are 88 to 168. The larger the value is, the later the transfer belt cleaning unit contact timing becomes.

- 1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)
- 2. According to the input value for "Adjustment of secondary scanning direction reproduction ratio (421)", key in the value shown in the following table.
- \* Be sure to key in the correct value because incorrect value may reduce the cleaning efficiency of the transfer belt.

Adjustment (code)	Input value			
Adjustment of secondary scanning direction reproduction ratio (421)	110	111-120	121-130	131-140
Transfer belt cleaning unit contact timing adjustment (284)	147	143	141	137

<Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [284])  $\rightarrow$  [START]

 $\rightarrow$  (Key in a value)

 $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)

#### (e) Transfer belt cleaning unit release timing adjustment

This adjustment has to be performed after "Adjustment of secondary scanning direction reproduction ratio (421)" Acceptable values are 88 to 168. The larger the value is, the later the transfer belt cleaning unit release timing becomes.

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON. \rightarrow (Adjustment Mode)$
- 2. According to the input value for "Adjustment of secondary scanning direction reproduction ratio (421)", key in the value shown in the following table.
- \* Be sure to key in the correct value because incorrect value may reduce the cleaning efficiency of the transfer belt.

Adjustment (code)	Input value			
Adjustment of secondary scanning direction reproduction ratio (421)	110	111-120	121-130	131-140
Transfer belt cleaning unit release timing adjustment (285)	147	143	141	137

<Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [285])  $\rightarrow$  [START]

 $\rightarrow$  (Key in a value)

 $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)

#### (f) Secondary scanning data laser writing start position

This adjustment has to be performed for each paper source.

The following table shows the order of the paper source to be adjusted, code, paper size and acceptable values.

Order for	Paper	Codo	Paper	Acceptable	Domostro
adjustment	source	Code	size value		Remarks
1	Lower drawer	441	A3/LD	0 to 80	
2	Upper drawer	440	A4/LT	0 to 40	
3	PFP or LCF	444/443	A4/LT	0 to 40	
4	Bypass feed	442	A4/LT	0 to 40	
5	Duplexing	445	A3/LD	0 to 40	Paper fed from the lower drawer

1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)

- 2. Press [1] ([3] for duplexing)  $\rightarrow$  [FAX]. (A grid pattern with 10mm squares is printed out.)
- 3. Measure the distance D from the leading edge of the paper to the 6th line of the grid pattern.

\* Normally, the 1st line of the grid pattern is not printed.

- \* At the duplexing, measure it on the top side of the grid pattern.
- 4. Check if the distance D is within 52±0.5 mm.
- 5. If not, use the following procedure to change values and measure the distance D again.

<Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code shown above)  $\rightarrow$  [START]

- $\rightarrow$  (Key in an acceptable value shown above)
- $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
- $\rightarrow$  "100% A" is displayed
- $\rightarrow$  Press [1] ([3] for duplexing)
- $\rightarrow$  [FAX]  $\rightarrow$  (A grid pattern is printed out.)
- \* The larger the adjustment value is, the longer the distance D becomes (approx. 0.2 mm/step).

#### (g) Primary scanning data laser writing start position at duplexing

#### Note:

Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

#### (g-1) Adjustment for long-sized paper

- 1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)
- 2. Press [3]  $\rightarrow$  [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer.)
- 3. Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.
- 4. Check if the distance E is within 52±0.5 mm.
- 5. If not, use the following procedure to change values and measure the distance E again.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [498])  $\rightarrow$  [START]  $\rightarrow$  [0]  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values: 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - $\rightarrow$  "100% A" is displayed.
  - $\rightarrow$  Press [3]  $\rightarrow$  [FAX]  $\rightarrow$  (A grid pattern is printed out.)
  - \*\* The larger the adjustment value is, the longer the distance E becomes (approx. 0.04 mm/step).

#### (q-2) Adjustment for short-sized paper

- 1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)
- 2. Press [3]  $\rightarrow$  [FAX]. (A grid pattern with 10 mm squares is printed out. Use A4/LT from the upper drawer.)
- 3. Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.
- 4. Check if the distance E is within 52±0.5 mm.
- 5. If not, use the following procedure to change values and measure the distance E again.

<Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [498])  $\rightarrow$  [START]  $\rightarrow$  [1]  $\rightarrow$  [START]

- $\rightarrow$  (Key in a value (acceptable values: 0 to 255))
- $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
- $\rightarrow$  "100% A" is displayed
- $\rightarrow$  Press [3]  $\rightarrow$  [FAX]  $\rightarrow$  (A grid pattern is printed out.)
- \* The larger the adjustment value is, the longer the distance E becomes (approx. 0.04 mm/step).



#### 3.4.4 Scanner related adjustment

#### (a) Image distortion





- 1. While pressing [0] and [5] simultaneously, turn the power ON.
- 2. Press [FAX] to make a copy of any image on a sheet of A3/LD paper.
- 3. Key in [308] and press the [START] button to move the carriage to the adjustment position.
- 4. Make an adjustment in the order of step 1 and 2.

#### <u>Step 1</u>

In case of A:

Tighten the mirror-3 adjustment screw (CW). In case of B:

Loosen the mirror-3 adjustment screw (CCW).

#### Step 2

In case of C: Tighten the mirror-1 adjustment screw (CW). In case of D: Loosen the mirror-1 adjustment screw (CCW).

- 5. Apply the screw locking agents to the adjustment screws. (2 areas)
  - Recommended screw lock agent Manufacturer: Three Bond Product name: 1401E





The following adjustments (b) to (e) should be performed with Test Chart No. TCC-1. (Refer to page 3-19.)

#### (b) Reproduction ratio adjustment of primary scanning direction

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON. \rightarrow (Adjustment Mode)$
- 2. Place Test Chart No. TCC-1 on the original glass (with the arrow positioned at the left rear side).
- 3. Press [FAX]  $\rightarrow$  [START] to make a copy at the mode of A4/LT, 100%, Black and Text/Photo.
- 4. Measure the distance A between M1 and M2 on the copy with a ruler.
- 5. Check if the distance A is within  $200\pm0.5$  mm.
- 6. If not, use the following procedure to change values and repeat step 3. to 5. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [405])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values : 0 to 255) with digital keys)
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - \* The larger the adjustment value is, the longer the distance A becomes (approx.
     0.1 mm/step).

#### (c) Image location of primary scanning direction

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON. \rightarrow (Adjustment Mode)$
- 2. Place Test Chart No. TCC-1 on the original glass (with the arrow positioned at the left rear side).
- 3. Press [FAX]  $\rightarrow$  [START] to make a copy at the mode of A4/LT, 100%, Black and Text/Photo.
- 4. Measure the distance B from the left paper edge to the 5 mm line of left grid pattern on the copy with a ruler.
- 5. Check if the distance B is within  $5\pm0.5$  mm.
- 6. If not, use the following procedure to change values and repeat step 3. to 5. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in code [306])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values : 0 to 255))
    - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
    - \* The larger the adjustment value is, the longer the distance B becomes (approx. 0.04 mm/step).

#### (d) Reproduction ratio of secondary scanning direction

- 1. While pressing [0] and [5] simultaneously, turn the power ON.  $\rightarrow$  (Adjustment Mode)
- 2. Place Test Chart No. TCC-1 on the original glass (with the arrow positioned at the left rear side).
- 3. Press [FAX]  $\rightarrow$  [START] to make a copy at the mode of A4/LT, 100%, Black and Text/Photo.
- 4. Measure the distance C between M3 and M4 on the copy with a ruler.
- 5. Check if the distance C is within  $150\pm0.5$  mm.
- 6. If not, use the following procedure to change values and repeat step 3. to 5. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [340])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values : 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - \* The larger the adjustment value is, the longer the distance C becomes (approx. 0.3 mm/step).

#### (e) Image location of secondary scanning direction

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON \rightarrow (Adjustment Mode)$
- 2. Place Test Chart No. TCC-1 on the original glass (with the arrow positioned at the left rear side).
- 3. Press [FAX]  $\rightarrow$  [START] to make a copy at the mode of A4/LT, 100%, Black and Text/Photo.
- 4. Measure the distance D from the top paper edge to the 10 mm line of top grid pattern on the copy with a ruler.
- 5. Check if the distance D is within  $10\pm0.5$  mm.
- 6. If not, use the following procedure to change values and repeat step 3. to 5. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [305])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values : 92 to 164))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - The larger the adjustment value is, the longer the distance D becomes (approx. 0.14 mm/step).

#### (f) Top margin

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON \rightarrow (Adjustment Mode)$
- 2. Open the platen cover or RADF.
- Press [FAX] → [START] to make a copy at the mode of A3/LD, 100%, Black, Text/Photo and lower drawer.
- 4. Measure the blank area E at the leading edge of the copied image.
- 5. Check if the blank area E is within the range of  $3\pm0.5$  mm.
- 6. If not, use the following procedure to change values and repeat the steps 3. to 5. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [430])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values : 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory)
  - $\rightarrow$  ("100% A" is displayed.)
  - \* The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/step).



Fig. 3-405

#### (g) Right margin

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON. \rightarrow (Adjustment Mode)$
- 2. Open the platen cover or RADF.
- Press [FAX] → [START] to make a copy at the mode of A3/LD, 100%, Black, Text/Photo and lower drawer.
- 4. Measure the blank area F at the right side of the copied image.
- 5. Check if the blank area F is within the range of 2+1 mm, 2-0.5 mm.
- 6. If not, use the following procedure to change values and repeat the steps 3. to 5. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [432])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in a value (acceptable values : 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (Stored in memory).
  - $\rightarrow$  ("100% A" is displayed.)
  - \* The larger the adjustment value is, the wider the blank area at the right side becomes (approx. 0.04 mm/step).



#### (h) Bottom margin

- 1. While pressing [0] and [5] simultaneously, turn the power  $ON. \rightarrow (Adjustment Mode)$
- 2. Open platen cover or RADF.
- 3. Press the [FAX]  $\rightarrow$  [START] to make a copy at the mode of A3/LD, 100%, Black, Text/Photo and lower drawer.
- 4. Measure the blank area G at the trailing edge of the copied image.
- 5. Check if the blank area G is within the range of  $2\pm0.5$  mm.
- 6. If not, use the following procedure to change values and repeat the steps 2. to 4. above.
- <Procedure> (Adjustment Mode)  $\rightarrow$  (Key in the code [433])  $\rightarrow$  [START]
  - $\rightarrow$  (Key in value (acceptable values : 0 to 255))
  - $\rightarrow$  [ENTER] or [INTERRUPT] (stored in memory)
  - $\rightarrow$  ("100% A" is displayed.)
  - \* The larger the adjustment value is, the wider the blank area at the trailing edge becomes (approx. 0.04 mm/step).





Fig. 3-408 Chart TCC-1

<Adjustment order>

[0] [5] [Power ON]  $\rightarrow$  (Chart TCC-1)  $\rightarrow$  [FAX]  $\rightarrow$  [START] (A4/LT, 100%, Black and Text/Photo)

- A:  $05-405 \rightarrow 200\pm0.5 \text{ mm} (0.1 \text{ mm/step})$
- B: 05-306  $\rightarrow$  5±0.5 mm (0.04 mm/step)
- C:  $05-340 \rightarrow 150\pm0.5 \text{ mm} (0.3 \text{ mm/step})$
- D:  $05-305 \rightarrow 10\pm0.5 \text{ mm} (0.14 \text{ mm/step})$



# 3.5 Image Quality Adjustment (Copying Function)

#### 3.5.1 Automatic gamma adjustment

When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment. In case the gradation reproduction of the image checked is not satisfactory, make this adjustment as described below at parts replacement.

- (1) When unpacking or any of the following parts has been or replaced, be sure to make this adjustment:
  - Laser optical unit
- Photoconductive drum Main charger grid
- Developer material • Transfer belt

Drum cleaner brush

- Main charger wire 1st transfer roller
- Drum cleaning blade
- Image guality sensor
- (2) When any of the following parts are replaced or adjusted, make a copy and check the image to determine if adjustment is necessary:
  - 2nd transfer roller

Notes:

- 1. Be sure that this adjustment be made after performing the image adjustment in "3.3 Adjustment of Image Quality Control" and "3.4 Image Dimensional Adjustment".
- 2. Normally, only the adjustment of color/black integrated pattern is needed. When the adjustment of "3.5.12 Beam level conversion setting" is made, color pattern and black pattern need to be adjusted individually.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents					
1642	Automatic gamma	<procedure></procedure>					
(1643)	adjustment	(1) While pressing [0] and [5] simultaneously, turn the power ON. $ ightarrow$					
(580)		Adjustment Mode					
		(2) Select the A4/LT drawer. Key in the pattern number and press the					
		[FAX] button to output a "Patch chart for gamma adjustment".					
		Pattern No. Pattern Remarks					
		4 Color/black integrated When performing code 1642					
		10* Black When performing code 580					
		5* Color When performing code 1643					
		* This adjustment is performed only when "3.5.12 Beam level					
		conversion setting" is performed. Usually, only the adjustment					
		with the color/black integrated pattern (05-1642) is performed.					
		(3) Place the patch chart for adjustment printed in step (2) face down					
		on the original glass. In the cases of patterns 4 and 5, place the					
		chart aligning its side with 2 black squares against the original scale.					
		In the case of pattern 10, place the chart aligning its black side of					
		the gradation pattern against the original scale.					
		(4) Key in a code and press the [START] button.					
		$\rightarrow$ The scanner reads the chart automatically and performs					
		automatic gamma adjustment calculation (approx. 30 sec.).					
		(5) When the adjustment has inished normally, ENTER is shown. Press the					
		[ENTER] button to have the adjustment results reflected.					
		(10 cancel the reliection of adjustment results, press the [CANCEL] button.)					
		In the case of an abnormal ending, ADJOSTMENT ERROR is shown.					
		the control panel display will return to the ready state. Then sheak if the					
		natch chart on the original glass is placed in the wrong direction or if it is					
		placed inclined on the original glass and then repeat stop (2) and after					
		ward					
		with a					

#### 3.5.2 Density adjustment

The center density and the density variation controlled by density adjustment keys can be adjusted as follows.

<Adjustment Mode (05)>

Color			Original mode			Item to be	Domorko
mode	Text/Photo	Text	Printed Image	Photo	Мар	adjusted	Remarks
						Manual density mode	The larger the value is, the
	1550	1551	1550	1552	1554	center value	darker the image becomes.
	1550	1551	1552	1555	1554		Acceptable values: 0 to 255
							(Default: 128)
						Manual density mode	The larger the value is, the
	1560	1561	1562	1563	1564	dark step value	darker the dark side becomes.
5	1500	1301	1502	1505	1304		Acceptable values: 0 to 255
Solo							(Default: 20)
						Manual density mode	The larger the value is, the
Ē	1570	1571	1572	1573	1574	light step value	lighter the light side becomes.
	1570	1571	1572	1373	1374		Acceptable values: 0 to 255
							(Default: 20)
						Automatic density	The larger the value is, the
	1580	1581	1582	1583	158/	mode	darker the image becomes.
	1500	1301	1502	1505	1304		Acceptable values: 0 to 255
							(Default: 128)

<Adjustment Mode (05)>

Color		Original mode		Item to be	Demerika
mode	Text/Photo	Text	Photo	adjusted	Remarks
				Manual density mode	The larger the value is, the
	500	504	501	center value	darker the image becomes.
	505	504	501		Acceptable values: 0 to 255
					(Default: 128)
				Manual density mode	The larger the value is, the
	509	510	500	dark step value	darker the dark side becomes.
	506	510	209		Acceptable values: 0 to 255
<del>у</del>					(Default: 20)
Bla		507		Manual density mode	The larger the value is, the
	505		506	light step value	lighter the light side becomes.
	505	507	506		Acceptable values: 0 to 255
					(Default: 20)
				Automatic density	The larger the value is, the
	514	515	510	mode	darker the image becomes.
	514	515	512		Acceptable values: 0 to 255
					(Default: 128)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

#### Note:

Be sure that this adjustment be made after performing "3.5.1 Automatic gamma adjustment".

#### <Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in a code and press the [START] button.
- (3) Key in an adjustment value (acceptable values: 0 to 255).(To correct the value once keyed in , press the [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
- (5) Press the [FAX] button and then press the [START] button to make a test copy.
- (6) If the desired image has not been attained, repeat step (2) to (5).

#### 3.5.3 Color balance adjustment

The color balance is adjusted by adjusting the density of each color at the Full Color Mode. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

							<adjustment (05)="" mode=""></adjustment>
Color		С	riginal mod	le	Item to be		
00101	Text/Photo	Text	Printed Image	Photo	Мар	adjusted	Remarks
	1779-0	1780-0	1781-0	1782-0	1783-0	Low density	The larger the value is,
Yellow	1779-1	1780-1	1781-1	1782-1	1783-1	Medium density	the darker the color to be
	1779-2	1780-2	1781-2	1782-2	1783-2	High density	adjusted becomes.
	1784-0	1785-0	1786-0	1787-0	1788-0	Low density	Acceptable values: 0 to
Magenta	1784-1	1785-1	1786-1	1787-1	1788-1	Medium density	255. (Default: 128)
	1784-2	1785-2	1786-2	1787-2	1788-2	High density	
	1789-0	1790-0	1791-0	1792-0	1793-0	Low density	
Cyan	1789-1	1790-1	1791-1	1792-1	1793-1	Medium density	
	1789-2	1790-2	1791-2	1792-2	1793-2	High density	
	1794-0	1795-0	1796-0	1798-0	1798-0	Low density	
Black	1794-1	1795-1	1796-1	1798-1	1798-1	Medium density	
	1794-2	1795-2	1796-2	1798-2	1798-2	High density	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

#### Note:

Be sure that this adjustment be made after performing "3.5.1 Automatic gamma adjustment".

#### <Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the code of the mode to be adjusted (color and original mode) and press the [START] button.
- (3) Select the density area to be adjusted with digital keys (0, 1 or 2), and press the [START] button.
   0 : Low density (L) 1 : Medium density (M) 2 : High density (H)
- (4) Key in an adjustment value.(To correct the value once keyed in, press the [CLEAR] button.)
- (5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (6) For resetting the value, repeat step (2) to (5).
- (7) Press the [FAX] button and then press the [START] button to make a test copy.
- (8) If the desired image has not been attained, repeat step (2) to (7).

#### 3.5.4 Gamma balance adjustment

The density adjustment at the Black Mode is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)>

Color		Original mode		Item to be	Demortes	
mode	Text/Photo	Text	Photo	adjusted	Remarks	
Black	590-0	591-0	592-0	Low density	The larger the value is, the density of the item to be adjusted becomes	
	590-1	591-1	592-1	Medium density	darker. Acceptable values: 0 to 255.	
	590-2	591-2	592-2	High density	(Default: 128)	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

#### Note:

Be sure that this adjustment be made after performing "3.5.1 Automatic gamma adjustment".

#### <Procedure>

Procedure is same as that of "3.5.3 Color balance adjustment".

#### 3.5.5 Offsetting adjustment for background processing

The density of background and text can be adjusted as follows.

<Adjustment Mode (05)>

Color	Original mode					Item to be	Devee entre
mode	Text/Photo	Text	Printed Image	Photo	Мар	adjusted	Remarks
Full Color	1688	1689	1690	1691	1692	Automatic density adjustment for background	The larger the value is, the darker the background becomes. (Automatic) Acceptable values: 0 to 255.
	1693	1694	1695	1696	1697	Automatic density adjustment for text	The larger the value is, the darker the text becomes. (Automatic) Acceptable values: 0 to 255. (Default: 128)
	1698	1699	1700	1701	1702	Manual density adjustment for background	The larger the value is, the darker the background becomes. (Manual) Acceptable values: 0 to 255. (Default: 128)
	1708	1709	1710	1711	1712	Manual density adjustment for text	The larger the value is, the darker the text becomes. (Manual) Acceptable values: 0 to 255. (Default: 128)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

#### <Procedure>

Procedure is same as that of "3.5.2 Density adjustment".
## 3.5.6 Judgment threshold for ACS

The judgment level is adjusted for the automatic identification of whether the original set on the glass is black or color. Namely, this is to adjust the judgment level used when "Auto Color" is selected at a color mode. The adjustment is available for each of the manually-set original and the original used with the RADF.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
1675	Judgment threshold	The larger the value is, the more an original tends to be judged as
	for ACS when original	black even at the Auto Color Mode. The smaller value is, the more it
	is set manually	tends to be judged as color.
1676	Judgment threshold	Acceptable values: 0 to 255. (Default: 70)
	for ACS when original	
	is set on RADF	

Make a test copy and compare the image obtained with the current settings; if necessary and make adjustment.

#### <Procedure>

Procedure is same as that of "3.5.2 Density adjustment".

## 3.5.7 Sharpness adjustment

If you want to make copy images look softer or sharper, perform the following adjustment. The adjustment can be made for each of the color modes and original modes independently.

<Adjustment Mode (05)>

Code	Color mode	Original mode	Contents
1737	Full Color	Text/Photo	• The larger the value is, the sharper the image becomes; while
1738		Text	the smaller the value is, the softer the image becomes.
1739		Printed Image	• The smaller the value is, the less moire tends to appear.
1740		Photo	The acceptable values are 0 to 31.
1741		Мар	The center value is 16.
604	Black	Text/Photo	However, 0 is equivalent to the center value.
605		Text	
606		Photo	
1757	Auto Color	Text/Photo	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

#### Note:

You have to make adjustment by balancing between moire and sharpness.

#### <Procedure>

Procedure is same as that of "3.5.2 Density adjustment".

## 3.5.8 Setting range correction

The values of the background peak/text peak in the range correction at the Black Mode can be switched to "varied" or "fixed" in the following codes.

If they are fixed, the range correction is performed with standard values.

The values of the background peak affects the reproduction of the background density, and the values of the text peak affects that of the text density.

Original mode			Item to be adjusted	Bomarks	
Text/Photo	Photo	Text		nemaiks	
570	571	572	Range correction for	The following are the default values set	
			original manually set on	for each original mode.	
			the original glass	Text/Photo: 22, Photo: 12, Text: 22	
				Each digit stands for:	
693	694	695	Range correction for	One's place: Automatic density mode	
			original set on the RADF	Ten's place: Manual density mode	
				The setting conditions possible are as	
				follows:	
				Background peak Text peak	
				1: fixed fixed	
				2: varied fixed	
				3: fixed varied	
				4: varied varied	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

## <Procedure>

Procedure is same as that of "3.5.2 Density adjustment".

<Adjustment Mode (05)>

## 3.5.9 Setting range correction (Adjustment of background peak)

The levels of the background peak for the range correction at a Black Mode can be set at the following codes.

<Adjustment Mode (05)>

Original mode			Item to be adjusted	Bemarks
Text/Photo	Photo	Text		hemarks
532	533	534	Background peak for	When the value increases, the back-
			range correction	ground (low density area) of the image
				is not output.
				Acceptable values: 0 to 255.
				(Default: Text/Photo: 40, Photo: 16,
				Text: 40)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

<Procedure>

Procedure is same as that of "3.5.2 Density adjustment".

## 3.5.10 Adjustment of smudged/faint text

The smudge/faint text at a Black Mode can be set at the following codes.

<Adjustment Mode (05)>

Original mode	Item to be adjusted	Bemarks
Text/Photo		Hemano
648	Adjustment of smudged/	When the value increases, the faint text
	faint text	is improved. When the value decreases,
		the smudged text is improved.
		Acceptable values: 0 to 255.
		(Default: 30)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

#### Note:

Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

#### <Procedure>

Procedure is same as that of "3.5.2 Density adjustment".

## 3.5.11 Adaptation to highlighter

Four modes of one touch adjustment are performed and each mode can be switched into two modes; highlighter 1 or 2. This adjustment is performed when the reproduction mode for highlighter is needed.

<Adjustment Mode (05)>

Code	One touch adjustment	Remarks
1769	Vivid	0: Default (Vivid / Clear / Warm / Cool)
1770	Clear	1: Highlighter 1
1771	Warm	2: Highlighter 2
1772	Cool	

## Note:

The color may not always be reproduced precisely due to the characteristics of fluorescent ink.

## 3.5.12 Beam level conversion setting

The beam level for 4 divided smoothing is set at the Black Mode. This adjustment enables to adjust the dot size.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
667-0	Beam level 0/4	The smaller the value is, the smaller the beam width
667-1	Beam level 1/4	becomes. Therefore, the smaller dot is reproduced
667-2	Beam level 2/4	accordingly. Acceptable values: 0 to 255.
667-3	Beam level 3/4	(Default: Level 0/4: 0, Level 1/4: 63, Level 2/4: 127,
667-4	Beam level 4/4	Level 3/4: 191, Level 4/4: 255)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

## <Procedure>

Procedure is same as that of "3.5.3 Color balance adjustment".

## Notes:

- When this adjustment is performed, "3.5.1 Automatic gamma adjustment (Black Mode)" (05-580) needs to be performed since the reproduction of density at Black Mode varies. The result of this adjustment is not reflected to color/black integrated pattern. Namely, each automatic gamma adjustment of Black Mode (05-580) or of Color Mode (05-1643) needs to be performed individually after this adjustment.
- 2. After this adjustment, set "1" in 08-595 so that the correction result of the Black Mode is not reflected on "Automatic Calibration".
- 3. The setting value must increase as the beam level number (0 to 4) becomes higher. Do not increase this order when setting the values.
- 4. Usually, beam level 4 is most effective on all black modes.

## 3.5.13 Maximum toner density adjustment to paper type

The maximum toner amount adhering to the paper can be controlled.

<Adjustment Mode (05)>

Code	Paper type	Remarks
1612	Plain paper	The smaller the value is, the toner amount adhered
1613	Thick paper 1	decreases of the high density area (ex. prevention of
1614	Thick paper 2	fusing offsetting, etc).
1615	Thick paper 3	Acceptable values : 0 to 255.
1616	OHP film	(Default: Plain paper: 255, Thick paper 1: 249, Thick paper 2: 237, Thick paper 3: 237, OHP film: 249)

#### Note:

The larger the value is, the more frequently fusing offsetting occurs.

## 3.5.14 Maximum text density adjustment

The maximum text density of each color at Full Color Mode can be adjusted as follows.

<Adjustment Mode (05)>

Color	Code	Item to be adjusted	Remarks
Yellow	1630	Maximum text density	The larger the value is, the darker the maximum text
Magenta	1631		density of each color to be adjusted becomes.
Cyan	1632		Acceptable values: 0 to 10 (Default: 5)
Black	1633		

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

#### Note:

Be sure that this adjustment be made after performing "3.5.1 Automatic gamma adjustment".

<Procedure>

Procedure is same as that of "3.5.2 Density adjustment".

## 3.5.15 Text/Photo reproduction level adjustment

Text/Photo reproduction level at the Full color mode, Auto color mode and Gray scale mode can be adjusted.

Text/Photo reproduction level adjustment can be switched to "Photo oriented 1", "Photo oriented 2", "Text oriented 1" or "Text oriented 2" in the following codes.

<Adjustment Mode (05)>

Mode	Item to be adjusted	Contents
Text/Photo		Contents
1725	Text/Photo	0: Default
	reproduction level	1: Photo oriented 2 (The printed image reproduction
	adjustment	level higher than that of the Photo oriented 1)
		2: Photo oriented 1 (The printed image reproduction
		level higher than that of the Default)
		3: Equivalent to the Default
		4: Text oriented 1 (The text reproduction level higher
		than that of the Default)
		5: Text oriented 2 (The text reproduction level higher
		than that of the Text oriented 1)

## Notes:

- The text reproduction level is lower when the mode is switched from the default value to the Photo oriented 1 or Photo oriented 2. (The text reproduction level in Photo oriented 2 is lower than that in Photo oriented 1.)
- Changing the setting value from default value to the Text oriented 1 or Text oriented 2 causes image noise in the printed photo image with few lines per inch. (Photo oriented 2 causes more image noise than Photo oriented 1.)

## 3.5.16 Black reproduction switching at the Twin color copy mode

Black reproduction can be switched at the Twin color (Black/Red) copy mode.

		<adjustment (05)="" mode=""></adjustment>
Mode		
Twin color copy mode	Item to be adjusted	Contents
(Black/Red)		
1761	Black reproduction	0: Default
	switching	1: Black reproduction oriented

## Note:

The boundary between Red and Black may not be smooth when the setting value is "1".

# 3.6 Image Quality Adjustment (Printing Function)

## 3.6.1 Automatic gamma adjustment

When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment. In case the gradation reproduction of the image checked is not satisfactory, make this adjustment as described below at parts replacement.

- (1) When unpacking or any of the following parts has been unpacked or replaced, be sure to make this adjustment:
  - Laser optical unit
- Photoconductive drum
- Main charger wire
- •1st transfer roller
- Main charger grid
- Drum cleaning blade
- Image guality sensor

- Developer material
- Transfer belt
- Drum cleaner brush
- (2) When any of the following parts are replaced or adjusted, make a print and check the image to determine if adjustment is necessary:
  - •2nd transfer roller
  - Note: Be sure that this adjustment be made after performing the image adjustment in "3.3 Adjustment of Image Quality Control" and "3.4 Image Dimensional Adjustment".

<Adjustment Mode (05)>

Code	Adjustment item	Contents
1000	Automatic gamma	<procedure></procedure>
1001	adjustment	(1) While pressing [0] and [5] simultaneously, turn the power ON. $\rightarrow$
1002		Adjustment Mode
1003		(2) Select the A4/LT drawer. Key in the pattern number and press
		the [FAX] button to output a "Patch chart for gamma adjustment".
		Pattern No. Language/Resolution Remarks
		47 PS/600x600dpi When performing code 1000
		48* PS/1200x600dpi When performing code 1001
		49 PCL/600x600dpi When performing code 1002
		50* PCL/1200x600dpi When performing code 1003
		*Perform the adjustment only when the expansion memory has
		been installed.
		(3) Place the patch chart for adjustment printed in step (2) face down
		on the original glass, with its side, on which two black squares are
		present, aligned against the original scale.
		(4) Key in a code and press the [START] button.
		ightarrow The scanner reads the chart automatically and performs
		automatic gamma adjustment calculation (approx. 30 sec.).
		(5) When the adjustment has finished normally, "ENTER" is shown.
		Press the [ENTER] button to have the adjustment results reflected.
		(Io cancel the reflection of adjustment results, press the [CANCEL]
		In the case of an abnormal ending, "ADJUSTMENT ERROR" is
		shown. Press the [CANCEL] button to clear the error display.
		when it is cleared, the control panel display will return to the
		ready state. Then, check if the patch chart on the original glass
		is placed in the wrong direction or if it is placed inclined on the
		original glass, and then repeat step (3) and afterward.

## 3.6.2 Gamma balance adjustment (Black Mode)

The gamma balance is adjusted by adjusting the density at the Black Mode. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)>

Color		Language	and screen		Itom to bo	
	Smooth	Detail	Smooth	Detail		Remarks
mode	(PS)	(PS)	(PCL)	(PCL)	adjusted	
Black	596-0	597-0	598-0	599-0	Low density	The larger the value is, the density of the item to be
	596-1	597-1	598-1	599-1	Medium density	adjusted becomes darker. Acceptable values: 0 to 255.
	596-2	597-2	598-2	599-2	High density	(Default: 128)

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes to be adjusted (language and screen) and press the [START] button.
- (3) Key in the value corresponding to the density area to be adjusted (0, 1 or 2) and press the [START] button.

0: Low density (L) 1: Medium density (M) 2: High density (H)

- (4) Key in the adjustment value. (To correct the value once keyed in, press [CLEAR] button.)
- (5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (6) For resetting the value, repeat step (2) to (5).
- (7) Let the equipment restart and perform printing job.
- (8) If the image density has not been attained, repeat step (1) to (7).

## 3.6.3 Color balance adjustment (Color Mode)

The color balance is adjusted by adjusting the density of each color. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

<adjustment mode<="" th=""><th>(05)&gt;</th><th></th></adjustment>	(05)>	
	(00)/	

	PS				PCL					
Color	600x6	600dpi	1200x	600dpi	600x6	600dpi	1200x	600dpi	Density	Remarks
	Smooth	Detail	Smooth	Detail	Smooth	Detail	Smooth	Detail		
	1010-0	1014-0	1018-0	1022-0	1026-0	1030-0	1034-0	1038-0	Low	The larger the
Yellow	1010-1	1014-1	1018-1	1022-1	1026-1	1030-1	1034-1	1038-1	Medium	value is, the
	1010-2	1014-2	1018-2	1022-2	1026-2	1030-2	1034-2	1038-2	High	darker the color
	1011-0	1015-0	1019-0	1023-0	1027-0	1031-0	1035-0	1039-0	Low	to be adjusted
Magenta	1011-1	1015-1	1019-1	1023-1	1027-1	1031-1	1035-1	1039-1	Medium	becomes.
	1011-2	1015-2	1019-2	1023-2	1027-2	1031-2	1035-2	1039-2	High	Acceptable
	1012-0	1016-0	1020-0	1024-0	1028-0	1032-0	1036-0	1040-0	Low	values: 0 to 255.
Cyan	1012-1	1016-1	1020-1	1024-1	1028-1	1032-1	1036-1	1040-1	Medium	(Default: 128)
	1012-2	1016-2	1020-2	1024-2	1028-2	1032-2	1036-2	1040-2	High	
Black	1013-0	1017-0	1021-0	1025-0	1029-0	1033-0	1037-0	1041-0	Low	
	1013-1	1017-1	1021-1	1025-1	1029-1	1033-1	1037-1	1041-1	Medium	
	1013-2	1017-2	1021-2	1025-2	1029-2	1033-2	1037-2	1041-2	High	

#### Note:

Be sure that this adjustment be made after performing "3.6.1 Automatic gamma adjustment".

<Procedure>

Procedure is same as that of "3.6.2 Gamma balance adjustment".

## 3.6.4 Adjustment of smudged/faint text

The smudged/faint text at the Black Mode is adjusted.

<Adjustment Mode (05)>

Language		Bemarks	
PS	PCL	- Hemaixs	
654	655	When the value increases, the smudged text is improved.	
		When the value decreases, the faint text is improved.	
		Acceptable values: 0 to 9 (Default: 5)	

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes to be adjusted and press the [START] button.
- (3) Key in the adjustment value. (To correct the value once keyed in, press [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (5) For resetting the value, repeat step (2) to (4).
- (6) Let the equipment restart and perform printing job.
- (7) If the desired image has not been attained, repeat step (1) to (6).

#### 3.6.5 Upper limit value at Toner Saving Mode

The upper limit value is adjusted at the Toner Saving Mode.

<Adjustment Mode (05)>

Black	Black mode Color mode					
<b>D</b> O	DOL	PS	PS	PCL	PCL	Remarks
P3	PCL	600x600dpi	1200x600dpi	600x600dpi	1200x600dpi	
664	665	1055	1056	1057	1058	The smaller the value is, the lighter
						the density of image becomes.
						Acceptable values: 0 to 255.
						(Default: 176)

<Procedure>

Procedure is same as that of "3.6.4 Adjustment of smudged/faint text".

## 3.6.6 Dot size adjustment in black printing

The dot size is adjusted in primary scanning direction in black printing.

<Adjustment Mode (05)>

Code	Remarks
663	The smaller the value is, the dot size becomes smaller.
	Acceptable values: 0 to 255. (Default: 255)

<Procedure>

Procedure is same as that of "3.6.4 Adjustment of smudged/faint text".

## 3.6.7 Maximum toner density adjustment to paper type

The maximum toner amount adhering to the paper can be controlled.

<Adjustment Mode (05)>

Code		Departure	Pomorko		
PS	PCL	Paper type	nelliaiks		
1046-0	1046-1	Plain paper	The smaller the value is, the toner amount adhered decreases of the		
1047-0	1047-1	Thick paper 1	high density area (ex. prevention of fusing offsetting, etc).		
1048-0	1048-1	Thick paper 2	Acceptable values: 0 to 255. (Default: Plain paper: 255, Thick paper 1:		
1049-0	1049-1	Thick paper 3	255, Thick paper 2: 255, Thick paper 3: 255, OHP film: 200)		
1050-0	1050-1	OHP film			

<Procedure>

Procedure is same as that of "3.6.2 Gamma balance adjustment".

#### Note:

The larger the value is, the more frequently fusing offsetting occurs.

## 3.6.8 Image processing: Gamma correction table all clearing

The state of calibration in color printing mode is initialized at the Setting Mode (08-597). This setting is to be performed when a defect occurs in "Automatic gamma adjustment (05-1000 to 1003)". The cause of defect is presumed as an image failure (jittering or uneven image density) at the patch chart for gamma adjustment.

## 3.7 Image Quality Adjustment (Scanning Function)

## 3.7.1 Gamma balance adjustment

The gamma balance at the Black Mode is adjusted by adjusting the density. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)> Original mode Item to be Gray Scale Black Black Black Remarks adjusted mode Text/Photo Text Photo The larger the value is, the density Low density 880-0 881-0 882-0 883-0 of the item to be adjusted becomes Medium density 880-1 881-1 882-1 883-1 darker. High density 880-2 881-2 882-2 883-2 Acceptable values: 0 to 255. (Default: 128)

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the code corresponding to the desired original mode and press the [START] button.
- (3) Key in the value corresponding to the density area to be adjusted (0, 1 or 2) and press the [START] button.

0: Low density (L) 1: Medium density (M) 2: High density (H)

- (4) Key in the adjustment value. (To correct the value once keyed in, press [CLEAR] button.)
- (5) Press the [ENTER] or [INTERRUPT] button to store the value in memory.  $\rightarrow$  The equipment goes back to the ready state.
- (6) For resetting the value, repeat step (2) to (5).
- (7) Let the equipment restart and perform scanning job.
- (8) If the desired image has not been attained, repeat step (1) to (7).

## 3.7.2 Density adjustment (Black Mode)

Adjusts the center density and the variation of density adjustment buttons.

<Adjustment Mode (05)>

Color		Original mode		Item to be	Demorika
mode	Text/Photo	Text	Photo	adjusted	Remarks
				Manual density	The larger the value is, the
	945	946	047	center value	darker the image becomes.
	040	040	047		Acceptable values: 0 to 255
					(Default: 128)
				Manual density	The larger the value is, the
	955	856	857	dark step value	darker the dark side becomes.
	655				Acceptable values: 0 to 255
Š					(Default: 20)
Bla	050	051	852	Manual density	The larger the value is, the
				light step value	lighter the light side becomes.
	650	1 60			Acceptable values: 0 to 255
					(Default: 20)
		861		Automatic density	The larger the value is, the
	960		060		darker the image becomes.
	000		002		Acceptable values: 0 to 255
					(Default: 128)

## <Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in a code and press the [START] button.
- (3) Key in an adjustment value (acceptable values: 0 to 255).(To correct the value once keyed in, press the [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (5) Let the equipment restart and perform scanning job.
- (6) If the desired image has not been attained, repeat step (1) to (5).

## 3.7.3 Background adjustment (Gray Scale Mode)

The adjustment level of background center value and the control of background adjustment button are adjusted.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
848	Center value	The larger the value is, the background becomes darker. The smaller the
		value is, the background becomes lighter.
		Acceptable values: 0 to 255 (Default: 128)
858	Dark step value	The larger the value is, the image of the "dark" steps becomes darker.
		Acceptable values: 0 to 255 (Default: 20)
853	Light step value	The larger the value is, the image of the "light" steps becomes lighter.
		Acceptable values: 0 to 255 (Default: 35)

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes and press the [START] button.
- (3) Key in the adjustment values. Acceptable values : 0 to 255. (To correct the value once keyed in, press [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (5) Let the equipment restart and perform scanning job.
- (6) If the desired image has not been attained, repeat step (1) to (5).

## 3.7.4 Background adjustment (Color Mode)

The adjustment level of background center value is adjusted. The control value of background adjustment button is automatically adjusted to the same level as the adjusted center value. For example, when the control value of background adjustment key ranges from 0 to 6, the background center value (-2 to +2) is used to be the range from 6 to 14 accordingly.



Code	Original mode	Remarks
1070	Text	The larger the value is, the background becomes lighter.
1071	Printed Image	Acceptable values: 0 to 50 (Default: 0)
1072	Photo	

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes and press the [START] button.
- (3) Key in the adjustment values. Acceptable values : 0 to 50. (To correct the value once keyed in, press [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (5) Let the equipment restart and perform scanning job.
- (6) If the desired image has not been attained, repeat step (1) to (5).

## 3.7.5 Judgment threshold for ACS

The judgment level is adjusted for the automatic identification of whether the original set on the glass is black or color. Namely, this is to adjust the judgment level used when "Auto Color" is selected at color modes. The adjustment is available for both the manually-set original and the original used with the RADF.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
1065	Judgment threshold for	The larger the value is, the more an original tends to be judged as black
	ACS when original is set	even at the Auto Color Mode. The smaller the value is, the more it tends
	manually	to be judged as color.
1066	Judgment threshold for	Acceptable values: 0 to 255 (Default: 70)
	ACS when original is set	
	on RADF	

<Procedure>

Procedure is same as that of "3.7.2 Density adjustment (Black Mode)".

## 3.7.6 Sharpness adjustment

If you want to make scan images look softer or sharper, perform the following adjustment. The adjustment can be made for each of the color modes and original modes independently.

<Adjustment Mode (05)>

Code	Color mode	Original mode	Contents
1086	Full Color	Text	• The larger the value is, the sharper the image becomes; while
1087		Printed Image	the smaller the value is, the softer the image becomes.
1088		Photo	• The smaller the value is, the less moire tends to appear.
840	Black	Text/Photo	The acceptable values are 0 to 31.
841		Text	The center value is 16.
842		Photo	However, 0 is equivalent to the center value.
843	Gray Scale	-	

#### Note:

You have to make adjustment by balancing between moire and sharpness.

#### <Procedure>

Procedure is same as that of "3.7.2 Density adjustment (Black Mode)".

## 3.7.7 Setting range correction

The values of the background peak / text peak in the range correction at the Black Mode can be switched to "varied" or "fixed" in the following codes.

If they are fixed, the range correction is performed with standard values.

The values of the background peak affects the reproduction of the background density and the values of the text peak affects that of the text density. <Adjustment Mode (05)>

Black						
Original mode		Gray Scale	Item to be adjusted	Remarks		
Text/Photo	Text	Photo				
825	826	827	828	Range correction for	The following are the default values set	
				original manually set	for each original mode.	
				on the original glass	Photo/Text: 12, Text: 12, Photo: 12,	
					Gray Scale: 12	
					Each digit stands for:	
					Ones place: Automatic density mode	
830	831	832	833	Range correction for	Tens place: Manual density mode	
				original set on the	The setting conditions possible are as	
				RADF	follows:	
					Background peak Text peak	
					1: fixed fixed	
					2: varied fixed	
					3: fixed varied	
					4: varied varied	

## <Procedure>

Procedure is same as that of "3.7.2 Density adjustment (Black Mode)".

## 3.7.8 Setting range correction (Adjustment of background peak)

The levels of the background peak for the range correction at the Black Mode can be set at the following codes.

<Adjustment Mode (05)>

Black		Grov Soolo	Itom to be adjusted	Pomorko		
Original mode		le	Gray Scale	nem to be adjusted	nemarks	
Text/Photo	Text	Photo				
835	836	837	838	Background peak for	When the value increases, the back-	
				range correction	ground (low density section) of the image	
				is not output.		
					Acceptable vales: 0 to 255	
					(Default: Text/Photo: 56, Text: 64,	
				Photo: 48, Gray Scale: 48)		

## <Procedure>

Procedure is same as that of "3.7.2 Density adjustment (Black Mode)".

### 3.7.9 Fine adjustment of black density

The density of black side on scanned image is adjusted at color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks
1075	Text	The larger the value is, the black side of the image becomes darker.
1076	Printed Image	Acceptable values: 0 to 4 (Default: 0)
1077	Photo	

#### Note:

Be careful for the value not to be too large since the gradation is reproduced worse in darker side.

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes and press the [START] button.
- (3) Key in the adjustment values. Acceptable values : 0 to 4. (To correct the value once keyed in, press [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (5) Let the equipment restart and perform scanning job.
- (6) If the desired image has not been attained, repeat step (1) to (5).

#### 3.7.10 RGB conversion method selection

The color space conversion method of image is decided at color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks			
1080	Text	0: sRGB	1: AppleRGB	2: ROMMRGB	3: AdobeRGB
1081	Printed Image	(Default: 0)			
1082	Photo				

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes and press the [START] button.
- (3) Key in the adjustment values. Acceptable values : 0 to 3. (To correct the value once keyed in, press [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
- (5) Let the equipment restart and perform scanning job.
- (6) If the desired image has not been attained, repeat step (1) to (5).

## 3.7.11 Reproduction ratio of primary scanning direction (black)

The reproduction ratio of primary scanning direction with the resolution other than 600 dpi is adjusted in Scanning Function for black image.

<adjustment< th=""><th>Mode (</th><th>(05)</th><th>)&gt;</th></adjustment<>	Mode (	(05)	)>
---	--------	------	----

Code	Remarks
884	When the value increases, the image is zoomed in. When the value decreases, the image is zoomed out. Acceptable values: 0 to 255 (Default: 128) * 0.1%/step

<Procedure>

Procedure is same as that of "3.7.2 Density adjustment".

## 3.7.12 Reproduction ratio of primary scanning direction (color)

The reproduction ratio of primary scanning direction with the resolution other than 600 dpi is adjusted in Scanning Function for color image.

<Adjustment Mode (05)>

Code	Remarks			
1060	When the value increases, the image is zoomed in.			
	When the value decreases, the image is zoomed out.			
	Acceptable values: 0 to 255 (Default: 128)			
	* 0.1%/step			

<Procedure>

Procedure is same as that of "3.7.2 Density adjustment".

## 3.8 High-Voltage Transformer Setting

## 3.8.1 General description

The high-voltage transformers (PS-HVT-350) supply high-voltage to the parts related to charging, development, transfer and drum cleaning.

The high-voltage transformer has the following high-voltage outputs.

- CH1: Main charger wire
- CH2: Main charger grid bias
- CH3: Color developer bias
- CH4: Black developer bias
- CH5: 1st transfer roller bias
- CH6: 2nd transfer roller bias
- CH7: Cleaning blade bias

## Note:

Make sure not to lose the data sheets which are attached to the high-voltage transformers. Use these sheets for the following setting.

Never move the fixed volumes of resistors since output adjustment is performed when the devices are shipped.

## 3.8.2 Setting at the replacement of high-voltage transformer

After replacing a high-voltage transformer, be sure to enter the data shown on the data sheets (main charger grid bias, color/black developer bias and 1st/2nd transfer roller bias) noted above according to the following procedure.

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the adjusting codes in the table below and press the [START] button.
- (3) Key in the adjusting value corresponding to each code on the attached sheets, and then press [ENTER] or [INTERRUPT].

<Adjustment Mode (05)>

Adjusting code	Item to be adjusted	Adjusting value
334	Main charger grid bias lower limit value	Refer to the data sheets
335	Main charger grid bias upper limit value	
338	Color developer bias lower limit value	
339	Color developer bias upper limit value	
372	Black developer bias lower limit value	
373	Black developer bias upper limit value	
250	1st transfer roller bias lower limit value	
251	1st transfer roller bias upper limit value	
252	2nd transfer roller bias lower limit value (+)	
253	2nd transfer roller bias upper limit value (+)	7

(4) Key in all the codes in the above table by repeating (2) and (3).

(5) Turn the power OFF.

## 3.9 Adjustment of the Scanner Section

## 3.9.1 Carriages

(1) Installing carriage wiresWhen replacing the carriage wires, refer illustrations below:

## [Front side]





Adjustment of the carriage wire tension is not necessary since a certain tension is applied to the carriage wires by the tension springs.

## Note:

Make sure the tension applied to the wire is normal.

- (2) Adjusting carriages-1 and -2 positions
  - a. Move the carriage-2 toward the exit side.
  - b. Loosen the screws fixing the front side pulley bracket, make the sections A and B of the carriage-2 touch with the inside of the exit side frame and screw them up.



c. Put the carriage-1 on the rail, make the sections C and D of it touch with the inside of the exit frame and screw up the front/rear side of the bracket to fix it.

## Note:

Make sure that the sections A and B of the carriage-2 touch with the exit side frame.



(3) Assembling carriage wires

Winding the wire around the wire pulley:

- a. Pull the Ø3 ball terminal located at the center of the wire into a hole on the wire pulley. One end of the wire with a hook attached comes to the outside.
- b. Wind the wires around the wire pulleys of the front and rear sides. The number of turns to be wound are as follows:
  - 2 turns toward the opposite side of the boss
  - 4 turns toward the boss side

## Notes:

Pay attention to the followings when the wires are wound around the pulleys:

- Do not twist the wire.
- Wind the wires tightly so that they are in complete contact with the surface of the pulleys.
- Each turn should be pushed against the previously wound turn so that there is no space between them.



c. After winding the wires around the pulleys, attach the wire holder jigs not to loosen the wires.

#### Notes:

- 1. When the wire holder jig is attached, make sure that the wire is not shifted or loosened.
- 2. The wire should come out of the slot of the wire holder jig and be passed under the arm of it.



Fig. 3-905

## 3.9.2 Lens unit

- (1) Replacing the lens unit
  - The lens unit must not be readjusted and some part of its components must not be replaced in the field since the unit is precisely adjusted. If any of the components is defective, replace the whole unit.
  - When replacing the unit, do not loosen or remove the 4 screws indicated with the arrows.





• Handle the unit with care. Do not hold the lens and adjusted part (hold the unit as shown below).



Fig. 3-907

(2) Installation of lens unit

Follow the procedure below when installing and replacing the lens unit.

<Procedure>

- 1. Attach the lens unit and fix it temporarily with 2 screws.
- 2. Match the center scale of the plate in which the unit is to be installed and the rightmost scale of the adjusting hole on the lens unit plate.



3. Tighten 5 screws securely to fix the lens unit while pushing it to the rear side and fix 2 ground wires with the screws.



## 3.10 Adjustment of the Paper Feeding System

## 3.10.1 Sheet sideways deviation caused by paper feeding

<Procedure>

· Bypass feeding

 The center of the printed image shifts to the front side. → Move the guide to the front side (Arrow (A) direction in the lower figure).



Fig. 3-1001

 The center of the printed image shifts to the rear side. → Move the guide to the rear side (Arrow (B) direction in the lower figure).





Drawer feeding



Fig. 3-1003



Fig. 3-1004

## 3.11 Adjustment of the Developer Unit

## 3.11.1 Doctor-to-sleeve gap (black developer unit)

Adjustment tool to use: Doctor-sleeve jig

#### Adjusting procedure:

- (1) Take off the black developer unit from the equipment.
- (2) Remove 2 screws and take off the developer material cover. Then discharge the developer material.



Fig. 3-1101

(3) Remove 2 screws and take off the doctor blade cover.



Fig. 3-1102



Fig. 3-1103

blade cover.

(4) Loosen 2 doctor blade fixing screws. Insert the gauge "0.55" of the doctor sleeve jig between the developer sleeve and doctor blade to adjust the gap, and tighten the screws. (5) Insert the gauge "0.50" of the doctor-sleeve jig into the gap between the developer sleeve and doctor blade and make sure that the gauge can move smoothly in the front/ rear direction. In addition, confirm that the gauge "0.60" cannot be inserted into the gap.



#### Fig. 3-1104

#### Notes:

- 1. When confirming and adjusting the gap between the developer sleeve and the doctor blade, insert the gauges into the gap after rotating the developer sleeve so that its marking faces the doctor blade.
- 2. While reattaching the black developer unit cover, set the latches securely.

#### 3.11.2 Doctor-to-sleeve gap (color developer unit)

Adjustment tool to use : Doctor-sleeve jig

Adjusting procedure:

- (1) Take off the color developer unit from the equipment.
- (2) Remove 2 screws and take off the developer material cover. Then discharge the developer material.



(3) Remove 4 screws and the toner-scattering prevention seal holder.



Fig. 3-1106

(4) Loosen 2 doctor blade fixing screws. Insert the gauge "0.55" of the doctor-sleeve jig between the developer sleeve and doctor blade to adjust the gap, and tighten the screws.

(5) Insert the gauge "0.50" of the doctor-sleeve jig into the gap between the developer sleeve and doctor blade and make sure that the gauge can move smoothly in the front/ rear direction. In addition, confirm that the gauge "0.60" cannot be inserted into the gap.







#### Notes:

- 1. When confirming and adjusting the gap between the developer sleeve and the doctor blade, insert the gauges into the gap after rotating the developer sleeve so that its marking faces the doctor blade.
- 2. While reattaching the color developer unit cover, set the latches securely.

## 3.12 Adjustment of the RADF (MR-3015)

## 3.12.1 Adjustment of RADF position

It is mainly performed at the installation. It is also required when the RADF is dislocated for some reason such as moving the equipment.

Remove the platen sheet during adjustment.

(1) Open the RADF and then attach 2 positioning pins to the equipment.
(The positioning pins have been attached at the rear of the right-hand hinge of the RADF.)





(2) Close the RADF to check that the positioning pins fit smoothly into the holes on the RADF.

If they do not, adjust them according to the following procedure.



(3) Loosen the stepped screw 1 turn and 2 screws on the adjustment plate a half turn (status of temporary fixing).





Fig. 3-1203

(4) Remove the stepped screw at the rear of right-hand hinge.



(5) Open the RADF, and then loosen 2 hand screws 1 turn (status of tentative fixing).

- (6) Remove the positioning pin at the front side. Close the RADF to fit the positioning pin into the hole at the rear side of the RADF. While peering inside from the front side, fit the positions of the pin and hole by moving the RADF right and left.
- (7) Tighten the positioning pin at the front side. Close the RADF to fit the positioning pin into the hole at the front side of the RADF. (For the front side, adjust the RADF position all around.)

Crew

Fig. 3-1205



Fig. 3-1206



Fig. 3-1207

- (8) While peering inside from the left side, close the RADF. Check the positions of the holes of the RADF and pins and then fit their positions by moving the RADF back and forth. (For the front side, also adjust the RADF position right and left.) Make sure not to dislocate the positions of the pin and hole at the rear side.
- (9) Open the RADF to tighten 2 hand screws. Close the RADF and then check again that the positioning pins fit smoothly into the holes on the RADF.

(10) Fit the hinge hole into the hole of the equipment at the rear right of the RADF to tighten the stepped screw. If they do not fit, adjust the position of the hole by turning the screw of the adjustment plate.



Fig. 3-1208



Fig. 3-1209



Fig. 3-1210



Fig. 3-1211

(11) Tighten the stepped screw and 2 screws on the adjustment plate.

Open and close the RADF to check again that the positioning pins fit smoothly into the holes on the RADF. Remove the positioning pins after checking it.

(Replace the positioning pins at the rear of the right-hand hinge of the RADF.)

(12) Place the platen sheet on the original glass with the semi round cutout toward you.Align the platen sheet against the left and rear side of the original glass. Close the RADF slowly. Open the RADF to check that the platen sheet is correctly attached.



Fig. 3-1212

## 3.12.2 Adjustment of RADF height

It is mainly performed at the installation. It is also required when the RADF is dislocated for some reason such as moving the equipment.

Perform the following adjustment by using the screw of the left and right hinge.

## Note:

Perform this adjustment after "3.12.1 Adjustment of RADF position". Turn the exposure lamp ON during the gap check. (Test Mode: 03-267)

## Adjustment standard:

Adjust the height so that the platen guide front holder touches the ADF original glass. Adjust the height so that the gap between the platen guide rear holder and the ADF original glass becomes 0.5 mm  $\pm$  0.3.





Adjust the height by turning the height adjusting screw on the left hinge.

Clockwise: The height of the hinge becomes high. Counterclockwise: The height of the hinge becomes low.



Adjust the height by turning the height adjusting screw on the right hinge.

Clockwise: The height of the hinge becomes high. Counterclockwise: The height of the hinge becomes low.



Fig. 3-1215

## 3.12.3 Adjustment of skew

When an image skew occurs, adjust it according to the following steps, Step 1  $\rightarrow$  Step 2  $\rightarrow$  Step 3.

#### Note:

Perform this adjustment after confirming that the equipment has been adjusted properly. Prior to this adjustment, of RADF position and height are needed to be adjusted.

#### Step 1

Case A: Adjust the aligning adjustment position to the rear side "-" of the original ( > Chapter 3.12.5).

Case B: Adjust the aligning adjustment position to the rear side "+" of the original (► Chapter 3.12.5).



White arrow: feeding direction

Step 2

- Case C: Loosen the fixing screw and hand screw of the right side hinge and then turn the adjustment screw counterclockwise.
- Case D: Loosen the fixing screw and hand screw of the right side hinge and then turn the adjustment screw clockwise.

#### Note:

When adjusting, refer to the hinge position (scribed line) and be sure not to move it from the hinge position  $\pm 0.5$  mm or further. Otherwise, image failures such as a jitter may occur.



Step 3

- Case E: Adjust the reverse aligning adjustment position to the rear side "-" of the original (► Chapter 3.12.6).
- Case F: Adjust the reverse aligning adjustment position to the rear side "+" of the original (► Chapter 3.12.6).



## 3.12.4 Automatic adjustment of sensors and initialization of EEPROM

When any of the PC board, original length sensor, read sensor, reverse sensor is replaced with a new one, make sure to perform the initialization of EEPROM and adjustment of sensors in the Adjustment Mode (05).

Perform them after removing all originals on the sensor and closing the RADF.

Also, make sure to adjust the tray volume when the initialization of EEPROM and automatic sensor adjustment have been performed.

Refer to "2.2.4 Adjustment Mode (05)" for the details.

Errors such as paper jamming may occur if the EEPROM is not initialized and the sensors are not adjusted after the above mentioned parts were replaced.
# 3.12.5 Adjustment of aligning

Adjust the aligning according to Step 1 of 3.12.3.



Fig. 3-1220

# 3.12.6 Adjustment of aligning at reversing

Adjust the aligning according to Step 3 of 3.12.3.



Fig. 3-1221

#### 3.12.7 Adjustment of reverse solenoid

When operating the reverse solenoid, adjust it if the position of the flapper lever is out of the following dimension.

Gap between A of the front frame and the flapper lever "C": 0.5 mm to 2.0 mm

#### Adjusting procedure

 Remove the screw on the left and take off the plate spring.

(2) Align B of the front frame with the edge of the reverse solenoid, and temporarily fix the reverse solenoid with the screw on the right.



Fig. 3-1222



(3) While the plunger of the reverse solenoid is put in the position to be turned ON (by pressing it in the direction of an arrow), loosen the screw on the right to adjust the reverse solenoid so that the gap (C) between A of the front frame and the flapper lever is 0.5 mm to 2.0 mm.



Fig. 3-1224

(4) Fix the plate spring temporarily with the screw on the left. Then press the plate spring slightly in the direction of an arrow and tighten the screw in the position where the gap (D) between the plunger and the flapper lever is eliminated.



Fig. 3-1225

# 3.12.8 Adjustment of RADF opening/closing switch

Adjust the bracket position so that the switch is turned ON when the height A becomes 40-45 mm (within the empty weight falling limit).



Fig. 3-1226

# 3.12.9 Adjustment of RADF opening/closing sensor

Adjust the bracket position so that the sensor is turned ON when the height A becomes 30-35 mm (within the empty weight falling limit).



Fig. 3-1227

#### 3.12.10 Adjustment of tray volume

Adjust in the adjustment mode (05).

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Narrow the original guide to the limit.
- (3) Input the code "367".
- (4) Press the [START] button.



Fig. 3-1228

- (5) Extend the original guide to the limit.
- (6) Input the code "368".
- (7) Press the [START] button
- (8) Turn the power OFF.



Fig. 3-1229

# 3.13 Adjustment of the Finisher (MJ-1022)

#### 3.13.1 Adjusting the jogging plate width

- (1) Remove the right inner cover and the rear cover.
- (2) Adjust the front jogging plate to the home position.
  - (1) Set SW1 on the finisher controller PC board as shown in Fig. 3-1301.
  - (2) Press SW2 twice on the finisher controller PC board.
  - The front jogging plate moves to the home position.
- (3) Adjust the rear jogging plate to the home position.
  - (1) Set SW1 on the finisher controller PC board as shown in Fig. 3-1302.
  - (2) Press SW2 twice on the finisher controller PC board.
  - The rear jogging plate moves to the home position.



Fig. 3-1301



Fig. 3-1302

Rear jogging plate home position



Fig. 3-1303

- (4) Measure the jogging width (standard at 317 mm).
- (5) Remove the processing tray.
- (6) Loosen the screw on the home position sensor plate at the front.





(7) Adjust the position of the front jogging plate home position sensor (S6) with reference to the index.

EX. 1

If the width is 319 mm in step (2), the difference from the standard is +2 mm, it requires relocation of the sensor [3] in the direction of arrow A by 2 mm.

# EX. 2

If the width is 316 mm in step (2), the difference from the standard is -1 mm; it requires relocation of the sensor [3] in the direction of arrow B by 1 mm.



Fig. 3-1305

#### 3.13.2 Adjusting the angle of the jogging plate

 Without removing the processing tray unit, loosen the 2 mounting screws of the rear jogging plate.



(2) Place several sheets of A4/LT paper on the processing tray, and adjust the rear jogging plate. (At this time, adjust the gap between the paper and the front end of the rear jogging plate so that it is 0 mm to 0.5 mm.)



(3) With reference to the rear jogging plate adjusted in step (2), adjust the front jogging plate in the same manner.

#### 3.13.3 Adjusting the overlap of the sensor flag

If the overlap between the sensor and the flag is wrong for some reason, perform the following adjustment.

- (1) Remove the processing tray unit.
- (2) Loosen the mounting screw of the front/rear jogging plate adjusting plate; then, move the adjusting plate to the left and the right.



Fig. 3-1308

(3) Tighten the screw so that the overlap between the flag of the front/rear jogging rack plate and the sensor is 1.5 mm to 2.0 mm.



Fig. 3-1309

#### 3.13.4 Adjusting the tension of the stack processing motor belt

- (1) Remove the right inner cover and the rear cover.
- (2) Remove the 2 mounting screws, and detach the grip unit.



Fig. 3-1310

(3) Loosen the screw on the tension arm plate.(The tension arm plate will be pulled under tension by the tension spring.)



Fig. 3-1311

(4) Move the returning roller shaft to its lower limit (the slack of a belt is lightly taken); then, tighten the screw on the tension arm plate.



Fig. 3-1312

(5) Check to make sure that the returning roller shaft moves smoothly.



Fig. 3-1313

#### 3.13.5 Releasing the stack tray guide lever fixing plate

- (1) Remove the right inner cover and the rear cover.
- (2) Remove the finisher control PC board, PC board bracket and sensor PC board.
- (3) Remove the stack tray.
- (4) Remove the stack tray drive unit.
- (5) Place the stack tray guide lever fixing plate so that it is in view through the hole in the side plate (front, rear). Then remove the fixing screw. (Perform the same for the front and the rear.)

#### Note:

When removing the mounting screw, be sure to hold the stack tray guide lever up from below.



fixing plate





Fig. 3-1315

#### 3.13.6 Adjustment of the upper tray angle

(1) Remove the front cover.



Fig. 3-1316

(2) Loosen the screw denoted with the arrow.



Fig. 3-1317

(3) The tension becomes loose. While pushing the bracket down, hold the tray and move it up or down, to adjust the angle so that the tray becomes parallel by a visual check.



Fig. 3-1318

(4) After the height adjustment, tighten the fixing screw of the bracket.

#### Note:

If the fixing screw of the bracket is not fixed, the belt is loosened which may cause a skipped tooth.



Fig. 3-1319

## 3.13.7 DIP switch functions

You can simulate various functions by setting the DIP switch (SW1) on the finisher controller PC board appropriately.

## Initiating Operations

- 1) Remove any obstacles from the area of operation.
- 2) Set the DIP switch (SW1) as shown, and turn ON the power (so that LED1 will start to blink).
- 3) Press the pushing switch (SW2) twice to initiate the operation in question. (LED2 will remain on during operation).

Setting	Item	C	To stop		
	Delivery motor	The delivery roller rotates in a specific		Press SW2 again.	
		speed.		Turn OFF the joint	
1 2 3 4 5 6 7 8				sensor (S4).	
	Stack processing	The stack delivery lever moves to its		Turn OFF the joint	
	motor (stack	home position ar	home position and stops.		
1 2 3 4 5 6 7 8	delivery lever)				
	Stack processing	The returning roll	ler moves to the home	Turn OFF the joint	
	motor	position and stop	IS.	sensor (S4).	
1 2 3 4 5 6 7 8	(returning roller)				
	Front jogging plate	When not at the	The front jogging plate	Turn OFF the joint	
	motor	home position	moves to its home	sensor (S4).	
1 2 3 4 5 6 7 8			position and stops.		
		When at the	The front jogging plate	Turn OFF the joint	
		home position	moves over a specific	sensor (S4).	
			position and stops at		
			the home position.		
	Rear jogging plate	When not at the	The rear jogging plate	Turn OFF the joint	
	motor	home position	moves to the home	sensor (S4).	
1 2 3 4 5 6 7 8			position and stops.		
		When at the	The rear jogging plate	Turn OFF the joint	
		home position	moves over a specific	sensor (S4).	
			distance and stops.		
ON	Upper stack tray	The upper stack tray moves up and		Press SW2 again.	
	motor (up)	stops when the upper stack tray upper		Turn OFF the joint	
1 2 3 4 5 6 7 8		limit sensor turns ON.		sensor (S4).	
	Upper stack tray	The upper stack tray moves down and		Press SW2 again.	
	motor (down)	stops when the lo	Turn OFF the joint		
1 2 3 4 5 6 7 8		limit sensor turns	sensor (S4).		

Setting	Item	Operation	To stop	
	Lower stack tray	The lower stack tray moves up and stops	• Press SW2 again.	
	motor (up)	when the lower stack tray upper limit	Turn OFF the joint	
1 2 3 4 5 6 7 8		sensor is turned ON.	sensor (S4).	
	Lower stack tray	The lower stack tray moves down and	Press SW2 again.	
	motor (down)	stops when the lower stack tray lower	Turn OFF the joint	
1 2 3 4 5 6 7 8		limit sensor is turned ON.	sensor (S4).	
	Stapler motor	The stapler motor stops after the stapling	• Press the stapler	
		operation.	safety switch (S14).	
1 2 3 4 5 6 7 8			<ul> <li>Turn OFF the joint</li> </ul>	
			sensor (S4).	
	Shipping position	The upper and lower stack trays move to	Turn OFF the joint	
	operation	the shipping position and stop.	sensor (S4).	

## Note:

Perform the shipping position operation when the finisher is packed again.

# 3.14 Adjustment of the Finisher (MJ-1023/1024)

## 3.14.1 Adjusting the alignment position (Finisher unit)

Perform this adjustment after replacing the finisher controller PC board or when the alignment position must be changed for some reason.

- (1) Remove the rear cover of the finisher unit.
- (2) Check that the power is OFF and set SW104 on the finisher controller PC board as follows according to the paper used for adjustment.





- (3) Turn ON the power.
- (4) Press SW103 on the finisher controller PC board.
  - When SW103 is pressed, the swing guide opens and the alignment plate moves to prescribed position.
- (5) Place ten sheets of A4/LT paper between the alignment plates and push them against the stopper.
- (6) Press SW101 or SW102 on the finisher controller PC board and push the alignment plate against the paper.
  - When SW101 is pressed, alignment plate moves 0.42 mm forward.
  - When SW102 is pressed, alignment plate moves 0.42 mm backward.
- (7) When adjustment is complete, remove paper and press SW103 on the finisher controller PC board once to store the adjustment in memory.
- (8) Turn OFF all bits of finisher controller PC board SW104.
- (9) Turn OFF the power and install the rear cover of the finisher unit.

# 3.14.2 Adjusting the staple position (Finisher unit)

Perform this adjustment after replacing the finisher controller PC board or when the staple position must be changed for some reason. This adjustment adjusts the front/rear stitches with A4/A4-R when the paper used for adjustment is AB type and with LT/LT-R when the paper is INCH type.

- (1) Remove the rear cover of the finisher unit.
- (2) Check that the power is OFF and set SW104 on the finisher controller PC board as follows according to paper/stitch position used for adjustment.





- (3) Turn ON the power.
- (4) Press SW103 on the finisher controller PC board.
  - When SW103 is pressed, the swing guide opens and the alignment plate moves to prescribed position.
- (5) Place a sheet of paper between the alignment plates. Push it against the stopper and push the rear edge of the paper against the rear alignment plate. If the gap between the front alignment plate and front edge of the paper is 1 mm or greater, stop the staple position adjustment and repeat the staple position adjustment after completing alignment plate adjustment.
- (6) Press SW103 on the finisher controller PC board once to staple. However, remove the stapled paper manually because the paper is not ejected. Press SW103 on the finisher controller PC board once again.

- (7) Verify the staple position. If any adjustment is needed, proceed to the step 8). If no adjustment is needed, proceed to the step 9).
- (8) Press SW101 or SW102 on the finisher controller PC board to adjust the staple position.
  - When SW101 is pressed, the staple position shifts 0.49 mm to the front side.
  - When SW102 is pressed, the staple position shifts 0.49 mm to the rear side.

Repeat the steps 5) to 7).

- (9) After confirming that the staple position is adjusted correctly, place a sheet of paper between the alignment plates and push it against the stopper and push the rear edge of the paper against the rear alignment plate. Then press SW103 once. (Stapling is performed and the adjustment value is stored in memory.)
  - The staple position adjustment is completed.
- (10) Turn OFF all bits of SW104 on the finisher controller PC board.
- (11) Turn OFF the power and install the rear cover of the finisher unit.

## 3.14.3 Adjusting the folding position (Saddle stitcher unit)

The folding position is adjusted by changing setting of bits 6 through 8 of SW504 on the saddle stitcher controller PC board to match the stitching position (adjusting the distance over which the paper positioning plate is moved to the folding position from the stitching position).

If you have replaced the saddle stitcher controller PC board, be sure to set the new SW504 so that the settings will be the same as those on the old SW504. Perform this adjustment if, for any reason, you must change the folding position.

- (1) Check that the power is OFF and separate the finisher from the host machine. If the optional puncher unit is installed, remove it from the finisher.
- (2) Remove the PC board cover and set bits 1 through 4 of SW504 on the saddle stitcher controller PC board as follows:



Do not change bits 5 through 8. Fig. 3-1403

- (3) Remove the rear cover, open the inlet cover of the saddle stitcher unit and tape the actuator of inlet cover sensor (PI9) and inlet door switch (SW1).
- (4) Before inserting the paper, mark the top of the paper. You will be using two sheets of A3 or LD paper.



- (5) Turn ON the power.
- (6) Press SW1 on the saddle stitcher controller PC board so that the feed motor (M1) starts to rotate.
   (Press SW1 three seconds or more if LD paper is used.)
- (7) Open the inlet cover and insert two sheets of paper. Push them in by hand until the front edge of the sheets push against the paper positioning plate.
- (8) Close the inlet cover.
- (9) Press SW1 on the saddle stitcher controller PC board.
  - The saddle stitcher unit will "stitch" the sheets, and fold and deliver the stack automatically.
- (10) Measure the distance (L) between the stitching position and the folding position. Then perform "positive width adjustment" or "negative width adjustment" to suit the relationship between the stitching position and the folding position.
  - If the stitching position is below the folding position, perform "positive width adjustment."
  - If the stitching position is above the folding position, perform "negative width adjustment."



Fig. 3-1405

- (11) Change the settings of bits 6 through 8 on SW504 referring to the following table.
  - If the width adjustment is 0
     The stitching position and the folding position match, requiring no change.
  - If for "positive width adjustment" Set SW504 so that the difference resulting from subtraction of the interval from the appropriate setting in the table below is provided.

Example: If SW504 is currently set to +2 and the interval is +1 mm, set SW504 to reflect - 2.

 If for "negative width adjustment" Set SW504 so that the sum resulting from addition of the interval from the appropriate setting in the table below is provided.

Example: If SW504 is currently set to -1 and the interval is -0.5mm, set SW504 to reflect +1.

DIPSW1 bit settings		Setting	
Bit 6	Bit 7	Bit 8	(in units of 0.5 mm)
OFF	ON	ON	+3
OFF	ON	OFF	+2
OFF	OFF	ON	+1
OFF	OFF	OFF	0
ON	OFF	ON	-1
ON	ON	OFF	-2
ON	ON	ON	-3

Do not use the following setting				
Bit 6 Bit 7 Bit 8				
ON	OFF	OFF		

(12) Set SW504 bits 1 to 4 to OFF.

## 3.14.4 Fine adjustment of binding/folding position (Saddle stitcher unit)

The binding position/folding position can be adjusted in the following (05) codes.

Code	Paper size	Remarks
468-0	A4-R / LT-R	When the value increases, the binding/folding position shifts toward
468-1	B4	the right page. (0.25mm/step)
468-2	A3 / LD	Acceptable values: -14 to 14 (Default: 0)

Increase the adjustment value when the sheet of paper which has exited is "A". Decrease the adjustment value when the sheet of paper which has exited is "B".

A: When the upper side of the folding is longer than the lower side



← Paper feeding direction

Fig. 3-1406

B: When the upper side of the folding is shorter than the lower side



← Paper feeding direction

## 3.14.5 Sensor output adjustment (Puncher unit)

Perform this adjustment when replacing the punch controller PC board, transmittance sensor (photosensor PC board/LED PC board), or deflection sensor (scrap full detector PC board unit).

- (1) Check that the power is OFF and then remove the rear cover of the puncher.
- (2) Set SW601 on the punch controller PC board as shown below.



Fig. 3-1407

- (3) Turn ON the power.
- (4) Press SW602 on the punch controller PC board. Sensor output is adjusted automatically when the switch is pressed.
  - Adjustment is complete if LED601 and LED602 on the punch controller PC board blinks alternately.
- (5) Press SW602 or SW603 on the punch controller PC board to end the adjustment mode and set all bits of SW601 to OFF.
- (6) Turn OFF the power.

## 3.14.6 Registering the number of punch holes (Puncher unit)

This operation registers which puncher unit is attached to the IC on the punch driver PC board so that the puncher unit can be identified by the finisher. For this reason, this operation must be performed when the punch driver PC board has been replaced.

- (1) Check that the power is OFF and then remove the rear cover of the puncher.
- (2) Set SW601 on the punch controller PC board as shown below.



Fig. 3-1408

- (3) Turn ON the power.
- (4) Press SW602 on the punch controller PC board to select the number of punch holes.
  - The items in the following table are displayed repeatedly from top to bottom each time SW602 is pressed.

Number of punch holes	LED601/LED602
2 hole (E)	Blinks 1 times per cycle
2/3 hole (N)	Blinks 2 times per cycle
4 hole (F)	Blinks 3 times per cycle
4 hole (S)	Blinks 4 times per cycle

- (5) Press SW603 on the punch controller PC board. The number of punch holes is registered to the punch controller PC board each time the switch is pressed.
  - Registration is complete if LED601 and LED602 on the punch controller PC board blinks alternately.
- (6) Press SW602 or SW603 on the punch controller PC board to end the adjustment mode and set all bits of SW601 to OFF.
- (7) Turn OFF the power.

# 3.15 Key Copy Counter (MU-8, MU-10)

To make a key copy counter available, the following 2 components must be installed to the equipment.



Fig. 3-1501

<Installation procedure>

- (1) Take off the right upper cover.
- (2) Open the bypass tray, ADU, jam access cover and fuser unit cover. Take off the IH terminal cover.
- (3) Take off the right rear cover, and cut open the window for the key copy counter.



(4) Pull out the harness connector from the hole of the machine frame, and cut the short harness of the connector. (Treat the cut harness properly to avoid it causing a short circuit with the machine frame.) Then, disconnect the dummy connector.



- (5) Connect the connector of the counter socket to the harness connector of the equipment side.
- (6) Install the counter socket to the machine frame with two M3 screws.
- (7) Reattach the covers.
- (8) Insert the key copy counter with its arrow mark pointing the rear side of the equipment.







Fig. 3-1505

(9) Key in the value "3" in the setting mode (08-222).

# 3.16 Adjustment of Transfer Belt Deviation

## 3.16.1 Outline

If any transfer belt deviation (See 3.16.2) occurs when the equipment is installed, moved to another place or the transfer belt is replaced, perform this adjustment.

# 3.16.2 Transfer belt deviation

Transfer belt deviation means that the transfer belt is not in the following normal condition. Check the equipment and if the transfer belt does not conform to the conditions described below, perform the adjustment according to the adjustment procedure of 3.16.3.

(1) Open the 2nd transfer unit and check the gaps between both ends of the transfer belt and the regulation plates. They should be 0.2 mm or more.



Fig. 3-1601

(2) The gaps remain the same after the transfer belt has been rotated for 3 minutes or more. (The belt should not be dislocated to the front or rear side.)

#### 3.16.3 Adjustment procedure

- (1) Check if there is no abnormality in the installation of the equipment.
- (2) Take off the drum cleaner unit.
- (3) Take off the black developer unit.
- (4) Turn the releasing lever clockwise to lower the transfer belt unit.
- (5) Tighten 2 screws that were loosened when the drum cleaner unit was taken off.

Fig. 3-1602



Fig. 3-1603



Fig. 3-1604

(6) Tighten 2 screws.

- (7) Loosen 2 screws that were tighten in step(6).
- (8) Loosen 1 screw and turn the adjustment fixing bracket in the direction of an arrow.



Fig. 3-1605

- (9) Turn the adjustment screw. Since this is a hex-head screw, turn it based on each face of the hex head.
  - If the transfer belt contacts with the rear regulation plate or the gap between the transfer belt and the rear regulation plate is less than 0.2 mm, rotate the adjustment screw clockwise (viewing from below) five-sixth turn.



Fig. 3-1606

• If the transfer belt contacts with the front regulation plate or the gap between the transfer belt and the rear regulation plate is less than 0.2 mm, rotate the adjustment screw counterclock-wise (viewing from below) five-sixth turn.



Fig. 3-1607

#### Note:

- Do not rotate the adjustment screw counterclockwise (viewing from below) 2.5 turns or more. The screw may come off.
- Before turning the adjustment screw, make a mark on the reference face and a note of the turning direction of the screw and the number of turning faces. These preparations make the adjustment efficient.
- To readjust the screw according to the result of step (13), follow the turns in the list blew.

Number of adjustment	1st	Readjustment	2nd	3rd	4th
Number of turns	5/6 turn	Result A	5/6 turn	5/6 turn	-
		Result B	2/6 turn	1/6 turn	1/6 turn

(10) Turn the adjustment screw fixing bracket in the direction of an arrow and tighten 1 screw.

Install the fixing bracket so that the adjustment screw is caught by the fixing bracket. (The side face of the fixing bracket and the screw head



Fig. 3-1608



Fig. 3-1609





- While pressing the [0] and [3] button, turn the power ON.
- Key in the code [103] and press the [START] button. (The main motor rotates.)
- Key in the code [151] 3 minutes later and press the [START] button. (The main motor stops.)

(11) Tighten 2 screws.

become parallel.)

Note:

- (13) Open the 2nd transfer unit cover to check the transfer belt deviation. (See 3.16.2) After the checking, continue the adjustment according to the following items A to C.
  - Result A

The direction of the transfer belt deviation is the same as before the adjustment and the gap is 0.2 mm or less:

Return to step (7) to readjust it. If the same result is obtained after adjusting it 3 times, replace the transfer belt unit.

Result B

The direction of the transfer belt deviation moves to the opposite side and the gap is 0.2 mm or less:

Return to step (7) to readjust it. The rotation amount of the adjustment screw should be twosixth turn because the one in step (9) is for the 2nd adjustment. If the adjustment is performed 3 times or more, it should be one-sixth turn.

Result C

Neither Result A nor B:

Go to the next step (14).

(14) Install the drum cleaner unit and the black developer unit (do not connect 2 connectors of the black developer unit), and then perform step (12).

# Note:

Be sure to disconnect 2 connectors of the black developer unit in advance.

(15) Open the 2nd transfer unit cover to check the transfer belt deviation. (See 3.16.2) If no problem is found, go to step (16).

If any problem is found, perform steps (2) to (11) and (14). At this time, the rotation amount of the adjustment screw should be one-sixth turn.

(16) Connect the connector of the black developer unit and install all covers to complete the adjustment.

# 4. PREVENTIVE MAINTENANCE (PM)

# 4.1 PM Support Mode

# 4.1.1 General description

The timing for the parts replacement usually depends on the number of output pages / develop counts after they were replaced before. However, the life span of them changes depending on the general use of users and the environment in which the equipment is placed. Therefore, it is necessary to consider not only the number of output pages but also the drive counts when deciding the timing for the parts replacement in order to utilize the parts and materials effectively.

In addition, the drum rotates 4 times at color modes to transfer the images of 4 colors on the transfer belt, overlaying one after another. Therefore, the number of output pages is counted as "4" for 1 page for printing at color mode.

This equipment has the PM support mode, which makes it possible to see the general use of each part (the number of output pages, develop counts and drive counts) and replacement record and to do a counter clearing operation more efficiently when replacing.

The replacement record can be printed out in the list printing mode (9S-103).

# 4.1.2 Operational flow and operational screen

## (1) Operational flow



\* The screen goes back to the main screen when the counter clear is performed or the [CANCEL] button is pressed after moving from the main screen, while it goes back to the sub screen after moving from the sub screen.

Fig. 4-101

#### (2) Operational screen

(a) Main screen (10) (9) 100% CHECK SUBUNIT OUTPUT PAGES(k) PM OUTPUT PAGES(k) MAIN UNIT DRIVE COUNTS(k) PM DRIVE COUNTS(k) /DEVELOP COUNTS(kb) /DEVELOP COUNTS(kD) 487k (1)1st TRANSFER 0.0k 🗆 150k 0.0k 140k nd. TRANSFER FUSER 0.0k 80k lst CST \_ 2nd CST 0.0k 80k \_ \_ SUB UNIT Next Prev **RETURN** RESET (2) 3  $\overline{(7)}$ (8) (4) (5) (6)



- (1) Displaying of the main unit name
- (2) Back to the PM support mode activation screen
- ③ Clearing of the chosen unit counters (all the sub unit (parts) counters belonging to that unit) All counters are cleared when the unit is not selected
- (4) Moving to the sub screen
- (5) Moving to the next/previous page
- 6 Displaying of the standard number of output pages / develop counts (x1,000) to replace the unit parts
- (7) Displaying of the present drive counts (x1,000)

"\*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

- (8) Displaying of the standard number of drive counts (x1,000) to replace the unit parts
- (9) Displaying of the present number of output pages/develop counts (x1,000) When there are differences among the sub units (parts), "\_" is displayed and "CHECK SUBUNIT" is displayed at the top

"\*" is displayed next to the present number when the number of output pages or develop counts has exceeded its PM standard number.

Displaying of the number of output pages / develop counts (Page/D. cnt), drive counts (Cnt.) and previous replacement date (Chg.) for a chosen unit
 When the replacement date for the sub unit is different, press the [SUB UNIT] button to move to the sub screen and see each information, otherwise information is not displayed

#### Notes:

- 1. "—" is always displayed at the drive counts section for the reversing automatic document feeder (RADF) and feed unit.
- 2. "—" is displayed at the numeric section for the paper source which is not installed since the paper source is different depending on the structure of options.
#### (b) Sub screen

	Ť				
	100% 2				
	Page/D.Cnt. 24 Cnt. 🚽	3 Chg0000,	/00/00		
	SUB UNIT	OUTPUT PAGES(k) /DEVELOP COUNTS(kD)	PM OUTPUT PAGES(k) /DEVELOP COUNTS(kD)	DRIVE COUNTS(k)	PM DRIVE COUNTS(k)
(1)-	FUSER BELT	0.0k	150k	0.0k	209k
$\bigcirc$	PRESS ROLL	0.0k	150k	0.0k	209k
	OIL ROLL	0.0k	150k	0.0k	209k
	CLEANING ROLL	0.0k	150k	0.0k	209k
	PRESS ROLL FINGER	0.0k	150k	0.0k	209k
	(RETURN RESET	Next			
		4 5	6	7	8



- (1) Displaying of the sub unit (parts) name
- (2) Back to the main screen
- (3) Clearing of the chosen sub unit (parts) counters

(9)

- (4) Moving to the next/previous page
- (5) Displaying of the present number of output pages / develop counts (x1,000) "\*" is displayed next to the present number when the number of output pages or develop counts has exceeded its PM standard number.
- Displaying of the standard number of output pages / develop counts (x1,000) to replace the sub unit (parts)
- (7) Displaying of the present drive counts (x1,000)

"\*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

- (8) Displaying of the standard number of drive counts (x1,000) to replace the sub unit (parts)
- ③ Displaying of the number of output pages, develop counts and drive counts and previous replacement date for a chosen sub unit

#### (c) Clear screen

100%		2		
Page/D.Cnt.	24	Cnt.	3 (	Chg0000/00/00
CANCEL				
		(1)		



(1) When the [INITIALIZE] button is pressed, "Present number of output pages/develop counts" and Present driving counts" are cleared and "Previous replacement date" is updated.

(3) Access tree

# Note:

The name inside [ ] is displayed on the LCD screen.

<u>Main screen</u>	Sub screen
— Drum/cleaner unit ——— [CLEANER/DRUM]	—— Drum [DRUM] — Drum cleaning blade [DRUM BLADE] — Drum cleaner brush [DRUM BRUSH]
— Main charger unit ——— [MAIN CHARGER]	—— Main charger grid [GRID] — Main charger wire [MAIN CHARGER WIRE] — Main charger wire pad [WIRE CLEANING PAD]
— Ozone filter ——— [FILTER]	Ozone filter [OZONE FILTER]
— Black developer unit ——— [BLACK DEVELOPER]	—— Developer material K [BLACK DEVELOPER]
— Color developer unit ——— [COLOR DEVELOPER]	Developer material Y [YELLOW DEVELOPER] Developer material M [MAGENTA DEVELOPER] Developer material C [CYAN DEVELOPER]
— Transfer belt unit ——— [1st TRANSFER]	<ul> <li>1st transfer roller [1st TRANSFER ROLLER]</li> <li>Transfer belt [TRANSFER BELT]</li> <li>Transfer belt cleaning blade [BELT BLADE]</li> </ul>
— 2nd transfer roller unit——— [2nd TRANSFER]	2nd transfer roller [2nd TRANSFER ROLLER]

	– Fuser unit – [FUSER]	Fuser belt [FUSER BELT] Pressure roller [PRESS ROLLER] Oil roller [OIL ROLLER] Cleaning roller [CLEANING ROLLER] Separation finger [PRESS ROLLER FINGER] Fuser belt guide [BELT GUIDE] Scraper [PRESS ROLLER SCRAPER]
	– Upper drawer [1st CST.]	Pickup roller [PICK UP ROLLER(1st CST.)] Feed roller [FEED ROLLER(1st CST.)] Separation roller [SEP ROLLER(1st CST.)]
	– Lower drawer [2nd CST.]	Pickup roller [PICK UP ROLLER(2nd CST.)] Feed roller [FEED ROLLER(2nd CST.)] Separation roller [SEP ROLLER(2nd CST.)]
	– Bypass unit –––––––––––––––––– [SFB]	Pickup roller [PICK UP ROLLER(SFB)] Feed roller [FEED ROLLER(SFB)] Separation roller [SEP ROLLER(SFB)]
_	– RADF ––––––––––––––––––––––––––––––––––––	Pickup roller [PICK UP ROLLER(RADF)] Feed roller [FEED ROLLER(RADF)] Separation roller [SEP ROLLER(RADF)]
	– LCF – [LCF]	Pickup roller [PICK UP ROLLER(LCF)] Feed roller [FEED ROLLER(LCF)] Separation roller [SEP ROLLER(LCF)]
	– PFP upper drawer [3rd CST.]	Pickup roller [PICK UP ROLLER(3rd CST.)] Feed roller [FEED ROLLER(3rd CST.)] Separation roller [SEP ROLLER(3rd CST.)]
	<ul> <li>PFP lower drawer</li> <li>[4th CST.]</li> </ul>	Pickup roller [PICK UP ROLLER(4th CST.)] Feed roller [FEED ROLLER(4th CST.)] Separation roller [SEP ROLLER(4th CST.)]

# Note:

When the counter value of any of the pickup roller, feed roller and separation roller in each unit is reset, the value of the feeding retry counter is also reset simultaneously. When the [RESET] button is pressed after selecting the feed unit in the Main Screen, the value of the feeding retry counter is also reset simultaneously.

The feeding retry counter:

- Upper drawer Reset the feeding retry counter (08-1390)
- Lower drawer Reset the feeding retry counter (08-1391)
- PFP upper drawer Reset the feeding retry counter (08-1392)
- PFP lower drawer Reset the feeding retry counter (08-1393)
- Bypass unit Reset the feeding retry counter (08-1394)
- LCF Reset the feeding retry counter (08-1395)

# 4.1.3 Work flow of parts replacement

The timing for the parts replacement usually depends on the number of output pages / develop counts after they were replaced before. However, its drive counts is also to be considered when replacing the parts. Even if the number of output pages has reached the level of replacement, for instance, the part may still be usable with its drive counts not reaching the specified drive counts. On the other hand, the part may need replacement even if the number of output pages has not reached the level of replacement with its driving time exceeding the specified drive counts. The life span of some parts such as feed roller is heavily dependent on the number of output pages rather than the drive counts.

The following work flow diagram shows how to judge the timing of replacement with the number of output pages and the drive counts.

The number of output pages is counted as "4" for 1 page for printing at color modes. This "4" is "develop counts".

# Example 1:

When the number of output pages has reached the specified level



Fig. 4-105

# Example 2:

When the image failure occurred before the number of output pages has reached the specified level



# 4.2 General Descriptions for PM Procedure

# (1) Preparation

- a. Ask the user about the current conditions of the equipment and note them down.
- b. Before starting maintenance, make some sample copies and store them.
- c. See the replacement record and check the parts to be replaced in the PM support mode (6S-2) or list printing mode (9S-103).

6S-2 : [6]+[START]+[POWER]ON g [2] g [START] 9S-103 : [9]+[START]+[POWER]ON g [103] g [START]

10-20-'03 11:28				
UNIT	OUTPUT PAGES/ DEVELOP COUNTS	PM OUTPUT PAGE/ DEVELOP COUNTS	DRIVE COUNTS	PM DRIVE COUNTS
DRUM	22220	200000	30948	320000
DRUM BLADE	22220	200000	30948	320000
DRUM BRUSH	22220	200000	30948	320000
GRID	22220	200000	30948	320000
MAIN CHARGER WIRE	22220	200000	30948	320000
WIRE CLEANING PAD	22220	200000	30948	320000

Fig. 4-201

d. Turn OFF the power and make sure to unplug the equipment.

- (2) Perform a preventive maintenance using the following checklist and illustrations. Refer to the Service Manual if necessary.
- (3) Plug in the equipment after the maintenance has been finished. Then turn ON the power and make some copies to confirm that the equipment is working properly.

# 4.3 Operational Items in Overhauling

Overhaul each equipment with the following timing.

- e-STUDIO3511: When the number of develop counts has reached 360,000 or 2.5 years have passed form the start of use (Whichever is earlier.)
- e-STUDIO4511: When the number of develop counts has reached 450,000 or 2.5 years have passed form the start of use (Whichever is earlier.)
- (1) Replace all the supplies.
- (2) Check the components in the drive section (gears, pulleys, timing belts, etc.). Replace them with new ones if they are damaged.
- (3) Check all the adhesives such as tape and Mylar if they are damaged or have become unstuck. Replace them with new ones if necessary.
- (4) Check the performance of all the switches and sensors. Replace them with new ones if necessary.
- (5) Clean inside the equipment thoroughly.

# 4.4 Preventive Maintenance Checklist

Symbols used in the checklist

Cleaning		Lubrication	Replacement	Operation check	Date
Α	Clean with alcohol	L Launa 40	The number of sheets	<ul> <li>After cleaning</li> </ul>	User name
0	Clean with soft pad,	Coating	or developments	or replacement,	Serial No.
	cloth or vacuum cleaner	SI Silicon oil	consumed before	confirm there is	Inspector's
		W1 White grease	replacement	no problem.	name
		(Molykote X5-6020)	(Value x 1,000)		Remarks
		W2 White grease	$\triangle$ Replace if deformed		
		(Molykote HP-300)	or damaged		
		AV Alvania No.2			
		FL Floil			
		(GE-334C)			

[Preventive Maintenance Checklist]

# Notes:

- Perform cleaning and lubricating in every 120,000 output pages for e-STUDIO3511, and every 150,000 output pages for e-STUDIO4511. Lubricate the replacement parts following to the replacement cycle. Exceptionally, the lubrication for the drum unit, main charger, color developer unit and 1st transfer unit must follow the PM cycle of each unit.
- Values under "Replacement" indicate the replacement cycle for e-STUDIO3511/e-STUDIO4511. (KS= x 1,000 sheets, KD= x 1,000 developments)
- 3. The replacement cycle of the parts for the charge, development and 1st transfer in copying process is not indicated by the number of output pages (sheet), but the develop counts (development). The number of output pages is counted as "4 developments" for 1 page for printing at color mode, and "1 development" at black-and-white mode.
- 4. The replacement cycle of the parts in the feeding section equals to the number of sheets fed from each paper source.
- 5. Be careful not to put oil on the rollers, belts and belt pulleys when lubricating.

Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
A1. Original glass	⊖ or A					*a1
A2. ADF original glass	0					*a1
A3. Mirror-1	0					
A4. Mirror-2	0					
A5. Mirror-3	0					
A6. Reflector	0					
A7. Lens	0					
A8. Exposure lamp			Δ	0		
A9. Automatic original detection sensor	0			0		
A10. Slide sheet (front and rear)	⊖ or A		Δ			

# B. Laser unit

Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
B1. Slit glass	0					

# C. Feed unit

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
C1.	Pickup roller			80/80		P18-l20	
C2.	Feed roller			80/80		P18-l24	
C3.	Separation roller		AV, V2	80/80		P18-I5	*c1
C4.	Transport roller	A		Δ			
C5	Paper guide	0					
C6.	Drive gear (tooth face and shaft)		W1				*c2
C7.	GCB bushing bearing		L				
C8.	One side of the plastic bushing to		W1				
	which the shaft is inserted						
C9.	Registration roller	A		Δ			
C10	. Paper dust removal brush	0		Δ			*c3

# D. Automatic duplexing unit

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
D1.	Transport roller (upper, middle and lower)	A		Δ			
D2.	One side of the GCB bushing to which the shaft is inserted		L				
D3.	One side of the plastic bushing to which the shaft is inserted		W1				
D4.	Paper guide	0	W				

# E. Bypass feed unit

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
E1.	Pickup roller			80/80		P22-I26	
E2.	Feed roller			80/80		P22-I37	
E3.	Separation roller		AV, W2	80/80		P21-l1	*e1
E4.	Bypass tray	0					
E5.	Drive gear (shaft)		W1				
E6.	GCB bushing bearing		L				
E7.	Transport roller	A		Δ			

# F. Main charger

Items to chec	K	Cleaning	Lubri- cation	Replace- ment (KD)	Operation check	Parts list <p-l></p-l>	Remarks
F1. Main charger case		0					*f1
F2. Main charger wire				160/200	0	P28-I15	*f1
F3. Contact point of termin	nals	0					
F4. Charger wire cleaning	pad			160/200		P28-I12	
F5. Main charger grid				160/200		P28-I21	

# G. Drum/Cleaner related section

Items to check	Cleaning	Lubri- cation	Replace- ment (KD)	Operation check	Parts list <p-l></p-l>	Remarks
G1. Photoconductive drum			160/200		P103-I1	Refer to
						Chapter 4.8.2.
G2. Drum shaft	0					
G3. Whole cleaner unit	0					
G4. Drum cleaning blade			160/200		P32-I34	*g1
G5. Drum cleaner brush			160/200		P32-I29	*g1
G6. Recovery blade	0		Δ			*g2
G7. Used toner auger drive section		W1				
G8. Discharge LED	0					
G9. Ozone filter			160/200		P14-I50	

Note: Check the color deviation after replacing G1 and G4.

# H. Toner bag

Items to check	Cleaning	Lubri- cation	Replace- ment (KD)	Operation check	Parts list <p-l></p-l>	Remarks
H1. Toner bag			50/50		P103-l6	

# I. Black developer unit

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
11.	Whole black developer unit	0					
12.	Black developer unit drive section		W1				
13.	Developer material (K)			120/150		P103-l2	*i1
14.	Front shield	0		Δ			
15.	Oil seal (6 pcs.)		AV	360/450		P34-I3, 15	*i2
l6.	Guide roller	⊖ or A					
17.	Toner cartridge drive gear		W1				
18.	Side shield	0		Δ			

## J. Color developer unit / Revolver unit

Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
J1. Whole color developer unit	0					
(Y, M and C)						
J2. Color developer unit drive section		W1				
(Y, M and C)						
J3. Developer material (Y, M, and C)			30/37.5		P103-I3	*j1
J4. Front shield (Y, M and C)	0		Δ			
J5. Oil seal (4 pcs. for each color)		AV	360/450		P33-I4, 14	*j2
J6. Guide roller (Y, M and C)	⊖ or A					
J7. Toner cartridge drive gear		W1				
(Y, M and C)						
J8. Revolver drive gear		W1				
J9. Color auto-toner sensor	0	AV				*j3
J10. Side shield	0		Δ			
J11. Polarity adjustment plate		FL				*j4
J12. Color toner cartridge sensor	0				P36-I104	*j5
J13. Front bearings of mixers		AV	360/450		P33-I12	*j6

# K. Transfer belt unit

Items to check	Cleaning	Lubri- cation	Replace- ment (KD)	Operation check	Parts list <p-l></p-l>	Remarks
K1. Transfer belt			480/600		P30-I34	
K2. 1st transfer roller			480/600		P30-I17	
K3. Transfer belt drive roller 1	А		Δ			*k1
K4. Transfer belt drive roller 2	А		Δ			*k1
K5. Transfer belt cleaning blade			160/200		P31-I11	
K6. Image quality sensor	0					*k2
K7. Transfer belt home position sensor	0					*k3
(2 pcs.)						
K8. Transfer belt recovery blade	0		Δ			*k4
K9. Paper clinging detection sensor	0					
K10. Blade seal (front side)			160/200		P31-l8	
K11. Blade seal (rear side)			160/200		P31-l41	
К12. Таре			160/200		P31-I31	

Note: Check the color deviation after replacing K1, K2 and K5.

#### L. 2nd transfer roller unit

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
L1.	2nd transfer roller			240/300		P13-I30	
L2.	Paper guide	0					*11
L3.	Washer			240/300		P13-I49	

Note: Check the color deviation after replacing L1.

## M. Fuser unit

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
M1.	Fuser belt			120/150		P40-I1	
M2.	Pressure roller			120/150		P39-I5	
M3.	Separation finger			120/150		P39-I25	*m1
M4.	Oil roller			120/150		P40-I34	
M5.	Cleaning roller			120/150		P40-l23	
M6.	Thermistor (3 pcs.)	A		Δ			*m2
M7.	Fuser unit drive gear		W1				
M8.	Exit roller	A					
M9.	Fuser belt guide			120/150		P41-l18	
M10.	Separation roller		W2				*m3
M11.	Scraper			120/150		P39-I55	

# N. RADF (MR-3015)

Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
N1. Pickup roller	0		120/120		P8-I26	
N2. Feed roller	0		120/120		P8-I25	
N3. Separation roller	0		120/120		P6-I6	
N4. Original length sensor	0					
N5. Registration roller	А					
N6. 1st small roller	A					
N7. 2nd small roller	А					
N8. Read sensor	0					
N9. Read guide	0					
N10. Read roller	A					
N11. 3rd small roller	А					
N12.4th small roller	A					
N13. Reverse sensor	0					
N14. Exit roller	А					
N15. Reverse roller	A					
N16. Platen sheet	⊖ or A					

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# O. PFP (KD-1011)

	Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
01.	Pickup roller (upper/lower)	А		80/80		P5-I29	
02.	Feed roller (upper/lower)	A		80/80		P5-I26	
O3.	Separation roller (upper/lower)	A	AV, W2	80/80		P5-I12	*01
04.	Drive gear (tooth face)		W1				

# P. LCF (KD-1012)

Items to check	Cleaning	Lubri- cation	Replace- ment (KS)	Operation check	Parts list <p-l></p-l>	Remarks
O1. Pickup roller	A		160/160		P4-I30	
O2. Feed roller	A		160/160		P4-I28	
O3. Separation roller	A		160/160		P5-I12	
O4. Drive gear (tooth face)		W1				



Fig. 4-202 Front side



Fig. 4-203 Reversing Automatic Document Feeder (RADF)



Fig. 4-204 Paper Feed Pedestal (PFP)



Fig. 4-205 Large Capacity Feeder (LCF)

#### **Remarks "\*" in the Preventive Maintenance Check List**

\*a1. Original glass, ADF original glass

Clean both sides of the original glass and ADF original. Make sure that there is no dust on the mirrors-1, -2, -3 and lens after cleaning. Then install the original glass and ADF original glass.

#### Note:

Make sure that there is no fingerprints or oil staining on part of the original glass on where the original scale is mounted since the shading correction plate is located below the scale to be scanned.

\*c1, o1. Separation roller (Feed unit, PFP)

Apply an even coat of grease (Alvania No.2) to all round the inside of the spring. When replacing the separation roller, apply adequate amount of white grease (Molykote HP-300) on the places of the holder shown in the figure (4 places).

## Note:

Make sure that the grease does not adhere to the roller surface. Wipe it off with alcohol if adhered.



\*c2. Drive gears in the paper feeding section (teeth of gears and shafts) Apply some white grease (Molykote X5-6020) to the teeth of gears and shafts of the drive gears.

#### Note:

Make sure that oil is not running over or scattered around as the gear is rotated coming into the clutch after applying molykote to the gear which is located near the clutch. The quantity of molycote should be smaller than that to be applied to the other parts.

\*c3. Install the 2nd transfer front guide after the cleaning of the paper dust removal brush. Push the 2nd transfer front guide to the transfer belt unit and fix it securely as shown in the figure below.



Fig. 4-208

# \*e1. Separation roller (SFB)

Apply an even coat of grease (Alvania No.2) to all round the inside of the spring. When replacing the separation roller, apply adequate amount of white grease (Molykote HP-300) on the places of the holder shown in the figure (4 places).

# Note:

Make sure that the grease does not adhere to the roller surface. Wipe it off with alcohol if adhered.



\*f1. Main charger case / Main charger wire

Clean the main charger case and wire with a cloth soaked in water and squeezed tightly, and then wipe them with a dry cloth.

#### Note:

Be careful of the following when attaching a new wire (length: 373 mm).

- Insert the wire securely into the V-grooves of the front and rear sides.
- Do not twist the wire.
- Do not touch the wire with your bare hand.
- \*g1. Drum cleaning blade / Drum cleaner brush

Since the edge of the blade is vulnerable and can be easily damaged by factors such as the adherence of paper dust. Replace the cleaning blade and brush with new ones if poor images are copied due to the damaged blade regardless of the number of output pages which have been made.

\*g2. Recovery blade

Replace the recovery blade regardless the number of output pages if the edge of the blade get damaged.

# \*i1, j1. Developer material

After replacing the developer material, be sure to perform the auto-toner adjustment and then image quality control initialization ( > Chapter 3.2 ).

°i2.	Oil seal (Black developer unit)					
	Mixer unit (Shafts of mixers-1 & -2)	4 pcs.				
	Developer sleeve	2 pc.				
ʻj2.	Oil seal (Color developer unit)					
	Mixer unit (Rear side of mixers-1 & -2)	2 pcs.				
	Developer sleeve	2 pc.				

# Note:

- 1. Lubricate the oil seal only when the oil seal is replaced.
- 2. When exchanging the oil seal of the color developer unit, replace "j6. Front bearings of mixers" at the same time.

During replacement, coat the oil seal with grease (Alvania No.2).

- Push in a new oil seal parallel to the mounting hole section of the developer frame or outside of the nozzle mixer.
  - \* Pay attention to the direction in which the oil seal is attached. (See figure on right.)
- (2) Apply an even coat of grease to the inside of the oil seal.
  - Amount: About two small drops
- (3) Wipe off any grease exuded from the inside.



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## \*j3. Color auto-toner sensor

The head of color auto-toner sensor is to be cleaned with a cotton swab or soft cloth with sufficient alcohol filled in. The reference plate is to be cleaned by blowing off the adhered toner with an air-spray type cleaner such as a blower brush or an air duster.

During replacement, coat the shaft of sensor shutter with the grease (Alvania No.2).



Fig. 4-212

# Note:

Never clean the reference plate by touching it directly (e.g. brushing away the dust) since the surface of reference plate will be scratched.

\*j4. Polarity adjustment plate Apply two-rice-grain-amount of FLOIL (GE-334C) to the polarity adjustment plate (feeding terminal).



\*j5. Color toner cartridge sensor

Perform the cleaning of the surface of the color toner cartridge sensor when you replace the color developer unit (e-STUDIO3511: 30,000 sheets / e-STUDIO4511: 37,500 sheets).

\*j6. Front bearings of mixers

When exchanging the oil seals (rear side of mixer-1 and -2) of the color developer unit, replace the front bearings of mixer-1 and -2 at the same time. Since the oil seal is attached to the front bearings of mixer-1 and -2, apply grease when replacing them referring to \*j2.

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- \*k2. Area around image quality sensor Clean the shutter of the image quality sensor and around it. Do not touch the sensor head inside the shutter.
- \*k3. Transfer belt home position sensor Clean each surface of transfer belt home position sensors (2 pcs.) with a dry cloth when replacing the transfer belt.





# \*k4. Transfer belt recovery blade

Clean the surface of transfer belt recovery blade with a cloth soaked in water and tightly squeezed, and the wipe it with a dry cloth when replacing the transfer belt cleaning blade. If the edge of recovery blade is damaged, replace the blade regardless of the number of output pages. \*k5. Paper clinging detection sensor

Open the ADU and clean the paper clinging detection sensor with a cotton swab, etc.

#### Note:

Clean the entire area (denoted in the figure below) of the sensor surface.



Fig. 4-216

# \*I1. Paper guide

Clean the surface of the paper guide (denoted in the figure) with a piece of dry cloth. When cleaning, do not touch the surface of the transfer belt with bare hands.





\*m1. Separation finger

The paper jam may be caused if the tip of the finger is damaged or deformed. If there is any problem with it, replace the finger with a new one regardless of the number of output pages which have been made. Do not damage the tip of the finger during the cleaning. The finger may be damaged if the toner adhering to the tip of it is scraped off forcibly. Replace the finger if the toner is sticking to it heavily.

# \*m2. Thermistor

Clean the thermistor with alcohol if the toner or dirt is sticking to it when the fuser roller is replaced. Do not deform or damage the thermistor during the cleaning. Replace the thermistor with a new one if it is damaged or deformed regardless of degree.

## \*m3. Separation roller

When replacing the transfer belt, apply some White Molykote (HP-300) on both ends of the separation roller shaft.



Fig. 4-218

# 4.5 PM KIT

Item	Product name	Part name	Qty.
EPU-KIT-3511	Drum cleaning blade	BL-3511D	1
	Main charger wire	WIRE-CHARGR-373	1
	Main charger grid	GRID-220	1
	Drum cleaner brush	B-3511	1
	Ozone filter	FILTER-OZ-SPB-600	1
	Charger wire cleaning pad	ASYS-PAD-CHARGR-350	1
DEV-KIT-3511C	Developer material (Y)	D-3511-Y	1
	Developer material (M)	D-3511-M	1
	Developer material (C)	D-3511-C	1
	Cleaning jig	JIG-CLEAN-DOC	1
TBU-KIT-3511	Transfer belt	BT-3511TR	1
	Transfer belt cleaning blade	BL-3511TR	1
	1st transfer roller	CR-3511TR	1
	Blade seal (front side)	SEAL-BLADE-FRT	1
	Blade seal (rear side)	SEAL-BLADE-RER	1
	Таре	TAPE-2191FR	1
DEV-KIT-3511	Developer material (K)	D-3511-K	1
	Cleaning jig	JIG-CLEAN-DOC	1
	2nd transfer roller	CR-3511TR2	1
	Washer	WSH-4P5-8-OP3-PHF850S	4
FR-KIT-3511	Fuser belt	BT-3511-FU	1
	Pressure roller	HR-3511-L	1
	Separation finger	SCRAPR-FUS-350	5
	Oil roller	SR-3511U	1
	Cleaning roller	B-3511U	1
	Fuser belt guide	COLAR-HR-IN	2
	Scraper	ASYB-BRKT-SCRAPR	1
ROL-KIT-16CST	Pick up roller	ROLLER-PICK-AT	1
	Feed roller	K-ROLL-FEED	1
	Separation roller	K-ROLL-SPT	1
ROL-KIT-1010	Pick up roller	ROL-PICK-UP	1
	Feed roller	ROL-PAPER-FED-F	1
	Separation roller	ROL-PAPER-FED-S	1
DF-KIT-3015	Pick up roller	ROL-PICK-UP	1
	Feed roller	ROL-FEED	1
	Separation roller	ROL-SPT-513	1

# 4.6 Jig List

ltem	Parts list		
	Page	Item	
Door switch jig		1	
Test chart (A4)	101	3	
Test chat (LT)	101	3	
Test chart No. TCC-1 (A4)	101	2	
Test chart No. TCC-1 (LT)	101	2	
Doctor blade cleaning jig	101	4	
Downloading jig (DLM board)	102	1	
Wire holder jig	101	5	
Download JIG-2 (6 Flash ROMs)	102	2	
Download JIG-1 (2 Flash ROMs)	102	3	
ROM writer adapter (For 1881)	102	4	
ROM writer adapter (For 1931)	102	5	
Doctor sleeve jig	101	7	
Developer material nozzle	101	6	
Belt tenstion jig (spring)	101	20	

# 4.7 Grease List

Crosse name	Part name	Volume	Container	Parts list	
Grease name				Page	Item
SI Silicon oil	ASM-SILICONE-1M	100 cc	Bottle	101	8
L Launa 40	OIL-LAUNA40-100	100 cc	Oiler	101	9
W1 White grease (Molykote X5-6020)	MOLYKOTE-100	100 g	Tube	101	12
W2 White grease (Molykote HP-300)	ASM-PG-HP300-S	100 g	Bottle	101	10A
W2 White grease (Molykote HP-300)	GREASE-HP-S	10 g	Bottle	101	10B
AV Alvania No.2	ASM-PG-ALV2	100 g	Tube	101	11
FL Floil (GE-334C)	ASM-PG-GE334C-S	20 g	Bottle	101	13

# 4.8 Precautions for Storing and Handling Supplies

# 4.8.1 Precautions for storing TOSHIBA supplies

# A. Toner/Developer

Toner and developer should be stored in a place where the ambient temperature is between 10°C to 35°C (no condensation), and should also be protected against direct sunlight during transportation.

B. Photoconductive drum

Like the toner and developer, photoconductive drum should be stored in a dark place where the ambient temperature is between 10°C to 35°C (no condensation). Be sure to avoid places where drums may be subjected to high humidity, chemicals and/or their fumes.

- Drum cleaning blade / Transfer belt cleaning blade
   This item should be stored in a flat place where the ambient temperature is between 10°C to 35°C, and should also be protected against high humidity, chemicals and/or their fumes.
- D. Transfer belt / Transfer roller / Fuser belt / Pressure roller
   Avoid places where the rollers may be subjected to high humidity, chemicals and/or their fumes.
- E. Oil roller / Cleaning roller

Avoid places where the rollers may be subjected to high humidity, chemicals and/or their fumes. They should also be stored "horizontally" on a flat surface.

F. Paper

Avoid storing copy paper in places where it may be subjected to high humidity. After a package is opened, be sure to place and store it in a storage bag.

# 4.8.2 Checking and cleaning of photoconductive drum

# (1) Use of gloves

If fingerprints or oil adhere to the drum surface, the property of the photosensitive drum may degrade, affecting the quality of the copy image. So, do not touch the drum surface with bare hands.

# (2) Handling precautions

As the photoconductive drum surface is very sensitive, be sure to handle the drum carefully when installing and removing it so as not damage its surface.

Be sure to apply "patting powder" (lubricant) to the entire surface of the drum (including both ends of the drum where OPC is not coated) when replacing the drum. When the drum has been replaced with a new one, the drum counter (setting mode (08-1150-0, 3, 6 and 7) must be cleared to 0 (zero). This clearing can be performed in PM support mode.

# Notes:

- 1. Application of the patting powder is for reducing the friction between the drum and cleaning blade. If the application of patting powder is neglected, the drum and cleaning blade may be damaged.
- 2. When paper fibers or dint adhere to the cleaning blade edge, they may reduce the cleaning efficiency and, in addition, may damage the blade and the drum. Be sure to remove any fibers found adhering to the blade.

# (3) Installation of equipment and storage of drum

Avoid installing the equipment where it may be subjected to high temperature, high humidity, chemicals and/or their fumes.

Do not place the drum in a location where it is exposed to direct sunlight or high intensity light such as near a window. Otherwise the drum will fatigue, and will not produce sufficient image density immediately after being installed in the equipment.

(4) Cleaning the drum

At periodic maintenance calls, wipe the entire surface of the drum clean using the designated cleaning cotton. Use sufficiently thick cleaning cotton (dry soft pad) so as not to scratch the drum surface inadvertently with your fingertips or nails. Also, remove your rings and wristwatch before starting cleaning work to prevent accidental damage to the drum.

Do not use alcohol, selenium refresher and other organic solvents or silicon oil as they will have an adverse effect on the drum.

(5) Scratches on photoconductive drum surface

If the surface is scratched in such a way that the aluminum substrate is exposed, no copy image will be produced on this area. In addition, the cleaning blade will be damaged so replacement with a new drum will be necessary.

(6) Collecting used photoconductive drums Regarding the recovery and disposal of used photoconductive drums, we recommend following the relevant local regulations or rules.

# 4.8.3 Checking and cleaning of drum cleaning blade and transfer belt cleaning blade

# (1) Handling precautions

Pay attention to the following points as the cleaning blade life is determined by the condition of its edge:

- Do not allow hard objects to hit or rub against blade edge.
- Do not rub the edge with a cloth or soft pad.
- Do not leave oil (or fingerprints, etc.) on the edge.
- Do not apply solvents such as paint thinner to the blade.
- Do not allow paper fibers or dirt to contact the blade edge.
- Do not place the blade near a heat source.

# (2) Cleaning procedure

Clean the blade edge with a cloth moistened with water and squeezed lightly.

# 4.8.4 Handling of drum cleaner brush

Do not touch the brush surface with bare hands.

# 4.8.5 Handling of transfer belt

- (1) Do not touch the transfer belt surface with bare hands.
- (2) Prevent oil or other foreign matter from adhering to the transfer belt surface.
- (3) Do not touch the transfer belt with alcohol or any other organic solvent.
- (4) Do not apply external pressure that might scratch the transfer belt.
- (5) When replacing the belt and transfer belt cleaning unit, apply patting powder sufficiently and evenly. Otherwise, it may reduce the cleaning efficiency.
- (6) When replacing the transfer belt, clean the drive roller-1 drive roller-2, and tension roller with a solvent such as alcohol, and then attach the transfer belt.

# 4.8.6 Checking and cleaning of fuser belt and pressure roller

(1) Handling precautions

Fuser belt

- Do not touch the fuser belt surface with bare hands.
- Prevent oil or other foreign matter from staining the fuser belt surface.
- Do not allow alcohol or any other organic solvent to contact with the fuser belt.
- Do not apply external pressure that might scratch the fuser belt.

Pressure roller

- Do not leave any oil (fingerprints, etc.) on the pressure roller.
- Be careful not to allow any hard object to hit or rub against the pressure roller, or it may be damaged, possibly resulting in poor cleaning.

# (2) Checking

- Check for stain and damage on the fuser belt and pressure roller, and clean if necessary.
- Check the separation guide and fingers and check for chipped tips.
- Check the cleaning effect of the cleaning roller.
- Check the thermistors for proper contact with the pressure roller.
- Check the fused and fixed condition of the toner.
- Check the gap between the inlet guide and pressure roller.
- Check the fuser belt for proper transportation.
- Check the pressure roller for proper rotation.
- (3) Cleaning procedure

When the fuser belt and pressure roller become dirty, they will cause jamming. If this happens, wipe the surface clean with a suitable cloth. For easier cleaning, clean the belt and roller while they are still warm.

#### Note:

Be careful not to rub the fuser belt and pressure roller surface with your nails or hard objects because it can be easily damaged. Do not use silicone oil on the fuser belt and pressure roller.

(4) Checking after the assembly of the fuser belt unit After the assembly, rotate the fuser belt for a round to confirm that the belt is neither folded nor scratched.

A folded or scratched belt may be broken when it is in use.

# 4.8.7 Checking and replacing the oil roller and cleaning roller

- Handling precautions
   Never allow solvents such as paint thinner to touch to the oil/cleaning rollers.
- (2) Poor cleaning and corrective treatment

Judgment should be made depending on how much toner has been deposited on the fuser belt surface. When its surface is stained with toner, check the oil roller and cleaning roller. If toner is heavily adhered on the oil/cleaning rollers, it means the cleaning performance is declined and the oil/cleaning rollers should be replaced with new ones.

The oil/cleaning rollers are gradually degraded due to subjection to the heat from the fuser belt over a long period of time. Replace them after the specified number of output pages have been made.

# **5. TROUBLESHOOTING**

When any of the PC boards or the HDD requires replacement, refer to "5.3 Replacement of PC Boards and HDD".

# 5.1 Diagnosis and Prescription for Each Error Code

# 5.1.1 Paper transport jam (paper exit section)

# [E010] Jam not reaching the exit sensor

# [E020] Stop jam at the exit sensor

Open the jam access cover. Is there any paper on the transport path?

YES ► Remove the paper.

NO

Is the paper clinging to the transfer belt entering under the receiving tray?

YES Take an appropriate action according to the countermeasure of [E011] ( > Chapter 5.1.4).

NO

NO

Is the exit sensor working? (Perform the input check: 03-[FAX]OFF/[7]/[H])

- ▶ 1. Check if the connector of the exit sensor is disconnected.
  - 2. Check if the connector CN358 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the exit sensor.
  - 6. Replace the LGC board.

# YES 🕇

Is the registration clutch working? (Perform the output check: 03-108/158)

- NO **1**. Check if the connector of the registration clutch is disconnected.
  - 2. Check if the connector CN362 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the registration clutch.
  - 6. Replace the LGC board.

YES 🕈

Check the registration roller. Replace it if it is worn out.

# 5.1.2 Paper misfeeding

NO

NO

# [E110] ADU misfeeding (paper not reaching the registration sensor)

Open the jam access cover. Is there any paper in front of the registration sensor?

YES Remove the paper.

NO

Is the registration sensor working? (Perform the input check:03-[FAX]ON/[9]/[E])

- ▶ 1. Check if the connector of the registration sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the registration sensor.
  - 6. Replace the LGC board.

# YES 🕈

Is the ADU clutch working? (Perform the output check: 03-222)

- ►1. Check if the connector of the ADU clutch is disconnected.
  - 2. Check if the connector CN340 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the ADU clutch.
  - 6. Replace the LGC board.

# YES 🕈

Check the rollers in the ADU. Replace them if they are worn out.

# [E120] Bypass misfeeding (paper not reaching the registration sensor)

Open the jam access cover. Is there any paper in front of the registration sensor?

# YES Remove the paper.

#### NO

NO

Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[9]/[E])

- ► 1. Check if the connector of the registration sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected and the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the registration sensor.
  - 6. Replace the LGC board.

YES

Are the bypass feed clutch and bypass feed sensor working? (Perform the output check: 03-204 and the input check: 03-[FAX]ON/[9]/[D])

- NO +1. Check if the connector of the bypass feed clutch and bypass feed sensor are disconnected.
  - 2. Check if the connector CN340 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected and the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the bypass feed clutch and bypass feed sensor.
  - 6. Replace the LGC board.

# YES 🕈

Check the bypass transport, feed, separation and pickup rollers. Replace them if they are worn out. **[E130]** Upper drawer misfeeding (paper not reaching the upper drawer feed sensor)

Open the jam access cover. Is there any paper in front of the upper drawer feed sensor?

YES Remove the paper.

NO

Is the upper drawer feed sensor working? (Perform the input check: 03-[FAX]ON/[3]/[H])

- NO **1**. Check if the connector of the upper drawer feed sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the upper drawer feed sensor.
  - 6. Replace the LGC board.

# YES

NO

Is the upper drawer feed clutch working? (Perform the output check: 03-201)

- ► 1. Check if the connector of the upper drawer feed clutch is disconnected.
  - 2. Check if the connector CN337 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the upper drawer feed clutch.
  - 6. Replace the LGC board.

# YES V

Check the upper drawer feed roller, separation roller and pickup roller. Replace them if they are worn out.

# [E140] Lower drawer misfeeding (paper not reaching the lower drawer feed sensor)

Open the side cover. Is there any paper in front of the lower drawer feed sensor?

NO

NO

Is the lower drawer feed sensor working? (Perform the input check: 03-[FAX]ON/[3]/[G])

- 1. Check if the connector of the lower drawer feed sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the lower drawer feed sensor.
  - 6. Replace the LGC board.

YES 1

Is the lower drawer feed clutch working? (Perform the output check: 03-202)

- NO ► 1. Check if the connector of the lower drawer feed clutch is disconnected.
  - 2. Check if the connector CN337 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the lower drawer feed clutch.
  - 6. Replace the LGC board.

YES **V** 

Check the lower drawer feed roller, separation roller and pickup roller. Replace them if they are worn out.

# [E150] PFP upper drawer misfeeding (paper not reaching the PFP upper drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP upper drawer feed sensor?

YES  $\vdash$  Remove the paper.

NO 🛉

Is the PFP upper drawer feed sensor working? (Perform the input check: 03-[FAX]OFF/[2]/[D])

- NO +1. Check if the connector of the PFP upper drawer feed sensor is disconnected.
  - 2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP upper drawer feed sensor.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

#### YES 🕈

Is the PFP upper drawer feed clutch working? (Perform the output check: 03-226)

- NO + 1. Check if the connector of the PFP upper drawer feed clutch is disconnected.
   2. Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP upper drawer feed clutch.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

#### YES ¥

Check the PFP upper drawer feed roller, separation roller and pickup roller. Replace them if they are worn out.

# [E160] PFP lower drawer misfeeding (paper not reaching the PFP lower drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP lower drawer feed sensor?

YES - Remove the paper.

NO 🛉

NO

Is the PFP lower drawer feed sensor working? (Perform the input check: 03-[FAX]OFF/[4]/[D])

- ▶ 1. Check if the connector of the PFP lower drawer feed sensor is disconnected.
  - 2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP lower drawer feed sensor.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

#### YES 🕈

Is the PFP lower drawer feed clutch working? (Perform the output check: 03-228)

- NO + 1. Check if the connector of the PFP lower drawer feed clutch is disconnected.
   2. Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP lower drawer feed clutch.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

#### YES 🖌

Check the PFP lower drawer feed roller, separation roller and pickup roller. Replace them if they are worn out.

# [E190] LCF misfeeding (paper not reaching the LCF feed sensor)

Open the LCF side cover. Is there any paper in front of the LCF feed sensor?

YES **E** Remove the paper.

NO 1

NO

NO

Is the LCF feed sensor working? (Perform the input check: 03-[FAX]OFF/[5]/[G])

- ► 1. Check if the connector of the LCF feed sensor is disconnected.
  - 2. Check if either of the connectors CN100 or CN104 on the LCF board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
  - 6. Replace the LCF feed sensor.
  - 7. Replace the LCF board.
  - 8. Replace the LGC board.

YES **\*** 

Is the LCF feed clutch working? (Perform the output check: 03-209)

► 1. Check if the connector of the LCF feed clutch is disconnected.

- 2. Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
- 6. Replace the LCF feed clutch.
- 7. Replace the LCF board.
- 8. Replace the LGC board.

YES V

Check the LCF feed roller, separation roller and pickup roller. Replace them if they are worn out.

#### 5.1.3 Paper transport jam

[E200] Upper drawer transport jam (not reaching the registration sensor)

[E210] Lower drawer transport jam (not reaching the registration sensor)

[E300] PFP upper drawer transport jam (not reaching the registration sensor)

[E330] PFP lower drawer transport jam (not reaching the registration sensor)

[E3C0] LCF transport jam (not reaching the registration sensor)

Open the jam access cover. Is there paper in front of the registration sensor?

YES → Remove the paper.

Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[9]/[E])

- NO **1**. Check if the connector of the registration sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the registration sensor.
  - 6. Replace the LGC board.

#### YES 🕈

Are the upper transport clutches (high/low speed) working? (Perform the output check: 03-439, 440)

- NO -1. Check if the connectors of the upper transport clutches (high/low speed) are disconnected.
  - 2. Check if the connector CN362 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the upper transport clutches (high/low speed).
  - 6. Replace the LGC board.

#### YES 1

- 1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
- 2. Check the transport roller. Replace it if it is worn out.

[E220] Lower drawer transport jam (not reaching the upper drawer feed sensor)

[E310] PFP upper drawer transport jam (not reaching the upper drawer feed sensor)

[E340] PFP lower drawer transport jam (not reaching the upper drawer feed sensor)

[E3D0] LCF transport jam (not reaching the upper drawer feed sensor)

Open the jam access cover. Is there paper in front of the upper drawer feed sensor?

YES - Remove the paper.

NO

NO

Is the upper drawer feed sensor working? (Perform the input check: 03-[FAX]ON/[3]/[H])

- ► 1. Check if the connector of the upper drawer feed sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the upper drawer feed sensor.
  - 6. Replace the LGC board.

# YES 🕈

Are the lower transport clutches (high/low speed) working? (Perform the output check: 03-203, 205)

- NO -1. Check if the connectors of the lower transport clutches (high/low speed) are disconnected.
  - 2. Check if the connector CN337 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the lower transport clutches (high/low speed).
  - 6. Replace the LGC board.

# YES 🕈

- 1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
- 2. Check the transport roller. Replace it if it is worn out.

# [E320] PFP upper drawer transport jam (not reaching the lower drawer feed sensor)

[E350] PFP lower drawer transport jam (not reaching the lower drawer feed sensor)

# [E3E0] LCF transport jam (not reaching the lower drawer feed sensor)

Open the side cover. Is there paper in front of the lower drawer feed sensor?

YES **Remove the paper**.

NO

NO

Is the lower drawer feed sensor working? (Perform the input check: 03-[FAX]ON/[3]/[G])

- ▶ 1. Check if the connector of the lower drawer feed sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the lower drawer feed sensor.
  - 6. Replace the LGC board.

# YES 🕈

Are the lower transport clutches working? (Perform the output check: 03-203, 205)

- NO  $\vdash$  1. Check if the connectors of the lower transport clutches (high/low speed) are disconnected.
  - 2. Check if the connector CN337 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the lower transport clutches (high/low speed).
  - 6. Replace the LGC board.

# YES 🕈

When the paper fed from the PFP:

NO

Is the PFP transport clutch working? (Perform the output check: 03-225)

Check if the connector of the PFP transport clutch is disconnected.
 Check if any of the connectors CN241, CN242 and CN244 on the PFP board is

- disconnected.
- 3. Check if the connector CN332 on the LGC board is disconnected.
- 4. Check if the connector pins are disconnected or the harnesses are open circuited.
- 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
- 6. Replace the PFP transport clutch.
- 7. Replace the PFP board.
- 8. Replace the LGC board.

# YES 🕇

- 1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
- 2. Check the transport roller. Replace it if it is worn out.
#### [E360] PFP lower drawer transport jam (not reaching the PFP upper drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP upper drawer feed sensor?

# YES **B** Remove the paper.

NO

Is the PFP upper feed sensor working?

(Perform the input check: 03-[FAX]OFF/[2]/[D])

- ► 1. Check if the connector of the PFP upper drawer feed sensor is disconnected. NO
  - 2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP upper drawer feed sensor.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

### YES '

NO

Is the PFP transport clutch working? (Perform the output check: 03-225)

- ► 1. Check if the connector of the PFP transport clutch is disconnected.
  - 2. Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP transport clutch.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

#### YES 1

- 1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
- 2. Check the PFP transport roller. Replace it if it is worn out.

### [E510] ADU transport stop jam

Open the ADU. Is there any paper in front of the ADU exit sensor?

YES - Remove the paper.

NO 1

Is the ADU exit sensor working? (Perform the input check: 03-[FAX]OFF/[8]/[H])

- NO  $\vdash$  1. Check if the connector of the ADU exit sensor is disconnected.
  - 2. Check if either of the connectors CN211 or CN213 on the ADU board is disconnected.
  - 3. Check if the connector CN340 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
  - 6. Replace the ADU exit sensor.
  - 7. Replace the ADU board.
  - 8. Replace the LGC board.

YES 🕈

Is the ADU clutch working? (Perform the output check: 03-222)

- NO  $\vdash$  1. Check if the connector of the ADU clutch is disconnected.
  - 2. Check if the connector CN340 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the ADU clutch.
  - 6. Replace the LGC board.

#### YES 🕈

Check the rollers in the ADU. Replace them if they are worn out.

#### [E520] Stop jam in the ADU

NO

Open the ADU. Is there any paper in front of the ADU entrance sensor?

YES - Remove the paper.

NO V

Is the ADU entrance sensor working? (Perform the input check: 03-[FAX]OFF/[8]/[G])

- → 1. Check if the connector of the ADU entrance sensor is disconnected.
  - 2. Check if either of the connectors CN211 or CN214 on the ADU board is disconnected.
  - 3. Check if the connector CN340 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
  - 6. Replace the ADU entrance sensor.
  - 7. Replace the ADU board.
  - 8. Replace the LGC board.

YES 🕈

Is the exit motor (rotating in reverse) working? (Perform the output check: 03-121/171)

- NO  $\rightarrow$  1. Check if the connector of the exit motor is disconnected.
  - 2. Check if the connectors CN437 and J434 on the DRV board is disconnected.
  - 3. Check if the connector CN360 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the DRV board and LGC board are short circuited or open circuited.
  - 6. Replace the exit motor.
  - 7. Replace the DRV board.
  - 8. Replace the LGC board.

#### YES 🕇

NO

Is the ADU motor working? (Perform the output check: 03-110/160)

- ► 1. Check if the connector of the ADU motor is disconnected.
  - 2. Check if any of the connectors CN211, CN212 and CN215 on the ADU board is disconnected.
  - 3. Check if the connector CN340 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
  - 6. Replace the ADU board.
  - 7. Replace the LGC board.

YES 🕇

Check the rollers in the ADU and the exit roller of the equipment. Replace them if they are worn out.

## [EB50] Paper remaining on the transport path due to multiple feeding

When the paper is fed from any of the upper drawer, bypass feed unit or ADU:

Open the jam access cover. Is there any paper in front of the registration sensor?

#### YES - Remove the paper.

NO

NO

When the paper is fed from the upper drawer:

Is the upper drawer feed sensor working? (Perform the input check: 03-[FAX]ON/[3]/[H])

- ▶ 1. Check if the connector of the upper drawer feed sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the upper drawer feed sensor.
  - 6. Replace the LGC board.

YES 🕈

When the paper is fed from the bypass feed unit:

Is the bypass feed sensor working? (Perform the input check: 03-[FAX]ON/[9]/[D])

- NO  $\rightarrow$  1. Check if the connector of the bypass feed sensor is disconnected.
  - 2. Check if the connector CN340 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the bypass feed sensor.
  - 6. Replace the LGC board.

## YES 🕈

When the paper is fed from the ADU:

Is the ADU exit sensor working? (Perform the input check: 03-[FAX]OFF/[8]/[H])

- NO + 1. Check if the connector of the ADU exit sensor is disconnected.
  - 2. Check if either of the connectors CN211 or CN213 on the ADU board is disconnected.
    - 3. Check if the connector CN340 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
  - 6. Replace the ADU exit sensor.
  - 7. Replace the ADU board.
  - 8. Replace the LGC board.

YES 🕈

Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[9]/[E])

- NO  $\rightarrow$  1. Check if the connector of the registration sensor is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the registration sensor.
  - 6. Replace the LGC board.

#### YES 🕈

Check the rollers. Replace them if they are worn out.

When the paper is fed from any of the lower drawer, PFP or LCF:

Open the jam access cover. Is there any paper in front of the upper drawer feed sensor?

YES **\** Remove the paper.

NO

Are the upper/lower drawer feed sensors working? (Perform the input check: 03-[FAX]ON/[3]/[H], /[3]/[G])

NO 4 1. Check if the connectors of the upper/lower drawer feed sensors are disconnected.

- 2. Check if the connector CN345 on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 5. Replace the upper/lower drawer feed sensors.
- 6. Replace the LGC board.

YES V

Check the rollers. Replace them if they are worn out.

### [EB60] Paper remaining on the transport path due to multiple feeding

Open the jam access cover. Is there any paper in front of the registration sensor?

YES **I** Remove the paper.

NO

Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[9]/[E])

NO **1**. Check if the connector of the registration sensor is disconnected.

- 2. Check if the connector CN345 on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 5. Replace the registration sensor.
- 6. Replace the LGC board.

YES V

Check the rollers. Replace them if they are worn out.

#### 5.1.4 Other paper jam

#### [E011] Paper jam caused by clinging to the transfer belt

Open the jam access cover. Is the paper clinging to the transfer belt? Is the paper clinging to the transfer belt entering under the receiving tray?

YES  $\rightarrow$  1. Remove the paper.

2. Use the paper within the specification if the thin paper being used is out of specification.

Notes:

- 1. <u>If the paper is remaining under the receiving tray, a scratched image occurs at printing in the color modes.</u>
- 2. The paper smaller than B5 may easily enter under the receiving tray.

NO 🕈

Is there any stain or poor cleaning area on the transfer belt?

YES  $\rightarrow$  1. Clean the transfer belt.

2. Check the installation and operation of the transfer belt cleaner.

NO 🕇

Is the paper clinging detection sensor working? (Perform the input check: 03-[FAX]OFF/[9]/[H])

- NO + 1. Is the detection area of the paper clinging detection sensor dirty?
   2. Check if the connector of the paper clinging detection sensor and joint connectors (3 pcs.) are disconnected.
  - 3. Check if the connector CN331 of the LGC board is disconnected.
  - 4. Check if the harness is open circuited or the connector pin is disconnected.
  - 5. Replace the paper clinging detection sensor.
  - 6. Replace the LGC board.

YES 🕈

Replace the LGC board.

### [E030] Power-ON jam

Open the cover of the unit/area whose picture is flashing on the control panel. Is there any paper on the transport path? (Refer to the following table)

## YES $\blacktriangleright$ Remove the paper.

NO N

Is the sensor in the jamming area working? (Perform the input check: Refer to the following table.)

NO  $\rightarrow$  1. Check if the connector of the sensor is disconnected.

- 2. Check if any of the connectors on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the sensor.
  - 6. Replace the LGC board.

YES 🕈

Replace the LGC board.

(if a jam is occurring in the ADO, LCF or PFP, check the board in each unit.)				
Jamming area	Cover	Sensor	Test Mode/Input check	
	Jam access cover	Registration sensor	03-[FAX]ON/[9]/[E]	
Registration area		Upper drawer feed sensor	03-[FAX]ON/[3]/[H]	
Exit area	Fuser cover	Exit sensor	03-[FAX]OFF/[7]/[H]	
	ADU	ADU entrance sensor	03-[FAX]OFF/[8]/[H]	
ADU		ADU exit sensor	03-[FAX]OFF/[8]/[G]	
Feeding area (equipment)	Side cover	Lower drawer feed sensor	03-[FAX]ON/[3]/[G]	
Bypass unit	Bypass unit	Bypass feed sensor	03-[FAX]ON/[9]/[D]	
LCF	LCF side cover	LCF feed sensor	03-[FAX]OFF/[5]/[G]	
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]OFF/[2]/[D]	
		PFP lower drawer feed sensor	03-[FAX]OFF/[4]/[D]	
Bridge upit	Bridge unit	Bridge unit transport sensor-1	03-[FAX]ON/[0]/[C]	
Bridge unit		Bridge unit transport sensor-2	03-[FAX]ON/[0]/[A]	

Relation between the jamming area and the corresponding sensors/covers (If a jam is occurring in the ADU. LCF or PFP, check the board in each unit.)

#### [E090] Paper jam by HDD abnormality

- (1) Check if the error is cleared by turning the power OFF and then back ON.
- (2) Check if the connectors of the HDD are disconnected.
- (3) Check if the connector pins are disconnected or the harnesses are open circuited.
- (4) Replace the HDD.
- (5) Replace the SYS board.

### [E550] Paper remaining on the transport path

Open the cover of the unit/area whose picture is flashing on the control panel. Is there any paper on the transport path?

YES

NO

Is the sensor in the jamming area working? (Perform the input check: Refer to the following table)

NO  $\rightarrow$  1. Check if the connector of the sensor is disconnected.

- 2. Check if any of the connectors on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the sensor.
  - 6. Replace the LGC board.

YES 🕈

Replace the LGC board.

Relation between the jamming area and the corresponding sensors/covers (If a jam is occurring in the ADU, LCF or PFP, check the board in each unit.)

Jamming area	Cover	Sensor	Test Mode/Input check
Deviatuation area	Jam access cover	Registration sensor	03-[FAX]ON/[9]/[E]
Registration area		Upper drawer feed sensor	03-[FAX]ON/[3]/[H]
Exit area	Fuser cover	Exit sensor	03-[FAX]OFF/[7]/[H]
	ADU	ADU entrance sensor	03-[FAX]OFF/[8]/[H]
ADU		ADU exit sensor	03-[FAX]OFF/[8]/[G]
Bypass unit	Bypass unit	Bypass feed sensor	03-[FAX]ON/[9]/[D]
Feeding area (equipment)	Side cover	Lower drawer feed sensor	03-[FAX]ON/[3]/[G]
LCF	LCF side cover	LCF feed sensor	03-[FAX]OFF/[5]/[G]
DED	PFP side cover	PFP upper drawer feed sensor	03-[FAX]OFF/[2]/[D]
		PFP lower drawer feed sensor	03-[FAX]OFF/[4]/[D]
Bridge upit	Bridge unit	Bridge unit transport sensor-1	03-[FAX]ON/[0]/[C]
Bridge unit		Bridge unit transport sensor-2	03-[FAX]ON/[0]/[A]
Finisher	Finisher door	Sensors in the finisher	-

#### 5.1.5 Cover open jam

#### [E400] Jam access cover open

Is the jam access cover open?

YES  $\blacktriangleright$  Remove paper if there is any, then shut the cover.

NO 🛉

Is the voltage of 24V being supplied from the power supply unit? (Perform the input check: 03-[FAX] ON/[1]/[H])

NO **1**. Check if the connector for 24V power supply is disconnected.

- 2. Check if the connector CN350 on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 5. Replace the LGC board.

#### YES 🕈

Replace the LGC board.

### [E410] Front cover open jam

Is the front cover open?

YES Shut the cover.

NO N

Is the voltage of 24V being supplied from the power supply unit? (Perform the input check: 03-[FAX] ON/[1]/[H])

- NO  $\rightarrow$  1. Check if the connector for 24V power supply is disconnected.
  - 2. Check if the connector CN350 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the LGC board.

#### YES 🕈

Is the front cover opening/closing switch working? (Perform the input check: 03-[FAX]OFF/[7]/[F]

NO  $\rightarrow$  1. Check if the connector of the front cover opening/closing switch is disconnected.

- 2. Check if the connector CN345 on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 5. Replace the front cover opening/closing switch.
- 6. Replace the LGC board.

#### YES 🕈

Replace the LGC board.

#### [E420] PFP side cover open jam

Is the PFP side cover open?

NO

YES - Remove the paper if there is any, then shut the cover.

NO

Is the PFP side cover opening/closing switch working? (Perform the input check: 03-[FAX]OFF/[2]/[F])

- ► 1. Check if the connector of the PFP side cover opening/closing switch is disconnected.
  - 2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP side cover opening/closing switch.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

#### YES 🕇

1. Replace the PFP board.

2. Replace the LGC board.

# [E430] ADU open jam

### Is the ADU open?

YES  $\vdash$  Remove the paper if there is any, then shut the ADU.

NO

Is the ADU opening/closing switch working? (Perform the input check: 03-[FAX]OFF/[8]/[F])

- NO +1. Check if the connector of the ADU opening/closing switch is disconnected. 2. Check if either of the connectors CN211 or CN217 on the ADU board is
  - Check if either of the connectors CN211 or CN217 on the ADU board is disconnected.
  - 3. Check if the connector CN340 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the ADU board and LGC board are short circuited or open circuited.
  - 6. Replace the ADU opening/closing switch.
  - 7. Replace the ADU board.
  - 8. Replace the LGC board.

# YES 🕈

- 1. Replace the ADU board.
- 2. Replace the LGC board.

### [E440] Side cover open jam

Is the side cover open?

YES - Remove the paper if there is any, then shut the cover.

NO 🛉

Is the side door switch working?

(Perform the input check: 03-[FAX]OFF/[7]/[E])

- NO  $\rightarrow$  1. Check if the connector of the side door switch is disconnected.
  - 2. Check if the connector CN345 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the side door switch.
  - 6. Replace the LGC board.

YES **†** 

Replace the LGC board.

### [E450] LCF side cover open jam

Is the LCF side cover open?

YES - Remove the paper if there is any, then shut the cover.

NO

Is the LCF side cover opening/closing switch working? (Perform the input check: 03-[FAX]OFF/[5]/[D])

- NO 1. Check if the connector of the LCF side cover opening/closing switch is disconnected.
  - 2. Check if either of the connectors CN100 or CN106 on the LCF board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
  - 6. Replace the LCF side cover opening/closing switch.
  - 7. Replace the LCF board.
  - 8. Replace the LGC board.

## YES **V**

- 1. Replace the LCF board.
- 2. Replace the LGC board.

# [E480] Bridge unit open jam

Is the Bridge unit open?

YES - Remove the paper if there is any, then close the unit.

NO 🕇

Is the bridge unit cover opening/closing detection switch working?

(Perform the input check: 03-[FAX]ON/[0]/[B])

- NO -1. Check if the connector of the bridge unit cover opening/closing detection switch is disconnected.
  - 2. Check if the connector CN351 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the bridge unit cover opening/closing detection switch.
  - 6. Replace the LGC board.

YES 🕈

Replace the LGC board.

#### 5.1.6 RADF jam

#### Note:

When performing the RADF related troubleshooting, be sure to perform "Automatic adjustment of RADF sensor and EEPROM initialization (05-356)" and then "RADF original guide width adjustment (05-367, 368)" at Adjustment Mode whenever the RADF board, original length sensor, read sensor or reverse sensor has been replaced.

#### [E711] Jam not reaching the original length sensor [E712] Jam not reaching the registration sensor [E713] Stop jam at the original length sensor

Are the pickup roller, feed roller and separation roller stained or worn out?

YES └► Clean the rollers or replace them.

NO Y

Is the original excessively curled or folded?

YES Flatten and set it again.

NO

Are the original length sensor and registration sensor working? (Perform the input check: 03-[FAX]ON/[8]/[E], [7]/[H])

- NO -1. Check if the connectors of the original length sensor and registration sensor are disconnected.
  - 2. Check if the connector CN3 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the original length sensor and registration sensor.
  - 6. Replace the RADF board.

YES 🕈

Replace the RADF board.

## [E714] Feed signal reception jam

Is the empty sensor working? (Perform the input check: 03-[FAX]ON/[7]/[B])

	NO	▶ 1.	Check if the lever of empty sensor is working normally.
		2.	Check if the connector of the empty sensor is disconnected.
		3.	Check if the connector CN5 on the RADF board is disconnected.
		4.	Check if the connector pins are disconnected or the harnesses are open circuited.
		5.	Check if the conductor pattern on the RADF board is short circuited or open circuited.
		6.	Replace the empty sensor.
		7.	Replace the RADF board.
YES 🕈	7		

### [E721] Jam not reaching the read sensor

Are the registration roller and read roller stained?

NO

Is the read sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])

- ► 1. Check if the connector of the read sensor are disconnected.
  - 2. Check if the connector CN6 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the read sensor.
  - 6. Replace the RADF board.

YES 1

Replace the RADF board.

NO

#### [E722] Jam not reaching the exit sensor (during scanning) [E723] Jam not reaching the reverse sensor (during scanning)

Is the read roller stained?

NO

YES Clean the roller.

# NO

Are the exit sensor and reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E], [7]/[F])

↓ Check if the connectors of the exit sensor and reverse sensor are disconnected. 2. Check if the connector CN4 on the RADF board is disconnected.

- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
- 5. Replace the exit sensor and reverse sensor.
- 6. Replace the RADF board.

YES 🕈

Replace the RADF board.

## [E724] Stop jam at the registration sensor

Is the registration roller stained?

YES **Clean** the roller.

```
NO
```

NO

Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[7]/[H])

- ► 1. Check if the connector of the registration sensor is disconnected.
- 2. Check if the connector CN3 on the RADF board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
- 5. Replace the registration sensor.
- 6. Replace the RADF board.

YES 1

### [E725] Stop jam at the read sensor

Is the read roller stained?

NO

NO

Is the read sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])

- ▶ 1. Check if the connector of the read sensor is disconnected.
  - 2. Check if the connector CN6 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the read sensor.
  - 6. Replace the RADF board.

YES V

Replace the RADF board.

## [E726] Transport/exit signal reception jam

- 1. If the original remains in the RADF, remove it.
- 2. If any paper remains in the equipment, remove it.
- 3. Turn the power OFF and then back ON. If the jam still occurs, lead the following procedure.
- 4. Check the connection between the RADF board and SLG board, and the connection between the RADF board and switching power supply.
  - Are the connection of the connectors and joint connectors normal?
  - Are the connector pins disconnected or are the harnesses open circuited?
- 5. Check if the 24V and 5V outputs of the switching power supply are normal.
- 6. Check if the conductor pattern on the RADF board is short circuited or open circuited.
- 7. Replace the RADF board.
- 8. Check if the conductor pattern on the SLG board is short circuited or open circuited.
- 9. Replace the SLG board.

## [E731] Stop jam at the exit sensor

Is the exit roller stained?

NO

YES Clean the roller.

NO

Is the exit sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])

- →1. Check if the connector of the exit sensor is disconnected.
  - 2. Check if the connector CN4 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the exit sensor.
  - 6. Replace the RADF board.

YES 🕈

#### [E741] Stop jam at the reverse sensor

Are the read roller and reverse roller stained?

NO

Is the reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[F])

- 1. Check if the connector of the reverse sensor is disconnected.
  - 2. Check if the connector CN4 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the reverse sensor.
  - 6. Replace the RADF board.

YES V

Replace the RADF board.

NO

## [E742] Jam not reaching the reverse sensor (feeding in reverse)

Is the reverse roller stained?

YES Clean the roller.

NO

Is the reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[F])

- NO ► 1. Check if the connector of the reverse sensor is disconnected.
  - 2. Check if the connector CN4 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the reverse sensor.
  - 6. Replace the RADF board.

YES 1

Replace the RADF board.

## [E743] Jam not reaching the exit sensor (feeding in reverse)

Are the reverse roller and read roller stained?

YES Clean the rollers.

NO Is the exit sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])

► 1. Check if the connector of the exit sensor is disconnected.

- 2. Check if the connector CN4 on the RADF board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
- 5. Replace the exit sensor.
- 6. Replace the RADF board.

YES '

Replace the RADF board.

NO

#### [E860] Jam access cover open

Is the jam access cover opened?

YES  $\rightarrow$  Remove the original, if any, and close the jam access cover.

Is the jam access cover switch working? (Perform the input check: 03-[FAX]ON/[7]/[C])

- ► 1. Check if the connector of the jam access cover switch is disconnected.
  - 2. Check if the connector CN8 on the RADF board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the jam access cover switch.
  - 6. Replace the RADF board.

YES 🕈

Replace the RADF board.

NO

### [E870] RADF open jam

Is the RADF opened?

YES Premove the original, if any, and close the RADF.

NO

Is the RADF opening/closing sensor adjusted within the specified range?

NO Adjust the RADF opening/closing sensor.

YES

Is the RADF opening/closing sensor working? (Perform the input check: 03-[FAX]ON/[7]/[D])

NO +1. Check if the connector of the RADF opening/closing sensor is disconnected.

- 2. Check if the connector CN6 on the RADF board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the RADF board is short circuited or open circuited.
  - 5. Replace the RADF opening/closing sensor.
  - 6. Replace the RADF board.

YES 🔻

#### 5.1.7 Finisher jam

- (1) Jam in bridge unit
- [E910] Paper not reaching the bridge unit transport sensor-1
- [E920] Paper stopping at the bridge unit transport sensor-1
- [E930] Paper not reaching the bridge unit transport sensor-2
- [E940] Paper stopping at the bridge unit transport sensor-2

#### Is there any paper remaining inside the bridge unit?

YES - Remove the paper.

NO

Are the bridge unit transport sensors-1 and -2 working? (Perform the input check:03-[FAX]ON/[0]/[C], /[0]/[A])

- NO +1. Check if the connectors of the bridge unit transport sensors-1 and -2 are disconnected.
  - 2. Check if the connector J510 of the bridge unit is disconnected.
  - 3. Check if the connector CN351 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 6. Replace the bridge unit transport sensors-1 and -2.
  - 7. Replace the LGC board.

YES

Is the bridge unit gate solenoid working? (Perform the output check: 03-232)

NO  $\rightarrow$  1. Check if the connector J510 of the bridge unit is disconnected.

- 2. Check if the connector CN351 on the LGC board is disconnected.
- 3. Check if the connector pins are disconnected or the harnesses are open circuited.
- 4. Replace the bridge unit gate solenoid.
- 5. Replace the LGC board.

YES 🕈

Does the transport roller of the bridge unit work when the main motor is rotated? (Perform the output check: 03-101/151)

NO  $\vdash$  Check the drive system of the equipment and bridge unit.

YES V

Check if the rollers in the bridge unit are worn out.

#### (2) Paper jam in finisher section

### [EA10] Paper transport delay jam

#### MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

YES → Remove the paper. NO ▼ <u>Is the connector J10 on the finisher controller PC board disconnected?</u> <u>Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?</u> YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working normally? (Check the movement of the actuator.)

NO +1. Connect the connector of the inlet sensor securely.

- 2. Attach the actuator securely if its shaft is out of place.
- 3. Replace the inlet sensor.

YES ¥

Replace the finisher controller PC board.

#### MJ-1023/1024

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO

Is the connector J708 on the finisher controller PC board disconnected? Is the harness connecting the finisher controller PC board and inlet sensor (PI33) open circuited?

YES - Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

- NO **1**. Connect the connector of the inlet sensor securely.
  - 2. Attach the actuator securely if its shaft is out of place.
    - 3. Replace the inlet sensor.

YES 🕈

# [EA20] Paper transport stop jam

### MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

YES Connect the connector securely. Replace the harness.

NO 🕇

Is the inlet sensor working properly? (Check the movement of the actuator.)

NO + 1. Connect the connector of the inlet sensor securely. 2. Attach the actuator securely if its shaft is out of place.

3. Replace the inlet sensor.

YES 🕈

Replace the finisher controller PC board.

#### MJ-1023/1024

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO 🕇

Is any of the connectors (J707, J708 and J722B) on the finisher controller PC board disconnected? Is the harness between the finisher controller PC board and each sensor (the inlet sensor [PI33], the transport path sensor [PI34], the processing tray sensor [PI38]) open circuited?

YES - Connect the connectors securely. Replace the harnesses.

NO

Is each of the sensors (the inlet sensor, the transport path sensor and the processing tray sensor) working properly? (Check the movement of the actuator.)

- NO +1. Connect the connectors of the sensors securely.
  - 2. Attach the actuators securely if their shafts are out of place.
    - 3. Replace the sensors.

YES

# [EA30] Power-ON jam

## MJ-1022

Is there any paper remaining on the transport path in the finisher?

YES - Remove the paper.

NO y

Is the connector J10 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

YES - Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

NO  $\rightarrow$  1. Connect the connector of the inlet sensor securely.

2. Attach the actuator securely if its shaft is out of place.

3. Replace the inlet sensor.

YES 🕇

Replace the finisher controller PC board.

#### MJ-1023/1024

Is there any paper remaining on the transport path in the finisher?

YES - Remove the paper.

NO 🛉

Is any of the connectors J707, J708 and J722B on the finisher controller PC board disconnected? Is the harness between the finisher controller PC board and each sensor (the inlet sensor [PI33], the transport path sensor [PI34], the processing tray sensor [PI38], open circuited?

YES - Connect the connectors securely. Replace the harnesses.

NO 🕇

Is each of the sensors (the inlet sensor, the transport path sensor and the processing tray sensor) working properly?

(Check the movement of the actuator.)

NO  $\rightarrow$  1. Connect the connectors of the sensors securely.

- 2. Attach the actuators securely if their shafts are out of place.
- 3. Replace the sensors.

YES 🖌

## [EA40] Door open jam

### MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper. NO ¥ Is the finisher connected with the equipment? NO Connect the finisher with the equipment. YES 🕇 Is the connector J11 on the finisher controller PC board disconnected? Is the harness connecting the finisher controller PC board and joint sensor (S4) open circuited? YES - Connect the connector securely. Replace the harness. NO \* Is the joint sensor working properly? NO  $\rightarrow$  1. Connect the connector of the joint sensor securely. 2. Replace the joint sensor. YES V Replace the finisher controller PC board.

#### MJ-1023/1024

#### Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

Close the door.

NO

Is either of the covers upper or front of the finisher closed?

YES V

NO

Is any connectors J707 and J708 on the finisher controller PC board disconnected? Is the harness connecting the finisher controller PC board and upper/front cover opening sensors (PI31 and PI32) open circuited?

YES  $\blacktriangleright$  Connect the connector securely. Replace the harness.

NO 🕈

Is the upper/front cover opening sensor working properly?

NO **1**. Connect the connector of the upper/front cover opening sensor securely.

2. Replace the upper/front cover opening sensor.

YES 🕈

Is the connector J719 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and front cover switch (MS31) open circuited?

YES Connect the connector securely. Replace the harness.

NO

Is the front cover switch working properly?

NO  $\blacktriangleright$  1. Connect the connector of the front cover switch securely.

2. Replace the front cover switch.

Is the connector J5 on the punch controller PC board disconnected?

Is the harness connecting the punch controller PC board and upper door switch (MSW61) open circuited? Is the harness connecting the punch controller PC board and front door switch (MSW62) open circuited?

YES  $\vdash$  Connect the connector securely. Replace the harness.

NO

Are the upper and front door switches working properly?

NO 1. Connect the connectors of the upper and front door switches securely.
2. Replace the upper/front door switches.

YES 🕈

## [EA50] Stapling jam

## MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment or on the stapling tray?

YES Remove the paper.

NO

Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?

YES ►End.

NO ↓ Is the connector J8 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and stapling home position sensor (S17) open circuited?

Is the stapling home position sensor working properly?

Connect the connector of the stapling home position sensor securely.
Replace the stapling home position sensor.

YES 🛉

Replace the finisher controller PC board.

### MJ-1023/1024

NO

```
Is there any paper remaining on the transport path in the finisher or equipment or on the stapling tray?
```

YES - Remove the paper.

#### NO

Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?

NO

YES └► End.

Is the connector J721B on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and staple home position sensor (PI40) open circuited?

YES Connect the connector securely. Replace the harness.

NO

Is the staple home position sensor working properly?

NO 1. Connect the connector of the staple home position sensor securely.
2. Replace the staple home position sensor.

# YES v

# [EA60] Early arrival jam

## MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

YES  $\vdash$  Remove the paper.

NO 🛉

Is the connector J10 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (S2) open circuited?

YES - Connect the connector securely. Replace the harness.

NO 🕇

Is the inlet sensor working properly? (Check the movement of the actuator.)

NO
1. Connect the connector of the inlet sensor securely.
2. Attach the actuator securely if its shaft is out of place.

3. Replace the inlet sensor.

YES 🛉

Replace the finisher controller PC board.

#### MJ-1023/1024

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO 🕇

Is the connector J708 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI33) open circuited?

YES - Connect the connector securely. Replace the harness.

NO 🕇

Is the inlet sensor working properly? (Check the movement of the actuator.)

NO - 1. Connect the connector of the inlet sensor securely.

- 2. Attach the actuator securely if its shaft is out of place.
- 3. Replace the inlet sensor.

YES 🕈

## [EA70] Stack delivery jam

# MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO 🕇

Is the connector J9 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and stack delivery lever home position sensor (S8) open circuited?

YES Connect the connector securely. Replace the harness.

NO v

Is the stack delivery lever home position sensor working properly?

- NO -1. Connect the connector of the stack delivery lever home position sensor securely.
  - 2. Replace the stack delivery lever home position sensor.

YES

Replace the finisher controller PC board.

## [EAF0] Stack return jam

### MJ-1022

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO

Is the connector J10 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and returning roller home position sensor (S3) open circuited?

YES Connect the connector securely. Replace the harness.

NO 🔹

Is the returning roller home position sensor working properly?

NO Let 1. Connect the connector of the returning roller home position sensor securely. 2. Replace the returning roller home position sensor.

YES ,

#### (3) Paper jam in saddle stitcher section

# [EA80] Stapling jam

### MJ-1024

Is there any paper remaining on the transport path or the stapling tray in the finisher, saddle stitcher section or equipment?

YES - Remove the paper.

NO

Is the jam cleared by taking off the staple cartridge from the finisher and removing the staples stuck in the stapling unit?

YES End.

NO 🛉

Is the connector J8 on the saddle stitcher controller PC board disconnected?

Is the harness connecting the saddle stitcher controller PC board and stitcher home position switch (rear: SW5, front: SW7 open circuited?

YES Connect the connector securely. Replace the harness.

NO 🕇

Are the stitcher home position switches working properly?

NO -1. Connect the connectors of the stitcher home position switches securely. 2. Replace the stitcher home position switches.

YES ¥

Replace the saddle stitcher controller PC board.

# [EA90] Door open jam

## MJ-1024

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or equipment?

YES  $\blacktriangleright$  Remove the paper.

NO 🕇

Is the saddle stitcher door closed?

NO Close the door.

YES 🛉

Is either of the connectors J10 or J11 on saddle stitcher controller PC board disconnected? Are the harnesses between the saddle stitcher controller PC board and cover opening sensors (delivery cover sensor [PI3], inlet cover sensor [PI9]) open circuited?

YES - Connect the connector securely. Replace the harness.

NO

Is each of the sensors (delivery cover sensor, inlet cover sensor) working properly?

NO  $\rightarrow$  1. Connect the connectors of the each sensor securely.

YES 🖌

# [EAA0] Power-ON jam

## MJ-1024

Is there any paper remaining on the transport path in the finisher or saddle stitcher section?

YES - Remove the paper.

NO 🛉

Is any of the connectors J9, J10 and J13 on the saddle stitcher controller PC board disconnected? Is the harness between the saddle stitcher controller PC board and each sensor (No.1 paper sensor [PI18], No.2 paper sensor [PI19], No.3 paper sensor [PI20], the vertical path paper sensor [PI17] and the delivery sensor[PI11]) open circuited?

YES - Connect the connectors securely. Replace the harnesses.

NO 🕇

Is each of the sensors (No.1 paper sensor, No.2 paper sensor, No.3 paper sensor, the vertical path paper sensor, and the delivery sensor) working properly?

(Check the movement of the actuator.)

- NO  $\rightarrow$  1. Connect the connectors of the sensors securely.
  - 2. Attach the actuators securely if their shafts are out of place.
  - 3. Replace the sensors.

YES 🕈

Replace the saddle stitcher controller PC board.

## [EAB0] Paper transport stop jam

### MJ-1024

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or equipment?

YES - Remove the paper.

NO 🕇

Is the connector J708 on finisher controller PC board disconnected?

Is the harness between the finisher controller PC board and inlet sensor [PI33] open circuited? Is either of the connectors J9 or J10 on the saddle stitcher controller PC board disconnected? Is the harness between the saddle stitcher controller PC board and each sensor (No.1 paper sensor [PI18], No.2 paper sensor [PI19], No.3 paper sensor [PI20] and the delivery sensor [PI11]) open circuited?

YES  $\blacktriangleright$  Connect the connectors securely. Replace the harnesses.

NO 🕇

Is each of the sensors (the inlet sensor, No.1 paper sensor, No.2 paper sensor, No.3 paper sensor and the delivery sensor) working properly?

(Check the movement of the actuator.)

- NO  $\vdash$  1. Connect the connectors of the sensors securely.
  - 2. Attach the actuators securely if their shafts are out of place.
  - 3. Replace the sensors.

YES 🕈

Replace the saddle stitcher controller PC board.

# [EAC0] Transport delay jam

### MJ-1024

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or equipment?

YES I Remove the paper.

NO 🛉

Is the connector J708 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI33) open circuited?

YES  $\blacktriangleright$  Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

NO 1. Connect the connector of the sensor securely.

- 2. Attach the actuator securely if its shaft is out of place.
- 3. Replace the sensor.

YES 🕈

Replace the finisher controller PC board.

### (4) Paper jam in puncher unit

### [E9F0] Punching jam

### MJ-1023/1024

Is there any paper remaining on the transport path in the finisher or equipment?

YES - Remove the paper.

NO

Is the connector J605A on the punch controller PC board disconnected?

Is the harness connecting the punch controller PC board and punch home position sensor (PI63) open circuited?

YES - Connect the connector securely. Replace the harness.

NO

Is the punch home position sensor working properly?

NO + 1. Connect the connector of the punch home position sensor securely. 2. Replace the punch home position sensor.

YES 🕇

Replace the punch controller PC board.

#### (5) Other paper jam

#### [EAD0] Print end command time-out jam

Is the main motor rotating normally?

NO 🕇

- 1. Replace the SYS board.
- 2. Replace the LGC board.

#### [EAE0] Receiving time time-out jam

Is the finisher working?

YES - Replace the finisher controller PC board.

NO 🕈

- 1. Check if the voltage (24V) is being supplied to the finisher.
- 2. Check the connection of the LGC board and IPC board.
- 3. Check if the harness connecting the IPC board and finisher I/F connector of the equipment side is open circuited.
- 4. Check if the harness connecting the I/F connector of the finisher side and finisher controller PC board is open circuited.
- 5. Replace the finisher controller PC board.

### [EB30] Ready time time-out jam

Is there paper in the equipment?

NO Replace the LGC board.

YES 🖌

Are the IPC board and LGC board properly connected to each other?

NO Connect them properly.

YES 1

Is the harness securely connected to the IPC board?

NO Connect the harness properly.

YES 🖌

Is any of the connector pins of the harness connecting the equipment and finisher disconnected or any of those harnesses open circuited?

NO Connect the pin or replace the harness.

#### YES 1

- 1. Replace the IPC board.
- 2. Replace the LGC board.
- 3. Replace the finisher controller PC board.

#### 5.1.8 Drive system related service call

### [C010] Main motor abnormality

Is the main motor working? (Perform the output check: 03-101/151)

- NO **1**. Check if the connector J581 of the main motor is disconnected.
  - 2. Check if the connector CN347 on the LGC board is disconnected.
    - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor patterns on the main motor board and LGC board are short circuited or open circuited.
  - 5. Replace the main motor.
  - 6. Replace the LGC board.

#### YES 🕈

- 1. Check if the PLL lock signal CN347-8 pin output from the LGC board is always level "L".
- 2. Check if the voltage supplied to the ASIC input terminal IC38-152 pin is always "L".
- 3. Replace the LGC board.

NO

### [C020] Developer motor abnormality

#### Is the developer unit motor working? (Perform the output check: 03-112/162)

- L Check if the connector J578 of the developer motor is disconnected.
  2. Check if the connector CN348 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor patterns on the developer motor board and LGC board are short circuited or open circuited.
  - 5. Replace the developer motor.
  - 6. Replace the LGC board.

#### YES 🕈

- 1. Check if the PLL lock signal CN348-B6 pin output from the LGC board is always level "L".
- 2. Check if the voltage supplied to the ASIC input terminal IC38-150 pin is always "L".
- 3. Replace the LGC board.

NO

## [C030] Transport motor abnormality

Is the transport motor working? (Perform the output check: 03-123/173)

- ► 1. Check if the connector J582 of the transport motor is disconnected.
  - 2. Check if the connector CN348 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor patterns on the transport motor board and LGC board are short circuited or open circuited.
  - 5. Replace the transport motor.
  - 6. Replace the LGC board.

YES 🕈

- 1. Check if the PLL lock signal CN348-A7 pin output from the LGC board is always level "L".
- 2. Check if the voltage supplied to the ASIC input terminal IC38-149 pin is always "L".
- 3. Replace the LGC board.

#### 5.1.9 Paper feeding system related service call

### [C040] PFP motor abnormality

Is the PFP motor working? (Perform the output check: 03-109/159)

NO	▶1.	Check if the signal line connector CN503 of the PFP motor is disconnected.
----	-----	--

- 2. Check if the power line connector CN502 of the PFP motor is disconnected.
  - 3. Check if the connector CN246 on the PFP board is disconnected.
  - 4. Check if the signal line connector CN241 on the PFP board is disconnected.
  - 5. Check if the power line connector CN242 on the PFP board is disconnected.
  - 6. Check if the connector CN332 on the LGC board is disconnected.
  - 7. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 8. Check if the conductor patterns on the PFP motor board, PFP board and LGC board are short circuited or open circuited.
  - 9. Replace the PFP motor.
  - 10. Replace the PFP board.
  - 11. Replace the LGC board.

### YES

Is the LED on the PFP motor board lit without flashing?

- Check if the connector pins are disconnected or the harnesses are open circuited.
   Check if the conductor patterns on the PFP motor board, PFP board and LGC board are short circuited or open circuited.
  - 3. Replace the PFP motor.
  - 4. Replace the PFP board.
  - 5. Replace the LGC board.

### YES 🕈

- 1. Check if the PLL lock signal CN246-8 pin output from the PFP board is always "L" level.
- 2. Check if the voltage supplied to the microcomputer input terminal IC5-17 pin is always "L" level.
- 3. Replace the PFP board.

NO

4. Replace the LGC board.

## [C130] Upper drawer tray abnormality

#### [C140] Lower drawer tray abnormality

#### Does the tray go up? (Perform the output check: 03-242, 243)

- NO ►1. Check if the connector of the tray-up motor is disconnected. 2. Check if the connector CN337 on the LGC board is disconnected. 3. Check if the connector pins are disconnected or the harnesses are open circuited. 4. Check if the conductor pattern on the LGC board is short circuited or open circuited. 5. Replace the LGC board. YES Is the tray-up sensor working? (Perform the input check: 03-[FAX]OFF/[6]/[H], /[6]/[G]) ↓ 1. Check if the connector of the sensor is disconnected. NO 2. Check if the connector CN337 on the LGC board is disconnected. 3. Check if the slit reaches the sensor. 4. Check if the connector pins are disconnected or the harnesses are open circuited. 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 6. Replace the LGC board.

YES V

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

# [C150] PFP upper drawer tray abnormality

#### [C160] PFP lower drawer tray abnormality

Does the tray go up? (Perform the output check: 03-278, 280)

- NO **1**. Check if the connector of the tray-up motor is disconnected.
  - 2. Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 6. Replace the PFP board.
  - 7. Replace the LGC board.

#### YES 🕈

Is the tray-up sensor working?

(Perform the input check: 03-[FAX]OFF/[2]/[H], /[4]/[H])

NO

- ►1. Check if the connector of the sensor is disconnected.
  - 2. Check if any of the connectors CN241, CN247 and CN248 on the PFP board is disconnected.
  - 3. Check if the connector CN332 on the LGC board is disconnected.
  - 4. Check if the slit reaches the sensor.
  - 5. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 6. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
  - 7. Replace the PFP board.
  - 8. Replace the LGC board.

YES 🕇

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

### [C180] LCF tray motor abnormality

Does the tray move? (Perform the output check: 03-271)



- 7. Replace the LCF board.
- 8. Replace the LGC board.

YES 🕈

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

### [C1A0] LCF end fence motor abnormality

Is the LCF end fence motor working? (Perform the output check: 03-207) ► 1. Check if the connector of the LCF end fence motor is disconnected. NO 2. Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected. 3. Check if the connector CN332 on the LGC board is disconnected. 4. Check if the connector pins are disconnected or the harnesses are open circuited. 5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited. 6. Replace the LCF board. 7. Replace the LGC board. YES V Are the LCF end fence home/stop position sensors working? (Perform the input check: 03-[FAX]OFF/[5]/[A], /[5]/[B]) NO ► 1. Check if the connectors of the sensors are disconnected. 2. Check if either of the connectors CN100 or CN107 on the LCF board is disconnected. 3. Check if the connector CN332 on the LGC board is disconnected.

- Check if the slit reaches the sensors.
- 5. Check if the connector pins are disconnected or the harnesses are open circuited.
- 6. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
- 7. Replace the LCF board.
- 8. Replace the LGC board.

YES 🕈

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

NO

#### [C1B0] LCF transport motor abnormality

- ►1. Check if the connector CN112 of the LCF transport motor is disconnected.
  - 2. Check if the connector CN102 on the LCF board is disconnected.
  - 3. Check if the signal line connector CN100 on the LCF board is disconnected.
  - 4. Check if the power line connector CN101 on the LCF board is disconnected.
    - 5. Check if the connector CN332 on the LGC board is disconnected.
    - 6. Check if the connector pins are disconnected or the harnesses are open circuited.
    - 7. Check if the conductor patterns on the LCF transport motor board, LCF board and LGC board are short circuited or open circuited.
    - 8. Replace the LCF transport motor.
    - 9. Replace the LCF board.
    - 10. Replace the LGC board.

# YES 🕈

- 1. Check if the connector pins are disconnected or the harnesses are open circuited.
- 2. Check if the conductor patterns on the LCF transport motor board, LCF board and LGC board are short circuited or open circuited.
- 3. Check if the PLL lock signal CN102-3 pin output from the LCF board is always "L" level.
- 4. Check if the voltage supplied to the microcomputer input terminal IC103-17 pin is always "L" level.
- 5. Replace the LCF transport motor.
- 6. Replace the LCF board.
- 7. Replace the LGC board.

### 5.1.10 Scanning system related service call

### [C260] Peak detection error

Does the exposure lamp light? (Perform the output check: 03-267)



- 2. Check if the shading correction plate is dirty.
- 3. Check if the conductor pattern on the CCD board is short circuited or open circuited.
- 4. Check if the conductor pattern on the SLG board is short circuited or open circuited.
- 5. Replace the lens unit.
- 6. Replace the SLG board.

NO

- 1. Check if the connectors of the exposure lamp and inverter are disconnected.
- 2. Check the SLG board if the connector pin CN21 is disconnected or the harness is short circuited or open circuited.
- 3. Check if the conductor pattern on the SLG board is short circuited or open circuited.
- 4. Replace the SLG board.
- 5. Replace the inverter.
- 6. Replace the exposure lamp.

#### [C270] Carriage home position sensor not going OFF within a specified time [C280] Carriage home position sensor not going ON within a specified time

Remove the original glass and move the carriages to the paper feeding side. Turn ON the power and check the following items.

[C270] Are the carriages slightly moved to the feeding direction?/Are the carriages staying at a position other than home position?

YES  $\vdash$  Check if the circuits of the SLG and SDV boards are abnormal.

# NO 🕈

- 1. Check if the connector pin is disconnected or the harness is short circuited or open circuited.
- 2. Check if the conductor pattern on the SDV board is short circuited or open circuited.
- 3. Check if the conductor pattern on the SLG board is short circuited or open circuited.
- 4. Replace the SDV board.
- 5. Replace the SLG board.

[C280] Do the carriages make a big noise after they arrive at the home position?

YES **\** The carriage home position sensor is not turned ON.

- 1. Check if the connector of the sensor is disconnected.
  - 2. Check if the circuits of the SDV and SLG boards are abnormal.

# NO N

The carriages are stopped at the home position and do not move.

- 1. Check if the connector pins are disconnected or the harnesses are short circuited or open circuited.
- 2. Check if the conductor pattern on the SDV board is short circuited or open circuited.
- 3. Check if the conductor pattern on the SLG board is short circuited or open circuited.
- 4. Replace the SDV board.
- 5. Replace the SLG board.
#### 5.1.11 Fuser unit related service call

#### CAUTION: -

Be sure to turn OFF the power and unplug the power cable beforehand when checking the IH control circuit and IH coil.

The fuser unit itself or the part of the unit remains heated and the capacitors are still charged after a while the power cable is unplugged. So make sure the unit is cooled down enough before checking.

#### [C410] Thermistor or heater abnormality at power ON

#### 1. Check the thermistors

- (1) Check if the connectors are disconnected.
- (2) Check if the main, sub and front edge thermistors are in contact with the surface of the fuser belt properly?
- (3) Check if the harnesses of the main, sub and front edge thermistors are open circuited.

#### 2. Check the IH control board and IH coil

- (1) Check if the IH coil is broken.
- (2) Check if the connector of the IH coil is disconnected.
- (3) Check if the thermostats are blown.
- (4) Check if the connectors on the IH control board are disconnected (AC input connectors CN450, 451 and LGC I/F connectors CN455, 456).
- (5) Check if the IH control board or the switching power supply unit is abnormal.

#### 3. Check the LGC board

- (1) Check if the connector CN358 is disconnected.
- (2) Check if the conductor pattern on the LGC board is short circuited or open circuited.
- (3) Replace the LGC board.

#### 4. Clear the status counter

After repairing the matter which caused the error [C410], perform the following:

- (1) Turn ON the power while [0] and [8] are pressed simultaneously.
- (2) Key in "400", then press the [START] button.
- (3) Change the current status counter value "1" or "2" to "0", then press the [ENTER] button or [INTERRUPT] button (to cancel [C410]).
- (4) Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state.

#### [C430] Thermistor abnormality after abnormality judgment [C440] Heater abnormality after abnormality judgment

1.2.3. Check the thermistors, IH control board, IH coil and LGC board Check the above components following the procedure 1, 2 and 3 for [C410].

4. Clear the status counter

Change the current status counter value (08-400) "4" to "0" for [C430] and "5", "7" or "9" to "0" for [C440], taking the same procedure as that for [C410].

- \* The status counter value is as follows in the following cases. Change them to "0" respectively.
- The error occurred during warming-up : "4" or "5"
- The error occurred after the equipment has become ready: "7"
- The temperature detected by the main thermistor is 230°C or higher: "9"
- The temperature detected by the sub thermistor is 230°C or higher: "9"

## [C450] Thermistor abnormality during printing

1. Check the front edge thermistor

- (1) Check if the connector is disconnected.
- (2) Check if the front edge thermistor is in contact with the surface of the fuser belt properly.
- (3) Check if the harness of the front edge thermistor is open circuited.

#### 2. Check the LGC board

(1) Check if the connector CN358 is disconnected.

- (2) Check if the conductor pattern on the board is short circuited or open circuited.
- (3) Replace the LGC board.

3. Clear the status counter

Change the current status counter value (08-400) "6" to "0".

#### [C470] IH initialization or IH power voltage abnormality

1. Check the AC input voltage

Check if the AC input voltage is within the specified range. (especially when the heater becomes ON after the power is turned ON [the equipment is warming up])

2. Check the thermostats

Check if the thermostats are blown.

3. Check the IH control board

- (1) Check if the AC input connectors CN450, 451 on the IH control board or the LGC I/F connectors CN455, 456 are disconnected?
- (2) Check if the fuse on the IH control board has blown.
- (3) Replace the IH control board.

#### 4. Check the LGC board

- (1) Check if the connector CN358 is disconnected.
- (2) Check if the conductor pattern on the board is short circuited or open circuited.
- (3) Replace the LGC board.

5. Clear the status counter

Change the values "10", "11", "14" or "17" of the status counter (08-400) to "0".

- \* The status counter value is as follows in the following cases. Change them to "0" respectively.
- The error occurred immediately after the power was turned ON: "10"
- The error occurred before the temperature of the fuser roller reaches 40°C: "11"
- The error occurred before the equipment has become ready: "14"
- The error occurred when the equipment is in the ready state: "17"

## [C480] Overheating of IGBT

#### 1. Check the operation of the IH control board cooling fan

Check if the IH control board cooling fan is rotating normally. (Is the connector securely connected?)

#### 2. Check the IH board

- (1) Check if the IGBT or IGBT radiation plate is normal. (Is the radiation plate securely attached?)
- (2) Check if the conductor pattern on the board is short circuited or open circuited.
- (3) Replace the IH board.

#### 3. Clear the status counter

Change the values "12", "15" or "18" of the status counter (08-400) to "0".

- \* The status counter value is as follows in the following cases. Change them to "0" respectively.
- The error occurred before the temperature of the fuser roller reaches 40°C: "12"
- The error occurred before the equipment has become ready: "15"
- The error occurred when the equipment is in the ready state: "18" (When the only one side of IH coil is energized continuously for 15 seconds)

#### [C490] IH control circuit or IH coil abnormality

#### 1. Check the IH board

- (1) Check if the conductor pattern on the board is short circuited or open circuited.
- (2) Replace the IH board.

#### 2. Check the IH coil

- (1) Check if the coil is broken or short out.
- (2) Replace the IH coil.

#### 3. Clear the status counter

Change the values "13", "16" or "19" of the status counter (08-400) to "0".

- \* The status counter value is as follows in the following cases. Change them to "0" respectively.
- The error occurred before the temperature of the fuser roller reaches 40°C: "13"
- The error occurred before the equipment has become ready: "16"
- The error occurred when the equipment is in the ready state: "19"

When the problem is solved, [C470], [C480] and [C490] can be cleared by turning OFF and ON the main switch so the status counter does not have to be changed to "0". The value of the status counter remains the same until the next service call overwrites the value.

#### 5.1.12 Communication related service call

#### [C550 (C780)] RADF I/F error

- (1) Check if the harness connecting the RADF board and SLG board is disconnected or open circuited.
- (2) Check if the conductor pattern on the RADF board is short circuited or open circuited.
- (3) Check if the conductor pattern on the SLG board is short circuited or open circuited.
- (4) Replace the RADF board.
- (5) Replace the SLG board.

## [C570] Communication error between Engine-CPU and IPC board

- (1) Check if the LGC board and IPC board are connected properly.
- (2) Check if the conductor pattern on the IPC board is short circuited or open circuited.
- (3) Check if the conductor pattern on the LGC board is short circuited or open circuited.
- (4) Replace the IPC board.
- (5) Replace the LGC board.

## [C580] Communication error between IPC board and finisher

- (1) Check if the specified finisher is attached.
- (2) Check if the harness connecting the IPC board and the finisher controller PC board is disconnected or open circuited.
- (3) Check if the conductor pattern on the IPC board is short circuited or open circuited.
- (4) Check if the conductor pattern on the finisher controller PC board is short circuited or open circuited.
- (5) Replace the IPC board.
- (6) Replace the finisher controller PC board.

# [F070] Communication error between System-CPU and Engine-CPU

- (1) Check if the harness connecting the SYS board and LGC board is disconnected or open circuited.
- (2) Check the version of the system ROM on the SYS board.
- (3) Check the version of the engine ROM version on the LGC board.
- (4) Replace the SYS board.
- (5) Replace the LGC board.

# [F110] Communication error between System-CPU and Scanner-CPU

# [F111] Scanner response abnormality

- (1) Check if the harness connecting the SYS board and SLG board is disconnected or open circuited.
- (2) Check the version of the system ROM on the SYS board.
- (3) Check the version of the scanner ROM version on the SLG board.
- (4) Replace the SYS board.
- (5) Replace the SLG board.

#### 5.1.13 RADF related service call

#### Note:

When performing the RADF related troubleshooting, be sure to perform "Automatic adjustment of RADF sensor and EEPROM initialization (05-356)" and then "RADF original guide width adjustment (05-367, 368) at Adjustment Mode whenever the RADF board, original length sensor, read sensor or reverse sensor has been replaced.

#### [C730] EEPROM initialization error

(1) Check if the conductor pattern on the RADF board is short circuited or open circuited.

(2) Replace the RADF board.

#### [C810] Fan motor abnormality

- (1) Check if the load on the motor shaft is normal.
- (2) Remove any foreign matter.
- (3) Check if the harness connecting the fan motor and RADF board is open circuited.
- (4) Check if the power is supplied to the pin 1 of the CN9 on the RADF board during the operation.
- (5) Check if the conductor pattern on the RADF board is short circuited or open circuited.
- (6) Replace the fan motor.
- (7) Replace the RADF board.

#### [C820] Read sensor adjustment error

- (1) Check if there is any foreign matter between the read sensor and the reflecting mirror. Check if the reflecting mirror is dirty.
- (2) Check if the harness connecting the read sensor and the RADF board is open circuited.
- (3) Check if the conductor pattern on the RADF is short circuited or open circuited.
- (4) Replace the read sensor.
- (5) Replace the RADF board.

#### [C830] Original length sensor adjustment error

- (1) Check if there are any foreign objects between the original length sensor and the reflecting mirror. Check if the reflecting mirror is dirty.
- (2) Check if the harness connecting the original length sensor and the RADF board is open circuited.
- (3) Check if the conductor pattern on the RADF board is short circuited or open circuited.
- (4) Replace the original length sensor.
- (5) Replace the RADF board.

#### 5.1.14 Circuit related service call

#### [C900] Connection error between the SYS board and the LGC board

- (1) Check if the connector CN117 on the SYS board is completely inserted or not disconnected.
- (2) Check if the connector CN338 on the LGC board is completely inserted or not disconnected.
- (3) Check if the harness connecting the SYS board (CN117) and the LGC board (CN338) is open circuited.
- (4) Check if the conductor pattern on each board is short circuited or open circuited.
- (5) Replace the SYS board.
- (6) Replace the LGC board.

#### [C940] Engine-CPU abnormality

Does service call still occur even after turning OFF the main switch then back ON?

► Leave it for a while and see how.

YES V

- 1. Check if the conductor pattern between the Engine-CPU and FROM is short circuited or open circuited.
- 2. Replace the LGC board if it frequently occurs.

#### [C950] Memory of the LGC board abnormality, ID abnormality

- (1) Check if the connectors CN360 and CN 331 on the SYS board are completely inserted or not disconnected.
- (2) Check if the connector J434 on the DRV board is completely inserted or not disconnected.
- (3) Check if the conductor pattern on each board is short circuited or open circuited.
- (4) Replace the NVRAM.
- (5) Replace the LGC board.
- (6) Replace the DRV board.
- (7) Replace the SYS board.
- (8) Ask a specialist for a repair (Abnormal ID).

#### [C960] Connection error between the LGC board and the DRV board, ID abnormality

- (1) Check if the connectors CN360 and CN331 on the LGC board are completely inserted or not disconnected.
- (2) Check if the connector J434 on the DRV board is completely inserted or not disconnected.
- (3) Check if the harness connecting the DRV board (J434) and the LGC board (CN360) is open circuited.
- (4) Check if the harness connecting the LGC board (CN331) and the high-voltage transformer (J480) is open circuited.
- (5) Check if the conductor pattern on each board is short circuited or open circuited.
- (6) Replace the DRV board.
- (7) Replace the LGC board.
- (8) Ask a specialist for a repair (Abnormal ID).

#### [C9E0] Connection error between the SLG board and the SYS board

- (1) Check if the connector CN18 of the SLG board is completely inserted or not disconnected.
- (2) Check if the connector CN102 of the SYS board is completely inserted or not disconnected.
- (3) Check if the harness connecting the SLG board (CN18) and the SYS board (CN102) is open circuited.
- (4) Check if the conductor pattern on each board is short circuited or open circuited.
- (5) Replace the SLG board.
- (6) Replace the SYS board.

#### [F090] SRAM abnormality on the SYS board

- (1) Turn the power OFF and start up the Setting Mode (08).
- (2) When the message "SRAM ERROR DOES IT INITIALIZE?" is displayed on the LCD, press the [INITIALIZE] button. (SRAM is cleared.)
- (3) Turn the power OFF and then back ON. If the error is not recovered, replace the SYS board.

#### [F091] NVRAM abnormality on the SYS board

- (1) Turn the power OFF and start up the Setting Mode (08).
- (2) When the message "NVRAM ERROR DOES IT INITIALIZE?" is displayed on the LCD, press the [INTERRUPT] or [INITIALIZE] button. (NVRAM is initialized.)
- (3) Perform the panel calibration (08-692).

#### Note:

When the NVRAM is initialized, the scanner and image processing related adjustments are also initialized. Readjust them after the NVRAM initialization.

(4) Turn the power OFF and then back ON. If the error is not recovered, replace the NVRAM on the SYS board.

#### [F092] SRAM/NVRAM abnormality on the SYS board

- (1) Turn the power OFF and start up the Setting Mode (08).
- (2) When the message "NVRAM/SRAM ERROR DOES IT INITIALIZE?" is displayed on the LCD, press the [INTERRUPT] or [INITIALIZE] button. (SRAM is cleared and NVRAM is initialized.)
- (3) Perform the panel calibration (08-692).

#### Note:

When the NVRAM is initialized, the scanner and image processing related adjustments are also initialized. Readjust them after the NVRAM initialization.

(4) Turn the power OFF and then back ON. If the error is not recovered, replace the NVRAM on the SYS board.

#### [F350] SLG board abnormality

- (1) Check if the conductor pattern on the SLG board is short circuited or open circuited.
- (2) Replace the SLG board.

## 5.1.15 Laser optical unit related service call

# [CA10] Polygonal motor abnormality

Is the polygonal motor rotating?

NO

- ►1. Check if the connector CN352 on the LGC board is disconnected.
  - 2. Check if the harness is open circuited or the connector pin is disconnected.
  - 3. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 4. Replace the laser optical unit.
  - 5. Replace the LGC board.

YES 🕈

Is the printed image distorted?

- YES +1. Check if the connector CN352 on the LGC board is almost disconnected.
  2. Check if the harness is almost open circuited or the connector pin is almost disconnected.
  - 3. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 4. Check if the laser unit cooling fan is stopped.
  - 5. Check if the suction area of laser unit cooling fan is plugged up.
  - 6. Replace the laser optical unit.
  - 7. Replace the LGC board.

# NO 🕈

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Check if the units with high-voltage (developer unit, transfer belt unit and 2nd transfer roller unit) are securely grounded.
- 3. Check if the bias supply joints of the units with high-voltage are securely connected or they are not stained.
- 4. Check if the plate in paper transport system is securely grounded.
- 5. Check if the equipment is grounded.
- 6. Check if the laser unit cooling fan is stopped.
- 7. Check if the suction area of laser unit cooling fan is plugged up.
- 8. Replace the laser optical unit.
- 9. Replace the LGC board.

# [CA20] H-Sync detection error

Is the cable (flexible flat type) between the connector (CN334) on the LGC board and connector (CN201) on the LDR board open circuited, broken or disconnected?

YES	▶1.	Reconnect the cable.
-----	-----	----------------------

- 2. Check if the connector on the LGC board hold the cable securely.
- 3. Replace the laser optical unit.

# NO 🕈

- 1. Check if the units with high-voltage (developer unit, transfer belt unit and 2nd transfer roller unit) are securely grounded.
- 2. Check if the bias supply joints of the units with high-voltage are securely connected or they are not stained.
- 3. Check if the plate in paper transport system is securely grounded.
- 4. Check if the equipment is grounded.
- 5. Check if the conductor pattern is short circuited or open circuited.
- 6. Replace the LGC board.
- 7. Replace the laser optical unit.

#### 5.1.16 Finisher related service call

## [CB20] Delivery motor abnormality

#### MJ-1022

Rotate the delivery roller by hand. Does it rotate smoothly?

Fix the mechanism. NO

Is the wiring between the finisher controller PC board and delivery motor (M1) correct?

NO └►Correct the wiring.

YES V

YES Y

Is the delivery motor clock sensor (S1) working properly?

NO Replace the sensor.

YES V

- 1. Replace the delivery motor.
- 2. Replace the finisher controller PC board.

# [CB30] Tray 1/2 shift motor abnormality

## MJ-1023/1024

Are the tray 1 shift area sensors 1-3 and tray 2 shift area sensors 1-3 normal?

NO ► Replace the tray 1/2 shift area sensor boards.

YES V

Are the wirings between the finisher controller PC board and the tray 1/2 shift motors

(M37/M38) correct?

Correct the wirings. NO

YES 1

Is there any problem with the tray lift mechanism?

Fix the lift mechanism. NO

YES

1. Replace the tray 1/2 shift motors.

2. Replace the finisher controller PC board.

## [CB40] Rear aligning plate motor abnormality

#### MJ-1023/1024

Is the rear aligning plate home position sensor (PI37) normal?

NO Replace the sensor.

YES Y

Is the wiring between the finisher controller PC board and the rear aligning plate motor (M34) correct?

NO Correct the wiring. YES V

Is there any mechanical problem with the path of aligning plate?

Fix the mechanism. NO

YES

- 1. Replace the rear aligning plate motor.
- 2. Replace the finisher controller PC board.

## [CB50] Staple motor abnormality

#### MJ-1022/1023/1024

Is the wiring between the stapler and finisher controller PC board correct?

YES V

1. Replace the stapler.

NO

2. Replace the finisher controller PC board.

Correct the wiring.

#### [CB60] Stapler unit shift motor abnormality

#### MJ-1023/1024

Is the stapler shift home position sensor (PI40) working normally?

NO

Replace the sensor.

YES 1

Is the wiring between the finisher controller PC board and the stapler shift motor (M35) correct?

NO  $\blacktriangleright$  Correct the wiring.

YES v

Is there any mechanical problem with the stapler stand motion path?

YES  $\vdash$  Fix the mechanism.

NO

- 1. Replace the stapler shift motor.
- 2. Replace the finisher controller PC board.

# [CB80] Backup RAM data abnormality

## MJ-1023/1024

Is the problem solved by turning the power of the equipment OFF and ON?

YES └► End.

1. Replace the finisher controller PC board.

2. Replace the punch controller PC board.

# [CB90] Paper pushing plate motor abnormality

## MJ-1024

NO

Are the paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15) and paper pushing plate motor clock sensor (PI1) working normally?

NO Replace the sensor.

YES V

Is the paper pushing plate drive mechanism normal?

NO

Fix the mechanism.

YES V

1. Replace the paper pushing plate motor (M8).

2. Replace the saddle stitcher controller PC board.

## [CBA0] Stitch motor (front) abnormality [CBB0] Stitch motor (rear) abnormality

#### MJ-1024

#### Are the front and rear stitchers and their stands installed properly?

NO Install them properly.

YES 🕈

Are the stitcher home position switches (SW7/SW5) and stitcher motors (M7/M6) on the front and rear stitchers working normally?

NO Replace the front or rear stitcher.

YES 🕈

Replace the saddle stitcher controller PC board.

## [CBC0] Alignment motor abnormality

#### MJ-1024

Is the alignment plate home position sensor (PI5) working normally?

NO Replace the sensor.

YES 🕇

Is the alignment plate drive mechanism normal?

NO  $\vdash$  Fix the mechanism.

YES V

- 1. Replace the alignment motor (M5).
- 2. Replace the saddle stitcher controller PC board.

# [CBD0] Guide motor abnormality

## MJ-1024

YES

Is the guide home position sensor (PI13) working normally?

NO Preplace the sensor.

Is the guide plate drive mechanism normal?

NO → Fix the mechanism.

- 1. Replacing the guide motor (M3).
- 2. Replace the saddle stitcher controller PC board.

# [CBE0] Paper folding motor abnormality

#### MJ-1024

Are the paper folding motor clock sensor (PI4) and paper folding home position sensor (PI21) working normally?

NO Replace the sensors.

YES 🕈

Is the paper folding roller drive mechanism normal?

NO  $\rightarrow$  Fix the mechanism.

YES 🕈

- 1. Replacing the paper folding motor (M2).
- 2. Replace the saddle stitcher controller PC board.

# [CBF0] Paper positioning plate motor abnormality

#### MJ-1024

Is the paper positioning plate home position sensor (PI7) working normally?

YES

NO

► Replace the sensor.

Is the paper positioning plate drive mechanism normal?

NO  $\rightarrow$  Fix the mechanism.

YES 🕇

- 1. Replacing the paper positioning plate motor (M4).
- 2. Replace the saddle stitcher controller PC board.

#### [CC00] Sensor connector abnormality

## <u>MJ-1024</u>

Are the guide home position sensor (PI13), paper pushing plate home position sensor (PI14) and				
paper pushing plate top position sensor (PI15) connected to the saddle stitcher controller PC board?				
NO Connect them to the beard				
IEC V				
is the wiring between the sensors and the saddle stitcher correct?				
NO Correct the wiring.				
YES V				
Is 5V DC being supplied from the connector pins J9-7, -10 and -13 on the saddle stitcher				
controller PC board?				
NO   Replace the saddle stitcher controller PC board.				
YES V				
Are the connector pins J9-8, -11 and -14 on the saddle stitcher controller PC board correctly				
connected to the ground?				
NO Replace the saddle stitcher controller PC board.				
YES V				
End.				

# [CC10] Microswitch abnormality

MJ-1024

Are the front cover switch (MS31), inlet door switch (SW1) and delivery door switch (SW3) normal?			
		► Depless the suitebas	
YES	NO 7		
Measure the voltage between J704-1 (+) and J704-2 (-) on the finisher controller PC board. Is it 24V?			
	NO	Replace the finisher controller PC board.	
YES V	1		
Is the wiring between J704 on the finisher controller PC board and J1 on the saddle stitcher controller			
PC boa	ard corre	ect?	
	NO	Correct the wiring.	
YES 🕈	7		

Replace the saddle stitcher controller PC board.

## [CC20] Communication error between finisher and saddle stitcher

#### MJ-1024

Is the problem solved by turning OFF and ON the power switch of the equipment?

NO

Is the wiring between the finisher controller PC board and the saddle stitcher controller PC board connected?

YES 🕈

- 1. Replace the finisher controller PC board.
- 2. Replace the saddle stitcher controller PC board.

## [CC30] Stack processing motor abnormality

#### MJ-1022

[Procedure 1]

Is the tension of the drive belt normal?

NO Loosen the adjustment screw to adjust its tension.

YES 🕈

Does the bushing attached to the returning roller shaft smoothly move up and down?

NO Apply grease on the cut-out part of the front side frame with where the bushing contacts.

YES ▼ Is the spring of the returning roller detached?

YES ► Attach the spring.

Is the wiring between the finisher controller PC board and stack processing motor (M2) correct?

NO  $\blacktriangleright$  Correct the wiring.

YES 🕈

# Is the stack delivery lever home position sensor (S8) working properly?

NO 4

► Replace the sensor.

YES 🕈

1. Replacing the stack processing motor.

2. Replace the finisher controller PC board.

[Procedure 2] Does the bushing attached to the returning roller shaft smoothly move up and down?

NO → Apply grease on the cut-out part of the front side frame with where the bushing contacts. Is the spring of the returning roller detached? YES → Attach the spring.

Is the tension of the stack processing motor drive belt normal?

NO Loosen the adjustment screw to adjust its tension.

YES 🕈

- Is the returning roller home position sensor (S3) working properly?
  - NO Replace the sensor.

YES 🕈

- 1. Replace the stack processing motor.
- 2. Replace the finisher controller PC board.

# [CC40] Swing motor abnormality

## MJ-1023/1024

Is the swing unit home position sensor (PI35) normal?

NO Replace the sensor.

Is the wiring between the finisher controller PC board and the swing motor (M36) correct?

NO → Correct the wiring.

Is the swing mechanism normal?

NO  $\rightarrow$  Fix the mechanism.

YES 🕈

YES Y

1. Replace the swing motor.

2. Replace the finisher controller PC board.

## [CC50] Horizontal registration motor abnormality

#### MJ-1023/1024 (when MJ-6004 is installed)

Is the horizontal registration home position sensor (PI61) working normally?

NO  $\blacktriangleright$  Replace the sensor.

YES 🕇

Is the wiring between the horizontal registration home position sensor and finisher controller PC board correct?

NO Correct the wiring.

YES 🕈

Is the horizontal registration mechanism normal?

NO Fix the mechanism.

YES

- 1. Replace the horizontal registration motor (M62).
- 2. Replace the punch controller PC board.
- 3. Replace the finisher controller PC board.

# [CC60] Punch motor abnormality

```
MJ-1023/1024 (when MJ-6004 is installed)
```

Are the punch home position sensor (PI63) and punch motor clock sensor (PI62) working normally?

NO Replace the sensors.

Is the wiring between the sensors and finisher controller PC board correct?

YES ▼ NO Correct the wiring.

Is the punching mechanism normal?

NO  $\rightarrow$  Fix the mechanism.

YES

YES

- 1. Replace the punch motor (M61).
- 2. Replace the punch controller PC board.
- 3. Replace the finisher controller PC board.

# [CC80] Front jogging motor abnormality/Front aligning plate motor abnormality

# MJ-1022 (Front jogging motor abnormality)

Is the f	ront jogg	ing plate home position sensor (S6) working properly?		
YES I	NO	► Replace the sensor.		
Is the v	wiring be	ween the finisher controller PC board and front jogging motor (M3) correct?		
YES V	NO	➤Correct the wiring.		
Has th	e rack ru	n over the stopper of the roll?		
	YES	► Fix it.		
<ol> <li>Replace the front jogging motor.</li> <li>Replace the finisher controller PC board.</li> </ol>				
MJ-102	23/1024	Front aligning plate motor abnormality)		
Is the f	ront aligr	ning plate home position sensor (PI36) normal?		
YES I	NO	► Replace the sensor.		
Is the wiring between the finisher controller PC board and the front aligning plate motor (M33) correct?				
YES	NO	➤Correct the wiring.		
Is there	e any me	chanical problem with the path of aligning plate?		
YES	NO	Fix the mechanism.		
1. Re	1. Replace the front aligning plate motor.			
2. Re	2. Replace the finisher controller PC board.			

## [CC90] Upper stack tray lift motor abnormality

#### MJ-1022

Is the wiring between the finisher controller PC board and upper stack tray lift motor (M5) correct? NO Correct the wiring. YES Are the front and rear sides of the upper stack tray leveled? NO Level them. YES V Is the upper stack tray lift motor clock sensor (S19) working properly? NO ► Replace the sensor. YES 1 Is the stack tray paper height sensor (S10) working properly? NO Replace the sensor. YES V Are the upper stack tray upper limit sensor (S25), upper stack tray full sensor (S23) and stack processing safety switch (S26) working properly? NO ► Replace the sensor or sensor controller PC board. YES V Does the voltage between the pins J14-1 and -2 on the finisher controller PC board become 24V when the upper stack tray lift motor starts rotating? NO ► Replace the finisher controller PC board. YES 1 Check the wiring between the upper stack tray lift motor and finisher controller PC board. If there is no

Check the wiring between the upper stack tray lift motor and finisher controller PC board. If there is no problem, replace the upper stack tray lift motor.

## [CCA0] Lower stack tray lift motor abnormality

#### MJ-1022

Is the wiring between the finisher controller PC board and lower stack tray lift motor (M7) correct? NO Correct the wiring. YES V Are the front and rear sides of the lower stack tray leveled? NO Level them. YES V Is the lower stack tray lift motor clock sensor (S9) working properly? NO ► Replace the sensor. YES 1 Is the stack tray paper height sensor (S10) working properly? Replace the sensor. NO YES Are the lower stack tray upper limit sensor (S13) and lower stack tray full sensor (S23) working properly? NO Replace the sensor or sensor controller PC board. YES Does the voltage between the pins J3-1 and -2 on the finisher controller PC board become 24V when the lower stack tray lift motor starts rotating? ► Replace the finisher controller PC board. NO YES 1 Check the wiring between the upper stack tray lift motor and finisher controller PC board. If there is no problem, replace the motor.

# [CCB0] Rear jogging motor abnormality

#### MJ-1022

Is the rear jogging plate home position sensor (S7) working properly?

NO

Replace the sensor.

# Is the wiring between the finisher controller PC board and rear jogging motor (M4) correct?

NO Correct the wiring.

```
YES 1
```

Has the rack run over the stopper of the roll?

YES Fix it.

NO V

- 1. Replace the rear jogging motor.
- 2. Replace the finisher controller PC board.

## [CCD0] Stack ejection motor abnormality

#### MJ-1023/1024

#### Is the shutter home position sensor (PI45) normal?

NO Replace the sensor.

YES

Are the wirings between the finisher controller PC board and the stack ejection motor (M32)/shutter clutch (CL31) correct?

NO YES V

└► Correct the wirings.

Is there any problem with the shutter mechanism?

YES  $\vdash$  Fix the shutter mechanism.

NO

- 1. Replace the stack ejection motor and shutter clutch.
- 2. Replace the finisher controller PC board.

## [CCE0] Rear end assist motor abnormality

#### MJ-1023/1024

Is the rear end assist guide home position sensor (PI39) normal?

Replace the sensor. NO

YES '

Is the wiring between the finisher controller PC board and the rear end assist motor (M39) correct?

└► Correct the wiring.

YES V

NO

Is there any problem with the rear end assist mechanism?

YES  $\vdash$  Fix the rear end assist mechanism.

#### NO V

- 1. Replace the rear end assist motor.
- 2. Replace the finisher controller PC board.

# [CCF0] Gear change motor abnormality

#### MJ-1023/1024

Is the gear change home position sensor (PI49) normal?

NO Replace the sensor.

Is the wiring between the finisher controller PC board and the gear change motor (M40) correct?

NO └► Correct the wiring.

YES V

YES

Is there any problem with the gear change mechanism?

NO 🕈

1. Replace the gear change motor. 2. Replace the finisher controller PC board.

## [CE00] Communication error between finisher and puncher unit

#### MJ-1023/1024 (When MJ-6004 is installed)

Is the problem solved by turning OFF and ON the power of the equipment?

YES └► End.

NO

Is the wiring between the finisher controller PC board and punch controller PC board correct?

NO

Correct the wiring.

YES V

1. Replace the finisher controller PC board.

2. Replace the punch controller PC board.

## 5.1.17 Image control related service call

- (1) Based on the procedure of [CE10], [CE20] and [CE40] described below, check the status and take appropriate actions. And then perform the forced performing of image quality closed-loop control according to the following procedure.
  - 1. While pressing [0] and [5] simultaneously, turn ON the power.
  - 2. Key in [395], and then press the [START] button. Confirm that the image quality control has finished normally.
- (2) After confirming the items in (1), clear the abnormal detection counter of image quality control.
  - 1. While pressing [0] and [8] simultaneously, turn ON the power.
  - 2. Key in [573], and then press the [START] button.
  - 3. Rewrite the displayed status counter from "1" "16" to "0", and then press the [ENTER] or [INTERRUPT] button.
  - 4. Key in [574], and then press the [START] button.
  - 5. Rewrite the displayed status counter from "1" "16" to "0", and then press the [ENTER] or [INTERRUPT] button.
  - 6. Key in [575], and then press the [START] button.
  - 7. Rewrite the displayed status counter from "1" "16" to "0", and then press the [ENTER] or [INTERRUPT] button.
  - 8. Key in [576], and then press the [START] button.
  - 9. Rewrite the displayed status counter from "1" "16" to "0", and then press the [ENTER] or [INTERRUPT] button.

#### [CE10] Image quality sensor abnormality (OFF level)

Is the connector of the image quality sensor, or the connector CN345 on the LGC board disconnected? Is the harness between the LGC board and the image quality sensor, or the harness between the LGC board and the switching power supply open circuited?

YES Connect the connector securely. Replace the harness.

# NO I

Is the output voltage from the 12V-power supply normal?

NO Check the power supply system and replace the switching power supply.

#### YES V

- 1. Replace the image quality sensor.
- 2. Replace the LGC board.

## [CE20] Image quality sensor abnormality (no pattern level)

- 1. Check if the transfer belt or transfer belt unit are securely installed.
- 2. Check for any abnormal stain caused by poor cleaning, large flaw or break on the transfer belt surface.
- 3. Check if the drum and the transfer belt are rotating. If any abnormality is found, correct any mechanical problem.

#### Is the connectors CN345 on the LGC board disconnected?

Is the connector of the image quality sensor disconnected or the surface of the sensor stained? Is the harness between the LGC board and the image quality sensor open circuited? Is the shutter of image quality sensor opening and closing normally? Is the shutter damaged?

<Procedure>

- 1. Take off the transfer belt unit so that the image quality sensor unit can be easily seen.
- 2. While pressing the digital keys [0] and [3] simultaneously, turn the power ON.
- 3. Key in "430".
- 4. The shutter is opened and closed repeatedly by pressing the [START] button repeatedly.

#### YES Connect the connector securely. Replace the harness. Clean the sensor. Replace the shutter if it is damaged. Replace the shutter solenoid if its operation is defective.

Check the power supply system, and replace the switching power supply.

NO Y

Is the output voltage from the 12V-power supply normal?

YES V

- 1. Replace the image quality sensor.
- 2. Replace the LGC board.

NO

## [CE40] Image quality control test pattern abnormality

- (1) Use "Image quality control abnormal detection counter Y to K display/0 clearing (08-573 to 576)" to check the abnormal occurring condition for each color.
- (2) Check "Output value display of image quality sensor / Low-density pattern (05-391-0 to 3)" to check if the low-density pattern abnormality occurs for each color. The values under 320 for Y, M and C, and under 220 for K are defined as low-density pattern abnormality.



- (3) Check "Output value display of image quality sensor / High-density pattern (05-390-0 to 3)" to check if the high-density pattern abnormality occurs for each color and identify the color which pattern is abnormal. If the value is 630 or above, it is defined as high-density pattern abnormality.
- (4) Set the values of "Image quality closed-loop control / Contrast voltage (08-556)" and "Image quality closed-loop control / Laser power (08-557)" to "0" (Invalid).
- (5) Perform "Enforced performing of image quality open-loop control (05-394)".
- (6) Output the image quality control test pattern (04-270) more than one time and check the patch of the color identified in step (3) to see if the image is abnormal (Note).



- (7) Replace the image quality sensor.
- (8) Set the values of "Image quality closed-loop control / Contrast voltage (08-556)" and "Image quality closed-loop control / Laser power (08-557)" to "1" (Valid).
- (9) Perform "Enforced performing of image quality open-loop control (05-394)" and make sure it is completed normally. (Error [CE40] does not appear.) Then perform "Automatic gamma adjustment " (► Chapter 3.5.1 and 3.6.1).
- (10) Clear all "Image quality control abnormal detection counter Y to K display/0 clearing (08-573 to 576)".

#### Note

Abnormal image: Blank print, Solid print, White banding, Color banding, White spots, Poor transfer, Uneven image density, Faded image (low density), Uneven light distribution, Blotched image

#### [CE50] Temperature/humidity sensor abnormality

Is the connector CN361 on the LGC board or the connector of the temperature/humidity sensor disconnected?

Is the harness between the LGC board and the temperature/humidity sensor disconnected ?

YES Connect the connector securely. Replace the harness.

NO 🔻

1. Replace the temperature/humidity sensor.

2. Replace the LGC board.

#### [CE90] Drum thermistor abnormality

Is the connector CN361 on the LGC board, or the connector of the drum thermistor disconnected? Is the harness between the LGC board and the drum thermistor disconnected?

YES Connect the connector securely. Replace the harness.

NO 🛉

1. Replace the drum thermistor.

2. Replace the LGC board.

#### 5.1.18 Copy process related service call

# [C360] Charger cleaner motor abnormality

- (1) Check if the main charger is installed normally.
- (2) Check if the charger wire is broken.
- (3) Check if any of the connector pins of the charger cleaner front/rear position detection switch is disconnected.
- (4) Check if the cleaning pads are damaged or removed.
- (5) Check if any of the connector pins of the charger cleaner motor is disconnected.
- (6) Replace the charger cleaner motor.
- (7) Replace the LGC board.

# [C970] High-voltage transformer abnormality

- (1) Is the main charger installed securely?
- (2) Check if the spring of high-voltage supply contact point is deformed.
- (3) Check if the charger wire is broken or the main charger grid is deformed.
- (4) Check if any foreign matter is on the charger wire or main charger grid.

# [CEA0] Revolver home position detection abnormality

Is the revolver home position sensor working properly? (Perform the input check: 03-[FAX]ON/[2]/[C])

- NO  $\vdash$  1. Check if the connector or joint connector of the revolver home position sensor is disconnected.
  - 2. Check if the connector CN361 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the wires of harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the revolver home position sensor.
  - 6. Replace the LGC board.

YES 🕈

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

#### [CEB0] Black developer unit lifting movement abnormality

Is the black developer lifting clutch working properly? (Perform the output check: 03-433)

- NO +1. Check if the connector of the black developer lifting clutch is disconnected.
  - 2. Check if the connector CN362 on the LGC board is disconnected.
    - 3. Check if the connector pins are disconnected or the wires of harnesses are open circuited.
    - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
    - 5. Replace the black developer lifting clutch.
    - 6. Replace the LGC board.

# YES 🕈

Are the black developer contact position detection sensor and black developer contact timing detection sensor working properly? (Perform the input check: 03-[FAX]ON/[1]/[C], /[1]/[B]

- NO + 1. Check if the connectors of the black developer contact position detection sensor or black developer contact timing detection sensor are disconnected.
  - 2. Check if the connector CN361 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the wires of harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the black developer contact position detection sensor and black developer contact timing detection sensor.
  - 6. Replace the LGC board.

# YES 🕈

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

## [CEC0] 2nd transfer roller position detection abnormality

Is the 2nd transfer roller contact clutch working properly? (Perform the output check: 03-435)

- NO 4 1. Check if the connector or joint connectors of the 2nd transfer contact clutch are disconnected. 2. Check if the connector CN345 on the LGC board is disconnected. 3. Check if the connector pins are disconnected or the wires of harnesses are open circuited. 4. Check if the conductor pattern on the LGC board is short circuited or open circuited. 5. Replace the 2nd transfer roller contact clutch. 6. Replace the LGC board. YES V Is the 2nd transfer roller position detection sensor working properly? (Perform the input check: 03-[FAX]ON/[1]/[A]) NO 1. Check if the connector or joint connectors of the 2nd transfer roller position detection sensor are disconnected. 2. Check if the connector CN345 on the LGC board is disconnected. 3. Check if the connector pins are disconnected or the wires of harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the 2nd transfer roller position detection sensor.
  - 6. Replace the LGC board.

## YES **V**

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

# [CEE0] Transfer belt position detection abnormality (Normal speed)[CEE1] Transfer belt position detection abnormality (When decelerating)

If the error [CEE0] has occurred, check the transfer belt home position sensor-1. If the error [CEE1] has occurred, check the transfer belt home position sensor-2.

Is there any stain or scratch on the reflection tape inside the transfer belt?

YES Lean the transfer belt or replace it.

Replace the cleaning pad if it is excessively stained.

NO

Are the transfer belt home position sensors-1 and -2 stained?

YES - Clean them.

NO

Are the transfer belt home position sensors-1 and -2 working properly? (Perform the input check: 03-[FAX]ON/[9]/[H])

- NO + 1. Check if the connectors or joint connectors of the transfer belt home position sensors-1 and -2 are disconnected.
  - 2. Check if the connector CN361 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the wires of harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the transfer belt home position sensor-1 and -2.
  - 6. Replace the LGC board.

YES 🕈

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.

# [CEF0] Revolver motor abnormality

Is the revolver motor working? (Perform the output check: 03-450)

NO  $\rightarrow$  1. Check if the connector of the revolver motor is disconnected.

- 2. Check if the connectors CN435 and J434 on the DRV board are disconnected.
- 3. Check if the connector CN360 on the LGC board is disconnected.
- 4. Check if the connector pins are disconnected or the harnesses are open circuited.
- 5. Check if the conductor patterns on the DRV board and LGC board are short circuited or open circuited.
- 6. Replace the revolver motor.
- 7. Replace the DRV board and LGC board.

# YES V

- 1. Check if the conductor patterns on the DRV board and LGC board are short circuited or open circuited.
- 2. Replace the DRV board and LGC board.

## 5.1.19 Toner density control related service call

#### [CF20] Toner density detection voltage abnormality

- (1) Specify the developer unit with the abnormality by checking the setting values of 08-824-0 to 08-824-2. (When the value is "1", an abnormality occurs.)
- (2) Correct the defective section of the unit specified in (1) with the following procedure.

Is the developer material transported properly? Is the form of magnetic brush is normal?

- NO + 1. Check if the amount of the developer material is normal or any foreign matter is mixed in.
  - 2. Correct the transport mechanism of developer material.
  - 3. Check the polar position and correct if necessary.

YES ¥

Is the color auto-toner sensor stained?

YES - Clean it.

NO N

Is the color auto-toner sensor shutter solenoid working normally? (Perform the output check: 03-125/ 175)

Is the color auto-toner sensor working?

- NO  $\rightarrow$  1. Check if the connectors or joint connectors of the color auto-toner sensor shutter solenoid and color auto-toner sensor are disconnected.
  - 2. Check if the connector CN356 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Replace the color auto-toner sensor shutter solenoid.
  - 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 6. Replace the LGC board.
  - 7. Replace the color auto-toner sensor and perform "Enforced correction of color auto-toner sensor light amount (05-208)".

YES 🕈

Is the color auto-toner sensor shutter opening position correct? (Perform the output check: 03-125/175)

NO Adjust the install position of solenoid so that the sensor holder will touch and face the positioning component when opening the shutter.

YES 🕇

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.
- (3) When the correction is completed, reset the values of 08-824-0 to 08-824-2 from "1" to "0" to clear the abnormality.

## [CF30] Reference plate detection voltage abnormality

Are the reference plate and color auto-toner sensor stained?

YES - Clean them.

NO 🕴

Is the color auto-toner sensor shutter solenoid working normally? (Perform the output check: 03-125/ 175)

Is the color auto-toner sensor working?

- NO  $\rightarrow$  1. Check if the connectors or joint connectors of the color auto-toner sensor shutter solenoid and color auto-toner sensor are disconnected.
  - 2. Check if the connector CN356 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Replace the color auto-toner sensor shutter solenoid.
  - 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 6. Replace the LGC board.
  - 7. Replace the color auto-toner sensor and perform "Enforced correction of color auto-toner sensor light amount (05-208)".

#### YES 🕈

Is the color auto-toner sensor shutter closing position correct? (Perform the output check: 03-125/175)

NO

► Adjust the install position of solenoid so that the gap between the sensor holder and stopper will be 1.0 mm when closing the shutter.

## YES 🕈

- 1. Replace the LGC board.
- 2. Replace the reference plate and perform "Initialization of color auto-toner sensor light amount correction target value (05-207)".

## [CF40] Light amount correction voltage abnormality

- (1) Specify the developer unit with the abnormality by checking the setting values of 08-823-0 to 08-823-2. (When the value is "1", an abnormality occurs.)
- (2) Correct the defective section of the unit specified in (1) with the following procedure.

Is the developer unit inserted properly?

NO Insert it properly.

YES 🕇

Is the developer material transported properly? Is the form of magnetic brush is normal?

NO + 1. Check if the amount of the developer material is normal or any foreign matter is mixed in.

- 2. Correct the transport mechanism of developer material.
- 3. Check the polar position and correct if necessary.

## YES

Is the color auto-toner sensor stained?

YES └► Clean it.

NO

Is the color auto-toner sensor shutter solenoid working normally? (Perform the output check: 03-125/ 175)

Is the color auto-toner sensor working?

- NO  $\rightarrow$  1. Check if the connectors or joint connectors of the color auto-toner sensor shutter solenoid and color auto-toner sensor are disconnected.
  - 2. Check if the connector CN356 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Replace the color auto-toner sensor shutter solenoid.
  - 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 6. Replace the LGC board.
  - 7. Replace the color auto-toner sensor and perform "Enforced correction of color auto-toner sensor light amount (05-208)".

#### YES V

Is the color auto-toner sensor shutter opening position correct? (Perform the output check: 03-125/175)

NO Adjust the install position of solenoid so that the sensor holder will touch and face the positioning component when opening the shutter.

YES 🛉

- 1. Replace the LGC board.
- 2. Replace the reference plate and perform "Initialization of color auto-toner sensor light amount correction target value (05-207)".
- (3) When the correction is completed, reset the values of 08-823-0 to 08-823-2 from "1" to "0" to clear the abnormality.

## [CF50] Color auto-toner sensor abnormality

Are the connector of color auto-toner sensor, joint connector and connector CN356 on the LGC board connected normally?

- NO  $\vdash$  1. Reconnect the connectors.
  - 2. Correct or replace if the connector pins are disconnected or harnesses are open circuited.

YES

Are the color auto-toner sensor and reference plate stained?

NO

Is the color auto-toner sensor shutter solenoid working normally? (Perform the output check: 03-125/175)

- NO  $\vdash$  1. Check if the connectors or joint connectors of the color auto-toner sensor shutter solenoid and color auto-toner sensor are disconnected.
  - 2. Check if the connector CN356 on the LGC board is disconnected.
  - 3. Check if the connector pins are disconnected or the harnesses are open circuited.
  - 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
  - 5. Replace the color auto-toner sensor shutter solenoid.
  - 6. Replace the LGC board.

YES 🕈

Is the color auto-toner sensor shutter closing position correct? (Perform the output check: 03-125/175)

NO Adjust the install position of solenoid so that the gap between the sensor holder and stopper will be 1.0 mm when closing the shutter.

YES V

- 1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
- 2. Replace the LGC board.
- 3. Replace the reference plate and perform "Initialization of color auto-toner sensor light amount correction target value (05-207)".
- 4. Replace the color auto-toner sensor and perform "Enforced correction of color auto-toner sensor light amount (05-208)".

#### 5.1.20 Other service call

#### [F100] HDD format error

- (1) Check if the HDD is mounted.
- (2) Check if the specified HDD is mounted.
- (3) Check if the connector pins of the HDD are bent.
- (4) Check if the connectors CN112, CN113 on the SYS board is disconnected.
- (5) Replace the harness.
- (6) Format the HDD. (Key in "2" at 08-690.)
- (7) Replace the HDD.
- (8) Replace the SYS board.
- [F101] HDD unmounted
- [F102] HDD start error
- [F103] HDD transfer time-out
- [F104] HDD data error
- [F105] HDD other error
- (1) Check if the connectors of the HDD are disconnected.
- (2) Check if the connector pins are disconnected or the wires of harnesses are open circuited.
- (3) Perform the bad sector check (08-694). If the check result is OK, recover the data in the HDD. If the check result is failed, replace the HDD.
- (4) Replace the SYS board.

#### [F106] Point and Print partition damage

- (1) Turn the power OFF and start up the Setting Mode (08).
- (2) Key in "662" and press the [START] button. (Partition clearing is performed.)
- (3) Restart the equipment.
- (4) Access TopAccess. Click the [Administration] tab, and then click the Maintenance Menu to open. Then install the "Point and Print" driver.

#### [F107] / SHR partition damage

Initialize the Electronic Filing using the Setting Mode (08-666).

#### [F108] /SHA partition damage

Initialize the shared folder using the Setting Mode (08-667).

#### [F120] Database abnormality

- (1) Rebuild the databases. (Perform 08-684.)
- (2) If the error is not recovered, initialize the HDD. (Enter "2" at 08-690.)
- \* When "Rebuilding all databases (08-684)" is performed, all data in the Address Book and Mailbox are deleted. Make sure to back up these data in advance of rebuilding and restore the data after rebuilding.
# 5.1.21 Error in Internet FAX / Scanning Function

#### Notes:

- 1. When initializing the Electronic Filing (Setting Mode (08-666)), all data in the Electronic Filing are erased. Back up the data in the Electronic Filing by using the Electronic Filing Function of TopAccess before the initialization.
- 2. When initializing the shared folder (Setting Mode (08-667)), all data in the shared folder are erased. Back up the data in the shared folder by using Explorer before the initialization.
- When formatting the HDD (Setting Mode (08-690)), all data in the shared folder, Electronic Filing, Address Book, template, etc. are erased. Back up these data before the initialization. Note that some of data cannot be backed up ( ► Page 5-1).
- (1) Internet FAX related error

### [1C10] System access abnormality

#### [1C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

### [1C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

#### [1C12] Message reception error

#### [1C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

#### [1C14] Invalid parameter

When a template is used, form the template again. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

# [1C15] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

#### [1C20] System management module access abnormality

[1C21] Job control module access abnormality

# [1C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again. Check if there are no other running jobs and perform the HDD formatting (08-690). If the recovery is still not completed, replace the SYS board.

#### [1C30] Directory creation failure

### [1C31] File creation failure

#### [1C33] File access failure

Check if the access privilege to the storage directory is writable. Check if the server or local disk has a sufficient space in disk capacity.

# [1C40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again. Replace the main memory and perform the job again.

# [1C60] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again. Check if the server or local disk has a sufficient space in disk capacity.

# [1C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again. Reset the data in the Address Book and perform the job again.

# [1C62] Memory acquiring failure

Check if there is any job being performed and perform the job in error again. Turn the power OFF and then back ON. Perform the job in error again. Replace the main memory and perform the job again.

# [1C63] Terminal IP address unset

Reset the Terminal IP address. Turn the power OFF and then back ON. Perform the job in error again.

# [1C64] Terminal mail address unset

Reset the Terminal mail address.

Turn the power OFF and then back ON. Perform the job in error again.

#### [1C65] SMTP address unset

Reset the SMTP address and perform the job. Turn the power OFF and then back ON. Perform the job in error again.

#### [1C66] Server time time-out error

Check if the SMTP server is operating properly.

[1C67]NIC time time-out error[1C68]NIC access error[1C6D]System error

Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, replace the NIC board.

#### [1C69] SMTP server connection error

Reset the login name or password of SMTP server and perform the job again. Check if the SMTP server is operating properly.

#### [1C6A] HOST NAME error

Check if there is an illegal character in the device name. Delete the illegal character and reset the appropriate device name.

#### [1C6B] Terminal mail address error

Check if there is an illegal character in the Terminal mail address. Delete the illegal character and reset the appropriate Terminal mail address, then perform the job again.

#### [1C6C] Destination mail address error

Check if there is an illegal character in the Destination mail address. Delete the illegal character and reset the appropriate Destination mail address, then perform the job again.

# [1C70] SMTP client OFF

Set the SMTP valid and perform the job again.

# [1C80] Internet FAX transmission failure when processing E-mail job received

Reset the "Received InternetFax Forward".

### [1C81] Onramp Gateway transmission failure

Reset the mail box.

### [1C82] Internet FAX transmission failure when processing FAX job received

Reset the "Received Fax Forward".

# [1CC1] Power failure

Check if the power cable is connected properly and it is inserted securely. Check if the power voltage is unstable. (2) RFC related error

[2500] HOST NAME error (RFC: 500) / Destination mail address error (RFC: 500) / Terminal mail address error (RFC: 500)

[2501] HOST NAME error (RFC: 501) / Destination mail address error (RFC: 501) / Terminal mail address error (RFC: 501)

Check if the Terminal mail address and Destination mail address are correct. Check if the mail server is operating properly. Turn the power OFF and then back ON. Perform the job in error again.

#### [2503] Destination mail address error (RFC: 503)

#### [2504] HOST NAME error (RFC: 504)

#### [2551] Destination mail address error (RFC: 551)

Check if the mail server is operating properly.

Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, replace the NIC board.

#### [2550] Destination mail address error (RFC: 550)

Check the state of the mail box in the mail server.

#### [2552] Terminal/Destination mail address error (RFC: 552)

Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, replace the NIC board.

#### [2553] Destination mail address error (RFC: 553)

Check if there is an illegal character in the mail box in the mail server.

(3) Electronic Filing related error

- [2B10] No applicable job error in Job control module
- [2B11] JOB status abnormality
- [2B20] File library function error
- [2B30] Insufficient disk space in /SHR partition
- [2BC0] Fatal failure occurred

# [2BC1] System management module resource acquiring failure

Erase some data in the Electronic Filing and perform the job in error again (in case of [2B30]). Turn the power OFF and then back ON. Perform the job in error again. Check if there are no other running jobs and perform the HDD formatting (08-690).

If the recovery is still not completed, replace the SYS board.

# [2B50] Image library error [2B90] Insufficient memory capacity

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, replace the main memory.

Perform the job in error again.

Check if there are no other running jobs and initialize the Electronic Filing using the Setting Mode (08-666).

# [2B31] Status of specified Electronic Filing or folder is undefined or being created/deleted

Check if the specified Electronic Filing or folder exists. (If no, this error would not occur.) Delete the specified Electronic Filing or folder.

Perform the job in error again.

If the specified Electronic Filing or folder can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

# [2B32] Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.)

Check if the specified document exists. (If no, this error would not occur.)

Delete the specified document.

Perform the job in error again.

If the specified document can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

# [2B51] List library error

Check if the Function List can be printed out. If it can be printed out, perform the job in error again. If it can not be printed out, replace the main memory. If the recovery is still not completed, perform the HDD formatting (08-690).

# [2BA0] Invalid Box password

Check if the password is correct.

Reset the password.

When this error occurs when printing the data in the Electronic Filing, perform the printing with the administrator's password.

If the recovery is still not completed or in case of invalid password for the operation other than printing (opening the file, etc.), initialize the Electronic Filing using the Setting Mode (08-666).

#### [2BB1] Power failure [2BD0] Power failure occurred during restoring of Electronic Filing

Check if the power cable is connected properly and it is inserted securely. Check if the power voltage is unstable.

### [2BE0] Machine parameter reading error

Turn the power OFF and then back ON. Perform the job in error again.

# [2BF0] Exceeding maximum number of pages

Reduce the number of inserting pages and perform the job again.

# [2BF1] Exceeding maximum number of documents

Backup the documents in the box or folder to PC or delete them.

# [2BF2] Exceeding maximum number of folders

Backup the folders in the box or folder to PC or delete them.

(4) E-mail related error

#### [2C10] System access abnormality [2C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

# [2C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

# [2C12] Message reception error

# [2C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

# [2C14] Invalid parameter

When a template is used, form the template again. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

# [2C15] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

- [2C20] System management module access abnormality
- [2C21] Job control module access abnormality
- [2C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again. Check if there are no other running jobs and perform the HDD formatting (08-690). If the recovery is still not completed, replace the SYS board.

#### [2C30] Directory creation failure

- [2C31] File creation failure
- [2C33] File access failure

Check if the access privilege to the storage directory is writable. Check if the server or local disk has a sufficient space in disk capacity.

#### [2C40] Image conversion abnormality [2C62] Memory acquiring failure

Turn the power OFF and then back ON. Perform the job in error again. Replace the main memory and perform the job again.

#### [2C60] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again. Check if the server or local disk has a sufficient space in disk capacity.

#### [2C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again. Reset the data in the Address Book and perform the job again.

### [2C63] Terminal IP address unset

Reset the Terminal IP address. Turn the power OFF and then back ON. Perform the job in error again.

#### [2C64] Terminal mail address unset

Reset the Terminal mail address. Turn the power OFF and then back ON. Perform the job in error again.

#### [2C65] SMTP address unset

Reset the SMTP address and perform the job. Turn the power OFF and then back ON. Perform the job in error again.

#### [2C66] Server time time-out error

Check if the SMTP server is operating properly.

[2C67]NIC time time-out error[2C68]NIC access error[2C6D]NIC system error

Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, replace the NIC board.

### [2C69] SMTP server connection error

Reset the login name and password of SMTP server and perform the job again. Check if the SMTP server is operating properly.

# [2C6A] HOST NAME error (No RFC error)

Check if there is an illegal character in the device name. Delete the illegal character and reset the appropriate device name.

#### [2C6B] Terminal mail address error

Check if there is an illegal character in the Terminal mail address. Delete the illegal character and reset the appropriate Terminal mail address, then perform the job again.

### [2C6C] Destination mail address error (No RFC error)

Check if there is an illegal character in the Destination mail address. Delete the illegal character and reset the appropriate Destination mail address, then perform the job again.

#### [2C70] SMTP client OFF

Set the SMTP valid and perform the job again.

#### [2C80] E-mail transmission failure when processing E-mail job received

Reset the "Received InternetFax Forward".

#### [2C81] Process failure of FAX job received

Reset the setting of the mail box or "Received InternetFax Forward".

#### [2CC1] Power failure

Check if the power cable is connected properly and it is inserted securely. Check if the power voltage is unstable. (5) File sharing related error

[2D10] System access abnormality

[2D32] File deletion failure

[2DA6] File deletion failure

#### [2DA7] Resource acquiring failure

Delete some files in the shared folder by using Explorer because of automatic/manual file deletion failure (in case of [2DA6])

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

#### [2D11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

#### [2D12] Message reception error

#### [2D13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

#### [2D14] [2D61] Invalid parameter

When a template is used, form the template again. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

#### [2D15] Exceeding document number

Delete some documents in the folder, and then perform the job in error again.

- [2D20] System management module access abnormality
- [2D21] Job control module access abnormality
- [2D22] Job control module access abnormality

# [2D60] File library access abnormality

Turn the power OFF and then back ON. Perform the job in error again. Check if there are no other running jobs and perform the HDD formatting (08-690). If the recovery is still not completed, replace the SYS board.

#### [2D30] Directory creation failure

[2D31] File creation failure

#### [2D33] File access failure

Check if the access privilege to the storage directory is writable. Check if the server or local disk has a sufficient space in disk capacity.

### [2D40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again. Replace the main memory and perform the job again. If the error still occurs, first, check if there are no jobs existing and then initialize the shared folder using the Setting Mode (08-667).

### [2D62] File server connection error

Check the IP address or path of the server. Check if the server is operating properly.

### [2D63] Invalid network path

Check the network path.

If the path is correct, turn the power OFF and then back ON, and perform the job again.

# [2D64] Login failure

Reset the login name and password. Perform the job. Check if the account of the server is properly set up.

# [2D65] Exceeding documents in folder: Creating new document is failed

Delete some documents in the folder.

# [2D66] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again. Check if the server or local disk has a sufficient space in disk capacity.

# [2D67] FTP service not available

Check if the setting of FTP service is valid.

#### [2D68] File sharing service not available

Check if the setting of SMB is valid.

#### [2DC1] Power failure

Check if the power cable is connected properly and it is inserted securely. Check if the power voltage is unstable.

#### (6) E-mail reception related error

# [3A10] [3A11] [3A12] E-mail MIME error

The format of the mail is not corresponding to MIME 1.0. Request the sender to retransmit the mail in the format corresponding to MIME 1.0.

# [3A20] [3A21] [3A22] E-mail analysis error [3B10] [3B11] [3B12] E-mail format error [3B40] [3B41] [3B42] E-mail decode error

These errors occur when the mail data is damaged from the transmission to the reception of the mail. Request the sender to retransmit the mail.

#### [3A30] Partial mail time-out error

The partial mail is not received in a specified period of time. Request the sender to retransmit the partial mail, or set the time-out period of the partial mail longer.

#### [3A40] Partial mail related error

The format of the partial mail is not corresponding to this equipment. Request the sender to remake and retransmit the partial mail in RFC2046 format.

### [3A50] [3A51] [3A52] Insufficient HDD capacity error [3A60] [3A61] [3A62] Warning of insufficient HDD capacity

These errors occur when the HDD capacity is not sufficient for a temporary concentration of the jobs, etc.

Request the sender to retransmit after a certain period of time, or divide the mail into more than one. Insufficient HDD capacity error also occurs when printing is disabled for no printing paper. In this case, supply the printing paper.

# [3A70] Warning of partial mail interruption

This error occurs when the partial mail reception setting becomes OFF during the partial mail reception. Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

# [3A80] [3A81] [3A82] Partial mail reception setting OFF

Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

# [3B20] [3B21] [3B22] Content-Type error

The format of the attached file is not supported by this equipment (TIFF-FX). Request the sender to retransmit the file in TIFF-FX.

#### [3B30] [3B31] [3B32] Charset error

These errors occur when the standard of the Charset is other than ISO-8559-1 or ISO-8559-2. Request the sender to reformat the Charset into either of the standards described above and then retransmit the mail.

# [3C10] [3C11] [3C12] [3C13] TIFF analysis error

These errors occur when the mail data is damaged from the transmission to the reception of the mail, or when the format of the attached file is not supported by this equipment (TIFF-FX). Request the sender to retransmit the mail.

#### [3C20] [3C21] [3C22] TIFF compression error

The compression method of the TIFF file is not acceptable for this equipment. (Acceptable: MH/MR/ MMR/JBIG) Request the sender to retransmit the file in the acceptable compression method.

#### [3C30] [3C31] [3C32] TIFF resolution error

The resolution of the TIFF file is not acceptable for this equipment. (Acceptable: 200 x 100, 200 x 200, 200 x 400, 400 x 400, 300 x 300 or equivalent) Request the sender to retransmit the file in the acceptable resolution.

#### [3C40] [3C41] [3C42] TIFF paper size error

The paper size of the TIFF file is not acceptable for this equipment. (Acceptable: A4, B4, A3, B5, LT, LG, LD or ST) Request the sender to retransmit the file in the acceptable paper size.

# [3C50] [3C51] [3C52] Offramp destination error

These errors occur when the FAX number of the offramp destination is incorrect. Request the sender to correct the FAX number of offramp destination and then retransmit the mail.

# [3C60] [3C61] [3C62] Offramp security error

These errors occur when the FAX number of the offramp destination is not on the Address Book. Check if the FAX number of the offramp destination is correctly entered or the number has not been changed.

# [3C70] Power failure error

Check if the mail is recovered after turning ON the power again. Request the sender to retransmit the mail if it is not recovered.

### [3D10] Destination address error

Check if the setting of the server or DNS is correct. Correct if any of the setting is incorrect. When the content of the setting is correct, confirm the sender if the destination is correct.

### [3D20] Offramp destination limitation error

Inform the sender that the transfer of the FAX data over 40 is not supported.

### [3D30] FAX board error

This error occurs when the FAX board is not installed or the FAX board has an abnormality. Check if the FAX board is correctly connected.

#### [3E10] POP3 server connection error

Check if the IP address or domain name of the POP3 server set for this equipment is correct, or check if POP3 server to be connected is operating properly.

#### [3E20] POP3 server connection time-out error

Check if POP3 server to be connected is operating properly. Check if the LAN cable is correctly connected.

# [3E30] POP3 login error

Check if the POP3 server login name and password set for this equipment are correct.

# [3F00] [3F10] [3F20] [3F30] [3F40] File I/O error

These errors occur when the mail data is not transferred properly to the HDD. Request the sender to retransmit the mail. Replace the HDD if the error still occurs after retransmission.

# [402F] Page memory size error

This error occurs when the expansion memory is not installed or the expansion memory has an abnormality.

Check if the expansion memory exists or not, or it is correctly installed.

# [4031] HDD full failure during printing

Reduce the number of pages of the job in error and perform the job again. Check if the server or local disk has a sufficient space in disk capacity.

# [4032] Private-print-only error

Select "Print", and then perform the printing again.

### [A221] Print job cancellation

This message appears when deleting the job on the screen.

# [A222] Print job power failure

When there are running jobs, perform the job in error again after the completion of the running jobs. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

# 5.2 Troubleshooting of Image

# (1) Color deviation

### <Symptoms>

Original mode	Location	Phenomena	
All modes	Color blurred in outline of	Color	<b>ABC</b>
	white text or illustration	deviation	
	on a colored background		
Text Mode	Outline in black text on a	White void	
Text/Photo Mode	colored background		ABC
Photo Mode	Color blurred in outline of	Color	
Map Mode	line or text	deviation	
			<u>A</u> BC

Cause Section Main Sub Specific Check Item Step Classification Classification Classification 1 Output the built-in pattern on A3/LD. Motor abnormal Drum drive system 2 Drum rotation Unstable Check main motor operation in the Test Mode (03). Control circuit Check main motor operation in the abnormal Test Mode (03). Main motor Inadequate Adjustment Recheck values set for main motor rotation speed rotation speed. error Drum coupling Loose coupling Check the grid pattern. Damage Deformation Transfer belt 3 Transfer belt Deformation or Check the grid pattern. system damage Check the condition of transfer belt edge. Reflection tape Stain Damage Transfer belt Stain home position sensor Drive roller Slipping Stain Check the grid pattern. Check the condition of roller surface. Large driving Cleaning blade Peeling load Grounding Check the installing of the transfer belt (transfer belt unit. unit) Laser optical unit Reflection Check the grid pattern. 4 mirror warp fθ lens charac-Check the grid pattern. teristic defect High-voltage 5 High-voltage Check the connection of the terminal. transformer supply terminal (1st/2nd transfer rollers)

Fig. 5-201

Criteria	Measures
Perform following procedures from 2 and after.	
	Replace the main motor.
	Reconnect the connectors. Replace the harnesses. Replace the LGC board.
Is the value significantly different from the default value 128?	Reset main motor speed to 128.
	Tighten the screws.
	Replace the couplings.
	Replace the couplings.
Is the misalignment of the secondary scanning direction varied?	Replace the belt (troubleshoot the transfer belt).
Is the belt edge damaged or folded?	
Is there any stain on the reflection tape?	Clean the reflection tape or replace the transfer belt.
Is the reflection tape damaged?	Replace the transfer belt.
Is lens section of the sensor stained?	Clean the lens section or replace the sensor.
Is the misalignment of the primary scanning direction varied?	Clean it.
Is there any stain?	
	Replace the cleaning blade.
Is the transfer belt unit installed normally? (Is the unit normally grounded?	Check/correct the installing.
Are the lines of the primary scanning direction warped?	Replace the unit.
Are the lines of the primary scanning direction warped?	Replace the unit.
 Is the terminal loosened?	Check/reconnect the terminal.

\* If the desired image has not been obtained with the above measures or the more qualified image is needed, correct the "deviation amount" in the Adjustment Mode (05). (Refer to the next page.)

# <Color Deviation Correction Procedure>

There are 2 methods to correct a color deviation; using the "Test pattern 63" (correction method 1) and using the "Test pattern 64" (correction method 2). Correct in either way of these methods.

# Correction method 1

- (1) While pressing the digital keys [0] and [5] simultaneously, turn the power  $ON \rightarrow (Adjustment Mode)$
- (2) Print out the test pattern and correct the deviation amount of the 1st page. Use the image position of magenta (M) as a reference for correction. The image positions of yellow (Y), cyan (C) and black (K) must be corrected with this reference.
  - a. Select A3/LD size. Key in "63" and then press the [FAX] button.  $\rightarrow$  2 pages of test pattern are printed out.
  - b. Check the image of the 1st page and specify the color to be corrected.
  - c. Key in the code "417" and press the [START] button.
  - d. Key in the sub code of the color to be corrected and press the [START] button. Sub code 0: Black (K) 1: Cyan (C) 3: Yellow (Y)
  - e. Key in the adjustment value and press the [ENTER] or [INTERRUPT] button.

# Notes:

- 1. When the value increases by "1", the image shifts toward the trailing edge of the paper by 0.0423 mm.
- 2. Adjust the image positions of black (B), cyan (C) and yellow (Y) to align the leading/trailing edge of each image. If both leading and trailing edges are not aligned, adjust to uniform the deviation amount of each edge.
- (3) Print out the test pattern and correct the deviation amount of the 2nd page. Use the image position of magenta (M) as a reference for correction. The image positions of yellow (Y), cyan (C) and black (K) must be corrected with this reference.
  - a. Select A3/LD size. Key in "63" and then press the [FAX] button.  $\rightarrow$  2 pages of test pattern are printed out.
  - b. Check the image of the 2nd page and specify the color to be corrected.
  - c. Key in the code "418" and press the [START] button.
  - d. Key in the sub code of the color to be corrected and press the [START] button. Sub code 0: Black (K) 1: Cyan (C) 3: Yellow (Y)
  - e. Key in the adjustment value and press the [ENTER] or [INTERRUPT] button.

# Notes:

- 1. When the value increases by "1", the image shifts toward the trailing edge of the paper by 0.0423 mm.
- 2. Adjust the image positions of black (B), cyan (C) and yellow (Y) to align the leading/trailing edge of each image. If both leading and trailing edges are not aligned, adjust to uniform the deviation amount of each edge.
- (4) Turn the power OFF.



[Details of adjustment area]

Fig. 5-202

Correction method 2

- (1) While pressing the digital keys [0] and [5] simultaneously, turn the power  $ON \rightarrow (Adjustment Mode)$
- (2) Print out the test pattern and correct the deviation amount of the 1st page. Use the image position of magenta (M) as a reference for correction. The image positions of yellow (Y), cyan (C) and black (K) must be corrected with this reference.
  - a. Select A3/LD size. Key in "64" and then press the [FAX] button.  $\rightarrow$  2 pages of the test pattern are printed out.
  - b. Check the image of the 1st page and specify the color to be corrected.
  - c. Key in the code "417" and press the [START] button.
  - d. Key in the sub code of the color to be corrected and press the [START] button.

```
Sub code
                1: Cyan (C)
                                3: Yellow (Y)
 0: Black (K)
```

e. Key in the adjustment value and press the [ENTER] or [INTERRUPT] button.

# Notes:

- 1. When the value increases by "1", the image shifts toward the trailing edge of the paper by 0.0423 mm.
- 2. Adjust the image positions of black (K), cyan (C) and yellow (Y) so that the colors do not overlap.
- 3. If the patterns of the leading and trailing edge sides are not aligned, adjust to uniform the deviation amount of each side. (The top gap of the pattern on the leading edge side and bottom gap of the pattern on the trailing edge side should be the same. The bottom gap of the pattern on the leading edge side and top gap of the pattern on the trailing edge side should be the same.)
- (3) Print out the test pattern and correct the deviation amount of the 2nd page. Use the image position of magenta (M) as a reference for correction. The image positions of yellow (Y), cyan (C) and black (K) must be corrected with this reference.
  - a. Select A3/LD size. Key in "64" and then press the [FAX] button.  $\rightarrow$  2 pages of the test pattern are printed out.
  - b. Check the image of the 2nd page and specify the color to be corrected.
  - c. Key in the code "418" and press the [START] button.
  - d. Key in the sub code of the color to be corrected and press the [START] button. Sub code 0: Black (K) 1: Cyan (C) 3: Yellow (Y)
  - e. Key in the adjustment value and press the [ENTER] or [INTERRUPT] button.

# Notes:

- 1. When the value increases by "1", the image shifts toward the trailing edge of the paper by 0.0423 mm.
- 2. Adjust the image positions of black (K), cyan (C) and yellow (Y) so that the colors do not overlap.

- 3. If the patterns of the leading and trailing edge sides are not aligned, adjust to uniform the deviation amount of each side. (The top gap of the pattern on the leading edge side and bottom gap of the pattern on the trailing edge side should be the same. The bottom gap of the pattern on the leading edge side and top gap of the pattern on the trailing edge side should be the same.)
- (4) Turn the power OFF.



Adjust the image positions of K, C and Y so that the colors do not overlap.

[Details of adjustment area]

#### Fig. 5-202B

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#### e-STUDIO3511/4511 TROUBLESHOOTING

04/10

# (2) Uneven pitch and jitter image

# <Symptoms>

Original mode	Location	Phenomena
All modes	Occurs cyclically at right angles to paper feeding direction	Uneven pitch



Fig. 5-203

			Cause			
Section	Step	Main	Sub	Specific	Check Item	
		Classification	Classification	Classification		
	1				Output the built-in halftone and grid	
					patterns on A3/LD.	
Drum drive system	2	Drum	Surface		Check the halftone pattern.	
			condition	Damage	Check the drum surface.	
				Attached	Check the drum surface.	
				foreign matter		
	3	Drum rotation	Unstable	Motor abnormal	Check main motor operation in Test	
					Mode (03).	
				Control circuit	Check main motor operation in Test	
				abnormal	Mode (03).	
		Main motor	Inadequate	Adjustment	Recheck values set for main motor	
		rotation speed		error	rotation speed.	
		Drum coupling	Loose coupling		Check the halftone pattern.	
			Damage			
			Deformation			
Transfer belt	4	Drive unit	Timing belt	Tension	Check the halftone pattern.	
system				looseness		
	5	Transfer belt	Deformation or		Check the halftone pattern.	
			uamaye		Check the condition of transfer bolt adda	
		Drive reller	Clipping	Stoin	Check the balttone pattern	
		Drive roller	Silpping	Stam	Check the hallone patient.	
					Check the condition of roller surface.	
		Large driving load	Cleaning blade	Peeling		
Laser optical unit	6	Polygonal mirror	Surface inclined	Deformation	Check the halftone pattern.	

Criteria	Measures
Perform following procedures from 2 and after.	
Are there uneven pitches approx. 283 mm?	Replace the drum.
Is there any damage?	Replace the drum.
Is there any attached foreign matter?	Clean or replace the drum.
	Replace the main motor.
	Reconnect the connectors. Replace the harnesses.
	Replace the LGC board.
Is the value significantly different from the default value 128?	Reset main motor rotation speed to 128.
	Retighten the screws.
	Replace the couplings.
	Replace the couplings.
Are there uneven pitches approx. 2.5 mm in the whole image?	Retighten the screws to fix the tension arm.
Are there uneven pitches approx. 75 mm in the whole image?	Replace the transfer belt.
Is the belt edge damaged or folded?	
Are there uneven pitches approx. 75 mm in the whole image?	Clean it.
Is there any stain?	
	Replace the cleaning blade.
Are there uneven pitches approx. 0.3 mm in the whole image?	Replace the unit.

(3) Poor image density, color reproduction and gray balance



Fig. 5-204

Cause/Section	Step	Check items	Measures	Remarks
Density / Color	1	Check the image density / color	Perform the enforced performing	
reproduction / Gray		reproduction / gray balance.	of image quality closed-loop	
balance			control (05-395) and then	
			automatic gamma adjustment.	
Printer density	2	Check the density of printer	Output the test patterns and	See step 5 if
		output image.	check them.	defect occurs.
			Color: using 04-231 for each	
			color	
			Black: using 04-113	
Scanner	3	Check if the original glass,	Clean it.	
		mirrors or lens is dirty.		
Parameter	4	Check the image processing	Adjust the color balance (color).	
adjustment value		parameters.	Adjust the image density.	
Printer output image	5	Is there any faded image (low	Perform the troubleshooting	
abnormal		density)?	procedures against the faded	
			image.	
		Is there any fog in the back-	Perform the troubleshooting	
		ground?	procedures against the back-	
			ground fogging.	
		Is there any blotch image?	Perform the troubleshooting	
			procedures against the blotch	
			image.	
		Is there any poor transfer?	Perform the troubleshooting	
			procedures against the poor	
			transfer.	
		Is there any poor cleaning of the	Correct the transfer belt area.	
		transfer belt?	(Refer to Service Manual)	
		(Check inside the equipment.)		

\* If the trouble is not solved at the step 1 and the step 2 or followings (excluding the parameter adjustment) are performed, make sure to perform "Enforced performing of image quality closed-loop control" and then "Automatic gamma adjustment" after taking a measure.

# (4) Background fogging



Fig. 5-205

Cause/Section	Step	Check items	Measures	Remarks
Density reproduction	1	Check the gradation reproduction.	Perform the forced performing of	
			image quality closed-loop control	
			(05-395) and then automatic	
			gamma adjustment.	
Printer section	2	Check the printer output image.	Output the test patterns and	See step 6 if
			check them.	defects occur.
			Color: using 04-231 for each	
			color	
			Black: using 04-113	
Scanner	3	Check if the original glass,	Clean It.	
Parameter	1	Check the image processing	Check the value of officetting	
	4	check the image processing	adjustment for background	
aujustment value		parameters.	adjustitient for background	
			ground peak adjustment for	
			range correction (black)	
	5	Adjust the image processing	While checking the above	
	5	Adjust the image processing	encircled image adjust the	
		parameters.	reproduction level by the offset-	
			ting adjustment for background	
			processing (color) and back-	
			ground neak adjustment for	
			range correction (black)	
Cover	6	Is the cover installed properly?	Correct it	
		(Is the drum exposed to the		
		external light?)		
Auto-toner	7	Is the auto-toner sensor normal?	Check the operation of auto-	
			toner sensor and readjust.	
	8	Is the toner supply operating	Check the motor and circuits.	
		constantly?		
Main charger output	9	Is the main charger output	Check the circuits.	
		normal?		
Developer bias	10	Is the developer bias proper?	Check the circuits.	
Developer unit	11	Is the contact between the drum	Check the doctor-to-sleeve gap	
		and developer material proper?	and pole position.	
Developer material/	12	Using the specified developer	Use the specified developer	
Ioner/Drum	10	material, toner and drum?	material, toner and drum.	
	13	Have the developer material and	Replace the developer material	
	14	drum reached their Pivi life?	and drum.	
	14	Is the storage environment of the	the environment within energifies	
		without dow?	tion	
Drum cleaning blade	15	ls the drum cleaned properly?	Check the drum cleaning blade	
Druin cleaning blade	15	is the druin cleaned propeny:	pressure	
Transfer helt cleaning	16	Is the transfer belt cleaning blade	Check if the spring of the transfer	
hlade		contacted and released properly?	belt cleaner clutch is removed or	
blade		contacted and released property.	if any connector is disconnected.	
			Otherwise replace the clutch	
	17	Is the transfer belt cleaning blade	Check if the blade pressure	
		in proper contact with the transfer	spring is installed.	
		belt?		
Toner dusting	18	Is the toner accumulated on the	Remove the toner and clean the	
		seals of the developer unit?	seals.	

\* If the trouble is not solved at the step 1 and the step 2 or followings (excluding the parameter adjustment) are performed, make sure to perform "Enforced performing of image quality closed-loop control" and then "Automatic gamma adjustment" after taking a measure.

### (5) Moire/lack of sharpness



#### Moire

Cause/Section	Step	Check items	Measures	Remarks
Density reproduction	1	Check the gradation	Perform the forced performing	
		reproduction.	of image quality closed-loop	
			control (05-395) and then	
			automatic gamma adjustment.	
Parameter	2	Check the image	Check the sharpness adjust-	
adjustment value		processing parameters.	ment value.	
	3	Adjust the image	While checking the above	
		processing parameters.	encircled images A and B,	
			decrease moire by sharpness	
			adjustment.	
Printer section	4	Check the printer output	Output the test patterns and	When defects occur,
		image.	check them.	perform the
			Color: using 04-231 for each	corresponding
			color	troubleshooting
			Black: using 04-113	procedures.

#### Lack of sharpness

Cause/Section	Step	Check items	Measures	Remarks
Density reproduction	1	Check the gradation	Perform the forced performing	
		reproduction.	of image quality closed-loop	
			control (05-395) and then	
			automatic gamma adjustment.	
Parameter	2	Check the image	Check the sharpness adjust-	
adjustment value		processing parameters.	ment value.	
	3	Adjust the image process-	While checking the above	
		ing parameters.	encircled image A, increase	
			sharpness by sharpness	
			adjustment.	

\* If the trouble is not solved at the step 1 and the step 2 or followings (excluding the parameter adjustment) are performed, make sure to perform "Enforced performing of image quality closed-loop control" and then "Automatic gamma adjustment" after taking a measure.



Fig. 5-207

Tomor offerst	Chadau imaana		170 mana hab	مانه أمل ممالح اممر	deneitri incene )
ioner onset (	Snadow image	appears approx.	173 mm ben	ina ine nign	density image.)

Cause/Section	Step	Check items	Measures	Remarks
Fuser unit	1	Is the pressure between the fuser	Check the pressure removal	
		belt and pressure roller proper?	parts and pressure mechanism.	
	2	Is the thermostat in contact?	Establish its contact.	
	3	Is there scratch on the fuser belt	Replace the fuser belt or the	
		or pressure roller surface?	pressure roller.	
	4	Has the fuser belt or pressure	Replace the fuser belt or the	
		roller reached its PM life?	pressure roller.	
	5	Is the fuser roller temperature	Check and correct the control	
		proper?	circuit.	
Paper	6	Is the paper type corresponding	Use the proper type of paper or	
		to its mode?	select the proper mode.	
	7	Using recommended paper?	Use the recommended paper.	
Developer material	8	Is the specified developer used?	Use the specified developer and	
			toner.	
Scanner	9	Are the mirrors, original glass or	Clean them.	
		lens dirty?		
Image quality control	10	Is the control activated?	Check the image quality control	
			related codes.	
Density	11	Is the density too high?	Perform the forced performing of	
			image quality closed-loop control	
			(05-395) and then automatic	
			gamma adjustment.	
Printer density	12	Check the density of printer	Output the test patterns and	When defects
		output image.	check them.	occur, perform
			Color: using 04-231 for each	the
			color	corresponding
			Black: using 04-113	troubleshooting
				procedures.

# (7) Blurred image



Fig. 5-208

Cause/Section	Step	Check items	Measures
Scanner	1	Is the scanner bedewed?	Clean it.
Drum	2	Is the drum bedewed or dirty?	Wipe the drum with dry cloth.
			* Be sure never use alcohol or other
			organic solvents because they have
			bad effect on the drum.
Ozone exhaust	3	Is the ozone exhaust fan operating	Check the connection of the connector.
		properly?	
	4	Is the ozone filter stained or damaged?	Replace it.



Fig. 5-209

Cause/Section	Step	Check items	Measures
IH electric power/	1	Check if the connector contacts properly.	Correct it.
control abnormal	2	Is the IH coil shorted or broken?	Replace the IH coil or IH control board.
		Is the IH control board normal?	
	3	Are the connectors on the LGC board	Reconnect them.
		and joint connectors connected prop-	
		erly?	
	4	Is the LGC board normal?	Replace the LGC board.
	5	Is the harness between the LGC board	Replace the harness.
		and IH board short circuited or open	
		circuited?	
Pressure between	6	Are the pressure springs working	Check/adjust the pressure springs.
fuser belt and pressure		properly?	
roller improper			
Fuser roller	7	Is the temperature of fuser roller too	Check/correct the setting value of fuser
temperature		low?	roller temperature.
			Clean or replace the thermistors.
			Check/correct the related circuit.
Developer material	8	Using the specified developer material	Use the specified developer material
and toner		and toner?	and toner.
Paper	9	Is the paper damp?	Change the paper.
	10	Is the paper type corresponding to its	Use the proper type of paper or select
		mode?	the proper mode.
	11	Using the recommended paper?	Use the recommended paper.

# (9) Blank print



Fig. 5-210

Cause/Section	Step	Check items	Measures
High-voltage	1	Is the high-voltage transformer output	Adjust the output and correct the circuit,
transformer		defective?	or replace the transformer.
(1st/2nd transfer roller			
and developer bias)			
	2	Are the connector of the high-voltage	Reconnect the harness securely.
		harness securely connected? Is the	Replace the high-voltage harness.
		harness open circuited?	
Developer unit	3	Is the developer unit installed securely?	Check/correct the developer sleeve
			coupling engaging.
	4	Do the developer sleeve and mixer	Check/correct the developer drive
		rotate?	system.
	5	Is the developer material properly	Remove foreign matter from the devel-
		transported?	oper material, if any.
	6	Is there any magnetic brush phase	Check the developer pole position.
		error?	
	7	Is the doctor sleeve gap incorrect?	Adjust the gap with the doctor-sleeve
			jig.
Drum	8	Is the drum rotating?	Check that the drum shaft is inserted.
			Check the drum drive system.
	9	Is the drum grounded?	Check the contact of the grounding
			plate.
Transfer unit	10	Is the transfer belt in proper contact with	Check if the contact releasing lever is at
		the drum?	releasing position. Check the installation
			of the transfer belt.
	11	Is the transport of the transfer belt	Check the installation of the transfer belt
		normal?	or transport mechanism.
	12	Is the releasing movement of the	Check the installation of the transfer belt
		transfer belt cleaner is normal? (Does	cleaning blade. Check the operation of
		the cleaning blade stay in contact?)	the transfer belt cleaner clutch.
	13	Is the 2nd transfer roller contacted and	Check the connection of the connector
		released properly?	of 2nd transfer roller contact clutch and
			open circuit of harness.
Switching power	14	Is the power supply output (5.1VD)	Replace the switching power supply.
supply		normal?	
Harnesses for SLG,	15	Are the connectors securely connected?	Reconnect the connectors securely.
SYS, LGC and LDR		Is any harness between the boards open	Replace the harness.
boards		circuited?	
Laser optical unit	16	Was the protection seal of slit removed	Remove the protection seal.
		when replacing the unit?	



Fig. 5-211

Cause/Section	Step	Check items	Measures
Exposure lamp	1	Does the exposure lamp light?	Check the contact of the inverter
Inverter		,	connector.
		,	If the inverter does not work, replace it.
		,	If the lamp does not work, replace it.
Main charger	2	Is the main charger securely installed?	Reinstall it securely.
	3	Is the main charger wire open circuited?	Replace it.
High-voltage	4	Is the high-voltage transformer output	Adjust the output and correct the circuit,
transformer		defective?	or replace the high-voltage transformer.
(main charger wire/		,	
grid bias)			
	5	Are the connector of the high-voltage	Reconnect the harness securely.
		harness securely connected? Is the	Replace the high-voltage harness.
		harness open circuited?	
Harnesses for SLG,	6	Are the connectors securely connected?	Reconnect the connectors securely.
SYS and LGC boards		Is any harness between the boards open	Replace the harness.
		circuited ?	
Scanner	7	Is there foreign matter in the optical	Remove it.
		path?	
Bedewing of scanner	8	Is the scanner or the drum bedewed?	Clean the mirrors, lens and drum.
and drum		,	Keep the power cord plugged so that the
		,	damp heater can work.
## (11) White banding (in feeding direction)



Fig. 5-212

Cause/Section	Step	Check items	Measures
Laser optical unit	1	Is there foreign matter or dust on the slit glass?	Clean the slit glass.
Main charger grid	2	Is there foreign matter on the charger grid?	Remove foreign matter.
Developer unit	3	Is there foreign matter inside the doctor blade?	Remove foreign matter.
	4	Is there foreign matter on the drum seal?	Remove foreign matter.
	5	Is the drum seal of developer unit in proper contact with the drum?	Modify the position of drum seal or replace it.
Drum	6	Is there scratch or foreign matter on the drum surface?	Replace the drum.
Transfer unit	7	Is there scratch or foreign matter on the transfer belt surface?	Replace the transfer belt.
	8	Are the harness or foreign matters in contact with the transfer belt surface?	Correct or remove them.
	9	Is the transfer belt cleaning blade contacted and released properly?	Check if the spring of the transfer belt cleaner clutch is removed or if any connector is disconnected. Otherwise replace the clutch.
	10	Is the transfer belt cleaning blade in proper contact with the transfer belt?	Check if the blade pressure spring is installed.
	11	Is there any scratch or hole on the 1st/ 2nd transfer roller?	Replace the 1st/2nd transfer roller.
Transport path	12	Does the toner image touch foreign matter after transfer, before entering the fuser unit?	Remove foreign matter.
Discharge lamp	13	Has any LED of discharge lamp gone out?	Replace the discharge lamp.
Scanner	14	Is there foreign matter or dust in the optical path?	Clean the lens and mirrors.

# (12) White banding (at right angles to feeding direction)



Fig. 5-213

Cause/Section	Step	Check items	Measures
Main charger	1	Is there foreign matter on the charger?	Remove foreign matter.
	2	Is the terminal contact poor?	Clean or adjust the terminals.
Drum	3	Is there any abnormalities on the drum	Replace the drum.
		surface?	
	4	Is the drum grounded?	Check the contact of the grounding
			plate.
Discharge lamp	5	Is the discharge lamp lighting properly?	Replace the discharge lamp or clean
			terminals.
Developer unit	6	Is the developer sleeve rotating cor-	Check the developer drive system, or
		rectly? Is there any abnormalities on the	clean the sleeve surface.
		sleeve surface?	
	7	Is the connection of developer bias	Correct it.
		supply terminal normal?	
Drive systems	8	Is the drum, scanner or transfer belt	Check each drive system.
		jittery?	
High-voltage	9	Is the high-voltage transformer output	Check/correct any electric leakage and
transformer		defective?	related circuits.
(main charger wire/			If the high-voltage transformer does not
grid, 1st/2nd transfer			work, replace it.
roller and developer			
bias)			

## (13) Skew (slantwise copying)



Fig. 5-214

Cause/Section	Step	Check items	Measures
Drawer/LCF	1	Is the drawer or LCF properly installed?	Reinstall the drawer or LCF properly.
	2	Is too much paper loaded in the drawer	Reduce paper to 550 sheets or less.
		or LCF?	(2500 sheets or less/stack for LCF)
	3	Is the paper corner folded?	Change the paper direction and reinsert it.
	4	Are the drawer or LCF side guides	Adjust the side guides.
		properly set?	
Paper feed roller	5	Is the surface of paper feed roller dirty?	Clean the roller surface with alcohol, or
			replace the roller.
Rollers	6	Is each roller improperly fixed to the	Check and reinstall E-rings, pins, clips
		shaft?	and setscrews.
Aligning amount	7	Is the aligning amount proper?	Increase the aligning amount.
Registration roller	8	Is the registration roller spring removed?	Mount the spring correctly. Clean the
			roller if it is dirty.
Pre-registration guide	9	Is the pre-registration guide improperly	Correct it.
		installed?	
2nd transfer front	10	Is the 2nd transfer front guide installed	Correct it.
guide		properly?	
RADF	11	Is the RADF installed and adjusted	Reinstall and readjust it.
		properly?	

# (14) Color banding (in feeding direction)



Fig. 5-215

Cause/Section	Step	Check items	Measures
Scanner	1	Is there foreign matter in the optical	Clean the slit lens and mirrors
ocanner	'	nath?	
	2	Is there dust or stain on the shading	Clean it
		correction plate or ADE original glass?	
Main charger	3	Is there foreign matter on the charger	Bemove foreign matter
inalit charger		grid?	
	4	Is the charger grid dirty or deformed?	Clean or replace the charger grid.
	5	Is there foreign matter on the main charger?	Remove foreign matter.
	6	Is the charger wire dirty or deformed?	Clean or replace the charger wire.
	7	Is there foreign matter inside the charger case?	Remove foreign matter.
	8	Is the inner surface of charger case dirty?	Clean inside.
	9	Are the pads of charger wire cleaner	Correct the position.
		stopping at the position other than their	
		home position?	
Cleaner	10	Is there paper dust on the cleaning	Clean or replace the paper dust removal
		blade edge?	brush for the registration roller.
			Clean or replace the cleaning blade.
	11	Is the cleaning blade contact improper?	Correct it.
	12	Is toner recovery defective?	Clean the toner recovery auger section.
Transfer unit	13	Are the harness or foreign matters in	Correct or remove them.
		contact with the transfer belt surface?	
	14	Is there paper dust on the edge of	Clean or replace it.
		transfer belt cleaning blade?	
	15	Is the transfer belt cleaning blade	Check if the spring of the transfer belt
		contacted and released properly?	cleaner clutch is removed or if any
			connector is disconnected. Otherwise
			replace the clutch.
	16	Is the transfer belt cleaning blade in	Check if the blade pressure spring is
		proper contact with the transfer belt?	installed.
Fuser unit	17	a. Is there dirt or scratches on the fuser	a. Clean or replace them.
		belt and pressure roller surface?	
		b. Is the thermistor dirty?	b. Clean the thermistor.
Drum	18	Are there scratches on the drum	Replace the drum.
		surface?	
Laser optical unit	19	Is there foreign matter or dust on the slit	Remove foreign matter or dust.
		glass?	

# (15) Color banding (at right angles to feeding direction)



Fig. 5-216

Cause/Section	Step	Check items	Measures
Main charger	1	Is the charger wire dirty or deformed?	Clean or replace the charger wire.
Fuser unit	2	Is the fuser belt, pressure roller or oil	Clean them.
		roller dirty?	
High-voltage	3	Is the high-voltage transformer output	Check the circuit and replace the high-
transformer		defective?	voltage transformer if not working.
(main charger wire/grid			
and transfer roller bias)			
	4	Is each joint of high-voltage output	Reconnect each joint.
		loosened? (Check if any electric leakage	
		is causing noise.)	
Drum	5	Is there deep scratch on the drum	Replace the drum, especially if the
		surface?	scratch has reached the aluminum
			base.
	6	Are there fine scratches on the drum	Check and correct the contact of
		surface (drum pitting)?	cleaning blade and recovery blade.
	7	Is the drum grounded?	Check the contact of the grounding
			plate.
2nd transfer roller	8	Is the 2nd transfer roller rotating	Clean the roller area or replace the
		normally?	roller.
Scanner	9	Is there foreign matter on the carriage rail?	Remove foreign matter.



Fig. 5-217

Cause/Section	Step	Check items	Measures
Developer unit/Toner	1	Is the toner density of developer material	Check and correct the auto-toner sensor
cartridge		proper?	and toner supply operation.
			Check if the amount of toner is sufficient
			in the toner cartridge.
	2	Is the doctor-sleeve gap proper?	Adjust the gap.
Developer material/	3	Using the specified developer material,	Use the specified developer material,
Toner/Drum		toner and drum?	toner and drum.
	4	Have the developer material and drum	Replace the developer material and
		reached their PM life?	drum.
	5	Is the storage environment of the toner	Use the toner cartridge stored in the
		cartridge 35°C or less without dew?	environment within specification.
	6	Is there any dent on the surface of the	Replace the drum.
		drum?	
	7	Is there any film forming on the drum?	Clean or replace the drum.
	8	Is the drum bedewed?	Wipe the drum surface with a piece of
			dry cloth.
Transfer unit	9	Is there foreign matter on the transfer	Remove foreign matter.
		belt surface?	
	10	Is there foreign matter on the transfer	Clean the transfer belt unit.
		belt drive roller?	
Main charger	11	Is there foreign matter on the charger?	Remove it.
	12	Is the charger wire dirty or deformed?	Clean or replace the charger wire.
High-voltage	13	Is the high-voltage transformer output	Adjust the output.
transformer		defective?	
(main charger wire/			
grid, developer 1st/			
2nd transfer roller			
bias)			
Paper	14	Is the paper type corresponding to its	Use the proper type of paper or select
		mode?	the proper mode.

# (17) Poor transfer



Fig. 5-218

Cause/Section	Step	Check items	Measures
Transfer unit	1	Is the transfer belt or 1st/2nd transfer	Clean it.
		rollers dirty?	
	2	Is the transfer belt in proper contact with	Correct it.
		the drum ?	
	3	Is the 2nd transfer roller in proper	Correct it.
		contact with the transfer belt?	
	4	Is there any deformation or abnormali-	Replace the belt.
		ties on the transfer belt?	
Paper	5	Is paper in the drawer or LCF curled?	Reinsert paper with reverse side up or
			change paper.
	6	Is paper in the drawer or LCF damp?	Change paper.
			* Avoid storing paper in damp place.
Registration roller	7	Is the registration roller malfunctioning?	Clean the roller, remount the spring, or
			replace defective clutch-related parts.
High-voltage	8	Is the high-voltage transformer output	Check the circuit and adjust the trans-
transformer		defective?	former output.
(1st/2nd transfer			
roller bias)			
	9	Are the high-voltage harness and	Correct them if loosened.
		terminals in proper contact?	

# (18) Uneven image density



Fig. 5-219

Cause/Section	Step	Check items	Measures
Main charger	1	Is the main charger dirty?	Clean it or replace the charger wire.
Transfer unit	2	Is the transfer belt or 1st/2nd transfer	Clean the belt.
		rollers dirty?	
	3	Is the transfer belt in proper contact with	Correct it.
		the drum?	
	4	Is 2nd transfer roller in proper contact	Correct it.
		with the transfer belt?	
		(Is the roller tilted?)	
	5	Is there any abnormalities or deforma-	Replace the transfer belt.
		tion on the transfer belt?	
Laser optical unit	6	Is there foreign matter or dust on the slit	Clean the slit glass.
		glass?	
Discharge lamp	7	Is the discharge lamp dirty?	Clean it.
	8	Has any LED of discharge lamp gone	Replace it.
		out?	
Developer unit	9	Is the magnetic brush in proper contact	Adjust the doctor-sleeve gap.
		with the drum?	
	10	Is the developer unit pressure mecha-	Check the mechanism.
		nism malfunctioning?	
	11	Is the transport of developer material	Remove foreign matter if any.
		poor?	
Scanner section	12	a. Is the platen cover or RADF open?	a. Close the platen cover or RADF.
		b. Is the original glass, mirrors, or lens	b.Clean them.
		dirty?	

# (19) Faded image (low density)



Fig. 5-220

Cause/Section	Step	Check items	Measures
Toner empty	1	Is the "ADD TONER" symbol blinking?	Replace the toner cartridge.
Auto-toner circuit	2	Is there enough toner in the cartridge?	Check the auto-toner circuit function.
	3	Is the toner density of developer	
	'	material too low?	
Toner motor	4	Is the toner motor malfunctioning?	Check the motor drive circuit.
Toner cartridge	5	Are there any abnormalities in the toner cartridge?	Replace the toner cartridge.
	'		
Developer material	6	Has the developer material reached its	Replace developer material.
	'	PM life?	
Developer unit	7	Is the magnetic brush in proper contact	Check the developer unit installation.
	'	with the drum?	Check the doctor-sleeve gap and pole
	!		position.
Main charger	8	Is the main charger dirty?	Clean it or replace the charger wire.
Drum	9	Is there film forming on the drum	Clean or replace the drum.
	'	surface?	
	10	Has the drum reached its PM life?	Replace the drum.
Transfer unit	11	Has the transfer belt, 1st or 2nd transfer	Replace the transfer belt, 1st or 2nd
	'	roller reached its PM life?	transfer roller.
High-voltage	12	Is the high-voltage transformer output	Adjust the high-voltage transformer
transformer	!	settings improper?	output.
(developer bias)	13	Are the connector of the high-voltage	Reconnect the harness securely.
	'	harness securely connected? Is the	Replace the high-voltage harness.
	!	harness open circuited?	

## (20) Image dislocation in feeding direction



Fig. 5-221

Cause/Section	Step	Check items	Measures
Adjustment error of	1	Is same dislocation on every copy?	Adjust the scanner/printer using the
scanner or printer			Adjustment Mode.
section			
Registration roller	2	Is the registration roller dirty, or is the	Clean the roller with alcohol.
		spring removed?	Reinstall the spring.
	3	Is the registration motor malfunctioning?	Adjust or replace the gears, etc. if they
			are not engaged properly.
	4	Is the registration roller clutch operating	Replace the registration roller clutch.
		normally? (Is the timing of operation	
		delaying?)	
Paper feed clutch	5	Is the paper feed clutch malfunctioning?	Check the circuit or the clutch and
			replace them if necessary.
Pre-registration guide	6	Is the pre-registration guide improperly	Reinstall the guide.
		installed?	
Transfer belt	7	Is there any stain or scratch on the	Clean or replace it.
		reflection tape?	
	8	Is the lens of the transfer belt home	Clean or replace it.
		position sensor stained?	

## (21) Image jittering



Fig. 5-222

Cause/Section	Step	Check items	Measures
—	1	Is the toner image on the drum proper?	If proper, perform step 1 to 3; otherwise
			perform step 4 and after.
Registration roller	2	Is the registration roller rotating normally?	Check the registration roller section and
			its springs.
Transfer unit	3	Is the transfer belt or 2nd transfer roller	Check the drive system and replace the
		operating normally?	transfer belt or 2nd transfer roller if
			necessary.
Fuser unit	4	Are the fuser roller and pressure roller	Check the drive system.
		rotation proper?	Replace the fuser belt, fuser roller and
		Is the fuser belt transportation proper?	pressure roller if necessary.
Drum	5	Is there large scratch on the drum?	Replace the drum.
Scanner	6	Is the slide sheet defective?	Replace it.
	7	Are there any abnormalities on the	Replace the feet.
		carriage feet?	
	8	Is the tension of timing belt	Correct the tension.
		inappropriate?	
	9	Is the carriage drive system	Check the carriage drive system.
		malfunctioning?	
	10	Are any mirrors loosely installed?	Install them properly.
Drum drive system	11	Is the drum drive system malfunctioning?	Check the drum drive system.
			Clean or replace the belts, pulleys,
			bushings if they have dirt or scratches.

# (22) Poor cleaning



Fig. 5-223

**Note:** Poor cleaning may occur in feeding direction.

Cause/Section	Step	Check items	Measures
Developer material	1	Is the specified developer material	Use the specified developer material
		used?	and toner.
Cleaner	2	Is there paper dust on the drum cleaning	Clean it.
		blade edge?	
	3	Is the drum cleaning blade peeled?	Replace the blade.
			Check and replace the drum.
	4	Is the cleaning brush rotating normally?	Check the brush driving section. Clean
			the brush area.
	5	Is the cleaning brush damaged? Is there	Replace the brush and clean the brush
		foreign matter on the brush?	area. Check the drum and replace if
			there is any abnormality.
Transfer belt cleaner	6	Is there paper dust on the edge of	Clean or replace it.
		transfer belt cleaning blade?	
	7	Is the transfer belt cleaning blade	Replace the blade.
		peeled?	
	8	Is the transfer belt cleaning blade	Check if the spring of the transfer belt
		contacted and released properly?	cleaner clutch is removed or if any
			connector is disconnected. Otherwise
			replace the clutch.
	9	Is the transfer belt cleaning blade in	Check if the blade pressure spring is
		proper contact with the transfer belt?	installed.
Toner recovery auger	10	Is the toner recovery defective?	Clean the toner recovery auger.
			Check the cleaning blade pressure.
Fuser unit	11	Is the cleaning roller or the oil roller	Replace them.
		damaged? Have the roller reached their	
		PM life?	
	12	Is there any bubble-like defect on the	Replace the fuser belt. Check and
		fuser belt (173 mm pitch on the image)?	modify the heater control circuit.
	13	Have the fuser belt and pressure roller	Replace them.
		reached their PM life?	
	14	Is the pressure between the fuser belt	Check and adjust the pressure mecha-
		and pressure roller proper?	nism.
	15	Is the temperature of fuser roller proper?	Check/correct the setting value of fuser
			roller temperature.
			Clean or replace the thermistors.
			Check and correct the circuit.

# (23) Uneven light distribution



Fig. 5-224

Cause/Section	Step	Check items	Measures
Original glass	1	Is the original glass dirty?	Clean the glass.
Main charger	2	Are the main charger wire, grid and case	Clean or replace them.
		dirty?	
Discharge lamp	3	Is the discharge lamp dirty?	Clean it.
Scanner	4	Are the reflector, exposure lamp,	Clean them.
		mirrors, lens, etc. dirty?	
Exposure lamp 5 Is the exposure		Is the exposure lamp tilted?	Adjust the installed position of the lamp.
	6	Is the lamp discolored or degraded?	Replace it.



Fig. 5-225

Cause/Section	Step	Check items	Measures
Paper	aper 1 Is the paper type corresponding to its		Check the paper type and mode.
		mode?	
	2	Is paper too dry?	Change paper.
Transfer unit	3	Is the transfer belt in proper contact with	Correct it.
		the drum?	
	4	Is the 2nd transfer roller in proper	Correct it.
		contact with the transfer belt?	
	5	Are there any abnormalities on the	Clean or replace the transfer belt.
		transfer belt?	
High-voltage	6	Is the high-voltage transformer output	Adjust the output. Replace the trans-
transformer		abnormal?	former, if necessary.
(1st/2nd transfer			
roller bias)			

## (25) Stain on the paper back side



Back side of 2nd page

Fig. 5-226

Cause/Section	Step	Check items	Measures
Image adjustment/	1	Is the margin adjustment of image	Adjust the margin.
setting		correct?	
	2	Is the margin adjustment of image	Adjust the margin.
3		correct when the paper size is not	
		selected in bypass feeding?	
		Is the margin adjustment of image at	Adjust the margin.
		duplexing correct?	(05-434)
	4	Is the image location in primary/second-	Adjust the location.
		ary scanning direction correct?	
	5	Is the reproduction ratio of image in	Adjust the reproduction ratio.
		primary/secondary scanning direction	
		correct?	
	6	Is the tab setting correct?	Correct the setting.
Paper feeding /	7	Does the size of paper in the drawer or	Use the appropriate paper size or
Transport area		LCF correspond to the setting?	correct the size setting.
	8	Is the width between the slides in the	Correct the position of the slides.
		drawer correct (too wide)?	
	9	Is the width between the slides of the	Correct the width.
	10	bypass tray correct (too wide)?	
		Is the sideways deviation adjustment for	Adjust the deviation.
		drawers or slides of the bypass tray	
-		correct?	
	11	Is the paper aligning amount sufficient?	Adjust the aligning amount.
	12	Are the feed roller and transport roller	Clean or replace the rollers.
	10	dirly or worn out?	Lies the energy iste paper type or paper
	13	Does the paper mode correspond to the	ose the appropriate paper type of paper
	11	paper type?	Houte.
Transfor unit	14	Is there any stain caused by a poor	Clean the transfer helt
		cleaning atc on the transfer helt?	
	16	Is the transfer belt cleaning blade in	Check if the blade pressure spring is
10		proper contact with the transfer belt?	installed
		Is the transfer belt cleaning blade	Check if the spring of the transfer belt
	.,	contacted or released properly?	cleaner clutch is removed or if any
			connector is disconnected. Otherwise
			replace the clutch.
	18	Is the 2nd transfer roller rotating prop-	Clean the area around the roller.
		erlv?	Otherwise replace the roller.
	19	Is there any foreign matter or stain on	Clean or replace the roller.
		the 2nd transfer roller?	
	20	Has the 2nd transfer roller reached to its	Replace the 2nd transfer roller.
		PM life?	
Fuser unit	21	Are the fuser belt and pressure roller	Clean the fuser belt and pressure roller.
		dirty?	
	22	Is the rib of transport guide dirty?	Clean the rib.

# 5.3 Replacement of PC Boards and HDD

## <CAUTION IN REPLACING PC BOARDS>

The ID for each equipment is registered on the LGC board, the DRV board, the SYS board and the SLG board. So, if their replacement is required, be sure to replace only one board at a time

If more than one of the LGC board, the DRV board and the SYS board require replacement, replace them in the following procedure.

- 1. First, replace one of the board to be replaced.
- 2. Turn the power ON and confirm that "READY" is displayed.
- 3. Turn the power OFF.
- 4. Replace another board that requires replacement.
- 5. Repeat steps 2 to 4.

The LGC board and DRV board can be replaced without other settings.

When the HDD requires replacement, see "5.3.1 Replacing HDD".

When the SYS board requires replacement, see "5.3.2 Replacing SYS board".

When the SLG board requires replacement, see "5.3.3 Replacing SLG board".

When NVRAM requires replacement or clearing, see "5.3.4 NVRAM replacing and clearing".

## 5.3.1 Replacing HDD

## <CAUTION IN REPLACING HDD>

When the HDD is replaced, it is necessary to back up the data in the HDD before replacing and to recover them after replacing.

## Notes:

- 1. To maintain the security, ask users to perform the backup/restore for users' data/information in the HDD. The service technician can perform them only when users permit it.
- 2. Some data in the HDD cannot be backed up and can be kept only on the paper.

The procedure for replacing the HDD is as follows.

- (1) Ask users to back up the data in the HDD. See the following for the item of data, and the possibility and the measure of the backup.
  - 1) Image data in the Electronic Filing
    - Archive them in the "e-Filing" of TopAccess.
  - 2) F-code information, Template registration information, Address book
    - Back them up in the "Administrator" menu of TopAccess.
  - 3) Department management data
    - Export them in "Administrator" menu of TopAccess.
  - 4) Log data (Print, Scan, FAX (Transmission/Reception))
    - Export them in the "Administrator" menu of TopAccess. (Import cannot be performed.)

- 5) Data in the shared folder (Scanned data, Saved data of copy / FAX transmission)
  - Copy them to the client computer via the network. (The data which have been copied to the client computer cannot be copied to the shared folder.)
- 6) Print waiting data (Copying data and FAX reception data that are waiting to be printed due to the paper run-out and jam, etc.)
  - Finish printing them after the paper supply and the jam release, etc. (The data cannot be kept.)
- 7) Print job (Private print data, Schedule print data)
  - If any jobs are left, print them. (The data cannot be backed up.)
- 8) FAX saved data (Confidential / Bulletin board data)
  - Print them. (The data cannot be backed up.)
- 9) Registration data for FAX transmission (Delayed transmission / Recovery transmission) - The data cannot be backed up.
- (2) Print out the "FUNCTION LIST FOR MAINTENANCE" (content of Function Mode (13) setting) list.
  - 1) Press the [USER FUNCTIONS] button and then the [USER] button.
  - 2) Press the [LIST] button.
  - 3) Key in [\*] [#] [\*] [3] [3] and then press the [START] button. The list is outputted.
- (3) Print out the "FUNCTION" list.
  - 1) Press the [USER FUNCTIONS] button.
  - 2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.
  - 3) Press the [LIST/REPORT] button and then the [LIST] button.
  - 4) Press the [FUNCTION] button. The list is outputted.
- (4) Replace the HDD.
- (5) Update of HDD program data and UI data.
  - 1) Create partitions. (In case of using the download jig, this is not necessary.) While pressing [3] and [CLEAR] button, turn the power ON. When "Firmware Version Up Mode" appears on the LCD, key in [3] and press the [START] button.
  - 2) Format the HDD. (Setting Mode (08-690: 2))
  - 3) Update with the download jig or USB storage. See "6. FIRMWARE UPDATING" for details.
  - 4) Format the HDD. (Setting Mode (08-690: 2))
    - \* When the FAX unit (GD-1150) is installed. Start up with the FAX Clearing Mode (1\*) Perform the 1\*-100 (FAX Set Up), 1\*-102 (Clearing the image data) of the FAX Clearing Mode.

- 5) Perform the gamma automatic adjustment of the printer. See "3.6.1 Automatic gamma adjustment" for details.
- (6) Ask users to reset the user's setting items and to restore the data/information. See the following for the reset and the restore.
  - 1) Printer driver
    - Upload them in the "Administrator" menu of TopAccess.
  - 2) F-code information, Template registering information, Address book
     Restore them in the "Administrator" menu of TopAccess
  - 3) Department management data
    - Import them in the "Administrator" menu of TopAccess.
  - 4) Image data in the Electronic Filing
    - Upload them in the "e-Filing" of TopAccess.
- (7) Referring to the "FUNCTION LIST FOR MAINTENANCE" list which was printed beforehand, perform the re-setting.
  - 1) Print out the "FUNCTION LIST FOR MAINTENANCE" list after the formatting. (Refer to the procedure of (2).)
  - 2) While pressing [1] and [3] simultaneously, turn the power ON. (Function Mode)
  - 3) Compare the lists which were printed before and after the formatting to check the setting items having the different setting values. Set the value which was set before the formatting.
  - 4) Turn the power OFF.
- (8) Referring to the "FUNCTION" list which was printed beforehand, perform the re-setting of the default setting of the FAX function.
  - 1) Press the [USER FUNCTIONS] button.
  - 2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.
  - 3) Press the [FAX] button and then the [TERMINAL ID] button to set each item.
  - 4) Press the [INITIAL SETUP] button to set each item.

## 5.3.2 Replacing SYS board

<<CAUTION IN REPLACING the SYS board>> The procedure for replacing the SYS board is as follows.

<After replacing the SYS board>

- (1) Install DIMM (main memory) to the new SYS board (from the old SYS board).
- (2) Install NVRAM to the new SYS board (from the old SYS board).
- (3) Install NIC board to the new SYS board (from the old SYS board).

- (4) Update the version of system ROMs (System Firmware, OS data, UI data) (The ROMs had been used for the old SYS board).
  - \* See "6. FIRMWARE UPDATING" for the details of System ROM update.
- (5) Turn the power OFF and start up with the Setting Mode (08).
- (6) When the message "SRAM ERROR DOES IT INITIALIZE?" is displayed on the LCD, press the [INITIALIZE] button.
  - \* SRAM is cleared
  - \* If SRAM is not performed, F090 error occurs when starting up.

## Notes:

- When SRAM is cleared, following items need to be re-set, so make sure the contents of settings are kept as a record.
- <FAX settings> Terminal ID Default setting of fax <E-mail settings>

Setting of properties for E-mail message

<Internet Fax> Setting of properties for Internet Fax

- When SRAM is cleared, the toner cartridge consumed count of Automatic ordering function of supplies becomes 0, however, it cannot be re-set.
- (7) [If a scrambler board has already been installed]Perform 08-698 (Entering the key code for scrambler board). Have the user enter the key code.
- (8) Perform 08-200 (date and time setting) to set Date/Time.
- (9) Turn the power OFF.
  - \* If the FAX board has not been installed, skip to step (13).
- (10) Start up with the FAX Clearing Mode (1\*)
- (11) Perform 1\*-102 (Clearing the image data).

## Note:

Following image data are deleted when 1\*-102 is performed.

- Images of fax polling transmission
- Images of fax Mailbox and box information
- Images of fax transmission
- Images of fax reception

(12)Turn the power OFF.

(13)Turn the power ON.

(14)Set the dial type. [USER FUNCTIONS]  $\rightarrow$  [ADMIN]  $\rightarrow$  [FAX]  $\rightarrow$  [INITIAL SETUP]

## 5.3.3 Replacing SLG board

<CAUTION IN REPLACING SLG BOARD>

When the SLG board has been replaced, "Data transfer of characteristic value of scanner / SYS board  $\rightarrow$  SLG board (05-363)" must be performed.

## 5.3.4 NVRAM replacing and clearing

## <CAUTION IN REPLACING AND CLEARING NVRAM>

When NVRAM has been replaced or cleared ("System all clearing (08-669)"), the following adjustments must be performed.

- 1. Perform "Data transfer of characteristic value of scanner / SLG board  $\rightarrow$  SYS board (05-364)".
- Perform "Image quality control initialization (05-396)" (► Chapter 3.3), and then perform "Automatic gamma adjustment (05-1642, 1000 and 1002)" consecutively (► Chapters 3.5.1 and 3.6.1).

# 6. FIRMWARE UPDATING

In this equipment, following firmware is written on the ROM on each board.

Firmware	Stored
Master data (HDD program data, UI data)	Hard disk
System ROM (System firmware, OS data, UI data)	System control PC board (SYS board)
Engine ROM (Machine firmware)	Logic PC board (LGC board)
Scanner ROM (Scanner firmware)	Scanning section control PC board (SLG board)
NIC ROM (NIC firmware)	NIC board
RADF ROM (RADF firmware)	RADF control PC board (MR-3015)
Finisher ROM (Finisher firmware)	Finisher control PC board (MJ-1023/ MJ-1024)
Finisher ROM (Saddle stitcher firmware)	Finisher control PC board (MJ-1024)
FAX ROM (FAX firmware)	FAX board (GD-1150)

When you want to update the firmware above or the equipment becomes inoperative status due to some defectives of the firmware, updating the firmware is available by the following actions.

- Updating with the download jig
  - ► 6.1 Firmware Updating with Download Jig
- Updating with PC connected
  - ► 6.2 Firmware Updating with FSMS (Field Service Manager)
- Updating with the USB Storage Device
  - ► 6.3 Firmware Updating with USB Storage Device

## Notes:

- Written firmware varies depending on the kinds of the boards provided as service parts. For updating, only the minimum firmware is installed on the system control PC board, logic PC board, and scanning section control PC board. No firmware is installed on the NIC board and FAX board. The latest version of the firmware at the delivery is written on the RADF control PC board and finisher control PC board. When any of above boards is replaced with a new one in the field, confirm the other firmware version used with and then write the suitable version of the firmware.
- The firmware (master data) is not installed on the hard disk provided as a service part. When the hard disk is replaced with a new one, confirm the other firmware version used with and then write the suitable version of the firmware.

# 6.1 Firmware Updating with Download Jig

In this equipment, it is feasible to update the firmware automatically by connecting the download jig using the dedicated connector and turning ON the equipment.

The download jig consists of the ROM, in which the program is written, and the jig board. And three types of the download jigs are available for each type of the firmware.

For updating the firmware, in addition to the current ways such as updating each firmware individually, the batch update of the firmware of the equipment is available (except the hard disk and the option).

Firmulara	Ctored	Download jig		
Firmware	Stored	Individual update	Batch update	
Master data	Hard disk	PWA-DWNLD-350-JIG2		
		(48 MB)		
System ROM	System control PC board	PWA-DWNLD-350-JIG1		
	(SYS board)	(16 MB)		
Engine ROM	Logic PC board	K-PWA-DLM-320		
	(LGC board)	or		
		PWA-DWNLD-350-JIG1		
		(16 MB)	PWA-DWNLD-350-JIG1	
Scanner ROM	Scanning section control	K-PWA-DLM-320	(16 MB)	
	PC board	or		
	(SLG board)	PWA-DWNLD-350-JIG1		
		(16 MB)		
NIC ROM	NIC board	PWA-DWNLD-350-JIG1		
		(16 MB)		
RADF ROM	RADF control PC board	K-PWA-DLM-320	—	
	(MR-3015)			
Finisher ROM	Finisher control PC board	K-PWA-DLM-320		
(Finisher firmware)	(MJ-1023/MJ-1024)			
Finisher ROM	Finisher control PC board	K-PWA-DLM-320		
(Saddle stitcher	(MJ-1024)		—	
firmware)				
FAX ROM	FAX board (GD-1150)	K-PWA-DLM-320	_	

Refer to the following for the details to update with each download jig.

- ► 6.1.1 PWA-DWNLD-350-JIG2 (48 MB)
- ► 6.1.2 PWA-DWNLD-350-JIG1 (16 MB)
- ▶ 6.1.4 K-PWA-DLM-320



[Jig board: PWA-DWNLD-350-JIG2 (48 MB)]

#### [Jig board: PWA-DWNLD-350-JIG1 (16 MB)]

#### Important:

• The download jig (PWA-DWNLD-350-JIG) has two types having different ROM capacity. ROM capacity for each jig is as follows.

Download jig	ROM capacity	Application
PWA-DWNLD-350-JIG2 (48 MB)	8 MB x 6	Updating the master data
PWA-DWNLD-350-JIG1 (16 MB)	8 MB x 2	Updating the system ROM, engine ROM,
		scanner ROM, NIC ROM

\* "PWA-DWNLD-350-JIG2 (48 MB)" is substitutable for "PWA-DWNLD-350-JIG1 (16 MB)"

- The download jig (PWA-DWNLD-350-JIG) is different from the existing jigs. The ROM is installed on the board directly. Therefore, ROM writer adapter (PWA-DL-ADP-350) is required to write the data to these ROMs. Refer to the following to write the data.
  - ► 6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)



[Jig board:K-PWA-DLM-320]

#### Important:

Pay attention to the direction of the ROM.

## 6.1.1 PWA-DWNLD-350-JIG2 (48 MB)

The master data written on the hard disk can be updated by using PWA-DWNLD-350-JIG2 (48 MB). Update the master data according to the need such as the case of replacing the hard disk.

The data to be overwritten are as follows.

- HDD program data (RIP data, list data, Web data, filing box control data)
- UI data (fixed section data, common section data, the language 1 to 7 data, the language 1 to 6 data for Web)

## (a) Update procedure

## Important:

- Use the download jig "PWA-DWNLD-350-JIG2 (48 MB)".
- Turn OFF the power before installing and removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.
- Write the data to the download jig.
   ▶ 6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)
- (2) Turn OFF the power of the equipment.
- (3) Take off connector cover.



(4) Remove the cover plate.



(5) Connect the download jig with the jig connector (CN100) on the SYS board.



## (6) Turn ON the power.

Downloading starts automatically and the processing status is displayed on LCD screen.

Download Board Firmware Update Mode Download Board -> HDD Update Start. Check Devices - Checking Update Status - (7) "Update Completed!!" is displayed at the bottom of the LCD screen after the updating is completed properly.

```
Download Board Firmware Update Mode

Download Board -> HDD Update Start.

Check Devices - Completed

Update Status - Completed

Update Completed!!
```

"Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

```
Download Board Firmware Update Mode
Download Board -> HDD Update Start.
Check Devices - Checking
Update Status -
Update Failed.
```

- (8) Turn OFF the power, and then remove the download jig.
- (9) Perform the "Updating System ROM" continuously.
   ▶ 6.1.2 PWA-DWNLD-350-JIG1 (16 MB) <Updating System ROM>

#### (b) Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

- 08-900: System ROM version 08-920: FROM basic section software version 08-921: FROM internal program version 08-922: UI data fixed section version 08-923: UI data common section version 08-924: Version of UI data language 1 in HDD 08-925: Version of UI data language 2 in HDD 08-926: Version of UI data language 3 in HDD 08-927: Version of UI data language 4 in HDD 08-928: Version of UI data language 5 in HDD 08-929: Version of UI data language 6 in HDD 08-931: Version of UI data language 7 in HDD 08-930: Version of UI data in FROM displayed at power ON 08-933: HDD unit data version 08-934: Version of Web UI data language 1 in HDD 08-935: Version of Web UI data language 2 in HDD 08-936: Version of Web UI data language 3 in HDD 08-937: Version of Web UI data language 4 in HDD 08-938: Version of Web UI data language 5 in HDD
- 08-939: Version of Web UI data language 6 in HDD

## (c) Display during the update

The processing status is displayed as follows on the LCD screen during the update.



```
Download Board Firmware Update Mode
Download Board -> HDD Update Start.
Check Devices - Completed
Update Status - Backup file /PRF -> /PR2
```

ххх/ууу

When the backup of the RIP font completes, the update completes with the following screen.

Download Board Firmware Update Mode Download Board -> HDD Update Start. Check Devices -Update Status -Completed Completed ххх/ууу Update Completed!!

\* If an error occurs, the following error message is displayed and the update is interrupted.

Check Devices Update Status	_ _	Checking
		Update Failed.

Error message

## 6.1.2 PWA-DWNLD-350-JIG1 (16 MB)

The firmware of the equipment except the hard disk and the option can be updated individually or in a batch by using PWA-DWNLD-350-JIG1 (16 MB). Update the ROM data written on each board according to the need such as the case of replacing the system control PC board, logic PC board, scanning section control PC board, or NIC board.

The data to be overwritten by this update are as follows.

<Updating System ROM>

- System firmware (System firmware data, FROM internal program data)
- OS data (FROM basic section software)
- UI data (fixed section data, common section data, UI data in FROM displayed at power ON)

<Updating Engine ROM> Engine ROM data

<Updating Scanner ROM> Scanner ROM data

<Updating NIC ROM> NIC ROM data

## (a) Update procedure

#### Important:

- Use the download jig "PWA-DWNLD-350-JIG1 (16 MB)". ("PWA-DWNLD-350-JIG2 (48 MB)" is substitutable.)
- Turn OFF the power before installing and removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.
- Write the ROM data to be updated to the download jig.
   > 6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)
- (2) Turn OFF the power of the equipment.

(3) Take off the connector cover.



(4) Remove the cover plate.



(5) Connect the download jig with the jig connector (CN100) on the SYS board.



(6) Turn ON the power while [8] button and [9] button are pressed simultaneously.

The screen for selecting the items to be updated is displayed. "\*" is displayed next to the items to be updated. (All items are selected in the default settings.)

Download Board Firmware Update Mode	Version in update media
Select Update Item	OS Version Vx.xx/x.xx
	UIF Version Vxxx xxx x
*1. OS Update	UIO Version Vxxx.xxx.x
*2. UI Update	UI1 Version Vxxx.xxx.x
*3. System Firmware Update	SYS Version Vxxx xxx x
*4. NIC Firmware Update	NIC Version xxxxxxxxx xxx
*5. Scanner Firmware Update	SCN Version xxxxx-xxx
∗6. Machine Firmware Update	MCN Version xxxxx-xxx

(7) Select the item with the digital keys.

"\*" is displayed next to the selected item. Display or delete the "\*" by pressing the number of the item. All items are selected in the default settings.

- Select all items to update the firmware of the equipment in a batch.
- Select items as follows to update it individually.
- <Updating System ROM>

Select "1. OS Update", "2. UI Update", and "3. System Firmware".

<Updating Engine ROM>

Select "6. Machine Firmware Update" only.

<Updating Scanner ROM> Select "5. Scanner Firmware Update" only.

<Updating NIC ROM> Select "4. NIC Firmware Update" only.
#### Example: Updating the system ROM

(Updating the system ROM is taken as an example and explained.)

DownLoo	d Roard Eirmwara Undata Mada	Version in upd	ate media
Dowinioad		00 1/ :	
Select	Update Item	US Version	VX. XX/X. XX
		UIF Version	Vxxx. xxx. x
*1. 0	S Update	UIO Version	Vxxx. xxx. x
*2. U	l Update	UI1 Version	Vxxx. xxx. x
*3. S	ystem Firmware Update	SYS Version	Vxxx. xxx. x
4. N	IC Firmware Update	NIC Version	XXXXXXXX. XXX
5. Se	canner Firmware Update	SCN Version	xxxxx-xxx
6. Ma	achine Firmware Update	MCN Version	xxxxx-xxx

## (8) Press the [START] button.

Updating starts and the processing status is displayed on the LCD screen.

```
Download Board Firmware Update Mode
Download Board -> FROM Update Start.
Check Devices - Checking
Update Status -
Data Check -
```

(9) "Update Completed!!" is displayed at the bottom of the LCD screen after the updating is completed properly.

```
Download Board Firmware Update Mode

OS Update ... Completed

Download Board -> FROM Update Start. UI Data Update ... Completed

SysFirm Update ... Completed

Update Status - Completed

Data Check - Completed

Update Completed!!
```

"Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

```
Download Board Firmware Update Mode
Download Board -> FROM Update Start.
Check Devices - Checking
Update Status -
Data Check -
Update Failed.
```

\* When the updating of the NIC firmware is failed, an error message is displayed as the figure below. Turn OFF the power and then check the above-mentioned items. After confirming them, select only "4. NIC Firmware Update" and restart updating from the beginning. This may complete the updating properly.

Download Roard Eirmwara Undeta	Mada
Download Board Firmware Opdate	NOUL Completed
Download Board -> FROM Update S	Start. UI Data Update Completed SysFirm Update Completed NICFirm Update Flash Update
Check Devices - Complete	ed
Update Status - Complete	ed
Data_Check Complete (NIC UPDATE FAILED 1)	2d
Ur	odate Failed.

NIC error message

If the updating of the NIC firmware is still failed, check the prescription corresponding to the error message. After confirming and clearing the problem, restart updating from the beginning.

NIC Error Message	Error Contents	Prescription
NIC UPDATE FAILED 1	NIC initialization time-out	The IP address may not be assigned
		correctly.
		<ul> <li>Is the IP address assigned correctly?</li> </ul>
		• Does the IP address conflict with the other
		system?
		If the error still occurs, replace the NIC
		board because it may be destroyed.
NIC UPDATE FAILED 2	ATA driver initialization error	The HDD cable may be disconnected.
		<ul> <li>Is the HDD cable connected correctly?</li> </ul>
		If the HDD cable is connected correctly,
		replace the SYS board because it may be
		destroyed.
NIC UPDATE FAILED 3	HDD partition mount error	Replace the HDD because it may be
		destroyed.
NIC UPDATE FAILED 4	NIC setting information	Replace the HDD because it may be
	backup error	destroyed.
NIC UPDATE FAILED 5	NIC firmware transfer error	Replace the NIC board because it may be
		destroyed.
NIC UPDATE FAILED 6	NIC firmware writing error	Replace the NIC board because it may be
		destroyed.
NIC UPDATE FAILED 7	NIC status time-out	Replace the NIC board because it may be
		destroyed.

#### Notes:

If the updating of the NIC firmware is not completed properly, wait 5 minutes or more from the beginning of the updating before turning OFF the power, and then restart updating from the beginning. If you turn OFF the power within 5 minutes, HDD may be destroyed.

- (10) Turn OFF the power, remove the download jig and install the cover plate and the connector cover.
- (11) Perform the initialization of the updating data (NVRAM updating).
  - a. Turn ON the power while [0] button and [8] button are pressed simultaneously.
  - b. Key in "947", and then press the [START] button.
  - c. Press the [INITIALIZE] button.

# (b) Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

- <Updating System ROM>
- 08-900: System ROM version
- 08-920: FROM basic section software version
- 08-921: FROM internal program version
- 08-922: UI data fixed section version
- 08-923: UI data common section version
- 08-930: Version of UI data in FROM displayed at power ON
- <Updating Engine ROM> 08-903: Engine ROM version
- <Updating Scanner ROM> 08-905: Scanner ROM version
- <Updating NIC ROM> 08-916: NIC ROM version

#### (c) Display during the update

The processing status is displayed as follows on the LCD screen during the update. (As an example, the display for updating the system ROM is explained below.)



When erasing the data completes, copying the data to the ROM of the equipment starts.

Download Board Firmware Update Mode	
Download Board -> FROM Update Start.	US Update
Check Devices - Completed Update Status - Installing Data Check -	
	When copying the data completes, verifying the data starts.
Download Board Firmware Update Mode Download Board -> FROM Update Start.	OS Update
Check Devices - Completed Update Status - Completed Data Check - Verifying	
	When verifying the data completes, copying and verifying the other data are implemente repeatedly.
Download Board Firmware Update Mode Download Board —> FROM Update Start.	OS Update Completed UI Data Update
Check Devices - Completed Update Status - Installing Data Check -	

 $\bigvee$ 

When copying and verifying all the data complete, the update completes with the following screen.

Download Board Firr Download Board -> F	nware Update Mode FROM Update Start.	OS Update UI Data Update SysFirm Update	Completed Completed Completed
Check Devices - Update Status - Data Check -	- Completed - Completed - Completed	mplotod	
	Update Co	mpletea!!	

\* If an error occurs, the following error message is displayed and the update is interrupted.



Error message

# 6.1.3 Writing the data to the download jig (PWA-DWNLD-350-JIG)

The download jig (PWA-DWNLD-350-JIG) differs from the existing jigs in that the Flash ROM is mounted on the board of the jig directly. The ROM writer adapter (PWA-DL-ADP-350) is required to write data to these Flash ROMs. Connect the download jig with the ROM writer via ROM writer adapter to write data. For the procedure to write data, refer to the download procedure, instruction manual of each ROM writer, or others.



#### Note:

There are two types of the ROM writer adapter. Use the proper one according to the ROM writer to be used. Applicable type of the adapter for the ROM writer can be confirmed by the model name indicated on the board. Confirm that the adapter is available for the ROM writer to be used before connecting them. If an unapplied adapter is connected, the application of the ROM writer judges it as an error and writing the data cannot be implemented. Applicable combinations of the ROM writer and adapter are as follows.

ROM writer	ROM writer adapter
Minato Electronics MODEL 1881XP	PWA-DL-ADP-350-1881
(or equivalent)	(model 1881)
Minato Electronics MODEL 1893/1895/1931/1940	PWA-DL-ADP-350-1931
(or equivalent)	(model 1931)





[PWA-DL-ADP-350-1881]

[PWA-DL-ADP-350-1931]

- (a) Precaution when writing the data
  - Set the writing voltage (VID) to 3.3 V.
  - When writing the data, set the address from 0 to 3FFFFF. The data may not be written correctly if it is not set.
  - The Flash ROM in which the data will be written, on the download jig is selected by switching the rotary switch on the adapter. Be sure to switch the rotary switch on the adapter depending on the data (file) to be written.

Potony	File Name		
Switch	Master Data	System, Engine, Scanner and NIC data	Flash ROM
Switch	(PWA-DWNLD-350-JIG2)	(PWA-DWNLD-350-JIG1)	
1	ROM. bin	ROM. bin	ROM1
2	1	Sysfirm. bin	ROM2
3	2	N/A	ROM3
4	3	N/A	ROM4
5	4	N/A	ROM5
6	N/A	N/A	ROM6

## Note:

Be sure not to confuse different ROM Versions since the file name is identical although the	ROM version
is different.	

## 6.1.4 K-PWA-DLM-320

The firmware of the equipment (engine ROM, scanner ROM) and the option (RADF ROM, Finisher ROM, FAX ROM) can be updated individually by using K-PWA-DLM-320. Update the ROM data written on each board according to the need such as the case of replacing the board.

The data to be overwritten by this update are as follows.

<Updating Engine ROM>

Engine ROM data

<Updating Scanner ROM> Scanner ROM data

<Updating RADF ROM> RADF ROM data

<Updating Finisher ROM>

- Finisher firmware
- Saddle stitcher firmware

<Updating FAX ROM> FAX ROM data

#### (a) Update Procedure

Since the procedure differs depending on the data, see the each procedure below.

#### Important:

- Turn OFF the power before installing or removing the download jig.
- Do not turn OFF the power during the update. The data could be damaged and not be operated properly.

<Updating Engine ROM>

- Install the ROM to the download jig. Make sure the direction is correct ( ► Page 6-3).
- (2) Turn OFF the power of the equipment.
- (3) Take off the connector cover.



(4) Remove the cover plate.



(5) Connect the download jig with the jig connector (CN344) on the logic PC board (LGC board).



- (6) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.
- (7) When the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
  - Is the download jig connected properly?
  - Is the ROM installed to the download jig properly?
  - Is the updating data written on the ROM of the download jig properly?
  - Do the download jig and the equipment operate properly?
- (8) Turn OFF the power, remove the download jig and install the cover plate and the connector cover.

<Updating Scanner ROM>

- Install the ROM to the download jig. Make sure the direction is correct ( ► Page 6-3).
- (2) Turn OFF the power of the equipment.
- (3) Take off the right upper cover.



(4) Remove the cover plate.



(5) Connect the download jig with the jig connector (CN16) on the scanning section control PC board (SLG board).



- (6) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.
- (7) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
  - Is the download jig connected properly?
  - Is the ROM installed to the download jig properly?
  - Is the updating data written on the ROM of the download jig properly?
  - Do the download jig and the equipment operate properly?
- (8) Turn OFF the power, remove the download jig and install the cover plate and the right upper cover.

<Updating RADF ROM>

- Install the ROM to the download jig. Make sure the direction is correct ( ► Page 6-3).
- (2) Turn OFF the power of the equipment.
- (3) Take off the RADF rear cover.



(4) Connect the download jig with the jig connector (CN14) on the RADF control PC board.



(5) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.

- (6) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 15 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
  - Is the download jig connected properly?
  - Is the ROM installed to the download jig properly?
  - Is the updating data written on the ROM of the download jig properly?
  - Do the download jig and the equipment operate properly?
- (7) Turn OFF the power, remove the download jig and install the RADF rear cover.

<Updating Finisher ROM>

Finisher firmware (MJ-1023/1024) and saddle stitcher firmware (MJ-1024 only) are written on the finisher ROM. These two kinds of firmware can be updated individually by installing the download jig to the finisher control PC board.

# Tip:

The following updates are needed according to the finisher model.

- MJ-1023 (Console type): Only the update of "Finisher firmware" is needed.
- MJ-1024 (Console type with the saddle stitcher): Two kinds of update "Finisher firmware" and "Saddle stitcher firmware" are needed.
- Install the ROM to the download jig. Make sure the direction is correct ( ► Page 6-3).
- (2) Turn OFF the power of the equipment.
- (3) Take off the finisher rear cover.







[MJ-1024]

\* Connect the finisher interface cable with the equipment after removing the finisher rear cover.

(4) Connect the download jig with the jig connector on the finisher control PC board.



(5) Change the setting of the DIP switch on the finisher contorol PC board.Change the setting of the DIP switch as follows according to the firmware to be updated.

#### Note:

Record the current settings of the DIP switch before changing them. After the updating is completed, return the DIP switch to the status as record.



<Updating Finisher Firmware> Change all the setting of the DIP switch (1-8) to OFF.

<Updating Saddle Stitcher Firmware> Change the setting of the DIP switch 1-6 to OFF and 7-8 to ON.

(6) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.

## Tip:

The processing status can be confirmed by the lighting of the LED (LED 101-103) on the finisher control board.



Dressesing status	LED		
Processing status	LED103	LED102	LED101
0% or above	OFF	OFF	ON
15% or above	OFF	ON	OFF
30% or above	OFF	ON	ON
45% or above	ON	OFF	OFF
60% or above	ON	OFF	ON
75% or above	ON	ON	OFF
90% or above	ON	ON	ON

- (7) After the update is completed properly, the LED on the download jig blinks slowly (at interval of 0.8 sec). The LED starts blinking in approx. 30 sec. (finisher section) or 2 min. 30 sec. (saddle stitcher section) since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed (finisher section) or 3 min. (saddle stitcher section), or LED flashes fast (at interval of 0.1 sec.). In this case, turn OFF the power and check the following items. Then, clear the problem and restart updating from the beginning.
  - Is the download jig connected properly?
  - Is the ROM installed to the download jig properly?
  - Is the updating data written on the ROM of the download jig properly?
  - Do the download jig and the equipment operate properly?
  - Is the DIP switch on the finisher control PC board set properly according to the download section (finisher or saddle stitcher)?
- (8) Turn OFF the power, remove the download jig and return the DIP switch to the status before updating.
- (9) Install the finisher rear cover.

<Updating FAX ROM>

#### Important:

- Before updating the FAX ROM, make sure to print out the current Function list for maintenance, Function list (ADMIN), Phone book number information and Group number information. In case the updating is failed and the registered information of the users is lost for some reason, re-register the user information referring to the lists and recover it.
- Confirm the following items before turning OFF the power of the equipment. Turning OFF the power may clear the data below.
  - Confirm that the "MEMORY RX" LED is OFF and there are no memory reception data.
  - Print the "Mailbox/Relay box report" and then confirm that there are no F code data.
  - Press the [JOB STATUS] button to display the screen and then confirm that there are no memory transmission data.
- Install the ROM to the download jig. Make sure the direction is correct ( ► Page 6-3).
- (2) Turn OFF the power of the equipment.
- (3) Take off the connector cover.



## (4) Remove the cover plate.



(5) Connect the download jig with the jig connector (CN602) on the FAX board.



- (6) Turn ON the power while [0] button and [8] button are pressed simultaneously. Updating starts automatically and the LED on the download jig lights.
- (7) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking in approx. 30 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed. In this case, turn OFF the power and check the blinking items. Then, clear the problem and restart updating from the beginning.
  - Is the download jig connected properly?
  - Is the ROM installed to the download jig properly?
  - Is the updating data written on the ROM of the download jig properly?
  - Do the download jig and the equipment operate properly?
- (8) Turn OFF the power, remove the download jig and install the cover plate and the connector cover.

- (9) In the FAX Clearing Mode, perform the "FAX Set Up".
  - a. Confirm the destination setting is correct in the Setting Mode (08).
    - 08-201: Destination setting of the equipment
    - 08-701: Destination setting of the FAX machine
  - b. Turn ON the power while [1] button and [\*] button are pressed simultaneously.
  - c. Key in "100".
  - d. Press the [START] button.

#### Note:

If the equipment does not work properly after the operation (9), follow the procedure below and then perform the "Clearing the image data" in the FAX Clearing Mode to erase the image data in the memory.

a. Confirm the destination setting is correct in the Setting Mode (08).

08-201: Destination setting of the equipment

- 08-701: Destination setting of the FAX machine
- b. Turn ON the power while [1] button and [\*] button are pressed simultaneously.
- c. Key in "102".
- d. Press the [START] button.

#### (b) Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data was overwritten properly.

- <Updating Engine ROM> 08-903: Engine ROM version
- <Updating Scanner ROM> 08-905: Scanner ROM version
- <Updating RADF ROM> 08-907: RADF ROM version
- <Updating Finisher ROM> 08-908: Finisher ROM version
- <Updating FAX ROM> 08-915: FAX ROM version

# 6.2 Firmware Updating with FSMS (Field Service Manager)

In this equipment, it is feasible to update the downloaded firmware from the PC connected with the equipment by using the utility software "FSMS (Field Service Manager)". Firmware can be also downloaded through USB, in addition to an existing serial transfer through RS-232C.

This chapter explains only the firmware downloading method with FSMS. Refer to the Field Service Manager Operator's Manual for the details about installation method and functions of FSMS.



# Important:

• Updating with USB connection is more recommended since the data transfer speed is lower and it takes more time to update in the serial connection with RS-232C cable.

Example: Updating time for system ROM (sysfirm.tz : Approx. 8 MB) RS-232C connection: Approx. 1 hour and 20 minutes USB connection: Approx. 10 minutes

- \* The updating time noted above is a reference. It may vary depending on the performance of the PC used.
- Updating through USB is not feasible for Windows NT4.0 since this operating system does not support USB. When this system is used, update in the serial connection with RS-232C cable.
- When updating through USB (using FSMS), a printer driver needs to be installed in the PC in advance. Refer to the Printing Guide about the installation method of the printer driver.

<sup>•</sup> The official name of Windows 98 is Microsoft Windows 98 Operating System.

<sup>•</sup> The official name of Windows Me is Microsoft Windows Millennium Edition Operating System.

<sup>•</sup> The official name of Windows 2000 is Microsoft Windows 2000 Operating System.

<sup>•</sup> The official name of Windows XP is Microsoft Windows XP Operating System.

<sup>•</sup> Microsoft, Windows and the brand names and product names of other Microsoft products are trademarks or registered trademarks of US Microsoft Corporation in the US and other countries.

<sup>•</sup> IBM PC/AT is a registered trademark of US International Business Machines Corporation.

The types of firmware which can be updated with this method are as follows in the table below.

Firmware	Stored	Data file name	
		uidata2.tz, uidata3.tz, uidata4.tz, uidata5.tz, uidata6.tz,	
Master data	Hard disk	uidata7.tz, webdata1.tz, webdata2.tz, webdata3.tz,	
		webdata4.tz, webdata5.tz, webdata6.tz, all.tz	
System ROM	System control PC board		
	(SYS board)	systirm.tz, uldataF.tz, uldata0.tz, uldata1.tz	
Engine ROM	Logic PC board		
	(LGC board)	mtirm.tz	
Scanner ROM	Scanning section control PC board	scnfirm.tz	
	(SLG board)		
NIC ROM	NIC board	nicfirm.tz	

## (a) Update procedure

#### Important:

- Do not operate the equipment or send a print job to the equipment during the update. This interferes the updating operation and the firmware may not be written properly.
- Do not turn OFF the power of equipment or PC during the update. The data could be damaged and not to be continued to function properly.
- When using FSMS, set "1" at FSMS permission code (08-258) in the Setting Mode (08) in advance.
- The data file (tz file format) of each firmware is recommended to save at the local drive in the PC (C drive, etc.) where FSMS program is installed.
- Image: Connector (device)
   Image: Connector (device)
- (1) Connect the equipment and PC with the cable.

[USB connection]

[RS-232C connection]

- \* Connect the cable to the RS-232C connector in RS-232C connection after taking off the connector cover of the equipment.
- \* Connect the PC end of the cable to the USB port or RS-232C port on the PC.
- (2) Turn ON the power of the equipment.

#### Tip:

When updating with FSMS, updating can be performed in any of the normal mode, Adjustment Mode (05) and Setting Mode (08). To avoid an interruption during the update, using the Setting Mode (08) is recommended.

- (3) Turn ON the power of the PC.
- (4) Activate FSMS.

Select "TOSHIBA FSMS" starting with the Start menu.

(5) Enter the login password and click the [OK] button.

🛱 Enter your password	X
Password	ок
J*********	Cancel

- \* Set the login password at the installation of FSMS.
- (6) Click the [F/W Download] button.

TOSHIBA FIELD SERVICE MANAG	GER 📃 🗖 🔀	
Version 3.2.0		
Diagnosis Options		
Diagnosis	Data Sharing	
	F/W Download	
Information Databases	Pattern Setting	
Customer	Optimize	
Machine	MAPfile Update	
	COM Port	
Maintenance	Database Security	
	Exit	

(7) Select the model name of the equipment to be updated from the drop-down menu and click the [OK] button.

6	Model Name Selection	
	Model Name Selection	ок
	e-STUDIO4511 🗾	
	e-STUDIO80	Cancel
	e-STUDIO350	
	e-STUDIO450	
	e-STUDIO550	
	e-STUDIO650	
	e-STUDIO810	
	e-STUDIO3511 📃	
	e-STUDIO4511 🛛 💌	

(8) Click the [OFFLINE] button.

Firmware Selection	
Firmware Update	
Program	🗖 UI Data
NIC ROM	🗖 Scan ROM
MROM	🗖 Common UI Data
🗖 1st Language UI Data	
Service Update	Generic Update
🗖 SSL ID File	🗖 Generic
C Comm Port	
Download File from Folder	OK Cancel

(9) Select the transmit media and click the [OK] button.

🖻 Select Transmit Media 🛛 🗙		
C Serial	OK ]	
USB	Cancel	

In case of RS-232C connection: Select "Serial" In case of USB connection: Select "USB"

\* The connection status between the printer driver installed in the PC and the equipment to be connected is displayed only when "USB" is selected. Select the equipment to be updated and click the [Activate FSMS] button.

Select Interface				
Toshiba MFP's	Status		tation FRMP	
TOSHIBA e-STUDIO3511-4511 PSL3	Connected		Activate FSMS	
			Refrech	
			<u>It</u> enesii	
			Cancel	
1				

#### Tip:

The content of "Status" display can be renewed to the latest status by clicking the [Refresh] button. When the status is displayed as "Disconnected" because the start up of the equipment is delayed, the status can be renewed to "Connected" by clicking this.

(10) Check the firmware to be updated and click the [OK] button.

Firmware Selection	
Firmware Update ✓ Program ✓ NIC ROM ✓ MROM ✓ 1st Language UI Data	I ∪I Data I Scan ROM I Common UI Data
Service Update	Generic Update
Comm Port	
🖵 Download File from Folder	OK Cancel

#### Tip:

The relation between the types of firmware to be updated and items to check is as follows in the table below.

Item	Firmware	Data file name to update
Program		sysfirm.tz
UI Data	System POM	uidataF.tz
Common UI Data	System HOM	uidata0.tz
1st Language UI Data		uidata1.tz
MROM	Engine ROM	mfirm.tz
Scan ROM	Scanner ROM	scnfirm.tz
NIC ROM	NIC ROM	nicfirm.tz
		uidata2.tz, uidata3.tz, uidata4.tz, uidata5.tz, uidata6.tz,
Generic	Master data	uidata7.tz, webdata1.tz, webdata2.tz, webdata3.tz,
		webdata4.tz, webdata5.tz, webdata6.tz, all.tz

(11) Select the data file to be updated and click the [OK] button.

There are two data filing methods: Selecting the multiple data files in a batch (select the folder where the files are saved) and selecting each data file individually.

- · Selecting the multiple data files in a batch
  - a. Select "Download File Folder".
  - b. Click the [Browse] button and select the folder where the files are saved.

Folder Selection	
C:\Firmware\	wse Exit
C File Name Conversion	
Firmware Selection	Service Update
File Name for Program (sysfirm.tz) File Name for MROM (mfirm.tz) File Name for SROM (scnfirm.tz) File Name for SROM (scnfirm.tz)	File Name for UI Data (uidataf.tz) File Name for NIC ROM (nicfirm.tz) Browse Generic Driver (*.*)
File Name for Common Data (uidata0.tz) File Name for 1 st Language UI Data (uidata1.tz) Browse Browse	Browse

- Selecting each data file individually
  - a. Select "File Name Conversion".
  - b. Click the [Browse] button of each data and select the file. When "Generic Driver" is used, check the checkbox of the file to be selected.

iownioad file folder	E	Browse OK	
ile Name Conversion			
Firmware Selection		Service Update	
File Name for Program (sysfirm.tz)		File Name for UI Data (uidataf.tz)	
C:\Firmware\sysfirm.tz	Browse	C:\Firmware\uidataF.tz	Browse
File Name for MROM (mfirm.tz)		File Name for NIC ROM (nicfirm.tz)	
C:\Firmware\mfirm.tz	Browse	C:\Firmware\nicfirm.tz	Browse
File Name for SROM (scnfirm.tz)		Generic Driver (*.*)	
C:\Firmware\scnfirm.tz	Browse	C:\Firmware\hd1.tz	Browse
File Name for Common Data (uidata	a0.tz)	C:\Firmware\hd2.tz	
C:\Firmware\uidata0.tz	Browse		
File Name for 1st Language UI Data	(uidata1.tz)		
C:\Firmware\uidata1.tz	Browse		

#### Tip:

When selecting the multiple files in a batch, the name of the unselected data file (not saved in the folder) may be displayed. In this case, click the [OK] button and then the update of all files except the displayed file starts.

Field Service Manager
Following files are not present in selected directory
uidataf.tz nicfirm.tz mfirm.tz scnfirm.tz uidata0.tz hdd.tz
OK

(12) The selected data is transmitted to the equipment.

The data file name being transmitted and transmission condition are displayed at the bottom.

File Name for Common Data (uidata)	t) Browse Idata1.tz) Browse
C:\Firmware\mfirm.tz	66.67 % completed

#### Tip:

During transmission, the message "WAIT" or "NOW SERVICING" is displayed on the LCD screen of the equipment. In this case, all the button operations are locked.

(13) When the data transmission is completed, the following screen is displayed. Then click the [OK] button.



(14) The equipment restarts automatically and the items to be updated and processing status are displayed on the LCD screen.



(15) "Update Completed!!" is displayed at the bottom of the LCD screen after the updating is completed properly.

Remote Firmware Undate Mode	
0 Os Update(vxworks bin)	
*1. System Firmware Update(sysfirm.tz)	Completed
*2. Fixed UI Data Update(uidataF.tz)	Completed
*3. Common UI Data Update(uidata0.tz)	Completed
*4. 1st UI Data Update(uidata1.tz)	Completed
*5. Machine Firmware Update(mfirm.tz)	Completed
*6. NIC Firmware Update(nicfirm.tz)	Completed
*7. Scanner Firmware Update(scnfirm.tz)	Completed
*8. HDD Update(hdd.tz*XX)	Completed
Update Completed!!	

"Update Failed!!" is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Are the equipment and PC properly connected?
- Is the selected data file proper?
- Do the cable, equipment and PC operate properly?
- Are FSMS and printer driver properly installed?

Remote Firmware Update Mode	
0. Os Update(vxworks.bin)	
*1. System Firmware Update(sysfirm.tz)	Completed
*2. Fixed UI Data Update(uidataF.tz)	Completed
*3. Common UI Data Update(uidata0.tz)	Completed
*4. 1st UI Data Update(uidata1.tz)	Completed
*5. Machine Firmware Update(mfirm.tz)	Completed
*6. NIC Firmware Update(nicfirm.tz)	Completed
*7. Scanner Firmware Update(scnfirm.tz)	Failed
*8. HDD Update(hdd.tz*XX)	
Update Failed!!	

\* When the updating of the NIC firmware is failed, an error message is displayed as the figure below. Turn OFF the power and then check the above-mentioned items. After confirming them, select only "NIC ROM" (6. NIC Firmware Update) and restart updating from the beginning. This may complete the updating properly.



NIC error message

If the updating of the NIC firmware is still failed, check the prescription corresponding to the error message. After confirming and clearing the problem, restart updating from the beginning.

NIC Error Message	Error Contents	Prescription
NIC UPDATE FAILED 1	NIC initialization time-out	<ul> <li>The IP address may not be assigned correctly.</li> <li>Is the IP address assigned correctly?</li> <li>Does the IP address conflict with the other system?</li> <li>If the error still occurs, replace the NIC</li> </ul>
		board because it may be destroyed.
NIC UPDATE FAILED 2	ATA driver initialization error	<ul> <li>The HDD cable may be disconnected.</li> <li>Is the HDD cable connected correctly?</li> <li>If the HDD cable is connected correctly, replace the SYS board because it may be destroyed.</li> </ul>
NIC UPDATE FAILED 3	HDD partition mount error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 4	NIC setting information backup error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 5	NIC firmware transfer error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 6	NIC firmware writing error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 7	NIC status time-out	Replace the NIC board because it may be destroyed.

#### Notes:

If the updating of the NIC firmware is not completed properly, wait 5 minutes or more from the beginning of the updating before turning OFF the power, and then restart updating from the beginning. If you turn OFF the power within 5 minutes, HDD may be destroyed.

- (16) Turn OFF the power of the equipment.
- (17) Perform the initialization of the updating data (NVRAM updating).
  - a. Turn ON the power while [0] button and [8] button are pressed simultaneously.
  - b. Key in "947", and then press the [START] button.
  - c. Press the [INITIALIZE] button.

#### (b) Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Master data>

08-925: Version of UI data language 2 in HDD 08-926: Version of UI data language 3 in HDD 08-927: Version of UI data language 4 in HDD 08-928: Version of UI data language 5 in HDD 08-929: Version of UI data language 6 in HDD 08-931: Version of UI data language 7 in HDD 08-933: HDD data unit version 08-934: Version of Web UI data language 1 in HDD 08-935: Version of Web UI data language 2 in HDD 08-936: Version of Web UI data language 3 in HDD 08-937: Version of Web UI data language 4 in HDD 08-938: Version of Web UI data language 5 in HDD 08-939: Version of Web UI data language 5 in HDD

<Updating System ROM>

08-900: System ROM version

08-922: UI data fixed section version

08-923: UI data common section version

08-924: Version of UI data language 1 in HDD

08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM > 08-903: Engine ROM version

<Updating Scanner ROM> 08-905: Scanner ROM version

<Updating NIC ROM> 08-916: NIC ROM version

# 6.3 Firmware Updating with USB Storage Device

In this equipment, it is feasible to update the firmware by connecting the USB storage device on which the firmware data is written to the USB connector mounted on the system control PC board and turning ON the power.

The type of firmware to be updated can be selected on the LCD screen in this method. This allows to update only the necessary firmware individually or to update all firmware in a batch.

The type of firmware which can be updated with this method are as follows in the table below. Also, the data file of each firmware can be used commonly in the updating methods with USB storage device and Download jig.

Firmware	Stored	Data file name	
		1, 2, 3 n	
Master data		* The file name should be consecutive numbers from 1	
	Hard disk	to "n" without file extension. The capacity of each file	
		is approx. 8 MB. However, the file capacity of "n" (last	
		number) may be less than 8 MB.	
System ROM	System control PC board	ovefirm hin BOM hin	
	(SYS board)		
Engine ROM	Logic PC board		
	(LGC board)		
Scanner ROM	Scanning section control PC board	ROM.bin	
	(SLG board)		
NIC ROM	NIC board		

# Important:

- The following USB storage devices are recommended for updating.
  - MELCO ClipDrive (RUF-C128M)
  - Lexar Media JumpDrive (RD128-231)
  - Iomega Mini USB Drive (Mini 128MB USB Drive)
- Only the USB storage device which meets the following conditions should be used for updating. Be careful since updating with any device other than the above is never guaranteed.
  - A combination USB storage device with a flash memory (to be connected directly to the USB port) and its capacity is 64 MB or more
  - A USB storage device which is complied with the following standards regulated by USB-IF (USB Implementers Forum)

Class number: 8 (=08h) (Mass-storage class) Sub-class number: 6 (=06h) (SCSI transfer command set) Protocol number: 80 (=50h) (Bulk-Only)

- \* Most common USB storage devices are complied with the specification above and can be used for updating. However, the operation in this equipment is not always guaranteed since the most of these devices are developed based on the use in PC environment (Windows or Macintosh). Therefore, confirm thoroughly that the device is operational in this equipment when purchasing the device.
- The USB storage device complied with USB1.1 and USB2.0 can be used for updating. However, the update is performed in the speed of USB1.1 when the device complied with USB2.0 is used.
- Do not update the firmware by any storage device other than a flash memory (such as a USB connection type memory card reader, CD/DVD drive or hard disk) since it is never guaranteed.
#### (a) Update procedure

#### Important:

- The file system of USB storage device should be formatted in FAT format. Be careful since the devices formatted in FAT32 or NTFS format will not be operated. The file system can be confirmed on the properties in applications such as Explorer of Windows.
- Do not turn OFF the power during the update. The data could be damaged and not to be operated properly.
- (1) Connect the USB storage device to the PC and write the data file.
  - Confirm the data file name before writing (► Page 6-44).
  - The file system of USB storage device should be formatted in FAT format.
  - Windows 95 and NT do not support USB. Be careful since the data can not be written on the devices in the PCs with these operating systems.
- (2) Turn OFF the power of equipment.
- (3) Take off the cover plate.



(4) Connect the USB storage device to the USB connector (host) on the SYS board.



(5) Turn ON the power while [4] button and [9] button are pressed simultaneously.

The screen for selecting the items to be updated is displayed after 3 minutes. "\*" is displayed next to the items to be updated. (All items other than "0. OS Update" are selected in the default settings.)

Download Storage Firmware Update Mode	Version in update media
Select Update Item	
0. OS Update	UIF Version Vxxx.xxx.x
*1 HDD Update	UIO Version Vxxx.xxx.x
*2. UI Data Update	UI1 Version Vxxx.xxx.x
*3. System Firmware Update	SYS Version Vxxx xxx x
*4. NIC Firmware Update	NIC Version xxxxxxxxx xxx
*5. Scanner Firmware Update	SCN Version xxxxx-xxx
∗6. Machine Firmware Update	MCN Version xxxxx-xxx

#### Note:

The display of items on this screen varies depending on the types of data written on the USB storage device. Each item is displayed only when each data file is written on the USB storage device in the following conditions.

Item	Condition
0. OS Update	ROM.bin is written.
1. HDD Update	All master data files (1, 2, 3 n) are written.
2. UI Data Update	ROM.bin is written.
3. System Firmware Update	sysfirm.bin and ROM.bin are written.
4. NIC Firmware Update	ROM.bin is written.
5. Scanner Firmware Update	ROM.bin is written.
6. Machine Firmware Update	ROM.bin is written.

If the USB storage device is not recognized properly, the following message is displayed. In this case, turn OFF the power of the equipment and connect the device properly. Then repeat the procedure from (5).

Please	Set	Correct	USB	Storage	Key

(6) Select the item with the digital keys.

"\*" is displayed next to the selected item. Display or delete the "\*" by pressing the number of the item. All items are selected in the default settings.

• Select all items to update the firmware of the equipment in a batch.

• Select items as follows to update individually.

<Updating Master data> Select "1. HDD Update" only.

<Updating System ROM>

Select "2. UI Data Update" and "3. System Firmware Update".

<Updating Engine ROM> Select "6. Machine Firmware Update" only.

- <Updating Scanner ROM> Select "5. Scanner Firmware Update" only.
- <Updating NIC ROM> Select "4. NIC Firmware Update" only.

#### Example: Updating the master data and system ROM

(Updating the master data and system ROM is taken as an example and explained.)

Down	oad Storage Firmware Update Mode	Version in upd	ate media
Selec	t Update Item		
0.	OS Update	UIF Version	Vxxx. xxx. x
*1.	HDD Update	UIO Version	Vxxx. xxx. x
*2	UI Data Update	UI1 Version	Vxxx. xxx. x
*3.	System Firmware Update	SYS Version	Vxxx. xxx. x
4.	NIC Firmware Update	NIC Version	XXXXXXXX. XXX
5.	Scanner Firmware Update	SCN Version	xxxxx <del>-</del> xxx
6.	Machine Firmware Update	MCN Version	xxxxx <del>-</del> xxx

(7) Press the [START] button.

Updating starts and the processing status is displayed on the LCD screen. When the multiple items are selected, updating starts in order of item number.

```
Download Storage Firmware Update Mode
Download Storage -> HDD Update Start.
Check Devices - HDD Checking
Update Status -
```

(8) "Update Completed." is displayed at the bottom of the LCD screen after the updating is completed properly.



#### Tip:

Updating can be continued with another USB storage device on which the firmware data is written in the following procedure when the updating is completed.

- a. Confirm the message "Please Connect Next Storage Key. Push 'START' Button!!" is displayed at the bottom of the LCD screen.
- b. Replace the USB storage device while the power is left ON.
- c. Press the [START] button.
- d. The screen for selecting the items to be updated is displayed. Continue the updating from procedure (6). However, the items already updated are not displayed on the screen.

"Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. Turn OFF the power, and then check the following items. After confirming and clearing the problems, restart updating from the beginning.

- Does the USB storage device meet the conditions to be used for updating (► Page 6-45)?
- Is the data file written properly on the USB storage device?
- Is the USB storage device installed properly?
- Do the USB storage device and equipment operate properly?

```
Download Storage Firmware Update Mode
Download Storage -> HDD Update Start.
Check Devices - HDD Checking
Update Status -
Update Failed.
```

\* When the updating of the NIC firmware is failed, an error message is displayed as the figure below. Turn OFF the power and then check the above-mentioned items. After confirming them, select only "4. NIC Firmware Update" and restart updating from the beginning. This may complete the updating properly.

Download Storage Firmware Undate Mode				
	OS Update	Completed		
Download Storage -> FROM Update Start.	HD Data Update UI Data Update SysFirm Update	Completed Completed Completed		
Check Devices - Completed Update Status - Completed Data_Ch <del>ock</del> Completed (NIC UPDATE FAILED 1)	NICFirm Update	Flash Update		
Update Failed.				

NIC error message

If the updating of the NIC firmware is still failed, check the prescription corresponding to the error message. After confirming and clearing the problem, restart updating from the beginning.

NIC Error Message	Error Contents	Prescription
NIC UPDATE FAILED 1	NIC initialization time-out	<ul> <li>The IP address may not be assigned correctly.</li> <li>Is the IP address assigned correctly?</li> <li>Does the IP address conflict with the other system?</li> </ul>
		If the error still occurs, replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 2	ATA driver initialization error	<ul> <li>The HDD cable may be disconnected.</li> <li>Is the HDD cable connected correctly?</li> <li>If the HDD cable is connected correctly,</li> <li>replace the SYS board because it may be destroyed.</li> </ul>
NIC UPDATE FAILED 3	HDD partition mount error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 4	NIC setting information backup error	Replace the HDD because it may be destroyed.
NIC UPDATE FAILED 5	NIC firmware transfer error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 6	NIC firmware writing error	Replace the NIC board because it may be destroyed.
NIC UPDATE FAILED 7	NIC status time-out	Replace the NIC board because it may be destroyed.

#### Notes:

If the updating of the NIC firmware is not completed properly, wait 5 minutes or more from the beginning of the updating before turning OFF the power, and then restart updating from the beginning. If you turn OFF the power within 5 minutes, HDD may be destroyed.

- (9) Turn OFF the power, remove the USB storage device and install the connector cover.
- (10) Perform the initialization of the updating data (NVRAM updating).
  - a. Turn ON the power while [0] button and [8] button are pressed simultaneously.
  - b. Key in "947", and then press the [START] button.
  - c. Press the [INITIALIZE] button.

#### (b) Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

<Updating Master data>

08-924: Version of UI data language 1 in HDD 08-925: Version of UI data language 2 in HDD 08-926: Version of UI data language 3 in HDD 08-927: Version of UI data language 4 in HDD 08-928: Version of UI data language 5 in HDD 08-929: Version of UI data language 6 in HDD 08-931: Version of UI data language 7 in HDD 08-933: HDD unit data version 08-934: Version of Web UI data language 1 in HDD 08-935: Version of Web UI data language 2 in HDD 08-936: Version of Web UI data language 3 in HDD 08-937: Version of Web UI data language 4 in HDD 08-938: Version of Web UI data language 5 in HDD 08-938: Version of Web UI data language 5 in HDD 08-939: Version of Web UI data language 6 in HDD

<Updating System ROM>

08-900: System ROM version

08-922: UI data fixed section version

08-923: UI data common section version

08-930: Version of UI data in FROM displayed at power ON

<Updating Engine ROM> 08-903: Engine ROM version

<Updating Scanner ROM> 08-905: Scanner ROM version

<Updating NIC ROM> 08-916: NIC ROM version

#### (c) Display during the update

The processing status is displayed as follows on the LCD screen during the update. (As an example, the display for updating the system ROM is explained below.)

Turn ON the power while [4] button a	and [	9] button are pressed simultaneously.
	$\bigvee$	The initial screen is displayed and the recogni of the USB storage device connected to equipment is started.
Download Storage Update Mode Please wait now Initialization		
	Ţ	When the device is recognized properly after minutes, the screen for selecting items is displayed.
Download Storage Firmware Update Mod Select Update Item 0. OS Update *1. HDD Update *2. UI Data Update *3. System Firmware Update	de	Version in update media UIF Version Vxxx. xxx. x UIO Version Vxxx. xxx. x UI1 Version Vxxx. xxx. x SYS Version Vxxx. xxx. x NIC Version

Press the [START] button after selecting the item 7 to be updated. The device check starts.

Check Devices - HDD Checking Update Status -	Download Storage Firmware Update Mode Download Storage -> HDD Update Start.	HD Data Update
	Check Devices - HDD Checking Update Status -	

When the device check completes, copying the data to the HDD starts.



When all files have been copied, the backup of RIP font starts.

Download Storage Firmware Update Mode Download Storage -> HDD Update Start.	HD Data Update	
Check Devices - Completed Update Status - Backup file /PRF	F -> /PR2 2/ 3/ n/1	ר xxx/ yyy xxx/ yyy xxx/ yyy xxx/ yyy xxx/ yyy

When the backup of RIP font is completed, the following screen is displayed. Updating the master data is completed.

Download Storage Firmware Update Mode Download Storage -> HDD Update Start.	HD Data Update	Completed
Check Devices - Completed Update Status - Completed		1/n xxx/ yyy 2/n xxx/ yyy 3/n xxx/ yyy 4/n xxx/ yyy

Updating the system ROM starts subsequently. The device check starts.



When the device check completes, copying the data to the ROM of the equipment starts.

Download Storage Firmware Update Mode HD Data Update ... Completed UI Data Update ... Completed Update Status - Installing Data Check -

Γ V

When copying the data completes, copying the other data are implemented repeatedly.

```
Download Storage Firmware Update Mode
                                                                 Completed
                                       HD Data Update ...
Download Storage -> FROM Update Start. UI Data Update ....
                                                                 Completed
                                       SysFirm Update ...
  Check Devices -
                      Completed
  Update Status -
                      Installing
 Data Check
                 _
                                        When copying all the data complete, the update
                                        completes with the following screen.
Download Storage Firmware Update Mode
                                       HD Data Update ...
                                                                 Completed
                                       UI Data Update ...
Download Storage -> FROM Update Start.
                                                                 Completed
                                       SysFirm Update ...
                                                                 Completed
  Check Devices -
                      Completed
 Update Status -
                      Completed
                 _
 Data Check
                      Completed
         Update Completed.
       Please Connect Next Storage Key, Push 'START' Button!!
```

\* If the USB storage device is not recognized properly, the following message is displayed and the update is interrupted.



\* If an error occurs, the following error message is displayed and the update is interrupted.



Error message

#### <Appendix> Assist Mode

This equipment has the Assist Mode to enable the following functions.

- (1) NVRAM flag clearing ("Clear NvRAM flags.")
  Even if the firmware downloading has been completed normally, the Recovery Mode may accidentally start up when the power is turned ON again. In this case, clear the NVRAM flags used in the download process with this function.
  (Normally, the flags are automatically cleared in the download process.)
  Also in the case the Recovery Mode accidentally starts up after the replacement of NVRAM on the SYS board, the flags are cleared with this function.
- (2) Data storage partition formatting ("Format UID rom PRF PR2 SMS Partition.")
  When a defection occurs on the UI data, etc. which are stored in the HDD, the partition with the stored UI data, etc. is formatted with this function.
  (Do not use this function since it is not normally necessary.)
- (3) HDD partition creation ("All Partition delete and create UID rom PRF PR2 SMS Partition.") When the HDD is replaced or UI data, etc. are downloaded using the FSMS or USB storage, it is necessary to format a partition in the HDD before downloading. In this case, the partition is created in the HDD with this function.

#### Notes:

- 1. When downloading with a download jig, it is not necessary to format a partition in advance.
- 2. Perform the HDD partition formatting only when a new HDD and scrambler board are installed since all data in the current HDD are erased by this operation.

#### **Operating Procedure of Assist Mode**

- (1) Turn ON the power while [3] button and [CLEAR] button are pressed simultaneously.
  - The following screen is displayed.

Firmware Version Up Mode
Select Number(1-3) and Press START key.
> 1 : Clear NvRAM flags.
2 : Format UID rom PRF PR2 SMS Partition.
3 : All Partition delete and create UID rom PRF PR2 SMS Partition.

(2) Select the item with the digital keys and press the [START] button.

# 7. POWER SUPPLY UNIT

# 7.1 Output Channel

The followings are four output channels which are not linked with the door switch.

(1) +3.3V

()	+3.3VA	: CN464 Pins 13, 14, 15 and 16
		Output to the SYS board
	+3.3VB	: CN464 Pins 19 and 20
		Output to the SYS board
	+3.3VB	: CN466 Pin 3
		Output to the LGC board
	+3.3VB	: CN467 Pins 17 and 18
		Output to the SLG board
(2) +5.1V		
	+5.1VA	: CN464 Pins 24 and 26
		Output to the SYS board
	+5.1VB	: CN464 Pin 25
		Output to the SYS board
	+5.1VB	: CN466 Pin 1
		Output to the LGC board, CCL board (via LGC board), PFP/LCF (via LGC
		board), Bridge unit (via LGC board)
	+5.1VB	: CN467 Pins 5 and 6
		Output to the RADF
	+5.1VB	: CN467 Pins 21 and 22
		Output to the SLG board
	+5.1VB	: CN468 Pin 1
		Output to the finisher
	+5.1VB	: CN469 Pin 5
		Output to the FIL board or FUS board
(3) +12V		·
( )	+12VA	: CN464 Pin 7
		Output to the SYS board
	+12VB	: CN464 Pin 5
		Output to the SYS board
	+12VB	: CN466 Pin 16 (*NAD/SAD/TWD models only)
		Output to the LGC board
(4) -12V		
(.) .=.	-12VA	· CN464 Pin 9
		Output to the SYS board
	-12VB	: CN464 Pin 3
		Output to the SYS board

The followings are two output channels which are linked with the door switch.

(1) +5.1V

+5.1VD	: CN466	Pins 11 and 12	
	Output to the LGC board		

(2) +24V

,			
	+24VD1	: CN465	Pins 1 and 2
		Output to	the LGC board, CCL board (via LGC board), Bridge unit (via LGC
		board)	
	+24VD1	: CN469	Pins 1 and 2
		Output to	the PFP/LCF
	+24VD1	: CN470	Pin 1
		Output to	the power supply cooling fan
	+24VD2	: CN465	Pins 5 and 6
		Output to	the DRV board
	+24VD3	: CN467	Pins 1 and 2
		Output to	the RADF
	+24VD4	: CN467	Pin 9
		Output to	the SDV board
	+24VD4	: CN467	Pins 11 and 13
		Output to	the SLG board
	+24VD5	: CN468	Pin 3
		Output to	the finisher

<<Output connector>>

Not linked with the door switch

CN464	For the SYS board
CN466	For the LGC board, FAX board, CCL board (via LGC board), PFP/LCF (via
	LGC board), Bridge unit (via LGC board)
CN467	For the SLG board, RADF
CN468	For the finisher
CN469	For the FIL board / FUS board

## Linked with the door switch

CN465	For the LGC board, DRV board, CCL board (via LGC board), Bridge unit
	(via LGC board)
CN466	For the LGC board
CN467	For the SLG board, SDV board, RADF
CN468	For the finisher
CN469	For the PFP/LCF
CN470	For the power supply cooling fan

## 7.2 Fuse

When the power supply secondary fuse is blown out, confirm that there is no abnormally with each part using the following table.

Voltage	Board/Unit	Part	Fuse type
+24VD1	LGC	Polygonal motor	F3:8A (Semi time-lag)
		Tray-up motor	
		ADU motor	
		Main motor	
		Developer motor	
		Transport motor	
		Drum cleaner brush motor	
		Transfer belt cleaner auger motor	
		Toner motor	
		Laser unit cooling fan	
		2nd transfer roller contact clutch	
		Bypass feed clutch	
		Registration clutch	
		Upper transport clutch (high speed)	
		Upper transport clutch (low speed)	
		Lower transport clutch (high speed)	
		Lower transport clutch (low speed)	
		Upper drawer feed clutch	
		Lower drawer feed clutch	
		ADU clutch	
		Color developer toner supply clutch	
		Color developer drive clutch	
		Black developer drive clutch	
		Black developer lifting clutch	
		Transfer belt cleaner contact clutch	
		Bypass pickup solenoid	
		Image quality sensor shutter solenoid	
		Color auto-toner sensor shutter solenoid	
		Discharge LED	
		Key copy counter / Copy key card	
	CCL	Carge cleaner motor	
	Power supply	Power supply cooling fan	
	PFP/LCF		
	Bridge unit		
+24VD2	DRV	Revolver motor	F4:5A (Semi time-lag)
		Exit motor	
		IH control board cooling fan	
		Ozone exhaust fan	
		Internal cooling fan	
+24VD3	RADF		F5:4A (Semi time-lag)
+24VD4	SLG	Exposure lamp (lamp inverter)	F6:4A (Semi time-lag)
		CCD drive circuit (CCD board)	
		SLG board cooling fan	
		Scanner unit cooling fan	
	SDV	Scan motor	
+24VD5	Finisher		F7:5A (Semi time-lag)



## 7.3 Configuration of Power Supply Unit

# 8. REMOTE SERVICE

There are following functions as Remote Service.

(1) Auto Supply Order

Automatically orders the toner and used toner container by FAX or E-mail.

Service Notification
 Notifies the status of the equipment to the service technician by E-mail or FAX.

## 8.1 Auto Supply Order

#### 8.1.1 Outline

Automatically orders the toner and used toner container.

(1) Placing an Order There are two ways to place an order.

#### (1-1) FAX

Installation of the FAX board is required. If the FAX board has not been installed, it is regarded as OFF setting.

- (1-2) E-mail (E-mail body + TIFF image)
- (2) Order Intervals

When the toner empty occurs, the number of occurrences is counted. And when it reaches the specified number for CONDITION, the order is placed automatically.

With regard to the used toner container, it is done according to the number of the used toner container full detection.

The number of the CONDITION can be set respectively for the toner and used toner container.

(3) If Order Failure Occurs

If some problems occur and the order cannot be placed after registering an order as a job, refer to the standard countermeasure for the FAX/E-mail transmission failure.

#### 8.1.2 Setting Item

To enable Auto Supply Order, the following settings are required.

- **Note:** When selecting E-mail to place an order, it is required that sending and receiving E-mails are available. Confirm the details to the administrator.
- (1) Self-diagnosis (08) Setting

As the default setting, the Auto Supply Order setting screen is not displayed on the touch panel. To display it, switching the Valid/Invalid setting (08-765) is required.

- 0: Valid (FAX/Internet FAX)
- 1: Valid (FAX/Internet FAX/HTTP)\*
- 2: Invalid (Default)

When changing the setting value from "2" (default) to "0", the Auto Supply Order setting screen is displayed. (\* HTTP has not been supported yet.)

(2) Touch Panel Setting

Each item is set from the Auto Supply Order screen on the touch panel.

Entering the password and customer information is required because the setting is made from the ADMIN screen. Setting it with the administrator is a must.

#### (2-1) Basic setting

#### [ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [ORDER INFORMATION]

AUTO SUPPLY ORDER	Ordered by: [FAX], [MAIL], [HTTP]	(*1)
FAX NUMBER	FAX number of supplier	(*2)
E-MAIL	E-mail address of supplier	(*3)
CUSTOMER	Customer information	
NAME		
TEL NUMBER		
E-MAIL		
ADDRESS		
SUPPLIER	Supplier information	
NAME		
ADDRESS		
SERVICE TECNICIAN	Service technician information	
NUMBER		
NAME		
E-MAIL		

\*1 HTTP has not been supported yet.

\*2 Even when "FAX" is selected, the order is not placed without entering the FAX number.

\*3 Even when "MAIL" is selected, the order is not placed without entering the E-mail address.

#### (2-2) Detailed setting for the order

## [ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [TONER ORDERING]

***** TONER ORDER	Order information (TONER /USED TONER CONTAINER)	
PART NUMBER	Part number to be ordered	
CONDITIOIN	The number of conditions (*1)	
QUANTITY	The quantity to be ordered	
AUTO ORDER	ON/OFF setting of order for each part	

\*1 The order is placed when the number of replacement reaches the number specified for the CONDITION.

#### (2-3) FAX number of this equipment (common information)

#### [ADMIN] > [FAX] > [TERMINAL ID]

ID NAME	ID name of this equipment
FAX NUMBER	FAX number of this equipment

(2-4) E-mail information of this equipment (common information)

[ADMIN] > [E-MAIL]

FROM ADDRESS	E-mail address of this equipment (*1)
FROM NAME	E-mail username of this equipment

\*1 When sending an E-mail, validity of the address is checked. If the address is invalid, it is not sent.

(3) Output of setting list of the Auto Supply Order Keying in the following buttons and keys prints the setting list.

[USER FUNCTIONS] [USER] [LISTS] [\*] [#] [\*] [\*] [3] [8] [START]

#### 8.1.3 Setting procedure

- (1) Start up the self-diagnosis setting mode 08-765, and then change the setting value to "0".
- (2) Turn the power OFF, and then ON.
- (3) Press the [USER FUNCTIONS] button to enter the user function screen.
- (4) Press the [ADMIN] button.
  - When the Administrator Password has been set, ADMINISTRATOR PASSWORD screen is displayed.

ADDRESS	COUNTER	USER	ADMIN	
ADMINI STRATOR	PASSWORD			
	رینی *****	PASSWORD		

- (5) Press the [PASSWORD] button and the screen is switched to a full keyboard. Then key in the Administrator Password and press the [ENTER] button.
  - \* Confirm the password to the administrator.

ADDRESS		USER		DMIN	
	<b>J</b> GENERAL		<b>рр</b> Сору		P E-MAIL
RETURN	INTERNET FAX	LIST/REPORT	SERVICE		

(6) Press the [SERVICE] button in the ADMIN screen.

(7) The SERVICE screen is displayed.

ADDRESS	USER	
SERVICE		
RETURN		

(8) Press the [SUPPLY ORDER SETUP] button.

ADDRESS COUNTER USER ADMIN

- (9) Press the [ORDER INFORMATION] button.
- (10) The ORDER INFORMATION screen is displayed.

ADDRESS COUNTER USER	ADMIN
ORDER INFORMATION AUTO SUPPLY ORDER FAX MAIL HITTP OFF FAX NUMBER E-MAIL	
	CANCEL ENTER Next

(11) Press the buttons on the screen of ORDER INFORMATION to set the required item.

[FAX]/[MAIL] /[OFF] -- Select the [FAX] or the [MAIL] button for the transmitting way of order. (HTTP has not been supported yet.) [OFF]: Turn off the AUTO SUPPLY ORDER function.

[FAX NUMBER] ------ Input the FAX number of supplier. (To transmit by FAX, the order cannot be placed automatically if you do not input the number.)

[E-MAIL] ------ Input the E-mail address of supplier.

(To transmit by E-mail, the order cannot be placed automatically if you do not input the address.)

## (12) Press the [NEXT] button.

(Press the [ENTER] button to register, and then the screen returns to the (7) SERVICE screen. Press the [CANCEL] button to cancel this register, and then the screen returns to the (7) SERVICE screen.)

(13) The CUSTOMER/SUPPLIER screen is displayed.

ADDRESS COUNTER USER	ADMIN
CUSTOMER NAME TEL NUMBER E-MAIL ADDRESS	SUPPLIER NAME ADDRESS
	CANCEL ENTER Next Prev

(14) Press the buttons of the screen of CUSTOMER/SUPPLIER to set the required item.

#### CUSTOMER

[NAME] ------ Input the name of customer.

[TEL NUMBER]--- Input the telephone number of customer.

[E-MAIL] ------ Input the E-mail address of customer.

[ADDRESS] ------ Input the address of customer.

#### SUPPLIER

[NAME] ------ Input the name of supplier.

[ADDRESS] ------ Input the address of supplier.

- (15) Press the [NEXT] button.
- (16) The SERVICE TECHNICIAN/ RESULT PRINTING screen is displayed.

ADDRESS COUNTER USER	ADMIN
NUMBER NAME TEL NUMBER E-MAIL	DESCRIPTION RESULT PRINTING OFF ALWAYS ON ERROR

(17) Press a button on the screen of SERVICE TECHNICIAN/ RESULT PRINTING to set the required item.

#### SERVICE TECHNICIAN

[NUMBER] ------ Input the number of SERVICE TECHNICIAN. [NAME] ------ Input the name of SERVICE TECHNICIAN.

[TEL NUMBER]--- Input the telephone number of SERVICE TECHNICIAN.

[E-MAIL] ------ Input the E-mail address of SERVICE TECHNICIAN.

[DESCRIPTION] - Input the remarks if you want to register.

## **RESULT PRINTING**

[OFF] / [ALWAYS] / [ON ERROR]

--- Whichever you press, the result list is printed.

(18) Press the [ENTER] button to register and complete the order information setting.

(19) The SERVICE screen is returned.

ADDRESS	USER	
SERVICE		
RETURN		

(20) Press the [SUPPLY ORDER SETUP] button.

ADDRESS COUNTER USER ADMIN

- (21) Press the [TONER ORDERING] button.
- (22) The TONER ORDERING screen is displayed.

ADDRESS COUNTER USER ADMIN
TONER ORDERING
YELLOW(Y) MAGENTA(M) CYAN(C) BLACK(K) USED TONER CONTAINER
RETURN

(23) Press the [YELLOW(Y)] button. (Select the part to be ordered.)

ADDRESS	USER	ADMIN
YELLOW(Y) TONER ORDER  PART NUMBER  CONDITION		AUTO ORDER

(24) Input the order information of TONER.

[PART NUMBER] -- Toner number

[CONDITION] ------ The order is placed when the number of toner empty reaches the number specified for the CONDITION.

[QUANTITY] ------ Quantity to be ordered

## AUTO ORDER

[ON]/[OFF] --- Allows you to select whether each part to be ordered is placed automatically or not.

- (25) Press the [ENTER] button to register the setting of toner order.
- (26) The TONER ORDERING screen is displayed.

ADDRESS	COUNTER	USER	ADMIN	
TONER ORDERING		<u></u>	b	
	YELLOW(Y)	1AGENTA(M) CYAI	N(C) BLACK(K)	USED TONER CONTAINER
RETURN				

(27) Press the [MAGENTA(M)] / [CYAN(C)] / [BLACK(K)] / [USED TONER CONTAINER] button, and then input the order information in the same way.

ADDRESS	USER	ADMIN
USED TONER CONTAINER ORDER  PART NUMBER  CONDITION  1  QUANTITY  1		AUTO ORDER

- (28) Press the [ENTER] button to register the order information.
- (29) The screen returns to the TONER ORDERING.
- (30) Press the [USER FUNCTION] button to be switched from the ADMIN screen on touch panel and returned to the BASIC screen, so that the setting of Auto Supply Order is finished.
- Note: Auto Supply Order setting is also available from the following setting mode (08).

Items	08 code	Contents
The transmitting way of order	732	0: Ordered by FAX
[FAX]/[MAIL] /[OFF]		1: Ordered by E-mail
		2: Ordered by HTTP
		3: OFF
SUPPLIER	733	Maximum 32 digits
[FAX NUMBER]		
SUPPLIER	734	Maximum 192 letters
[E-MAIL]		
CUSTOMER	738	Maximum 50 letters
[NAME]		
CUSTOMER	739	Maximum 32 digits
[TEL NUMBER]		
CUSTOMER	740	Maximum 192 letters
[E-MAIL]		
CUSTOMER	741	Maximum 100 letters
[ADDRESS]		
SUPPLIER	746	Maximum 50 letters
[NAME]		
SUPPLIER	747	Maximum 100 letters
[ADDRESS]		

Items	08 code	Contents
SERVICE TECHNICIAN	742	Maximum 5 digits
[NUMBER]		
SERVICE TECHNICIAN	743	Maximum 50 letters
[NAME]		
SERVICE TECHNICIAN	744	Maximum 32 digits
[TEL NUMBER]		
SERVICE TECHNICIAN	745	Maximum 192 letters
[E-MAIL]		
Remarks	748	Maximum 128 letters
[DESCRIPTION]		
RESULT PRINTING	764	0: OFF
[OFF] / [ALWAYS] / [ON ERROR]		1: Always
		2: ON Error
YELLOW(Y) TONER	755	Maximum 20 digits
[PART NUMBER]		
YELLOW(Y) TONER	757	1-99
[CONDITION]		
YELLOW(Y) TONER	756	1-99
[QUANTITY]		
MAGENTA(M) TONER	752	Maximum 20 digits
[PART NUMBER]		
MAGENTA(M) TONER	754	1-99
[CONDITION]		
MAGENTA(M) TONER	753	1-99
[QUANTITY]		
CYAN(C) TONER	749	Maximum 20 digits
[PART NUMBER]		
CYAN(C) TONER	751	1-99
[CONDITION]		
CYAN(C) TONER	750	1-99
[QUANTITY]		
BLACK(K) TONER	758	Maximum 20 digits
[PART NUMBER]		
BLACK(K) TONER	760	1-99
[CONDITION]		
BLACK(K) TONER	759	1-99
[QUANTITY]		
USED TONER CONTAINER	761	Maximum 20 digits
[PART NUMBER]		
USED TONER CONTAINER	763	1-99
[CONDITION]		
USED TONER CONTAINER	762	1-99
[QUANTITY]		

#### 8.1.4 Order Sheet Format

The sample of order sheet is as follows.

- (1) FAX (This format is the same as that of TIFF image attached E-mail.)
  - \*1 Part not to be ordered is not output. (Less space between the lines)

DATE & TIME CUSTOMER NUMBER CUSTOMER ADDRES CUSTOMER TEL NUM CUSTOMER E-MAIL A SERVICE TECHNICIA SERVICE TECHNICIA SUPPLIER NAME SUPPLIER ADDRESS	R ABER ADDRESS N TEL NUMBER N E-MAIL	:99-99-'99 99:99 :XXX :XXXXXXXXXXXX :XXXXXXXXXXX	xxxxxxxxxxxx xxxxxxxxxxxxx xxxxxxxxxxx	XXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXX
TONER CARTRIDGE CYAN MAGENTA YELLOW BLACK USED TONER CONTA	NNER	PART NUMBER : XXXXXXXXXXX : XXXXXXXXXXXX : XXXXXXXX	QUANTI XX 99 XX 99 XX 99 XX 99 XX 99 XX 99	TY • (*1)
DESCRIPTION AREA				
DEVICE DESCRIPTIC SERIAL NUMBER DEVICE FAX NUMBEI DEVICE E-MAIL ADDI	DN R RESS	:XXXXXXXXXXXX :XXXXXXXXXXXX :XXXXXXXXXX	xxxxxxxxxxxxx xxxxxxxxxxxxxx xxxxxxxxx	
PRINT COUNTER SCAN COUNTER	TOTAL 999999999 999999999	BLACK 9999999999 9999999999	TWIN COLOR 999999999 999999999	FULL COLOR 999999999 999999999

- (2) E-MAIL (TIFF image attached with the E-mail is the same format with that of the FAX order sheet.) SUBJECT: SUPPLY ORDER REQUEST
  - \*1 Part not to be ordered is not output. (Less space between the lines)

Date&Time: '03-09-12 00:17
Customer Number: S01 MachineName: TOSHIBA e-STUDIO4511
SerialNumber: 1234567890
Device FAX Number:
Device Email: aaa@linux.nam1.local
OrderInformation:
YELLOW PartNumber: YELLOW-03 Quantity:17
CounterInformation:
PrintCounter(Small) FullColor: 0 TwinColor: 0 Black: 141
PrintCounter(Large) FullColor: 0 TwinColor: 0 Black: 0
ScanCounter FullColor: 0 TwinColor: 0 Black: 7

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DATE & TIME CUSTOMER NUMBER CUSTOMER NAME CUSTOMER ADDRESS CUSTOMER TEL NUMBER CUSTOMER E-MAIL ADDRESS SERVICE TECHNICIAN TEL NUMBER SERVICE TECHNICIAN E-MAIL SUPPLIER NAME SUPPLIER ADDRESS		ORDER XXXXXXXXX :99-99-'99 99:99 :XXX :XXXXXXXXXXXXXXXXXXXXXXXXXX		
		PART NUMBER	QUANTITY	
TONER CARTRIDGE				
CYAN		: XXXXXXXXXXXXXX	( 99	
MAGENIA		: XXXXXXXXXXXXX	K 99	<u>,</u>
YELLOW			۲۱) (۲۱) ۲۰۱	)
		· · · · · · · · · · · · · · · · · · ·	( <u>99</u>	
			597	
DESCRIPTION AREA				
DEVICE DESCRIPTION		:XXXXXXXXXXXXXX	xxxxxxxxxx	
SERIAL NUMBER		:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		
DEVICE FAX NUMBER DEVICE E-MAIL ADDRESS		:XXXXXXXXXXXXX	XXXXXXXXXXX	
		:XXXXXXXXXXXXXXX	XXXXXXXXXXXX	
	TOTAL	BLACK	TWIN COLOR	FULL COLOR
PRINT COUNTER	999999999	999999999	999999999	999999999
SCAN COUNTER	9999999999	999999999	999999999	999999999

\*1 Part not to be ordered is not output. (Less space between the lines)

## 8.2 Service Notification

## 8.2.1 Outline

This function automatically notifies the status of the equipment to the service technician by E-mail or FAX. The following three are the items to be notified.

- Total Counter Transmit

When this function is effective, it notifies each counter information periodically (on the set date and time every month).

- Service Call Transmit (E-mail only) When this function is effective, it notifies the corresponding error code and such at a service call error.
- PM Counter Transmit

When this function is effective, it notifies that the PM timing has come when the present PM count has reached to its setting value, or the present PM driving count has reached to its setting value.

## 8.2.2 Setting

**Note:** When using this function, it is required that sending and receiving E-mails or FAXes are available. Confirm the details to the administrator.

## 8.2.2.1 Preparation

The screen to set this function is not displayed at the default setting. Set this screen to be displayed with the following code (08).

- 08-774 Setting of notification display
  - 0: Invalid (Default)
  - 1: Valid

#### 8.2.2.2 Setting procedure

- 1) Press the [USER FUNCTIONS] button and select the [ADMIN] button. Then enter the password and press the [ENTER] button.
  - Confirm the password to the administrator.

ADDRESS		USER	ADMIN	
ADMINISTRATOR :	PASSWORD			
	رینی *****_	PASSWORD		

2) Press the [SERVICE] button.



3) Press the [SERVICE NOTIFICATION] button.

ADDRESS		USER	ADMIN	
SERVICE				
SU	PPLY ORDER SETUP	SER NOTIF		
RETURN				

- 4) Press the [E-MAIL] or [FAX] button in "SERVICE NOTIFICATION".
  - When the [OFF] button is pressed, all functions related Service Notification become ineffective.

SERVICE NOTIFICATION
OFF E-MAIL FAX

- 5) Enter the E-mail address or FAX number of the destination.
  - When pressing the [E-MAIL] button, the screen is switched to a full keyboard. Then enter the E-mail addresses and press the [ENTER] button. (Maximum 3 addresses can be set.)

ADDRESS COUNTER	USER	ADMIN
SERVICE NOTIFICATION E-MAIL E-MAIL E-MAIL		TOTAL COUNTER TRANSMIT ON OFF SERVICE CALL TRANSMIT ON OFF

• Press the [FAX NUMBER] button, key in the FAX number and then press the [ENTER] button.

ADDRESS COUNTER USER	ADMIN
SERVICE NOTIFICATION	, TOTAL COUNTER TRANSMIT
FAX NUMBER	ON OFF PM COUNTER TRANSMIT ON OFF

6) Press the [ON] button to notify or [OFF] button not to notify of each item for E-mail and FAX. When the Total Count Transmit is set ON, the screen to set the notification date is displayed. Then set the notification date with the following procedure. (The information is notified on the set date and time every month.)

ADDRESS COUNTER TOTAL COUNTER DETAILS	
	Date  SET    Time  20      RESET

- 6-1) Key in the date (acceptable values: 1-31) in "Date" and press the [SET] button. (Correct the value by pressing the [CLEAR] button if the [SET] button is not yet pressed. Correct the value by pressing the [RESET] button to move the cursor back to the digit to be corrected if the [SET] button is already pressed.)
- 6-2) Key in the time (acceptable values: 00:00-23:59) in "Time". Key in the time in the hour column of "Time", press the [SET] button, key in the time in the minute column of "Time" and press the [SET] button. (Correct the value by pressing the [CLEAR] button if the [SET] button is not yet pressed. Correct the value by pressing the [RESET] button to move the cursor back to the digit to be corrected if the [SET] button is already pressed.)
- 6-3) Press the [ENTER] button to set all. The display returns to the screen at procedure 5).
- 7) Press the [ENTER] button. The setting completes.

## Note:

Service Notification setting is also available from the following setting mode (08).

Items	08 code	Contents
Service Notification setting	767	0: OFF (Invalid) 1: E-mail 2: FAX
E-mail address 1	768	Maximum 192 letters
E-mail address 2	777	Maximum 192 letters
E-mail address 3	778	Maximum 192 letters
FAX number	1145	Maximum 32 digits
Total Counter Transmit setting	769	0: OFF (Invalid) 1: ON (Valid)
Total counter transmission date setting	770	1 to 31
Total counter transmission interval	776	00:00-23:59
setting		
(Hour/Hour/Minute/Minute)		
Service Call Transmit setting	775	0: OFF (Invalid) 1: ON (Valid)
PM Counter Transmit setting	771	0: OFF (Invalid) 1: ON (Valid)
#### 8.2.3 Items to be notified

The items to be notified are shown below.

1) Total Counter Transmit / PM Counter Transmit by E-mail (XML file attached to E-mail has also the same format.)

Subject: Counter Notification

(In case of the PM Counter Transmit, it is shown as "Periodical Maintenance Notification".)

	— Date : 10/20/2003 13:47
ŏ+	- Machine Model : TOSHIBA e-STUDIO4511
<u>ă</u> +	— SerialNumber : 1234567890
4	— Total Counter : 00004787
	ChargeCounterFormat:
5	LargeSizeChargeCount 1
6	——— LargeSizeChargePaperDefinition 1
	PMCounterFormat:
$\bigcirc +$	LargeSizePMCount 1
8	LargeSizePMPaperDefinition 0
	Charge Counter:
	Unalge Coullier.
	<print counter=""></print>
	Full Color
	Copy 0000000 0000000
10-	Print 0000000 0000000
$\sim$	Twin Color
11-	Сору 0000000 0000000
_	Black
12-	Сору 0000000 0000000
13-	Print 0000000 0000000
14-	List 0000000 0000000
15+	FAX 0000000 0000000
	<scan counter=""> Full Color</scan>
(16)	Copy Scan 0000000 0000000
m +	Net Scan 0000000 0000000
	Twin Color
18	Copy Scan 00000000 00000000
	Black
19+	Copy Scan 00000000 00000000
20+	FAX Scan 0000000 0000000
21-	Net Scan 00000000 00000000
	-FAX Countors
$\square$	Transmit 0000000 000000
<u>%</u>	
•••	Periodical Maintenance Counter:
24	Set PM 00150000
25	Current PM 00004787
29	Set PM lime 00000000
20-	CurrentPMTime 00000000
28	— Printer Error History:
	Date Time ErrorCode
	10/18/2003 16:44 F110 🗍
	10/15/2003 22:28 F110
	10/15/2003 22:23 F110 - (*1)
	09/15/2003 22:23 F110
	08/25/2003 11:12 F110 _

- 1 Date
- ② Machine model name
- ③ Serial number
- ④ Total counter value
- 5 Count setting of large-sized paper (Fee charging system counter)
- 6 Definition setting of large-sized paper (Fee charging system counter)
- ⑦ Count setting of large-sized paper (PM)
- 8 Definition setting of large-sized paper (PM)
- (9) Number of output pages in the Copier Function (FULL COLOR)
- 1 Number of output pages in the Printer Function (FULL COLOR)
- (1) Number of output pages in the Copier Function (TWIN COLOR)
- (2) Number of output pages in the Copier Function (BLACK)
- (13) Number of output pages in the Printer Function (BLACK)
- <sup>(4)</sup> Number of output pages at the List Print Mode (BLACK)
- (15) Number of output pages in the FAX Function (BLACK)
- (6) Number of scanning pages in the Copier Function (FULL COLOR)
- ⑦ Number of scanning pages in the Network Scanning Function (FULL COLOR)
- (18) Number of scanning pages in the Copier Function (TWIN COLOR)
- (19) Number of scanning pages in the Copier Function (BLACK)
- 2 Number of scanning pages in the FAX Function (BLACK)
- 21 Number of scanning pages in the Network Scanning Function (BLACK)
- 2 Number of transmitted pages in the FAX Function (BLACK)
- 23 Number of received pages in the FAX Function (BLACK)
- 24 PM count setting value
- 25 PM count present value
- 26 PM driving count setting value
- 27 PM driving count present value
- <sup>(28)</sup> History of error
  - \*1 The latest 20 errors are displayed.

- 2) Total Counter Transmit / PM Counter Transmit by FAX
  - \*1 In case of the PM Counter Transmit, the title is replaced to "PERIODICAL MAINTENANCE NOTIFICATION".



- 1 Date
- 2 Machine model name
- ③ Serial number
- 4 Total counter value
- 5 Count setting of large-sized paper (Fee charging system counter)
- 6 Definition setting of large-sized paper (Fee charging system counter)
- Count setting of large-sized paper (PM)
- ⑧ Definition setting of large-sized paper (PM)
- (9) Number of output pages in the Copier Function (FULL COLOR)

- 1 Number of output pages in the Printer Function (FULL COLOR)
- (1) Number of output pages in the Copier Function (TWIN COLOR)
- <sup>(12)</sup> Number of output pages in the Copier Function (BLACK)
- (13) Number of output pages in the Printer Function (BLACK)
- (14) Number of output pages at the List Print Mode (BLACK)
- (5) Number of output pages in the FAX Function (BLACK)
- (6) Number of scanning pages in the Copier Function (FULL COLOR)
- ⑦ Number of scanning pages in the Network Scanning Function (FULL COLOR)
- (18) Number of scanning pages in the Copier Function (TWIN COLOR)
- (19) Number of scanning pages in the Copier Function (BLACK)
- 20 Number of scanning pages in the FAX Function (BLACK)
- 2 Number of scanning pages in the Network Scanning Function (BLACK)
- 2 Number of transmitted pages in the FAX Function (BLACK)
- 23 Number of received pages in the FAX Function (BLACK)
- 24 PM count setting value
- 25 PM count present value
- 26 PM driving count setting value
- 27 PM driving count present value
- <sup>28</sup> History of error
  - \*2 The latest 20 errors are displayed.

#### 3) Service Call Transmit

Subject: Service Call Notification

Machine Name	: e-STU	DIO4511 SerialNumber:1234567890 (3)
-Function: Print		
-Severity: Error		
- ErrorCode: XX>	<x< td=""><td></td></x<>	
-Message:		
XXXXXXXXXXX	XXXXX	*****
- Printer Error Hi	storv:	
Date	Time	ErrorCode
10/18/2003	16:44	F110
10/15/2003	22:28	F110
10/15/2003	22:23	F110 [(')
09/15/2003	22:23	F110
08/25/2003	11:12	F110

- ① Date (When an error occurs)
- 2 Machine model name
- ③ Serial number
- ④ Function: Fixed at "Print"
- 5 Severity: Fixed at "Error"
- 6 Error code
- $\bigcirc$  Error message: The content of error is displayed.
- (8) History of error
  - \*1 The latest 20 errors are displayed.

# 9. WIRE HARNESS CONNECTION DIAGRAMS

## 9.1 AC Wire Harness





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4 TNLVL-SNR

+24VD1 J543 SLTBTNA 2 TNLVL-SHUT-SOL 1 1577

TNLED 6

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### 9.3 Connector Table

A2     +24VU1     +24V     -     2     +24       A3     HVTSTS     High-voltage power supply abnormality detection     L: Abnormal     3     GA       A4     ECON     Drum cleaning blade bias ON/OFF sional     1     -     -	PG Power ground -	A1 RX3-1 Image data 3 (differential signal +) -	Pin No Symbol	Name Active Signal ground - Memory data hun fol	CN124 PWA-F-SYS (CN124) <> PWA-F-PCI (CN150)/SCRAMBLER BOARD (OPTION)           Pin No         Symbol         Name         Active	Pin No         Symbol         Name         Active           1         PWREN         Power output enable signal         L           2         PWDPN         Power output enable signal         L	Pin No         Symbol         Name         Active           1         YD         Y-axis touch position detection terminal (D)         -           2         YU         Y axis touch position detection terminal (D)         -
5 RL	F24VD1         F24V         -           GASOL         Bridge unit gate solenoid drive signal         L           NC         Not connected         -           RLTRS         Bridge unit intermediary transport sensor detection         -	A2         SGL         Signal ground           A3         CLK-0         Clock signal for image data transmission (differential signal -)           A4         RX2-1         Image data 2 (differential signal +)	3 DQ1 4 DQ2 5 DQ3	Memory data bus [1]         -           Memory data bus [2]         -           Memory data bus [3]         -	1         +3.3VA         -           2         +3.3VA         +3.3V         -           3         +3.3VA         +3.3V         -           4         SG         Signal ground         -	2         1 With View own signal         2           3         -12VB         -12V         -           4         SG         Signal ground         -           5         +12VB         +12V         -	3         XR         X-axis touch position detection terminal (P)         -           3         XR         X-axis touch position detection terminal (R)         -           4         YU         Y-axis touch position detection terminal (U)         -
A5         TC2VR         2nd transfer belt bias output reference voltage         Analog           A6         TC2ON         2nd transfer belt bias output voltage ON/OFF signal         L         6         RL           A7         TC1VR         1st transfer belt bias output reference voltage         Analog         2         V/C	signal RLCSW Bridge unit transport cover opening/closing sensor detection signal	A5         SG         Signal ground         -           A6         RX1-0         Image data 1 (differential signal -)         -           A7         RX0-1         Image data 0 (differential signal +)         -	6 +3.3VA 7 DQ4 8 DQ5	+3.3V - Memory data bus [4] - Memory data bus [5] -	5         -12V         -           6         -12VA         -12V           7         +5.1VA         +5V	6         SG         Signal ground         -           7         +12VA         +12V         -           8         SG         Signal ground         -	J423         PWA-F-DSP (J423) <> LCD BACK LIGHT           Pin No         Symbol         Name         Active           1         CCFL+         High-voltage terminal (High)         -
A9 IC10N 1st transfer beit bias output voltage ON/OFF signal L     A9 KDVVR Black developer bias high-voltage DC output Analog     Feference voltage     A10 KDVAON Black developer bias high-voltage AC component ON/ L     IO SG	RCOTT Bridge unit connection detection signal (1)     SPSW Bridge unit connection detection signal (2)     SG Signal ground     -	A9 MCKI-0 Clock signal for image data processing (differential - signal -) A10 HSYN-1 Horizontal scanning synchronized signal (differential -	9 DQ6 10 DQ7 11 DQ8	Memory data bus [6]         -           Memory data bus [7]         -           Memory data bus [8]         -           Girand secure         -	8         +5.1VA         +5V         -           9         +3.3VA         +3.3V         -           10         OPBINT(2)         Interrupt request (2)         -           10         OPBINT(2)         Interrupt request (2)         -	9 -12VA -12V - 10 SG Signal ground - 11 SG Signal ground - 10 CO Gignal ground -	2         NC         Not connected         -           3         CCFL-         High-voltage terminal (Low)         -
A11 KDXDON Black developer bias high-voltage DC component ON/ L OFF signal 11 RL 12 +5.	RLHSW         Bridge unit load-full sensor detection signal (copier side)         -           +5.1VB         +5V         -	All         Signal ground           A12         VSYN-0         Vertical scanning synchronized signal (differential	12 SG 13 DQ9 14 DQ10 15 DQ11	Signa ground  Memory data bus [9]  Memory data bus [10]	11         OPsinv1(0)         interrupt request (0)         -           12         SG         Signal ground         -           13         PCICLK(5)         PCI clock (5) [Not used]         -           14         SG         Signal ground         -	12         SG         Signal ground         -           13         +3.3VA         +3.3V         -           14         +3.3VA         +3.3V         -           15         ± 3.9V         ± 3.9V         -	J424         PWA-F-DSP (J424) <> LCD PANEL           Pin No         Symbol         Name         Active           1         FRAME         LCD scanning line start signal         -
Alta CDVAN Color developer bias high-voltage CC output Alta CDV ANN Color developer bias high-voltage AC component ON/ L CN352 PP	PWA-F-LGC (CN352) <-> M/DC-POL	A13         SCNT-1         Scanner board connection detection signal         L           A14         CCODE(1)         Color code signal (1)         -           A15         SG         Signal ground         -	16 DQ12 17 DQ13 18 +3.3VA	Memory data bus [12]         -           Memory data bus [13]         -           +3.3V         -	15         PCICLK(3)         PCI clock (3)         -           16         SG         Signal ground         -           17         REQ(1)#         Data request signal (1)         -	16         +3.3VA         +3.3V         -           17         SG         Signal ground         -           18         SG         Signal ground         -	2         LAOD         LCD data later puise         -           3         CP         LCD data transmission clock         -           4         SG         Signal ground         -           5         4.51 V/A         +50 V/A         -
A14         COVDON         Color developer bias high-voltage DC component ON/         L         Pin No           A15         GVR         Drum main charger grid output reference voltage         Analog         1         PO           A15         GVR         Drum main charger grid Output reference voltage         Analog         2         PO	Symbol         Name         Active           POMPL         Polygonal motor phase locked signal         L: Normal           POMON         Polygonal motor ON/OFF signal         L: ON, H: OFF	A16         SG         Signal ground         -           A17         SG         Signal ground         -           A18         SG         Signal ground         -	19 DQ14 20 DQ15 21 NC	Memory data bus [14]         -           Memory data bus [15]         -           Not connected         -	18         REQ(0)#         Data request signal (0)         -           19         +3.3VA         +3.3V         -           20         AD[31]         PCI address/data bus [31]         -	19         +3.3VB         +3.3V         -           20         +3.3VB         +3.3V         -           21         SG         Signal ground         -	5         50.10         100.10         -           6         SG         Signal ground         -         -           7         VEE         LCD contrast signal         -         -           8         /D OFF         LCD bend be signal         -         -
A17         HVCLK         Timer output for power supply (AC output reference         3         PCO           B1         -         -         -         5         +2	POMCK         Potygonal motor reference clock signal         -           PG         Power ground         -           +24VD1         +24V         -	A19         SG         Signal ground         -           A20         CCODE(0)         Color code signal (0)         -           B1         RX3-0         Image data 3 (differential signal +)         -           B2         C1 K-1         Clock signal for image data transmission (differential -	22 NC 23 SG 24 NC 25 NC	Signal ground - Not connected - Not connected -	21         AD(2s)         PCL address/data bus (2s)         -           22         SG         Signal ground         -           23         AD[27]         PCI address/data bus [27]         -           24         AD[25]         PCI address/data bus [25]         -	22         SG         Signal ground         -           23         SG         Signal ground         -           24         +5.1VA         +5V         -           25         +5.1VB         +5V         -	9         DO         LCD display data (0)         -           10         D1         LCD display data (1)         -           11         D2         LCD display data (2)         -
B2 CN354 P B3	Symbol         Name         Active	signal +)       B3     SG       Signal ground       B4     RX2-0       Image data 2 (differential signal -)	26 +3.3VA 27 /WE 28 DQMB0	+3.3V - Data write enable signal - Output disable/write mask (0) -	25         +3.3VA         +3.3V         -           26         C/BE(3)#         Command and byte enable (3)         -           27         AD[23]         PCI address/data bus [23]         -	26         +5.1VA         +5V           CN465         PS-ACC (CN465) <-> PWA-F-LGC (CN350), PWA-F-DRV (CN436)	12         D3         LCD display data (3)         -           J425         PWA-F-DSP (J425) <-> PWA-F-KEY (J428)         -           Dia No.         Sumbol         -         -
B6         -         -         -         -         2         EN           B7         -         -         -         -         -         3         EN	ENSNR1         Charger cleaner rear position detection switch signal (Home position)         L           ENSNR2         Charger cleaner front position detection switch signal         L	B5     HX1-1     Image data 1 (differential signal +)     -       B6     SG     Ground     -       B7     RX0-0     Image data 0 (differential signal -)     -       B8     MCKI-1     Clock signal for image data processing (differential -	29 DQMB1 30 /CS0 31 NC 32 SG	Output disable/write mask (1) - Chip select signal (0) - Not connected - Signal groupd -	28         SG         Signal ground         -           29         AD[21]         PCI address/data bus [21]         -           30         AD[19]         PCI address/data bus [19]         -           21         1.3 3VA         -         -	Pin No         Symbol         Name         Active           1         +24VD1         +24V         -           2         +24VD1         +24V         -           0         DO         Down a monotorial         -	1         LDFC-1         LED driver output (1)         L           2         LDFC-2         LED driver output (2)         L           3         LDFC-4         LED driver output (4)         L
B9         -         -         -         4         EN           B10         -         -         -         5         EN           B11         NC         Not connected         -         6         EN           B12         NC         Not connected         -         7         67	ENVCL Not used (Open) ENVT1 Charger cleaner motor control signal T1 - ENVT2 Charger cleaner motor control signal T2 - SG Evenuer motor control signal T2 -	Signal +)         Signal ground           B9         SG         Signal ground           B10         HSYN-0         Horizontal scanning synchronized signal (differential	33         A0           34         A2           35         A4	Memory address bus [0]         -           Memory address bus [1]         -           Memory address bus [2]         -	32 AD[17] PCI address/data bus [17] -     33 C/BE(2)# Command and byte enable (2) -     34 SG Signal ground -	3         FG         Fower ground         -           4         POwer ground         -         -           5         +24VD2         +24V         -           6         +24VD2         +24V         -	4         LDFC-5         LED driver output (5)         L           5         LDFC-6         LED driver output (6)         L           6         LDFC-7         LED driver output (7)         L
B12         NC         Not connected         -         7         300           B13         NC         Not connected         -         8         45.           B14         NC         Not connected         -         9         PG           B15         +5.1VB         +5V         -         10         42.	30         Ogina ground         -           51.VB         +5V         -           PG         Power ground         -           -24VD1         +24V         -	B11 VSYN-1 Vertical scanning synchronized signal (differential - signal +) B12 RESERVED Signal ground -	36         A6           37         A8           38         A10	Memory address bus [3]         -           Memory address bus [4]         -           Memory address bus [10]         -	35         IPDV#         Initiator ready         L           36         +3.3VA         +3.3V         -           37         DEVSEL#         Device select         L	7         PG         Power ground         -           8         PG         Power ground         -	7         LDFC-8         LED driver output (8)         L           8         LDFC-9         LED driver output (9)         L           9         LDFC-10         LED driver output (10)         L           10         LEC driver output (10)         L
B16 CUPE1 Paper clinging detection sensor detection signal - B17 SG Signal ground - CN355 P K	PWA-F-LGC (CN355) <-> COIN CONTROLLER (OPTION)/COPY KEY CARD (OPTION)	B13         SYSCNT-0         SYS board connection detection signal         L           B14         SRST-0         Scamer reset         L           B15         SCNRTS-0         SIO transmission request         L	39 BA1 40 +3.3VA 41 +3.3VA 42 CLK0	Bank select (1) - +3.3V - +3.3V -	38         SG         Signal ground         -           39         LOCK#         Lock         L           40         PERR#         Data parity Error         L           41         12 32/4         -         -	CN466         PS-ACC (CN466) <> PWA-F-LGC (CN335, 359), FAX (CN702)           Pin No         Symbol         Name         Active           1         +5.1VB         +5V         -	11         LDFC-12         LED driver output (12)         L           12         LDFC-13         LED driver output (13)         L           13         LDFC-15         LED driver output (15)         L
CNS32         PMAT         Cus (CNS32)         Constant         Pin No         Pin No           Pin No         Symbol         Name         Active         1         42         1         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         42         1         1         42         1         1         42         1	Symbol         Name         Active           24VD1         +24VD         -           CTRON         Counter ON signal         -           CTRON         Counter ON signal         -	bits         SCNC15-0         SIO transmission clear         L           B17         MMPIO-1         TS circuit starting request signal         H           B18         SCNIN-1         SIO received data         -           B19         SCNIUT-1         SIO received data         -	43 SG 44 NC 45 /CS2	Signal ground - Not connected - Chip select signal (2) -	42         SERR#         System Error         L           43         +3.3VA         +3.3V         -           44         C/BE(1)#         Command and byte enable (1)         -	2         SG         Signal ground         -           3         +3.3VB         +3.9V         -           4         SG         Signal ground         -           5         PWRENI         Payser groups apply conting for control signal (Low)         -	14         LDON0         LED drive selection signal (0)         H           15         LDON1         LED drive selection signal (1)         H           16         LGND(SG)         Signal ground         -
2 CLNB FFF/LCF register control signal     3 SCSWC PFP/LCF with select control signal     4 DRV7 PFP/LCF driver control signal     5 DRV6 PFP/LCF driver control signal     5 DRV6 PFP/LCF driver control signal     6 A E PG	CIHCRNI         Copy permitting signal         L           MCRUN         Copying operation signal         L           EXTCTR         Exit sensor ON signal         L           PG         Power or round         -	B20         SCN-3V         +3.3V         -           CN105         PWA-F-SYS (CN105) <-> SYS-FAN-MOT         -         -	46 DQMB2 47 DQMB3 48 NC	Output disable/write mask (2) - Output disable/write mask (3) - Not connected -	45         AD[14]         PCI address/data bus [14]         -           46         SG         Signal ground         -           47         AD[12]         PCI address/data bus [12]         -	G SG Signal ground     Power support of the signal control signal (LOW)     Power down signal     POWN     Power down signal     Power supply conting fan control signal (High)     -	J426         PWA-F-DSP (J426) <-> PWA-F-KEY (J429)           Pin No         Symbol         Name         Active
6         DRV5         PFP/LCF driver control signal         -         A7         B/K           7         DRV4         PFP/LCF driver control signal         -         A8         MM           8         DRV3         PFP/LCF driver control signal         -         B1         FL	BKCTR Black and white mode counter ON signal L MNCTR Mono-color mode counter ON signal L FLCTR Full color mode counter ON signal L	Pin No         Symbol         Name         Active           1         FAN-ON(+12VA)         SYS board cooling fan drive signal (+12V)         -           2         SG         Signal ground         -	49 +3.3VA 50 NC 51 NC 52 NC	+3.3V - Not connected - Not connected - Not connected -	48         AU[10]         PCI address/data bus [10]         -           49         M66EN         PCI bus 66 MHz clock enable signal         -           50         SG         Signal ground         -           51         AD(9)         PCI bus for the rest of the r	9         SGD         Signal ground         -           10         +5.1VD         +5V         -           11         +5.1VD         45V         -	1         SUN15         Button scanning signal (s)         -           2         SCN14         Button scanning signal (4)         -           3         SCN13         Button scanning signal (3)         -           4         SCN12         Button scanning signal (2)         -
9         DRV2         PFPLCF driver control signal         -         B2         SG           10         DRV1         PFPLCF driver control signal         -         B3         Siz           11         DRV0         PFPLCF driver control signal         -         B4         Siz           12         DFDV0         PFPLCF driver control signal         -         B4         Siz           12         DFDV0         PFPLCF driver control signal         -         B4         Siz	SG         Signal ground         -           SIZE3         Paper size signal (2)         -           SIZE2         Paper size signal (2)         -           SIZE4         Paper size signal (2)         -	CN108         PWA-F-SYS (CN108) <-> PC VF (IEEE1284)           Pin No         Symbol         Name         Active	53 NC 54 SG 55 DQ16	Not connected - Signal ground - Memory data bus [16] -	52         AD[7]         PCI address/data bus [7]         -           53         +3.3VA         +3.3V         -           54         AD[5]         PCI address/data bus [5]         -	12         SGD         Signal ground         -           13         AG         Analog ground         -           14         PG         Power ground *JPD model only         -           15         L24VF         L24VF         L24VF	5         SCN11         Button scanning signal (1)         -           6         RET0         Button scanning return signal (0)         -           7         RET1         Button scanning return signal (1)         -
12         PFRS1         Hessel signal         L         B5         S12           13         +5.1VB         +5V         -         B6         S12           14         SG         Signal ground         -         B7         +5.           15         SIZE0         Size data bus 0         -         B8         CT	SIZE1         Paper size signal (1)         -           SIZE0         Paper size signal (0)         -           +5.1VB         +5V         -           CTFRCNT2         Copy key card detection signal         -	1         STB         nStrobe         -           2         DATA0         Data bus [0]         -           3         DATA1         Data bus [1]         -           4         DATA2         Data bus [2]         -	56 DQ17 57 DQ18 58 DQ19	Memory data bus [17]         -           Memory data bus [18]         -           Memory data bus [19]         -	55         AD[3]         PCI address/data bus [3]         -           56         SG         Signal ground         -           57         AD[1]         PCI address/data bus [1]         -	15         +24V	8         RET2         Button scanning return signal (2)         -           9         RET3         Button scanning return signal (3)         -           10         RET8         Button scanning return signal (6)         -
16         SIZE1         Not used         -           17         SIZE2         Not used         -           18         SIZE3         Not used         -	PWA-F-LGC (CN356) <-> COLR-ATTNR-SNR/ATTNR-SHUT-SOL/ KEY COPY COUNTER (OPTION)	5         DATA3         Data bus [3]         -           6         DATA4         Data bus [4]         -           7         DATA5         Data bus [5]         -	60 DQ20 61 NC 62 NC	Henory data bus [20] - Not connected - Not connected -	36         +3.3VA         -           59         +5.1VA         +5V           60         SG         Signal ground           61         +3.3V         -	PWA-F-SDV (CN32)           Pin No         Symbol         Name         Active           1         +24VD3         +24V         -	
19     RETS0     PFP/LCF sensor detection signal     -     Pin No       20     RETS1     PFP/LCF sensor detection signal     -     A1     SG       21     RETS2     PFP/LCF sensor detection signal     -     A2     NC       22     RETS3     PEP/LCF sensor detection signal     -     A2     NC	Symbol         Name         Active           SG         Signal ground         -           NC         Not connected         -           NC         Not connected         -	8         DATA6         Data bus [6]         -           9         DATA7         Data bus [7]         -           10         NACK         nAck         -           41         DUOY         Dura         -	63 CKE1 64 SG 65 DQ21	Clock enable signal         -           Signal ground         -           Memory data bus [21]         -	62         +3.3VA         +3.3V         -           63         +3.3VA         +3.3V         -           64         SG         Signal ground         -	2         +24VD3         +24V         -           3         PG         Power ground         -           4         PG         Power ground         -           5         1/2         -         -	Pin No         Symbol         Name         Active           1         (TD+)FA1         Transmitted data +         -           2         (TD-)FA2         Transmitted data -         -
23     RETS4     PFP/LCF sensor detection signal     -       24     RETS5     PFP/LCF sensor detection signal     -       25     RETS6     PFP/LCF sensor detection signal     -	C-CK (SG) Signal ground - C-CK Key copy counter identification signal (Connected to L A4 pin)	11     B031     Busy     -       12     PERROR     PError     -       13     SELECT     Select     -       14     NATFD     nAutoFd     -	66 DQ22 67 DQ23 68 SG 69 DQ24	Memory data bus [22]         -           Memory data bus [23]         -           Signal ground         -           Memory data bus [24]         -	65         +12VA         +12V         -           66         +12VA         +12V         -           67         +5.1VA         +5V         -	6         +5.1VB         +5V         -           7         SG         Signal ground         -           8         SG         Signal ground         -	3         (RD+)FA3         Received data +         -           4         FA45         Not used         -           5         FA45         Not used         -
26         RETS7         PFPLCF sensor detection signal         -         A6         S6           27         SCSWB         PFPLCF switch select control signal         -         A7         KT           28         LCCNT         LCF connection signal         -         A8         +22	SG Signal ground - KEV copy counter/copy key card connection detection - signal +24V1 -	15         NC         Not connected         -           16         SG         Signal ground         -           17         FG         Frame ground         -	70         DQ25           71         DQ26           72         DQ27	Memory data bus [25]	69         +3.3VA         +3.3V           70         OPBINT(1)         Interrupt request (1)         -           71         +3.3VA         +3.3V         -	9 +24VD4 +24V - 10 PG Powerground - 11 +24VD4 +24V -	b         (FI0-)FA0         Hecelwed data -         -           7         FA78         Not used         -           8         FA78         Not used         -           9         NC/MTG         Not onected         -
CN334         PWA-F-LGC (CN334) <-> PWA-F-LDR (CN201)         Image: Constant of the second se	KTCR0         Key copy counter ON signal         -           CKSLS         Color auto-toner and shutter solenoid connection detection signal (Connected to A1 pin)         L	18         LOGIC         Peripheral Logic High [Pull-up]         H           19         SG         Signal ground         -           20         SG         Signal ground         -           21         SC         Signal ground         -	73         +3.3VA           74         DQ28           75         DQ29	+3.3V	72         PCIRST#         PCI reset signal         -           73         +3.3VA         +3.3V         -           74         PCICLK(4)         PCI clock (4)         -	12         PG         Power ground         -           13         +24VD4         +24V         -           14         PG         Power ground         -           15         NC         Not connected         -	10         NC(MTG)         Not connected         -           11         SH         Shield         -           12         SH         Shield         -
2         SG         Signal ground         B2         SL           2         SG         Signal ground         -         B3         42           3         BEAMDT         Laser beam monitor signal         -         B4         SL           4         +5.1VB         +5V         -         B5         +5	SLD YINB Color auto-toner sensor shutter solenoid drive signal B     - +24VD1     SLDVTNA Color auto-toner sensor shutter solenoid drive signal A  5.1VB +5V     -	22         SG         Signal ground         -           23         SG         Signal ground         -           24         SG         Signal ground         -	76 DQ30 77 DQ31 78 SG 79 CLK2	Memory data bus [30] - Memory data bus [31] - Signal ground - Clock (2) input -	75         +3.3 v         -           76         GNT(1)#         Grant (1)         -           77         GNT(0)#         Grant (0)         -           78         SG         Signal ground         -	16         NC         Not connected         -           17         +3.3VB         +3.3V         -           18         +3.3VB         +3.3V         -	13     SH     Shield     -       14     SH     Shield     -
5         SG         Signal ground         -         B6         DV           6         +5.1VD         +5V         -         B7         AG           7         +5.1VD         +5V         -         B8         DV	AG Analog ground - DVCTRN Color auto-toner sensor LED drive signal - AG Color auto-toner sensor signal Analog	25         SG         Signal ground         -           26         SG         Signal ground         -           27         SG         Signal ground         -           28         SG         Signal ground         -	80 NC 81 NC(WP) 82 SDA	Not connected - Not connected - PD serial data -	79         PMF#         Power Management Event         -           80         AD[30]         PCI address/data bus [30]         -           81         +3.3VA         +3.3V         -	19         SG         Signal ground         -           20         SG         Signal ground         -           21         +5.1VB         +5V         -	CN202         PWA-F-LDR (CN202) <-> PWA-F-SNS (CN203)           Pin No         Symbol         Name         Active
8     SG     Signal ground     -       9     SHDWN     Laser ON/OFF signal     -       10     WRAPC     APC write signal     -       11     SG     Signal ground     -	VLED  Not used - PWA-F-LGC (CN358) <-> PS-IH (CN455, 456), THMS-F-FBLT, THMS-B-FBI T. THMS-C-FBI T. FXIT-SNB	28         SG         Signal ground         -           29         SG         Signal ground         -           30         SG         Signal ground         -           31         NINIT         ninit         -	83 SCL 84 +3.3VA 85 SG	PD serial clock +3.3V Signal ground	82         AD[28]         PCI address/data bus [28]         -           83         AD[26]         PCI address/data bus [26]         -           84         SG         Signal ground         -           95         AD[26]         PCI address/data bus [26]         -	22         +5.1VB         +5V         -           23         SG         Signal ground         -           24         SG         Signal ground         -	1     SG     Signal ground     -       2     BEAMDT     Laser beam position detection signal     -       3     +5.1VB     +5V     -
12         PIDT0         Laser image data         -           13         PIDT1         Laser image data         -           14         SG         Signal ground         -         A1	Symbol         Name         Active           IH2ON         IH2 ON/OFF signal         H           FSVSW         +5V         -	32         NFAULT         nFault         -           33         NC         Not connected         -           34         NC         Not connected         -	86 DQ32 87 DQ33 88 DQ34 89 DQ35	Memory data bus [32] - Memory data bus [33] - Memory data bus [34] - Memory data bus [35] -	85         AU[24]         PCI address/data bus [24]         -           86         +3.3VA         +3.3V         -           87         +3.3VA         +3.3V         -           88         AD[22]         PCI address/data bus [22]         -	CN468         PS-ACC (CN468) <-> FINISHER (J598) (OPTION)           Pin No         Symbol         Name         Active           1         +5.1VB         +5V         -	CN213 PWA-F-ADU (CN213) <-> ADU-TRL-SNR
15         SG         Signal ground         -         A3         H1           16         WRLVL         Laser write level signal         -         A4         H1           17         SG         Signal ground         -         A5         H1	H1-PWR1         Heater H1 power data 1         -           H1-PWR2         Heater H1 power data 2         -           H1-PWR3         Heater H1 power data 3         -	35         NC         Not connected         -           36         NSEL IN         nSelectin         -	90 +3.3VA 91 DQ36 92 DQ37	+3.3V - Memory data bus [36] - Memory data bus [37] -	89         AD[20]         PCI address/data bus [20]         -           90         SG         Signal ground         -           91         AD[18]         PCI address/data bus [18]         -	2         SG         Signal ground         -           3         +24VD5         +24V         -           4         PG         Power ground         -	Prin No         Symbol         Name         Active           1         SG         Signal ground         -         -           2         ADUFL         ADU exit sensor detection signal         -         -           3         +5.1VB         +5V         -         -
19         +5.1VD         +5V         -           20         SG         Signal ground         -         A6         H2	Inc-rwmi         Heater H2 power data 1         -           H2-PWR2         Heater H2 power data 2         -           H2-PWR3         Heater H2 power data 3         -           H10N         IH1 0N/0FF signal         -	Pin No         Symbol         Name         Active           1         TXD         Transmitted data         -           2         RXD         Received data         -	93         DQ38           94         DQ39           95         DQ40           96         SG	Memory data bus [38] Memory data bus [39] Memory data bus [40] Signal ground	s/c         [AU]1b]         PCI address/data bus [16]         -           93         +3.3VA         +3.3V         -           94         FRAME#         Cycle frame         L           95         SG         Singal ground         -	CN469 PS-ACC (CN469) <-> PFP(OPTION)/LCF (OPTION)/PWA-F-FUS (CN431)/PWA-F-FIL (CN495)	CN214         PWA-F-ADU (CN214) <-> ADU-TRU-SNR           Pin No         Symbol         Name
CN337         PWA-F-LGC (CN337) <-> CST-L-TR-L-CLT, CST-L-TR-H-CLT, TRY-MOT, CST-L-FED-CLT, NEMP-L-SNR, CST-U-TRY-SNR, EMP-U-SNR, CST-L-SW, CST-U-SW, EMP-L-SNR, CST-U-TRY-SNR, NFMD-LISNP, CST-LECECLT         A9         IIII           A10         SG           SG         SG         SG         SG	SG         Signal ground         -           IH DUTY         IH1/2 duty control signal         -           H1 ERP1         Heater H1 error signal 1         -	3     RTS     Transmission request     -       4     DSR     Data set ready signal     -       5     DTR     Data terminal ready signal     -	97 DQ41 98 DQ42 99 DQ43	Memory data bus [41]         -           Memory data bus [42]         -           Memory data bus [43]         -	96         TRDY#         Target ready         L           97         SG         Signal ground         -           98         STOP#         Stop         I	Image: Notice         Active           1         +24VD1         +24V           2         +24VD1         +24V           3         PG         Power ground	1         SG         Signal ground         -           2         ADUFU         ADU entrance sensor detection signal         -           3         +5.1VB         +5V         -
Pin No         Symbol         Name         Active           A1         CLMFDL         Lower transport clutch (Low speed) drive signal         L         B1         +53           A2         +24VD1         +24V         L         L         L         L	H1 ERR2         Hearer H1 error signal 2         -           +5VSW         +5V         -           ETH-         Fuser belt front edge thermistor detection signal         Analog           ETH-         Fuser belt front edge thermistor detection signal         Analog	6     CTS     Transmission enabled     -       7     CNT     Carrier detection signal     -       8     SG     Signal ground     -	100 DQ44 101 DQ45 102 +3.3VA	Memory data bus [44]         -           Memory data bus [45]         -           +3.3V         -           Memory data bus [46]         -	99         +3.3VA         +3.3V         -           100         +3.3VA         +3.3V         -           101         SG         Signal ground         -           102         SG         Signal ground         -	4         PG         Power ground         -           5         +5.1VB         +5V         -           6         SG         Signal ground         -	CN215         PWA-F-ADU (CN215) <-> ADU-MOT           Pin No         Symbol         Name         Active           1         +24VD1         +24V         1
A3         CLMFCL         Lower transport clutch (High speed) drive signal         -         B3         ET           A4         +24VD1         +24V         -         B5         ST           A5         TUP1         Tray-up motor drive signal-1         -         B6         Ist	STH-         Fuser belt sub thermistor detection signal (+5V)         -           STH+         Fuser belt sub thermistor detection signal (+5V)         -           MTH-         Fuser belt sub thermistor detection signal (+5V)         -	CN110         PWA-F-SYS (CN110) <-> USB HOST           Pin No         Symbol         Name         Active           1         VBUS         +5V         1	104         DQ46           104         DA47           105         NC           106         NC	Memory data bus [47]         -           Not connected         -           Not connected         -	103         PAR         Parity         -           104         AD[15]         PCI address/data bus [15]         -           105         +3.3VA         +3.3V         -	CN470         PS-ACC (CN470) <-> PS-FAN-MOT (J633)           Pin No         Symbol         Name         Active           1         +24VD1         +24V         Active	2 FDMA ADU motor drive signal-A - 3 FDMB ADU motor drive signal-B - 4 FDMC ADU motor drive signal-C -
NO         I UP*2         I ray-up motor drive signal-2         -         B7         MT           A7         NC         Not connected         -         B8         NC           A8         CLFED2         Lower feed clutch drive signal         L         B9         NC           A9         +24VD1         ->4V         -	MTH+         Fuser belt main thermistor detection signal (+5V)         -           NC         Not used         -           NC         Not used         -           FUSSW         Euror with some sites of the time.         -	2         D-         Serial data         -           3         D+         Serial data         -           4         SG         Signal ground         -	107 SG 108 NC 109 NC	Signal ground - Not connected - Not connected - Not connected - - - - - - - - - - - - - -	106         AD[13]         PCI address/data bus [13]         -           107         AD[11]         PCI address/data bus [11]         -           108         SG         Signal ground         -           109         AD[01]         PCI address/data bus [11]         -	2 FAN-ACC Power supply cooling fan drive signal -	CN217         PWA-F-ADU (CN217) <-> ADU-SET-SW           Pin No         Symbol
A10         SG         Signal ground         -         B10         FU           A11         CLFLS         Lower drawer paper stock sensor detection signal         -         B11         SG           A12         +5.1VB         +5V         -<	SG         Signal ground         -           EXTSW         Exit sensor detection signal         -           24V         +24V         -	D         ISG         Signal ground           CN112         PWA-F-SYS (CN112) <-> HDD (CN170) (STANDARD)           Din Ng         Sumbod	110 +3.3VA 111 /CAS 112 DQMB4 113 DQMB5	Column address strobe signal - Output disable/write mask (4) - Output disable/write mask (5)	Inc.         Inc. <th< td=""><td>CN11         PWA-F-SLG (CN11) &lt;-&gt; RADF (CN2) (OPTION)           Pin No         Symbol         Name         Active           1         DFAK-0A         RADF acknowledge signal         -         -</td><td>1         SG         Signal ground         -           1         SG         Signal ground         -           2         COVSW         ADU opening/closing switch detection signal         -</td></th<>	CN11         PWA-F-SLG (CN11) <-> RADF (CN2) (OPTION)           Pin No         Symbol         Name         Active           1         DFAK-0A         RADF acknowledge signal         -         -	1         SG         Signal ground         -           1         SG         Signal ground         -           2         COVSW         ADU opening/closing switch detection signal         -
A13     +5.1VB     +5V       A14     CUTOP     Upper drawer tray-up sensor detection signal     -       A15     SG     Signal ground     -       A16     La5     VP     -	PWA-F-LGC (CN360) <-> PWA-F-DRV (CN434)           Symbol         Name	Symbol         Name         Active           1         //RESET         Reset signal         -           2         SG         Signal ground         -           3         DD7         Data bus 171         -	114 /CS1 115 /RAS 116 SG	Chip select signal (1)	113         AD[6]         PCI address/data bus [6]         -           114         AD[4]         PCI address/data bus [4]         -           115         SG         Signal ground         -	Z DFSCST-0A RADF VARID signal     J     DFRXD-0A RADF received data     SG Signal ground     DFXD-0A RADF transmitted data	CN492         PWA-F-CCL (CN492) <> CCL-F-POS-SW, CCL-R-POS-SW, CCL-MOT           Pin No         Symbol         Name         Active
A10         I+5.1VB         I+5V         -         IPIn No           A17         CUEMP         Upper drawer empty sensor detection signal         -         A1         SG           A18         SG         Signal ground         -         A2         EE           B1         NC         Not connected         -         A3         FF	SG Signal ground - EEPDIN Serial data to EEPROM - EEPCLK Serial clock to EEPROM -	4         DD8         Data bus [6]         -           5         DD6         Data bus [6]         -           6         DD9         Data bus [9]         -	117 A1 118 A3 119 A5	Memory address bus [1]         -           Memory address bus [3]         -           Memory address bus [5]         -	116         [AD][2]         PCI address/data bus [2]         -           117         AD[0]         PCI address/data bus [0]         -           118         +3.3VA         +3.3V         -           119         -5.1VA         -         -	Control induct transmitted data         -           6         SG         Signal ground         -           7         DFRAK-0A         Acknowledge signal         -           8         DFRRQ-0A         Request signal         -	1         CCW         Charger cleaner motor drive signal (CCW)         -           2         CW         Charger cleaner motor drive signal (CW)         -           3         SG         Signal ground         -           4         Stury         -         -
B2     NC     Not connected     -     A4     SG       B3     CLSW     Lower drawer detection switch signal     -     A5     RV       B4     SG     Signal ground     -     A6     RV	SG         Signal ground         -           RVMPHC         Revolver motor drive signal C         -           RVMPHA         Revolver motor drive signal A         -           EXTMC         Evit motor drive signal C         -	7         DD5         Data bus [5]         -           8         DD10         Data bus [10]         -           9         DD4         Data bus [4]         -           10         DD14         Data bus [4]         -	120         A7           121         A9           122         A11           123         BA0	Memory address bus [/]         -           Memory address bus [9]         -           Memory address bus [11]         -           Bank select (0)         -	10         100         +50         -           120         +5.1VA         +5V         -           CN125         PWA-F-SYS (CN125) <> PM DIMM	9 DFRO-0A RADF request signal - 10 DFCNT-0A RADF detection signal -	*         SW1         Charger cleaner rear position detection switch signal (Home position)         L           5         SG         Signal ground         -           6         SW2         Charger cleaner front position detection switch signal         I
B5     CUSW     Upper drawer detection switch signal     -     A7     EX       B6     SG     Signal ground     -     A9     FA       B7     SG     Signal ground     -     A9     FA	EXIT INDUCTORIVE Signal A         -           EXTTMA         Exit motor drive signal A         -           FAN2L         Internal cooling fan drive signal L         -           FAN4L         Ozone exhaust fan drive signal L         -	IDD1         Data bus [11]         -           11         DD3         Data bus [3]         -           12         DD12         Data bus [12]         -           13         DD2         Data bus [2]         -	124 +3.3VA 125 CLK1 126 A12	+3.3V	Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         DQ0         Memory data bus [0]         -	CN12 PWA-F-SLG (CN12) <> SCAN-FAN-MOT, SLG-FAN-MOT, APS1(A4 SERISE ONLY)/APS2/APS3/APSC/APSR Pin No Symbol Name Active	CN501 FAX (CN501) <-> NCU(1) (OPTION)
Do         ULEXIII'         Lower drawer empty sensor detection signal         -         A10         FA           B9         +5.1VB         +5V         -         -         A11         FA           B10         SG         Signal ground         -         -         A12         FA           B11         CLTOP         Lower drawer travely sensor detection signal         -         A13         FA	FAN6L Not used - FAN2H Internal cooling fan drive signal H - FAN4H Ozone exhaust fan drive signal H -	14         DD13         Data bus [1]         -           15         DD1         Data bus [1]         -           16         DD14         Data bus [1]         -	127 SG 128 CKE 129 /CS3 130 /DOUDO	Signal ground - Clock enable signal - Chip select signal (3) - Output disabil-write maek (6)	3         DQ1         Memory data bus [1]         -           4         DQ2         Memory data bus [2]         -           5         DQ3         Memory data bus [3]         -	A2         +24VD4         +24V         -           A3         FANSLG         Scanner unit cooling fan and SLG board cooling fan drive signal         -	Pin No         Symbol         Name         Active           1         TXOUT         Transmitted facsimile data
B12         +5.1VB         +5V         -         A14         FA           B13         +5.1VB         +5V         -         A15         EX           B14         CUFLS         Upper drawer paper stock sensor detection signal         -         B1         SB1	FAN6H         Not used         -           EXTC1         Exit motor drive reference voltage         -           SG         Signal ground         -           +5/VB         +5V         -	17         DD0         Data bus [0]         -           18         DD15         Data bus [15]         -           19         SG         Signal ground         -           20         NC(KEY)         Not constraint         -	133         DQMB6           131         DQMB7           132         A13           133         +3.3VA	-uput disable/write mask (7)         -           Memory address bus [13]         -           +3.3V         -	b         +3.3VA         +3.3V         -           7         DQ4         Memory data bus [4]         -           8         DQ5         Memory data bus [5]         -           9         DQ6         Memory data bus [6]         -	A4         +5VAPS         +5V         -           A5         APSR-0A         Automatic original detection sensor signal         -           A6         SG         Signal ground         -           A7         L5VAPS         -         -	S     UML     ICML relay drive signal     -       4     LD     Dial pulse drive signal     -       5     EXTRG     Not used     -       6     ATT3DB     I-3db ATT exchange signal
B15         SG         Signal ground         -         B2         +5.           B16         +24VD1         +24V         -         B3         FA           B17         CLFED1         Upper drawer feed clutch drive signal         L         B4         FA           B14         FA         B5         RV         B5         RV	+5.10b         +5V         -           FAN5H         Not used         -           FAN3H         IH control board cooling fan drive signal H         -           RVMC1         Revolver motor drive reference voltage         Analog	20         NC(KEY)         Not connected         -           21         MDARQ         DMA request         H           22         SG         Signal ground         -           23         /DIOW         I/O write         -	134         NC           135         NC           136         NC	Not connected Not connected Not connected	bloc         Immension         Imm	A7         +5VAPS         +5V         -           A8         APSC-0A         Automatic original detection sensor signal         -           A9         SG         Signal ground         -           B1         -5VAPS         -5V         -	7         RLADJ1         MODEM select signal         -           8         RLADJ2         MODEM select signal         -           9         RGCLK         Not used         -
Bits         Not connected         B6         FA           CN340         PWA-F-LGC (CN340) <-> PWA-F-ADU (CN211, 212), ADU-CLT, PWA-F-SFB (J619), SFB-SNR, SFB-FEED-CLT, SFB-SOL,         B6         FA	FAN5L         Not used         -           FAN3L         IH control board cooling fan drive signal L         -           SG         Signal ground         -	24         SG         Signal ground         -           25         /DIOR         I/O read         -           26         SG         Signal ground         -	137 NC 138 SG 139 DQ48 140 DQ49	Not connected         -           Signal ground         -           Memory data bus [48]         -           Memory data bus [49]         -	13         DQ9         Memory data bus [9]         -           14         DQ10         Memory data bus [10]         -           15         DQ11         Memory data bus [11]         -           40         DQ10         Memory data bus [11]         -	B2         APS3-0A         Automatic original detection sensor signal         -           B3         SG         Signal ground         -           B4         +5VAPS         +5V         -	10         AG         Analog ground         -           11         -12VB         -12V         -           12         AG         Analog ground         -           10         -         -         -
SFB-FED-SER         B9         Ex           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           0         0         0         Name         -	EXTIMB Exit motor drive signal B - EXTMD Exit motor drive signal D - RVMPHB Revolver motor drive signal B - RVMPHD Revolver motor drive signal D -	27         IORDY         I/O ready         -           28         SG         Signal ground         -           29         /DMACK         DMA C197 signal         L           30         SG         Signal ground         -	141 DQ50 142 DQ51 143 +3.3VA	Memory data bus [50] - Memory data bus [51] - +3.3V -	16         DC12         Weinbry data bus [12]         -           17         DQ13         Memory data bus [13]         -           18         +3.3VA         +3.3V         -           19         DQ14         Memory data bus [14]         -	B5     APS2-0A     Automatic original detection sensor signal     -       B6     SG     Signal ground     -       B7     +5VAPS     +5V     -       B8     APS1-0A     Automatic original detection sensor signal     -	13         +12V         -           14         +24VB         +24V         -           15         16Hz         Not used         -           16         AG         Analog ground         -
2         SG         Signal ground         -           3         SFSZ0         SFB paper size detection signal-0         -         B13         +5.           4         SFSZ1         SFB paper size detection signal-1         -         B14         EE           5         SFS22         SFB paper size detection signal-2         -         B15         EE	+5.1VB +5V - EEPCS Chip select signal to EEPROM H EEPDOUT Serial data to EEPROM -	31         INTRQ         Interrupt request         H           32         RESERVED         Reserve signal         -           33         DA1         Device address [1]         -	144 DQ52 145 NC 146 NC	Memory data bus [52]     -       Not connected     -       Not connected     -       Not connected     -	20         DQ15         Memory data bus [15]         -           21         NC         Not connected         -           22         NC         Not connected         -	B9 SG Signal ground CONST PARTICIPATION STRATES SND PWALE-SDV (CN30)	17         CI         Ring signal detection         L           18         ANSDET         Facsimile data answer detection         L           19         REVA         Line 1 External telephone hook detection signal         -
6     SFSZ3     SFB paper size detection signal-3     -       7     +5.1VB     +5V     -       8     SFBSW     SFB bypass paper sensor detection signal     -       8     SFBSW     SFB bypass paper sensor detection signal     -	PWA-F-LGC (CN361) <-> TEMP/HUMI-SNR, THMS-DRM, K-ATTNR-SNR, LSU-FAN-MOT, TRBLT-CLN-CLT, REVLV-HP-SNR, BELT-CLN-MOT, COLR-TNR-SNR, LP-ERS, K-DEV-POS-SNR,	34         /PDIAG         Passed diagnostics         L           35         DA0         Device address [0]         -           36         DA2         Device address [2]         -           37         (FS0)         Chine splot(0)         L	147 NO 148 SG 149 DQ53 150 DQ54	Signal ground         -           Memory data bus [53]         -           Memory data bus [54]         -	23         SG         Signal ground         -           24         NC         Not connected         -           25         NC         Not connected         -           26         +3.3VA         +3.3V         -	Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         PLTN-1A         Platen sensor detection signal         -	20         HE VB         Line 1 External telephone hook detection signal         -           21         INTHOOK         Internal telephone hook signal         -           22         EXTHO OK         External telephone hook signal         -           23         I+5.1VA         +5V         -
9         SG         Signal ground         -         K           10         +24VD1         +24V         -         -         K           11         CLSFB         Bypass feed clutch drive signal         L         Pin No         A1         TEI           12         +24VD1         +24V         -         -         A1         TEI	K-DEV-TIM-SNR, TRBLT-HP-SNR2, TRBLT-HP-SNR1           Symbol         Name         Active           TEMPS         Temperature signal         Analog	38         /CS1         Chip select (0)         L           38         /CS1         Chip select (1)         L           39         /DASP         Device active or slave present         L           40         SG         Signal ground         -	151 DQ55 152 SG 153 DQ56 154 DQ57	Memory data bus [55]         -           Signal ground         -           Memory data bus [56]         -           Memory data bus [57]         -	27         IWE         Data write enable signal         -           28         DQMB0         Output disable/write mask (0)         -           29         DQMB1         Output disable/write mask (1)         -	3         +5.1VB         +5V         -           4         SG         Signal ground         -           5         HOME-1A         Carriage home position sensor detect signal         -	24         AG         Analog ground         -           25         +5.1VA         +5V         -           26         -12VB         -12V         -
13         SOLSFB         Bypass pickup solenoid drive signal         -         A2         SG         A3         HU           14         SG         Signal ground         -         -         -         A3         HU           15         SFDFED         Bypass feed sensor detection signal         -         -         A4         +5.	SG         Signal ground         -           HUMIS         Humidity signal         Analog           +5.1VB         +5V         -           DRTMP+         Drum thermistor detection signal         Analog	CN113         PWA-F-SYS (CN113) <-> HDD (CN171)           Pin No         Symbol         Name         Active	155 DQ58 156 DQ59 157 +3.3VA	Memory data bus [58] - Hemory data bus [58] - +3.3V -	30         I/CS0         Chip select signal (0)         -           31         NC         Not connected         -           32         SG         Signal ground         -           33         A0         Memory address bus (0)         -	6         +5.1VB         +5V         -           7         +5.1VB         +5V         -           8         SG         Signal ground         -           9         SCNMD3         Scan motor drive signal-3         -	27         AG         Analog ground         -           28         +12VB         +12V         -           29         +24VB         +24V         -           30         PG         Power ground         -
16         +5.1VB         +5V         -           17         SFSSW         Connected to A1 pin         -         A6         DR           18         PG         Power ground         -         A7         AT           19         PG         Power ground         -         -         -         -	Analog Drrum thermistor detection signal Analog ATSDET Black auto-toner sensor detection (Connected to A12 L pin)	1         +12VA         +12V         -           2         SG         Signal ground         -           3         SG         Signal ground         -           4         +5 1VA         +5V         -	158 DQ60 159 DQ61 160 DQ62	Memory data bus [60]	34         A2         Memory address bus [1]         -           35         A4         Memory address bus [2]         -           36         A6         Memory address bus [3]         -	10         SCMMD2         Scan motor drive signal-2         -           11         SCNMD1         Scan motor drive signal-1         -           12         SCNREF         Scan motor drive reference signal         Analog	CN502         FAX (CN502) <-> NCU(2) (OPTION)           Pin No         Symbol         Name         Active
AB         PG           20         +24VD1         +24V         -           21         +24VD1         +24V         -           22         ADM2D         ADU motor drive signal D         -	PG         Power ground         -           ATS         Black auto-toner sensor detection signal         Analog           +24VD1         +24V         -           TSVE         Black auto-toner sensor reference voltage         Analog	CN115         PWA-F-SYS (CN115) <-> DIMM (1)           Pin No         Symbol         Name         Active	161 DQ63 162 SG 163 CLK3 164 NC	Signal ground - Clock (3) input - Not connected -	37         A8         Memory address bus [4]         -           38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         ±3 3V         -         -	13         SCNEN         Scan motor ON/OFF signal         H:ON           14         MOTRST-0         Reset signal         L           15         SCNDIR         Scan motor rotational direction signal         L: CW, H: CCW	1     TXB     Transmitted facsimile data     -       2     RXIN     Received facsimile data     -       3     CML     CML relay drive signal     -       4     L     Distribute data diference     -
23         ADM2B         ADU motor drive signal B         -         A12         SG           24         ADM2C         ADU motor drive signal C         -         -         A13         FA           25         ADM2A         ADU motor drive signal A         -         -         A13         FA           26         ADM2A         ADU motor drive signal A         -         -         A14         +24	SG         Signal ground         -           FAN1         Laser unit cooling fan drive signal         -           +24VD1         +24V         -	1         SG         Signal ground         -           2         DQ0         Memory data bus [0]         -           3         DQ1         Memory data bus [1]         -	165 SA0 166 SA1 167 SA2	PD address [0]         -           PD address [1]         -           PD address [2]         -	40         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -	16         SCNLK         Scan motor drive clock signal         -           CN16         PWA-F-SLG (CN16) <-> DOWNLOAD JIG (SLG)	4         LD         Dial puise drive signal         -           5         ER/HK         Not used         -           6         ATT3DB         -3db ATT exchange signal         -           7         RLADJ1         MODEM select signal         -
26         CH IDUWN         ADD moor control signal         -         A15         CLI           27         ADTR2         ADU exit sensor detection signal         L         A16         +22           28         +5.1VB         +5V         -         -         A16         +22           29         SG         Signal ground         -         -         -         -         -	CLBUCP         Transfer belt cleaner clutch drive signal         -           +24VD1         +24V         -           SG         Signal ground         -           VLUP         Developer beam specifies assess dataseting sizes         -	4         DQ2         Memory data bus [2]         -           5         DQ3         Memory data bus [3]         -           6         +3.3VA         +3.3V         -           7         DC4         Memory data bus [4]         -	168 +3.3VA	+3.3V	44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -	Pin No         Symbol         Name         Active           1         MDT[0]         ROM data bus [0]         -           2         MDT[2]         ROM data bus [2]         -	8         RLADJ2         MODEM select signal         -           9         RGCLK         Not used         -           10         AG         Analog ground         -
30     ADCNT     ADU connection detection signal     L       31     ADTR,P     ADU entrance sensor detection signal     L       32     ADCOV     ADU opening/closing switch detection signal     L	HVLHP     Hevolver home position sensor detection signal     -       +5.1VB     +5V     -       BMBCOR     Transfer belt cleaner auger motor drive signal     -       +24VD1     +24V     -	7         DQ4         Memory data bus [4]         -           8         DQ5         Memory data bus [5]         -           9         DQ6         Memory data bus [6]         -           10         DQ7         Memory data bus [7]         -	Pin No Symbol A1 SG A2 MCNT	Name         Active           Signal ground         -           LGC board connection detection signal         H           Image data [0]         -	47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           49         +3.3VA         +3.3V         -           50         NC         Not connected         -	3         MDT[4]         ROM data bus [4]         -           4         MDT[6]         ROM data bus [6]         -           5         MRD-0A         ROM data read signal         -           6         (PNCNTD) ADDIU ROM address bus [0]         -	11         -12V         -           12         AG         Analog ground         -           13         +12VB         +12V         -           14         HO         More and dott         -
33         +24VD1         +24V         -           34         ADUCL         ADU clutch drive signal         L         B3         +5.           B4         CT         B5         SG         SG	+5.1VB +5V - CTNR Color toner cartridge sensor detection signal - SG Signal ground -	11         DQ8         Memory data bus [8]         -           12         SG         Signal ground         -           13         DQ9         Memory data bus [9]         -	A4         IDTA1           A5         IDTA2           A6         IDTA3	Image data [0]         -           Image data [1]         -           Image data [2]         -           Image data [3]         -	50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -	7         (SSW)DLAD[2]         ROM address bus [2]         -           8         MAD[4]         ROM data bus [4]         -           9         MAD[6]         ROM data bus [6]         -	14         NC         Not connected         -           15         16Hz         Not used         -           16         AG         Analog ground         -           17         CI         Ring signal detect         L
Pin No         Symbol         Name         Active         B6         +24           1         D[0]         ROM data bus [0]         -	+24VD1 +24V - ERSLP Exposure lamp drive signal - +5.1VB +5V - DV/ Object data lambda data line data line and the	14         DQ10         Memory data bus [10]         -           15         DQ11         Memory data bus [11]         -           16         DQ12         Memory data bus [12]         -           17         DQ13         Memory data bus [13]         -	A7 SG A8 IDTA4 A9 IDTA5	Signal ground         -           Image data [4]         -           Image data [5]         -	54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           56         DQ17         Memory data bus [17]         -	10         MAD[8]         ROM data bus [8]         -           11         MAD[10]         ROM address bus [10]         -           12         MAD[12]         ROM address bus [12]         -	18         ANSDET         Facsimile data answer detection         L           19         REVA         Line 1 External telephone hook detection signal         -           20         REVB         Line 1 External telephone hook detection signal         -
2         D[z]         FNOM data tous [z]         -         B9         BLI           3         D[4]         ROM data bus [4]         -         -         B10         SG           4         D[6]         ROM data bus [6]         -         B10         SG           5         RD-0         ROM data signal         -         B11         +5.	BLK     Black developer contact position detection sensor signal     -       SG     Signal ground     -       +5.1VB     +5V     -	17         DCr3         Memory data bus [13]         -           18         +3.3VA         +3.3V         -           19         DQ14         Memory data bus [14]         -           20         DQ15         Memory data bus [15]         -	A10 IDTA6 A11 IDTA7 A12 SG A13 IDTA8	Image data [6]         -           Image data [7]         -           Signal ground         -           Image data [8]         -	57         DQ18         Memory data bus [18]         -           58         DQ19         Memory data bus [19]         -           59         +3.3VA         +3.3V         -           60         DO20         Memory data bus [20]         -	13         MAD[14]         ROM address bus [14]         -           14         MAD[16]         ROM address bus [16]         -           15         MAD[18]         ROM address bus [18]         -           16         SG         Signal ground         -	21         NC         Not connected         -           22         NC         Not connected         -           23         +5.1VA         +5V         -           24         AC         Apple around         -
6         A[0]         ROM address bus [0]         -         B12         KD           7         A[2]         ROM address bus [2]         -         -         B13         SG           8         A[4]         ROM address bus [4]         -         B13         SG           9         A14         ROM address bus [4]         -         B14         45	KDS         Black developer contact timing detection sensor signal         -           SG         Signal ground         -           -         -         -	21         NC         Not connected         -           22         NC         Not connected         -           23         SG         Signal ground         -	A14 IDTA9 A15 IDTA10 A16 IDTA11	Image data [0] - Image data [10] - Image data [11] -	61         NC         Not connected         -           62         NC         Not connected         -           63         CKE1         Clock enable signal         -	17         SG         Signal ground         -           18         MDT[1]         ROM data bus [1]         -           19         MDT[3]         ROM data bus [3]         -	24         Adia         Analog ground         -           25         +5.1VA         +5V         -           26         -12VB         -12V         -           27         AG         Analog ground         -
9         A[6]         HOM address bus [6]         -         B15         MA           10         A[8]         ROM address bus [8]         -         B15         MA           11         A[10]         ROM address bus [10]         -         B16         SG           12         A[12]         ROM address bus [12]         -         B17         +5.	NARKS         Transfer belt home position sensor-1 detection signal         -           SG         Signal ground         -           +5.1VB         +5V         -	24         NC         Not connected         -           25         NC         Not connected         -           26         +3.3VA         +3.3V         -           27         /WE         Data write enable signal         -	A17 SG A18 IDTA12 A19 IDTA13 A20 IDTA14	Signal ground         -           Image data [12]         -           Image data [13]         -	64         SG         Signal ground         -           65         DQ21         Memory data bus [21]         -           66         DQ22         Memory data bus [22]         -           67         DO02         Memory data bus [22]         -	20         MDT[5]         ROM data bus [5]         -           21         MDT[7]         ROM data bus [7]         -           22         CS02-0         Chip select signal         -           23         QDCNTDL Address bus [1]         -         -	28         +12V         -           29         NC         Not connected         -           30         NC         Not connected         -
13         A[14]         ROM address bus [14]         -         B18         MA           14         A[16]         ROM address bus [16]         -         -         B19         SG           15         A[18]         ROM address bus [18]         -         -         CN262         PI	MARKL       Transfer belt home position sensor-2 detection signal       -         SG       Signal ground       -         PWA ELICE (CN262)       ->       COLIP. DEVLIDIE	28         DQMB0         Output disable/write mask (0)         -           29         DQMB1         Output disable/write mask (1)         -           30         /CS0         Chip select signal (0)         -	A20 IDTA14 A21 IDTA15 A22 SG A23 IPOS0	Image data [14] - Image data [15] - Signal ground - Standard position signal (0) - Image data [16] - I	67         Docs         Immention yours (25)         -           68         SG         Signal ground         -           69         DQ24         Memory data bus [24]         -           70         DQ25         Memory data bus [25]         -	26         (NORT)DLAD[3]         ROM address bus [3]         -           24         (MER)DLAD[3]         ROM address bus [3]         -           25         MAD[5]         ROM address bus [5]         -           26         MAD[7]         ROM address bus [7]         -	CN503         FAX (CN503) <-> SPEAKER (OPTION)           Pin No         Symbol         Name         Active           1         Speaker output (a)         Name         Active
16         SG         Signal ground         -         Critical         K           17         SG         Signal ground         -         -         K           18         D[1]         ROM data bus [1]         -         -         D           19         D[3]         BOM data bus [3]         -         Pin No	K-DEV-CLT, RGST-CLT, CST-U-TR-L-CLT, CST-U-TR-H-CLT, DRM-CLN-MOT, USD-TNR-FLL-SNR, K-DEV-CONT-CLT Symbol Name Active	31         NC         Not connected         -           32         SG         Signal ground         -           33         A0         Memory address bus [0]         -           34         A2         Memory address bus [1]         -	A24 IPOS1 A25 IPOS2 A26 IPOS3	Standard position signal (1)     -       Standard position signal (2)     -       Standard position signal (3)     -	71         DQ26         Memory data bus [26]         -           72         DQ27         Memory data bus [27]         -           73         +3.3VA         +3.3V         -           74         DO20         Memory data bus [27]         -	27         MAD[9]         ROM address bus [9]         -           28         MAD[11]         ROM address bus [11]         -           29         MAD[13]         ROM address bus [13]         -	1         01         01         01         01         01         01         01         01         02 <th02< th="">         02         02         02</th02<>
20 D[5] ROM data bus [5] - 1 CL	CLCTNS         Color developer toner supply clutch drive signal         -           CLRRST         Registration clutch drive signal         -           +24VD1         +24V         -           -2VUD1         +24V         -	35         A4         Memory address bus [2]         -           36         A6         Memory address bus [3]         -           37         A8         Memory address bus [4]         -	A27 +3.3VB A28 CCODE0 A29 CCODE1 A30 SG	+3.3V - Color code signal (0) - Color code signal (1) - Signal ground -	74         DO25         Weinfory data bus [26]         -           75         DO29         Memory data bus [29]         -           76         DO30         Memory data bus [30]         -           77         DQ31         Memory data bus [31]         -	30         IMAD[15]         FOW address bus [15]         -           31         MAD[17]         ROM address bus [17]         -           32         ROMDT-0         ROM select signal         -           33         +5.1VB         +5V         -	Pin No         Symbol         Name         Active           1         TXOUT2         Transmitted data         -           2         45VA         -         -
21         [D[7]         ROM data bus [7]         -         2         CLI           22         CS2-0         Chip select signal         L         3         +22           CS2         CS2-0         Chip select signal         L         4/2	CLCDVR Color developer drive clutch signal -			Signal ground     -       TS circuit starting request signal     H	78 SG Signal ground -	34 LED-0 LED drive signal -	
21         D[7]         ROM data bus [7]         -         2         CL           22         CS2-0         Chip select signal         L         3         +22           23         A[1]         ROM address bus [1]         -         4         +22           24         A[3]         ROM address bus [3]         -         5         CL           25         A[5]         ROM address bus [7]         -         6         CL           26         A[7]         ROM address bus [7]         -         7         +22	CLMFDH Upper transport clutch (Low speed) drive signal - +24VD1 +24V -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -	B1 SG B2 MMPI1 B3 +5.1VB B4 CBSY	+5V -	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(MR)         Not connected         -	CN20 PWA-F-SLG (CN20) ↔ PWA-F-CCD (CN19)	3         +12VB         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -
21         D[7]         ROM data bus [7]         -         2         CL           22         CS2-0         Chip select signal         L         3         +22           23         A[1]         ROM address bus [1]         -         4         +22           23         A[3]         ROM address bus [3]         -         5         CL           24         A[3]         ROM address bus [3]         -         6         CL           25         A[5]         ROM address bus [5]         -         7         +22           26         A[7]         ROM address bus [7]         -         7         +22           27         A[9]         ROM address bus [7]         -         7         +22           28         A[11]         ROM address bus [7]         -         9         2         8         +22           28         A[11]         ROM address bus [7]         -         9         CL         2         8         +22           28         A[11]         ROM address bus [11]         -         9         CL         10         CL           29         A[13]         ROM address bus [13]         -         41         10         CL <td>CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLMDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -</td> <td>38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -</td> <td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR</td> <td>+5V         -           System command busy         L           Command data         -           System status acknowledge         L           System status error         L</td> <td>79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -</td> <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +33V4         -         -</td> <td>3         +12VB         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           8         +5.1VB         +5V         -           9         MEMRD2-0         SRAM data read signal         -</td>	CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLMDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR	+5V         -           System command busy         L           Command data         -           System status acknowledge         L           System status error         L	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +33V4         -         -	3         +12VB         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           8         +5.1VB         +5V         -           9         MEMRD2-0         SRAM data read signal         -
21         D[7]         ROM data bus [7]         -         2         CL           22         CS2-0         Chip select signal         L         3         +22           23         A[1]         ROM address bus [1]         -         4         +22           23         A[3]         ROM address bus [3]         -         6         CL         3         +22           24         A[3]         ROM address bus [3]         -         6         CL         7         +22         7         A[9]         ROM address bus [7]         -         7         +22         8         +22         28         A[11]         ROM address bus [11]         -         9         CL         20         A[15]         ROM address bus [15]         -         10         CL         10         CL         10         CL         11         +22         31         A[15]         ROM address bus [15]         -         12         +22         31         A[15]         ROM address bus [17]         -         12         +22         32	CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLKDVR         Upper transport clutch (High speed) drive signal         -           24VD1         +24V         -           24VD1         +24V         -           424VD1         +24V         -           BMDRCB         Drum cleaner brush motor drive signal         -           SG         Signal ground         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK	+5V         -           System command busy         L           Command data         -           System status acknowledge         L           System status error         L           System status busy         L           Status data         -           System command acknowledge         L	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ03         Memory data bus [32]         -	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           5         +3.3VA         +3.3V         -           6         +3.3V         -         -	3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX enable signal         -           12         +5.1VB         +5V           13         A1(6)         MDM address bus [16]
21         D[7]         ROM data bus [7]         -         -         2         CL           22         CS2-0         Chip select signal         L         3         42           23         A[1]         ROM address bus [1]         -         -         3         42           24         A[3]         ROM address bus [3]         -         -         6         CL           25         A[5]         ROM address bus [3]         -         -         6         CL           26         A[7]         ROM address bus [9]         -         -         7         42           27         A[9]         ROM address bus [9]         -         -         7         42           28         A[11]         ROM address bus [12]         -         -         9         CL           29         A[13]         ROM address bus [15]         -         -         11         42           30         A[15]         ROM address bus [15]         -         -         11         24           31         A[17]         ROM address bus [15]         -         -         11         42           33         +5.1VB         +5V         -         -         14 <td>CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLKDVR         Black developer drive clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           BMDRCB         Drum cleaner brush motor drive signal         -           SG         Signal ground         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Tomer bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -</td> <td>38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           49         +3.3VA         +3.3V         -           50         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -</td> <td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B12         SG           B13         PEFCLK_M           B14         SG</td> <td>+5V         -           System command busy         L           Command data         -           System status acknowledge         L           System status busy         L           System status busy         L           System command acknowledge         L           System command acknowledge         L           System command acknowledge         L           System command error         L           Ground         -           Clock signal for image data processing         -           Ground         -</td> <td>79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           90         DQ36         Memory data bus [36]         -</td> <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI81         -         -</td> <td>3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [14]           15         A(12)         MDM address bus [10]</td>	CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLKDVR         Black developer drive clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           BMDRCB         Drum cleaner brush motor drive signal         -           SG         Signal ground         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Tomer bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           49         +3.3VA         +3.3V         -           50         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B12         SG           B13         PEFCLK_M           B14         SG	+5V         -           System command busy         L           Command data         -           System status acknowledge         L           System status busy         L           System status busy         L           System command acknowledge         L           System command acknowledge         L           System command acknowledge         L           System command error         L           Ground         -           Clock signal for image data processing         -           Ground         -	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           90         DQ36         Memory data bus [36]         -	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI81         -         -	3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [14]           15         A(12)         MDM address bus [10]
21         D[7]         ROM data bus [7]         -         -         -         -         -         2         CL         3         +22         -	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           BMDRCB         Drum cleaner brush motor drive signal         -           SG         Signal ground         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           *5.1VB         +5V         -           *24VD1         +24V         -           NC         Not connected         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           53         NC         Not connected         -           53         NC         Not connected         -           54 <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         IPEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B40         SG</td> <td>+5V     -       System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       Clock signal for image data processing     -       Clock signal for image data processing     -       Clock signal input for image data transmission     -       Ground     -       Horizontal scanning synchronized signal     L</td> <td>79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [33]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [35]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           94         DQ39         Memory data bus [38]         -</td> <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           5         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           11         BDI[7]         Color (Blue) digital data bus [6]         -           13         BDI[6]         Color (Blue) digital data bus [5]         -</td> <td>1         12VB         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           8         +5.1VB         +5V         -           9         MEMRD2-0         SRAM data read signal         -           10         CLKOE-1         Clock out enable signal         -           11         TX Rehze signal         -         -           12         +5.1VB         +5V         -           13         A(16)         MDM address bus [16]         -           14         A(14)         MDM address bus [14]         -           15         A(12)         MDM address bus [12]         -           16         A(10)         MDM address bus [6]         -           17         A(8)         MDM address bus [6]         -           18         A(6)         MDM address bus [6]         -           19         A(4)         MDM address bus [72)         -</td>	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         IPEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B40         SG	+5V     -       System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       Clock signal for image data processing     -       Clock signal for image data processing     -       Clock signal input for image data transmission     -       Ground     -       Horizontal scanning synchronized signal     L	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [33]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [35]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           94         DQ39         Memory data bus [38]         -	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           5         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           11         BDI[7]         Color (Blue) digital data bus [6]         -           13         BDI[6]         Color (Blue) digital data bus [5]         -	1         12VB         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           8         +5.1VB         +5V         -           9         MEMRD2-0         SRAM data read signal         -           10         CLKOE-1         Clock out enable signal         -           11         TX Rehze signal         -         -           12         +5.1VB         +5V         -           13         A(16)         MDM address bus [16]         -           14         A(14)         MDM address bus [14]         -           15         A(12)         MDM address bus [12]         -           16         A(10)         MDM address bus [6]         -           17         A(8)         MDM address bus [6]         -           18         A(6)         MDM address bus [6]         -           19         A(4)         MDM address bus [72)         -
21         D[7]         ROM data bus [7]         -         -         2         CL           22         CS2-0         Chip select signal         L         3         +22           23         A[1]         ROM address bus [1]         -         -         3         +22           24         A[3]         ROM address bus [3]         -         -         6         CL         3         +22           24         A[3]         ROM address bus [3]         -         -         6         CL         3         +22           24         A[3]         ROM address bus [7]         -         -         7         +22           27         A[9]         ROM address bus [7]         -         -         7         +22           28         A[11]         ROM address bus [13]         -         -         10         CL           29         A[15]         ROM address bus [17]         -         -         11         +22           31         A177         ROM address bus [17]         -         -         13         BM           33         +5.1VB         +5V         -         -         14         BG           34         ROMDT-0	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           CLMFVD1         +24V         -           +24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           BMDRCB         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           51.VB         +5V         -         -           VC         Not connected         -         -           NC         Not connected         -         -           VCA         Not connected         -         -           VPCAF-LGC         CN363) <-> USD-TNR-SNR	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           <	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSVNC0           B18         SG           B19         IVSYNC0           B20         SG           B21 <idclk< td="">         V</idclk<>	+5V     -       System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Uclock signal input for image data transmission     -       Ground     -       Vertical scanning synchronized signal     L       Ground     -       Chock signal output for image data transmission     -	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial data         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [33]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [37]         -           92         DQ37         Memory data bus [38]         -           94         DQ39         Memory data bus [38]         -           94         DQ39         Memory data bus [40]         -           96         SG         Signal ground         -           97         DQ41         Memory data bus [41]         - <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [17]         -           12         BDI[6]         Color (Blue) digital data bus [17]         -           13         BDI[5]         Color (Blue) digital data bus [6]         -           13         BDI[4]         Color (Blue) digital data bus [1]         -           15         BDI[3]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2]<td>3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX EN2-1         TX enable signal           12         +5.1VB         +5V           13         A[16]         MDM address bus [16]           14         A[16]         MDM address bus [14]           15         A[12]         MDM address bus [10]           16         A[10]         MDM address bus [10]           17         A[8]         MDM address bus [6]           18         A[6]         MDM address bus [6]           19         A[4]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RBST-0         CEP1 reset signal</td></td>	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [17]         -           12         BDI[6]         Color (Blue) digital data bus [17]         -           13         BDI[5]         Color (Blue) digital data bus [6]         -           13         BDI[4]         Color (Blue) digital data bus [1]         -           15         BDI[3]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2] <td>3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX EN2-1         TX enable signal           12         +5.1VB         +5V           13         A[16]         MDM address bus [16]           14         A[16]         MDM address bus [14]           15         A[12]         MDM address bus [10]           16         A[10]         MDM address bus [10]           17         A[8]         MDM address bus [6]           18         A[6]         MDM address bus [6]           19         A[4]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RBST-0         CEP1 reset signal</td>	3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX EN2-1         TX enable signal           12         +5.1VB         +5V           13         A[16]         MDM address bus [16]           14         A[16]         MDM address bus [14]           15         A[12]         MDM address bus [10]           16         A[10]         MDM address bus [10]           17         A[8]         MDM address bus [6]           18         A[6]         MDM address bus [6]           19         A[4]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RBST-0         CEP1 reset signal
21         D[7]         ROM data bus [7]         -           22         CS2-0         Chip select signal         L           23         A[1]         ROM address bus [1]         -           24         A[3]         ROM address bus [3]         -           25         A[5]         ROM address bus [1]         -           26         A[7]         ROM address bus [1]         -           27         A[9]         ROM address bus [7]         -           28         A[11]         ROM address bus [1]         -           29         A[13]         ROM address bus [1]         -           30         A[15]         ROM address bus [13]         -           31         A[17]         ROM address bus [17]         -           32         ROMDT-0         Download board connection detection signal         L           33         +5.1VB         +5V         -           34         ROMLD-1         External ROM loading status signal         L           16         US         -           34         ROMLD-1         External ROM loading status signal         -           16         US         -         -           17         CL         -<	CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           BMDRCB         Drum cleaner brush motor drive signal         -           SG         Signal ground         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag ful detection sensor signal         -           45.1VB         +5V         -           +24VD1         +24V         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Symbol         Name         Active           +5.1VB         +5V         - <t< td=""><td>38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           &lt;</td><td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         HSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG</td><td>+5V     -       System command busy     L       Command data     -       System status acknowledge     L       System status evror     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Clock signal onput for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     -       Data enable of the horizontal scanning direction     L       Ground     -</td><td>79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [36]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [40]         -           96         SG         Signal ground         -           97         DQ41         Memory data bus [41]         -     <!--</td--><td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           12         BDI[6]         Color (Blue) digital data bus [6]         -           13         BDI[5]         Color (Blue) digital data bus [5]         -           14         BDI[4]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]</td><td>3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [12]           16         A(12)         MDM address bus [10]           17         A[8]         MDM address bus [10]           18         A[6]         MDM address bus [2]           19         A[4]         MDM address bus [2]           21         A[0]         MDM address bus [2]           21</td></td></t<>	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           <	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         HSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG	+5V     -       System command busy     L       Command data     -       System status acknowledge     L       System status evror     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Clock signal onput for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     -       Data enable of the horizontal scanning direction     L       Ground     -	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [36]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [40]         -           96         SG         Signal ground         -           97         DQ41         Memory data bus [41]         - </td <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           12         BDI[6]         Color (Blue) digital data bus [6]         -           13         BDI[5]         Color (Blue) digital data bus [5]         -           14         BDI[4]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]</td> <td>3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [12]           16         A(12)         MDM address bus [10]           17         A[8]         MDM address bus [10]           18         A[6]         MDM address bus [2]           19         A[4]         MDM address bus [2]           21         A[0]         MDM address bus [2]           21</td>	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           12         BDI[6]         Color (Blue) digital data bus [6]         -           13         BDI[5]         Color (Blue) digital data bus [5]         -           14         BDI[4]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]	3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [12]           16         A(12)         MDM address bus [10]           17         A[8]         MDM address bus [10]           18         A[6]         MDM address bus [2]           19         A[4]         MDM address bus [2]           21         A[0]         MDM address bus [2]           21
21         D[7]         ROM data bus [7]         -           22         CS2-0         Chip select signal         L           23         A[1]         ROM address bus [1]         -           24         A[3]         ROM address bus [3]         -           25         A[5]         ROM address bus [7]         -           26         A[7]         ROM address bus [7]         -           27         A[9]         ROM address bus [7]         -           28         A[11]         ROM address bus [1]         -           29         A[13]         ROM address bus [1]         -           30         A[15]         ROM address bus [13]         -           31         A[17]         ROM address bus [17]         -           32         ROMDT-0         Download board connection detection signal         L           33         +5.1VB         +5V         -           34         ROMLD-1         External ROM loading status signal         L           16         US         S         15           7         A[2]         +24VD1         -           7         A[2]         NRME         -           18         Main reset signal	CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDCVR         Black developer drive clutch signal         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           Back developer brush motor drive signal         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Torrer bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           VSTVB         +5V         -           VAVD1         +24V         -           V24VD1         +24V         -           VC         Not connected         -           NC         Not connected         -           NC         Not connected         -           SG         Signal ground         - <td>38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [17]         -           56         DQ17         Memory data bus [18]         -</td> <td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B18         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2</td> <td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status evror     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (insurt)     -       Data be other bertical scanning direction (insurt)     -</td> <td>79         UCR2         Uclock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [35]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [36]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DQ40         Memory data bus [41]         -           96         SG         Signal ground         -     &lt;</td> <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           11         BDI[7]         Color (Blue) digital data bus [6]         -           13         BDI[8]         Color (Blue) digital data bus [7]         -           14         BDI[4]         Color (Blue) digital data bus [7]         -           15         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]         Color (Blue) digital data bus [2]         -           18</td> <td>3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX enable signal         -           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [16]           15         A(12)         MDM address bus [10]           16         A(12)         MDM address bus [10]           17         A(8)         MDM address bus [2]           18         A(6)         MDM address bus [2]           19         A(4)         -           20         A(2)         MDM address bus [2]         -           21         A(0)         MDM address bus [2]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 reset signal         -</td>	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [17]         -           56         DQ17         Memory data bus [18]         -	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B18         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status evror     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (insurt)     -       Data be other bertical scanning direction (insurt)     -	79         UCR2         Uclock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [35]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [36]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DQ40         Memory data bus [41]         -           96         SG         Signal ground         -     <	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8]         Color (Blue) digital data bus [7]         -           11         BDI[7]         Color (Blue) digital data bus [6]         -           13         BDI[8]         Color (Blue) digital data bus [7]         -           14         BDI[4]         Color (Blue) digital data bus [7]         -           15         BDI[2]         Color (Blue) digital data bus [3]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]         Color (Blue) digital data bus [2]         -           18	3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX enable signal         -           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [16]           15         A(12)         MDM address bus [10]           16         A(12)         MDM address bus [10]           17         A(8)         MDM address bus [2]           18         A(6)         MDM address bus [2]           19         A(4)         -           20         A(2)         MDM address bus [2]         -           21         A(0)         MDM address bus [2]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 reset signal         -
21         D[7]         ROM data bus [7]         -           22         CS2-0         Chip select signal         L         3           23         A[1]         ROM address bus [3]         -         -           24         A[3]         ROM address bus [3]         -         -           25         A[5]         ROM address bus [1]         -         -           26         A[7]         ROM address bus [7]         -         -           27         A[9]         ROM address bus [1]         -         -           28         A[11]         ROM address bus [13]         -         -           29         A[13]         ROM address bus [13]         -         -           30         A[15]         ROM address bus [17]         -         -           31         A[17]         ROM address bus [17]         -         -           32         ROMDT-0         Download board connection detection signal         L         11         42           34         ROMLD-1         External ROM loading status signal         L         18         45           7         RGST-SNR, FED-L-SNR, FED-L-SNR, FED-L-SNR, RGST-SNR, PED-L-SNR, RGST-SNR, PED-L-SNR, PED-L-SNR, RGST-SNR, PED-L-SNR, RGST-SNR, PED-L-SNR, RGST Signal         <	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKECU         Upper transport clutch signal         -           CLKOVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           PROBCB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           USTFL         Toner bag full detection sensor signal         -           VDYP         Black developer lifting clutch drive signal         -           +5.1VB         +5V         -         -           VC         Not connected         -         -           NC         Not connected         -         -           NDTND         Name         Active           +5.1VB         +5V         -         -           USTFL2         Toner bag sensor drive signal         -           Signal ground         - <td>38         A10         Memory address bus [10]         -           39         BA1         Bank selet (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         JCS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ18         Memory data bus [16]         -           <t< td=""><td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B18         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         IVC[RESERVE1]           B28         RESERVE2           B29         ARSTO           B30         SG</td><td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Detat scanning synchronized signal     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (input)     L       LGC board reset     L       Ground     -</td><td>P3         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [37]         -           93         DQ38         Memory data bus [38]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [41]         -           96         SG         Signal ground         -     <!--</td--><td><math display="block">\begin{array}{ c c c c c } \hline CN20 &amp; PWA-F-SLG (CN20) \leftrightarrow PWA-F-CCD (CN19) \\ \hline \hline Pin No &amp; Symbol &amp; Name &amp; Active \\ \hline 1 &amp; SG &amp; Signal ground &amp; - \\ \hline 2 &amp; SG &amp; Signal ground &amp; - \\ \hline 3 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 4 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 5 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 6 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 8 &amp; NC &amp; Not connected &amp; - \\ \hline 9 &amp; BD[9] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 10 &amp; BD[8] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 11 &amp; BDI[7] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 12 &amp; BDI[6] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 13 &amp; BDI[5] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 15 &amp; BDI[3] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 16 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 18 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 10 &amp; BDI[2] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 11 &amp; BDI[4] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 12 &amp; BDI[6] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 18 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 20 &amp; SG &amp; Signal ground &amp; - \\ \hline 21 &amp; GDI[8] &amp; Color (Green) digital data bus [8] &amp; - \\ \hline 22 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 25 &amp; GDI[5] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 28 &amp; GDI[4] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 28 </math></td><td>1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [6]           18         A(6)         MDM address bus [2]           21         A(0)         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK</td></td></t<></td>	38         A10         Memory address bus [10]         -           39         BA1         Bank selet (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         JCS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ18         Memory data bus [16]         - <t< td=""><td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B18         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         IVC[RESERVE1]           B28         RESERVE2           B29         ARSTO           B30         SG</td><td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Detat scanning synchronized signal     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (input)     L       LGC board reset     L       Ground     -</td><td>P3         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [37]         -           93         DQ38         Memory data bus [38]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [41]         -           96         SG         Signal ground         -     <!--</td--><td><math display="block">\begin{array}{ c c c c c } \hline CN20 &amp; PWA-F-SLG (CN20) \leftrightarrow PWA-F-CCD (CN19) \\ \hline \hline Pin No &amp; Symbol &amp; Name &amp; Active \\ \hline 1 &amp; SG &amp; Signal ground &amp; - \\ \hline 2 &amp; SG &amp; Signal ground &amp; - \\ \hline 3 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 4 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 5 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 6 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 8 &amp; NC &amp; Not connected &amp; - \\ \hline 9 &amp; BD[9] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 10 &amp; BD[8] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 11 &amp; BDI[7] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 12 &amp; BDI[6] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 13 &amp; BDI[5] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 15 &amp; BDI[3] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 16 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 18 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 10 &amp; BDI[2] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 11 &amp; BDI[4] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 12 &amp; BDI[6] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 18 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 20 &amp; SG &amp; Signal ground &amp; - \\ \hline 21 &amp; GDI[8] &amp; Color (Green) digital data bus [8] &amp; - \\ \hline 22 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 25 &amp; GDI[5] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 28 &amp; GDI[4] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 28 </math></td><td>1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [6]           18         A(6)         MDM address bus [2]           21         A(0)         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK</td></td></t<>	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B18         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         IVC[RESERVE1]           B28         RESERVE2           B29         ARSTO           B30         SG	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Detat scanning synchronized signal     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (output)     L       Data enable of the vertical scanning direction (input)     L       LGC board reset     L       Ground     -	P3         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [37]         -           93         DQ38         Memory data bus [38]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [41]         -           96         SG         Signal ground         - </td <td><math display="block">\begin{array}{ c c c c c } \hline CN20 &amp; PWA-F-SLG (CN20) \leftrightarrow PWA-F-CCD (CN19) \\ \hline \hline Pin No &amp; Symbol &amp; Name &amp; Active \\ \hline 1 &amp; SG &amp; Signal ground &amp; - \\ \hline 2 &amp; SG &amp; Signal ground &amp; - \\ \hline 3 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 4 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 5 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 6 &amp; +3.3VA &amp; +3.3V &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 8 &amp; NC &amp; Not connected &amp; - \\ \hline 9 &amp; BD[9] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 10 &amp; BD[8] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 11 &amp; BDI[7] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 12 &amp; BDI[6] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 13 &amp; BDI[5] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 15 &amp; BDI[3] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 16 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 18 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 10 &amp; BDI[2] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 11 &amp; BDI[4] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 12 &amp; BDI[6] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 18 &amp; BDI[2] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 20 &amp; SG &amp; Signal ground &amp; - \\ \hline 21 &amp; GDI[8] &amp; Color (Green) digital data bus [8] &amp; - \\ \hline 22 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [7] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 25 &amp; GDI[5] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 26 &amp; GDI[6] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 28 &amp; GDI[4] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [6] &amp; - \\ \hline 28 </math></td> <td>1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [6]           18         A(6)         MDM address bus [2]           21         A(0)         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK</td>	$\begin{array}{ c c c c c } \hline CN20 & PWA-F-SLG (CN20) \leftrightarrow PWA-F-CCD (CN19) \\ \hline \hline Pin No & Symbol & Name & Active \\ \hline 1 & SG & Signal ground & - \\ \hline 2 & SG & Signal ground & - \\ \hline 3 & +3.3VA & +3.3V & - \\ \hline 4 & +3.3VA & +3.3V & - \\ \hline 5 & +3.3VA & +3.3V & - \\ \hline 6 & +3.3VA & +3.3V & - \\ \hline 7 & SG & Signal ground & - \\ \hline 7 & SG & Signal ground & - \\ \hline 8 & NC & Not connected & - \\ \hline 9 & BD[9] & Color (Blue) digital data bus [9] & - \\ \hline 10 & BD[8] & Color (Blue) digital data bus [8] & - \\ \hline 11 & BDI[7] & Color (Blue) digital data bus [6] & - \\ \hline 12 & BDI[6] & Color (Blue) digital data bus [6] & - \\ \hline 13 & BDI[5] & Color (Blue) digital data bus [7] & - \\ \hline 15 & BDI[3] & Color (Blue) digital data bus [6] & - \\ \hline 16 & BDI[2] & Color (Blue) digital data bus [7] & - \\ \hline 17 & BDI[1] & Color (Blue) digital data bus [7] & - \\ \hline 18 & BDI[2] & Color (Blue) digital data bus [7] & - \\ \hline 19 & SG & Signal ground & - \\ \hline 10 & BDI[2] & Color (Blue) digital data bus [6] & - \\ \hline 11 & BDI[4] & Color (Blue) digital data bus [7] & - \\ \hline 12 & BDI[6] & Color (Blue) digital data bus [7] & - \\ \hline 18 & BDI[2] & Color (Blue) digital data bus [7] & - \\ \hline 19 & SG & Signal ground & - \\ \hline 20 & SG & Signal ground & - \\ \hline 21 & GDI[8] & Color (Green) digital data bus [8] & - \\ \hline 22 & GDI[6] & Color (Green) digital data bus [7] & - \\ \hline 24 & GDI[6] & Color (Green) digital data bus [7] & - \\ \hline 24 & GDI[6] & Color (Green) digital data bus [7] & - \\ \hline 24 & GDI[6] & Color (Green) digital data bus [7] & - \\ \hline 24 & GDI[6] & Color (Green) digital data bus [6] & - \\ \hline 25 & GDI[5] & Color (Green) digital data bus [6] & - \\ \hline 26 & GDI[6] & Color (Green) digital data bus [6] & - \\ \hline 26 & GDI[6] & Color (Green) digital data bus [6] & - \\ \hline 26 & GDI[6] & Color (Green) digital data bus [6] & - \\ \hline 26 & GDI[6] & Color (Green) digital data bus [6] & - \\ \hline 26 & GDI[6] & Color (Green) digital data bus [6] & - \\ \hline 27 & GDI[3] & Color (Green) digital data bus [6] & - \\ \hline 28 & GDI[4] & Color (Green) digital data bus [6] & - \\ \hline 27 & GDI[3] & Color (Green) digital data bus [6] & - \\ \hline 28 $	1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [6]           18         A(6)         MDM address bus [2]           21         A(0)         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK
21         D[7]         ROM data bus [7]         -	CLMFDH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDCWR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           Black developer trush motor drive signal         -           BBRCB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           +51.VB         +5V         -         -           NC         Not connected         -         -           NC         Not connected         -         -           Symbol         Name         Active           45.1VB         +5V         -         -           USTFL:         Toner bag sensor drive signal         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         //CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         ECERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B18         SG           B20         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27 <inc(reserve1)< td="">           B28         RESERVE2           B29         ARST0           B30         SG           CN118         PWA-F-SYS (C           Pin No         Symbol           1         XSCL-1A      <tr table=""></tr></inc(reserve1)<>	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Vertical scanning synchronized signal     L       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Nate     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Chock signal otput for image data transmission     -       Coround     -     -       Obta enable of the vertical scanning direction (output)     L       Chock areable of the vertical scanning direction (input)     L       LCB data transmission clock     -       LCD data transmission clock	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           89         DQ34         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [41]         -           98         DQ42         Memory data bus [42]         -           99         DQ43         Memory data bus [42]         - <td>CN20PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3<math>+3.3VA</math><math>+3.3V</math>-4<math>+3.3VA</math><math>+3.3V</math>-5<math>+3.3VA</math><math>+3.3V</math>-6<math>+3.3VA</math><math>+3.3V</math>-7SGSignal ground-8NCNot connected-9BDI[9]Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [8]-11BDI[7]Color (Blue) digital data bus [6]-12BDI[6]Color (Blue) digital data bus [7]-13BDI[5]Color (Blue) digital data bus [1]-16BDI[2]Color (Blue) digital data bus [2]-17BDI[3]Color (Blue) digital data bus [2]-18BDI[2]Color (Blue) digital data bus [2]-19SGSignal ground-20SGSignal ground-21GDI[8]Color (Green) digital data bus [7]-22GDI[8]Color (Green) digital data bus [6]-23GDI[7]Color (Green) digital data bus [6]-24GDI[8]Color (Green) digital data bus [6]-25GDI[6]Color (Green) digital data bus [6]-26GDI[8]Color (Green) digital data bus [6]-27GDI[8]Color (Green) digital d</td> <td>1         102           3         +122/B         +122/V           4         +3.33/V         -           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A[8]         MDM address bus [6]           18         A(6)         MDM address bus [2]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST0         CEP1 reset signal           24         +5.1VB         +5V</td>	CN20PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3 $+3.3VA$ $+3.3V$ -4 $+3.3VA$ $+3.3V$ -5 $+3.3VA$ $+3.3V$ -6 $+3.3VA$ $+3.3V$ -7SGSignal ground-8NCNot connected-9BDI[9]Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [8]-11BDI[7]Color (Blue) digital data bus [6]-12BDI[6]Color (Blue) digital data bus [7]-13BDI[5]Color (Blue) digital data bus [1]-16BDI[2]Color (Blue) digital data bus [2]-17BDI[3]Color (Blue) digital data bus [2]-18BDI[2]Color (Blue) digital data bus [2]-19SGSignal ground-20SGSignal ground-21GDI[8]Color (Green) digital data bus [7]-22GDI[8]Color (Green) digital data bus [6]-23GDI[7]Color (Green) digital data bus [6]-24GDI[8]Color (Green) digital data bus [6]-25GDI[6]Color (Green) digital data bus [6]-26GDI[8]Color (Green) digital data bus [6]-27GDI[8]Color (Green) digital d	1         102           3         +122/B         +122/V           4         +3.33/V         -           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A[8]         MDM address bus [6]           18         A(6)         MDM address bus [2]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST0         CEP1 reset signal           24         +5.1VB         +5V
21 $D[7]$ ROM data bus $[7]$ -         22       CS2-0       Chip select signal       L         23       A[1]       ROM address bus $[3]$ -         24       A[3]       ROM address bus $[3]$ -         25       A[5]       ROM address bus $[7]$ -         26       A[7]       ROM address bus $[7]$ -         27       A[9]       ROM address bus $[11]$ -         29       A[13]       ROM address bus $[11]$ -         30       A[15]       ROM address bus $[12]$ -         31       A[17]       ROM address bus $[17]$ -         32       ROMDT-0       Download board connection detection signal       L         34       ROMLD-1       External ROM loading status signal       L         34       ROMLD-1       External ROM loading status signal       L         A1       Symbol       NR       -         A1       RGST-SNR, FED-L-SNR, FED-L-SNR, FED-L-SNR, RGT-SO-SNR, 2TR-CONT-CLT, 2TR-DRV-CLT       -         21       NC       A       -         A4       SG       Signal ground       -         A4       SG       Signal ground       -	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           Black developer brush motor drive signal         -           DRCLB         Drum cleaner brush motor drive signal         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           51.VB         +5V         -           +24VD1         +24V         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Sg         Signal ground         -           SG         Signal ground         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           56	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B17         IHSYNC0           B18         SG           B19         IVSYNC0           B20         SG           B21         IHDEN0           B22         SG           B23         IHDEN0           B24         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARST0           B30         SG           CN118 <pwa-f-sys (or<="" td="">           Pin No         Symbol           1         XSCL-14           2         LP-1A           3         WF-1A           4         YD-1A           5         INVGND<td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output]     L       Data enable of the vertical scanning direction (input]     L       Ground     -       Data enable of the vertical scanning direction (input]     L       LGC board reset     L       Ground     -</td><td>79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VI         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           93         DQ38         Memory data bus [38]         -           94         DQ39         Memory data bus [41]         -           95         DQ40         Memory data bus [42]         -           96         SG         Signal ground         -     <!--</td--><td><math display="block">\begin{array}{ c c c c c c } \hline CN20 &amp; FWA-F-CCD (CN19) \\ \hline \hline Pin No &amp; Symbol &amp; Name &amp; Active \\ \hline 1 &amp; SG &amp; Signal ground &amp; - \\ \hline 2 &amp; SG &amp; Signal ground &amp; - \\ \hline 3 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 4 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 5 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 6 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 8 &amp; NC &amp; Not connected &amp; - \\ \hline 9 &amp; BDI[9] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 10 &amp; BDI8] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 11 &amp; BDI7] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 12 &amp; BDI6] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 13 &amp; BDI5] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 14 &amp; BDI4] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 15 &amp; BDI6] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 16 &amp; BDI2] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 17 &amp; BDI10 &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 18 &amp; BDI2] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 20 &amp; SG &amp; Signal ground &amp; - \\ \hline 21 &amp; GDI[9] &amp; Color (Glue) digital data bus [1] &amp; - \\ \hline 18 &amp; BDI0 &amp; Color (Glue) digital data bus [2] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Glue) digital data bus [2] &amp; - \\ \hline 17 &amp; BDI[2] &amp; Color (Glue) digital data bus [1] &amp; - \\ \hline 18 &amp; BDI0 &amp; Color (Glue) digital data bus [2] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Green) digital data bus [9] &amp; - \\ \hline 22 &amp; GDI[8] &amp; Color (Green) digital data bus [9] &amp; - \\ \hline 23 &amp; GDI7 &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 25 &amp; GDI[5] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 26 &amp; GDI[4] &amp; Color (Green) digital data bus [2] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 28 &amp; GDI[2] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 29 &amp; GDI[1] &amp; Color (Green) digital data bus [2] &amp; - \\ \hline 26 &amp; GDI[2] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 30 &amp; GDI[0] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 31 &amp; SG &amp; Signal ground &amp; - \\ \hline 32 &amp; SG &amp; Signal ground &amp; - \\ \hline 33 &amp; RDI[9] &amp; Color (Reed) digital data bus [0] &amp; - \\ \hline 34 &amp; RD[8] &amp; Color (Reed) digital data bus [8] &amp; - \\ \hline \end{array}</math></td><td>1         12VB         +12V           4         +33VB         +33V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +51VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           12         +51VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [12]           15         A(12)         MDM address bus [12]           16         A(10)         MDM address bus [10]           17         A[8]         MDM address bus [6]           19         A(4)         MDM address bus [10]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK</td></td></pwa-f-sys>	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output]     L       Data enable of the vertical scanning direction (input]     L       Ground     -       Data enable of the vertical scanning direction (input]     L       LGC board reset     L       Ground     -	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VI         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [34]         -           89         DQ35         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           93         DQ38         Memory data bus [38]         -           94         DQ39         Memory data bus [41]         -           95         DQ40         Memory data bus [42]         -           96         SG         Signal ground         - </td <td><math display="block">\begin{array}{ c c c c c c } \hline CN20 &amp; FWA-F-CCD (CN19) \\ \hline \hline Pin No &amp; Symbol &amp; Name &amp; Active \\ \hline 1 &amp; SG &amp; Signal ground &amp; - \\ \hline 2 &amp; SG &amp; Signal ground &amp; - \\ \hline 3 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 4 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 5 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 6 &amp; 43.3VA &amp; 43.3V &amp; - \\ \hline 7 &amp; SG &amp; Signal ground &amp; - \\ \hline 8 &amp; NC &amp; Not connected &amp; - \\ \hline 9 &amp; BDI[9] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 10 &amp; BDI8] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 11 &amp; BDI7] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 12 &amp; BDI6] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 13 &amp; BDI5] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 14 &amp; BDI4] &amp; Color (Blue) digital data bus [6] &amp; - \\ \hline 15 &amp; BDI6] &amp; Color (Blue) digital data bus [7] &amp; - \\ \hline 16 &amp; BDI2] &amp; Color (Blue) digital data bus [8] &amp; - \\ \hline 17 &amp; BDI10 &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 18 &amp; BDI2] &amp; Color (Blue) digital data bus [9] &amp; - \\ \hline 19 &amp; SG &amp; Signal ground &amp; - \\ \hline 20 &amp; SG &amp; Signal ground &amp; - \\ \hline 21 &amp; GDI[9] &amp; Color (Glue) digital data bus [1] &amp; - \\ \hline 18 &amp; BDI0 &amp; Color (Glue) digital data bus [2] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Glue) digital data bus [2] &amp; - \\ \hline 17 &amp; BDI[2] &amp; Color (Glue) digital data bus [1] &amp; - \\ \hline 18 &amp; BDI0 &amp; Color (Glue) digital data bus [2] &amp; - \\ \hline 17 &amp; BDI[1] &amp; Color (Green) digital data bus [9] &amp; - \\ \hline 22 &amp; GDI[8] &amp; Color (Green) digital data bus [9] &amp; - \\ \hline 23 &amp; GDI7 &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 24 &amp; GDI[6] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 25 &amp; GDI[5] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 26 &amp; GDI[4] &amp; Color (Green) digital data bus [2] &amp; - \\ \hline 27 &amp; GDI[3] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 28 &amp; GDI[2] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 29 &amp; GDI[1] &amp; Color (Green) digital data bus [2] &amp; - \\ \hline 26 &amp; GDI[2] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 30 &amp; GDI[0] &amp; Color (Green) digital data bus [1] &amp; - \\ \hline 31 &amp; SG &amp; Signal ground &amp; - \\ \hline 32 &amp; SG &amp; Signal ground &amp; - \\ \hline 33 &amp; RDI[9] &amp; Color (Reed) digital data bus [0] &amp; - \\ \hline 34 &amp; RD[8] &amp; Color (Reed) digital data bus [8] &amp; - \\ \hline \end{array}</math></td> <td>1         12VB         +12V           4         +33VB         +33V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +51VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           12         +51VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [12]           15         A(12)         MDM address bus [12]           16         A(10)         MDM address bus [10]           17         A[8]         MDM address bus [6]           19         A(4)         MDM address bus [10]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK</td>	$\begin{array}{ c c c c c c } \hline CN20 & FWA-F-CCD (CN19) \\ \hline \hline Pin No & Symbol & Name & Active \\ \hline 1 & SG & Signal ground & - \\ \hline 2 & SG & Signal ground & - \\ \hline 3 & 43.3VA & 43.3V & - \\ \hline 4 & 43.3VA & 43.3V & - \\ \hline 5 & 43.3VA & 43.3V & - \\ \hline 6 & 43.3VA & 43.3V & - \\ \hline 7 & SG & Signal ground & - \\ \hline 8 & NC & Not connected & - \\ \hline 9 & BDI[9] & Color (Blue) digital data bus [9] & - \\ \hline 10 & BDI8] & Color (Blue) digital data bus [8] & - \\ \hline 11 & BDI7] & Color (Blue) digital data bus [7] & - \\ \hline 12 & BDI6] & Color (Blue) digital data bus [6] & - \\ \hline 13 & BDI5] & Color (Blue) digital data bus [6] & - \\ \hline 14 & BDI4] & Color (Blue) digital data bus [6] & - \\ \hline 15 & BDI6] & Color (Blue) digital data bus [7] & - \\ \hline 16 & BDI2] & Color (Blue) digital data bus [8] & - \\ \hline 17 & BDI10 & Color (Blue) digital data bus [9] & - \\ \hline 18 & BDI2] & Color (Blue) digital data bus [9] & - \\ \hline 19 & SG & Signal ground & - \\ \hline 20 & SG & Signal ground & - \\ \hline 21 & GDI[9] & Color (Glue) digital data bus [1] & - \\ \hline 18 & BDI0 & Color (Glue) digital data bus [2] & - \\ \hline 17 & BDI[1] & Color (Glue) digital data bus [2] & - \\ \hline 17 & BDI[2] & Color (Glue) digital data bus [1] & - \\ \hline 18 & BDI0 & Color (Glue) digital data bus [2] & - \\ \hline 17 & BDI[1] & Color (Green) digital data bus [9] & - \\ \hline 22 & GDI[8] & Color (Green) digital data bus [9] & - \\ \hline 23 & GDI7 & Color (Green) digital data bus [1] & - \\ \hline 24 & GDI[6] & Color (Green) digital data bus [1] & - \\ \hline 25 & GDI[5] & Color (Green) digital data bus [1] & - \\ \hline 26 & GDI[4] & Color (Green) digital data bus [2] & - \\ \hline 27 & GDI[3] & Color (Green) digital data bus [1] & - \\ \hline 28 & GDI[2] & Color (Green) digital data bus [1] & - \\ \hline 29 & GDI[1] & Color (Green) digital data bus [2] & - \\ \hline 26 & GDI[2] & Color (Green) digital data bus [1] & - \\ \hline 30 & GDI[0] & Color (Green) digital data bus [1] & - \\ \hline 31 & SG & Signal ground & - \\ \hline 32 & SG & Signal ground & - \\ \hline 33 & RDI[9] & Color (Reed) digital data bus [0] & - \\ \hline 34 & RD[8] & Color (Reed) digital data bus [8] & - \\ \hline \end{array}$	1         12VB         +12V           4         +33VB         +33V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +51VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           12         +51VB         +5V           13         A(16)         MDM address bus [16]           14         A(14)         MDM address bus [12]           15         A(12)         MDM address bus [12]           16         A(10)         MDM address bus [10]           17         A[8]         MDM address bus [6]           19         A(4)         MDM address bus [10]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [0]           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal ground           26         CEPCLK
21 $D[7]$ ROM data bus $[7]$ -         22       CS2-0       Chip select signal       L         23       A[1]       ROM address bus $[1]$ -         24       A[3]       ROM address bus $[3]$ -         25       A[5]       ROM address bus $[5]$ -         26       A[7]       ROM address bus $[7]$ -         28       A[11]       ROM address bus $[11]$ -         29       A[13]       ROM address bus $[15]$ -         30       A[15]       ROM address bus $[15]$ -         30       A[15]       ROM address bus $[15]$ -         31       A[17]       ROM address bus $[15]$ -         32       ROMDD-0       Download board connection detection signal       L         34       ROMLD-1       External ROM loading status signal       L         34       ROMLD-1       External ROM loading status signal       L         7       A2       24VD1       +24V       -         A1       RSTSW       Main reset signal       -         A4       SG       Signal ground       -         A4       SG       Signal ground       -	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           PROLB         Drum cleaner brush motor drive signal         -           SG         Signal ground         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           St/WD         Hack developer lifting clutch drive signal         -           +24VD1         +24V         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Symbol         Name         Active           51/VB         +51V         -           Symbol         Name         Active           51/VB         +51V         -	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB3         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           <	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         DEFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         NG           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B28         RESERVE2           B29         ARSTO           B30         SG           CN118 <pwa-f-sys (0<="" td="">           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YO-1A           5         INVGND</pwa-f-sys>	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output]     L       Ground     -       Data enable of the vertical scanning direction (input]     L       LGC board reset     L       Ground     -       Data enable of the vertical scanning direction (input]     L       LGC board reset     L       Ground     <	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [35]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DQ40         Memory data bus [41]         -           98         DQ42         Memory data bus [45]         -           99         DQ43         Memory data bus [44]         - <td>CN20         PWA-F-SLG (CN20) <math>\leftrightarrow</math>&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8         Color (Blue) digital data bus [1         -           12         BDI[6]         Color (Blue) digital data bus [2]         -           13         BDI[2]         Color (Blue) digital data bus [2]         -           14         BDI[1]         Color (Blue) digital data bus [2]         -           17         BDI[2]         Color (Blue) digital data bus [1]         -           18         BDI[2]         Color (Blue) digital data bus [2]         -           17         BDI[1]</td> <td>1         12VB         +12V           4         +33VB         +33V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +51VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +51VB         +5V           13         A[16]         MDM address bus [16]           14         A[14]         MDM address bus [12]           15         A[12]         MDM address bus [12]           16         A[10]         MDM address bus [6]           17         A[8]         MDM address bus [6]           18         A[6]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         +5.1VB         +5V           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal g</td>	CN20         PWA-F-SLG (CN20) $\leftrightarrow$ > PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8         Color (Blue) digital data bus [1         -           12         BDI[6]         Color (Blue) digital data bus [2]         -           13         BDI[2]         Color (Blue) digital data bus [2]         -           14         BDI[1]         Color (Blue) digital data bus [2]         -           17         BDI[2]         Color (Blue) digital data bus [1]         -           18         BDI[2]         Color (Blue) digital data bus [2]         -           17         BDI[1]	1         12VB         +12V           4         +33VB         +33V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +51VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +51VB         +5V           13         A[16]         MDM address bus [16]           14         A[14]         MDM address bus [12]           15         A[12]         MDM address bus [12]           16         A[10]         MDM address bus [6]           17         A[8]         MDM address bus [6]           18         A[6]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         +5.1VB         +5V           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5.1VB         +5V           25         SG         Signal g
21       D[7]       ROM data bus [7]       -         22       CS2-0       Chip select signal       L         23       A[1]       ROM address bus [1]       -         24       A[3]       ROM address bus [5]       -         24       A[3]       ROM address bus [1]       -         26       A[7]       ROM address bus [7]       -         27       A[9]       ROM address bus [1]       -         28       A[13]       ROM address bus [1]       -         29       A[13]       ROM address bus [1]       -         30       A[15]       ROM address bus [1]       -         31       A[17]       ROM address bus [1]       -         31       A[17]       ROM address bus [1]       -         33       45.1VB       +50       -         34       FOMUD-1       External ROM loading status signal       -         CN345       PWA-F-LGC (CN345) <> MAIN-SW, FRNT-COV-SW, FED-L-SNR, RGST-SNR, FED-U-SNR, SIDE-COV-SW, FED-L-SNR, RGST-SNR, FED-U-SNR, SIDE-COV-SW, FED-L-SNR, RGST-SNR, FED-U-SNR, SIDE-COV-SW, FED-L-SNR, RGST-SNR, FED-U-SNR, SIDE-COV-SW, FED-L-SNR, Addrese add	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           Black developer inting clutch drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           VSTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer ifting clutch drive signal         -           51.VB         +5V         -         -           *24VD1         +24V         -         -           NC         Not connected         -         -           NC         Not connected         -         -           Symbol         Name         Active           51.VB         +5V         -         -           DATA2         System data bus [0]	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           <	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B13         DEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YD-14           5         INVGMD	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground scanning synchronized signal     L       Ground     -       Oclock signal output for image data transmission     -       Ground     -       Oclock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           88         DQ34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           93         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DQ40         Memory data bus [42]         -           99         DQ43         Memory data bus [42]         -           99         DQ43         Memory data bus [44]         - <td>CN20         PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           5         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8         Color (Blue) digital data bus [7]         -           12         BDI[6]         Color (Blue) digital data bus [5]         -           14         BDI[2]         Color (Blue) digital data bus [1]         -           15         BDI[2]         Color (Blue) digital data bus [1]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]         Color (Glue) digital data bus [1]         -           18         BDI[2]</td> <td>1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal          </td>	CN20         PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)           Pin No         Symbol         Name         Active           1         SG         Signal ground         -           2         SG         Signal ground         -           3         +3.3VA         +3.3V         -           4         +3.3VA         +3.3V         -           5         +3.3VA         +3.3V         -           6         +3.3VA         +3.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BDI[9]         Color (Blue) digital data bus [9]         -           10         BDI[8         Color (Blue) digital data bus [7]         -           12         BDI[6]         Color (Blue) digital data bus [5]         -           14         BDI[2]         Color (Blue) digital data bus [1]         -           15         BDI[2]         Color (Blue) digital data bus [1]         -           16         BDI[2]         Color (Blue) digital data bus [1]         -           17         BDI[1]         Color (Glue) digital data bus [1]         -           18         BDI[2]	1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMD2-0         SRAM data read signal
21       D[7]       ROM data bus [7]       -         22       CS2-0       Chip select signal       L         24       A[3]       ROM address bus [3]       -         26       A[7]       ROM address bus [3]       -         26       A[7]       ROM address bus [7]       -         28       A[11]       ROM address bus [7]       -         29       A[13]       ROM address bus [1]       -         29       A[13]       ROM address bus [15]       -         31       A[17]       ROM address bus [15]       -         31       A[17]       ROM address bus [17]       -         32       ROMDT-0       Download board connection detection signal       L         33       +5.1VB       +5V       -         34       ROMLD-1       External ROM loading status signal       L         16       US       Signal ground       -         A1       RGS       Signal ground       -         A4       SG       Signal ground       -         A5       SLTBTNA       Image quality sensor detection signal       -         A2       +24VD1       +24V       -         A6       Signal ground<	CLMFOH       Upper transport clutch (Low speed) drive signal       -         +24VD1       +24V       -         +24VD1       +24V       -         CLKDVR       Black developer drive clutch signal       -         CLKDVD       Black developer drive clutch (High speed) drive signal       -         CLMFCU       Upper transport clutch (High speed) drive signal       -         +24VD1       +24V       -         #24VD1       +24V       -         Black developer lifting clutch drive signal       -         DFCLB       Drum cleaner brush motor drive signal       -         DFCLB       Drum cleaner brush motor drive signal       -         USTFL       Toner bag full detection sensor signal       -         S1/VB       +5V       -       -         NC       Not connected       -       -         NC       Not connected       -       -         NC       Not connected       -       -         Symbol       Name       Active         51/VB       +5V       -       -         Symbol       Name       Active         DATA6       System data bus [0]       -         DATA6       System data bus [10]	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB3         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [16]         -           58         DQ19         Memory data bus [20]         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           TIN NO         SYMDOI           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YD-1A	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System status busy     L       Status data     -       System command acknowledge     L       System command error     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data scanning synchronized signal     L       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (input]     L       La connected     -       Data enable of the vertical scanning direction (input]     L       Ground     -       Data enable of the vertical scanning direction (input]     L       LGC board reset     L       Ground     - <td< td=""><td>79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           89         DQ34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [40]         -           96         SG         Signal ground         -           97         DQ41         Memory data bus [42]         -           98         DQ42         Memory data bus [44]         -     <!--</td--><td>CN20PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9]Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [9]-11BDI[7]Color (Blue) digital data bus [6]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[5]Color (Blue) digital data bus [6]-14BDI[4]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Blue) digital data bus [1]-18BDI[0]Color (Green) digital data bus [1]-20SGSignal ground22GDI[8]Color (Green) digital data bus [1]-23GDI[7]Color (Green) digital data bus [1]-24GDI[6]Color (Green) digital data bus [1]-25GDI[4]Color (Green) digital data bus [1]-26GDI[4]Color (Green) digital data bus [1]-27GDI[6]Color</td><td>1         1000           3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX enable signal         -           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(12)         MDM address bus [10]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [2]           18         A(6)         MDM address bus [2]           19         A(4)         -           20         A(2)         MDM address bus [2]           21         A(0)         MDM address bus [2]           22         +5.1VB         +5V           23         CEP1reset signal         -           24         +5.1VB         +5V           25</td></td></td<>	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [32]         -           87         DQ33         Memory data bus [34]         -           89         DQ34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           94         DQ39         Memory data bus [39]         -           95         DQ40         Memory data bus [40]         -           96         SG         Signal ground         -           97         DQ41         Memory data bus [42]         -           98         DQ42         Memory data bus [44]         - </td <td>CN20PWA-F-SLG (CN20) &lt;-&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9]Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [9]-11BDI[7]Color (Blue) digital data bus [6]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[5]Color (Blue) digital data bus [6]-14BDI[4]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Blue) digital data bus [1]-18BDI[0]Color (Green) digital data bus [1]-20SGSignal ground22GDI[8]Color (Green) digital data bus [1]-23GDI[7]Color (Green) digital data bus [1]-24GDI[6]Color (Green) digital data bus [1]-25GDI[4]Color (Green) digital data bus [1]-26GDI[4]Color (Green) digital data bus [1]-27GDI[6]Color</td> <td>1         1000           3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX enable signal         -           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(12)         MDM address bus [10]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [2]           18         A(6)         MDM address bus [2]           19         A(4)         -           20         A(2)         MDM address bus [2]           21         A(0)         MDM address bus [2]           22         +5.1VB         +5V           23         CEP1reset signal         -           24         +5.1VB         +5V           25</td>	CN20PWA-F-SLG (CN20) <-> PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9]Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [9]-11BDI[7]Color (Blue) digital data bus [6]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[5]Color (Blue) digital data bus [6]-14BDI[4]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Blue) digital data bus [1]-18BDI[0]Color (Green) digital data bus [1]-20SGSignal ground22GDI[8]Color (Green) digital data bus [1]-23GDI[7]Color (Green) digital data bus [1]-24GDI[6]Color (Green) digital data bus [1]-25GDI[4]Color (Green) digital data bus [1]-26GDI[4]Color (Green) digital data bus [1]-27GDI[6]Color	1         1000           3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TX enable signal         -           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(12)         MDM address bus [10]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [2]           18         A(6)         MDM address bus [2]           19         A(4)         -           20         A(2)         MDM address bus [2]           21         A(0)         MDM address bus [2]           22         +5.1VB         +5V           23         CEP1reset signal         -           24         +5.1VB         +5V           25
21       D[7]       ROM data bus [7]       -         22       CS2-0       Chip select signal       L         23       A[1]       ROM address bus [3]       -         24       A[3]       ROM address bus [3]       -         25       A[7]       ROM address bus [1]       -         26       A[7]       ROM address bus [1]       -         28       A[11]       ROM address bus [1]       -         29       A[13]       ROM address bus [1]       -         30       A[15]       ROM address bus [1]       -         31       ROMDT-0       Download board connection detection signal       L         32       ROMDT-0       Download board connection detection signal       L         34       ROMDT-1       External ROM loading status signal       -         34       ROMDT-1       External ROM loading status signal       -         34       RATC-ONT-CLT, 2TR-DRV-CLT       TR2-POS-SNR, 2TR-CONT-CLT, 2TR-DRV-CLT       18         Pin NO       Signal ground       -       -         A4       SG       Signal ground       -         A5       SLTBTNA       Image quality sensor detection signal       Analog         A11	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           Black developer lifting clutch drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           St.VB         +5V         -         -           VC         Not connected         -         -           NC         Not connected         -         -           Symbol         Name         Active         -           St1VB         +5V         -         -           Symbol         Name         Active         -           DATA6         System data bus [0]         -         -           DATA6         System data	38         A10         Memory address bus [10]         -           39         BA1         Bank select (1)         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLKO         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DQMB2         Output disable/write mask (2)         -           47         DQMB3         Output disable/write mask (3)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DQ16         Memory data bus [10]         -           58         DQ19         Memory data bus [20]         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHOENO           B24         SG           B25         IVDENO           B26         SG           B30         SG           B30         SG           B30         SG           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YD-1A           5         INVGMD           6         B2ON-0A	+5V     -       System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LCD	79         CLR2         Clock (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial clock         -           84         +3.3VA         +3.3V         -           85         SG         Signal ground         -           86         DQ32         Memory data bus [33]         -           87         DQ33         Memory data bus [34]         -           89         DQ34         Memory data bus [34]         -           90         +3.3VA         +3.3V         -           91         DQ36         Memory data bus [36]         -           92         DQ37         Memory data bus [38]         -           94         DQ39         Memory data bus [38]         -           95         DQ40         Memory data bus [40]         -           96         SG         Signal ground         -           97         DQ41         Memory data bus [42]         -           99         DQ43         Memory data bus [42]         - </td <td>CN20PWA-F-SLG (CN20) <math>\leftrightarrow</math>&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI(9)Color (Blue) digital data bus [0]-10BDI(8)Color (Blue) digital data bus [1]-12BDI(6)Color (Blue) digital data bus [1]-13BDI(5)Color (Blue) digital data bus [2]-14BDI(4)Color (Blue) digital data bus [2]-15BDI(2)Color (Blue) digital data bus [3]-16BDI(2)Color (Blue) digital data bus [3]-17BDI(1)Color (Blue) digital data bus [1]-18BDI(0)Color (Glue) digital data bus [1]-20SGSignal ground-21GDI(7)Color (Green) digital data bus [1]-22GDI[6]Color (Green) digital data bus [6]-23GDI(7)Color (Green) digital data bus [6]-24GDI[6]Color (Green) digital data bus [1]-25GDI[3]Color (Green) digital data bus [1]-26GDI[2]Color (Green) digital data bus [2]-27GDI[3]Color (Green)</td> <td>1         102           3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A[16]         MDM address bus [16]           14         A[14]         MDM address bus [12]           16         A[10]         MDM address bus [6]           17         A[8]         MDM address bus [6]           19         A[4]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [2]           21         A[0]         MDM address bus [2]           22         +5.1VB         +5V           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal</td>	CN20PWA-F-SLG (CN20) $\leftrightarrow$ > PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI(9)Color (Blue) digital data bus [0]-10BDI(8)Color (Blue) digital data bus [1]-12BDI(6)Color (Blue) digital data bus [1]-13BDI(5)Color (Blue) digital data bus [2]-14BDI(4)Color (Blue) digital data bus [2]-15BDI(2)Color (Blue) digital data bus [3]-16BDI(2)Color (Blue) digital data bus [3]-17BDI(1)Color (Blue) digital data bus [1]-18BDI(0)Color (Glue) digital data bus [1]-20SGSignal ground-21GDI(7)Color (Green) digital data bus [1]-22GDI[6]Color (Green) digital data bus [6]-23GDI(7)Color (Green) digital data bus [6]-24GDI[6]Color (Green) digital data bus [1]-25GDI[3]Color (Green) digital data bus [1]-26GDI[2]Color (Green) digital data bus [2]-27GDI[3]Color (Green)	1         102           3         +12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2CS-0         SRAM chip select signal           8         +5.1VB         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5.1VB         +5V           13         A[16]         MDM address bus [16]           14         A[14]         MDM address bus [12]           16         A[10]         MDM address bus [6]           17         A[8]         MDM address bus [6]           19         A[4]         MDM address bus [0]           20         A[2]         MDM address bus [0]           21         A[0]         MDM address bus [2]           21         A[0]         MDM address bus [2]           22         +5.1VB         +5V           22         +5.1VB         +5V           23         CEP1RST-0         CEP1 reset signal
21       D[7]       ROM data bus [7]       -         22       GS2-0       Chip select signal       L         24       A[3]       ROM address bus [3]       -         24       A[3]       ROM address bus [1]       -         25       A[7]       ROM address bus [1]       -         26       A[7]       ROM address bus [1]       -         26       A[7]       ROM address bus [1]       -         28       A[11]       ROM address bus [1]       -         30       A[15]       ROM address bus [1]       -         30       A[15]       ROM address bus [1]       -         31       A[17]       ROM address bus [1]       -         32       ROMDT-0       Download board connection detection signal       L         34       ROMLD-1       External ROM loading status signal       L         35       FIN LV_S.PMR, FIN-LV_S.VR, FIN-COV-SW, FIN-COV-SW, TIN LV_S.PMR, FIN-EW-COV-SW, TIN LV_S.PMR, FIN-EW-COV-SW, TIN LV_S.PMR, FINE-COV-SW, TIN LY, S.PMR, FINE-COV-SW, TIN LY, S.PMR, FINE COV-SW, TIN LY, S.PMR, FINE COV-SW, TIN LY, S.PMR, FI	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           #24VD1         +24V         -           Black developer lifting clutch drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           51.VB         +5V         -         -           NC         Not connected         -         -           NC         Not connected         -         -           Symbol         Name         Active         -           S1VB         +5V         -         -           DATA6         System data bus [0]         -         -           DATA6         <	38         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [20]         -           61         NC         Not connected         -           62         NC         Not connected         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHOENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RSTO           B30         SG           B21         SG           B23         RSTO           B30         SG           CN118         PWA-F-SYS (           PINO         Symbol           1         XSCL-1A	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System status busy     L       Status data     -       System command acknowledge     L       System command error     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -	Age         CLK2         Clock (2) input	CN20PWA-F-SLG (CN20) <> PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BD19Color (Blue) digital data bus [9]-10BD18Color (Blue) digital data bus [7]-12BD16Color (Blue) digital data bus [1]-13BD15Color (Blue) digital data bus [1]-14BD14Color (Blue) digital data bus [2]-15BD13Color (Blue) digital data bus [1]-16BD12Color (Blue) digital data bus [1]-17BD11Color (Blue) digital data bus [1]-18BD12Color (Glue) digital data bus [1]-19SGSignal ground-20SGSignal ground-21GD18Color (Green) digital data bus [1]-22GD18Color (Green) digital data bus [1]-23GD17Color (Green) digital data bus [1]-24GD16Color (Green) digital data bus [1]-25GD18Color (Green) digital data bus [1]-26GD19Color (Green) digital data bus [2]-27 <t< td=""><td>1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1        </td></t<>	1         12VB         +12V           4         +3.3VB         +3.3V           5         MOD2DMA-1
21         D(7)         POM data bus [7]         .           23         A(1)         POM address bus [1]         .         3         4         2         4         4 <td>CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           Black developer iffling clutch drive signal         -           USTFL         Toner bag full detection sensor signal         -           F1VB         +5V         -           *5.1VB         +5V         -           *5.1VB         +5V         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Signal ground         -         -           Symbol         Name         Active           DATA6         System data bus [0]         -     <td>38         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [17]         -           56         DO17         Memory data bus [18]         -           58         DO18         Memory data bus [20]         -           61         NC         Not connected         -           62         NC         Not connected         -</td><td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IHCLK1           B16         SG           B17         IHSYNC0           B18         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARST0           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A<!--</td--><td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -</td><td>A9         CLK2         Clock (2) input        </td><td>CN20PWA-F-SLG (CN20) <math>\leftrightarrow</math>&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9)Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [6]-11BDI[6]Color (Blue) digital data bus [7]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[6]Color (Blue) digital data bus [7]-14BDI[6]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Green) digital data bus [0]-22GDI[7]Color (Green) digital data bus [0]-23GDI[7]Color (Green) digital data bus [1]-24GDI[8]Color (Green) digital data bus [1]-25GDI[1]Color (Green) digital data bus [2]-26GDI[2]Color (Green) digital data bus [6]-27GDI[1]Color (Green) digital data bus [6]-28GDI[2]Color (Green) digital data bus [6]-29GDI</td><td>1         1         1         1           3         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           10         CLKOE-1         Clock out enable signal         -           11         TXENZ-1         TX enable signal         -           12         +5.1VB         +5V         -           13         A[16]         MDM address bus [16]         -           14         A[11]         MDM address bus [12]         -           16         A101         MDM address bus [10]         -           17         A[8]         MDM address bus [12]         -           18         A[6]         MDM address bus [14]         -           20         A[2]         MDM address bus [14]         -           21         A[0]         MDM address bus [12]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 restesignal         -           2</td></td></td>	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           #24VD1         +24V         -           Black developer iffling clutch drive signal         -           USTFL         Toner bag full detection sensor signal         -           F1VB         +5V         -           *5.1VB         +5V         -           *5.1VB         +5V         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Signal ground         -         -           Symbol         Name         Active           DATA6         System data bus [0]         - <td>38         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [17]         -           56         DO17         Memory data bus [18]         -           58         DO18         Memory data bus [20]         -           61         NC         Not connected         -           62         NC         Not connected         -</td> <td>B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IHCLK1           B16         SG           B17         IHSYNC0           B18         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARST0           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A<!--</td--><td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -</td><td>A9         CLK2         Clock (2) input        </td><td>CN20PWA-F-SLG (CN20) <math>\leftrightarrow</math>&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9)Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [6]-11BDI[6]Color (Blue) digital data bus [7]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[6]Color (Blue) digital data bus [7]-14BDI[6]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Green) digital data bus [0]-22GDI[7]Color (Green) digital data bus [0]-23GDI[7]Color (Green) digital data bus [1]-24GDI[8]Color (Green) digital data bus [1]-25GDI[1]Color (Green) digital data bus [2]-26GDI[2]Color (Green) digital data bus [6]-27GDI[1]Color (Green) digital data bus [6]-28GDI[2]Color (Green) digital data bus [6]-29GDI</td><td>1         1         1         1           3         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           10         CLKOE-1         Clock out enable signal         -           11         TXENZ-1         TX enable signal         -           12         +5.1VB         +5V         -           13         A[16]         MDM address bus [16]         -           14         A[11]         MDM address bus [12]         -           16         A101         MDM address bus [10]         -           17         A[8]         MDM address bus [12]         -           18         A[6]         MDM address bus [14]         -           20         A[2]         MDM address bus [14]         -           21         A[0]         MDM address bus [12]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 restesignal         -           2</td></td>	38         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         /CS2         Chip select signal (2)         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [17]         -           56         DO17         Memory data bus [18]         -           58         DO18         Memory data bus [20]         -           61         NC         Not connected         -           62         NC         Not connected         -	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IHCLK1           B16         SG           B17         IHSYNC0           B18         SG           B21         IDCLK           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARST0           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A </td <td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -</td> <td>A9         CLK2         Clock (2) input        </td> <td>CN20PWA-F-SLG (CN20) <math>\leftrightarrow</math>&gt; PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9)Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [6]-11BDI[6]Color (Blue) digital data bus [7]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[6]Color (Blue) digital data bus [7]-14BDI[6]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Green) digital data bus [0]-22GDI[7]Color (Green) digital data bus [0]-23GDI[7]Color (Green) digital data bus [1]-24GDI[8]Color (Green) digital data bus [1]-25GDI[1]Color (Green) digital data bus [2]-26GDI[2]Color (Green) digital data bus [6]-27GDI[1]Color (Green) digital data bus [6]-28GDI[2]Color (Green) digital data bus [6]-29GDI</td> <td>1         1         1         1           3         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           10         CLKOE-1         Clock out enable signal         -           11         TXENZ-1         TX enable signal         -           12         +5.1VB         +5V         -           13         A[16]         MDM address bus [16]         -           14         A[11]         MDM address bus [12]         -           16         A101         MDM address bus [10]         -           17         A[8]         MDM address bus [12]         -           18         A[6]         MDM address bus [14]         -           20         A[2]         MDM address bus [14]         -           21         A[0]         MDM address bus [12]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 restesignal         -           2</td>	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LG board reset     L       Ground     -	A9         CLK2         Clock (2) input	CN20PWA-F-SLG (CN20) $\leftrightarrow$ > PWA-F-CCD (CN19)Pin NoSymbolNameActive1SGSignal ground-2SGSignal ground-3+3.3VA+3.3V-4+3.3VA+3.3V-5+3.3VA+3.3V-6+3.3VA+3.3V-7SGSignal ground-8NCNot connected-9BDI[9)Color (Blue) digital data bus [9]-10BDI[8]Color (Blue) digital data bus [6]-11BDI[6]Color (Blue) digital data bus [7]-12BDI[6]Color (Blue) digital data bus [6]-13BDI[6]Color (Blue) digital data bus [7]-14BDI[6]Color (Blue) digital data bus [1]-15BDI[2]Color (Blue) digital data bus [2]-16BDI[2]Color (Blue) digital data bus [1]-17BDI[1]Color (Green) digital data bus [0]-22GDI[7]Color (Green) digital data bus [0]-23GDI[7]Color (Green) digital data bus [1]-24GDI[8]Color (Green) digital data bus [1]-25GDI[1]Color (Green) digital data bus [2]-26GDI[2]Color (Green) digital data bus [6]-27GDI[1]Color (Green) digital data bus [6]-28GDI[2]Color (Green) digital data bus [6]-29GDI	1         1         1         1           3         +12V         -           4         +3.3VB         +3.3V         -           5         MOD2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM chip select signal         -           10         CLKOE-1         Clock out enable signal         -           11         TXENZ-1         TX enable signal         -           12         +5.1VB         +5V         -           13         A[16]         MDM address bus [16]         -           14         A[11]         MDM address bus [12]         -           16         A101         MDM address bus [10]         -           17         A[8]         MDM address bus [12]         -           18         A[6]         MDM address bus [14]         -           20         A[2]         MDM address bus [14]         -           21         A[0]         MDM address bus [12]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 restesignal         -           2
21         D(T)         FOM data bus [T)         -           23         A(1)         ROM address bus [3)         -         -           24         A(3)         ROM address bus [3)         -         -           26         A(3)         ROM address bus [3)         -         -           26         A(7)         ROM address bus [1)         -         -           28         A(11)         ROM address bus [1)         -         -           29         A(13)         ROM address bus [1)         -         -           30         A(15)         ROM address bus [11)         -         -           31         A(17)         ROM address bus [11)         -         -           32         ROMD-O         Download boards on conscion detection signal         L         14         SG           33         +5.1VP         +5V         -	CLMFOH         Upper transport clutch (Low speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           +24VD1         +24V         -           +24VD1         +24V         -           HVD1         +24V         -           PROLE         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag full detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           51.VB         +5V         -         -           VC         Not connected         -         -           NC         Not connected         -         -           Symbol         Name         Active         -           SG         Signal ground         -         -           DATA         System data bus [0]         -         -           SG         Signal argund         -         -           DATA2<	38         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         ICS2         Chip select signal (2)         -           47         DOMB2         Output disable/write mask (2)         -           47         DOMB2         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [18]         -           58         DO18         Memory data bus [20]         -           61         NC         Not connected         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         DFFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         INCLK1           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B30         SG           CN118         PWA-F-SYS (O           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YO-1A </td <td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Ground     -       Oround     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (utput]     L       Data enable of the vertical scanning direction (input]     L       Coround     -     -       Data enable of the vertical scanning direction (input]     L       CB coard reset     L     -       Ground     -     -       Data enable of the vertical scanning direction (input]     L    <tr< td=""><td>79         CLR2         Clock (2) input         -           80         NCC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           84         43 3VA         -         -           85         SG         Signal ground         -           86         DO33         Memory data bus [33]         -           87         DO33         Memory data bus [33]         -           88         DO34         Memory data bus [35]         -           90         4.3.3VA         +3.3V         -           91         DO36         Memory data bus [36]         -           92         DO37         Memory data bus [38]         -           94         DO39         Memory data bus [39]         -           95         DO40         Memory data bus [40]         -           96         DO41         Memory data bus [41]         -           97         DO41         Memory data bus [42]         -           99         DO42         Memory data bus [44]         -           101         DO44         Memory data bus [47]         <t< td=""><td>CN20PWA-F-SLG (CN20) &lt;&gt; PWA-F-CCD (CN19)<math>1 is Gamer in the interval interval</math></td><td>2         1+2V         -           3         1+2V         -           4         43.3VB         +43.3V         -           5         MOO2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM dhip select signal         -           9         MEMPO2-0         SRAM data read signal         -           10         CLKOE-1         Clock out enable signal         -           11         TX enable signal         -         -           12         45.1VB         +5V         -           13         At16         MDM address bus [16]         -           14         At14         MDM address bus [10]         -           15         At12         MDM address bus [10]         -           16         At10         MDM address bus [10]         -           21         At01         MDM address bus [2]         -           22         45.1VB         +5V         -         -           23         CEPTRST-0         CEPT rest signal         -         -           24         45.1VB         +5V         -         -</td></t<></td></tr<></td>	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Ground     -       Oround     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (utput]     L       Data enable of the vertical scanning direction (input]     L       Coround     -     -       Data enable of the vertical scanning direction (input]     L       CB coard reset     L     -       Ground     -     -       Data enable of the vertical scanning direction (input]     L <tr< td=""><td>79         CLR2         Clock (2) input         -           80         NCC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           84         43 3VA         -         -           85         SG         Signal ground         -           86         DO33         Memory data bus [33]         -           87         DO33         Memory data bus [33]         -           88         DO34         Memory data bus [35]         -           90         4.3.3VA         +3.3V         -           91         DO36         Memory data bus [36]         -           92         DO37         Memory data bus [38]         -           94         DO39         Memory data bus [39]         -           95         DO40         Memory data bus [40]         -           96         DO41         Memory data bus [41]         -           97         DO41         Memory data bus [42]         -           99         DO42         Memory data bus [44]         -           101         DO44         Memory data bus [47]         <t< td=""><td>CN20PWA-F-SLG (CN20) &lt;&gt; PWA-F-CCD (CN19)<math>1 is Gamer in the interval interval</math></td><td>2         1+2V         -           3         1+2V         -           4         43.3VB         +43.3V         -           5         MOO2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM dhip select signal         -           9         MEMPO2-0         SRAM data read signal         -           10         CLKOE-1         Clock out enable signal         -           11         TX enable signal         -         -           12         45.1VB         +5V         -           13         At16         MDM address bus [16]         -           14         At14         MDM address bus [10]         -           15         At12         MDM address bus [10]         -           16         At10         MDM address bus [10]         -           21         At01         MDM address bus [2]         -           22         45.1VB         +5V         -         -           23         CEPTRST-0         CEPT rest signal         -         -           24         45.1VB         +5V         -         -</td></t<></td></tr<>	79         CLR2         Clock (2) input         -           80         NCC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           84         43 3VA         -         -           85         SG         Signal ground         -           86         DO33         Memory data bus [33]         -           87         DO33         Memory data bus [33]         -           88         DO34         Memory data bus [35]         -           90         4.3.3VA         +3.3V         -           91         DO36         Memory data bus [36]         -           92         DO37         Memory data bus [38]         -           94         DO39         Memory data bus [39]         -           95         DO40         Memory data bus [40]         -           96         DO41         Memory data bus [41]         -           97         DO41         Memory data bus [42]         -           99         DO42         Memory data bus [44]         -           101         DO44         Memory data bus [47] <t< td=""><td>CN20PWA-F-SLG (CN20) &lt;&gt; PWA-F-CCD (CN19)<math>1 is Gamer in the interval interval</math></td><td>2         1+2V         -           3         1+2V         -           4         43.3VB         +43.3V         -           5         MOO2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM dhip select signal         -           9         MEMPO2-0         SRAM data read signal         -           10         CLKOE-1         Clock out enable signal         -           11         TX enable signal         -         -           12         45.1VB         +5V         -           13         At16         MDM address bus [16]         -           14         At14         MDM address bus [10]         -           15         At12         MDM address bus [10]         -           16         At10         MDM address bus [10]         -           21         At01         MDM address bus [2]         -           22         45.1VB         +5V         -         -           23         CEPTRST-0         CEPT rest signal         -         -           24         45.1VB         +5V         -         -</td></t<>	CN20PWA-F-SLG (CN20) <> PWA-F-CCD (CN19) $1 is Gamer in the interval interval$	2         1+2V         -           3         1+2V         -           4         43.3VB         +43.3V         -           5         MOO2DMA-1         Mode2 DMA signal         -           6         SG         Signal ground         -           7         MEM2CS-0         SRAM dhip select signal         -           9         MEMPO2-0         SRAM data read signal         -           10         CLKOE-1         Clock out enable signal         -           11         TX enable signal         -         -           12         45.1VB         +5V         -           13         At16         MDM address bus [16]         -           14         At14         MDM address bus [10]         -           15         At12         MDM address bus [10]         -           16         At10         MDM address bus [10]         -           21         At01         MDM address bus [2]         -           22         45.1VB         +5V         -         -           23         CEPTRST-0         CEPT rest signal         -         -           24         45.1VB         +5V         -         -
21         D(T)         POM data bus [T)         -	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           +24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           -24VD1         +24V         -           EAWD1         +24V         -           EMDRCB         Drum cleaner brush motor drive signal         -           CLKDVP         Black developer lifting clutch drive signal         -           CLKDV         Black developer lifting clutch drive signal         -           CLKDV         Black developer lifting clutch drive signal         -           VC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Symbol         Name         Active           Symbol         Name         Active           DATA         System data bus [0]         -           DATA4         System data bus [4]         -           DATA4         System data bus [6]         -           DATA4         System data bus [10]         - <t< td=""><td>38         A10         Memory address bus (10)         -           40         43.3VA         43.3V         -           41         43.3VA         +3.3V         -           42         CLK0         Clock (0) iput         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         CS2         Chip select signal (2)         -           47         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [20]         -           57         DO18         Memory data bus [21]         -           60         DO20         Memory data bus [21]         -</td><td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         ST3           B10         CACK           B11         CERR           B2         SG           B12         SG           B13         DFFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A</td><td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (utput)!     L       LB connected     -       Data enable of the vertical scanning direction (input)!     L       LG bard reset     L       Ground     -       Data enable of the vertical scanning direction (input)!     L       LG bard reset     H       LDD data transmission clock     -       LCD data transm</td><td>1/3         CLR2         Clock (2) input         -           80         NCC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           83         SCL         PD serial clock         -           84         13/W         -         -           85         SG         Signal ground         -           86         DO32         Memory data bus [33]         -           87         DO33         Memory data bus [35]         -           90         4.3.3VA         +3.3V         -           91         DO36         Memory data bus [36]         -           92         DO37         Memory data bus [36]         -           94         DO38         Memory data bus [36]         -           94         DO38         Memory data bus [42]         -           96         DO40         -         -           97         DO41         Memory data bus [44]         -           100         DO43         Memory data bus [44]         -           101         DO44         Memory data bus [44]         -      <t< td=""><td>CN20         PWA-F-SLG (CN20) <math>&lt;&gt;</math> PWA-F-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         4.33VA         4.33V         -           4         +33VA         +33V         -           5         +33VA         +33V         -           6         +33VA         +33V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           10         BDI(9)         Color (Blue) digital data bus [8]         -           11         BDI(7)         Color (Blue) digital data bus [8]         -           12         BDI(8)         Color (Blue) digital data bus [6]         -           13         BDI(9)         Color (Blue) digital data bus [6]         -           14         BDI(1)         Color (Blue) digital data bus [1]         -           18         BDI(2)         Color (Blue) digital data bus [1]         -           19         SG         Signal ground         -           21         GDI(2)         Color (Green) digital data bus [1]         -           22         GDI(1)         Color (Green)</td><td>3         112VB         +12V           4         +33VB         +23V           5         MOO2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEMCS-0         SRAM chip select signal           9         MEMRD2-0         SRAM chip select signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         X enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(16)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [10]           18         A(8)         MDM address bus [10]           20         A(2)         MDM address bus [2]         -           21         A(10)         MDM address bus [2]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 reset signal         -           24         +5.1VB         +5V         -           25</td></t<></td></t<>	38         A10         Memory address bus (10)         -           40         43.3VA         43.3V         -           41         43.3VA         +3.3V         -           42         CLK0         Clock (0) iput         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         CS2         Chip select signal (2)         -           47         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           53         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [20]         -           57         DO18         Memory data bus [21]         -           60         DO20         Memory data bus [21]         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         ST3           B10         CACK           B11         CERR           B2         SG           B12         SG           B13         DFFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         WF-1A	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal for image data processing     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction     L       Ground     -       Data enable of the vertical scanning direction (utput)!     L       LB connected     -       Data enable of the vertical scanning direction (input)!     L       LG bard reset     L       Ground     -       Data enable of the vertical scanning direction (input)!     L       LG bard reset     H       LDD data transmission clock     -       LCD data transm	1/3         CLR2         Clock (2) input         -           80         NCC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           83         SCL         PD serial clock         -           84         13/W         -         -           85         SG         Signal ground         -           86         DO32         Memory data bus [33]         -           87         DO33         Memory data bus [35]         -           90         4.3.3VA         +3.3V         -           91         DO36         Memory data bus [36]         -           92         DO37         Memory data bus [36]         -           94         DO38         Memory data bus [36]         -           94         DO38         Memory data bus [42]         -           96         DO40         -         -           97         DO41         Memory data bus [44]         -           100         DO43         Memory data bus [44]         -           101         DO44         Memory data bus [44]         - <t< td=""><td>CN20         PWA-F-SLG (CN20) <math>&lt;&gt;</math> PWA-F-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         4.33VA         4.33V         -           4         +33VA         +33V         -           5         +33VA         +33V         -           6         +33VA         +33V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           10         BDI(9)         Color (Blue) digital data bus [8]         -           11         BDI(7)         Color (Blue) digital data bus [8]         -           12         BDI(8)         Color (Blue) digital data bus [6]         -           13         BDI(9)         Color (Blue) digital data bus [6]         -           14         BDI(1)         Color (Blue) digital data bus [1]         -           18         BDI(2)         Color (Blue) digital data bus [1]         -           19         SG         Signal ground         -           21         GDI(2)         Color (Green) digital data bus [1]         -           22         GDI(1)         Color (Green)</td><td>3         112VB         +12V           4         +33VB         +23V           5         MOO2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEMCS-0         SRAM chip select signal           9         MEMRD2-0         SRAM chip select signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         X enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(16)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [10]           18         A(8)         MDM address bus [10]           20         A(2)         MDM address bus [2]         -           21         A(10)         MDM address bus [2]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 reset signal         -           24         +5.1VB         +5V         -           25</td></t<>	CN20         PWA-F-SLG (CN20) $<>$ PWA-F-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         4.33VA         4.33V         -           4         +33VA         +33V         -           5         +33VA         +33V         -           6         +33VA         +33V         -           7         SG         Signal ground         -           7         SG         Signal ground         -           10         BDI(9)         Color (Blue) digital data bus [8]         -           11         BDI(7)         Color (Blue) digital data bus [8]         -           12         BDI(8)         Color (Blue) digital data bus [6]         -           13         BDI(9)         Color (Blue) digital data bus [6]         -           14         BDI(1)         Color (Blue) digital data bus [1]         -           18         BDI(2)         Color (Blue) digital data bus [1]         -           19         SG         Signal ground         -           21         GDI(2)         Color (Green) digital data bus [1]         -           22         GDI(1)         Color (Green)	3         112VB         +12V           4         +33VB         +23V           5         MOO2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEMCS-0         SRAM chip select signal           9         MEMRD2-0         SRAM chip select signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         X enable signal           12         +5.1VB         +5V           13         A(16)         MDM address bus [16]           14         A(16)         MDM address bus [17]           15         A(12)         MDM address bus [10]           16         A(10)         MDM address bus [10]           17         A(8)         MDM address bus [10]           18         A(8)         MDM address bus [10]           20         A(2)         MDM address bus [2]         -           21         A(10)         MDM address bus [2]         -           22         +5.1VB         +5V         -           23         CEP1RST-0         CEP1 reset signal         -           24         +5.1VB         +5V         -           25
21         D(T)         ROM data bus [T)         -           23         A(1)         ROM address bus [3)         -         -           24         A[3]         ROM address bus [3]         -         -           25         A[5]         ROM address bus [1]         -         -           26         A[7]         ROM address bus [1]         -         -           28         A[11]         ROM address bus [1]         -         -           29         A[13]         ROM address bus [1]         -         -           30         A[15]         ROM address bus [1]         -         -           31         A[17]         ROM address bus [1]         -         -           32         ROMD-0         Domioal board contexton detection signal         L         -           33         F5 tWB         +5V         -         -         -           34         ROMD-1         Domioal board contexton detection signal         -         -           35         RGTSTSWM         Main reset signal         -         -           46         F242VD1         +24V         -         -         -           74         A6         Analog ground         - <td>CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           12VD1         +24V         -           12VD1         +24V         -           124VD1         +24V         -           125(TP         Toner bag full detection sensor signal         -           124VD1         +24V         -           124VD1</td> <td>38         A10         Memory address bus [10]         -           40         4.3.3VA         4.3.3V         -           41         4.3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [17]         -           56         DO17         Memory data bus [19]         -           58         DO19         Memory data bus [20]         -           60         DO20         Memory data bus [20]         -           61         NCE         Not connected         -     <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B12         SG           B13         IFCLK_1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B28         SG           B27         NC(RESERVE1)           B28         RESERVE2           B30         SG           B30         SG           B30         SG           B20N-0A         7           CPPOW-1A         8           B1DCLK-1A         9           DDAT-1A         10           DDAT-1A           &lt;</td><td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command error     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -       Data enable of the vertical scanning direction (input)     L       DCD data latch pulse     H</td><td>19         CLR2         Lobox (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           83         SCL         PD serial clock         -           84         43.3VA         43.3V         -           86         DG32         Memory data bus [32]         -           87         DG32         Memory data bus [34]         -           89         DQ34         Memory data bus [36]         -           91         DQ36         Memory data bus [37]         -           92         DQ37         Memory data bus [39]         -           94         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DC40         Memory data bus [41]         -           96         SG         Signal ground         -           97         DQ43         Memory data bus [45]         -           100         DQ44         Memory data bus [46]</td><td>CN20         PWAF-SLG (CN20) &lt;&gt; PWAF-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         4         3.3VA         +0.3V         -           4         43.3VA         +0.3V         -           6         +3.3VA         +0.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus (9)         -           10         BD(8)         Color (Blue) digital data bus (1)         -           11         BD(1)         Color (Blue) digital data bus (1)         -           12         BD(1)         Color (Blue) digital data bus (2)         -           13         BD(1)         Color (Blue) digital data bus (2)         -           14         BD(1)         Color (Blue) digital data bus (2)         -           15         BD(2)         Color (Blue) digital data bus (2)         -           16         BD(2)         Color (Blue) digital data bus (1)         -           17         BD(1)         Color (Green) digital data bus (1)         -</td><td>a         112/06         +12/V           4         +13/3/VB         +12/V           4         +3/3/VB         +12/V           4         +12/VB         +12/V           6         SG         Signal ground           7         MEM2C3-O         SRAM chip select signal          </td></td>	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           12VD1         +24V         -           12VD1         +24V         -           124VD1         +24V         -           125(TP         Toner bag full detection sensor signal         -           124VD1         +24V         -           124VD1	38         A10         Memory address bus [10]         -           40         4.3.3VA         4.3.3V         -           41         4.3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [17]         -           56         DO17         Memory data bus [19]         -           58         DO19         Memory data bus [20]         -           60         DO20         Memory data bus [20]         -           61         NCE         Not connected         - <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B12         SG           B13         IFCLK_1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B28         SG           B27         NC(RESERVE1)           B28         RESERVE2           B30         SG           B30         SG           B30         SG           B20N-0A         7           CPPOW-1A         8           B1DCLK-1A         9           DDAT-1A         10           DDAT-1A           &lt;</td> <td>+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command error     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -       Data enable of the vertical scanning direction (input)     L       DCD data latch pulse     H</td> <td>19         CLR2         Lobox (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           83         SCL         PD serial clock         -           84         43.3VA         43.3V         -           86         DG32         Memory data bus [32]         -           87         DG32         Memory data bus [34]         -           89         DQ34         Memory data bus [36]         -           91         DQ36         Memory data bus [37]         -           92         DQ37         Memory data bus [39]         -           94         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DC40         Memory data bus [41]         -           96         SG         Signal ground         -           97         DQ43         Memory data bus [45]         -           100         DQ44         Memory data bus [46]</td> <td>CN20         PWAF-SLG (CN20) &lt;&gt; PWAF-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         4         3.3VA         +0.3V         -           4         43.3VA         +0.3V         -           6         +3.3VA         +0.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus (9)         -           10         BD(8)         Color (Blue) digital data bus (1)         -           11         BD(1)         Color (Blue) digital data bus (1)         -           12         BD(1)         Color (Blue) digital data bus (2)         -           13         BD(1)         Color (Blue) digital data bus (2)         -           14         BD(1)         Color (Blue) digital data bus (2)         -           15         BD(2)         Color (Blue) digital data bus (2)         -           16         BD(2)         Color (Blue) digital data bus (1)         -           17         BD(1)         Color (Green) digital data bus (1)         -</td> <td>a         112/06         +12/V           4         +13/3/VB         +12/V           4         +3/3/VB         +12/V           4         +12/VB         +12/V           6         SG         Signal ground           7         MEM2C3-O         SRAM chip select signal          </td>	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B12         SG           B13         IFCLK_1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B28         SG           B27         NC(RESERVE1)           B28         RESERVE2           B30         SG           B30         SG           B30         SG           B20N-0A         7           CPPOW-1A         8           B1DCLK-1A         9           DDAT-1A         10           DDAT-1A           <	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command error     L       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -       Ground     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -       Data enable of the vertical scanning direction (input)     L       DCD data latch pulse     H	19         CLR2         Lobox (2) input         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           83         SCL         PD serial clock         -           84         43.3VA         43.3V         -           86         DG32         Memory data bus [32]         -           87         DG32         Memory data bus [34]         -           89         DQ34         Memory data bus [36]         -           91         DQ36         Memory data bus [37]         -           92         DQ37         Memory data bus [39]         -           94         DQ38         Memory data bus [39]         -           94         DQ39         Memory data bus [39]         -           94         DQ39         Memory data bus [40]         -           95         DC40         Memory data bus [41]         -           96         SG         Signal ground         -           97         DQ43         Memory data bus [45]         -           100         DQ44         Memory data bus [46]	CN20         PWAF-SLG (CN20) <> PWAF-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         4         3.3VA         +0.3V         -           4         43.3VA         +0.3V         -           6         +3.3VA         +0.3V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus (9)         -           10         BD(8)         Color (Blue) digital data bus (1)         -           11         BD(1)         Color (Blue) digital data bus (1)         -           12         BD(1)         Color (Blue) digital data bus (2)         -           13         BD(1)         Color (Blue) digital data bus (2)         -           14         BD(1)         Color (Blue) digital data bus (2)         -           15         BD(2)         Color (Blue) digital data bus (2)         -           16         BD(2)         Color (Blue) digital data bus (1)         -           17         BD(1)         Color (Green) digital data bus (1)         -	a         112/06         +12/V           4         +13/3/VB         +12/V           4         +3/3/VB         +12/V           4         +12/VB         +12/V           6         SG         Signal ground           7         MEM2C3-O         SRAM chip select signal
21         D(7)         ROM data bus [7]         -           23         A[1]         ROM address bus [3]         -           24         A[3]         ROM address bus [3]         -           25         A[3]         ROM address bus [1]         -           26         A[3]         ROM address bus [1]         -           28         A[1]         ROM address bus [1]         -           28         A[13]         ROM address bus [1]         -           29         A[13]         ROM address bus [1]         -           30         A[15]         ROM address bus [1]         -           31         A[17]         ROM address bus [1]         -           31         A[17]         ROM address bus [1]         -           31         A[17]         ROM address bus [1]         -           32         ROMD-1         External ROM loading status signal         -           34         ROMLD-1         External ROM loading status signal         -           7         ROST-SOL, TALV-SOL, SOL, SOL, SOL, SOL, SOL, SOL, SOL,	CLMFDH         Upper transport clutch (Low speed) drive signal         -           244VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (righ speed) drive signal         -           24VD1         +24V         -           24VD1         +24V         -           24VD1         +24V         -           9000         Signal ground         -           0FGLB         Drum cleaner brush motor drive signal         -           0FGLB         Drum cleaner brush motor drive signal         -           0FGLB         Drum cleaner brush motor drive signal         -           0FGLB         Not connected         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Symbol         Name         Active           51.VB         +5V         -           Symbol         Name         Active           DATA0         System data bus [0]         -           DATA2         System data bus [1]         -           DATA4         System data bus [1]         -	88         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         CS2         Chip select signal (2)         -           46         DOMB2         Output disable/write mask (2)         -           47         DOMB3         Output disable/write mask (2)         -           48         NC         Not connected         -           49         +3.3VA         +3.3V         -           50         NC         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           56         D016         Memory data bus [17]         -           56         D017         Memory data bus [20]         -           61         Not connected         -         -           62         NC         Not connected         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B13         DEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         HISYNCO           B20         SG           B21         SG           B22         SG           B23         IHDCLK           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B10         SACL-1A           2         LP-1A           3         WF-1A           4         YD-1A           5         INVGND	+5V        System command busy     L       Command data     -       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command error     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -     -       Data enable of the horizontal scanning direction     -       Data enable of the vertical scanning direction (output)     L       Ground     -     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     L     -       Ground     -     -       Data enable of the vertical scanning direction (input)     L       LGC board reset     -     -       Data enable of the vertical scanning direction (input)     L       LDD data tatch pulse     H       LD	19         CLR2         Lobox (2) riput         -           80         NC         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial clock         -           83         SCL         PD serial clock         -           84         43.3VA         43.3V         -           86         DG32         Memory data bus [32]         -           87         DG33         Memory data bus [34]         -           88         DG34         Memory data bus [35]         -           91         DG36         Memory data bus [36]         -           92         DG37         Memory data bus [37]         -           93         DG38         Memory data bus [39]         -           94         DG39         Memory data bus [30]         -           95         DC40         Memory data bus [40]         -           96         SG         Signal ground         -           97         DC41         Memory data bus [42]         -           98         DC42         Memory data bus [44]         -           100         DC44         Memory data bus [45]	CN20PWA-F-SLG (CN20) <> PWA-F-CCD (CN19)1SGSignal ground2SGSignal ground3+ 3.3VA+3.3V4+3.3VA+3.3V5+3.3VA+3.3V6+3.3VA+3.3V7SGSignal ground8NCNot connected9BD(9)Color (Blue) digital data bus [9)10BD(9)Color (Blue) digital data bus [17]11BD(9)Color (Blue) digital data bus [17]12BD(9)Color (Blue) digital data bus [16]13BD(9)Color (Blue) digital data bus [16]14BD(9)Color (Blue) digital data bus [16]15BD(9)Color (Blue) digital data bus [16]16BD(9)Color (Blue) digital data bus [17]17BD(1)Color (Blue) digital data bus [10]18BD(9)Color (Blue) digital data bus [2]19SGSignal ground20SGSignal ground21GD(9)Color (Green) digital data bus [1]22GD(1)Color (Green) digital data bus [1]23GD(1)Color (Green) digital data bus [1]24GD(1)Color (Green) digital data bus [2]25GD(1)Color (Green) digital data bus [2]26GD(1)Color (Green) digital data bus [2]26GD(1)Color (Green) digital data bus [2]27GD(3)Color (Green) digital data bus [2]28GD(1)Color (Green) digital data bus [2] <tr< td=""><td>3         1:29:6         1:39           4         1:39:0         1:39           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2C3-O         SRAM chip select signal           9         MEMRD2-O         SRAM chip select signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5:1VB         +5V           13         Ai[16]         MDM address bus [16]           14         Ai[16]         MDM address bus [12]           16         Ai[10]         MDM address bus [14]           17         Ai[8]         MDM address bus [14]           21         AQ         MDM address bus [14]           21         AQ         MDM address bus [14]           22         +5:1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5:1VB         +5V           25         GS         Signal ground           26         CEPCLK         System dock signal           27         SG         Signal ground           28         D(0]&lt;</td></tr<>	3         1:29:6         1:39           4         1:39:0         1:39           5         MOD2DMA-1         Mode2 DMA signal           6         SG         Signal ground           7         MEM2C3-O         SRAM chip select signal           9         MEMRD2-O         SRAM chip select signal           10         CLKOE-1         Clock out enable signal           11         TXEN2-1         TX enable signal           12         +5:1VB         +5V           13         Ai[16]         MDM address bus [16]           14         Ai[16]         MDM address bus [12]           16         Ai[10]         MDM address bus [14]           17         Ai[8]         MDM address bus [14]           21         AQ         MDM address bus [14]           21         AQ         MDM address bus [14]           22         +5:1VB         +5V           23         CEP1RST-0         CEP1 reset signal           24         +5:1VB         +5V           25         GS         Signal ground           26         CEPCLK         System dock signal           27         SG         Signal ground           28         D(0]<
21         D[7]	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           CLMDRB         Drum cleaner brush motor drive signal         -           DRCLB         Drum cleaner brush motor drive signal         -           USTFL         Toner bag (Ind detection sensor signal         -           CLKDVP         Black developer lifting clutch drive signal         -           StytD1         +24V         -           NC         Not connected         -           NC         Not connected         -           NC         Not connected         -           Symbol         Name         Active           Symbol         Signal ground         -           Symbol         Signal ground         -           DATA6         System data bus [0]         -           DATA6         System data bus [1]         -           DATA6         System data bus [1]         -           DATA7         System data b	84         A10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           45         CS2         Chip select signal (2)         -           46         DOMB2         Output disablewrite mask (2)         -           47         DOMB3         Output disablewrite mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [20]         -           57         DO18         Memory data bus [21]         -           60         D220         Memory data bus [21]         -           61         NC         Not connected         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B13         DEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         HISYNCO           B20         SG           B21         SG           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B10         SACMDA           7         CPPOW-1A           8         LDCLK-1A           9         LDDAT-1A           10         LDLT+1A	+5V            System command busy         L           Command data         -           System status acknowledge         L           System status busy         L           System status busy         L           System command acknowledge         L           System command error         L           Ground         -           Clock signal for image data processing         -           Ground         -           Clock signal for image data transmission         -           Ground         -           Ground         -           Clock signal output for image data transmission         -           Ground         -           Clock signal output for image data transmission         -           Ground         -           Data enable of the horizontal scanning direction (output)         L           Ground         -           Data enable of the vertical scanning direction (input)         L           LGC board reset         L           Ground         -           Data enable of the vertical scanning direction (input)         L           LGC board reset         -           Ground         -           Data	19         CLAZ         Lobox (C) mptut         -           60         NC(WP)         Not connected         -           81         NC(WP)         Not connected         -           82         SDA         PD serial data         -           83         SCL         PD serial colock         -           84         43.3V         43.3V         -           85         SG         Signal ground         -           86         DO34         Mennory data bus [32]         -           87         DO33         Menory data bus [34]         -           89         DO34         Menory data bus [35]         -           91         DO36         Menory data bus [37]         -           92         DO37         Menory data bus [39]         -           93         DO38         Menory data bus [30]         -           94         DO39         Menory data bus [40]         -           95         DC40         Menory data bus [42]         -           90         DC43         Menory data bus [41]         -           101         DC44         Menory data bus [41]         -           102         DC43         Menory databus [42] <td>Ch20         PWA-F-SLG (CN20) &lt;&gt; PWA-F-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         1433VA         +33V         -           4         +33VA         +33V         -           6         +33VA         +33V         -           6         +33VA         +33V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus [9]         -           11         BD(16)         Color (Blue) digital data bus [1         -           12         BD(16)         Color (Blue) digital data bus [1         -           13         BD(12)         Color (Blue) digital data bus [1         -           14         BD(12)         Color (Blue) digital data bus [1         -           15         BD(12)         Color (Blue) digital data bus [1         -           16         BD(12)         Color (Green digital data bus [1         -           17         BD(11)         Color (Green digital data bus [1         -           18         BO(12)         Co</td> <td>3         112V        </td>	Ch20         PWA-F-SLG (CN20) <> PWA-F-CCD (CN19)           Pin No         Signal ground         -           2         SG         Signal ground         -           3         1433VA         +33V         -           4         +33VA         +33V         -           6         +33VA         +33V         -           6         +33VA         +33V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus [9]         -           11         BD(16)         Color (Blue) digital data bus [1         -           12         BD(16)         Color (Blue) digital data bus [1         -           13         BD(12)         Color (Blue) digital data bus [1         -           14         BD(12)         Color (Blue) digital data bus [1         -           15         BD(12)         Color (Blue) digital data bus [1         -           16         BD(12)         Color (Green digital data bus [1         -           17         BD(11)         Color (Green digital data bus [1         -           18         BO(12)         Co	3         112V
121         D(7)         POM data bus [7]         -	CLMFDH         Upper transport clutch (Low speed) drive signal         -           244VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           244VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           SG         Signal ground         -           DRCLB         Drum cleaner brush motor drive signal         -           DFCLB         Drum cleaner brush motor drive signal         -           SUTFL         Tomer bag ful detection sensor signal         -           CLKDVP         Black developer iffling clutch drive signal         -           SVTC         Not connected         -           NC         Not connected         -           SYTD         +5V         -           USTFL         Tomer bag sensor drive signal         -           SG         Signal ground         -           DATAA         System data bus [0]         -           DATAA         System data bus [0]         -           DATAA         System data bus [1]         -           DATAA         System data bus [1] <t< td=""><td>BA10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           44         NC         Not connected         -           45         CS2         Chip select signal (2)         -           46         DOMB3         Output disablewrite mask (2)         -           47         DOMB3         Output disablewrite mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           55         O16         Memory data bus [16]         -           56         D017         Memory data bus [20]         -           61         NC         Not connected         -           62         NCE         Not connected         -           63         CKE1         Clock enable signal         -           6</td><td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B10         VACL1A           2         LP-1A           3         WF-1A           4         YD-1A           8         LDCLK-1A</td><td>+5V            System command busy         L           System status acknowledge         L           System status busy         L           System status busy         L           System command acknowledge         L           System command error         L           Ground         -           Clock signal input for image data processing         -           Ground         -           Horizontal scanning synchronized signal         L           Ground         -           Horizontal scanning synchronized signal         L           Ground         -           Clock signal output for image data transmission         -           Ground         -           Data enable of the vertical scanning direction         L           Ground         -           Data enable of the vertical scanning direction (input)         L           Lat enable of the vertical scanning direction (input)         L           Ground         -         -           Data enable of the vertical scanning direction (input)         L           LCD data transmission clock         -           LCD data transmission clock         -           LDD tata transmission clock         -     <!--</td--><td>79         CLAC         Cubox (C) mptit         -           60         NC(WP)         Not connected         -           61         NC(WP)         Not connected         -           62         SDA         PD serial data         -           63         SG         Signal ground         -           64         43 3VA         43.3V         -           65         SG         Signal ground         -           66         DC32         Memory data bus [32]         -           70         DC33         Memory data bus [34]         -           66         DC36         Memory data bus [34]         -           71         DC36         Memory data bus [34]         -           72         DC37         Memory data bus [34]         -           73         DC48         Memory data bus [34]         -           74         DC49         Memory data bus [44]         -           75         DC41         Memory data bus [44]         -           76         DC42         Memory data bus [45]         -           76         DC44         Memory data bus [44]         -           77         DC44         Memory data bus [45]</td><td>CH20PMA-F-CCD (CN19)PIN NoSymbolNameActive11SGSignal ground-2SGSignal ground4+3.3VA+4.3.3V6+3.3VA+4.3.3V7SGSignal ground8NCNot connected9BD(9)Color (Blue) digital data bus [910BD(9)Color (Blue) digital data bus [5]11BD(16)Color (Blue) digital data bus [5]12BD(16)Color (Blue) digital data bus [5]13BD(12)Color (Blue) digital data bus [1]14BD(14)Color (Blue) digital data bus [2]15BD(12)Color (Blue) digital data bus [1]16BD(12)Color (Blue) digital data bus [1]17BD(10)Color (Glue) digital data bus [1]18BD(10)Color (Green digital data bus [1]29GD(12)Color (Green digital data bus [1]20SGSignal ground21GD(12)Color (Green digital data bus [1]22GD(12)Color (Green digital data bus [1]23GD(12)Color (Green digital data bus [1]24GD(12)</td><td>1         1:12YB         1:12Y           4         1:33YB         1:33Y           5         MOD2DMA-1         Mode2 DMA signal           6         95         Signal ground           7         MEMO2:00         SFAM data read signal           1         1:12YEN2:-1         TX enable signal           1         1:12YB         -5YB           1         1:14         A1161           1         1:12YEN2:-1         TX enable signal           1         1:14         1:14           1:13         A1161         MOM address bus [14]           1:5         A112         MOM address bus [10]           1:6         A112         MOM address bus [10]           1:7         AB1         MOM address bus [10]           1:8         AB1         MOM address bus [10]           1:1         AQ2         MOM address bus [10]           2:2         +5:VB         -5:V           2:3         CEPTRST-0         CEPT rest signal           2:4         +5:VB         -5:V           2:5         SG         Signal ground           2:6         CEPTRST-0         CEPT rest signal           2:7         SG         Signal</td></td></t<>	BA10         Memory address bus [10]         -           40         +3.3VA         +3.3V         -           41         +3.3VA         +3.3V         -           42         CLK0         Clock (0) input         -           43         SG         Signal ground         -           44         NC         Not connected         -           44         NC         Not connected         -           45         CS2         Chip select signal (2)         -           46         DOMB3         Output disablewrite mask (2)         -           47         DOMB3         Output disablewrite mask (2)         -           48         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           55         O16         Memory data bus [16]         -           56         D017         Memory data bus [20]         -           61         NC         Not connected         -           62         NCE         Not connected         -           63         CKE1         Clock enable signal         -           6	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         SG           B22         SG           B23         IHDEN0           B24         SG           B25         IVDEN0           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B10         VACL1A           2         LP-1A           3         WF-1A           4         YD-1A           8         LDCLK-1A	+5V            System command busy         L           System status acknowledge         L           System status busy         L           System status busy         L           System command acknowledge         L           System command error         L           Ground         -           Clock signal input for image data processing         -           Ground         -           Horizontal scanning synchronized signal         L           Ground         -           Horizontal scanning synchronized signal         L           Ground         -           Clock signal output for image data transmission         -           Ground         -           Data enable of the vertical scanning direction         L           Ground         -           Data enable of the vertical scanning direction (input)         L           Lat enable of the vertical scanning direction (input)         L           Ground         -         -           Data enable of the vertical scanning direction (input)         L           LCD data transmission clock         -           LCD data transmission clock         -           LDD tata transmission clock         - </td <td>79         CLAC         Cubox (C) mptit         -           60         NC(WP)         Not connected         -           61         NC(WP)         Not connected         -           62         SDA         PD serial data         -           63         SG         Signal ground         -           64         43 3VA         43.3V         -           65         SG         Signal ground         -           66         DC32         Memory data bus [32]         -           70         DC33         Memory data bus [34]         -           66         DC36         Memory data bus [34]         -           71         DC36         Memory data bus [34]         -           72         DC37         Memory data bus [34]         -           73         DC48         Memory data bus [34]         -           74         DC49         Memory data bus [44]         -           75         DC41         Memory data bus [44]         -           76         DC42         Memory data bus [45]         -           76         DC44         Memory data bus [44]         -           77         DC44         Memory data bus [45]</td> <td>CH20PMA-F-CCD (CN19)PIN NoSymbolNameActive11SGSignal ground-2SGSignal ground4+3.3VA+4.3.3V6+3.3VA+4.3.3V7SGSignal ground8NCNot connected9BD(9)Color (Blue) digital data bus [910BD(9)Color (Blue) digital data bus [5]11BD(16)Color (Blue) digital data bus [5]12BD(16)Color (Blue) digital data bus [5]13BD(12)Color (Blue) digital data bus [1]14BD(14)Color (Blue) digital data bus [2]15BD(12)Color (Blue) digital data bus [1]16BD(12)Color (Blue) digital data bus [1]17BD(10)Color (Glue) digital data bus [1]18BD(10)Color (Green digital data bus [1]29GD(12)Color (Green digital data bus [1]20SGSignal ground21GD(12)Color (Green digital data bus [1]22GD(12)Color (Green digital data bus [1]23GD(12)Color (Green digital data bus [1]24GD(12)</td> <td>1         1:12YB         1:12Y           4         1:33YB         1:33Y           5         MOD2DMA-1         Mode2 DMA signal           6         95         Signal ground           7         MEMO2:00         SFAM data read signal           1         1:12YEN2:-1         TX enable signal           1         1:12YB         -5YB           1         1:14         A1161           1         1:12YEN2:-1         TX enable signal           1         1:14         1:14           1:13         A1161         MOM address bus [14]           1:5         A112         MOM address bus [10]           1:6         A112         MOM address bus [10]           1:7         AB1         MOM address bus [10]           1:8         AB1         MOM address bus [10]           1:1         AQ2         MOM address bus [10]           2:2         +5:VB         -5:V           2:3         CEPTRST-0         CEPT rest signal           2:4         +5:VB         -5:V           2:5         SG         Signal ground           2:6         CEPTRST-0         CEPT rest signal           2:7         SG         Signal</td>	79         CLAC         Cubox (C) mptit         -           60         NC(WP)         Not connected         -           61         NC(WP)         Not connected         -           62         SDA         PD serial data         -           63         SG         Signal ground         -           64         43 3VA         43.3V         -           65         SG         Signal ground         -           66         DC32         Memory data bus [32]         -           70         DC33         Memory data bus [34]         -           66         DC36         Memory data bus [34]         -           71         DC36         Memory data bus [34]         -           72         DC37         Memory data bus [34]         -           73         DC48         Memory data bus [34]         -           74         DC49         Memory data bus [44]         -           75         DC41         Memory data bus [44]         -           76         DC42         Memory data bus [45]         -           76         DC44         Memory data bus [44]         -           77         DC44         Memory data bus [45]	CH20PMA-F-CCD (CN19)PIN NoSymbolNameActive11SGSignal ground-2SGSignal ground4+3.3VA+4.3.3V6+3.3VA+4.3.3V7SGSignal ground8NCNot connected9BD(9)Color (Blue) digital data bus [910BD(9)Color (Blue) digital data bus [5]11BD(16)Color (Blue) digital data bus [5]12BD(16)Color (Blue) digital data bus [5]13BD(12)Color (Blue) digital data bus [1]14BD(14)Color (Blue) digital data bus [2]15BD(12)Color (Blue) digital data bus [1]16BD(12)Color (Blue) digital data bus [1]17BD(10)Color (Glue) digital data bus [1]18BD(10)Color (Green digital data bus [1]29GD(12)Color (Green digital data bus [1]20SGSignal ground21GD(12)Color (Green digital data bus [1]22GD(12)Color (Green digital data bus [1]23GD(12)Color (Green digital data bus [1]24GD(12)	1         1:12YB         1:12Y           4         1:33YB         1:33Y           5         MOD2DMA-1         Mode2 DMA signal           6         95         Signal ground           7         MEMO2:00         SFAM data read signal           1         1:12YEN2:-1         TX enable signal           1         1:12YB         -5YB           1         1:14         A1161           1         1:12YEN2:-1         TX enable signal           1         1:14         1:14           1:13         A1161         MOM address bus [14]           1:5         A112         MOM address bus [10]           1:6         A112         MOM address bus [10]           1:7         AB1         MOM address bus [10]           1:8         AB1         MOM address bus [10]           1:1         AQ2         MOM address bus [10]           2:2         +5:VB         -5:V           2:3         CEPTRST-0         CEPT rest signal           2:4         +5:VB         -5:V           2:5         SG         Signal ground           2:6         CEPTRST-0         CEPT rest signal           2:7         SG         Signal
121         D(7)         POM data loss [7]         -	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           24VD1         +24V         -           TABDREG         Drum cleane brush motor drive signal         -           24VD1         +24V         -           124VD1         +24V         -           125(B         +5V         -           124VD1         +24V         -           124VD1         +24V         -           1251WB         +5V         -           124VD1         +24V         -           1251WB         +5V         -           127         Yestowalo	88         A10         Memory address bus [10]         -           49         BA1         Bark velocit (1)         -           40         +3.3VA         +4.3V         -           41         +3.3VA         +4.3V         -           42         SiGo         Signal ground         -           43         SiG         Signal ground         -           44         Not connected         -         -           45         CS2         Clip back signal (2)         -           46         Not connected         -         -           47         DOMB3         Output disabibwrite mask (2)         -           48         NC         Not connected         -           49         NC         Not connected         -           50         Not connected         -         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [20]         -           56         DO18         Memory data bus [20]         -           61         Not connected         -           62         N	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHOENO           B24         SG           B25         IVDENO           B26         SG           B20         RS           B30         SG           B30         SG           B30         SG           B20NC0A         7           CPOWL1A         8           LDCLK-1A         9           B         LDCLK-1A           B         LDCLK-1A	+5V            System command busy         L           Command data            System status acknowledge         L           System status busy         L           System status busy         L           System command acknowledge         L           System command acknowledge         L           System command acknowledge         L           System command acknowledge         L           Ground            Clock signal for image data processing            Ground            Horizontal scanning synchronized signal         L           Ground            Vertical scanning synchronized signal         L           Ground            Data enable of the horizontal scanning direction (uput)         L           Data enable of the vertical scanning direction (input)         L           LGC board reset            Ground            Data enable of the vertical scanning direction (input)         L           LGC board reset         H           LDC data transmission lock            LDD data transmission clock            LD ata latch pulse	19         LLAZ         Lobox (L-mpth         -           60         NC(WP)         Not connected         -           61         NOL(WP)         Not connected         -           62         SDA         PD beraid data         -           63         S3         SG         PD beraid cobx         -           65         SG         Sgmund         -         -           66         DO24         Memory data bus [30]         -           67         DO25         Memory data bus [30]         -           78         DO26         Memory data bus [30]         -           79         DO26         Memory data bus [30]         -           79         DO40         Memory data bus [30]         -           79         DO40         Memory data bus [41]         -           70         DO40         Memory data bus [42]         -           70         DO41         Memory data bus [42]         -           70         DO43         Memory data bus [42]         -           70         DO44         Memory data bus [42]         -           70         DO45         Memory data bus [42]         -           70         DO44<	Ch20         PWA-F-SLG (CN20) <> PWA-F-CCD (CN19)           PIn No         Signal ground         -           2         SG         Signal ground         -           3         43.3V         +         -           4         43.3VA         +3.3V         -           5         43.3VA         +3.3V         -           6         +33.VA         +3.3V         -           7         SS         Signal ground         -           7         SS         Offer Blau gigtal data bus [0]         -           10         BD19         Color (Blau gigtal data bus [1]         -           11         BD11         Color (Blau gigtal data bus [2]         -           12         BD12         Color (Blau gigtal data bus [3]         -           13         BD12         Color (Blau gigtal data bus [3]         -           14         BD10         Color (Blau gigtal data bus [1]         -           15         BD12         Color (Blau gigtal data bus [1]         -           16         BD10         Color (Blau gigtal data bus [0]         -           17         BD11         Color (Green gigtal data bus [1]         -           18         BD10         Color (	1         129         1.129           4         3.3V         1.1           5         MOD2DMA1         Mode2 DMA signal           7         MEMC2S-0         SRAM chip select signal           8         5.1V9         +5V           9         MEMRD2-0         SRAM data read signal           10         CLKOE-1         Clock out enable signal           11         TKEN2-1         TX enable signal           12         45.1V9         +5V           13         A16         MOM address bus [16]           14         A114         MOM address bus [10]           15         A12         MOM address bus [10]           16         A10         MOM address bus [10]           17         A81         MOM address bus [10]           18         A81         MOM address bus [10]           21         A01         MOM address bus [10]           22         A01         MOM address bus [10]           23         A22         MOM address bus [10]           24         A01         MOM data bus [0]           25         G5         Signal ground           26         G5         Signal ground           27         G5
21       D(7)       IPO/A       IPO/A       IPO/A         22       ASA       O'The select signal       IPO/A       IPO/A         24       ASA       ROM address bus []       IPO/A       IPO/A         25       ASA       ROM address bus []       IPO/A       IPO/A         26       ASA       ROM address bus []       IPO/A       IPO/A         26       ASA       ROM address bus []       IPO/A       IPO/A         27       ASA       ROM address bus []       IPO/A       IPO/A         28       ROM OP       Download board connection detection signal       L       IPO/A         28       ROM OP       Download board connection detection signal       L       IPO/A         29       ROM OP       Download board connection detection signal       L       IPO/A         29       ROM OP       Download board connection detection signal       IPO/A       IPO/A       IPO/A         20       ROM OP       ROM OP       IPO/A	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           124VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           24VD1         +24V         -           124VD1         +24V         -     <	88         A10         Memory address bus [10]         -           49         BAN         Bark vedecit (1)         -           41         43.3VA         43.3V         -           42         CLKO         Clock (0) Input         -           43         S00         Signal ground         -           44         S00         Signal ground         -           44         CS2         Chip select signal (2)         -           44         NC         Not connected         -           45         NC         Not connected         -           50         NC         Not connected         -           51         NC         Not connected         -           54         SG         Signal ground         -           55         DO16         Memory data bus [16]         -           56         DO17         Memory data bus [17]         -           57         DO18         Memory data bus [19]         -           68         SG         Signal ground         -           69         DO21         Memory data bus [20]         -           60         DO22         Memory data bus [21]         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHOENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           PIN NO         Symbol           1         XSCL-1A           2         LP-1A           3         SG <td>+5V         -           System command busy         L           Command data         -           System status error         L           System status busy         L           System status busy         L           System status busy         L           System command achowledge         L           System command error         L           Ground         -           Clock signal for image data transmission         -           Ground         -           Horizontal scanning synchronized signal         L           Ground         -           Verical scanning synchronized signal         L           Ground         -           Data enable of the vertical scanning direction (output)         L           Ground         -           Data enable of the vertical scanning direction (input)         L           LGC board reset         L           Ground         -           Data enable of the vertical scanning direction (input)         L           LGD data transmission clock         -           LDD data transmission clock         -           LDD data transmission clock         -           LDD data transmission clock         -     <td>7.9         CLNA         Cubic (2) mput         -           80         Not connected         -           81         NC(NP)         Not connected         -           82         0.0         PD serial data         -           84         0.0         PD serial data         -           85         55         55         -           86         DO3         Memory data bus [33]         -           87         DO34         Memory data bus [33]         -           88         DO34         Memory data bus [33]         -           90         -3.3VA         +3.3V         -           91         DO36         Memory data bus [33]         -           92         DO37         Memory data bus [34]         -           94         DO38         Memory data bus [34]         -           95         DO44         Memory data bus [44]         -           96         SG         Signal ground         -           97         DO41         Memory data bus [44]         -           98         DO42         Memory data bus [45]         -           99         DO44         Memory data bus [45]         -</td><td>CH20         PUR-FSLG (CN20) &lt;&gt; PUR-F-CCD (CN19)           Pin N S         Signal ground        </td><td>1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DM signal           7         MEMCS-0         SRAM chip select signal           8         5.1 VB         +5V           9         MEMRD2-0         SRAM data read signal        </td></td>	+5V         -           System command busy         L           Command data         -           System status error         L           System status busy         L           System status busy         L           System status busy         L           System command achowledge         L           System command error         L           Ground         -           Clock signal for image data transmission         -           Ground         -           Horizontal scanning synchronized signal         L           Ground         -           Verical scanning synchronized signal         L           Ground         -           Data enable of the vertical scanning direction (output)         L           Ground         -           Data enable of the vertical scanning direction (input)         L           LGC board reset         L           Ground         -           Data enable of the vertical scanning direction (input)         L           LGD data transmission clock         -           LDD data transmission clock         -           LDD data transmission clock         -           LDD data transmission clock         - <td>7.9         CLNA         Cubic (2) mput         -           80         Not connected         -           81         NC(NP)         Not connected         -           82         0.0         PD serial data         -           84         0.0         PD serial data         -           85         55         55         -           86         DO3         Memory data bus [33]         -           87         DO34         Memory data bus [33]         -           88         DO34         Memory data bus [33]         -           90         -3.3VA         +3.3V         -           91         DO36         Memory data bus [33]         -           92         DO37         Memory data bus [34]         -           94         DO38         Memory data bus [34]         -           95         DO44         Memory data bus [44]         -           96         SG         Signal ground         -           97         DO41         Memory data bus [44]         -           98         DO42         Memory data bus [45]         -           99         DO44         Memory data bus [45]         -</td> <td>CH20         PUR-FSLG (CN20) &lt;&gt; PUR-F-CCD (CN19)           Pin N S         Signal ground        </td> <td>1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DM signal           7         MEMCS-0         SRAM chip select signal           8         5.1 VB         +5V           9         MEMRD2-0         SRAM data read signal        </td>	7.9         CLNA         Cubic (2) mput         -           80         Not connected         -           81         NC(NP)         Not connected         -           82         0.0         PD serial data         -           84         0.0         PD serial data         -           85         55         55         -           86         DO3         Memory data bus [33]         -           87         DO34         Memory data bus [33]         -           88         DO34         Memory data bus [33]         -           90         -3.3VA         +3.3V         -           91         DO36         Memory data bus [33]         -           92         DO37         Memory data bus [34]         -           94         DO38         Memory data bus [34]         -           95         DO44         Memory data bus [44]         -           96         SG         Signal ground         -           97         DO41         Memory data bus [44]         -           98         DO42         Memory data bus [45]         -           99         DO44         Memory data bus [45]         -	CH20         PUR-FSLG (CN20) <> PUR-F-CCD (CN19)           Pin N S         Signal ground	1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DM signal           7         MEMCS-0         SRAM chip select signal           8         5.1 VB         +5V           9         MEMRD2-0         SRAM data read signal
21         D[7]	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         +24V         -           CLKDVR         Black developer drive clutch signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           24VD1         +24V         -           124VD1         +24V         - </td <td>88         A10         Memory address bus [10]         -           49         BA1         Bark velocity         -           41         43.3VA         +3.3V         -           42         CAO         Statu provind         -           42         CAO         Statu provind         -           44         NC         Not connected         -           44         NC         Not connected         -           44         NC         Not connected         -           45         NC         Not connected         -           46         Not connected         -         -           51         NC         Not connected         -           54         SG         Sign ground         -           55         NC         Not connected         -           56         DO16         Memory data bus [10]         -           55         PG3         Memory data bus [10]         -           56         DO17         Memory data bus [20]         -           61         NC         Not connected         -           62         NCE         Not connected         -           63         Signal</td> <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         INDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           PIN NO         <td< td=""><td>+5V         -           System command busy         L           Command data         -           System status error         L           System status busy         L           Status data         -           System command acknowledge         L           System command error         L           Ground         -           Clock signal for image data transmission         -           Ground         -           Clock signal input for image data transmission         -           Ground         -           Vertical scanning synchronized signal         L           Ground         -           Occk signal output for image data transmission         -           Ground         -           Data enable of the vertical scanning direction (output]         L           Ground         -           Not connected         -           Data enable of the vertical scanning direction (input]         L           LCD data transmission clock         -           LCD data transmission clock         -     <td>Job         Libok (WP)         No         -           81         NK(WP)         No         -           82         NC(WP)         No         -           83         SCL         PD serial dock         -           84         SS         SS         SS         SS           85         SS         SS         SS         SS           86         DC32         Memory data bus [33]         -           87         DC35         Memory data bus [35]         -           88         DC34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DC36         Memory data bus [36]         -           92         DC37         Memory data bus [36]         -           93         DC38         Memory data bus [36]         -           94         DC44         Memory data bus [42]         -           95         DC44         Memory data bus [44]         -           96         DC44         Memory data bus [45]         -           97         DC41         Memory data bus [47]         -         -           98         DC42         Memory data bus [</td><td>CN20         PWAF-SLG (CN20) &lt;&gt; PWAF-CCD (CN19)           Pi N         Synal ground         Name         Active           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           3         30 Mignal ground         -         -           5         32 Mignal ground         -         -           6         NC         Nationmetal to the synal ground         -           7         S6         Bignal ground         -           10         BD19         Color (Blue) digital data tous [9         -           11         BD17         Color (Blue) digital data tous [1         -           12         BD18         Color (Blue) digital data tous [1         -           13         BD15         Color (Blue) digital data tous [1         -           14         BD10         Color (Glue) digital data tous [1         -           15         BD13         Color (Glue) digital data tous [1         -           16         BD10         Color (Glue) digital data tous [1         -           17         BD11         Color (Glue) digital data tous [1         -</td><td>1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DMA signal           7         MEM2CS-0         SRAM chip select signal           8         45.1 VB         +5V           9         MEMRD2-0         SRAM data read signal        </td></td></td<></td>	88         A10         Memory address bus [10]         -           49         BA1         Bark velocity         -           41         43.3VA         +3.3V         -           42         CAO         Statu provind         -           42         CAO         Statu provind         -           44         NC         Not connected         -           44         NC         Not connected         -           44         NC         Not connected         -           45         NC         Not connected         -           46         Not connected         -         -           51         NC         Not connected         -           54         SG         Sign ground         -           55         NC         Not connected         -           56         DO16         Memory data bus [10]         -           55         PG3         Memory data bus [10]         -           56         DO17         Memory data bus [20]         -           61         NC         Not connected         -           62         NCE         Not connected         -           63         Signal	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         INDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           PIN NO <td< td=""><td>+5V         -           System command busy         L           Command data         -           System status error         L           System status busy         L           Status data         -           System command acknowledge         L           System command error         L           Ground         -           Clock signal for image data transmission         -           Ground         -           Clock signal input for image data transmission         -           Ground         -           Vertical scanning synchronized signal         L           Ground         -           Occk signal output for image data transmission         -           Ground         -           Data enable of the vertical scanning direction (output]         L           Ground         -           Not connected         -           Data enable of the vertical scanning direction (input]         L           LCD data transmission clock         -           LCD data transmission clock         -     <td>Job         Libok (WP)         No         -           81         NK(WP)         No         -           82         NC(WP)         No         -           83         SCL         PD serial dock         -           84         SS         SS         SS         SS           85         SS         SS         SS         SS           86         DC32         Memory data bus [33]         -           87         DC35         Memory data bus [35]         -           88         DC34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DC36         Memory data bus [36]         -           92         DC37         Memory data bus [36]         -           93         DC38         Memory data bus [36]         -           94         DC44         Memory data bus [42]         -           95         DC44         Memory data bus [44]         -           96         DC44         Memory data bus [45]         -           97         DC41         Memory data bus [47]         -         -           98         DC42         Memory data bus [</td><td>CN20         PWAF-SLG (CN20) &lt;&gt; PWAF-CCD (CN19)           Pi N         Synal ground         Name         Active           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           3         30 Mignal ground         -         -           5         32 Mignal ground         -         -           6         NC         Nationmetal to the synal ground         -           7         S6         Bignal ground         -           10         BD19         Color (Blue) digital data tous [9         -           11         BD17         Color (Blue) digital data tous [1         -           12         BD18         Color (Blue) digital data tous [1         -           13         BD15         Color (Blue) digital data tous [1         -           14         BD10         Color (Glue) digital data tous [1         -           15         BD13         Color (Glue) digital data tous [1         -           16         BD10         Color (Glue) digital data tous [1         -           17         BD11         Color (Glue) digital data tous [1         -</td><td>1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DMA signal           7         MEM2CS-0         SRAM chip select signal           8         45.1 VB         +5V           9         MEMRD2-0         SRAM data read signal        </td></td></td<>	+5V         -           System command busy         L           Command data         -           System status error         L           System status busy         L           Status data         -           System command acknowledge         L           System command error         L           Ground         -           Clock signal for image data transmission         -           Ground         -           Clock signal input for image data transmission         -           Ground         -           Vertical scanning synchronized signal         L           Ground         -           Occk signal output for image data transmission         -           Ground         -           Data enable of the vertical scanning direction (output]         L           Ground         -           Not connected         -           Data enable of the vertical scanning direction (input]         L           LCD data transmission clock         -           LCD data transmission clock         - <td>Job         Libok (WP)         No         -           81         NK(WP)         No         -           82         NC(WP)         No         -           83         SCL         PD serial dock         -           84         SS         SS         SS         SS           85         SS         SS         SS         SS           86         DC32         Memory data bus [33]         -           87         DC35         Memory data bus [35]         -           88         DC34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DC36         Memory data bus [36]         -           92         DC37         Memory data bus [36]         -           93         DC38         Memory data bus [36]         -           94         DC44         Memory data bus [42]         -           95         DC44         Memory data bus [44]         -           96         DC44         Memory data bus [45]         -           97         DC41         Memory data bus [47]         -         -           98         DC42         Memory data bus [</td> <td>CN20         PWAF-SLG (CN20) &lt;&gt; PWAF-CCD (CN19)           Pi N         Synal ground         Name         Active           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           3         30 Mignal ground         -         -           5         32 Mignal ground         -         -           6         NC         Nationmetal to the synal ground         -           7         S6         Bignal ground         -           10         BD19         Color (Blue) digital data tous [9         -           11         BD17         Color (Blue) digital data tous [1         -           12         BD18         Color (Blue) digital data tous [1         -           13         BD15         Color (Blue) digital data tous [1         -           14         BD10         Color (Glue) digital data tous [1         -           15         BD13         Color (Glue) digital data tous [1         -           16         BD10         Color (Glue) digital data tous [1         -           17         BD11         Color (Glue) digital data tous [1         -</td> <td>1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DMA signal           7         MEM2CS-0         SRAM chip select signal           8         45.1 VB         +5V           9         MEMRD2-0         SRAM data read signal        </td>	Job         Libok (WP)         No         -           81         NK(WP)         No         -           82         NC(WP)         No         -           83         SCL         PD serial dock         -           84         SS         SS         SS         SS           85         SS         SS         SS         SS           86         DC32         Memory data bus [33]         -           87         DC35         Memory data bus [35]         -           88         DC34         Memory data bus [36]         -           90         +3.3VA         +3.3V         -           91         DC36         Memory data bus [36]         -           92         DC37         Memory data bus [36]         -           93         DC38         Memory data bus [36]         -           94         DC44         Memory data bus [42]         -           95         DC44         Memory data bus [44]         -           96         DC44         Memory data bus [45]         -           97         DC41         Memory data bus [47]         -         -           98         DC42         Memory data bus [	CN20         PWAF-SLG (CN20) <> PWAF-CCD (CN19)           Pi N         Synal ground         Name         Active           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           2         36 Mignal ground         -         -           3         30 Mignal ground         -         -           5         32 Mignal ground         -         -           6         NC         Nationmetal to the synal ground         -           7         S6         Bignal ground         -           10         BD19         Color (Blue) digital data tous [9         -           11         BD17         Color (Blue) digital data tous [1         -           12         BD18         Color (Blue) digital data tous [1         -           13         BD15         Color (Blue) digital data tous [1         -           14         BD10         Color (Glue) digital data tous [1         -           15         BD13         Color (Glue) digital data tous [1         -           16         BD10         Color (Glue) digital data tous [1         -           17         BD11         Color (Glue) digital data tous [1         -	1         129         1           4         4.3 VI         1           5         MOD2DMA-1         Mode2 DMA signal           7         MEM2CS-0         SRAM chip select signal           8         45.1 VB         +5V           9         MEMRD2-0         SRAM data read signal
21         D(7)         IPC/I         IPC	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24VD1         -24V         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           CLMFCU         Upper transport clutch (High speed) drive signal         -           24VD1         -24V         -           124VD1         -24V	38         A10         Memory address tots [10]         -           40         1.33VA         12.3V         -           41         2.3VA         12.3V         -           42         1.33VA         12.3V         -           42         1.33VA         12.3V         -           43         1.50         Signal ground         -           44         NC         Not connected         -           44         NC         Not connected         -           45         Not connected         -         -           46         NCM         Not connected         -           51         NC         Not connected         -           52         NC         Not connected         -           53         DO16         Signal ground         -           54         DO17         Memory data but [19]         -           55         DO16         Memory data but [20]         -           56         DO17         Memory data but [21]         -           57         DO16         Memory data but [21]         -           61         NC         Not connected         -           51         NC <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B3         BSF           B10         CACK           B11         CERR           B12         SG           B13         DFFCLK           B14         SG           B15         IRCLK1           B16         SG           B21         SG           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B20         SG           B27         NCRESERVE1)           B28         SG           B20         SG           B27         NCRESERVE1)           B28         SG     <td>+5V     -       System command busy     L       Command data     -       System status error     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -     -       Data enable of the vertical scanning direction (output)     L       Ground     -     -       Data enable of the vertical scanning direction (input)     L       CLC Data transmission clock     -       LCD data transmission clock     -       LCD data transmission clock     -       LCD tare signal     H       LCD tare signal     H</td><td>1         LDxX         LDxX         LDxX         -           1         NX(WP)         NX and the second seco</td><td>CH20         FWA-F-SLG (CN20) &lt;&gt; FWA-F-CCD (CN19)           I         So         Signal ground         -           2         SG         Signal ground         -           3         433/A         +33/V         -           4         +33/A         +33/V         -           5         +33/A         +33/V         -           6         +33/A         +33/V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus [9         -           11         BD(7)         Color (Blue) digital data bus [1         -           12         SD(9)         Color (Blue) digital data bus [1         -           13         BD(9)         Color (Blue) digital data bus [1         -           14         BD(9)         Color (Glue) digital data bus [1         -           15         BD(9)         Color (Glue) digital data bus [1         -           16         BD(9)         Color (Glue) digital data bus [1         -           17         BD(1)         Color (Glue) digital data bus [1         -           21         Col(9)</td><td>1206         1217           5         1207           6         35 and ground           7         MCMC250           8         1517           9         MEMC260           9         MEMC260           9         MEMC260           10         CKAC6-           11         Atta           12         CF16           13         Atta           14         Atta           15         Atta           16         Atta           17         AB           18         MDM address bus [0           19         Adta           19         MDM address bus [10           20         CEPTRSTO           21         Sta           22         Sta           23         Signal ground           24         Sta           25         Signal ground           22         Signal ground      <tr< td=""></tr<></td></td>	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B3         BSF           B10         CACK           B11         CERR           B12         SG           B13         DFFCLK           B14         SG           B15         IRCLK1           B16         SG           B21         SG           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B20         SG           B27         NCRESERVE1)           B28         SG           B20         SG           B27         NCRESERVE1)           B28         SG <td>+5V     -       System command busy     L       Command data     -       System status error     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -     -       Data enable of the vertical scanning direction (output)     L       Ground     -     -       Data enable of the vertical scanning direction (input)     L       CLC Data transmission clock     -       LCD data transmission clock     -       LCD data transmission clock     -       LCD tare signal     H       LCD tare signal     H</td> <td>1         LDxX         LDxX         LDxX         -           1         NX(WP)         NX and the second seco</td> <td>CH20         FWA-F-SLG (CN20) &lt;&gt; FWA-F-CCD (CN19)           I         So         Signal ground         -           2         SG         Signal ground         -           3         433/A         +33/V         -           4         +33/A         +33/V         -           5         +33/A         +33/V         -           6         +33/A         +33/V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus [9         -           11         BD(7)         Color (Blue) digital data bus [1         -           12         SD(9)         Color (Blue) digital data bus [1         -           13         BD(9)         Color (Blue) digital data bus [1         -           14         BD(9)         Color (Glue) digital data bus [1         -           15         BD(9)         Color (Glue) digital data bus [1         -           16         BD(9)         Color (Glue) digital data bus [1         -           17         BD(1)         Color (Glue) digital data bus [1         -           21         Col(9)</td> <td>1206         1217           5         1207           6         35 and ground           7         MCMC250           8         1517           9         MEMC260           9         MEMC260           9         MEMC260           10         CKAC6-           11         Atta           12         CF16           13         Atta           14         Atta           15         Atta           16         Atta           17         AB           18         MDM address bus [0           19         Adta           19         MDM address bus [10           20         CEPTRSTO           21         Sta           22         Sta           23         Signal ground           24         Sta           25         Signal ground           22         Signal ground      <tr< td=""></tr<></td>	+5V     -       System command busy     L       Command data     -       System status error     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -     -       Data enable of the vertical scanning direction (output)     L       Ground     -     -       Data enable of the vertical scanning direction (input)     L       CLC Data transmission clock     -       LCD data transmission clock     -       LCD data transmission clock     -       LCD tare signal     H	1         LDxX         LDxX         LDxX         -           1         NX(WP)         NX and the second seco	CH20         FWA-F-SLG (CN20) <> FWA-F-CCD (CN19)           I         So         Signal ground         -           2         SG         Signal ground         -           3         433/A         +33/V         -           4         +33/A         +33/V         -           5         +33/A         +33/V         -           6         +33/A         +33/V         -           7         SG         Signal ground         -           8         NC         Not connected         -           9         BD(9)         Color (Blue) digital data bus [9         -           11         BD(7)         Color (Blue) digital data bus [1         -           12         SD(9)         Color (Blue) digital data bus [1         -           13         BD(9)         Color (Blue) digital data bus [1         -           14         BD(9)         Color (Glue) digital data bus [1         -           15         BD(9)         Color (Glue) digital data bus [1         -           16         BD(9)         Color (Glue) digital data bus [1         -           17         BD(1)         Color (Glue) digital data bus [1         -           21         Col(9)	1206         1217           5         1207           6         35 and ground           7         MCMC250           8         1517           9         MEMC260           9         MEMC260           9         MEMC260           10         CKAC6-           11         Atta           12         CF16           13         Atta           14         Atta           15         Atta           16         Atta           17         AB           18         MDM address bus [0           19         Adta           19         MDM address bus [10           20         CEPTRSTO           21         Sta           22         Sta           23         Signal ground           24         Sta           25         Signal ground           22         Signal ground <tr< td=""></tr<>
221       D(7)       In OM data but (7)       I         23       A(1)       ROM address but (3)       I         24       A(2)       ROM address but (3)       I         25       A(2)       ROM address but (3)       I       I         26       A(2)       ROM address but (1)       I       I         28       A(13)       ROM address but (1)       I       I         28       A(13)       ROM address but (1)       I       I         28       A(10)       ROM address but (1)       I       I         29       ROM address but (1)       I       I       I         29       ROM address but (1)       I       I       I         20       ROM address but (1)       I       I       I         20       ROM address but (1)       I       I       I         20       ROM address but (1)       I       I       I       I         20       ROM address but (1)       I       I       I       I       I         21       ROM address but (1)       I       I       I       I       I       I       I       I       I       I       I       I       I	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24V01         24V1         -           128/17L         Tome cleaner brush motor drive signal         -           UST14         Tome cleaner brush motor drive signal         -           128/17L         Tome cleaner brush motor drive signal         -           128/17L         Tomer bag sensor drive signal         -	38         A10         Memory address tots [10]         -           39         RA1         Bark select [1)         -           40         1.33 VA         4.33 VA         -           41         CLK VD         Not construct         -           42         CLK VD         Not connected         -           44         NC Not connected         -         -           45         CDMB2         Output disablewrite mask (2)         -           46         DOMB2         Output disablewrite mask (2)         -           47         DOMB3         Output disablewrite mask (2)         -           48         NC         Not connected         -           51         NC         Not connected         -           53         Not connected         -         -           54         NO         Memory data bug [16]         -           55         DO18         Memory data bug [18]         -           56         DO18         Memory data bug [21]         -           61         NC connected         -         -           62         Signal ground         -         -           63         Signal ground         -         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         IFCLK_M           B14         SG           B15         IFCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         INCLK1           B18         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO<	45V         -           System command busy         L           Command data acknowledge         L           System status error         L           System status busy         L           System command acknowledge         L           System command acknowledge         L           System command acknowledge         L           Ground         -           Clock signal for image data processing         -           Ground         -           Ground         -           Ground         -           Ground         -           Ground         -           Clock signal output for image data transmission         -           Ground         -           Data enable of the horizontal scanning direction         -           Data enable of the vertical scanning direction         -           Chong data transmission clock         -           LCD data transignal         H           LC	Interp         Lock [2] mph         -           10         NG(WP)         Not connected         -           11         COUNT         Not connected         -           12         SOA         PD serial data         -           13         SCI.         PD serial data         -           14         A3VA         +3/3V         -           14         SOA         Memory data bus [33]         -           15         SOA         Memory data bus [33]         -           16         DO34         Memory data bus [35]         -           17         DO36         Memory data bus [36]         -           18         DO36         Memory data bus [37]         -           19         DO36         Memory data bus [39]         -           19         DO41         Memory data bus [40]         -           101         DO44         Memory data bus [41]         -           102         A3VA         +3/3V         -         -           103         DO46         Memory data bus [47]         -         -           104         DA47         Memory data bus [47]         -         -           105         Not connected <td>CH20         PUA-F-SLG (CM20) &lt;&gt; PUA-F-CCD (CH19)           In 18         Synthe Synthe Synthe Synthesis         Active Ac</td> <td>120/8         121           6         120           7         MOD2DMA-1           0         SG           10         SFAM Chip select signal           11         TEXEX           12         SFAM Chip select signal           13         Attis           11         TEXEX           12         SFAM data read signal           13         Attis           14         Attis           15         NOM address bus [10]           14         Attis           15         Attis           16         Attis           17         Attis           18         Attis           19         Attis           10         Attis           114         Attis           115         Attis           116         Attis           117         Attis           118         Attis           116         Attis           116         Attis           116         Attis           116         Attis           117         Attis           118         Attis           118         Attis</td>	CH20         PUA-F-SLG (CM20) <> PUA-F-CCD (CH19)           In 18         Synthe Synthe Synthe Synthesis         Active Ac	120/8         121           6         120           7         MOD2DMA-1           0         SG           10         SFAM Chip select signal           11         TEXEX           12         SFAM Chip select signal           13         Attis           11         TEXEX           12         SFAM data read signal           13         Attis           14         Attis           15         NOM address bus [10]           14         Attis           15         Attis           16         Attis           17         Attis           18         Attis           19         Attis           10         Attis           114         Attis           115         Attis           116         Attis           117         Attis           118         Attis           116         Attis           116         Attis           116         Attis           116         Attis           117         Attis           118         Attis           118         Attis
221       D(7)       —       ROM data but [1]       —       —       1       3       2       3       2       3       2       3       2       3       2       3       2       3       2       3       2       3	CLMFDH         Upper transport clutch (Low speed) drive signal         -           24V01         24V         -           124V01         124V         -           124V1         124V         -	38         A10         Memory address tue [10]         -           39         DA 30         Bark select (1)         -           41         A23VA         4.33V         -           42         DLKO         Clock (0)         ppp           43         SG         Signal ground         -           44         NC         NC         Not connected         -           45         CS2         Chips select signal (2)         -           46         DOME2         Output disablewrite mask (2)         -           47         DOME3         Output disablewrite mask (2)         -           48         A3         Not connected         -           51         NC         Not connected         -           52         NCI         Not connected         -           53         NC         Not connected         -           54         S3         S3         S3         -           56         DOI 7         Memory diata bue [20]         -           56         DOI 7         Memory diata bue [20]         -           57         DOI 7         Memory diata bue [20]         -           58         DOI 7         Memory	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         HSYNCO           B20         SG           B21         IDCLK           B22         SG           B21         IDCLK           B22         SG           B23         HIDENO           B24         SG           B25         IVDENO           B26         SG           B27         NCRESERVE1)           B28         RESPRVE2           B29         ARSTO           B30         SG           B1         XSQL-1A           2         LP1A           3         SG      <	45V     -       System command busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Data enable of the vertical scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LCD data transmission clock     -       LCD data transmission request     H       LCD data transmission request     L       ED serial data     -       ED serial data     - <td< td=""><td>Inc.         Concent of paint         -           41         NoC(WP)         Not connected         -           42         SOA         PD serial data         -           43         SCL         PD serial data         -           44         A3VA         +3.5V         -           45         SG         Signal ground         -           46         DG32         Memory data bus [33]         -           47         DG36         Memory data bus [34]         -           48         DG36         Memory data bus [39]         -           49         DG36         Memory data bus [39]         -           40         DG38         Memory data bus [39]         -           41         DG38         Memory data bus [40]         -           42         DG36         Memory data bus [40]         -           43         DG38         Memory data bus [40]         -         -           44         DG38         Memory data bus [40]         -         -           45         DG46         Memory data bus [40]         -         -           46         DG42         Memory data bus [40]         -         -           101<td>CH20         PWA-F-SLG (CH20) &lt;-&gt; PWA-F-CC (CH18)           Image: Synthetic Synthetic Synthesis         Synthetic Synthetic Synthesis         A diversity           Image: Synthetic Synthesis         Synthetic Synthetic Synthesis         A diversity           Image: Synthetic Synthesis         Synthetic Synthesis         Synthetic Synthesis           Image: Synthetic Synthesis         Synthetic Synthesis         Synthetic Synthesis           Image: Synthetic Synthesis         Synthetic Synthesis         Synthesis           Image: Synthesis         Synthetic Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesintesis           Image: Synthesis</td><td>1:20*6         1:20            4:4:30*80         3:30*80            6:5:3         Signal groud            7:MEMCS0         SRAM chip select signal            9:MEKCS0         SRAM chip select signal            9:MEKCE:         Cick cut mubbinginal            10:TEXEN:         TX mubbin signal            11:TEXEN:         TX mubbin signal            12:TEXEN:         TX mubbin signal            13:At16         MDM address bus [16]            14:At13         MDM address bus [12]            14:At14         MDM address bus [0]            14:At14         MDM address bus [0]            15:At12         MDM address bus [0]            20:At14         MDM address bus [0]            21:At14         MDM address bus [0]            22:At178-4         Styme sty</td></td></td<>	Inc.         Concent of paint         -           41         NoC(WP)         Not connected         -           42         SOA         PD serial data         -           43         SCL         PD serial data         -           44         A3VA         +3.5V         -           45         SG         Signal ground         -           46         DG32         Memory data bus [33]         -           47         DG36         Memory data bus [34]         -           48         DG36         Memory data bus [39]         -           49         DG36         Memory data bus [39]         -           40         DG38         Memory data bus [39]         -           41         DG38         Memory data bus [40]         -           42         DG36         Memory data bus [40]         -           43         DG38         Memory data bus [40]         -         -           44         DG38         Memory data bus [40]         -         -           45         DG46         Memory data bus [40]         -         -           46         DG42         Memory data bus [40]         -         -           101 <td>CH20         PWA-F-SLG (CH20) &lt;-&gt; PWA-F-CC (CH18)           Image: Synthetic Synthetic Synthesis         Synthetic Synthetic Synthesis         A diversity           Image: Synthetic Synthesis         Synthetic Synthetic Synthesis         A diversity           Image: Synthetic Synthesis         Synthetic Synthesis         Synthetic Synthesis           Image: Synthetic Synthesis         Synthetic Synthesis         Synthetic Synthesis           Image: Synthetic Synthesis         Synthetic Synthesis         Synthesis           Image: Synthesis         Synthetic Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesintesis           Image: Synthesis</td> <td>1:20*6         1:20            4:4:30*80         3:30*80            6:5:3         Signal groud            7:MEMCS0         SRAM chip select signal            9:MEKCS0         SRAM chip select signal            9:MEKCE:         Cick cut mubbinginal            10:TEXEN:         TX mubbin signal            11:TEXEN:         TX mubbin signal            12:TEXEN:         TX mubbin signal            13:At16         MDM address bus [16]            14:At13         MDM address bus [12]            14:At14         MDM address bus [0]            14:At14         MDM address bus [0]            15:At12         MDM address bus [0]            20:At14         MDM address bus [0]            21:At14         MDM address bus [0]            22:At178-4         Styme sty</td>	CH20         PWA-F-SLG (CH20) <-> PWA-F-CC (CH18)           Image: Synthetic Synthetic Synthesis         Synthetic Synthetic Synthesis         A diversity           Image: Synthetic Synthesis         Synthetic Synthetic Synthesis         A diversity           Image: Synthetic Synthesis         Synthetic Synthesis         Synthetic Synthesis           Image: Synthetic Synthesis         Synthetic Synthesis         Synthetic Synthesis           Image: Synthetic Synthesis         Synthetic Synthesis         Synthesis           Image: Synthesis         Synthetic Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesis           Image: Synthesis         Synthesis         Synthesintesis           Image: Synthesis	1:20*6         1:20            4:4:30*80         3:30*80            6:5:3         Signal groud            7:MEMCS0         SRAM chip select signal            9:MEKCS0         SRAM chip select signal            9:MEKCE:         Cick cut mubbinginal            10:TEXEN:         TX mubbin signal            11:TEXEN:         TX mubbin signal            12:TEXEN:         TX mubbin signal            13:At16         MDM address bus [16]            14:At13         MDM address bus [12]            14:At14         MDM address bus [0]            14:At14         MDM address bus [0]            15:At12         MDM address bus [0]            20:At14         MDM address bus [0]            21:At14         MDM address bus [0]            22:At178-4         Styme sty
221         D(7)         — ROM data buc [7         —         —         —         …	CLMFDH         Upper transport olutich (Low speed) drive signal         -           242VD1         -24V         -           124VD1         -24V         -           1251VB         -5V         -           124VD1         -24V         -           124VD1         -24V         -           124VD1         -24V         -           124VD1         +2V         -	38         A10         Memory address to [10]	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B2         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B20         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (C           Pin No         <	45V     -       System command busy     L       Command data     -       System status acknowledge     L       System status error     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Data enable of the vertical scanning direction (uput)     L       Ground     -       Data enable of the vertical scanning direction (uput)     L       LGC boar reset     L       Ciround     -       Data enable of the vertical scanning direction (uput)     L       LG board reset     -       LD data lath pulse     H       LDD farse signal     H       LDD farse signal     H       LD data lath pulse     H	10         Note Control         -           11         NC(WP)         Note Control         -           12         SOA         PD serial data         -           13         SCL         PD serial data         -           14         NC(WP)         Note connected         -           14         SOA         PD serial data         -           15         SG         Signal ground         -           16         DO33         Memory data bus [30]         -           16         DO34         Memory data bus [30]         -           17         DO36         Memory data bus [30]         -           18         DO36         Memory data bus [30]         -           19         DO36         Memory data bus [40]         -           196         DO34         Memory data bus [40]         -           197         DO41         Memory data bus [40]         -           198         DO42         Memory data bus [40]         -           197         DO41         Memory data bus [40]         -           198         DO44         Memory data bus [40]         -           199         DO44         Memory data bus [41]	CH20         PWA.F-SLG. (CH20) <> PWA.F-CCD (CH18)           Pin No         Synthed         Name         Active           Pin No         Synthed         Name         Active           Pin No         Synthed ground         -         -           Si A3VA         +3.3V         -         -           Di D019         Coir (Blue) digital data bus 19         -           Ti B010         Coir (Blue) digital data bus 10         -           Ti B010         Coir (Blue) digital data bus 10         -           Ti B010         Coir (Glue) digital data bus 10         -           Ti B010         Coir (Glue) digital data bus 10         -           Ti B010         Coir (Glue) digital data bus 10         -           Ti B010         Coir (Glue) digital data bus 10         -           Ti B010         Coir (Glue) digital data bus 10         -           Ti B010         Coir (Glue) digital data bus 10 <td>1:22/6         1:12           5         1:20           6         Signal ground           7         MEMCS-0           8         1:50           9         1:50           10         CLKOE-1           11         TCREMIS signal           12         1:51.10           13         Attil 1:41           MDM address bus [16]        </td>	1:22/6         1:12           5         1:20           6         Signal ground           7         MEMCS-0           8         1:50           9         1:50           10         CLKOE-1           11         TCREMIS signal           12         1:51.10           13         Attil 1:41           MDM address bus [16]
221       D(7)       — ROM data buc [7]       —         232       A(1)       ROM address but [3]       —         243       A(1)       ROM address but [3]       —         253       A(1)       ROM address but [3]       —         254       A(7)       ROM address but [3]       —         254       A(1)       ROM address but [3]       —         254       A(1)       ROM address but [3]       —         254       A(1)       ROM address but [3]       —         255       A(1)       ROM address but [3]       —       —         256       ROM D-1       Exema ROM conduct status signal       —       —         257       ROM D-1       Exema ROM conduct status signal       —       —         258       ROM D-1       Exema ROM conduct status signal       —       —         258       ROM D-1       Exema ROM conduct status signal       —       —         258       ROM D-1       Exema ROM conduct status signal       —       —         258       ROM D-1       Exema ROM conduct status signal       —       —         258       ROM D-1       Exema ROM conduct status signal       —       —         258	CLMFDH     Upper tansport clutch (Low speed) drive signal     -       -24VD1     +24V     -       -24VD1	38         A10         Memory address fuel (1)         -           43         BA1 Memory address fuel (1)         -           44         IAC         Clock (0) input         -           45         IAS (A)         Signal ground         -           45         IAC         Not Connected         -           46         IAS         Not Connected         -           47         IAC         Not Connected         -           48         IAC         Not Connected         -           49         IAS         Not Connected         -           49         IAS         Not Connected         -           50         Not Connected         -         -           51         Not Connected         -         -           56         OOI 6         Memory data but [10]         -           56         OOI 7         Memory data but [10]         -           57         Momory data but [20]         -         -           58         OOI 8         Memory data but [20]         -           59         OOI 8         Memory data but [20]         -           60         OOI 7         Memory data but [20]         -	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28	45V     -       System command busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System command acknowledge     L       System status busy     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal input for image data transmission     -       Ground     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Orond     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Ground     -       Ground     -       Clock angral output for image data transmission     -       Ground     -       Clock angral output for image data transmission     -       Clock angral output for image data transmission     -       Ground     -     -       Clock angral output for image data transmission     -       Data enable of the vertical scanning direction (output)     L       LG bata transmission clock     -       Clo data tach	10         Const. of model           10         NCCV(P)         Not connected           11         NCCV(P)         Not connected           12         SDA         PD serial clock           13         SCU         PD serial clock           14         SUA         4.3.3V           15         SG         Signal ground           16         OG34         Merrory data bas [30]           17         Not connected	CH20         PUNA-F-SLG (CM20) <> PUA-F-CCD (CH13)           Imit in the symptotic symptot sympt	a         1:52%            5         1:52%            5         MC02DMA-1         Mode: DMA signal            7         MEXING-0         SRAW drip select signal            9         MEXING-0         SRAW drip select signal            9         MEXING-0         SRAW drip select signal            10         DEXECT-1         Clock out enable signal            11         TEXEX-1         Tk emable signal            12         1-5 V/B         MOM address bus [10]            13         Atle         MOM address bus [10]            14         Atle         MOM address bus [10]            15         Atle         MOM address bus [10]            16         Atle         MOM address bus [10]            21         AD         MOM address bus [10]            22         ASIPI Sampa Address bus [10]             23         CEPINST-0         CEP1 reset signal            24         ASIPI Sampa Address bus [10]             25 <t< td=""></t<>
22         107	CLMFDH         Upper tansport clutch (Low speed) drive signal         -           -24VD1         +24V         -           BMDRCB         Drum chamer brush motor drive signal         -           -24VD1         +24V         -           -24VD1	38         A10         Memory address to [10]         -           30         DA1X         Bask week(1)         -           41         SG         Signall ground         -           42         CLKO         Clock (0) input         -           43         SG         Signall ground         -           44         NC         Not connected         -           47         DOME         Clop befect signal (2)         -           48         NC         Not connected         -           49         NSM         -33V         -         -           49         NSM         -33V         -         -           40         NC         Not connected         -         -           41         NG         Not connected         -         -           42         NG         Not connected         -         -           43         NA         -33V         -         -           44         Not connected         -         -         -           45         OCI         Not connected         -         -           46         Signal ground         -         -         -           <	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B11         IDCLK-1A           S         INVGND           6         BZON-0A           7         CPPOW-1A           8         LDCLF-1A           9         LDDAT-1A	45V     -       System command busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Horizontal scanning synchronized signal     L       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the horizontal scanning direction (output)     L       Ground     -       Data enable of the vertical scanning direction (input)     L       LCD data transmission clock     -       LCD data transmission request     L       LED serial clock     -       LED serial clock     -	D         Construct mean	CHAD         DWA-F-SLG (CM2) $<>$ PWA-F-CD (CM19)           Pin to         Syntol         Signal ground         -           2         SG         Signal ground         -           3         43.3VA         +3.3V         -           4         43.3VA         +3.3V         -           7         SG         Signal ground         -           9         BO[0]         Color (Bue) digital diata bue (B)         -           10         BO[0]         Color (Bue) digital diata bue (B)         -           11         BO[12]         Color (Bue) digital diata bue (B)         -           13         BO[2]         Color (Bue) digital diata bue (B)         -           14         BO[2]         Color (Bue) digital diata bue (B)         -           15         BO[2]         Color (Bue) digital diata bue (B)         -           16         BO[2]         Color (Green) digital diata bue (B)         -           17         BO[2]         Color (Green) digital diata bue (B)         -           18         BO[2]         Color (Green) digital diata bue (B)         -           19         So         Signal ground         sub (D)         -           20         Color (Green) digital diata bue (B) <td>1         1:27         .           4         1:327         .           5         MC02DMA-1         Mode: DAA signal         .           7         MG         Signal ground         .           7         MG         Signal and exel signal         .           9         MEMPD2-0         Signal and exel signal         .           10         CLKOE-1         Clock out enable signal         .           11         TCKEN-1         Te embe signal         .           12         1-5.110         MCM address bus [10]         .           13         AL10         MCM address bus [2]         .           14         AL20         MCM address bus [2]         .           15         AL20         MCM address bus [2]         .           16         AL20         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .           16         AL20         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .</td>	1         1:27         .           4         1:327         .           5         MC02DMA-1         Mode: DAA signal         .           7         MG         Signal ground         .           7         MG         Signal and exel signal         .           9         MEMPD2-0         Signal and exel signal         .           10         CLKOE-1         Clock out enable signal         .           11         TCKEN-1         Te embe signal         .           12         1-5.110         MCM address bus [10]         .           13         AL10         MCM address bus [2]         .           14         AL20         MCM address bus [2]         .           15         AL20         MCM address bus [2]         .           16         AL20         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .           16         AL20         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .           17         AB1         MCM address bus [2]         .
22         100         PDM data big /1         -	CLMFDH         Upper tansport clutch (Low speed) drive signal         -           -24VD1         +24V         - </td <td>38         A10         Memory address to [10]         -           48         B37         A         B3W         -           41         B3XA         +33         -         -           42         CLKO         Clock (0) input         -         -           43         B6         Signal ground         -         -           44         BCC         Not Conceledant (0)         -         -           44         BCC         Not Conceledant (0)         -         -           45         Not Conceledant (0)         -         -         -           46         Not Conceledant (0)         -         -         -           47         COMBE         Not conceledant (0)         -         -           48         GG         Signal ground         -         -           50         Not Conceledat bas (17)         -         -           51         Memory data bas [10]         -         -           52         Not Conceledat bas [10]         -         -           53         Conce mabbits signal         -         -           54         GG         Signal ground         -         -           56</td> <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B20         SG           B21         INCK           B22         SG           B23         INDCLK           B24         INDCLK           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B21         LDON-0           1         VSCL-1A&lt;</td> <td>45V     -       System ormand busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System ormand acknowledge     L       System ormand acknowledge     L       System ormand acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Data enable of the vertical scanning direction (nutput)     L       Ground     -       Data enable of the vertical scanning direction (nutput)     L       Cocod reset     -       LCD data transmission clock     -       CD data transmission clock     -       LCD data transmission clock     -       CD data transmission clock     -       CD data transmission clock     -       LCD data transmission clock     -</td> <td>10         No. 10         No. 10           10         No. 10         No. 10           10         No. 10         No. 10           11         No. 10         No. 10           12         SDA         PD arrial data           13         SCL         PD arrial data           14         S3 XA         +3.3V           15         SCL         PD arrial data           16         SCL         PD arrial data           17         No. 43.3V        </td> <td>CH20         UPA-F-SLG (CM20) &lt;&gt; PWA-F-CD (CM19)           Nume         Addition           1         Soft           2&lt;</td> <td>a         1:52%         .           b         1:52%         .           c         1:50%         .           c         1:50</td>	38         A10         Memory address to [10]         -           48         B37         A         B3W         -           41         B3XA         +33         -         -           42         CLKO         Clock (0) input         -         -           43         B6         Signal ground         -         -           44         BCC         Not Conceledant (0)         -         -           44         BCC         Not Conceledant (0)         -         -           45         Not Conceledant (0)         -         -         -           46         Not Conceledant (0)         -         -         -           47         COMBE         Not conceledant (0)         -         -           48         GG         Signal ground         -         -           50         Not Conceledat bas (17)         -         -           51         Memory data bas [10]         -         -           52         Not Conceledat bas [10]         -         -           53         Conce mabbits signal         -         -           54         GG         Signal ground         -         -           56	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B20         SG           B21         INCK           B22         SG           B23         INDCLK           B24         INDCLK           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B21         LDON-0           1         VSCL-1A<	45V     -       System ormand busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System ormand acknowledge     L       System ormand acknowledge     L       System ormand acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Data enable of the vertical scanning direction (nutput)     L       Ground     -       Data enable of the vertical scanning direction (nutput)     L       Cocod reset     -       LCD data transmission clock     -       CD data transmission clock     -       LCD data transmission clock     -       CD data transmission clock     -       CD data transmission clock     -       LCD data transmission clock     -	10         No. 10         No. 10           10         No. 10         No. 10           10         No. 10         No. 10           11         No. 10         No. 10           12         SDA         PD arrial data           13         SCL         PD arrial data           14         S3 XA         +3.3V           15         SCL         PD arrial data           16         SCL         PD arrial data           17         No. 43.3V	CH20         UPA-F-SLG (CM20) <> PWA-F-CD (CM19)           Nume         Addition           1         Soft           2<	a         1:52%         .           b         1:52%         .           c         1:50%         .           c         1:50
21         070         mP0M data bin //         -	CLMFD1         Upper tanaport clutch (Low seeped) drive signal         -           -24V01         -24V1         -           -24V1         -24V1         -           -24V01         -24V1         -           -24V1         -24V1	38         A10         Memory address to [10]         -           38         A33 wide(1)         -           41         33VA         -3 3V           42         CLKO         Cock (0) Input         -           43         86         Signal ground         -           44         ICC         Net Controlled (1)         -           45         Net Controlled (2)         -           46         Net Controlled (2)         -           47         COMB2         Output disable/mit mask (2)         -           48         Net Controlled (2)         -         -           49         A33 wide (1)         -         -           40         A33 wide (1)         -         -           40         A33 wide (1)         -         -           41         A34 wide (1)         -         -           43         A5         Signal ground         -           43         A5         Signal ground         -           45         Oto A monory dista bus [20]         -           46         Oto A signal ground         -           47         Oto A monory dista bus [20]         -           48         Sig	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B17         IHSYNC0           B20         SG           B21         IDCLK           B22         SG           B23         IHOENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         SG           20         RST0-0A           21         CTS0-0A<	45V     -       System ormand busy     L       Command data     -       System status achnowledge     L       System status achnowledge     L       System ormand achnowledge     L       System ormand achnowledge     L       Ground     -       Clock signal for image data processing     -       Ground     -       Clock signal input for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data enable of the vertical scanning direction (input)     L       Clock signal output for image data transmission     -       Ground     -       Data enable of the vertical scanning direction (input)     L       Clock and transmission clock     -       CD data transmission clock     -       LD data transmission clock     -       LD data latch signal     H       LD data latch signal     H       LD data latch signal     H       LD data latch signal     -	Do         Documentation	Dread         PWA-F-SLG (CM0) <> PWA-F-CD (CM19)           PMA-F-SLG (CM1) <> SUP           PMA-F-SLG (CM10) <> PMA-F-SLG (CM19)           PMA-F-SLG (CM10) <> PMA-F-SLG (CM10)           PMA-F-SLG (CM10)            PMA-F-SLG (CM10) <> PMA-F-SLG (CM10)           PMA-F-SLG (CM10)            PMA-F-SLG (CM10)            PMA-F-SLG (CM10)            PMA-F-SLG (CM10)            PMA-F-SLG (CM10)            PMA -F-SLG (CM10)	1         1:52%         1           4         1:32%         1           5         MOD2DMA:1         Mode DMA signal           7         1:51%         Signal guerda           9         MEMRO2:0         SRMat data meat signal           10         CLCCE-1         Clock out enable signal           11         TCL2W-1         TX stadia meat signal           12         TX stadia meat signal
	CLMFD1 Upper tansport clutch (Low speed) drive signal	38         A10         Menny address but [10]         -           41         3.30         B.3.5W         -           42         CAG         Cock Oil paul         -           43         SA         -         -           44         SA         Say and pound         -           45         SA         Signal ground         -           46         Not connected         -         -           47         COMB2         Output disablewrine mark (2)         -           48         Not connected         -         -           49         A3.3W         -         -           40         Not connected         -         -           40         Not connected         -         -           41         A3.4A         -         -           42         Not connected         -         -           43         A3.4A         -         -           43         A3.4A         -         -           44         A3.4A         -         -           45         So Signal ground         -           46         DO10         Menory diath bug [2]         - <t< td=""><td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         INCIRESERVE1)           B24         SG           B27         INCIRESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         SG           20         RST0-0A           21</td><td>45V     -       System ormand busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground acknowledge     L       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data anable of the vertical scanning direction (output)     L       Data anable of the vertical scanning direction (input)     L       LCD data transmission clock     -       CD data transmission clock     -       CD data transmission clock     -       LED data transmission clock</td><td>10         Loc         Loc         Loc         Loc           81         NCV         Not conserved         -           82         SDA         PD aerial data         -           83         SCA         PD aerial data         -           84         SCA         PD aerial data         -           85         SCA         PD aerial data         -           86         DCAS         Merory data hus [30]         -           86         DCAS         Merory data hus [30]         -           86         DCAS         Merory data hus [30]         -           97         DCAS         Merory data hus [30]         -           98         DCAS         Merory data hus [30]         -           99         DCAS         Merory data hus [41]         -           90         DCAS         Merory data hus [42]         -           90         DCAS         Merory data hus [41]         -           101         DCAS         Merory data hus [42]         -           102         Address more data hus [42]         -         -           103         DCAS         Merory data hus [42]         -           104         DCAS         <td< td=""><td>Physics         Nume         Active           Physics         Signal ground        </td><td>Image: style         Image: style         Image: style           4        </td></td<></td></t<>	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         INCIRESERVE1)           B24         SG           B27         INCIRESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           Pin No         Symbol           1         XSCL-1A           2         LP-1A           3         SG           20         RST0-0A           21	45V     -       System ormand busy     L       Command data     -       System status acknowledge     L       System status acknowledge     L       System status busy     L       Status data     -       System command acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Ground acknowledge     L       Clock signal output for image data transmission     -       Ground     -       Clock signal output for image data transmission     -       Ground     -       Data anable of the vertical scanning direction (output)     L       Data anable of the vertical scanning direction (input)     L       LCD data transmission clock     -       CD data transmission clock     -       CD data transmission clock     -       LED data transmission clock	10         Loc         Loc         Loc         Loc           81         NCV         Not conserved         -           82         SDA         PD aerial data         -           83         SCA         PD aerial data         -           84         SCA         PD aerial data         -           85         SCA         PD aerial data         -           86         DCAS         Merory data hus [30]         -           86         DCAS         Merory data hus [30]         -           86         DCAS         Merory data hus [30]         -           97         DCAS         Merory data hus [30]         -           98         DCAS         Merory data hus [30]         -           99         DCAS         Merory data hus [41]         -           90         DCAS         Merory data hus [42]         -           90         DCAS         Merory data hus [41]         -           101         DCAS         Merory data hus [42]         -           102         Address more data hus [42]         -         -           103         DCAS         Merory data hus [42]         -           104         DCAS <td< td=""><td>Physics         Nume         Active           Physics         Signal ground        </td><td>Image: style         Image: style         Image: style           4        </td></td<>	Physics         Nume         Active           Physics         Signal ground	Image: style         Image: style         Image: style           4
	CLHFDH         Upper transport clubt. (Low speed) dive signal         -           24001         -2417         -           24001         -2417         -           24001         -2417         -           24001         -2417         -           24001         -24241         -           24001         -24241         -           24001         -2417         -           24001         -2417         -           24001         -2417         -           24001         -2417         -           50         Signal ground         -           61000         -         -           61000         -         -           61000         -         -           62001         -         -           62001         -         -           62001         -         -           62001         -         -           62001         -         -           62001         -         -           62001         -         -           62001         -         -           62001         -         -           62001<	38         A0.         Memory address but [0]         -           39         A3.0         B.3.7V         -           41         43.3V         B.3.7V         -           42         C.KO         Clock (0) input         -           43         SG.         Signif ground         -           44         SG.         Signif ground         -           45         Clope asiet signif (2)         -         -           46         CAS.         Clope asiet signif (2)         -           47         CMMBS         Output disative mask (2)         -           48         No.         Not connected         -           49         No.         Not connected         -           40         No.         Not connected         -           40         No.         Not connected         -           40         No.         Not connected         -           41         No.         Not connected         -           42         No.         Not connected         -           43         No.         No.         Not connected         -           44         So.         No.         No.         No.	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         IHOENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           CN118         PWA-F-SYS (           PIN NO         Symbol           1         XSCL-1A           2         LP-1A           3         SG           20         RST0-0A           21         CTS0-0	45V     -       System command busy     L       Command data     -       System status error     L       System status error     L       System status error     L       System status busy     L       Statu data     -       System command error     L       Ground     -       Clock signal uput for image data transmission     -       Ground     -       Clock signal uput for image data transmission     -       Ground     -       Ground     -       Clock signal uput for image data transmission     -       Ground     -       Clock anable of the vertical scanning direction (uput)	Image: Note:         Note:         Note:	Day Wukk-FLG (CK20) <> PWA-FCCD (CK19)           The field is a strated spatial ground is a strate strateground is a strateground is strateground is a strateground is a strateground is a strategro	1         1         1         1           4         4.33         4.33         -           5         MO02DMA1         Mode2 MA4 signal         -           7         5         Sept appropriation         -           7         5         Sept appropriation         -           7         5         Sept appropriation         -           10         CLVOE1         Costs out anable signal         -           11         5.14         MUM address bus [10]         -           12         5.14         MUM address bus [10]         -           13         5.11         MUM address bus [10]         -           14         Atthe MUM address bus [10]         -         -           15         Atthe MUM address bus [10]         -         -           16         MUM address bus [10]         -         -           28         Atthe MUM address bus [10]         -         -           29         Atthe MUM address bus [10]         -         -           20         MUM address bus [10]         -         -           29         Atthe MUM address bus [10]         -         -           20         Atthe MUM address bus [10] <t< td=""></t<>
	CLMFDH         Upper transport clubt. (Low speed) dive signal         -           24001         -241         -           24010         -241         -           24010         -241         -           24010         -242         -           24010         -242         -           24010         -242         -           24010         -242         -           24010         -242         -           24010         -242         -           24010         -242         -           24011         -242         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178         -         -           25178	38         A0.         Memory address but (0)         -           40         4.3 VA         4.3 VV         -           41         4.3 VA         4.3 VV         -           42         C.K.O.         Ock (0) (pnt)         -           43         S.G.         Stapping (pnun)         -           44         S.G.         Chapping (pnun)         -           45         C.C. Chap seld sign (0)         -         -           46         N.C.         Not Chapping (pnun)         -           47         DOMBS         Output diabulenter mark (2)         -           48         O.S. Not Connected         -         -           49         No.         Not Connected         -         -           50         O.16         Memory data bas [17]         -         -           50         D.16         Memory data bas [21]         -         -           61         Not Connected         -         -         -           62         O.10         Connected         -         -           63         Not Connected         -         -         -           64         S.S.         Sagaing ground         -         - </td <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         INDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         REST           B29         ARSTO           B30         SG           B21         IDCLK-1A           9         IDDAT-1A           10         IDCLK-1A           9         IDOCK-1A           9         IDON-A</td> <td>45V     -       System ormand busy     L       Command data     -       System status error     L       Command error     L       Condin     -       Ground     -       Condin synchronized signal     L       Ground     -       Cock signal output for image data transmission     -       Cock signal output for image data transmission     -       Ground     -     -       Ground     -     -       Cotat anabio of the vertical scanning direction (output)     L       Coround     -     -       Cotat anabio of the vertical scanning direction (output)     L       Coround     -     -       Cotat anabio of the vertical scanning direction (output)     L       Coround     -     -       Cotat anabio of the vertical scanning direction (output)     L       Cotat anabio of the vertical scanning direction (output)     L       Cotat anabio of the vertical scanning direction (output)     L<td>Image:         Note:         <t< td=""><td>Charter         Statute         Statute         Statute         Statute           Phyto         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Sta</td><td>1         1         1         1           4         4.339             5         MODZDAA-1         Mode2 DMA signal            7         MERCES         SFAM ding the staggal            8         5.198         SFAM ding the staggal            9         MERCES         SFAM ding the staggal            10         CASCE         SFAM ding the staggal            11         A.146         MOM address bus [10]            12         A.146         MOM address bus [2]            13         A.146         MOM address bus [2]            14         A.146         MOM address bus [2]            15         A.167         MOM address bus [2]            14         A.167         MOM address bus [2]            15         A.178         A.178            16         MOM address bus [2]             16         MOM address bus [2]             16         MOM address bus [2]             17</td></t<></td></td>	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         INDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         REST           B29         ARSTO           B30         SG           B21         IDCLK-1A           9         IDDAT-1A           10         IDCLK-1A           9         IDOCK-1A           9         IDON-A	45V     -       System ormand busy     L       Command data     -       System status error     L       Command error     L       Condin     -       Ground     -       Condin synchronized signal     L       Ground     -       Cock signal output for image data transmission     -       Cock signal output for image data transmission     -       Ground     -     -       Ground     -     -       Cotat anabio of the vertical scanning direction (output)     L       Coround     -     -       Cotat anabio of the vertical scanning direction (output)     L       Coround     -     -       Cotat anabio of the vertical scanning direction (output)     L       Coround     -     -       Cotat anabio of the vertical scanning direction (output)     L       Cotat anabio of the vertical scanning direction (output)     L       Cotat anabio of the vertical scanning direction (output)     L <td>Image:         Note:         <t< td=""><td>Charter         Statute         Statute         Statute         Statute           Phyto         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Sta</td><td>1         1         1         1           4         4.339             5         MODZDAA-1         Mode2 DMA signal            7         MERCES         SFAM ding the staggal            8         5.198         SFAM ding the staggal            9         MERCES         SFAM ding the staggal            10         CASCE         SFAM ding the staggal            11         A.146         MOM address bus [10]            12         A.146         MOM address bus [2]            13         A.146         MOM address bus [2]            14         A.146         MOM address bus [2]            15         A.167         MOM address bus [2]            14         A.167         MOM address bus [2]            15         A.178         A.178            16         MOM address bus [2]             16         MOM address bus [2]             16         MOM address bus [2]             17</td></t<></td>	Image:         Note:         Note: <t< td=""><td>Charter         Statute         Statute         Statute         Statute           Phyto         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Sta</td><td>1         1         1         1           4         4.339             5         MODZDAA-1         Mode2 DMA signal            7         MERCES         SFAM ding the staggal            8         5.198         SFAM ding the staggal            9         MERCES         SFAM ding the staggal            10         CASCE         SFAM ding the staggal            11         A.146         MOM address bus [10]            12         A.146         MOM address bus [2]            13         A.146         MOM address bus [2]            14         A.146         MOM address bus [2]            15         A.167         MOM address bus [2]            14         A.167         MOM address bus [2]            15         A.178         A.178            16         MOM address bus [2]             16         MOM address bus [2]             16         MOM address bus [2]             17</td></t<>	Charter         Statute         Statute         Statute         Statute           Phyto         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Statute           Statute         Statute         Statute         Statute         Statute         Sta	1         1         1         1           4         4.339             5         MODZDAA-1         Mode2 DMA signal            7         MERCES         SFAM ding the staggal            8         5.198         SFAM ding the staggal            9         MERCES         SFAM ding the staggal            10         CASCE         SFAM ding the staggal            11         A.146         MOM address bus [10]            12         A.146         MOM address bus [2]            13         A.146         MOM address bus [2]            14         A.146         MOM address bus [2]            15         A.167         MOM address bus [2]            14         A.167         MOM address bus [2]            15         A.178         A.178            16         MOM address bus [2]             16         MOM address bus [2]             16         MOM address bus [2]             17
	CLMPD1         Upper transport clubch (.ow speed) dive signal         -           CLMPU         Upper transport clubch (ring speed) dive signal         -           CLMPU         Upper transport clubch (ring speed) dive signal         -           CLMPU         Ladva         -           CLMPU         Ladva         -           SetVol         1-24         -           CLMPU         Ladva         -           SetVol         1-24         -           SetVol         1-24         -           USTEL         Torer bag (up diver) diver signal         -           USTEL         Torer bag (up diver) diver signal         -           SetVol         -         -           VID         -         -         -           SetTore         Name         Active           VID         -         -         -           VID         VID         Name         Active           SetTore         SetTore tag settore diver signal         -           VID         VID         Name         Active           SetTore         System data bug [0]         -           ArXA         System data bug [0]         -           ArXA         System	38         A/0         Menory address bas (10)         -           41         4.30%         4.30%         -           42         L6.00         Dick (0) (part)         -           43         Sol         Dipating pound         -           44         Dick (0) (part)         -         -           45         Disk (0) (part)         -         -           46         Disk (0) (part)         -         -           47         Disk (0) (part)         -         -           48         Disk (0) (part)         -         -           49         Disk (0) (part)         -         -           40         Disk (0) (part)         -         -           41         Disk (0) (part)         -         -           42         Disk (0) (part)         -         -           43         Disk (0) (part)         -         -           44         Disk (0) (part)         -         -           45         Disk (0) (part)         -         -           46         Disk (0) (part)         -         -           47         Disk (0) (part)         -         -           48         Disk (0) (part	B1         SG           B2         MMPI1           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B21         INOCK           B23         SG           B24         SG           B25         INDENO           B26         SG           B27         NC(RESERVE1)           B28         RSTO           B30         SG           B21         INDCLK1A           2         IP-1A           3         WF-1A           4         YD-1A           5         INVGND           6         B2ON-0A           7         CPPOW-1A           8         EOCL/K-1A           9         LDON-0A <td>45V     -       System ornand busy     L       Command data     -       System status error     L       System status error     L       System status error     L       System status busy     L       Cound     -       Cound     -       Cound     -       Cound     -       Cock signal low image data transmission     -       Cound     -       Cock signal output for image data transmission     -       Cock signal output for wertical scanning direction (output)     -       Data enable of the vertical scanning direction (output)     -       Cound     -     -       Data enable of the vertical scanning direction (output)     -       Cound     -     -       Data enable of the vertical scanning direction (output)     -       CD data transmission class     -     -       CD data transmission class     -     -       CD data transmission class     -     -       CD data transmission class     -</td> <td>Image: Note: Control of the second second</td> <td>Diff         Statistic         Spart open of the second sec</td> <td>1         1         1         1           4         4.339             5         MO02DMA1         Mode2 DMA signal            7         MEMO2O         SFAM day paid            7         MEMO2O         SFAM day paid            10         MEMPO2O         SFAM day paid            11         A.51 VB          SFAM            12         S.51 VB          SFAM            13         A.120         MEMPO2O         SFAM day signal            14         MOM address bus [12]              15         A.120         MOM address bus [2]             16         A.10         MOM address bus [2]             16         A.10         MOM address bus [2]             17         AB1         MOM address bus [2]             16         AD1         AD2         MOM address bus [2]            17         AB1         MOM addres bus [2]       <t< td=""></t<></td>	45V     -       System ornand busy     L       Command data     -       System status error     L       System status error     L       System status error     L       System status busy     L       Cound     -       Cound     -       Cound     -       Cound     -       Cock signal low image data transmission     -       Cound     -       Cock signal output for image data transmission     -       Cock signal output for wertical scanning direction (output)     -       Data enable of the vertical scanning direction (output)     -       Cound     -     -       Data enable of the vertical scanning direction (output)     -       Cound     -     -       Data enable of the vertical scanning direction (output)     -       CD data transmission class     -	Image: Note: Control of the second	Diff         Statistic         Spart open of the second sec	1         1         1         1           4         4.339             5         MO02DMA1         Mode2 DMA signal            7         MEMO2O         SFAM day paid            7         MEMO2O         SFAM day paid            10         MEMPO2O         SFAM day paid            11         A.51 VB          SFAM            12         S.51 VB          SFAM            13         A.120         MEMPO2O         SFAM day signal            14         MOM address bus [12]              15         A.120         MOM address bus [2]             16         A.10         MOM address bus [2]             16         A.10         MOM address bus [2]             17         AB1         MOM address bus [2]             16         AD1         AD2         MOM address bus [2]            17         AB1         MOM addres bus [2] <t< td=""></t<>
	CLMPD H         Upper transport clubch (Lore speed) dive signal         -           SAVD1         -         -           CLMPCU         Upper transport clubch (Hip speed) dive signal         -           SAVD1         -24V1         -           SAVD1         -24V2         -           SAVD1         -24V2         -           SAVD1         -24V1         -           SAVD1 <td>38         Alo         Menory address but (0)         -           41         4.30X         4.30X         -           42         CAO         Dica (0) (pat)         -           43         CAO         Dica (0) (pat)         -           44         CAO         Dica (0) (pat)         -           45         CAS         Orga association (0)         -           46         CAS         Orga association (0)         -           47         CAS         Orga association (0)         -           46         CAS         Orga association (0)         -           47         CAS         Not connected         -           48         SA         SA         -         -           49         Not connected         -         -           40         Not connected         -         -           40         Not connected         -         -           41         Not connected         -         -           42         Not connected         -         -           43         Not connected         -         -           44         SA         Not connected         -           45</td> <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         SCMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B21         IDCLK           B22         SG           B23         INDCN           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B20         SG           B21         NCMOD           6         BZON-0A           7         CPPOW-1A           8         LDCLT-1A           9         LDON-1A</td> <td>45V     -       System command busy     L       Command data     -       System status error     L       System command acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Clock signal input for image data transmission     -       Clock signal output for image data transmission     -       Data enable of the vertical scanning direction (upput)     L       Clock signal output     -       LCD data transmission cock     -       LCD data transmission cock     -       LCD data transmission cock     -       LCD data stath signal     L       LCD data transmission cock     -       LCD data transmission cock     -       LCD data transingial (1)     L</td> <td>Image: Note of the second material of the se</td> <td>Display         Display and yound         Attach           1         50         Bigsa and yound         Image         Attach           1         50         Bigsa and yound         Image         Image<td>1         1         1           4         3.59        </td></td>	38         Alo         Menory address but (0)         -           41         4.30X         4.30X         -           42         CAO         Dica (0) (pat)         -           43         CAO         Dica (0) (pat)         -           44         CAO         Dica (0) (pat)         -           45         CAS         Orga association (0)         -           46         CAS         Orga association (0)         -           47         CAS         Orga association (0)         -           46         CAS         Orga association (0)         -           47         CAS         Not connected         -           48         SA         SA         -         -           49         Not connected         -         -           40         Not connected         -         -           40         Not connected         -         -           41         Not connected         -         -           42         Not connected         -         -           43         Not connected         -         -           44         SA         Not connected         -           45	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         SCMD           B6         SACK           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B21         IDCLK           B22         SG           B23         INDCN           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B20         SG           B21         NCMOD           6         BZON-0A           7         CPPOW-1A           8         LDCLT-1A           9         LDON-1A	45V     -       System command busy     L       Command data     -       System status error     L       System command acknowledge     L       Ground     -       Clock signal for image data transmission     -       Ground     -       Clock signal input for image data transmission     -       Clock signal output for image data transmission     -       Data enable of the vertical scanning direction (upput)     L       Clock signal output     -       LCD data transmission cock     -       LCD data transmission cock     -       LCD data transmission cock     -       LCD data stath signal     L       LCD data transmission cock     -       LCD data transmission cock     -       LCD data transingial (1)     L	Image: Note of the second material of the se	Display         Display and yound         Attach           1         50         Bigsa and yound         Image         Attach           1         50         Bigsa and yound         Image         Image <td>1         1         1           4         3.59        </td>	1         1         1           4         3.59
	CLMPD II         Upper transport clubth (Low gpeel) dive signal         -           CLMPCU         Upper transport clubth (High speel) dive signal         -           CLMPCU         Upper transport clubth (High speel) dive signal         -           CLMPCU         Upper transport clubth (High speel) dive signal         -           SAVD1         -244V         -           CLMPCU         Upper transport clubth (High speel) dive signal         -           CLMPCU         Back developer Hing clubt dive signal         -           CLMPU         Back developer Hing clubt dive signal         -           CLMPU         Back developer Hing clubt dive signal         -           String         -         -         -           Nonce         Net connected         -         -           String         -	Bit         Ano.         Ano.	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         SCMD           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B21         DCLK           B22         SG           B21         IDCLK           B22         SG           B23         IHDENO           B24         SG           B25         IVDENO           B26         SG           B27         NC(RESERVE1)           B28         RESENVE2           B29         ARSTO           B30         SG           B10         LOXIA           7         CPPOW-1A           8         LDCLT-1A           1         LDON-7-0A           7         CPPOW-1A           8         LONA-7-1A<	45V     -       System cannad buay     -       Command buay     -       System attalus acrow     L       System cannad acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Cock signal for image data transmission     -       Ground     -       Cock signal notpot for image data transmission     -       Ground     -       Cock signal notpot for image data transmission     -       Ground     -       Data anable of the vertical scanning direction (nutput)     L       Cock signal outpot for image data transmission     -       Ground     -       Data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning direction (nutput)     L       Cic data anable of the vertical scanning directio	Image: Description         Image: Description           0         Note: Description         Image: Description	Diff         Diff         Solution         Diff         Attract         Attract           Phy Model         Solution         Solution         Solution         Solution           1         Solution         Solution         Solution         Solution         Solution           1         Solution         Solution         Solution         Solution         Solution         Solution           1         Solution	1         1         1           4         3.59         -           5         MO02DUA.1         Mode Data and Serie Light         -           6         MO02DUA.1         Mode Data and Serie Light         -           7         MEXCS         SAM And Yos         -           8         MAND         Serie Light         -           10         MCXCS         SAM And Yos         -           11         MCXCS         SAM And Yos         -           12         MCXD         Serie Light         -           13         MCX         MCXD And Yos         -           14         MCXD And Yos         -         -           15         MCXD MAND And Yos         -         -           16         MCXD And Yos         -         -           17         MCXD And Yos         -         -           18         MCXD And Yos         -         -           19         MCXD And Yos         -         -           10         MCXD And Yos         -         -           10         MCXD And Yos         -         -           10         MCXD And Yos         -         -
	CLMPD II         Upper transport club (Low gase) dive signal         -           SAVDI I         2340         -           CLMPC II         Back developer dive club signal         -           CLMPC II         2340         -           CLMPC II         4340         -           System data bua [0         -         -           CLMPC II         -         -           CLMPC II         -         -           CLMPC II         -         -           CLMPC II         -         - <t< td=""><td>8         Ado         Ado           9         1-53/W.         A-35/W           40         1-53/W.         A-35/W           41         1-53/W.         A-35/W           42         CLGO. Clox (1) input        </td><td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         SCMD           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B21         IDCLK           B22         SG           B23         IDCLK           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B10         LDCLT-1A           1         LDDAT-1A           1         LDDAT-1A           1         LDDAT-1A           1         LDDAT-1A           1         LDON-0A</td><td></td><td>Image: Note of the second se</td><td>Child         Solution         Particle         Active           1         Solution         Solution         Nome         Active           1         Solution         Solution         Nome         Active           1         Solution         Solution         Solution         Solution           1         Solution         Solution         Solution         Solution         Solution           1         Solution         Solution         Solution         Solution         Solution         Solution           1         Solution         Solution</td><td>1         1/200         1/10           4         1/200         1/200           4         1/200         1/200           5         1/200         1/200           6         4/10         1/200           7         1/200         1/200           8         4/10         1/200           10         1/200         1/200           11         1/200         1/200           12         4/10         1/200           13         1/200         1/200           14         1/200         1/200           15         1/21         1/200           16         1/21         1/200           17         1/200         1/200           18         1/200         1/200           19         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200</td></t<>	8         Ado         Ado           9         1-53/W.         A-35/W           40         1-53/W.         A-35/W           41         1-53/W.         A-35/W           42         CLGO. Clox (1) input	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         SCMD           B7         SERR           B8         SSSY           B9         STS           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK_M           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B21         IDCLK           B22         SG           B23         IDCLK           B26         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B10         LDCLT-1A           1         LDDAT-1A           1         LDDAT-1A           1         LDDAT-1A           1         LDDAT-1A           1         LDON-0A		Image: Note of the second se	Child         Solution         Particle         Active           1         Solution         Solution         Nome         Active           1         Solution         Solution         Nome         Active           1         Solution         Solution         Solution         Solution           1         Solution         Solution         Solution         Solution         Solution           1         Solution         Solution         Solution         Solution         Solution         Solution           1         Solution	1         1/200         1/10           4         1/200         1/200           4         1/200         1/200           5         1/200         1/200           6         4/10         1/200           7         1/200         1/200           8         4/10         1/200           10         1/200         1/200           11         1/200         1/200           12         4/10         1/200           13         1/200         1/200           14         1/200         1/200           15         1/21         1/200           16         1/21         1/200           17         1/200         1/200           18         1/200         1/200           19         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200           10         1/200         1/200
	CLAPPONOper transport outbol (now speed) ave signal	38         Aboy	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B21         IDCLK           B22         SG           B23         ISG           B24         SG           B25         IVDENO           B26         SO           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B30         SG           B27         NC(RESERVE1)           B28         RESERVE2           B29         ARSTO           B20         CDUAT-1A	45V     -       System command busy     L       Command data     -       System status acknowledge     L       System command acknowledge     L       System command acknowledge     L       System command acknowledge     L       Cock aignal for image data transmission     -       Cock aignal for image data transmission     -       Cock aignal output for image data transmission     -       Cock aignal output for image data transmission     -       Cock aignal output for image data transmission     -       Data anable of the vertical scanning direction (output)     L       Cock aignal output for image data transmission     -       Data anable of the vertical scanning direction (output)     L       Cock aignal bit public     -       Co	Image: Note of the second se	Disk         PWA-F-SLG (CMI)           Im         Sol         Signal ground	1         1/20         1/20           4         3.20
	CLMPEN         Upper transport duck fill doe speed dive signal         -           CLMON         Bask dowinger dive clubch signal         -           CLMON         Bask dowinger dive clubch signal         -           CLMON         Bask dowinger dive clubch signal         -           CLMON         Dive diverse duck diverse signal         -           SADDES         Diverse diverse duck diverse signal         -           SADDES         Sagnal ground         -           SADDES         Sagnal ground <td>38         Abo        </td> <td>B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         INC/RESERVE1)           B24         SG           B27         INC/RESERVE1)           B28         RESERVE2           B29         ARSTO           B20         SG           B21         INCINTA           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YO-1A           5         INVSINDO           6         B2ON-0A           7         CPPOW-1</td> <td></td> <td>iso         iso         iso           isi         iso         iso         iso           iso         iso         iso         iso           iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           <t< td=""><td>Dev.         PWA-F-SLG (CM0) -&gt; PWA-F-CDC (CM19)           Image: State of the state of th</td><td>1         1/20         1/10         1           2         1/20         1/20         1/20           3         1/20         1/20         1/20           4         1/20         1/20         1/20           7         MEXACON         1/20         1/20           7         MEXACON         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20</td></t<></td>	38         Abo	B1         SG           B2         MMP11           B3         +5.1VB           B4         CBSY           B5         CMD           B6         SACK           B7         SERR           B8         SBSY           B10         CACK           B11         CERR           B12         SG           B13         PEFCLK           B14         SG           B15         IRCLK1           B16         SG           B17         IHSYNCO           B20         SG           B21         IDCLK           B22         SG           B23         INC/RESERVE1)           B24         SG           B27         INC/RESERVE1)           B28         RESERVE2           B29         ARSTO           B20         SG           B21         INCINTA           1         XSCL-1A           2         LP-1A           3         WF-1A           4         YO-1A           5         INVSINDO           6         B2ON-0A           7         CPPOW-1		iso         iso         iso           isi         iso         iso         iso           iso         iso         iso         iso           iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso           iso         iso         iso         iso         iso         iso <t< td=""><td>Dev.         PWA-F-SLG (CM0) -&gt; PWA-F-CDC (CM19)           Image: State of the state of th</td><td>1         1/20         1/10         1           2         1/20         1/20         1/20           3         1/20         1/20         1/20           4         1/20         1/20         1/20           7         MEXACON         1/20         1/20           7         MEXACON         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20</td></t<>	Dev.         PWA-F-SLG (CM0) -> PWA-F-CDC (CM19)           Image: State of the state of th	1         1/20         1/10         1           2         1/20         1/20         1/20           3         1/20         1/20         1/20           4         1/20         1/20         1/20           7         MEXACON         1/20         1/20           7         MEXACON         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20           1         1/20         1/20         1/20         1/20

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2-17-2, HIGASHIGOTANDA, SHINAGAWA-KU, TOKYO, 141-8664, JAPAN