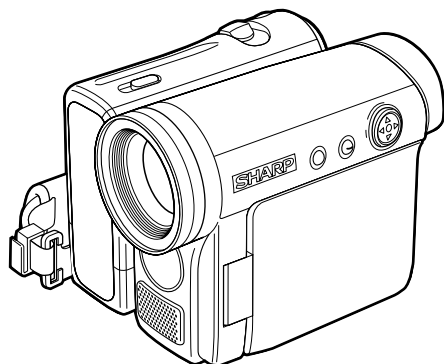


SHARP SERVICE MANUAL

S53A8VL-Z3U//

LIQUID CRYSTAL DISPLAY CAMCORDER NTSC



MODELS

VL-Z3U

VL-Z5U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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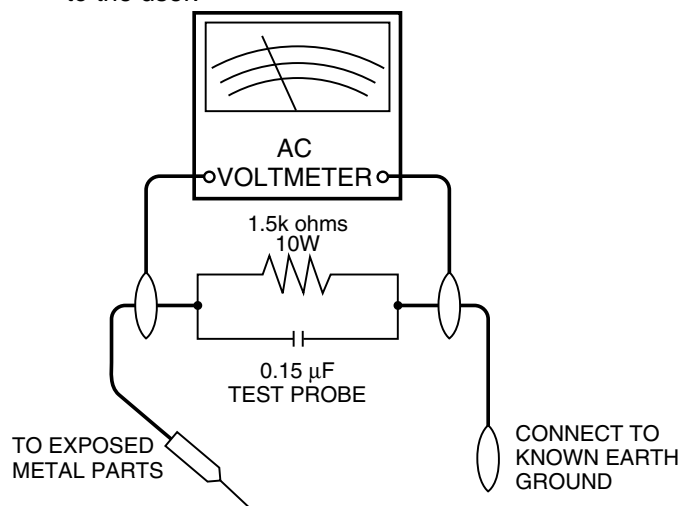
1. IMPORTANT SERVICE NOTES

BEFORE RETURNING THE VIDEO CAMERA RECORDER

Before returning the video camera recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the video camera recorder.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known ground, such as a water pipe or conduit.
 - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor (See Diagram).
 - Move the resistor connection to all exposed metal parts having a return path to the chassis (antenna

connections, metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug (a non polarized adaptor plug must be used but only for the purpose of completing these checks) on the set and repeat the AC voltage measurements for each exposed metallic part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the video camera recorder to the user.



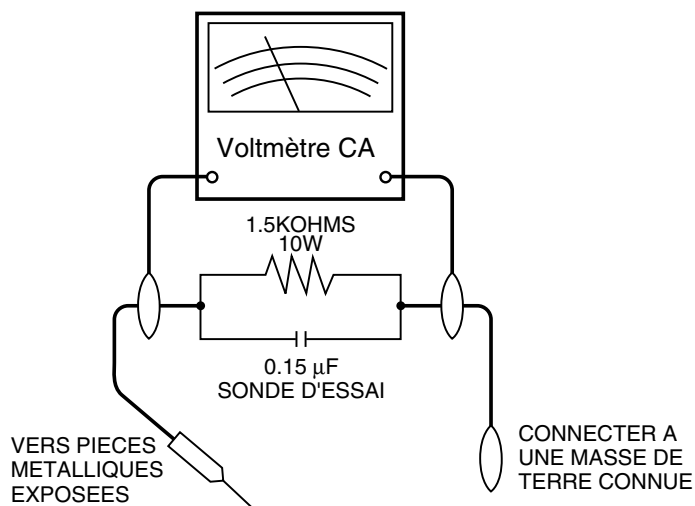
1. NOTES DE SERVICE IMPORTANTES

AVANT DE RENDRE LE MAGNETOSCOPE

Avant de rendre le magnétoscope à l'utilisateur, effectuer les vérifications de sécurité suivantes.

1. Vérifier toutes les gaines de fil pour être sûr que les fils ne sont pas pincés ou que le matériel n'est pas coincé entre le châssis et les autres pièces métalliques dans le magnétoscope.
2. Vérifier tous les dispositifs de protection tels que les boutons de commande non métalliques, les matériaux d'isolement, le dos du coffret, les couvercles de compartiment et ajustement ou les boucliers, les réseaux de résistance / condensateur d'isolement, les isolateurs mécaniques, etc.
3. Pour être sûr qu'il n'y a aucun risque de choc électrique, vérifier le courant de fuite de la manière suivante.
 - Brancher le cordon d'alimentation secteur directement dans une prise de courant de 120 volts. (Ne pas utiliser de transformateur d'isolement pour cet essai).
 - Utiliser deux fils à pinces et connecter une résistance de 10 watts 1,5 kohm en parallèle avec un condensateur de 0,15 μ F en série avec des pièces du coffret métallique exposées et une masse de terre connue telle qu'un tuyau ou un conduit d'eau.
 - Utiliser un voltmètre CA d'une sensibilité d'au moins 5000/V mesurer la chute de tension en travers de la résistance (voir diagramme).
 - Déposer la connexion de la résistance à toutes les pièces métalliques exposées ayant un parcours de

retour au châssis (connexions d'antenne, coffret métallique, têtes de vis, boutons et arbres de commande, etc.) et mesurer la chute de tension CA entre la résistance. Inverser la fiche CA (une fiche intermédiaire non polarisée doit être utilisée à seule fin de faire ces vérifications.) sur l'appareil et répéter les mesures de tension CA pour chaque pièce métallique exposée. Toute lecture de 0,45 V rms (ceci correspond à 0,3 mA rms CA) ou plus est excessive et signale un danger de choc qui doit être corrigé avant de rendre le magnétoscope à son utilisateur.



WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.



CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

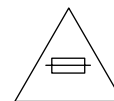


This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION

This symbol mark means following.
For continued protection against fire hazard, replace only with same type fuse.
(CP1; 0.75A 24V, CP2; 1.25A 24V, CP3; 1.25A 24V)

Camcorder only



ATTENTION: POUR REDUIRE LES RESQUES D'INCENDIE OU DE CHOC ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.



ATTENTION

**RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR**



ATTENTION: AFIN DE REDUIRE LES RISQUES DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE, AUCUN ORGANE INTERNE NE PEUT ETRE REPARÉ PAR L'UTILISATEUR, CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.



Ce symbole signale à l'utilisateur la présence d'une tension non isolée à l'intérieur de l'appareil qui peut être la cause de secousses électriques dangereuses.

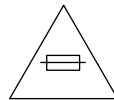


Ce symbole avertit l'utilisateur que des instructions importantes relatives à l'utilisation et à l'entretien se trouvent dans le manuel accompagnant l'appareil.

ATTENTION

Ce symbole signifie que l'on devra utiliser un fusible de même type (CP1; 0,75A 24V, CP2; 1,25A 24V, CP3; 1,25A 24V) pour assurer la sécurité.

Camcorder seulement




CAUTION
BEFORE BATTERY DESTROY

■ NICKEL-CADMIUM BATTERY

The following program is available in the United States. Please consult local environmental authorities concerning the availability of this or other programs in your area.

The RBRC™ Seal

SHARP participates in the RBRC™* Nickel-Cadmium Battery Recycling Program in the United States. The RBRC™ Seal on our battery pack contained in our product indicates that SHARP is voluntarily participating in an industry program to collect and recycle these batteries. The RBRC™ program provides you with a convenient alternative to placing spent Nickel-Cadmium battery packs into the trash or municipal waste stream, which is illegal in some areas. At the end of their useful life, the Nickel-Cadmium battery can be dropped off at the nearest collection center for recycling. For information on the nearest collection center, call 1-800-8-BATTERY or your local recycling center. If you are located outside the United States, contact your local authorities for information concerning proper disposal and/or recycling of this battery. SHARP's involvement in this program is part of our commitment to protecting our environment and conserving natural resources.

[Footnote] *RBRC™ is trademark of the Rechargeable Battery Recycling Corporation.

■ NICKEL-METAL HYDRIDE BATTERY

■ LITHIUM or LITHIUM-ION BATTERY

■ SEALED LEAD BATTERY

Battery disposal

This product contains NICKEL-METAL hydride (LITHIUM-ION) battery.

This battery must disposed of properly.

Remove the battery from the product and contact your local environmental agencies for information on recycling and disposal options.

■ PRECAUTIONS FOR USING LEAD-FREE SOLDER

1) Employing lead-free solder

"Main PWB", "CCD PWB", "Sub PWB", "LCD PWB", "Head amp PWB", "Lithium PWB", "Operation PWB", "VCR Operation PWB", "Zoom SW PWB", "Mecha Reversion detection PWB", of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:



Sn-Ag-Cu

Indicates lead-free solder of tin, silver and copper

2) Using lead-free solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40°C, we recommend you to use a dedicated soldering bit. If you are not familiar with how to obtain lead-free solder or soldering bit, contact our service station or service ranch in your area.

3) Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solderability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Lead-free wire solder for servicing

Part No.	★	Description	Price Code
ZHNDAi123250E	J	φ0.3mm 250g(1roll)	BL
ZHNDAi126500E	J	φ0.6mm 500g(1roll)	BK
ZHNDAi12801KE	J	φ1.0mm 1kg(1roll)	BM

2. SPECIFICATIONS

Signal System:	NTSC standard
Recording System:	2 rotary heads, helical scanning system
Cassette:	Digital VCR Mini DV video cassette
Recording/Playback Time:	90 minutes (DVM60, LP mode)
Tape Speed:	SP mode: 18.812 mm/second LP mode: 12.555 mm/second
Pickup Device:	1/4" (6.4 mm, effective size: 4.5 mm) CCD image sensor (with approx. 680,000 pixels including optical black, effective pixels: approx. 340,000 pixels)
Lens:	10 × optical zoom lens (F1.8, f=3.8-38.0 mm)
Lens Filter Diameter:	30 mm
Monitor:	2.5" (6.4 cm) CGSilicon
Built-in Microphone:	Electret stereo microphone
Color Temperature Compensation:	Auto white balance with white balance lock
Minimum Illumination:	2 lux (9 lux measured by EIA standard)(with gain-up, F1.8)
Still Image Compression System:	JPEG base line conformance
Still Image Recording Format:	JPEG (Exif2.2)
Still Image Recording Medium:	SD Memory Card, MultiMediaCard
Power Requirement:	DC 7.4 V
Power Consumption:	3.6 W (during camera recording in Tape Camera mode using the viewfinder in Full Auto mode with the DIS function on) 4.2 W (during camera recording in Tape Camera mode using the LCD monitor in Full Auto mode with the DIS function on and backlight in normal mode)
Operating Temperature:	32°F to 104°F (0°C to +40°C)
Operating Humidity:	30% to 80%
Storage Temperature:	-4°F to 140°F (-20°C to +60°C)
Dimensions (approx.):	3 1/4" (W) × 3 15/64" (H) × 4" (D) [82.8 mm (W) × 82.2mm (H) × 101.5 mm (D)]
Weight (approx.):	VL-Z5: 1.07lbs (485 g) VL-Z3: 1.05lbs (478 g) (without battery pack, lithium battery, video cassette, lens cap and card)

AC Adapter (UADP-0339TAZZ)(Z3U/C/Z5U/C)

AC Adapter (UADP-A015WJZZ)(Z3K/Z5K)

Power Requirement:	AC 110-240 V, 50/60 Hz
DC Output:	10 V
Dimensions (approx.):	UADP-0339TAZZ: 1 31/32" (W) × 1 1/16" (H) × 2 19/32" (D) [50.0mm (W) × 27.0mm (H) × 65.5 mm (D)] UADP-A015WJZZ: 1 30/32" (W) × 1 5/64" (H) × 2 23/32" (D) [49.0mm (W) × 27.5mm (H) × 69.0 mm (D)]
Weight (approx.):	UADP-0339TAZZ: 0.22 lbs (100 g) UADP-A015WJZZ: 0.23lbs (105 g)

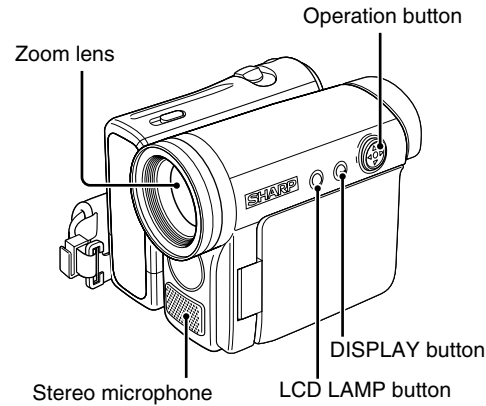
Specifications are subject to change without notice.

SERVICE INFORMATION (For the U.S.)

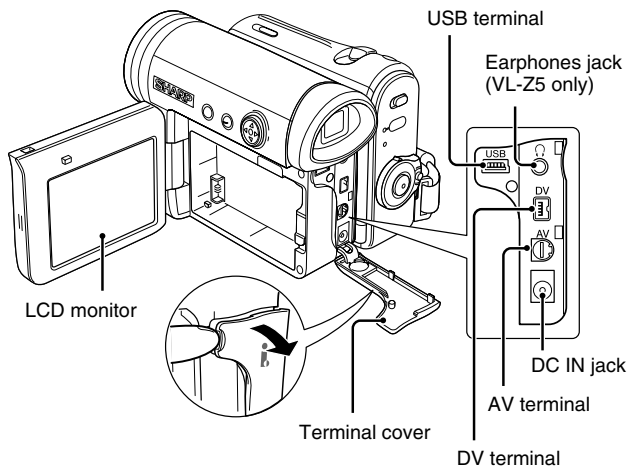
For the location of the nearest Sharp Authorized Service, or to obtain product literature, accessories, supplies or customer assistance, please call 1-800-BE SHARP (1-800-237-4277) or visit SHARP's website (<http://www.sharppusa.com>)

3. PART NAMES

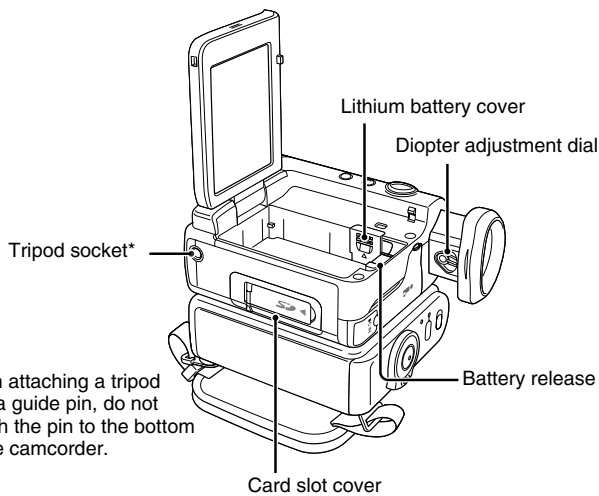
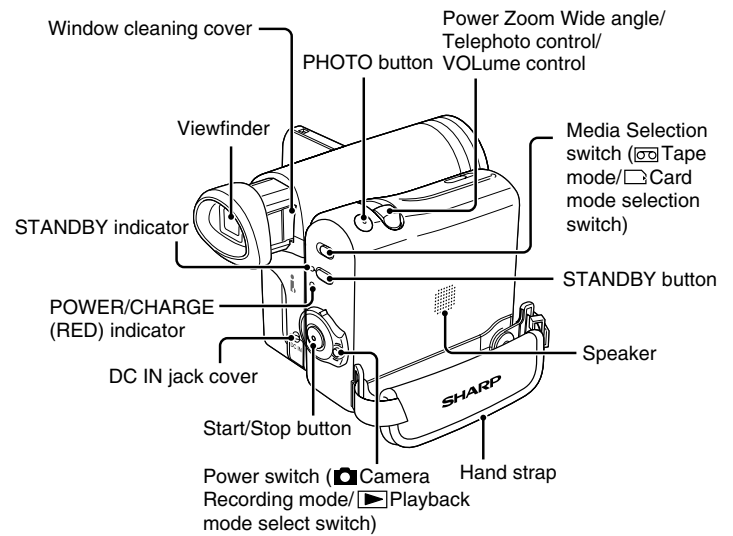
Front view



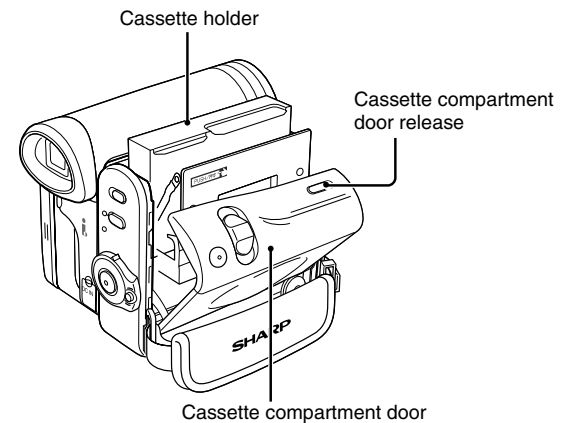
Left view



Right view



* When attaching a tripod with a guide pin, do not attach the pin to the bottom of the camcorder.



4. DISASSEMBLY OF THE SET

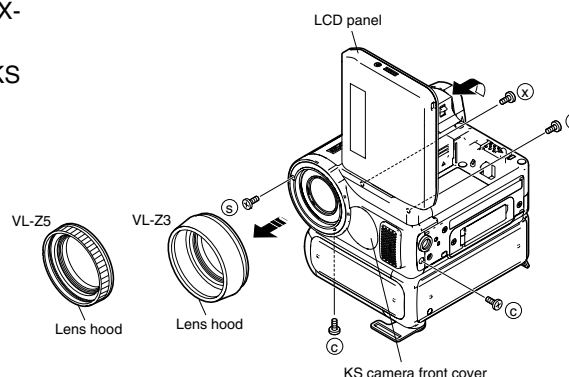
4-1. Procedure for disassembling the cabinet

Note:

Before removing the cabinet, turn OFF the power and make sure that the battery is not connected.

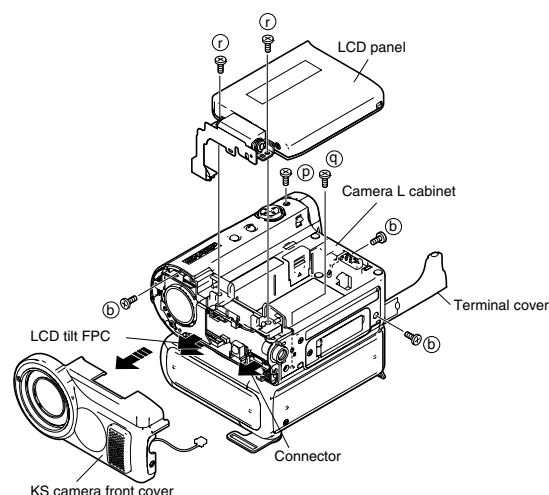
1.

- Remove the lens hood and remove the screw ((s) XiPSF14P06000).
- Open the LCD panel 90 degrees and remove the two screws ((x)LX-HZ0050TAFN).
- Remove the two screws ((c)XiPSN17P04000) and remove the KS camera front cover by pulling it frontward.



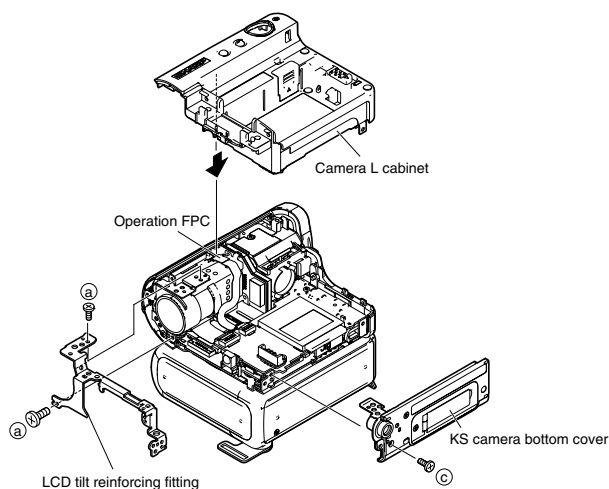
2.

- Disconnect the connector of the KS camera front cover.
- Disconnect the two LCD tilt FPCs of the liquid crystal panel.
- Remove the two screws ((r) XiPSN20P08000) and remove the LCD panel.
- Remove the screw ((p) LX-HZ0063TAFN) and screw ((q) XiPSN17P06000) that hold the camera L cabinet, open the terminal cover and remove the three screws ((b) XiPSN17P03000).

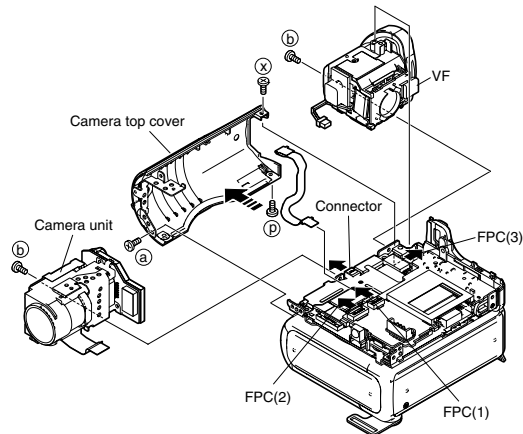


3.

- Disconnect the operation FPC and remove the camera L cabinet.
- Remove the screw ((c) XiPSN17P04000) and remove the KS camera bottom cover.
- Remove the two screws ((a) XiPSN17P02000) and remove the LCD tilt reinforcing fitting.

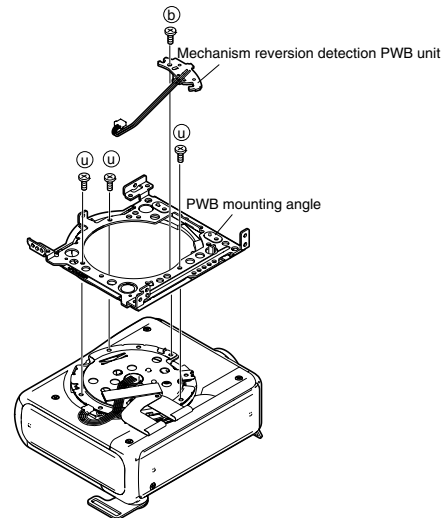


4.



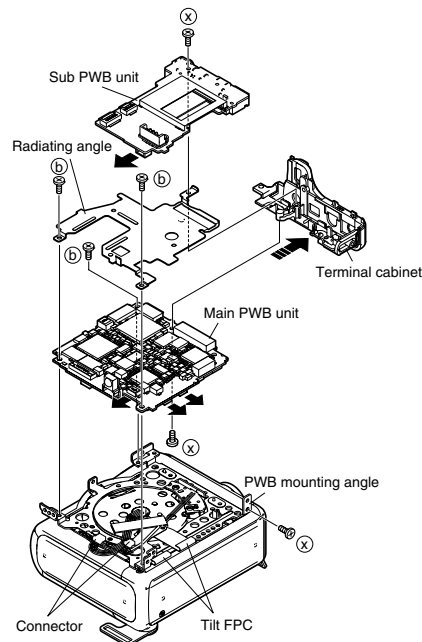
- Remove the screw ((x) LX-HZ0050TAFN), screw ((p) LX-HZ0063TAFN) and screw ((a) XiPSN17P02000), disconnect the FPC (1) and remove the camera top cover.
- Remove the screw ((b) XiPSN17P03000) from the camera unit, disconnect the FPC (2) and remove the camera unit.
- Remove the screw ((b) XiPSN17P03000), disconnect the connector and FPC (3) and remove the VF.

6.



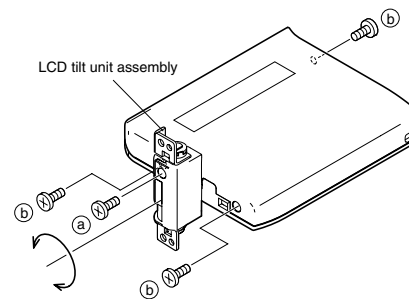
- Remove the screw ((b) XiPSN17P03000) and remove the Mechanism reversion detection PWB unit.
- Remove the three screws ((u) LX-BZ0221TAFN) and remove the PWB mounting angle.

5.



- Disconnect the two connectors of the sub PWB unit and main PWB unit.
- Remove the two screws ((b) XiPSN17P03000) from the radiating angle, remove the screw ((b) XiPSN17P03000) from the PWB unit and remove each unit.
- Disconnect the two FFCs of the main PWB unit.
- Remove the two screws ((x) LX-HZ0050TAFN), remove the screw ((x) LX-HZ0050TAFN) from the PWB mounting angle and remove the terminal cabinet.

7.

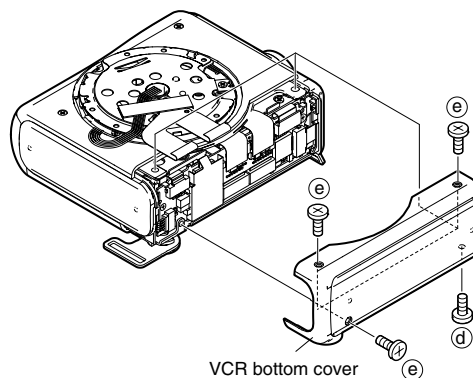


- Turn the LCD tilt unit assembly 90 degrees.
- Remove the three screws ((b) XiPSN17P03000).
- Remove the screw ((a) XiPSN17P02000).

4-2. Procedure for disassembling the cabinet

1.

- Remove the three screws ((e) XiPSF17P03000) , remove the screw ((d) XiPSF17P02000) and remove the VCR bottom cover.

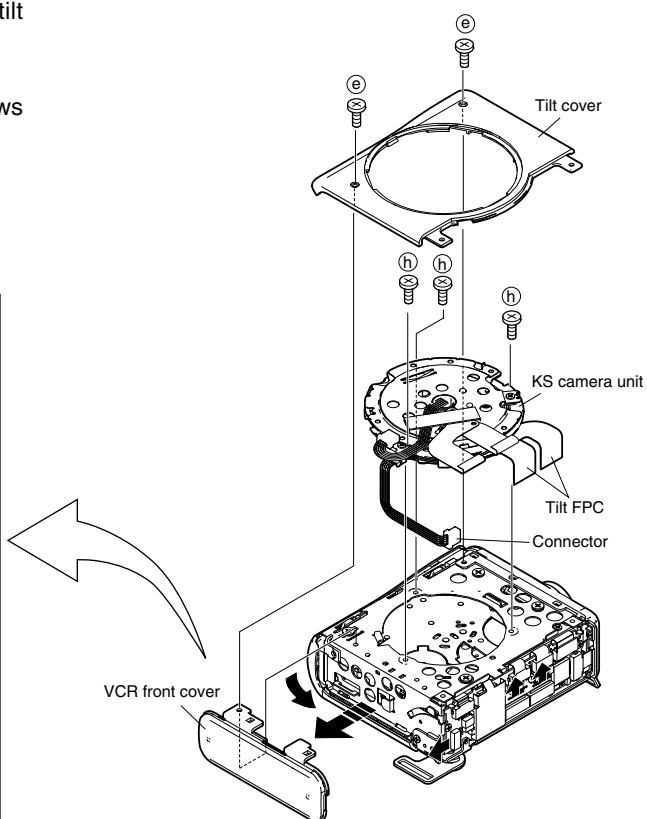
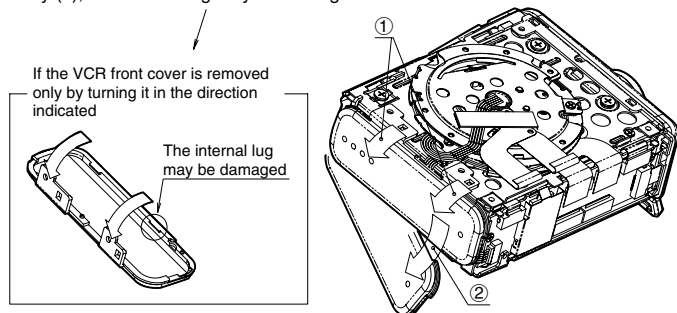


2.

- Remove the two screws ((e) XiPSF17P03000) and remove the tilt cover.
- Remove the VCR front cover with the cassette cover opened.
- Disconnect the connector and two tilt FPCs, remove the three screws ((h) LX-BZ0220TAFc) and remove the KS camera tilt.

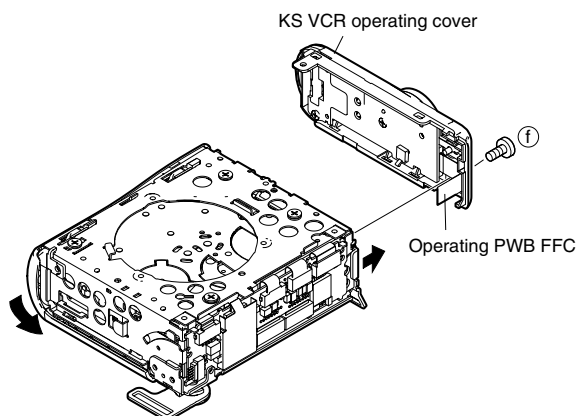
How to remove the VCR front cover

- Remove the two couplings and turn the VCR front cover about 20 degrees in the direction indicated by (1).
 - Turn the VCR front while sliding it in the direction indicated by (2) to disengage the internal lug.
- * If the VCR front cover is removed by turning it forcedly in the direction indicated by (1), the internal lug may be damaged.



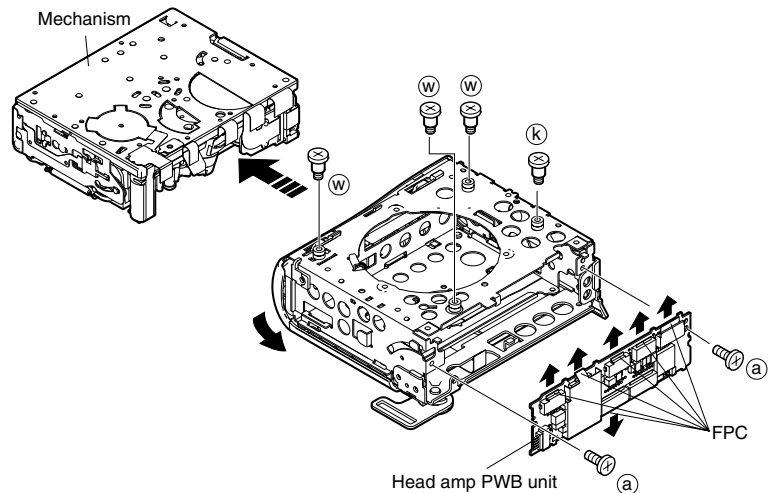
3.

- Remove the screw ((f) XiPSF17P04000) with the cassette lid opened, disconnect the operation PWB FFC and remove the KS VCR operating cover.



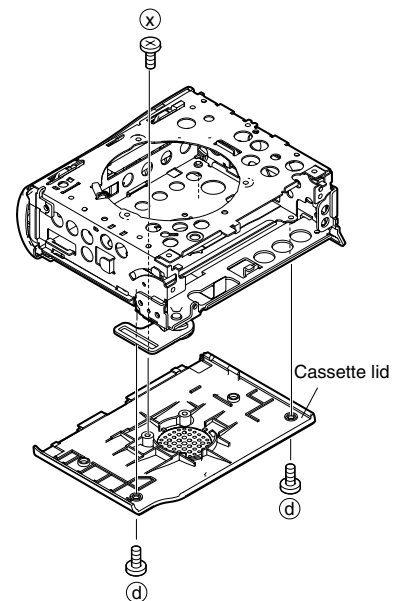
4.

- Disconnect the six FPCs of the head amp circuit board unit.
- Remove the two screws ((a) XiPSN17P02000) and remove the head amp PWB unit.
- Remove the three screws ((w) LX-BZA022WJFN) and remove the screw ((k) LX-BZA023WJFD).
- Remove the mechanism with the cassette lid opened.



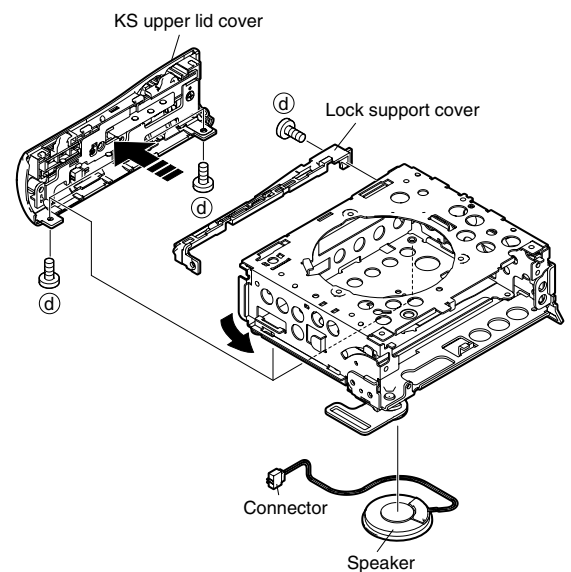
5.

- Remove the screw ((x) LX-HZ0050TAFN).
- Remove the two screws ((d) XiPSF17P02000) and remove the cassette lid.



6.

- Remove the two screws ((d) XiPSF17P02000).
- Disconnect the connector of the speaker while removing the KS upper lid cover with the cassette control lid opened.
- Remove the screw ((d) XiPSF17P02000) and remove the lock support cover.
- Remove the speaker.

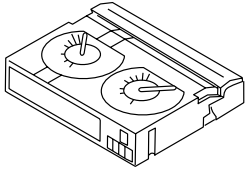
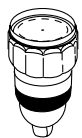
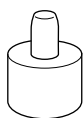
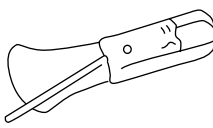
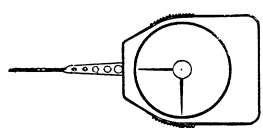
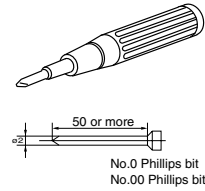
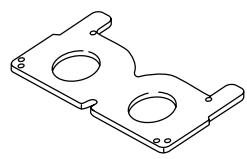
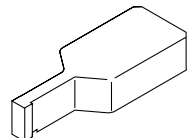
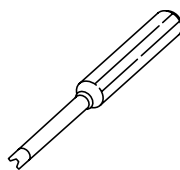
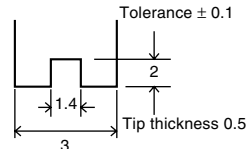
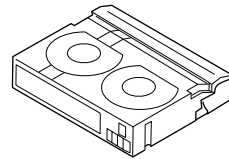
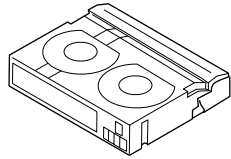
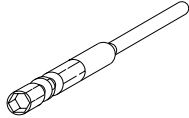


5. MECHANISM ADJUSTING JIGS AND PARTS

5-1. Mechanism checking and adjusting jigs

Sketch
1. Name
2. Part code
3. Code
* Model number and usage

<Note: Order of descriptions>

 1. Cassette torque meter for PB 2. 9DASD-1015 3. DB * 1mN·m/1.5mN·m	 1. Torque gauge 2. JiGTG0045 3. CN * For measurement of VS-REW winding torque	 1. Torque gauge head 2. 9EQTGH-DH5000 3. BW * For torque gauge shown left	 1. Tension gauge 4N 2. JiGSG0400 3. BK * For measurement of pinch roller press force	 1. Dial tension gauge 2. 9DAPTG-10-10W 3. CA * PTG-10
 1. Torque driver 150mN·m 2. JiGTD1500RTDH 3. CB	 1. Master plane 2. 9EQMP-VLPD1 3. CL * For checking of height of reel table	 1. Height adjustment jig 2. 9DAHG-PD1 3. BZ * For height adjustment	 1. Driver for height adjustment 2. 9EQDRIVER-DH5 3. BC	* For adjustment of guide roller * Bit shape (see figure below) 
 1. Alignment tape – (I) 2. VR3-GAZXS 3. CF * Adjustment of running system (Linear signal)	 1. Alignment tape – (II) 2. VR3-GTZQS 3. CG * For adjustment of SW point (Color bar signal) * 90ADVC-TAPE available	 1. Bit for hexagon nut with opposite side distance of 3 mm 2. 95CM22001 3. BL * For installation of Tu guide nut	<Miscellaneous> (1) Vernier calipers (2) Precision screwdriver (Phillips head and slot-ted) (3) Long-nose pliers (with thin tips) (4) Tweezers	

1. Name
2. Part code
3. Code
* Model number and usage

5-2. Parts for periodic inspection and maintenance

<Note: Order of descriptions> * Model number and usage

1. Oil Cosmo Hydro HV22 2. 9EQ-OiL-HV22 3. AE * Cosmo Oil Co., Ltd.	1. Cleaning paper 2. JiGDUSPER 3. AP * DUSPER Σ (SIGMA) (Ozu Co., LTD.)	1. Dry grease CFD-409Z * Sankei Chemical Co., LTD.	1. Cleaning liquid Industrial ethyl alcohol * Commercial item
		1. Grease Molykote YM-103 2. 99FGREASEYM103 * Dow Corning	1. Loctite adhesive (1401B) * Three Bond
			1. Ultrathin cotton swab * Commercial item

<How to make mechanism checking and adjusting jigs>

- (1) Reel hub for back tension measurement (Fig.1)
- 1) Have the reel hub of a commercially available cassette tape ready. (Disassemble the cassette tape and remove the tape from the reel hub.)
 - 2) Attach one end of a thread (having a length of about 20cm) to the reel hub using Scotch tape etc.
 - 3) Attach a weight of about 0.21N to the top face of the reel hub.
- (2) Thread for pinch roller press force measurement
- 1) Have a commercially available thread having a length of about 20cm ready.

- 2) Tie both ends together to loop the thread.

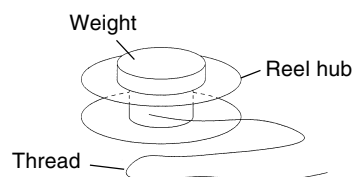


Fig. 1

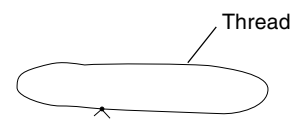


Fig. 2

6. INSPECTION AND MAINTENANCE ITEMS AND INTERVALS

In order to maintain the quality of the mechanism section, perform the following maintenance and inspection. After repairing the mechanism section, perform the following maintenance regardless of the number of hours of use by the user.

6-1. Maintenance and inspection list

○... Replace. □... Clean. △... Lubricate. ★... Check.

	Inspection and maintenance location	Number of hours of use (h)					Symptoms observed at the time of maintenance	Notes and remarks
		500	1,000	1,500	2,000	3,000		
Running system	Tape running section (See 8-3.)	☐	☐	☐	☐	☐	• Block noise • Clogging of head • Damage to tape	Note: If no envelope output is obtained in spite of the video head being cleaned, replace the drum component. (If the envelope output is normal, refer to "11. USEFUL TIPS".)
	Drum section, Video head (See 8-3.)	☐	☐	☐	☐	☐		
	<Rollers> • Replace if abnormal rotation or swing (large) is found. <Others> • Cleans the portions that come in contact with the tape (the lower drum helical portion in particular). Use the specified cleaning liquid.							
Driving system	Pinch roller	☐	☐	☐	☐ ○	☐	• Tape not running • Tape sagged • Block noise • Abnormal noise	• Replace if any abnormal condition is found.
	Capstan motor (Timing belt)	—	○	—	○	○		
	Swing arm S reel table, Tu reel table	—	★○	—	★○	★○		
	Center gear boss Relay pulley shaft	—	△	—	△	△	• Abnormal noise	• Apply oil. [Oil] Cosmo Hydro HV22 Note: Apply oil to the shaft and lightly wipe it off with a cloth.
	Loading motor Mode SW	—	★○	—	★○	★○	• Ejecting cannot be made. • Mode cannot be set.	• Replace if any abnormal condition (noise etc.) is found.
Performance check	Abnormal noise	★	★	★	★	★	• Tape not running • Tape sagged • Damage to tape • Abnormality in reproduced picture	• If a part is out of spec, replace it.
	PB and VS/R winding torque	—	★	—	★	★		
	PB, VS/R and loading back tension S reel table unloaded torque	—	★	—	★	★		

[Oil] Cosmo Hydro HV22

[Grease] Molykote YM-103

Sankei Chemical CFD-409Z

[Loctite adhesive] Three Bond 1401B

[Cleaning liquid] Industrial ethyl alcohol

6-2. Cautions in handling the mechanism

- Cut washers removed at the time of part replacement etc. should be replaced with new ones without fail.
- Because no volume adjustment is available in this mechanism, cleaning or part replacement should be performed if the setting is not satisfied.
- About oil
 - Be sure to use the specified oil. (If any oil other than the specified oil is used, various troubles will occur.)
 - When lubricating the bearing, be sure to oil free from foreign particles such as dust. (If oil in which foreign particles such as dust are mixed is used, it will cause wear and seizure to the bearing.)
 - The term "One drop of oil" here means the amount of oil on the point of a needle etc. shown in Fig.1.
- Repairing of circuits, final adjustment of running system, etc. should be performed with the cassette controller assembly installed in the mechanism.
- When operating the mechanism singly, apply voltage to the loading motor to drive it. The voltage between the terminals should be 3 to 4V DC. (Do not apply external voltage to the loading motor with the mechanism connected with the main circuit board. Doing so could cause a failure.)
(Turning the gears forcedly by hand may cause them to get damaged.)
When placing the mechanism singly, use an appropriate spacer so that the capstan motor is not rubbed.
- When installing the cassette controller, push the portion indicated by "A" in Fig.2. Do not push other portions.
- Take care not to deform the components of the mechanism.

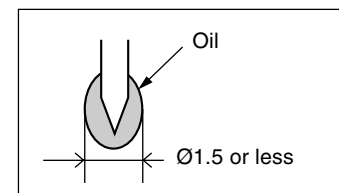


Fig. 1

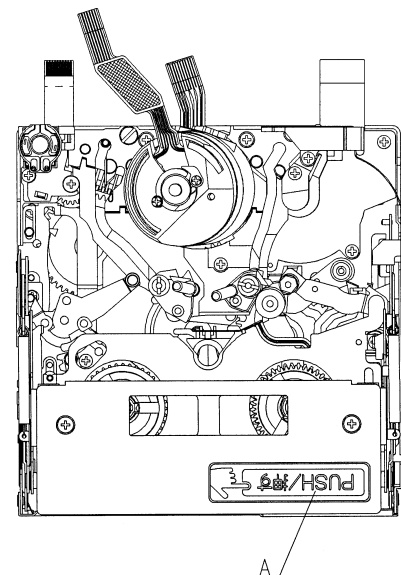


Fig. 2

7. ADJUSTING AND CHECKING OF MECHANISM

The items described here are relevant to the general on-site servicing (field service). This section does not cover adjustment and replacement for which sophisticated equipment, jigs and techniques are required.

In order to maintain the initial characteristics of the mechanism, it is necessary to perform maintenance and inspection and also it is essential not to damage the tape etc. In the case of an adjustment that requires a jig, be sure to use the specified jig.

<Caution>

- (1) When adjusting and checking the mechanism, be sure to see that the power supply and the status are as indicated in **Caution** on the title.
- (2) Do not apply external voltage to the loading motor with the mechanism connected with the main circuit board. (Doing so could cause a failure.)
- (3) When running the tape, be sure to do so with the cassette controller assembly installed.

7-1. Checking of PB (REC) winding torque

AC adapter used, Cassette controller assembly installed

- (1) Set the torque cassette with the cassette controller installed in the mechanism. In the SP record mode (or in the PB mode if signals have been SP-recorded on the tape), check that the winding torque is within spec.
 <Spec for PB (REC) winding torque>(If there is a torque ripple, read the center value.)
 $0.7 \pm 0.2 / -0.05 \text{ N}\cdot\text{m}$, Ripple: $0.1 \text{ mN}\cdot\text{m}$ or less

7-2. Checking of VS-REW winding torque

AC adapter used, Cassette controller assembly not installed (Mechanism only)

- (1) Remove the cassette controller, turn ON the down SW while referring to 9-3, operate in the test mode (T01) and select the VS-REW mode.
- (2) Set the torque gauge in the S reel table, push the tip of the tension pole with your finger in the direction shown by Arrow A to release the tension band, and check that the winding torque is within spec. (Fig.1) (Do not apply the own weight of the torque gauge or rotate it during measurement.)
 <Spec for VS-REW winding torque>
 (If there is a torque ripple, read the center value.)
 $1.5 \pm 0.15 \text{ N}\cdot\text{m}$, Ripple: $0.15 \text{ mN}\cdot\text{m}$ or less
- (3) After checking the winding torque, remove the torque gauge and turn OFF the down SW. The mechanism will automatically go into the standby mode.

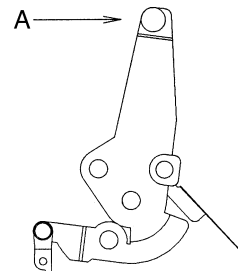


Fig.1 How to release the tension band when measuring the VS-REW winding torque

7-3. Checking of height of reel table

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

- (1) Remove the cassette controller. (Refer to 9-2.)
 - (2) Apply 3 to 4V DC to the loading motor while referring to 9-1 and select the PB mode.
 - (3) Fit the holes of the master plane to the two guides (portions A and B) shown in the Fig.2, taking great care not to allow master plane to strike the running parts such as the drum and guide roller or the MIC contact.
 - (4) Using a pair of vernier calipers etc., measure the heights of the reel-supporting faces of the S reel table and Tu reel table from the top face of the master plane and check that the measured heights satisfy the set values. (Fig.3)
 When measuring the height of the S reel table, push the tip of the tension pole with your finger in the direction shown by Arrow A to release the tension band. (Fig.1)
 - (5) If the measured height does not satisfy the set value, replace the reel table and make checking again.
- <Note> After replacement, select the L start mode (see 9-1) and check that the reel table rotates smoothly.

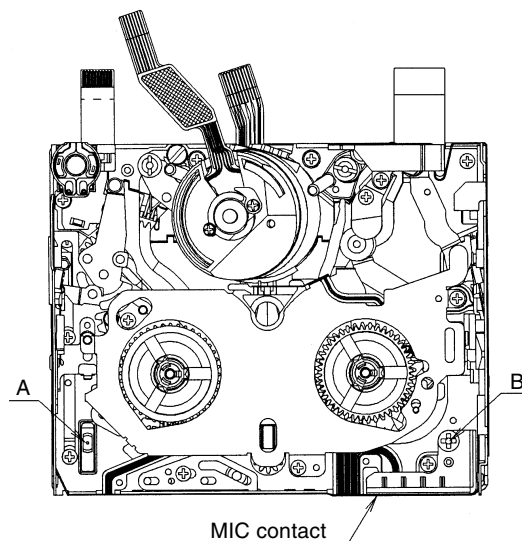


Fig.2 Checking of reel table

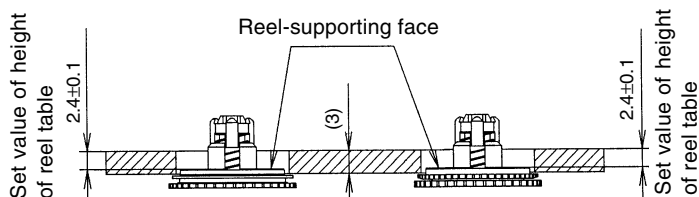


Fig.3

7-4. Checking and adjusting of tension pole position during REC (PB)

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

(1) Checking

Check that the tension pole is located in the prescribed position as shown in Fig.4 at the start of a 60-minute tape.

If the tension pole is not located in the prescribed position, take out the tape and make adjustment according to the procedure shown below.

(2) Adjusting (See Fig.4.)

1. Select the PB mode without setting a tape.
2. Slightly loosen the screw 1 (to such an extent that the T band adjustment base 2 can be moved.)
3. If the tension pole is dislocated inward from the prescribed position, shift the T band adjustment base 2 in the direction shown by Arrow (A). If it is dislocated outward from the prescribed position, shift the T band adjustment base 2 in the direction shown by Arrow (B). Then fix the T band adjustment base 2 with the screw 1.

(For how much the T band adjustment base is to be shifted, refer to Fig.4.)

4. Check the tension pole position as described in "(1) Checking" above.
5. If out of position, make readjustment.

Tension pole position
(Based on drum base outside shape)

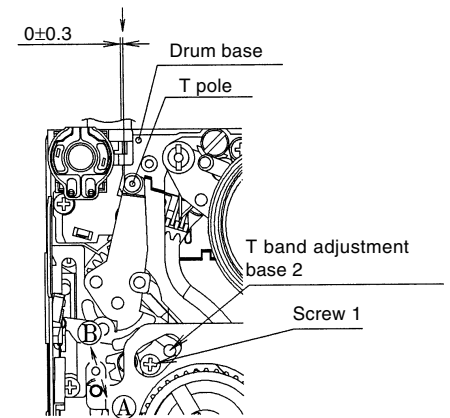


Fig.4 Adjusting of position (tape exists)

7-5. Checking and adjusting of REC (PB) back tension torque

AC adapter used, Cassette controller assembly installed

(1) Checking

Set the torque cassette (SD-1015). In the SP record mode (or in the PB mode if signals have been SP-recorded on the tape), check that the feed-side torque is within the following spec.

<Spec>(If there is a torque ripple, read the center value.)

$0.55 \pm 0.05 \text{ N}\cdot\text{m}$

(2) Adjusting (See Fig.5.)

If the measured back tension torque is out of spec, make adjustment according to the following procedure.

1. Slightly loosen the screw 3.
2. If the back tension is higher, shift the T-SPR adjustment ANG in the direction shown by Arrow (D). If it is lower, shift the T-SPR adjustment ANG in the direction shown by Arrow (C).
3. After adjusting the back tension torque, fix the T-SPR adjustment ANG with the screw 3. Apply loctite adhesive to screw 3.

<Reference>

Screw tightening torque: $0.04 \text{ N}\cdot\text{m}$

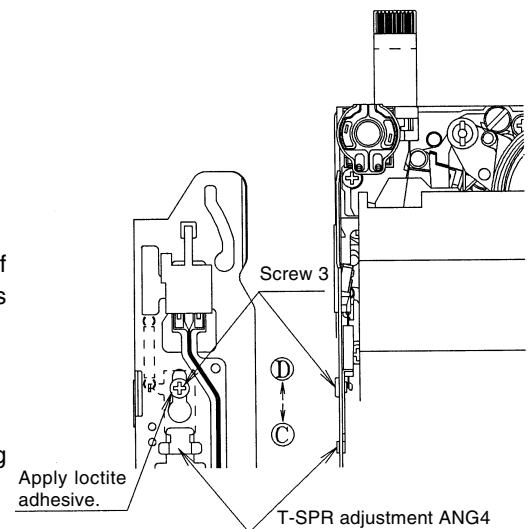


Fig.5 Checking (tape exists)

7-6. Checking of S reel table unloaded torque

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

- (1) Remove the cassette controller assembly, apply 3 to 4V DC to the loading motor and select the L start mode. (See 9-1.)
- (2) Move the swing arm to the Tu reel table side. At this time, take care not to damage the gears etc. (See Fig.6.)
- (3) Set the reel hub for back tension measurement on the S reel table.
- (4) Using the dial tension gauge, pull the thread of the reel hub in the direction shown by Arrow A and check that the tension is within spec.

<Spec>

(If the tension fluctuates, read the center value.)

10mN or less

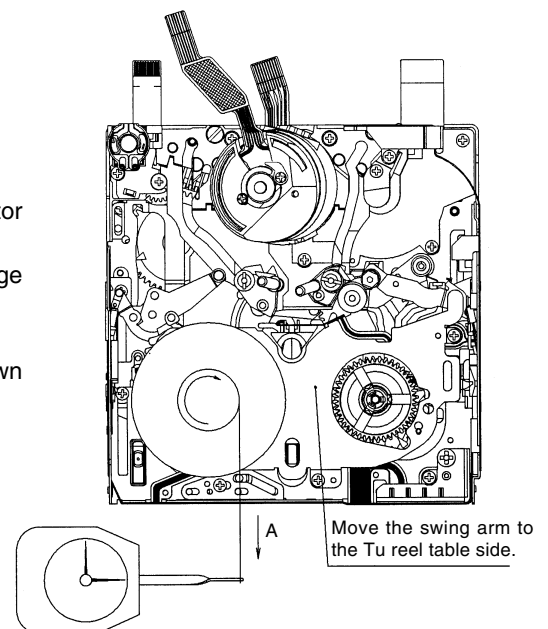


Fig.6 How to measure the S reel table unloaded torque

7-7. Checking of loading back tension

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

- (1) Apply 3 to 4V DC to the loading motor and select the L start mode. (See 9-1.)
- (2) Move the swing arm to the S reel table side. At this time, take care not to damage the gears etc. (See Fig.7.)
- (3) Set the reel hub for back tension measurement on the Tu reel table.
- (4) Using the dial tension gauge, pull the thread of the reel hub in the direction shown by Arrow A and check that the tension is within spec.

<Spec>

(If the tension fluctuates, read the center value.)

$27.5 \pm 7.5\text{mN}$

7-8. Checking of VS-REW back tension

3 to 4V DC, Cassette controller assembly not installed (Mechanism only)

- (1) Apply 3 to 4V DC to the loading motor and select the VS-REW mode. (See 9-1.)
- (2) Move the swing arm to the S reel table side. At this time, take care not to damage the gears etc.
- (3) Set the torque gauge in the Tu reel table.
- (4) While turning the torque gauge counterclockwise (one turn in three seconds), check that the torque is within spec.

<Spec>

(If the tension fluctuates, read the center value.)

$0.8+0.2/-0.05\text{mN}\cdot\text{m}$

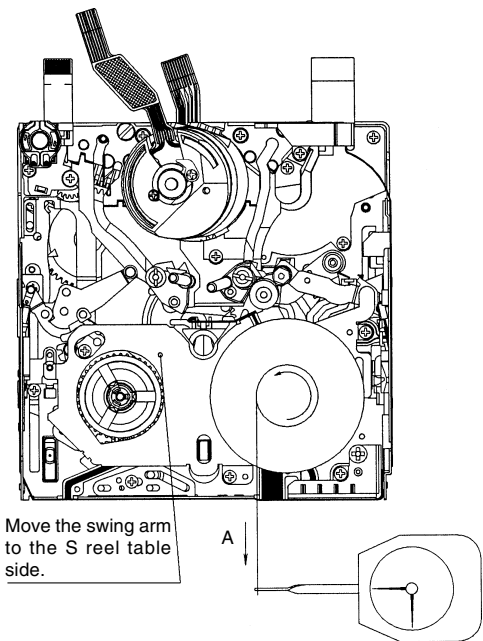


Fig.7 How to measure the loading back tension

7-9. Checking of pinch roller press force

3V DC, Cassette controller assembly not installed (Mechanism only)

- (1) Hook the thread for pinch roller press force measurement over the pinch lever (position A in Fig.8).
- (2) Put the mechanism into the PB mode to press the pinch roller against the capstan shaft.
- (3) Hook the thread for pinch roller press force measurement over the tension gauge and pull the tension gauge in the direction shown by Arrow B in Fig.10 so that the pinch roller is slightly separated from the capstan shaft.
- (4) Return the pinch roller gradually and read the value indicated when the pinch roller comes in parallel contact with the capstan shaft (see Fig.9). Check that the read value is within the following spec.

<Spec>

$1.8+0.4/-0.4\text{N}$

<Note> After measuring the press force of the pinch roller, promptly exit from the PB mode to separate the pinch roller from the capstan shaft. (If the pinch roller is left pressed against the capstan shaft for a long time, the pinch roller will be deformed.)

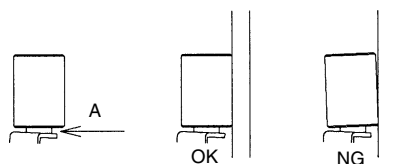


Fig.8

Fig.9

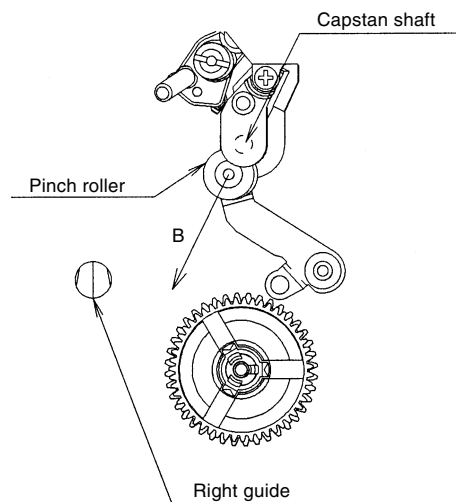
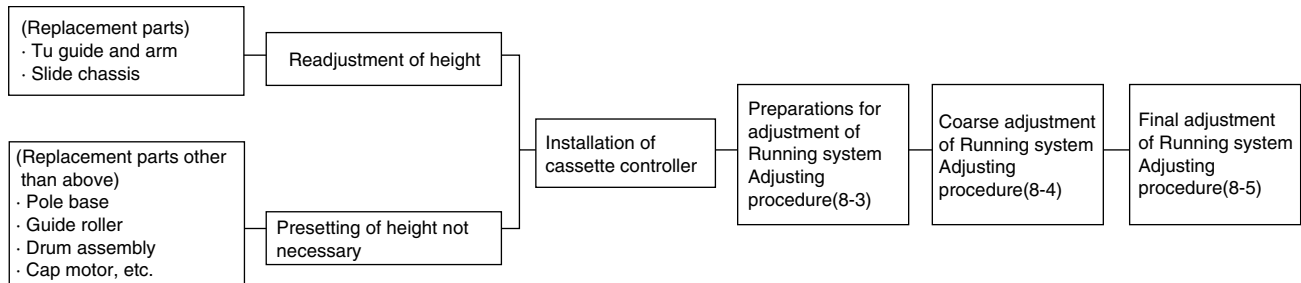


Fig.10

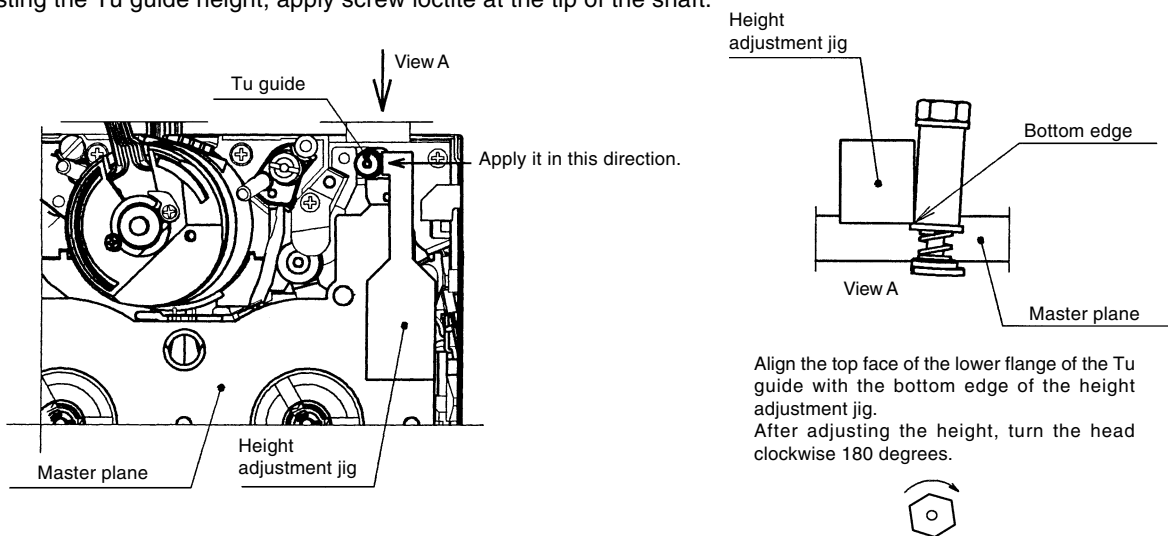
8. ADJUSTMENT OF RUNNING SYSTEM

8-1. Outline of adjustment of running system



8-2. Adjustment of height of running system

- After replacement of the Tu guide and slide chassis, adjust the height of the Tu guide using the height adjustment jig.
- If wrinkles are found in the tape, turn the Tu guide to remove them.
(For further details, refer to "Coarse adjustment of running system".)
- After adjusting the Tu guide height, apply screw loctite at the tip of the shaft.



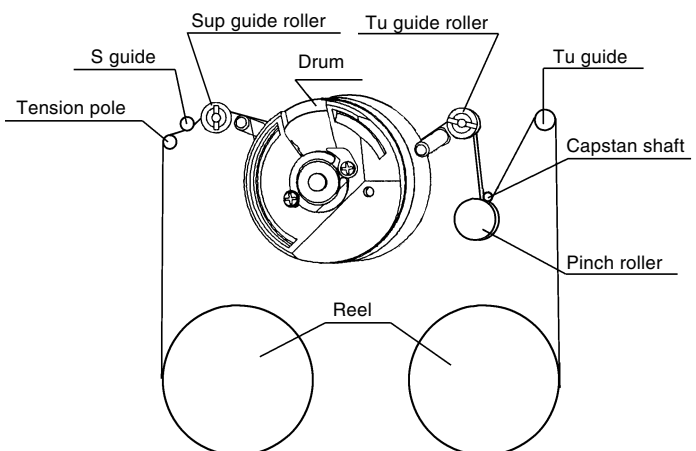
8-3. Preparations for adjustment of running system

Measuring instrument and Jig : Oscilloscope, Adjustment remote control, Height adjustment screwdriver, Alignment tapes (for adjustment of running system and adjustment of SW point), Master plane, Height adjustment jig

<Method and description>

- (1) Clean the surfaces that come in contact with the tape. (Clean well the drum surface and the lower drum helical surface in particular.)
- (2) Install the cassette controller.
- (3) Connect the oscilloscope to each TP of the joint circuit board.
- (4) Turn ON the power of the AC adapter.
- (5) Select TEST mode T-05 with the adjustment remote control.
- (6) Play back the alignment tape for running system adjustment and check that the tape is moving in the SP mode.
- (7) While observing the PB envelope on the oscilloscope, adjust the running system so that the envelope becomes flat in states of [+1/4 shift] and [-1/4 shift].
(Each time the PB key is pressed, the shift amount changes as shown below.)

+1/4 shift ⇌ Normal ⇌ -1/4 shift ⇌ Normal



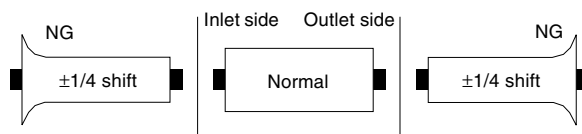
8-4. Coarse adjustment of running system

(Cassette controller installed)

1. Adjustment of height of Su and Tu guide rollers

<Method and description>

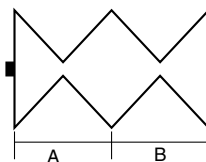
- (1) Play back the alignment tape for running system adjustment and make adjustment so that the inlet and outlet sides of the envelope become flat.
- (2) In states of $[\pm 1/4 \text{ shift}]$ and $[-1/4 \text{ shift}]$, make adjustment in the same manner as described in (1) above.



2. Checking of V/SR envelope waveform

<Method and description>

- (1) In the V/SR mode, check that the envelope waveform is shaped uniformly.
- (2) If the envelope waveform is not shaped uniformly, fine-adjust the guide roller and Tu guide.

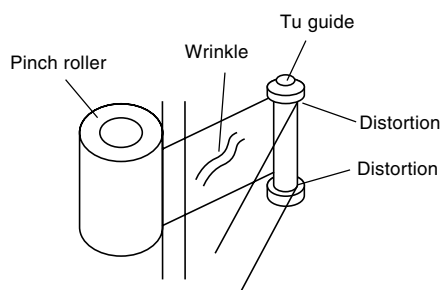


Make adjustment so that $A \doteq B$.

3. Checking for wrinkles in tape

<Method and description>

- (1) In the PB mode and V/SR mode, check the tape for distortion between the Tu guide and the pinch roller.
- ⇒ If wrinkles are found, make adjustment within a range of ± 180 degrees.
- ⇒ After making adjustment, apply loctite adhesive to the tip of the shaft.



4. Checking of envelope waveform rise time

<Method and description>

- (1) Check the envelope waveform rise time in switching from the V/SR mode to the PB mode. ⇒ 5 seconds or less
- (2) Check the envelope waveform rise time in switching from the STOP mode to the PB mode. ⇒ 5 seconds or less

8-5. Final adjustment of running system

(Cassette controller installed)

1. Adjustment of height of Sup and Tu guide rollers

<Method and description>

- (1) If the ratio of MIN to MAX of the envelope waveform is less than 60%, adjust the height of the guide roller again. (See Fig.1.)
- (2) Perform unloading and then loading again, select the PB mode and check that there are no significant changes in the envelope waveform.

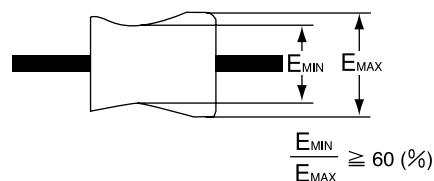


Fig.1

2. Adjustment of PB SWP

<Method and description>

- (1) Play back the alignment tape for SW point adjustment.
- (2) Using the adjustment remote control, make SWP automatic adjustment.
- (3) Check that an OK is given as a result of self-judgment. In the case of a NG, adjust the GR height again.

* After replacement of the mechanism and drum, adjust the phase and equalizer using the adjustment remote control. (Refer to "10. ADJUSTING THE ELECTRICAL CIRCUITS".)

9. ASSEMBLING OF MECHANISM SECTION AND PART REPLACEMENT (DISASSEMBLING AND ASSEMBLING)

This section describes the method of assembling the mechanism section and the method of part replacement.

For how to remove the cabinet etc., refer to "4. DISASSEMBLY OF THE SET".

<Cautions>

1. Cut washers removed at the time of part replacement etc. should be replaced with new ones without fail.
2. When assembling the mechanism, take care to prevent screws, washers and foreign matter from getting into it. If such things get into the mechanism, it will cause the mechanism to malfunction.
3. Be sure to use the specified cleaning liquid, oil, grease and loctite adhesive shown below. Failure to do so will cause the mechanism to malfunction.

Oil: Cosmo Hydro HV22 (Cosmo Oil) Loctite adhesive: 1401B (Three Bond)
Grease: Molykote YM-103 (Dow Corning), Suncall CFD-409Z (Sankei Chemical Co., LTD.)
Cleaning liquid: Industrial ethyl alcohol

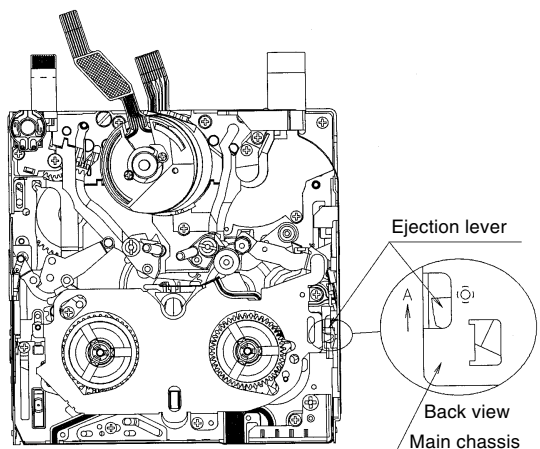
9-1. Mechanism mode

To operate the mechanism singly, apply 3 to 4V DC to the loading motor.

(Do not apply external voltage to the loading motor with the mechanism connected with the main circuit board. Doing so could cause a failure.)

(1) Ejection mode

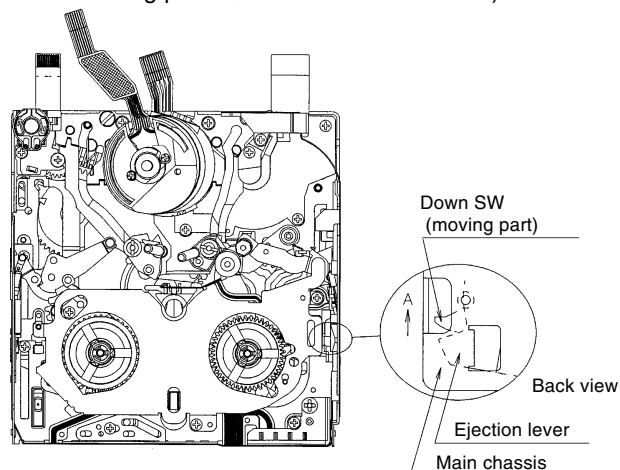
This mode is used to take out a cassette. In this mode, the ejection lever is shifted farthest in the direction shown by Arrow A. (In this mode, the cassette controller assembly cannot be locked.)



EJECTION MODE

(2) Standby mode

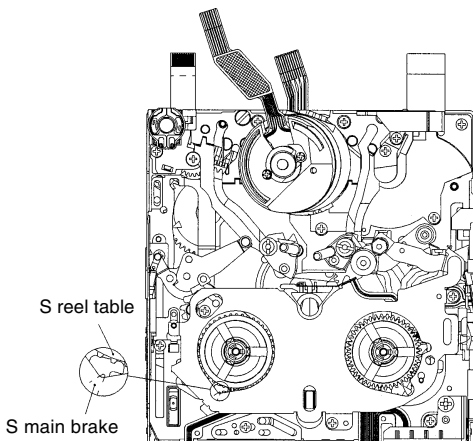
This mode is used to set a cassette. In this mode, the slide chassis is farthest away from the drum and the ejection lever is turned (the cassette controller assembly can be locked). (The tip of the ejection lever is hidden behind the main chassis and the moving part of the down SW is visible.)



STANDBY MODE

(3) L start mode

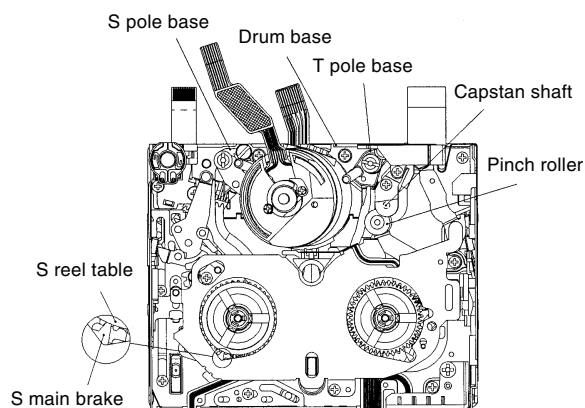
This mode is used for the Tu reel hub to take up the tape of a cassette whose leader tape is visible. (In this mode, the S main brake is located away from the S reel table.)



L START MODE

(4) Stop mode

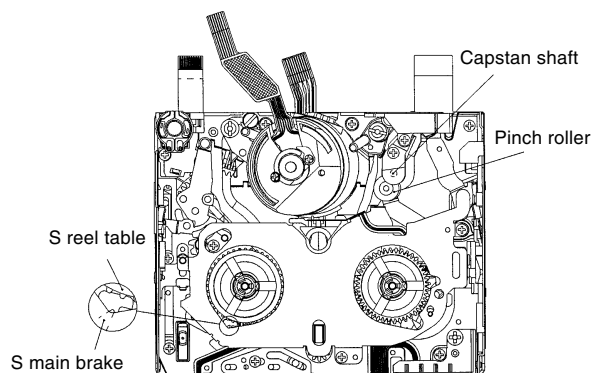
This mode is used for stopping (camera mode: RecLock). In this mode, the S and T pole bases are pressed against the drum base and the S main brake is engaged with the S reel table. However the pinch roller and capstan shaft are separated.



STOP MODE

(5) PB (Record, Fast forward, Fast rewind, VSF and VSR) mode

This mode is used for playback, recording, fast-forwarding, fast -rewinding, VSF and VSR. In this mode, the pinch roller is pressed against the capstan shaft and the S main brake is located away from the S reel table.



PB (RECORD, FAST FORWARD,
FAST REWIND, VSF AND VSR) MODE

9-2. Cassette controller assembly

<Procedure for removing the cassette controller> (The cassette controller can be installed and removed without removing the cover.)

- (1) Apply 3 to 4V DC to the loading motor to establish the standby mode. When removing the cover from the cassette controller, remove the tow screws (A). (See Fig.1.)
- (2) Push the lock lever in the direction shown by the arrow and move up the cassette controller. (See Fig.2.)
- (3) Remove the two screws (C) and remove the down guide (D) in the direction shown by the arrow (E). (See Fig.3 and Fig.4.)
- (4) Shift the cassette controller in the direction shown by the arrow (F), remove the inner arm guide shaft L and the groove of the inner arm R toward the inside of the mechanism, and turn the cassette controller. (See Fig.5 and Fig.6.)
- (5) Turn the cassette controller in the direction shown by the arrow (H) and shift it in the direction shown by the arrow (I) to remove it from the slide chassis. (See Fig.7.)

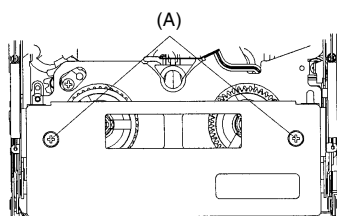


Fig.1

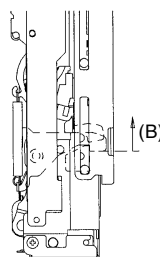


Fig.2

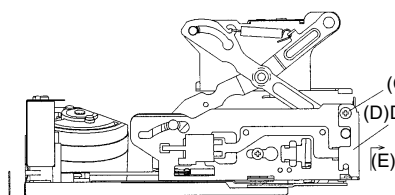


Fig.3

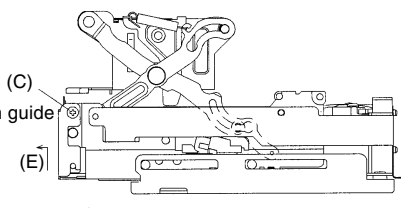


Fig.4

At this position, remove the groove of the inner arm R toward the inside of the mechanism.

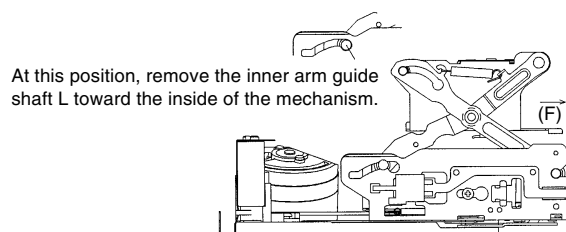


Fig.5

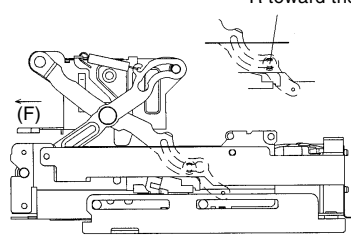


Fig.6

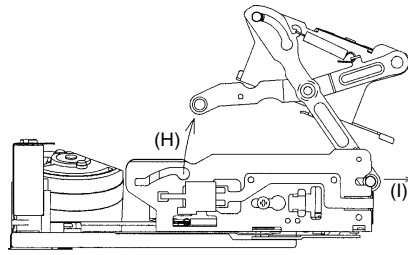


Fig.7

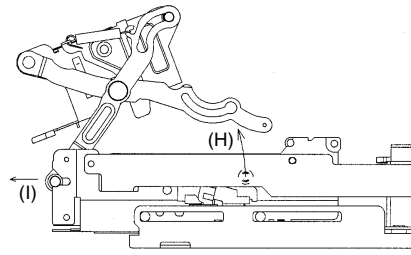


Fig.8

9-3. Method of operating on the circuit board with the cassette controller assembly removed

If this method is performed improperly, the tape may be damaged. Therefore do not use this method except in special cases such as measuring the VSR torque. Be sure to follow the cautions shown in this manual.

- (1) Apply 3 to 4V DC to the loading motor to establish the standby mode.
- (2) Insert a sheet of thick paper folded in two as shown in Fig.9 into the position shown in Fig.10 to turn OFF the down SW.
(Pass the paper along the heavy line in the figure.)
Note) To go into the REC mode, press the pin of the recognition SW.
- (3) Selecting the test mode (T-01) with the adjustment remote control without setting a tape will make it possible to operate the mechanism with the mode keys.
- (4) For ejecting, remove the paper inserted in step (2) above.

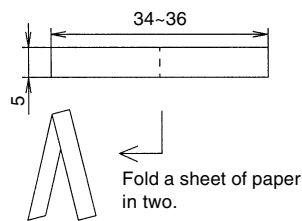


Fig.9

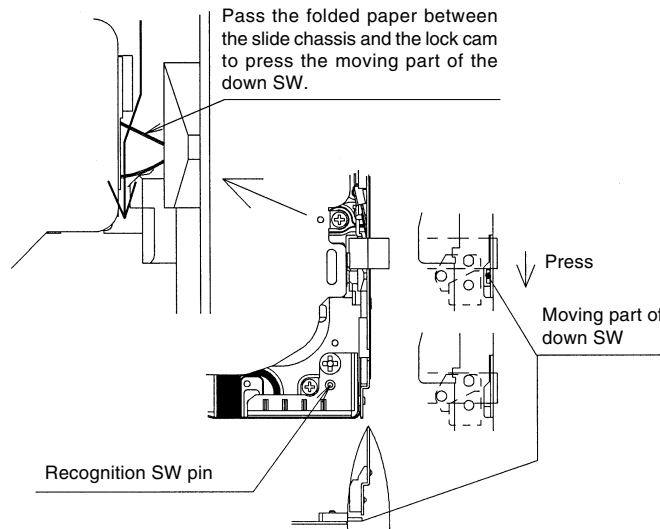


Fig.10

9-4. Phase-adjust

Phase-adjust the following parts.

- (1) Mode SW
- (2) Main cam
- (3) Sub cam (The main cam and sub cam should be also phase-adjusted for the chassis.)
- (4) S loading arm
- (5) Tu loading arm
- (6) Loading drive gear (main cam, sub cam, S loading gear)

Note) Check the marker position carefully before disassembling.

Note) When installing the loading drive gear, check that the main cam, sub cam, S loading gear are all phase-adjusted.

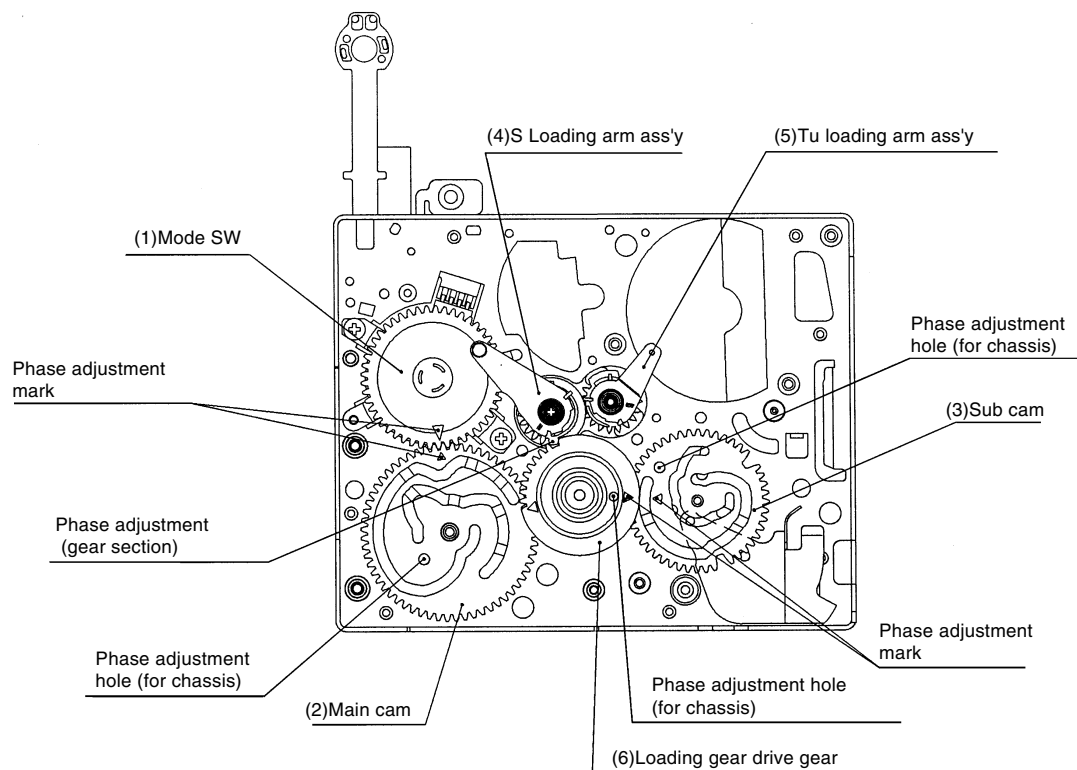


Fig.1

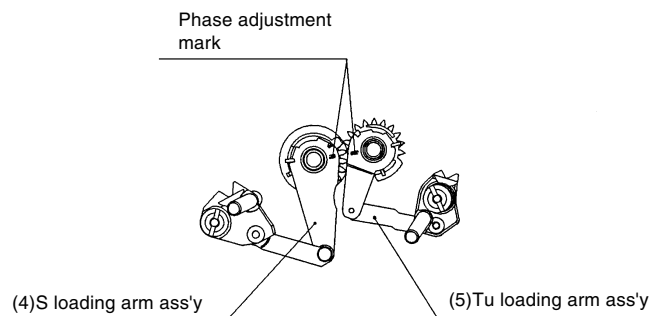


Fig.2

9-5. Assembling method

9-5-1. Method of assembling the main chassis assembly

Note) For reference, numbers are prefixed to parts names to show the sequence of assembly.

(For the greasing/oiling and cleaning locations, refer to the diagram of greasing/oiling locations.)

1.

	Type	Tightening torque	Q'ty
A	M1.4xL1.6(Special screw)	0.4mN·m	2

4.

	Type	Tightening torque	Q'ty
D	S Tight M1.4xL3.0	0.4mN·m	3
E	M1.4xL2.0(t0.2 special screw)	0.4mN·m	1

2.

	Type	Tightening torque	Q'ty
B	CWø1.2-ø3.0t-0.25		1
H	CWø0.7-ø1.8-t0.2		1

5.

	Type	Tightening torque	Q'ty
F	M1.4xL1.5(t0.2 special screw)	0.4mN·m	1
G	M1.2xL4.6 (t0.2 particularly special screw)	0.4mN·m	1
B	CWø1.2-ø3.0t-0.25		1

3.

	Type	Tightening torque	Q'ty
C	S Tight M1.4xL2.0	0.4mN·m	5
D	S Tight M1.4xL3.0	0.4mN·m	1
B	CWø1.2-ø3.0t-0.25		1

6.

	Type	Tightening torque	Q'ty
H	CWø0.7-ø1.8-t0.2		1

9-5-2. Method of assembling the slide chassis assembly

1.

Type	Tightening torque	Q'ty
I Precision type 2-M1.4xL1.0	0.4mN·m	2

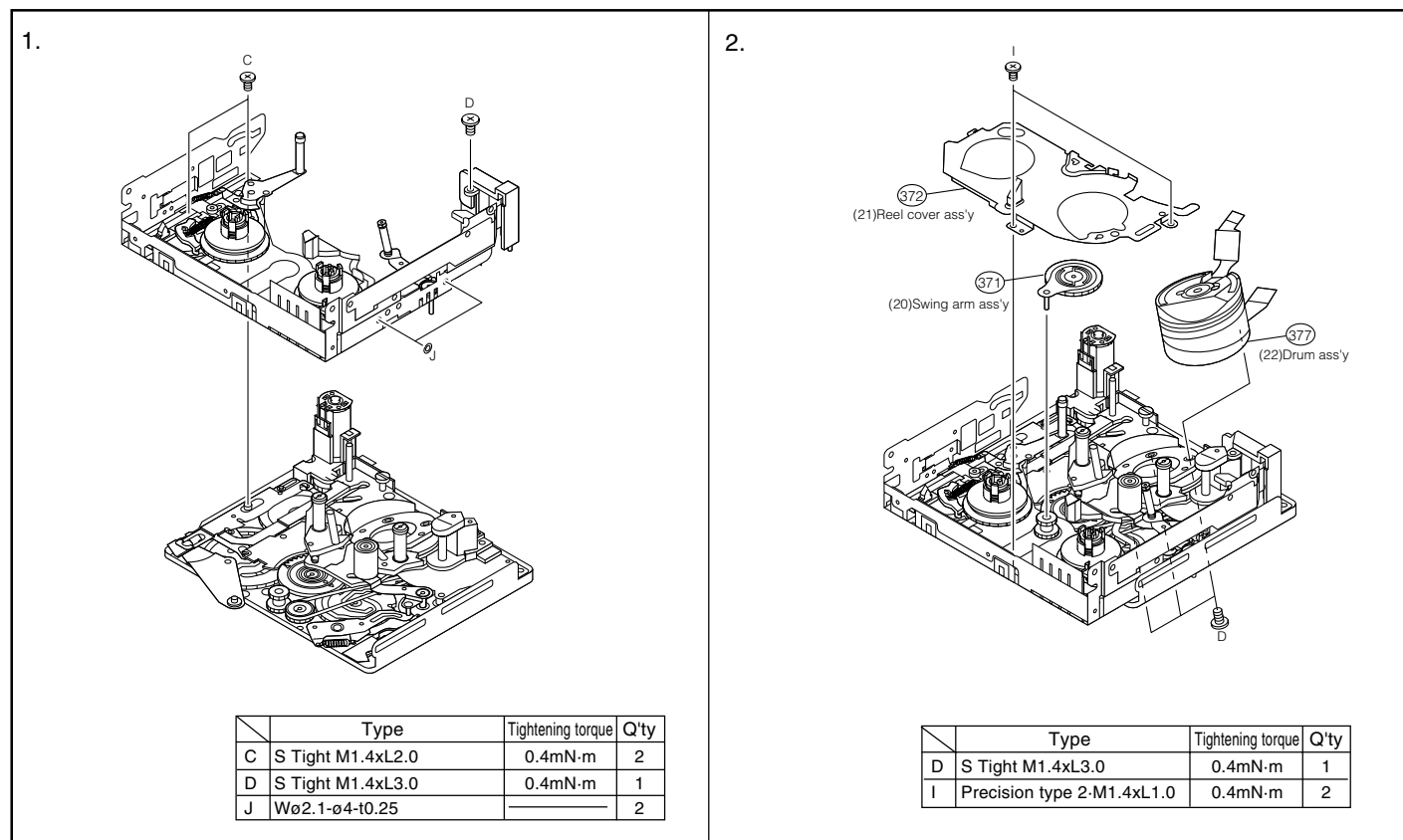
2.

3.

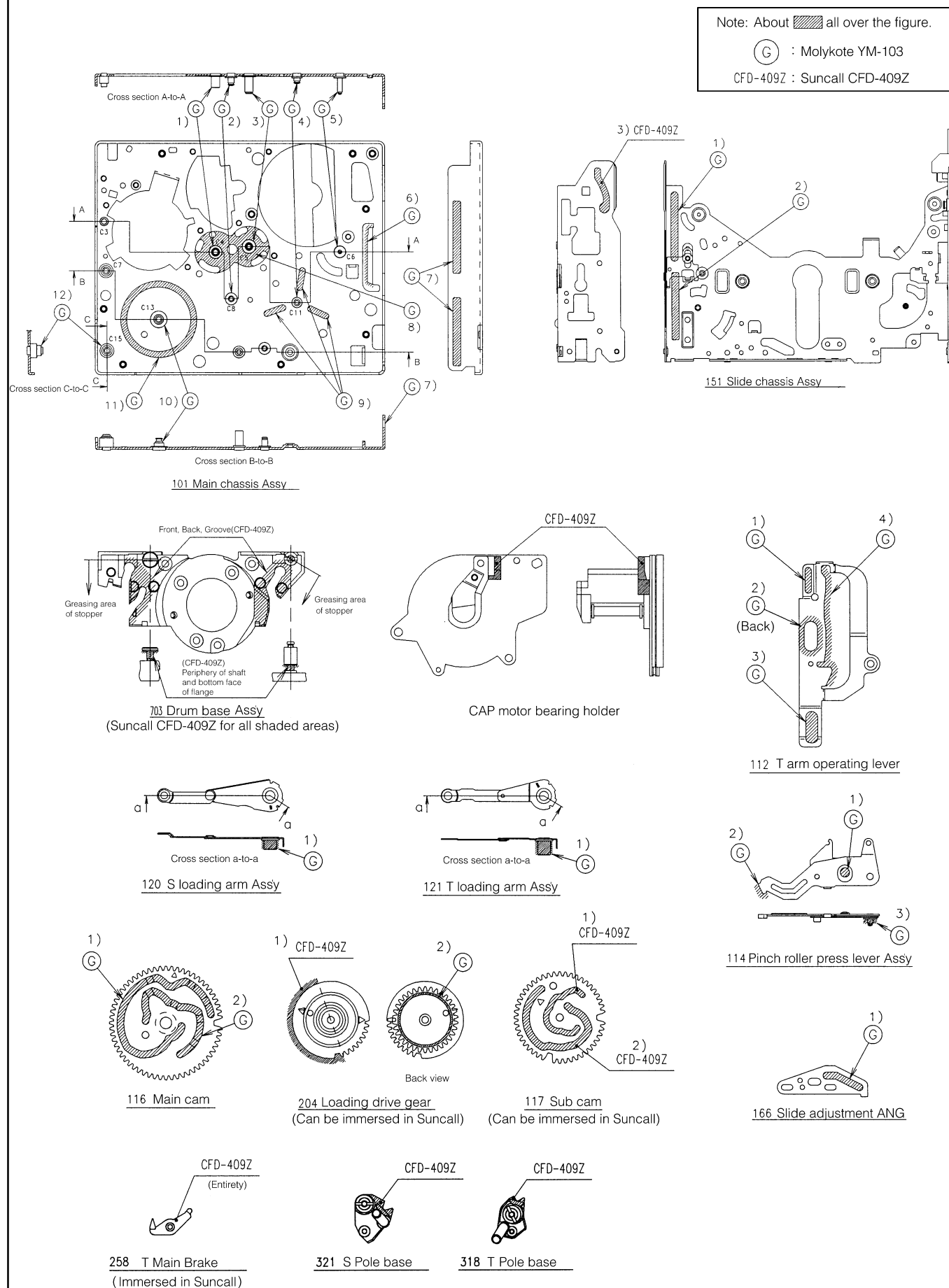
Type	Tightening torque	Q'ty
C S Tight M1.4xL2.0	0.4mN·m (Tightening fully) 0.05mN·m (Tightening temporarily)	1
H CWø0.7-ø1.8-t0.2		1

9-5-3. Method of combining the main chassis assembly and the slide chassis assembly

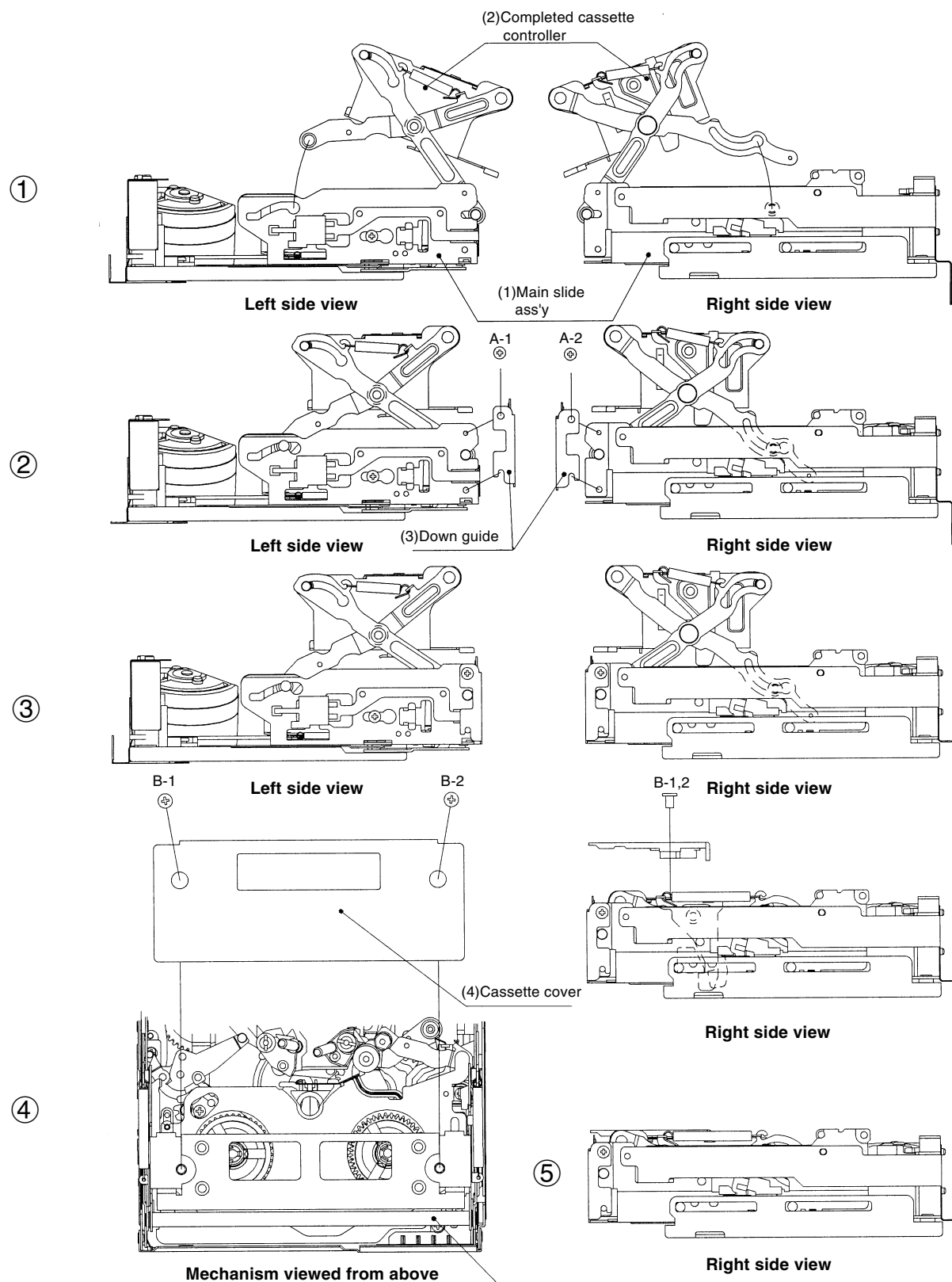
- (1) Position the assemblies as shown in the figure below (the pole base is slightly protruded).
- (2) Insert the operation pins (tension arm, Tu guide arm) of the slide chassis assembly into the locations of the main chassis assembly shown in the figure below, fit the SL drive lever pin of the main chassis assembly into the groove of the slide chassis (the groove of the slide adjustment ANG), and then fix with the two screws.



9-5-4. Diagram of greasing/oiling locations



9-6. Method of installing the cassette controller



C: Move down the cassette controller by pushing this portion. When the cassette controller is locked, attach the cassette cover.

	Type	Tightening torque	Q'ty
A	M1.4xL2.0(Precision type 2)	0.4mN·m	2
B	M1.7x2.5(Precision type 2)		2

9-7. Method of taking out the cassette with the mechanism operating singly

- (1) Apply 3 to 4V DC to the loading motor for slight unloading.
- (2) If the tape is slack, turn the rotor (mechanism backside) of the capstan motor by hand to take up the slack in the tape.
- (3) Repeat steps (1) and (2) above. When the pole base is completely unloaded, check that the tape is not slack.
- (4) Then apply 3 to 4V DC to the loading motor again. The cassette controller will move up.
- (5) Take out the cassette.

Note) When applying 3 to 4V DC to the loading motor for unloading, do so as shown in Fig.1.

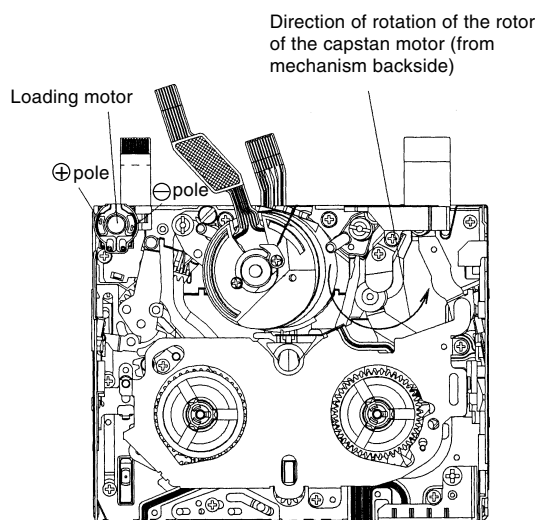


Fig.1

10. METHOD OF ADJUSTING THE ELECTRIC CIRCUIT

-Before making adjustment-

- It seems that, in most cases, this adjusting method is used when it becomes necessary to adjust the electric circuit as a result of replacement of worn mechanism parts or the video head. When adjusting the electric circuit, check that the mechanism operates properly (the mechanism is adjusted completely). If a failure occurs in the electric circuit, be sure to locate the fault using a measuring instrument and then perform repairing, replacement and adjustment, as described in this adjusting method. Avoid performing undue adjustments etc. without using proper measuring instruments.

- The electric circuit components in the circuit board unit of this product are densely-packed into packages. Most of them are surface-mounted for downsizing.

When replacing components in servicing the product, perform replacement work swiftly with a soldering iron.

In general, surface-mounted components are inferior in heat resistance to large-sized discrete components used in TV sets, stationary decks, etc. Heating the electrode of a surface-mounted component with a soldering iron for a long time needlessly will therefore lead to a failure. Take great care not to do so.

Take special care in this respect when replacing chip multilayer capacitors in particular.

We recommend you to use a ceramic soldering iron (Tip temperature: 250°C, Contact time: 5 seconds or less).

10-1. Adjustment of liquid crystal video section

List of measuring jigs

- Color monitor TV - Digital voltmeter - DC power source - Audio generator (CR oscillator) - Frequency counter - AC adapter	- Stereo AV output cable (supplied) - Adjustment remote control (RRMCG0033TASA) - Signal generator (NTSC pattern generator LCG-401/401YC: Manufactured by Leader) - Oscilloscope	- Vector scope - Tape for recording - DC cable (supplied with AC adapter) - Extension wire of video section - Alignment tape 90ADDVC-TAPE (color bar) - Error rate adjustment tape (reference tape) RTPEVA001WJZZ
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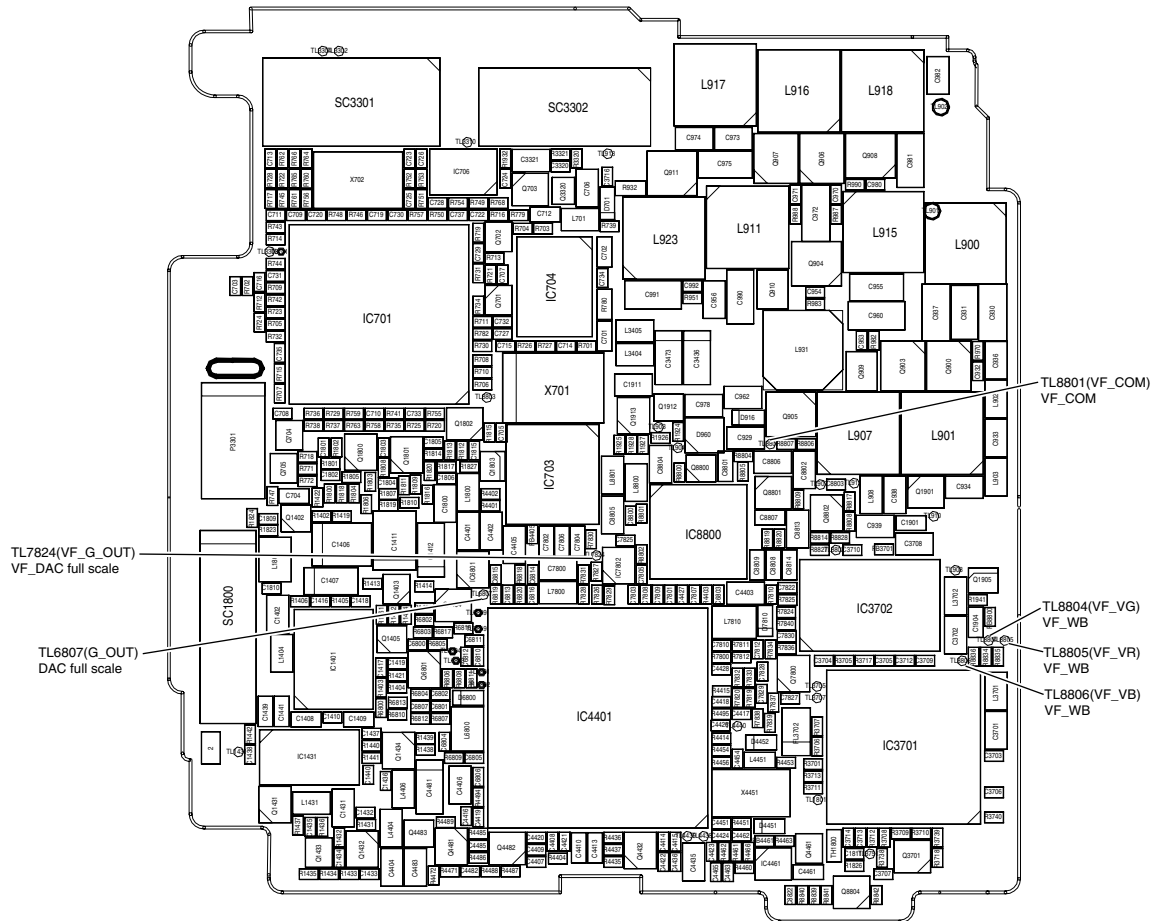
VL-Z3U/Z5U Specifications of service jigs

No.	Connection section	Connector REF. No.	No. of pins	New/Cont.	Parts cord	Price code
1	H/A PWB — MAIN PWB①	SC307—SC3302	33P	N	QPWBHB737WJZZ	AN
2	H/A PWB — MAIN PWB②	SC308—SC3301	33P	N	QPWBHB737WJZZ	AN
4	MAIN — LITHIUM PWB	SC8800—SC5800	27P-25P		QPWBHB742WJZZ Product FPC used	AE
5	MAIN — RUNTA005WJZZ	SC1201	80P	C	QCNW-1373TAZZ	BQ
6	RUNTA005WJZZ — SUB	P2901	80P	N	RUNTZA005WJZZ	AX
8	Menu key — SUB	SC2002—SC501	9P-15P		QPWBHB772WJZZ Product FPC used	AE
9	H/A PWB — MAIN PWB	P301—P3301	5P		QCNW-B171WJZZ Product wire used	AF
10	TP jig for envelope checking	P3303	30B-B	N	RUNTZA004WJZZ	AW
11	Power supply	SC310—SC2101	12P		QCNW-B167WJZZ Product FFC used	AC
12	ZOOM	SC311—SC2201	10P	C	QPWBHB746WJZZ	AE
13	CCD PWB — MAIN	SC1001—SC1202	33P		QPWBHB738WJZZ Product FPC used	AD
14	Lens unit — SUB	SC551	25P		CLNS-A005RMA5 Product unit used	BQ
15	MIC — SUB	P3602	4P		RMiCC0108TAZZ Product unit used	AP
17	MECHA TURN — MAIN	P1201	2P		DUNTKB732PM00 Product unit used	AG
19	SPEAKER — ZOOM	P2201	2P		VSP0020P-B2WN Product unit used	AK
20	LCD UNIT — MAIN	SC1800/SC1801	18Px2		QPWBHB736WJZZ Product FPC used	AR

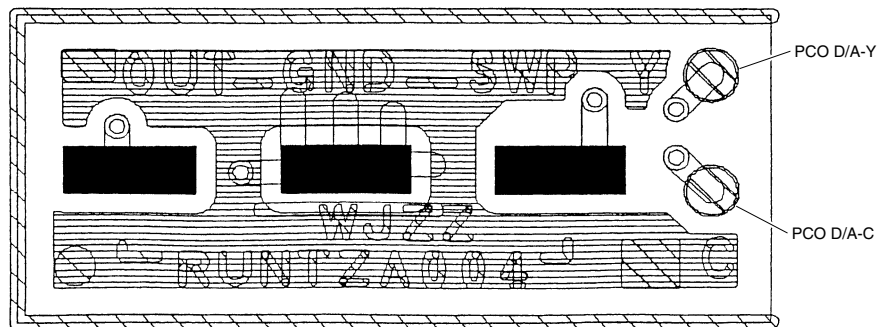


[TEST POINT]

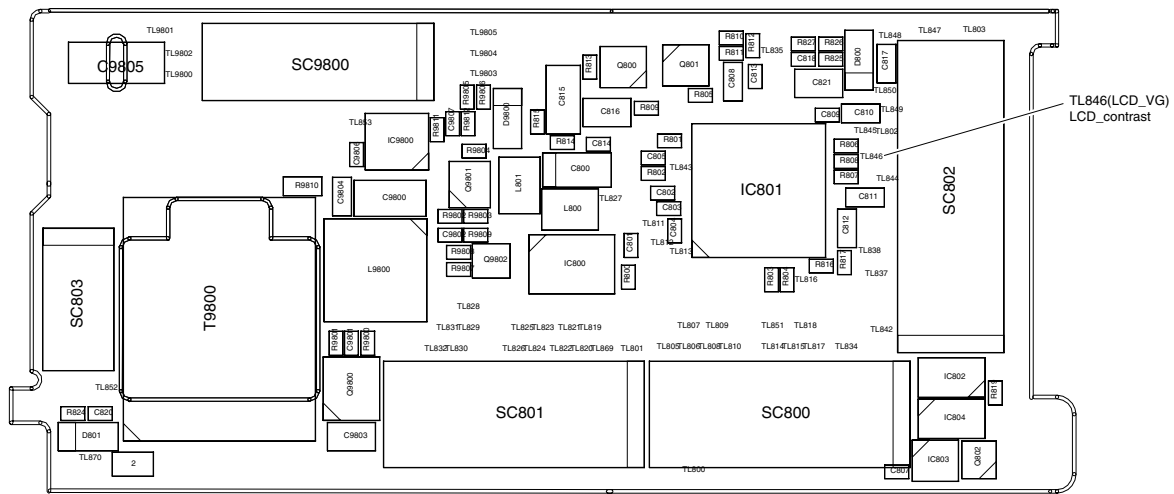
(Wiring board diagram: Main Side A)



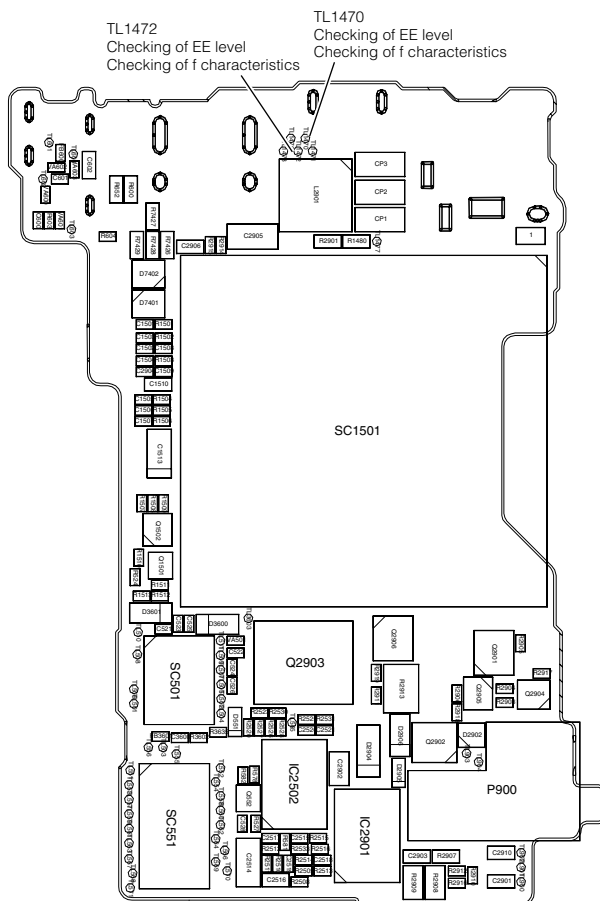
(Envelope checkup TP jig)



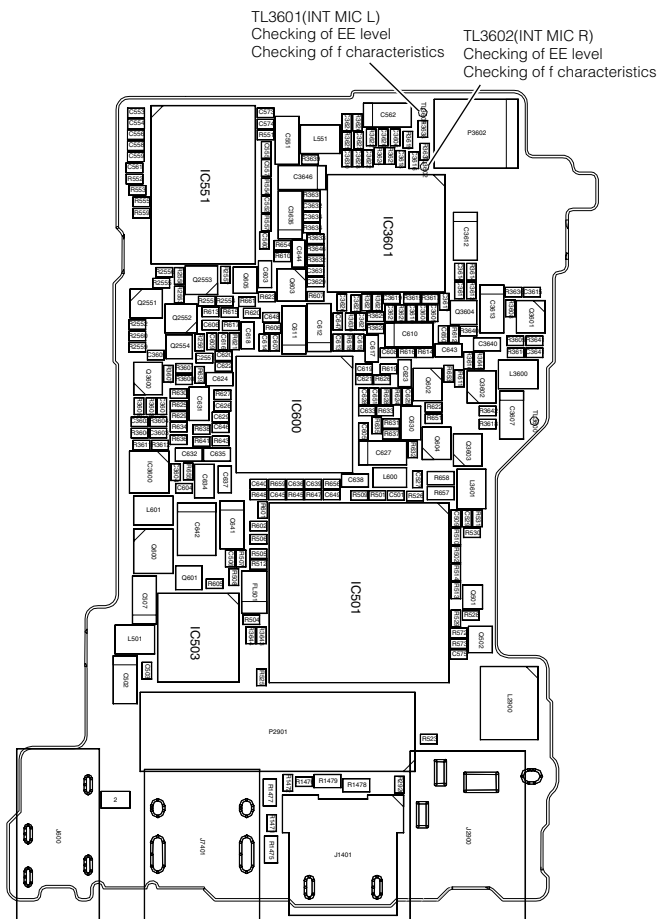
(Wiring board diagram: LCD Side A)



(Wiring board diagram: Sub Side A)



(Wiring board diagram: Sub Side B)



[Execution of adjustment]

Adjustment of servo and system controller

1. System code setting

It is necessary to set the following data items after replacing IC705 (E²PROM).

<Adjusting method>

Select the VCR adjustment mode and set the data value at each address.

Code	Specifications		Destination		Specifications		Menu setting		Software switching		Calendar	
Address	01	09	02	0A	03	0B	04	0C	05	0D	07	0F
Z3U/C/K	A9	56	01	FE	14	EB	00	FF	00	FF	03	FC
Z5U/C/K	09	F6	01	FE	14	EB	00	FF	00	FF	03	FC

Code	1394/exif model name											
Address	1A1	1A2	1A3	1A4	1A5	1A6	1A7	1A8	1A9	1BD	1BE	1BF
Z3U/C/K	56	4C	2D	5A	33	55	00	00	00	00	00	00
Z5U/C/K	56	4C	2D	5A	35	55	00	00	00	00	00	00

* After replacing IC705 (E²PROM), make the following settings and then make adjustments.

(E²PROM) data table

(1) Magnetic parametric system

Address	27	28	2B	25	26
Data	70	90	A0	70	A0

• Automatic adjustment

Mode	VCR adjustment mode
Adjusting method	1) Using command 12, select the VCR adjustment mode. 2) Using command 20, enable writing to the E ² PROM. 3) Using command 22, set the above-shown system codes according to the model. 4) Using the command, inhibit writing to the E ² PROM. 5) Using the command, exit the VCR adjustment mode.
Examples	• Replacement of E ² PROM (IC705)

• Manual adjustment

Mode	VCR ADJ mode
Adjusting method	1) Set the CAM/OFF/VCR selector switch to VCR. 2) Press "CONTINUE" → "VCR adjustment" on the remote control to enter the VCR mode. (At this time, "VCR ADJ" is displayed in the lower left part.) Enter the specified value at each address. · Shown below is the procedure for setting. 3) Select an address by increasing or decreasing the flashing numeric value with the FF or REW key and press the PB key to confirm it. 4) Set the flashing numeric value to the specified value by increasing or decreasing it with the FF or REW key and press the PB key to confirm it. 5) Press the STOP key to make it possible to select an address. 6) Repeat steps (3), (4) and (5) above until all the data items are set. Then press "CONTINUE" to exit the VCR mode. 7) Set the CAM/OFF/VCR selector switch to OFF.
Examples	· Replacement of E ² PROM (IC705)

2. Adjustment of HSWP

Mode	VCR ADJ mode
Adjusting method	1) Select the video mode and play back the alignment tape. 2) Press "CONTINUE" → "HSWP ADJ" keys on the remote control. → <u>HSWP adjustment execution</u> (When the adjustment is completed, "GOOD" is displayed on the LCD and ejecting is performed automatically.) If adjustment cannot be made, "NG" is displayed on the LCD.
Examples	· Replacement of mechanism · Replacement of E ² PROM

3. Adjustment of shutdown

Mode	VCR adjustment mode
Adjusting method	1) Set a recordable tape and select the camera mode. 2) Press "CONTINUE" → "TEST SEL" on the adjustment remote control to enter the TEST mode (T-01 flashing). 3) Select T-03 with the FF and REW keys and press "PB" key. 4) Adjust the power supply voltage so that TL904(+) becomes $6.00V \pm 50mV$ as viewed from TL900(-). 5) Press the "Display change" button on the main unit. Turn OFF the power.
Examples	· Replacement of microcomputer (IC701), Regulator (IC704) and E ² PROM (IC705)

ADJUSTMENT OF MAGNETIC PARAMETRIC CIRCUIT SYSTEM

1. Adjustment of PLL VCO

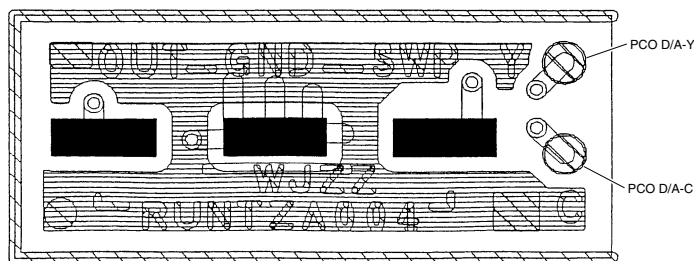
Mode	VCR ADJ mode
Adjusting method	1) Play back the alignment tape. (A tape recorded on this unit may be used instead of the alignment tape.) 2) Select the adjustment mode (V-ADJ). 3) Select address "2A" to call up the data. 4) Using the FF and REW keys, adjust the data value so that reproduced pictures are shown. (Even if block noise occurs at this time, it is allowable.) Note: After the address "2A" data has been adjusted, be sure to make the error rate adjustment.
Examples	· Replacement of circuit board (main) · Replacement of E ² PROM

2. Adjustment of phase and equalizer → (To be performed in the VCR mode)

Mode	VCR ADJ mode											
Adjusting method	1) Set a error rate adjustment tape (RTPEVA001WJZZ). 2) Select test mode 0F using the adjustment remote control. Automatic adjustment will be started (the following sequence will be performed automatically). Recording of built-in VI/O color bar VS REW PB Automatic adjustment of phase and equalizer Judgment OK: Blue indication on LCD NG: Red indication on LCD Tape EJECT 3) Turn ON and OFF the power. 4) Checking of error rate Select test mode 0B using the adjustment remote control. 5) Manual adjusting method (video adjustment mode) * In this adjustment, play back a tape recorded on this unit in the LP mode. Change the data values at addresses 26 and 2B for the phase and the data values at addresses 25 and 27 for the equalizer so that the error rate is minimized. <table><tr><td></td><td>Phase</td><td>Equalizer</td></tr><tr><td>H ch side</td><td>2B</td><td>27</td></tr><tr><td>L ch side</td><td>26</td><td>25</td></tr></table> Sync error Error rate H L Sync error Error rate 20 or less 200 or less (SP Mode) 330 or less (LP Mode) <tr><td>Examples</td><td>· Replacement of mechanism · Replacement of circuit board (main) · Replacement of E²PROM</td></tr>		Phase	Equalizer	H ch side	2B	27	L ch side	26	25	Examples	· Replacement of mechanism · Replacement of circuit board (main) · Replacement of E ² PROM
	Phase	Equalizer										
H ch side	2B	27										
L ch side	26	25										
Examples	· Replacement of mechanism · Replacement of circuit board (main) · Replacement of E ² PROM											

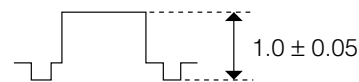
ADJUSTMENT OF VIDEO I/O CIRCUIT SYSTEM

(Envelope checkup TP jig)



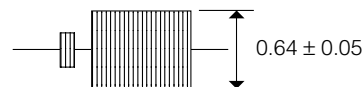
1. Adjustment of PCO D/A-Y

Measurement point	(On envelope checkup TP jig)		
Address	VCR ADJ 566	Mode	EE mode
Adjusting method	① Disconnect the DC cable or battery from the unit. ② Connect the envelope checkup TP jig to P3303. ③ Reconnect the DC cable or battery to the unit, and turn on the power. (on the shooting side) 1) Connect the AVS cable to the monitor (TO). 2) Select the adjustment mode (V-ADJ). 3) Select address "566" to call up the data. (A 100% white signal appears.) 4) Set the "Y" signal of the envelope checkup TP jig to 1.0 ± 0.05 Vp-p by changing the data value with the FF/REW keys.		
Examples	· Replacement of IC705, IC4401, IC1401		



2. Adjustment of PCO D/A-C

Measurement point	(On envelope checkup TP jig)		
Address	VCR ADJ 567	Mode	EE mode
Adjusting method	① Disconnect the DC cable or battery from the unit. ② Connect the envelope checkup TP jig to P3303. ③ Reconnect the DC cable or battery to the unit, and turn on the power. (on the shooting side) 1) Connect the AVS cable to the monitor (TO). 2) Select the adjustment mode (V-ADJ). 3) Select address "567" to call up the data. 4) Set the "C" signal of the envelope checkup TP jig to 0.64 ± 0.05 Vp-p by changing the data value with the FF/REW keys.		
Examples	· Replacement of IC705, IC4401, IC1401		



ADJUSTMENT OF VF CIRCUIT

(Wiring board diagram: Main Side A)



1. Setting of parameters (Main PWB)

* Preset the following data.

Address	582	585	597	5B9	5E4	5E5	580	588	589	58D	5A2	5A4	5A7	5A8	5A9	5B5	5B7	5B8	5C9	5D3
VL-Z5U	3D	40	40	—	—	—	—	—	—	28	00	—	F1	—	40	8B	8B	7D	E0	—
VL-Z5S/H/E	—	—	—	00	18	18	—	—	—	—	00	D0	F1	E7	E7	8B	8B	7D	E0	04
VL-Z3U	3D	40	00	—	—	—	00	00	00	28	00	—	F1	—	40	8B	8B	7D	E0	—
VL-Z3S/H/E	—	—	00	00	18	18	00	00	00	—	00	D0	F1	E7	E7	8B	8B	7D	E0	04

2. Adjustment of VF_COM amplitude (Main PWB)

Measurement point	TL8801(VF_COM)	Address	VCR ADJ 32
Procedure	1) Set the data value at address 5EB (TESTSW2) to 77. 2) Connect the digital voltmeter to TL8801 (VF_COM). At address 32 (VF_DAC_C), adjust the DC voltage to the adjustment rating.		
Adjustment rating	3.75V $\pm$ 50mV		
Examples	· Replacement of IC705		

3. Adjustment of VF_DAC full scale (Main PWB)

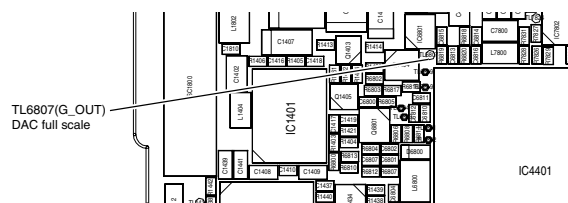
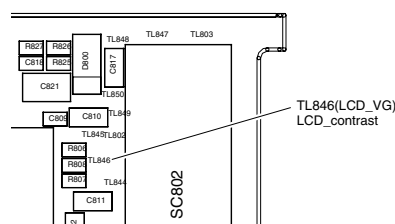
Measurement point	TL7824(VF_G_OUT)	Address	VCR ADJ 59E
Procedure	1) Set the data values at addresses 587 (GRYLEV)/58C (γ PEAK)/5EB (TESTSW2) and 5E6 (OSDSW) to FF/80/77 and 00, respectively. (The LED shows nothing.) 2) Set the data values at addresses 5A0 (CLAMP)/58D (PEDESTAL) and 5B9 (VCLK3 INV) to 00/80 and 48, respectively. 3) Connect the digital voltmeter to TL7824 (VF_G_OUT) and measure the DC voltage. * The measured voltage is (DA_VF-G). 4) Set the data values at addresses 5A0 (CLAMP) and 58D (PEDESTAL) to 80 and 00, respectively. 5) At address 59E (VF_DAC_G), adjust the DC voltage to the adjustment rating. 6) Preset the data values at addresses 59D (VF_DAC_B) and 59F (VF_DAC_R) so that they are the same as the data value at address 59E (VF_DAC_G). 7) Reset the data at addresses 587 (GRYLEV)/58C (γ PEAK)/58D (PEDESTAL)/5A0 (CLAMP)/5B9 (VCLK3 INV)/5E6 (OSDSW) and 5EB (TESTSW2) to their original values. (Initial values: 40/C5/38/28/42/71 and 7F)		
Adjustment rating	DA_VF-G +0.23V $\pm$ 10mV		
Examples	· Replacement of IC705, IC4401		

4. Adjustment of VF_WB (Main PWB)

Measurement point	TL8804(VF_VG), TL8805(VF_VR), TL8806(VF_VB)
Address	VCR ADJ 58E, 590
Procedure	1) Set the data values at addresses 587 (GRYLEV) and 5E6 (OSDSW) to 80 and 70, respectively. 2) Connect the oscilloscope to TL8804 (VF_VG) and TL8805 (VF_VR), and at address 58E (VF_WB-R), adjust the amplitude to the adjustment rating. 3) Connect the oscilloscope to TL8804 (VF_VG) and TL8806 (VF_VB), and at address 590 (VF_WB_B), adjust the amplitude to the adjustment rating.
Adjustment rating	0mV $\pm$ 40mV, 0.1mV $\pm$ 40mV
Examples	· Replacement of IC705, IC4401, IC8801

ADJUSTMENT OF LCD CIRCUIT

When making this adjustment, set the backlight switch to "Normal".

(Wiring board diagram: Main Side A)**(Wiring board diagram: LCD Side A)****1. Setting of parameters (Main PWB)**

* Preset the following data.

Address	046	047	048	049	099	0A5	0A6	0A7	0B5	406	407	408	409	427	435	40A	40B	41E
NTSC	1E	54	6B	76	01	40	7E	15	64	7F	7F	20	20	E7	24	70	70	00
PAL	1E	54	6B	76	—	—	—	—	69	—	—	—	—	E5	—	—	—	—

Address	090	098	09A	0A3	0A4	40E	40F	097	42B	42D	42F
NTSC	7F	—	40	91	96	—	—	C2	—	—	—
PAL	—	00	21	A2	A7	14	14	C9	03	09	06

The same adjusting procedure and connections as described for the VCR section are used.

2. Adjustment of DAC full scale (Main PWB)

Measurement point	TL6807(G OUT)	Address	VCR ADJ 094(G)
Mode	VCR AV input		
Adjusting method	1) Set the data values at addresses 41E/086/41C and 410 to FF/80/77 and 00, respectively. (The LED shows nothing.) 2) Set the data values at addresses 096/411 and 0A8 to 00/80 and 48, respectively. 3) Connect the digital voltmeter to TL6807 (G_OUT) and measure the DC voltage. * The measured voltage is (DA_VG). 4) Set the data values at addresses 096 and 411 to 80 and 00, respectively. 5) At address 094, adjust the DC voltage to the adjustment rating. 6) Preset the data values at addresses 093 and 095 so that they are the same as the data value at address 094. 7) Reset the data at addresses 41E/086/096/41C/411/0A8 and 410. (Initial value: 00/C5/28/7F/28/42 and 7D)		
Adjustment rating	DA_VG + 0.35V ± 10mV		
Examples	· Replacement of IC705, IC4401		

3. Setting of parameters (LCD PWB)

* Preset the following data.

Address	7C0	7C6	7C7	7CB
NTSC	49	00	40	40
PAL	49	00	40	40

4. Adjustment of LCD contrast (LCD PWB)

Measurement point	TL846(LCD_VG)	Address	VCR ADJ 7C3
Test signal	0.900V		
Procedure	1) Set the data value at address 41E (GRYLEV) to BE. (100% white display) 2) Set the data value at address 41C (TESTSW2) to 77. (1H inverted STOP) 3) Connect the digital voltmeter to TL846 (LCD_VG), and at address 7C3 (CONTRAST), adjust the DC voltage to the adjustment rating.		
Adjustment rating	± 50mV		
Examples	· Replacement of IC801, IC800		

5. Adjustment of COM-Bias (with the unit settings complete)

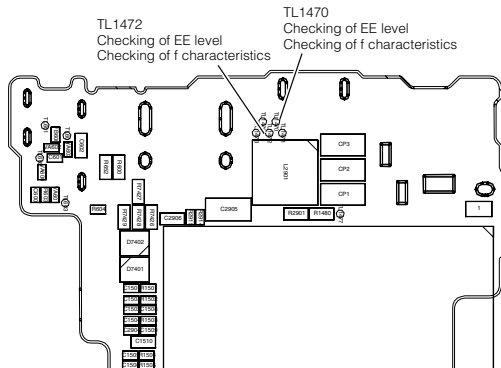
Measurement point	LCD panel display surface	Address	VCR ADJ 7C9
Mode	VCR AV input		
Adjusting method	1) Apply a 40% white signal to the AV input. 2) Set the illuminometer (TOPCON IM-3) on the LCD panel surface. (Cut off outside light.) 3) Minimize the ripple of the output waveform of the illuminometer.		
Adjustment rating	Minimum value  Response time: 0.6 sec		
Remarks	Make adjustment after five minutes or more of aging.		
Examples	· Replacement of LCD panel · Replacement of IC800		

6. Adjustment of W/B (with the unit settings complete)

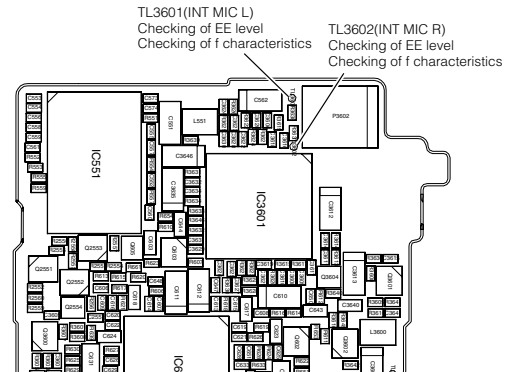
Measurement point	LCD panel display surface	Address	VCR ADJ 41F, VCR ADJ 421
Mode	VCR AV input		
Adjusting method	1) Apply a 40% white signal to the AV input. 2) Apply a 40% white signal to the standard monitor. Make adjustment so that the image on the LCD becomes equivalent to the image on the standard monitor.		
Remark	Standard monitor		
Examples	· Replacement of LCD panel · Replacement of IC4401, IC705		

ADJUSTMENT OF MIC AMP CIRCUIT

(Wiring board diagram: Sub Side A)



(Wiring board diagram: Sub Side B)



1. Checking of EE level (Sub PWB)

Measuring instrument	Valve voltmeter	Measurement point	TL1472, TL1470
Mode	P-ON (CAM)	Adjustment rating	-9dBs ± 3dB
Test signal	1kHz, -54dBs sine wave		
Adjusting method	1) Apply a 1kHz, -54dBs sine wave to TL3601 (INT MIC L) and TL3602 (INT MIC R). 2) Check that the signal levels of TL1472 Audio-L out and TL1470 Audio-R out satisfy the adjustment rating.		
Examples			

2. Checking of f characteristics (Sub PWB)

Measuring instrument	Valve voltmeter	Test point	TL1472, TL1470
Mode	P-ON (CAM)	Adjustment rating	(On a base of 1kHz) 100Hz : -6dBs ± 3dB 10kHz : -3dBs ± 3dB
Test signal	100Hz and 10kHz, -54dBs sine wave		
Adjusting method	1) Apply a -54dBs, 100Hz sine wave and then a 10kHz, -54dBs sine wave to TL3601 (INT MIC L) and TL3602 (INT MIC R). 2) Check that the signal levels of TL1472 Audio-L out and TL1470 Audio-R out satisfy the adjustment rating on a base of 1kHz in each case.		
Examples			

Setting of MODEL ID

Address	VCR ADJ FD, FE, FF									
Mode	VCR mode			Setting rating		10, 20				
Setting method	1) Using command 12, select the VCR adjustment mode. 2) Using command 20, enable writing to the E ² PROM. 3) Set MODEL ID at each address.					Address	FDh	FEh	FFh	
						Date	10h	20h	Z3	50
									Z5	48
Examples	Replacement of E ² PROM (IC705)									

DV INTERFACE (IEEE1394) ID SETTING

This unit has a DV interface function conforming to IEEE1394. Each unit therefore must have its own ID number. Because this ID is written into the E²PROM (IC705) in the main PWB, it is necessary to newly write the ID newly when this IC is replaced.

Address	180, 17F, 17E	Mode	VCR
Setting rating	ID number obtained from the URL below		
Setting method	1) Refer to the ID code application below. 2) Place the data acquired in step (1) at the corresponding address in the VCR mode. * Download an ID number and write it on the main unit according to the notice from the AV System Group "Issue No.S8-001".		
Examples	• Replacement of E ² PROM (IC705 in main PWB)		

■ ID code application

1. Connect with the EUI48/64 ID code control system.

(1) Start the Internet Explorer or Netscape Navigator.

(2) Access the following address.(URL: <http://www.rcg.kami.sharp.co.jp/quics/index.html>)

Select "EUI48/64 ID code control system" among the "Service" items.

Note: If you want to establish a connection by directly inputting the URL, please input the following.

URL:http://www1.rcg.kami.sharp.co.jp:7000/adrs_agt/adrs_dba/ide00010.main

The login screen will appear.

EUI 48 / 64 ID code control system

Please enter user ID and password

User ID

Password

Login

Usage precautions

- Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility. Their names and departments or section to which they belong are stored as history data in the memory.
- JavaScript is used for display selection handling. Therefore, the system may not operate properly on some browsers. To operate the system, use any of the following browsers. Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions
- Do not click the back button displayed on the above browser screen. If you click it, the system may not operate properly.
- If the search results are displayed at a personal computer terminal with the Japanese fonts not installed, the Japanese characters are not displayed correctly.

If you have any question, please contact to below
Reliability Control Group
E-mail : eui@cmn.hirano.sharp.co.jp

Home

(3) Input the [User ID] and [Password]. Click on [Login].

EUI 48 / 64 ID code control system

Please enter user ID and password

User ID

Password

Login

Usage precautions

- Those who have acquired ID numbers must manage the acquired ID codes on their own responsibility. Their names and departments or section to which they belong are stored as history data in the memory.
- JavaScript is used for display selection handling. Therefore, the system may not operate properly on some browsers. To operate the system, use any of the following browsers. Internet Explorer 4.01SP1 or higher versions/Netscape Navigator 4.04 or higher versions
- Do not click the back button displayed on the above browser screen. If you click it, the system may not operate properly.
- If the search results are displayed at a personal computer terminal with the Japanese fonts not installed, the Japanese characters are not displayed correctly.

If you have any question, please contact to below
Reliability Control Group
E-mail : eui@cmn.hirano.sharp.co.jp

Home

(4) Click on [EUI 64 (IEEE1394)] from
[1. Application of acquisition of application for ID].

Click

EUI 48 / 64 ID code control system

Click the button.

1.Application for acquisition of ID

EUI 48

EUI 64 (IEEE1394)

EUI 64 (IrDA)

2.Inquiry/search

EUI 48

EUI 64

Home

(5) Click on [Repair use].

EUI 64 (IEEE1394) Application for acquisition of ID

Click the button.

Trial production use

Repair use

Back to menu

- (6) Input the necessary information for the application.
Be sure to input the necessary input items.
Select the [Group/company] and [Kind name] from the list.
Input the [Model name] in half-size characters.
Input the [Serial number] in half-size characters.
Input the [Site/department] of repair in full-size characters.

EUI 64 (IEEE1394) Application for acquisition of ID / Repair use

Input the following items.

Input date	00-Feb-03	
User ID code	00 00 00	
Name	TaroYamada	Input of half-sized characters.
Group/company	Audio-Visual Systems Group	Select from the list.
Kind name	ViewCam with LCD	Select from the list.
Model name	VL-○○○○	Input of half-sized characters. Compulsory input items. (Do not input "-" (hyphens)).
Serial number	○○○○○○○	Input of half-sized characters. Compulsory input items.
site/department of repair	SHARP	Input of half-sized characters. Compulsory input items.

motion

back to select menu

Back to menu

- (7) Click on [Motion].
The confirmation screen will appear.

EUI 64 (IEEE1394) Application for acquisition of ID / Repair use

Input the following items.

Input date	00-Feb-03	
User ID code	00 00 00	
Name	TaroYamada	Input of half-sized characters.
Group/company	Audio-Visual Systems Group	Select from the list.
Kind name	ViewCam with LCD	Select from the list.
Model name	VL-○○○○	Input of half-sized characters. Compulsory input items. (Do not input "-" (hyphens)).
Serial number	○○○○○○○	Input of half-sized characters. Compulsory input items.
site/department of repair	SHARP	Input of half-sized characters. Compulsory input items.

motion

back to select menu

Back to menu

(8) Click on [Yes].

EUI 64 (IEEE1394) Application for acquisition of ID/Repair use

Input date	00-Feb-03
User ID code	00 00 00
Name	TaroYamada
Group/company	Audio-Visual Systems Group
Kind name	ViewCam with LCD
Model name	VL-○○○○
serial number	○○○○○○○
site/department of repair	SHARP

EUI 64 (IEEE1394) Application for acquisition of ID/Repair use

You will acquire an ID code based on the above information. Are you sure?

Yes

No

2. Print the application result.
- (1) Print out the application result screen.
Control the application result as evidence.
To print it out, select "Print (P)" under "File (F)" on the menu bar or click on the print button on the tool bar.
- (2) Click on [Menu] to complete the application.
If you make application in succession, repeat steps (1) to (8).
To end it, click on [End] on the menu screen.

10.2. Adjustment of camera section

10-2-1. Servicing of camera section

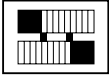
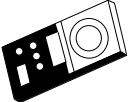
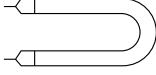
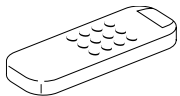
- (1) Camera adjustment should be performed with the set completed.
 (2) Subjects, measuring instruments and jigs necessary for servicing and adjustment of the camera section

• Gray scale chart • Color bar chart • Oscilloscope • Digital voltmeter • Halogen lamp: 2 pcs. • Vector scope	• Frequency counter • Illumination meter • Color temperature meter • Color temperature conversion filter HOYA "LB-165" • Color video monitor	• Video output cable • AC adapter • Extension cables • Adjustment remote control
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10-2-2. List of camera jigs

Sketch

<Note: Order of descriptions> 1. Jig name 2. Part code 3. Code

 1. Gray scale chart (390 x 520 mm) 2. JiGCHART-1 3. CP	 1. Color bar chart (240 x 320 mm) 2. JiGCHART-4 3. DA	 1. Illuminometer (0 to 3000 lx) 2. JiGMETER-1 3. CT	 1. Color temperature meter (1600 to 40000 degrees K) 2. JiGMETER-2 3. EL
1. Color temperature conversion filter (3200 degrees K ⇒ 6800 degrees K) 2. JiGHOYA-LB165 3. BN	 1. PC plate connector drawer 2. JiGTH-SS10 3. AW	 1. Adjustment remote control 2. RRMCG0033TASA 3. BT	

10-2-3. Adjustment of camera section

- (1) Preparations and checking before adjustment
- Adjust the lighting so that the illumination intensity is about 3000 lx and that uniform illumination is provided on the whole pattern.
(It is desirable that two or more lamps be used as light sources.)
Set the color temperature at 3200K.
 - The test pattern used should be free from stains and color deterioration.
 - If a failure occurs in the electric circuit, be sure to locate the fault using a measuring instrument and perform repairing or replacement before making adjustment of camera section.

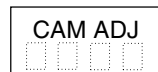
- (2) Adjustment remote control RRMCG0033TASA

The adjustment remote control (RRMCG0033TASA) is used to adjust the camera section of this unit. Adjustment is made by writing data into the E²PROM(IC705) at particular addresses using the remote control via the microcomputer.

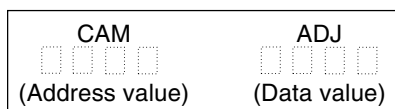
- 1) To adjust the camera

Press the "CONTINUE" key and then press the "CAM ADJ" key.

The following display will appear on the LCD screen, allowing you to make adjustment.



- 2) Description of display



(It means camera adjustment.)

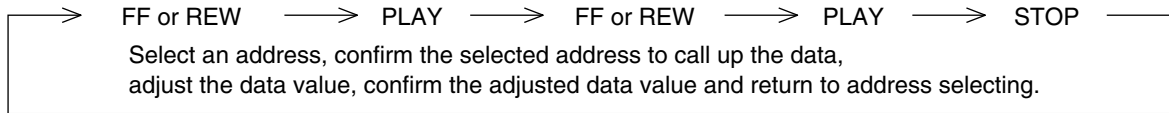
* This unit has addresses 0000 to 07FF.

* Byte data (last two digits valid) and 2-byte data (last three digits valid) are available.

3) Description of remote control keys

- "FF" key: It is used to increase the address value and data value.
 "REW" key: It is used to decrease the address value and data value.
 "PLAY" key: It is used to confirm the selected address to call up the data. It is also used to confirm the data value.
 "STOP" key: It is used to clear the data and make it possible to select an address.

4) Operation flow



5) After completion of adjustment

Press the "CONTINUE" key to make the display "CAM ADJ" disappear.

Note: Before pressing the "CONTINUE" key, check that the unit is not in the auto focus adjustment mode or the camera signal system adjustment mode (described later).

● Camera section adjustment mode

The auto focus adjustment mode and the camera signal system adjustment mode are used for adjustment of the camera section.

Note: The adjustment data are stored in the E²PROM as shown below. When making changes, it is therefore necessary to perform rewriting of data and checking of the latest data.

1) E²PROM (IC705) on main unit

Lens-related data and signal system adjustment data

(3) Auto focus adjustment mode

- The camera of this unit features automatic focussing by means of a microcomputer.

The auto focus circuit of this unit performs focusing operation based on the principle that the high frequency component in the video signal increases as focus is achieved. In addition, in order to achieve a large magnification with a small-size lens, the inner focus system is employed in which a master lens (rear lens) is moved forward and backward for focusing. This inner focus system enables full range focussing with a focal length range of 10 mm to infinite distance. However, because the maximum allowable distance from the closest subject to the tele end is 1.5 m, a subject less than 1.5 m away from the tele end cannot be focused on if it is shot at the tele end. In such cases, zooming-out is performed automatically for focusing.

The major factors of the auto focus system are as follows:

- Detection of master lens position
- Detection of iris position
- Detection of zoom lens reference position

These detection data are stored in the E²PROM.

Therefore (3) auto focus adjustment should be performed in the following cases.

- When the lens is replaced
- When the CCD is replaced
- When the E²PROM is replaced
- When the CCD circuit board and CAMHEAD circuit board are replaced

1) How to enter the auto focus adjustment mode

Set the data value at address "13FE" to "01".



The screen will be white-faded temporarily and the auto focus adjustment mode will be established.

* When the auto focus adjustment mode is established, make adjustment according to "(5) Camera adjusting procedure".

* In the auto focus adjustment mode, lens operation cannot be performed.

2) How to enter the normal mode

Set the data value at address "13FE" to "FF".



The screen will be white-faded temporarily and the normal mode will be established.



Pressing the "CONTINUE" key will make the display "CAM ADJ" disappear and make it possible to perform normal operation.

(4) Camera signal system adjustment mode

In the camera signal system adjustment mode, the auto white balance function is stopped in order to adjust the camera. In this mode, the white balance is set to the indoor mode and focussing is performed manually.

1) How to enter the camera signal system adjustment mode

Set the data value at address "0000" to "00 00".



The camera signal system adjustment mode will be established.

*When the camera signal system adjustment mode is established, make adjustment according to "(5) Camera adjusting procedure".

2) How to enter the normal mode

Set the data value at address "0000" to "FF FF".

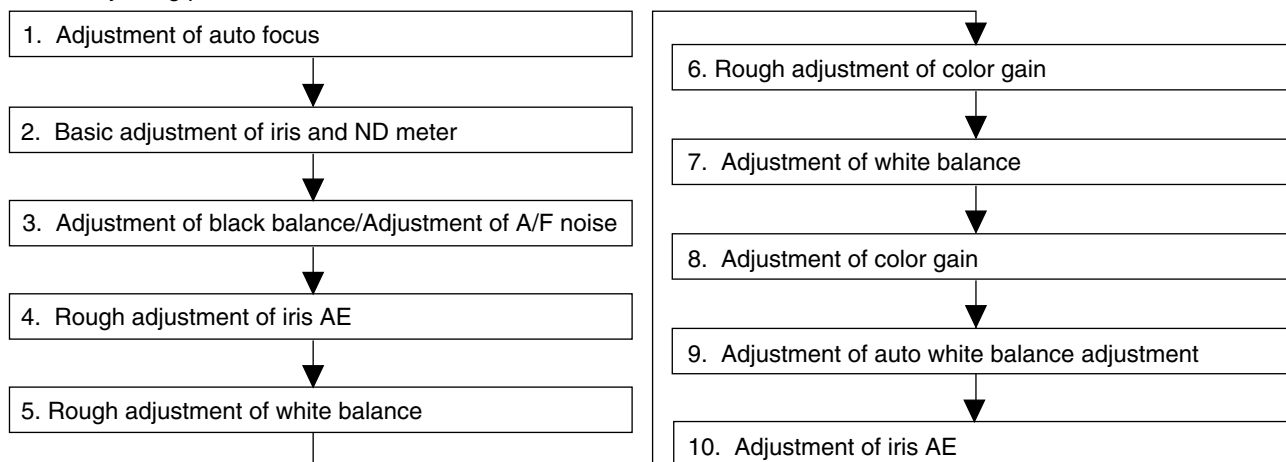


The normal mode will be established.



Pressing "CONTINUE" key will make the display "CAM ADJ" disappear and make it possible to perform normal operation.

(5) Camera adjusting procedure



* "1. Adjustment of auto focus" is performed in the auto focus adjustment mode. The other adjustments are performed in the camera signal system adjustment mode.

(6) How to replace the gyro unit (Z5 only, Z3 no gyro)

1) When replacing the E²PROM on the main unit with the gyro unit kept unchanged

Because the gyro adjustment data is stored in the E²PROM, read the data at address "1064" and write it into the new E²PROM after replacement.

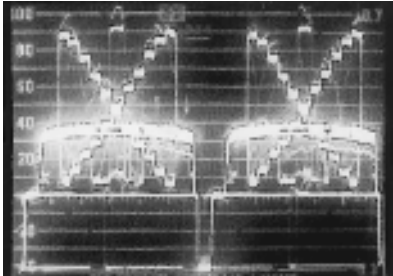
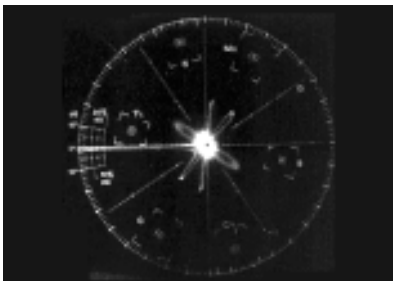
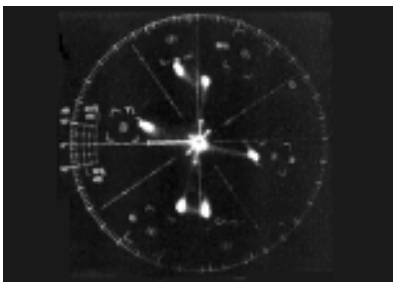
2) When replacing the gyro sensor (RMC1001)

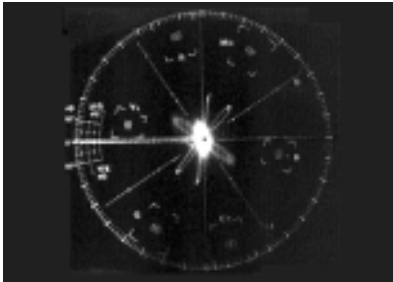
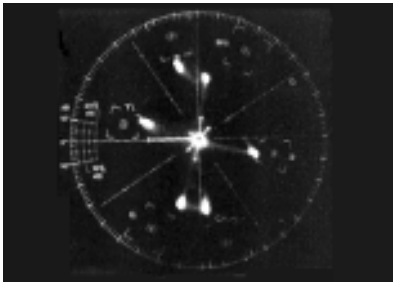
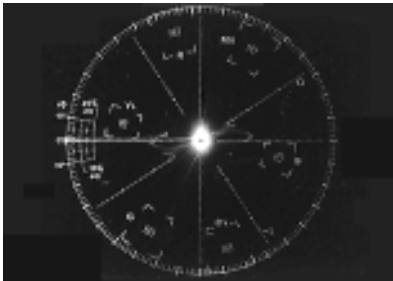
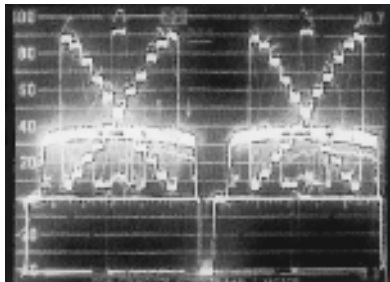
After replacing the gyro sensor with the specified one, write the following data at address "1064".

Ref No.	Part code	Address	Data
RMC1001	Changed to RSNSGA005WJPZY	1064	01D0

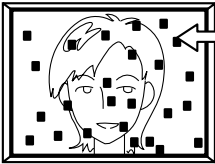
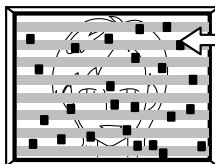
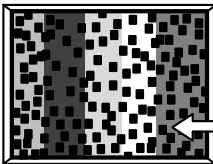
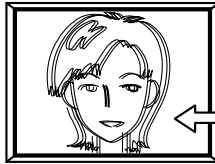
10-2-4. Adjusting procedure

Item	Adjustment method	
(1) Adjustment of auto focus		
The following adjustments are performed automatically by establishing the auto focus adjustment mode and writing the following data at address "13FD" sequentially. The adjustment items are as shown in the table below. When an adjustment is completed normally, data "FF" is written, which should be confirmed before proceeding to the next adjustment.		
Address	Data	Adjustment item
13FD	0012	Adjustment of wide end
	0008	Adjustment of tele end focus ∞ position
	0006	Adjustment of wide end focus ∞ position
	000D	Adjustment of zoom tracking
Note 1: During the adjustment of ∞ position, a subject should be shot actually. Make this adjustment while shooting a subject with a clear-cut outline. In the case of the adjustment of tele end focus ∞ position in particular, if it is performed without shooting a distant subject actually, the ∞ position will not be adjusted properly. Adjustment of wide end focus ∞ position: 3 m or more Adjustment of tele end focus ∞ position: 50 m or more		
Note 2: In the case of the adjustment of ∞ position, the depth of field is important in insuring accuracy. If the depth of field is deep, the ∞ position may be adjusted improperly the subject hardly falls out of focus. Make this adjustment with the depth of field being shallow (the iris opened).		
It is possible to open the iris using the high-speed shutter.		
1. Establish the normal mode.		
2. Call the V-V adjust sports mode in normal operation. (Refer to the instruction manual.)		
3. Display "CAM ADJ" by using the remote control for servicing.		
4. Establish the auto focus adjustment mode.		
5. Perform the adjustment of ∞ position.		
6. After the completion of the adjustment of ∞ position, set the V-V adjust back to the off position.		
(2) Basic adjustment of iris		
It is performed to adjust the operating point of the hall element installed in the iris meter.		
The following adjustments are performed automatically by writing the following data at address "13FD" sequentially in the camera signal system adjustment mode. The adjustment items are as shown in the table below. When an adjustment is completed normally, data "00FF" is written automatically.		
Address	Data	Adjustment item
13FD	0009	Adjustment of hall offset
	000A	Adjustment of iris offset
	000B	Adjustment of iris close
After exiting the auto focus adjustment mode (writing data "00FF" at address "13FE"), establish the camera signal system adjustment mode (writing data "0000" at address "0000").		
(3) Adjustment of black balance/Adjustment of A/F noise		
This adjustment is performed automatically by writing data "0001" at address "0001". When the adjustment is completed normally, data "00FF" is written automatically.		

Item	Adjustment method																					
(4) Rough adjustment of iris AE - Measurement terminal: S terminal luminance signal output (75 Ω termination) - Address: "0002" AE_CVT - Measuring instrument: Oscilloscope (horizontal cycle) - Object: Grey scale - Data changing range: "0000" to "00FE"	1) While shooting the gray scale normally, observe the video output using the oscilloscope. By rewriting the data at address "0002", adjust the white luminance signal level to 720±10mVp-p and the gray luminance signal level (on the gray scale background) to 360±10mVp-p.  100mV/div																					
(5) Rough adjustment of white balance - Measurement terminal: EE output - Address: "0090" CGAIN_KR_W "0092" CGAIN_KB_W - Measuring instrument: Vector scope - Object: Grey scale - Data changing range: "0000" to "03FF"	1) While shooting the gray scale normally, observe the monitoring screen of the vector scope. By rewriting the data at addresses "0090" and "0092", position the luminescent spot so that the following burst ratio is obtained. R-Y 0 ± 5% B-Y 0 ± 5% 																					
(6) Rough adjustment of color gain - Measurement terminal: EE output - Address: "0338" CGIN_RYG "033A" CGIN_BYG "0335" CMAT_RYG "0333" CMAT_BYG "033B" Yellow amplitude "0334" Yellow phase - Measuring instrument: Vector scope - Object: Color bar chart - Data changing range: "0000" to "00FF"	1) Shoot the color bar chart and adjust the field angle so that the white level becomes 600mV. While observing the monitoring screen of the vector scope, rewrite the data at addresses "0338", "033A", "0335", "0333", "033B" and "0334" so that the red, blue and yellow luminescent spots are positioned as shown below. (As for the burst gain, gain setting of the vector scope should be made at the 75% Amplitude point on the B-Y axis.)  <table><tr><th colspan="3">Adjustment address</th></tr><tr><td>Red amplitude</td><td>1.82 ± 0.1 time (burst ratio)</td><td>: "0338"</td></tr><tr><td>Blue amplitude</td><td>1.52 ± 0.1 time (burst ratio)</td><td>: "033A"</td></tr><tr><td>Yellow amplitude</td><td>1.18 ± 0.1 time (burst ratio)</td><td>: "033B"</td></tr><tr><td>Red phase</td><td>103° ± 2°</td><td>: "0335"</td></tr><tr><td>Blue phase</td><td>343° ± 2°</td><td>: "0333"</td></tr><tr><td>Yellow phase</td><td>165° ± 2°</td><td>: "0334"</td></tr></table>	Adjustment address			Red amplitude	1.82 ± 0.1 time (burst ratio)	: "0338"	Blue amplitude	1.52 ± 0.1 time (burst ratio)	: "033A"	Yellow amplitude	1.18 ± 0.1 time (burst ratio)	: "033B"	Red phase	103° ± 2°	: "0335"	Blue phase	343° ± 2°	: "0333"	Yellow phase	165° ± 2°	: "0334"
Adjustment address																						
Red amplitude	1.82 ± 0.1 time (burst ratio)	: "0338"																				
Blue amplitude	1.52 ± 0.1 time (burst ratio)	: "033A"																				
Yellow amplitude	1.18 ± 0.1 time (burst ratio)	: "033B"																				
Red phase	103° ± 2°	: "0335"																				
Blue phase	343° ± 2°	: "0333"																				
Yellow phase	165° ± 2°	: "0334"																				

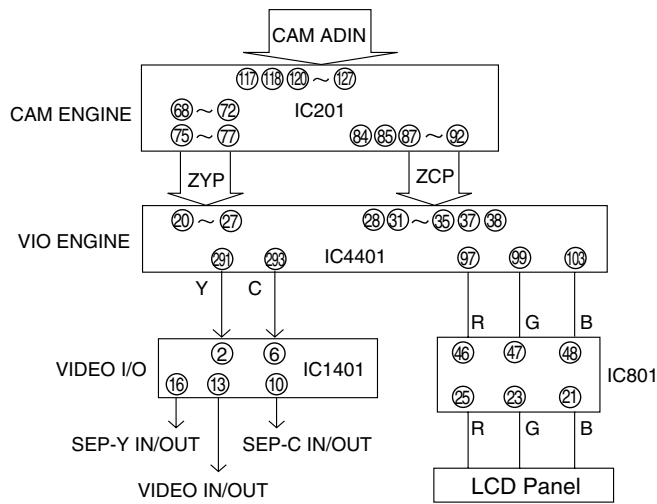
Item	Adjustment method																					
(7) Adjustment of white balance - Measurement terminal: EE output - Address: "0090" INDOOR_W/B R "0092" INDOOR_W/B R - Measuring instrument: Vector scope - Object: Grey scale - Data changing range: "0000" to "03FF"	1) Perform the adjustment of white balance repeatedly. 																					
(8) Adjustment of color gain - Measurement terminal: EE output - Address: "0338" CGIN RYG "033A" CGIN BYG "0335" CMAT RYG "0333" CMAT BYG "033B" Yellow amplitude "0334" Yellow phase - Measuring instrument: Vector scope - Object: Waveform monitor color bar chart - Data changing range: "0000" to "00FF"	1) Perform the color gain adjustment repeatedly.  <table><tr><td></td><td colspan="2">Adjustment address</td></tr><tr><td>Red amplitude</td><td>1.82 ± 0.05 time (burst ratio)</td><td>: "0338"</td></tr><tr><td>Blue amplitude</td><td>1.52 ± 0.05 time (burst ratio)</td><td>: "033A"</td></tr><tr><td>Yellow amplitude</td><td>1.18 ± 0.05 time (burst ratio)</td><td>: "033B"</td></tr><tr><td>Red phase</td><td>$103^\circ \pm 1^\circ$</td><td>: "0335"</td></tr><tr><td>Blue phase</td><td>$343^\circ \pm 2^\circ$</td><td>: "0333"</td></tr><tr><td>Yellow phase</td><td>$165^\circ \pm 2^\circ$</td><td>: "0334"</td></tr></table>		Adjustment address		Red amplitude	1.82 ± 0.05 time (burst ratio)	: "0338"	Blue amplitude	1.52 ± 0.05 time (burst ratio)	: "033A"	Yellow amplitude	1.18 ± 0.05 time (burst ratio)	: "033B"	Red phase	$103^\circ \pm 1^\circ$	: "0335"	Blue phase	$343^\circ \pm 2^\circ$	: "0333"	Yellow phase	$165^\circ \pm 2^\circ$	: "0334"
	Adjustment address																					
Red amplitude	1.82 ± 0.05 time (burst ratio)	: "0338"																				
Blue amplitude	1.52 ± 0.05 time (burst ratio)	: "033A"																				
Yellow amplitude	1.18 ± 0.05 time (burst ratio)	: "033B"																				
Red phase	$103^\circ \pm 1^\circ$	: "0335"																				
Blue phase	$343^\circ \pm 2^\circ$	: "0333"																				
Yellow phase	$165^\circ \pm 2^\circ$	: "0334"																				
(9) Adjustment of auto white balance adjustment - Measurement terminal: EE output - Address: "0016" OUTDOOR R "0018" OUTDOOR B - Measuring instrument: Vector scope - Object: Grey scale - Data changing range: "0000" to "03FF"	1) Set the color temperature conversion filter (LB165) on the lens. 2) While shooting the gray scale normally, observe the monitoring screen of the vector scope. By rewriting the data, position the luminescent spot so that the following burst ratio is obtained. <table><tr><td>R-Y</td><td>$0 \pm 5\%$ (burst ratio)</td></tr><tr><td>B-Y</td><td>$0 \pm 5\%$ (burst ratio)</td></tr></table> 	R-Y	$0 \pm 5\%$ (burst ratio)	B-Y	$0 \pm 5\%$ (burst ratio)																	
R-Y	$0 \pm 5\%$ (burst ratio)																					
B-Y	$0 \pm 5\%$ (burst ratio)																					
(10) Adjustment of iris AE - Measurement terminal: S terminal luminance signal output (75 Ω termination) - Address: "0002" AE_CVT - Measuring instrument: Oscilloscope (horizontal cycle) - Object: Grey scale - Data changing range: "0000" to "00FE"	1) Establish the normal mode (by writing data " ☐ ☐ FF" at address "0000". 2) While shooting the gray scale normally, observe the video output using the oscilloscope. Check that the white luminance signal level is 705 ± 10 mVp-p and that the gray luminance signal level (on the gray scale background) to 330 ± 10 mVp-p.  100mV/div																					

11. USEFUL TIPS (PROBLEMS DIFFER FROM THOSE FOUND ON VHS OR 8MM DECKS BECAUSE THE SIGNALS ARE DIGITALLY PROCESSED.)

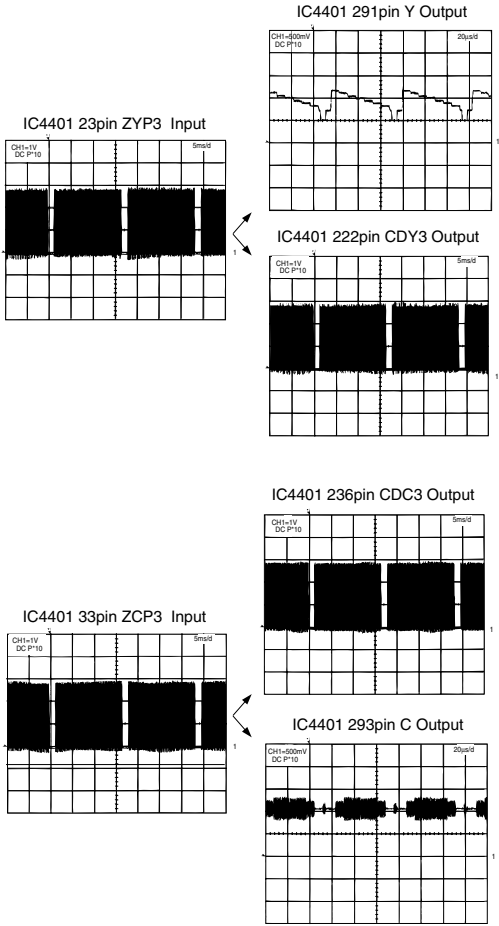
Camera (EE mode) Picture fails to appear Major circuits to be checked • CCD • Camera circuits (CDS/ADC, CAM ENGINE) • MECHA/SYSTEM MiCON (IC701) • VIDEO I/O (IC1401) • VIO ENGINE (IC4401)	VCR (EE mode) Blueback fails to appear. Major circuits to be checked • MECHA/SYSTEM MiCON (IC701) • CAM ENGINE (IC201) • REC/PB ENGINE (IC452)	Camera (REC mode) VCR (PB mode) Picture fails to appear when tape recorded on this unit or another unit is played back. (EE OK) Major circuits to be checked • CAM ENGINE (IC201) • REC/PB ENGINE (IC452)
Camera (REC mode) VCR (PB mode) Blueback when tape recorded on this unit or another unit is played back. (EE OK) Major circuits to be checked • EQ/PLL (IC3401) • Head amplifier (IC301) * Dirty or defective video head	Camera (REC mode) VCR (PB mode)  Random block noise when tape recorded on this unit or another unit is played back. or  Noise bar (Green) + random block noise when tape recorded on this unit or another unit is played back. Major circuits to be checked • EQ/PLL (IC3401) • Head amplifier (IC301) * Dirty or defective video head	
VCR (PB mode) + color bar Lines appear on the color bar. Major circuits to be checked • CAM ENGINE (IC201)	VCR (PB mode) + color bar  There is considerable random block noise. Major circuits to be checked • Adjustment of the electromagnetic conversion circuit system.	Camera (EE mode)  The outline looks like a Moire pattern. Major circuits to be checked • Y data between CAM ENGINE (IC201) and VIO ENGINE (IC4401) is missing.

12. SIGNAL FLOW DIAGRAMS

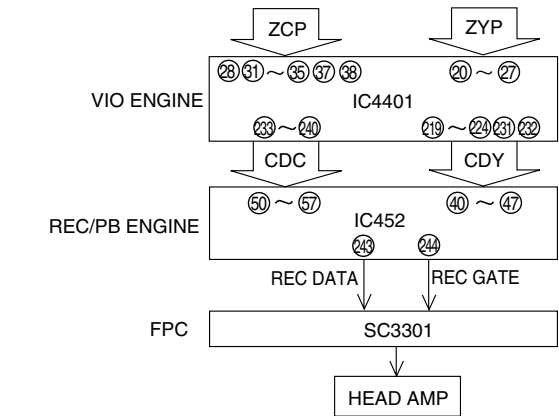
12-1. EE MODE FLOW (VIDEO)



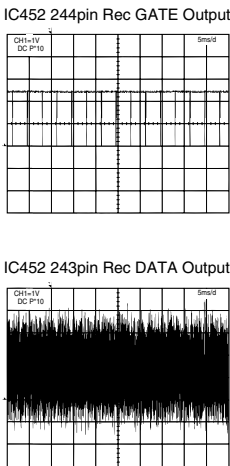
WAVEFORM DIAGRAM
(DURING COLOR BAR RECORDING)



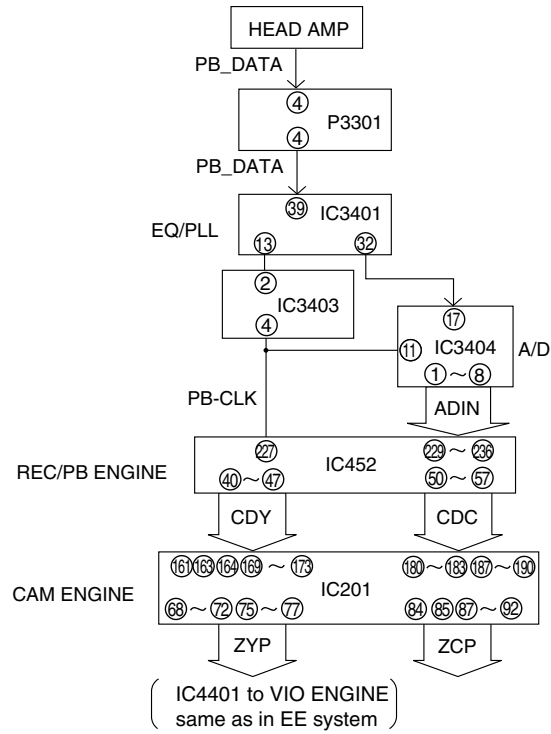
12-2. FLOW IN REC MODE (VIDEO)



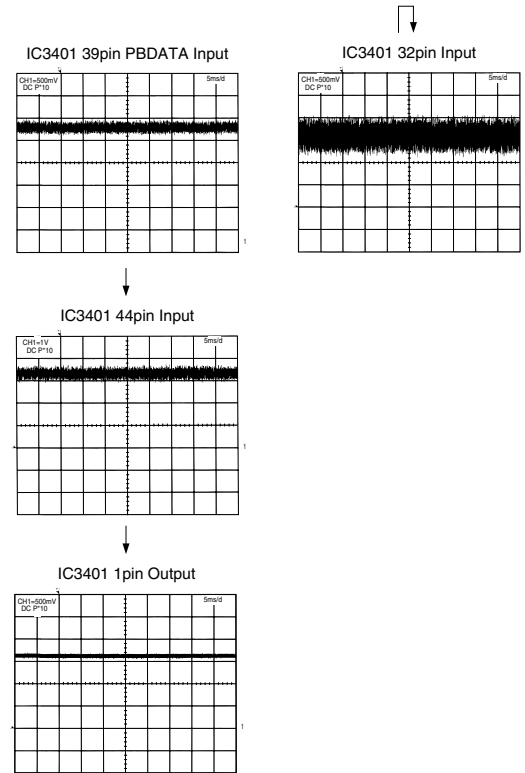
WAVEFORM DIAGRAM
(DURING COLOR BAR RECORDING)



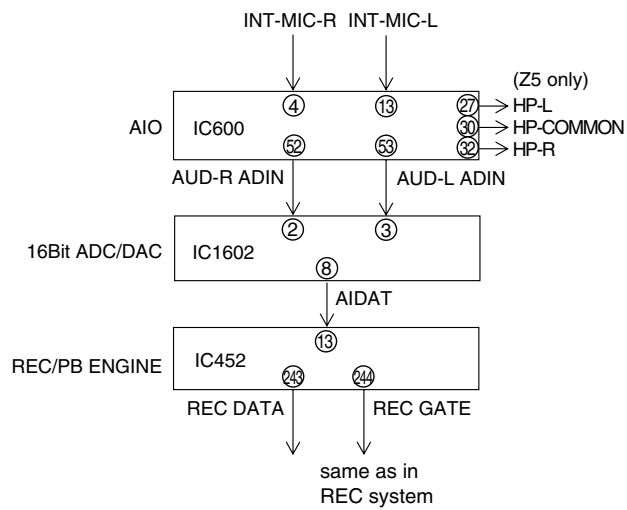
12-3. FLOW IN PB MODE (VIDEO)



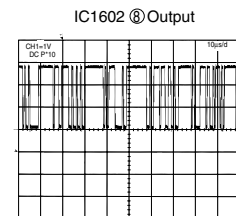
WAVEFORM DIAGRAM (DURING COLOR BAR PLAYBACK)



12-4. FLOW IN REC MODE (AUDIO)

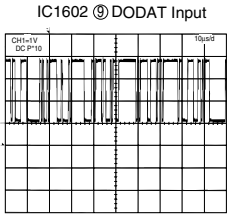
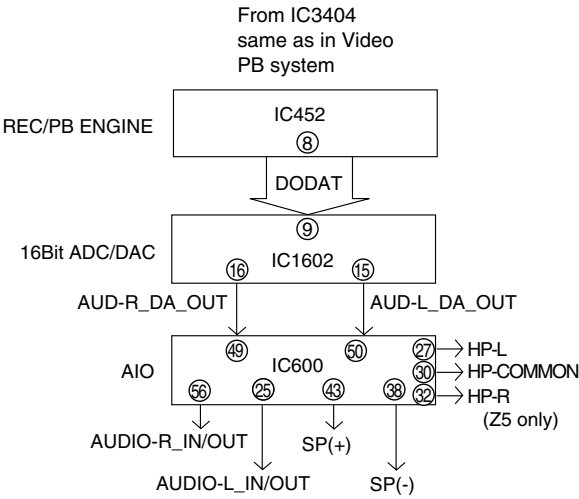


WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)



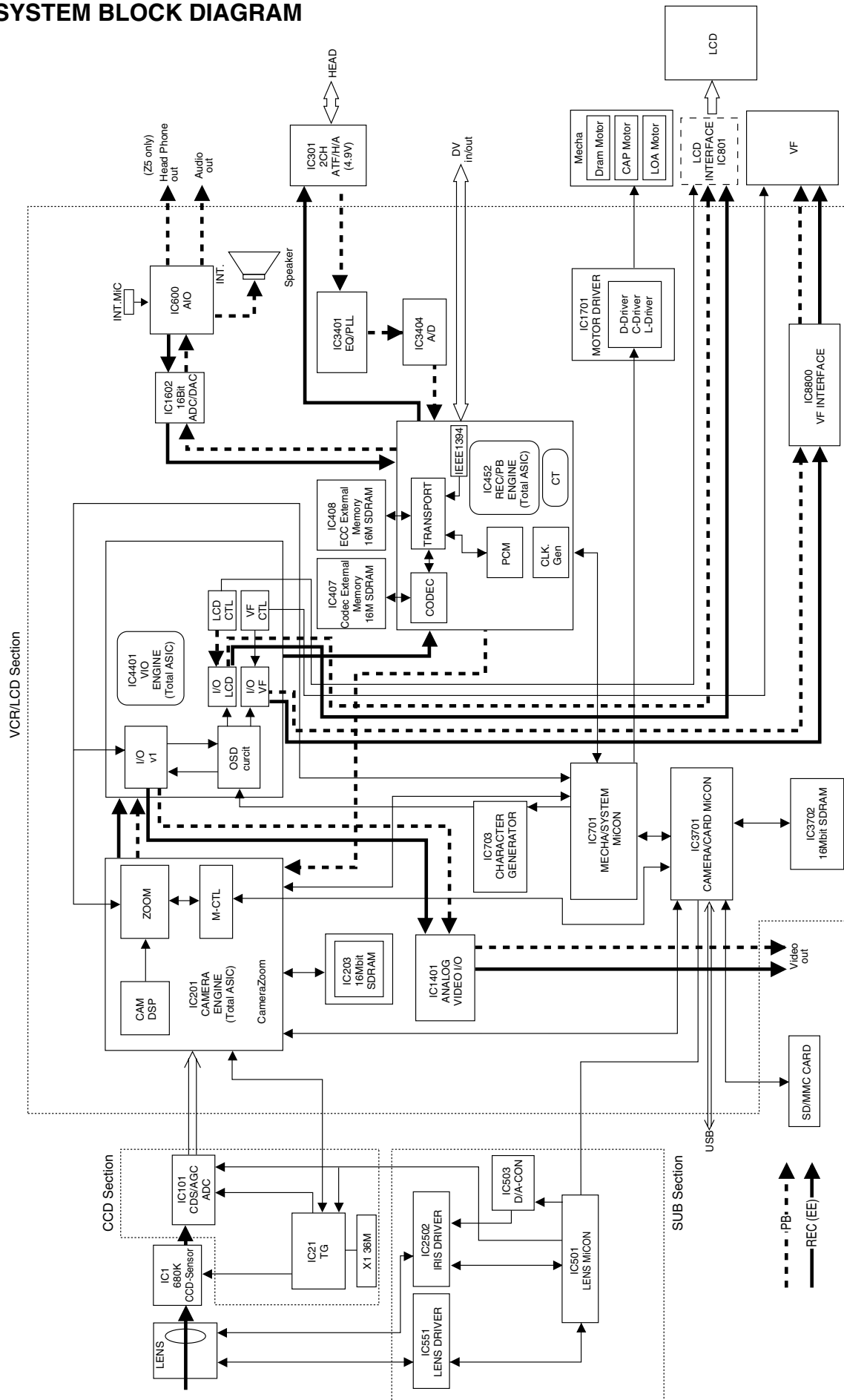
12-5. FLOW IN PB MODE (AUDIO)

WAVEFORM DIAGRAM (1.6 kHz SINE WAVE)



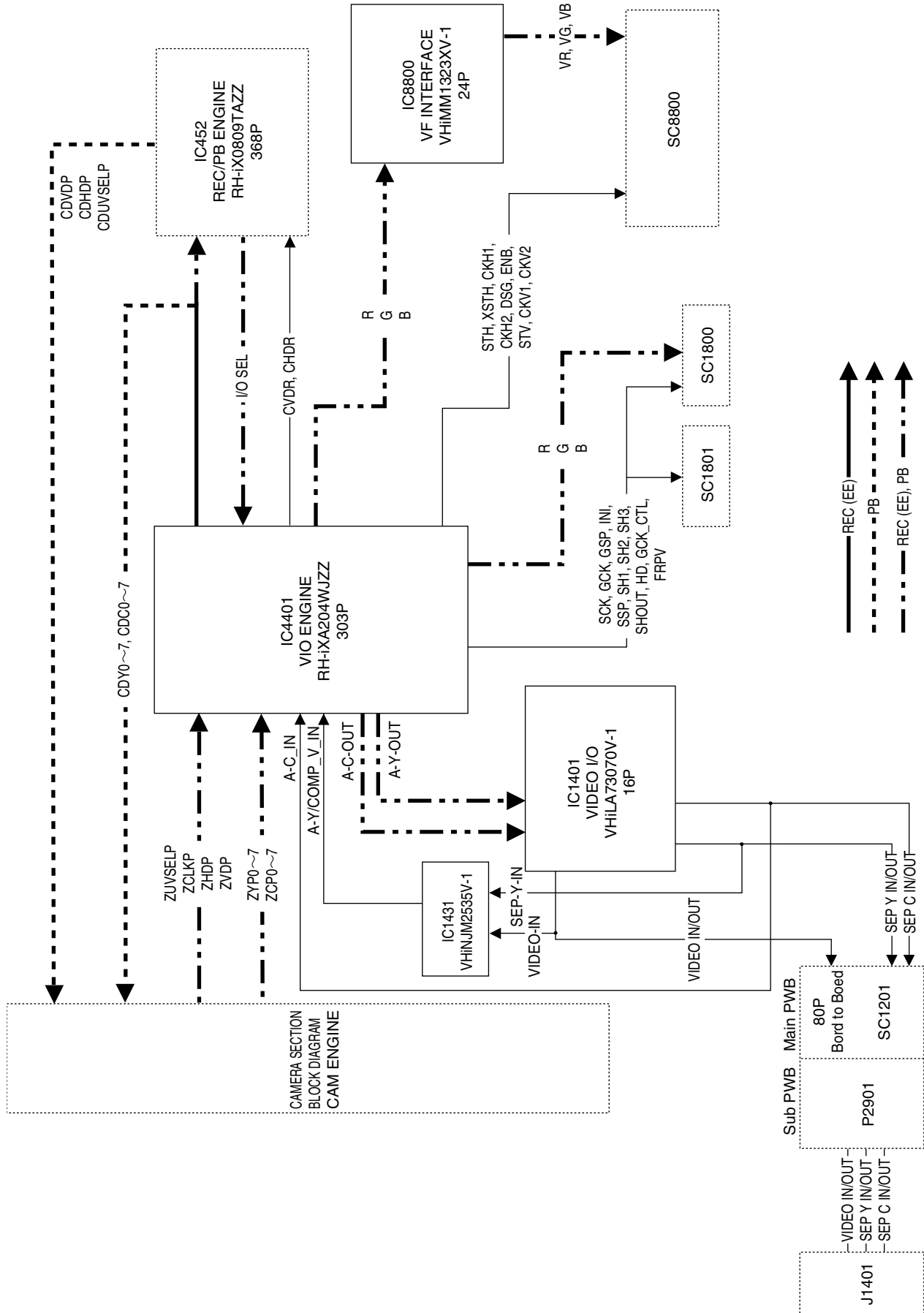
13. BLOCK DIAGRAMS

13-1. SYSTEM BLOCK DIAGRAM

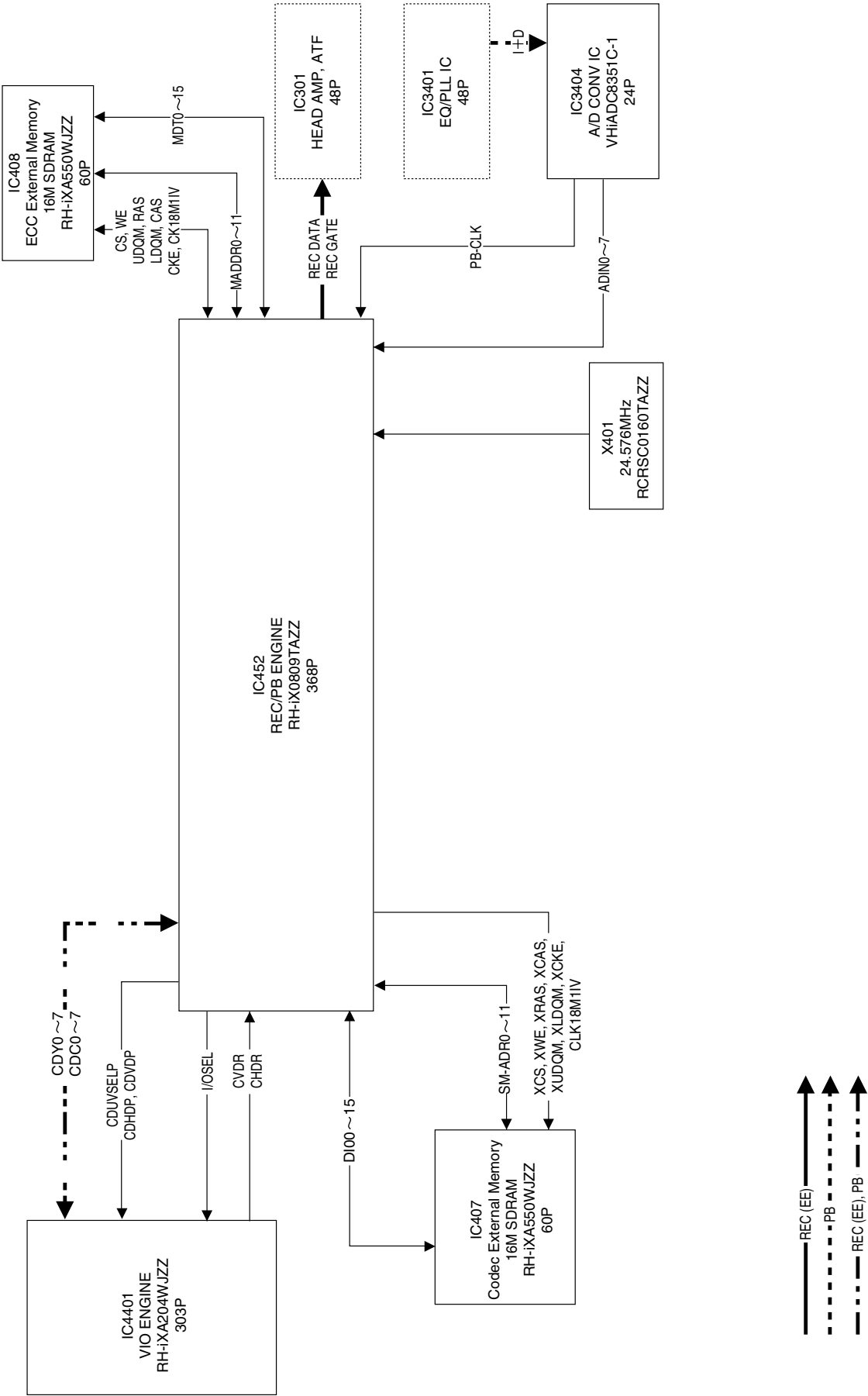




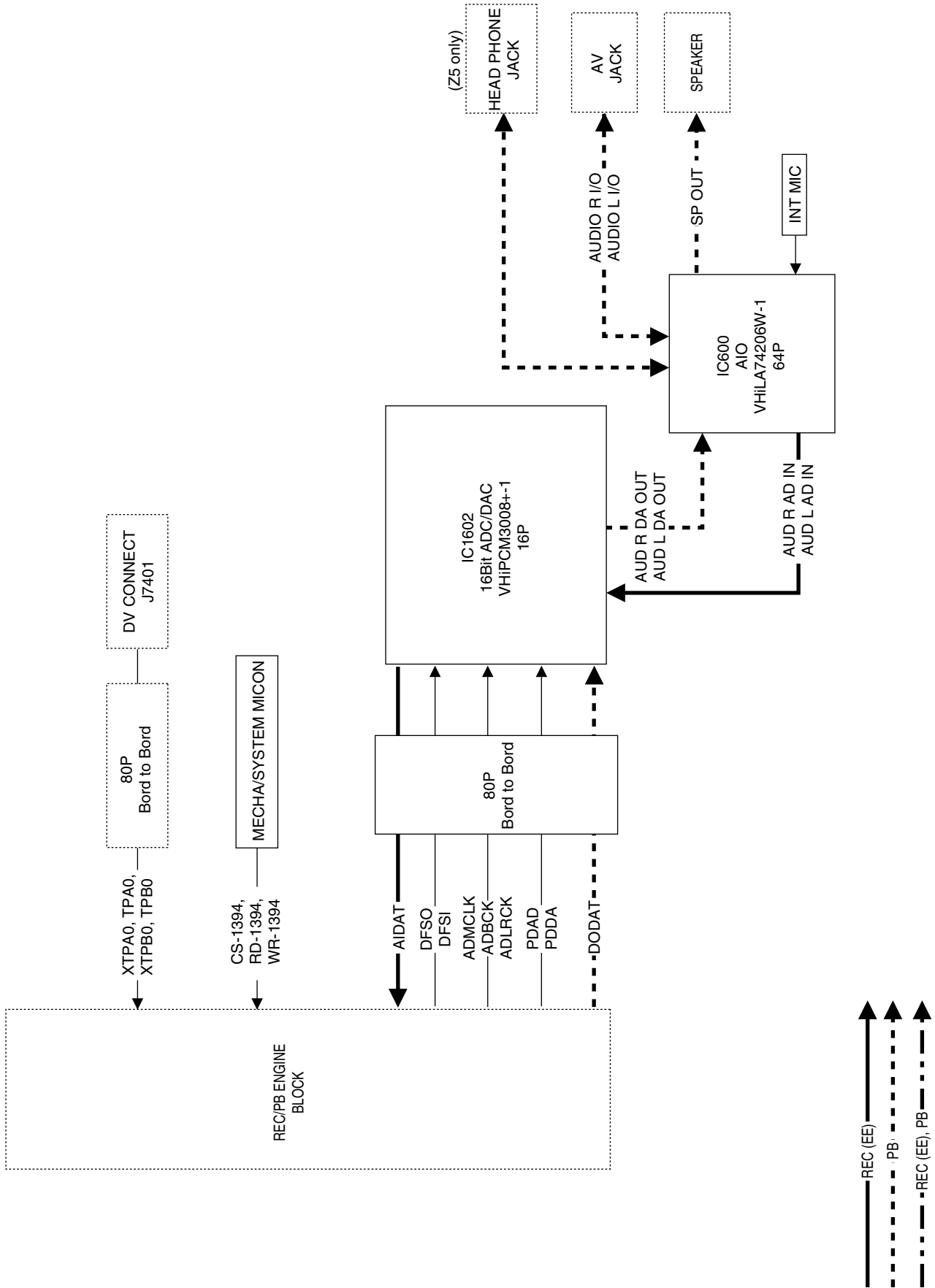
13-3. VIO ENGINE SECTION BLOCK DIAGRAM



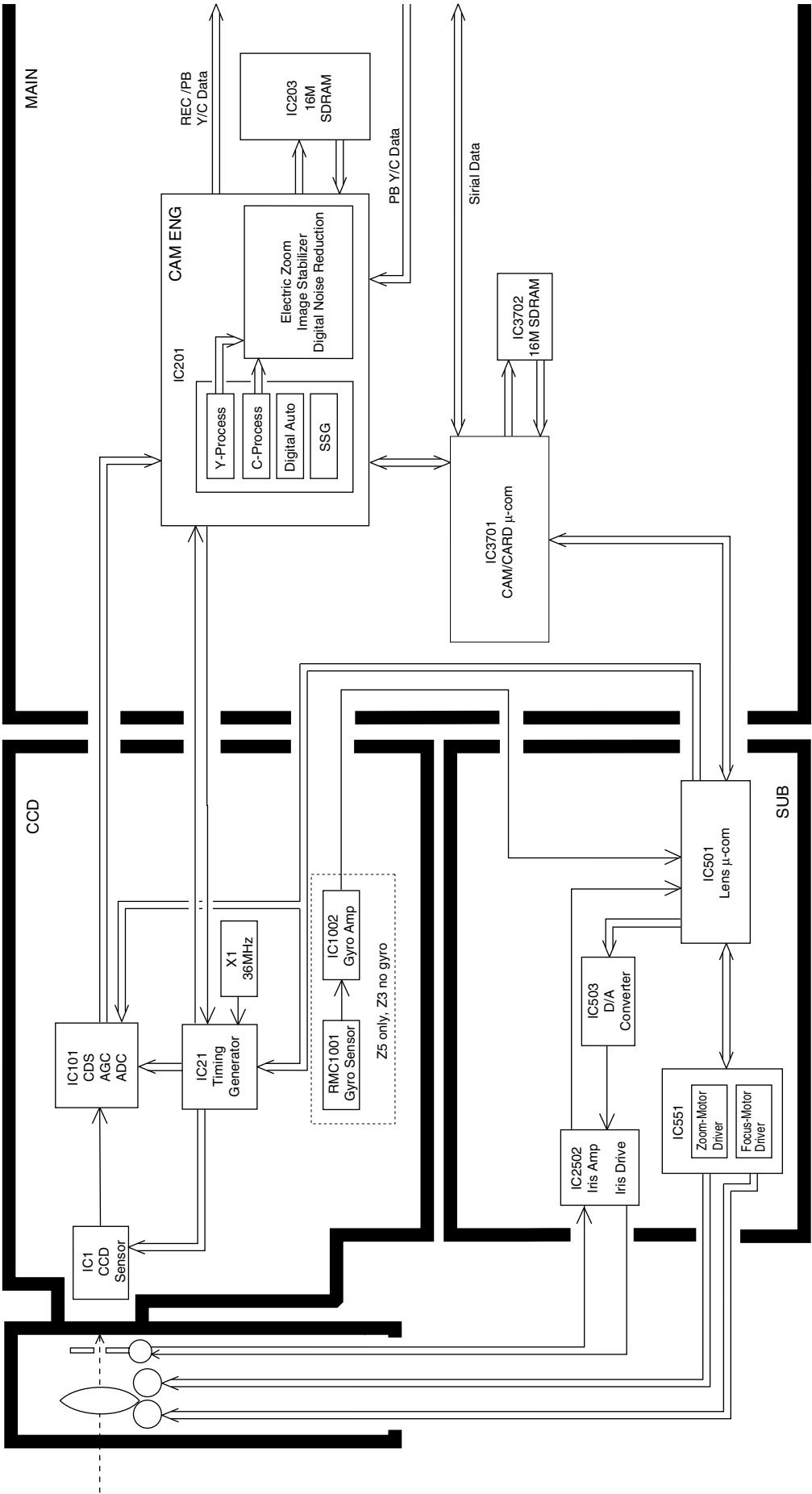
13-4. REC/PB SECTION BLOCK DIAGRAM



13-5. AUDIO/DIGITAL OUTPUT SECTION BLOCK DIAGRAM



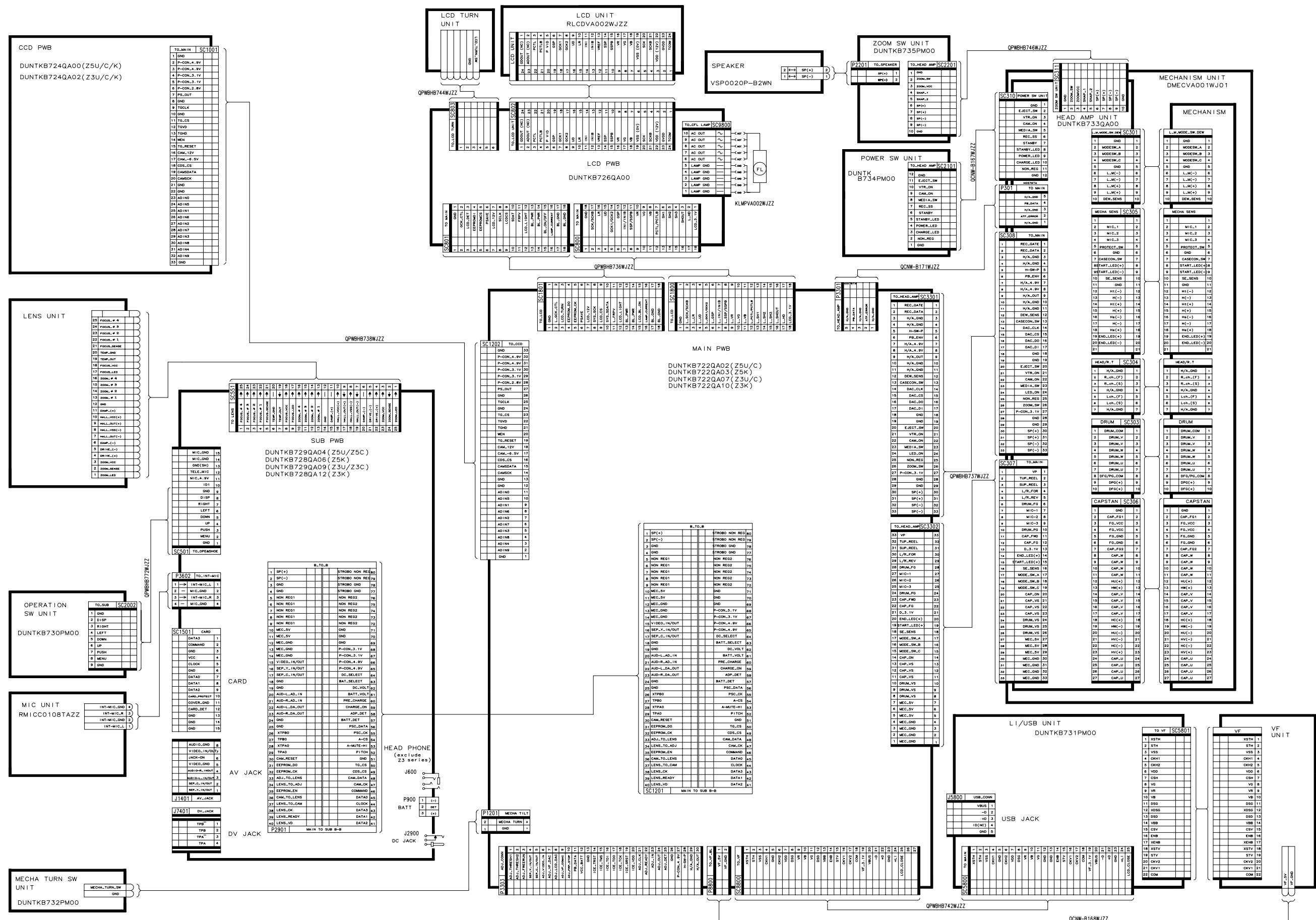
13-6. CAMERA CIRCUIT BLOCK DIAGRAM



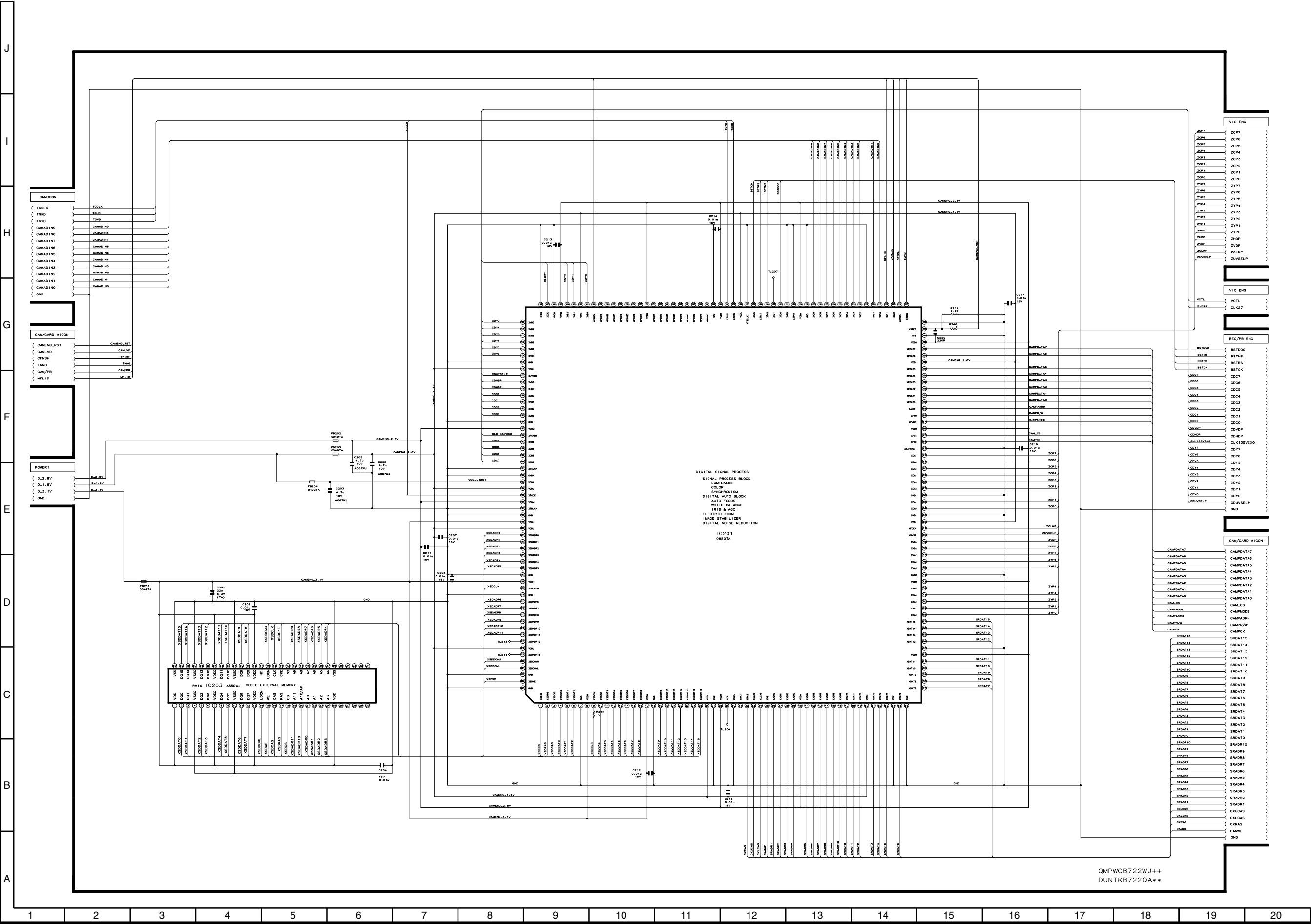
- M E M O -

[illegible]

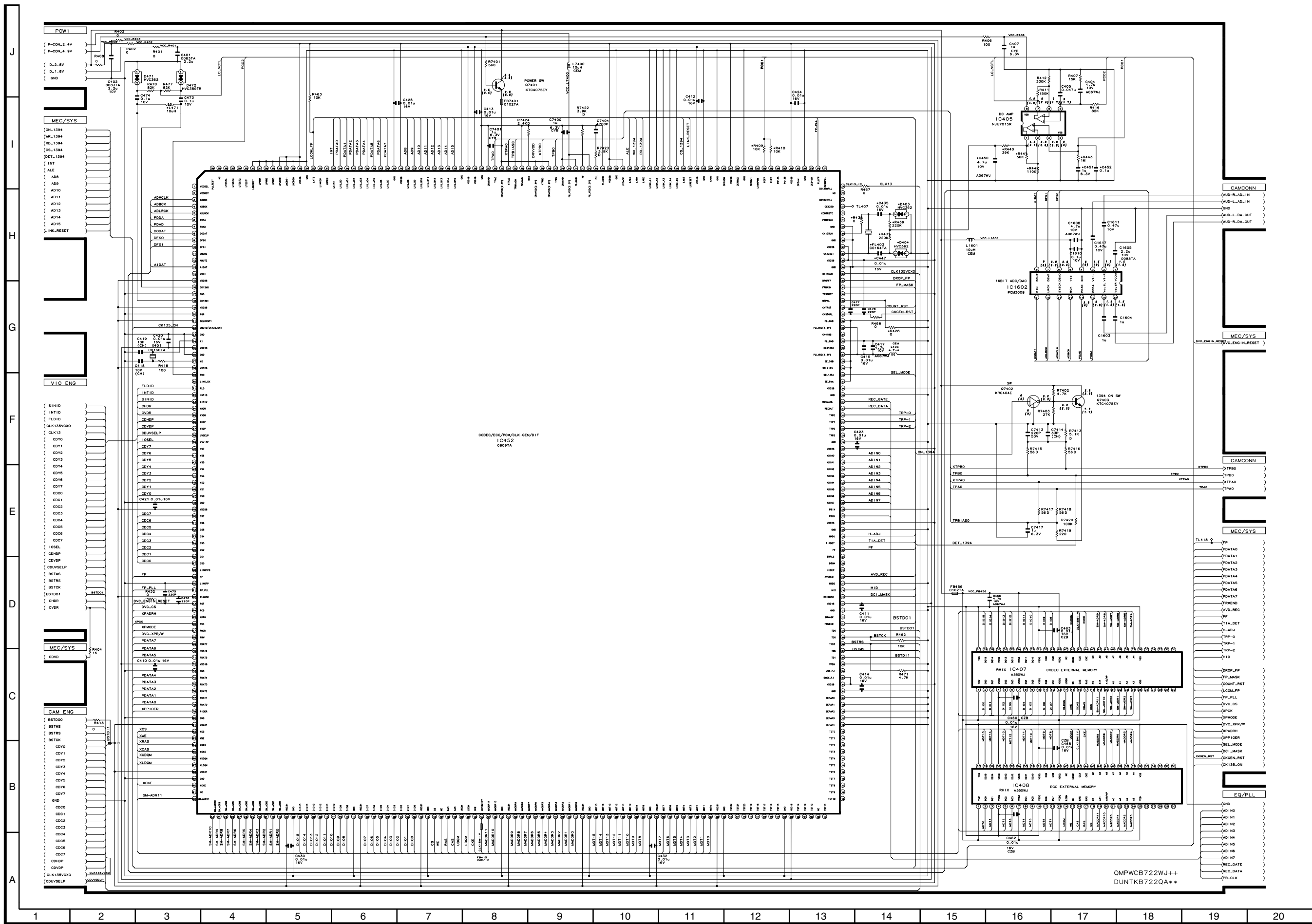
14. SCHEMATIC DIAGRAMS 14-1. OVERALL SCHEMATIC DIAGRAM



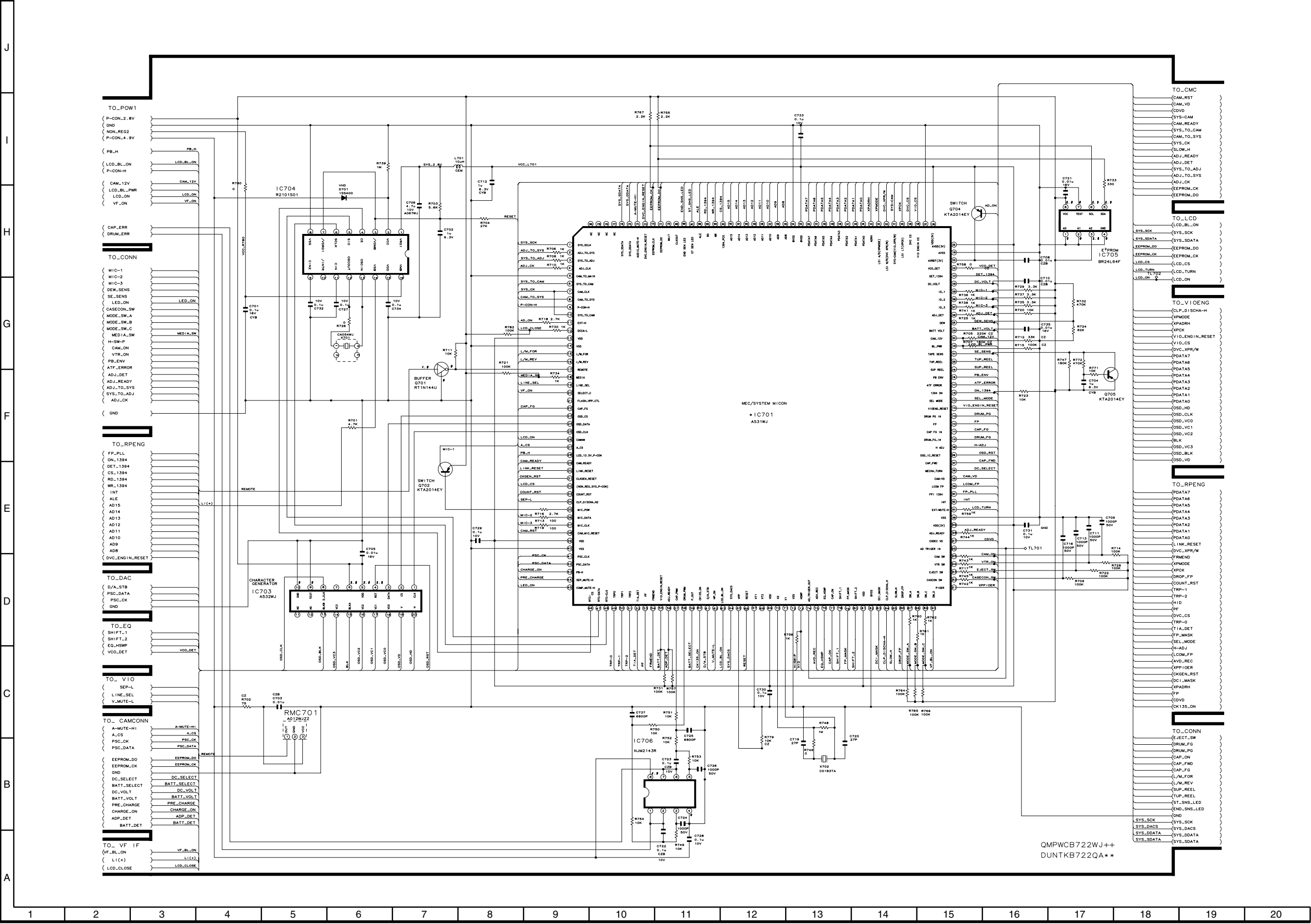
14-2. CAMERA ENGINE SCHEMATIC DIAGRAM



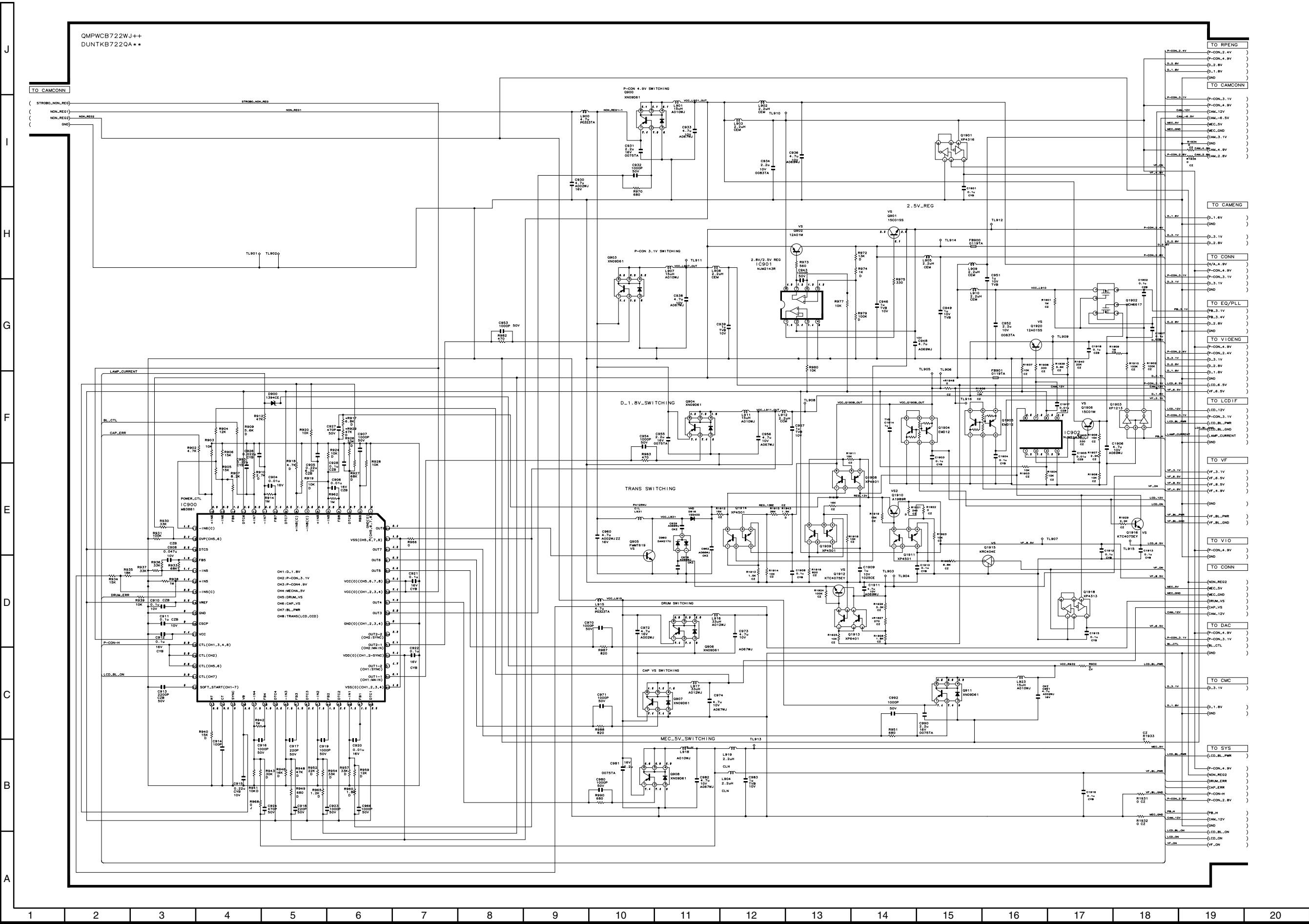
14-3. REC/PB ENGINE SCHEMATIC DIAGRAM



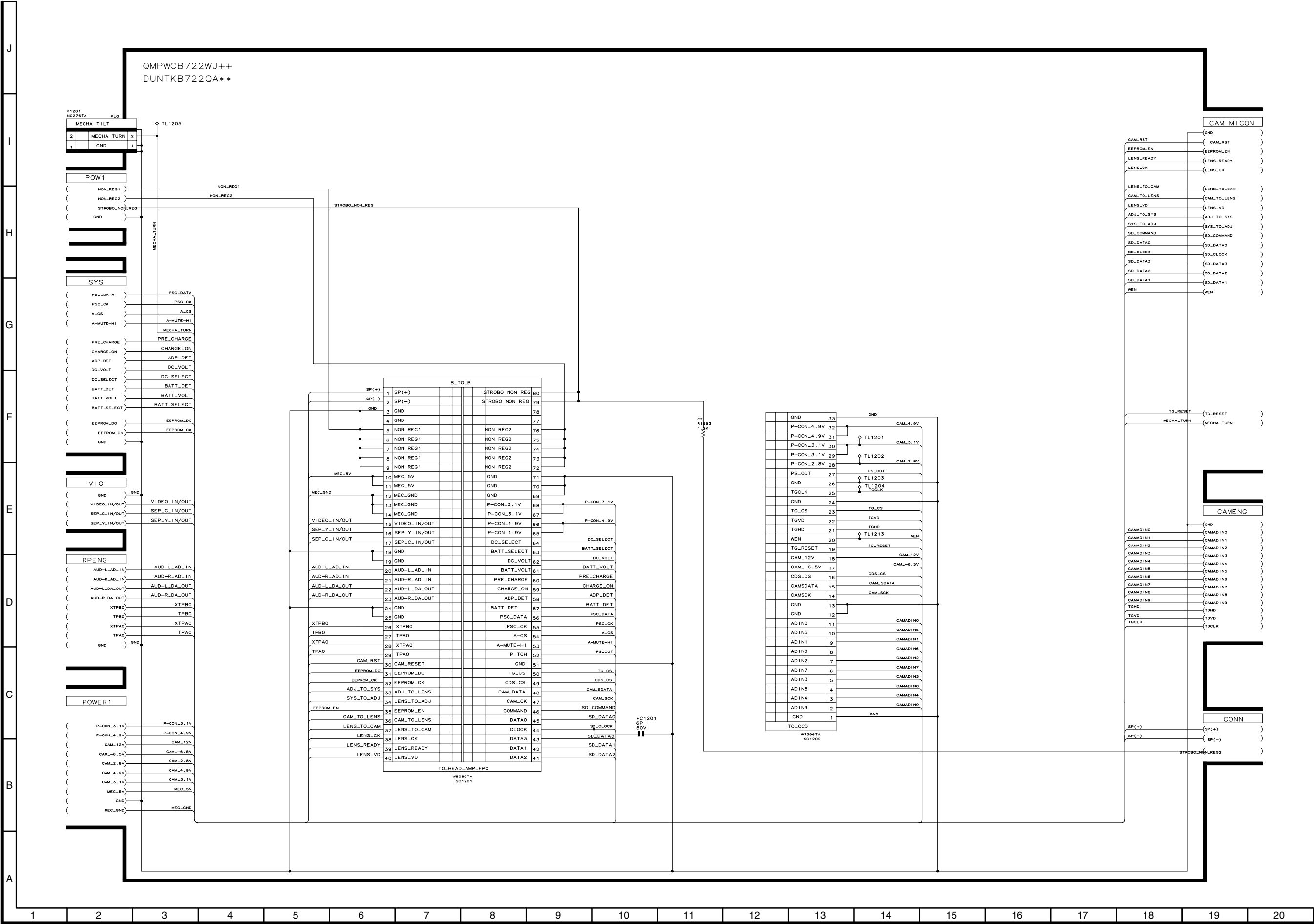
14-4. MEC/SYS MiCON SCHEMATIC DIAGRAM



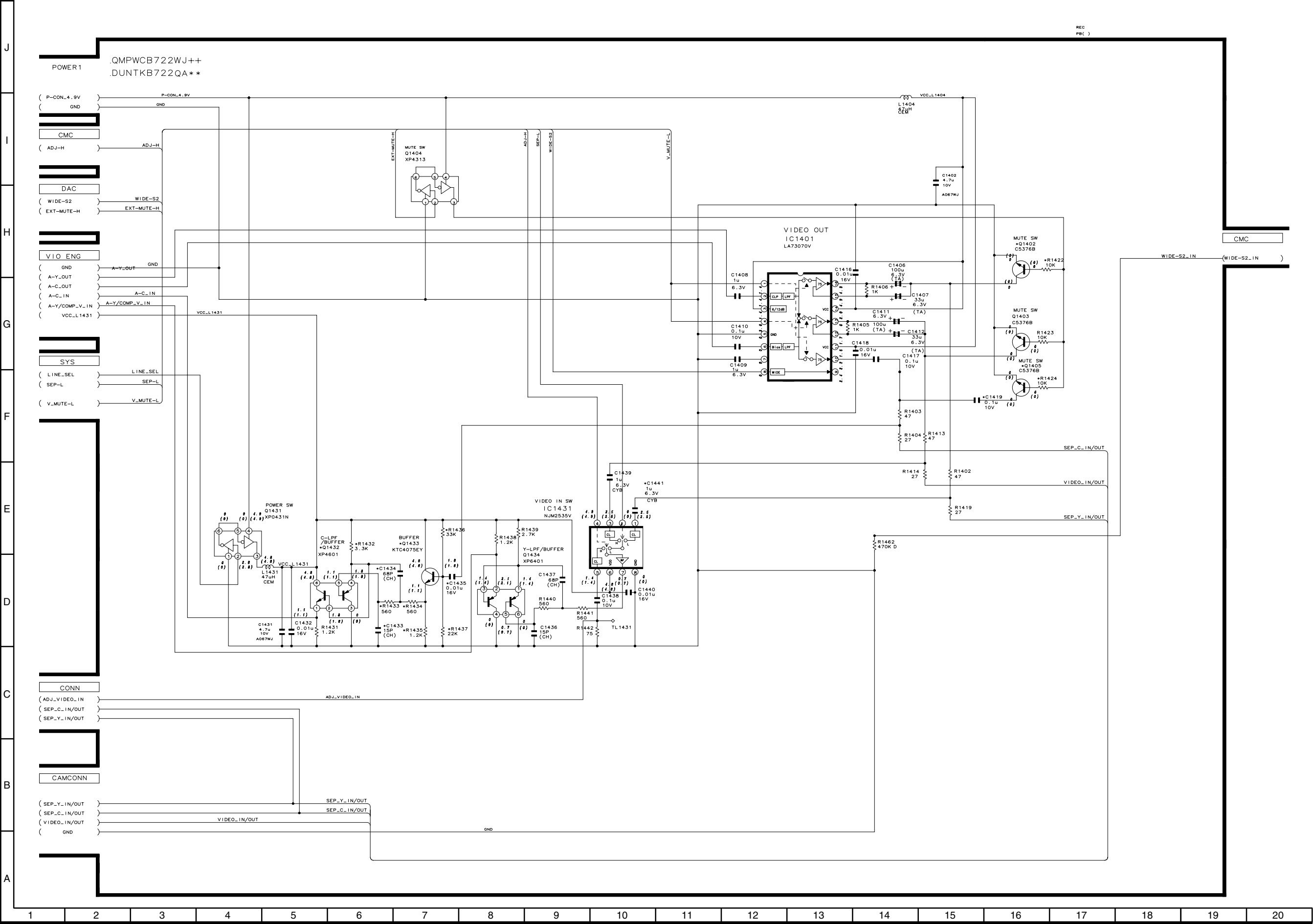
14-5. POWER1 SCHEMATIC DIAGRAM



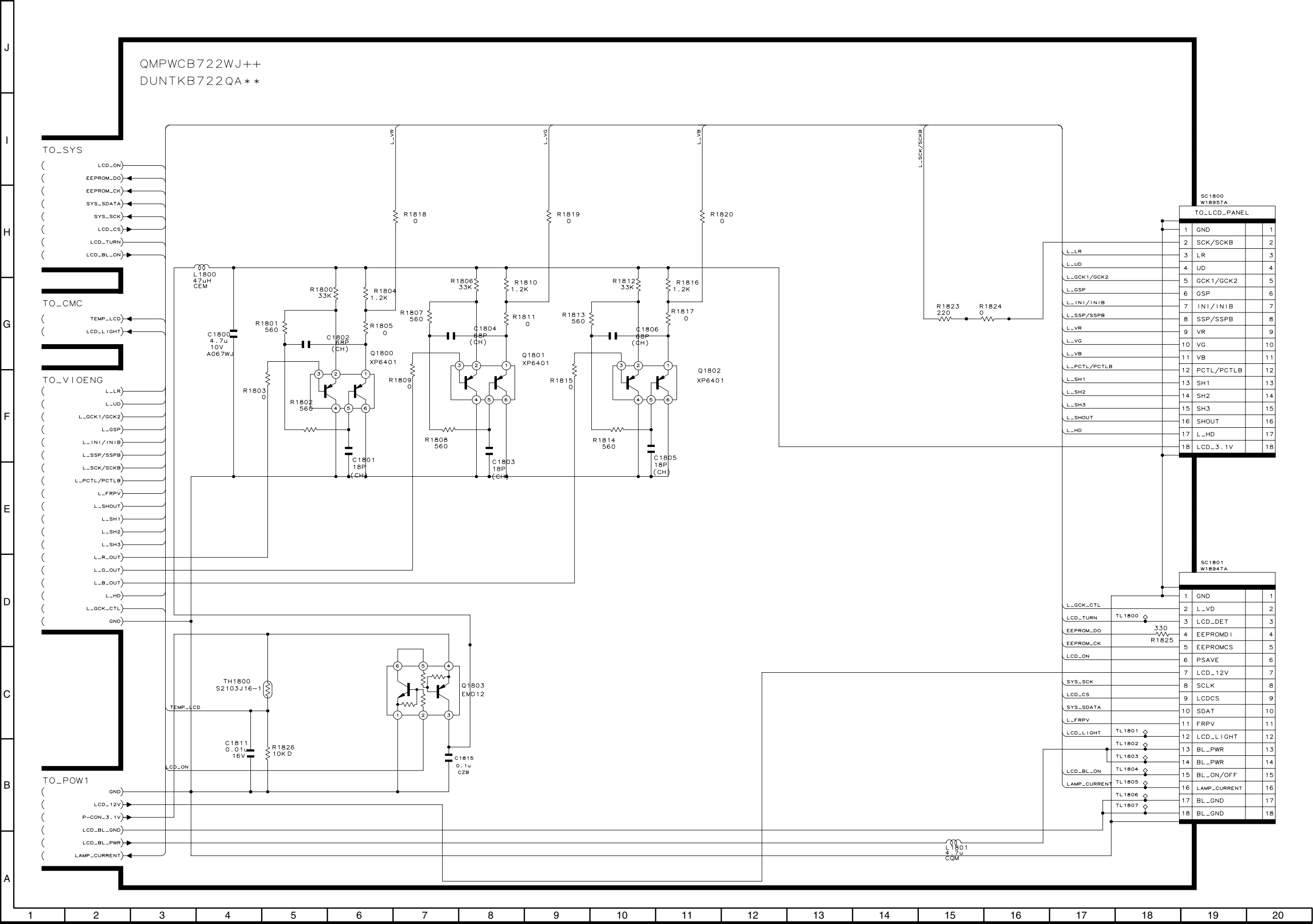
14-6. CAMERA CONN SCHEMATIC DIAGRAM



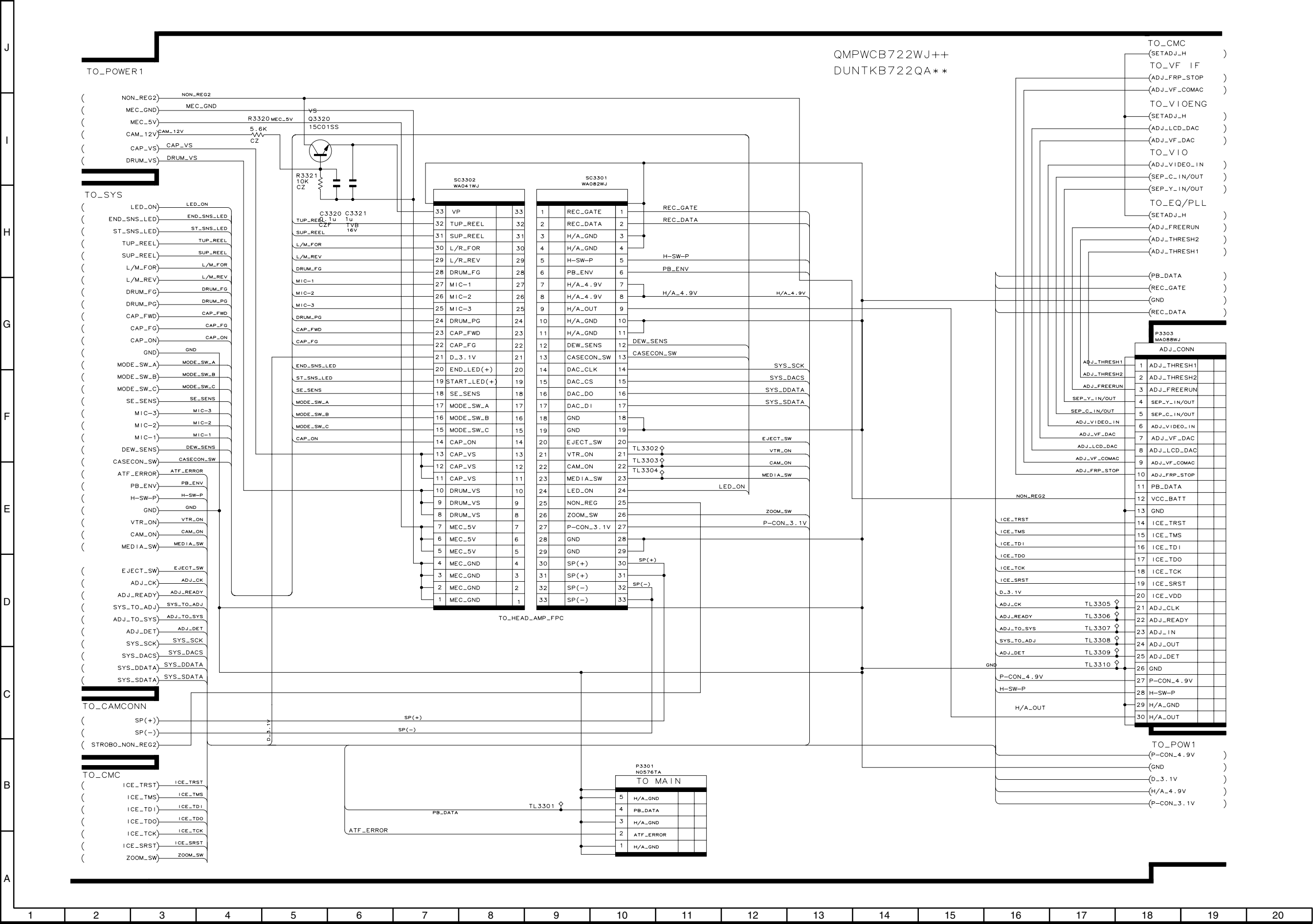
14-7. VIDEO I/O SCHEMATIC DIAGRAM



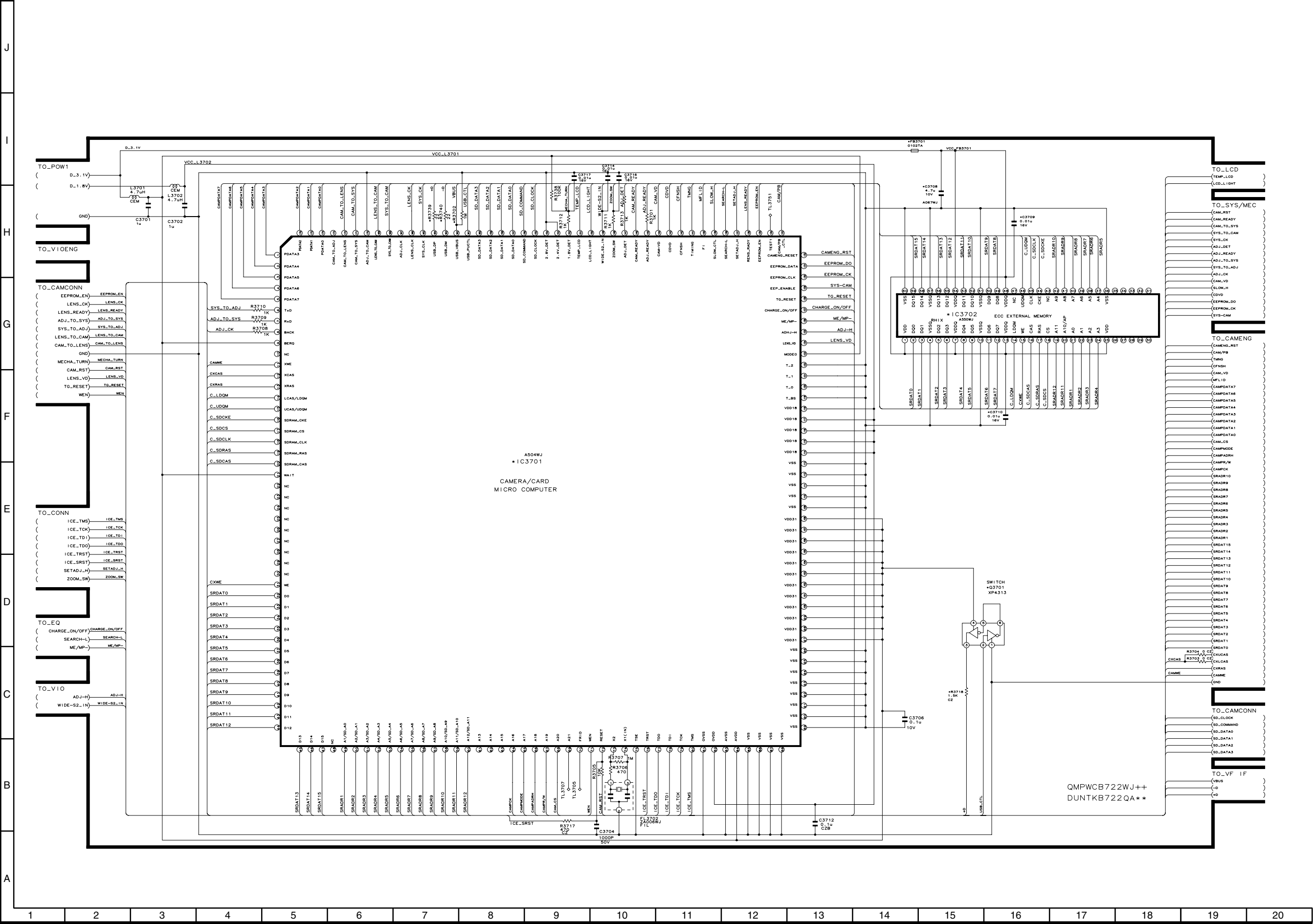
14-8. LCDIF SCHEMATIC DIAGRAM



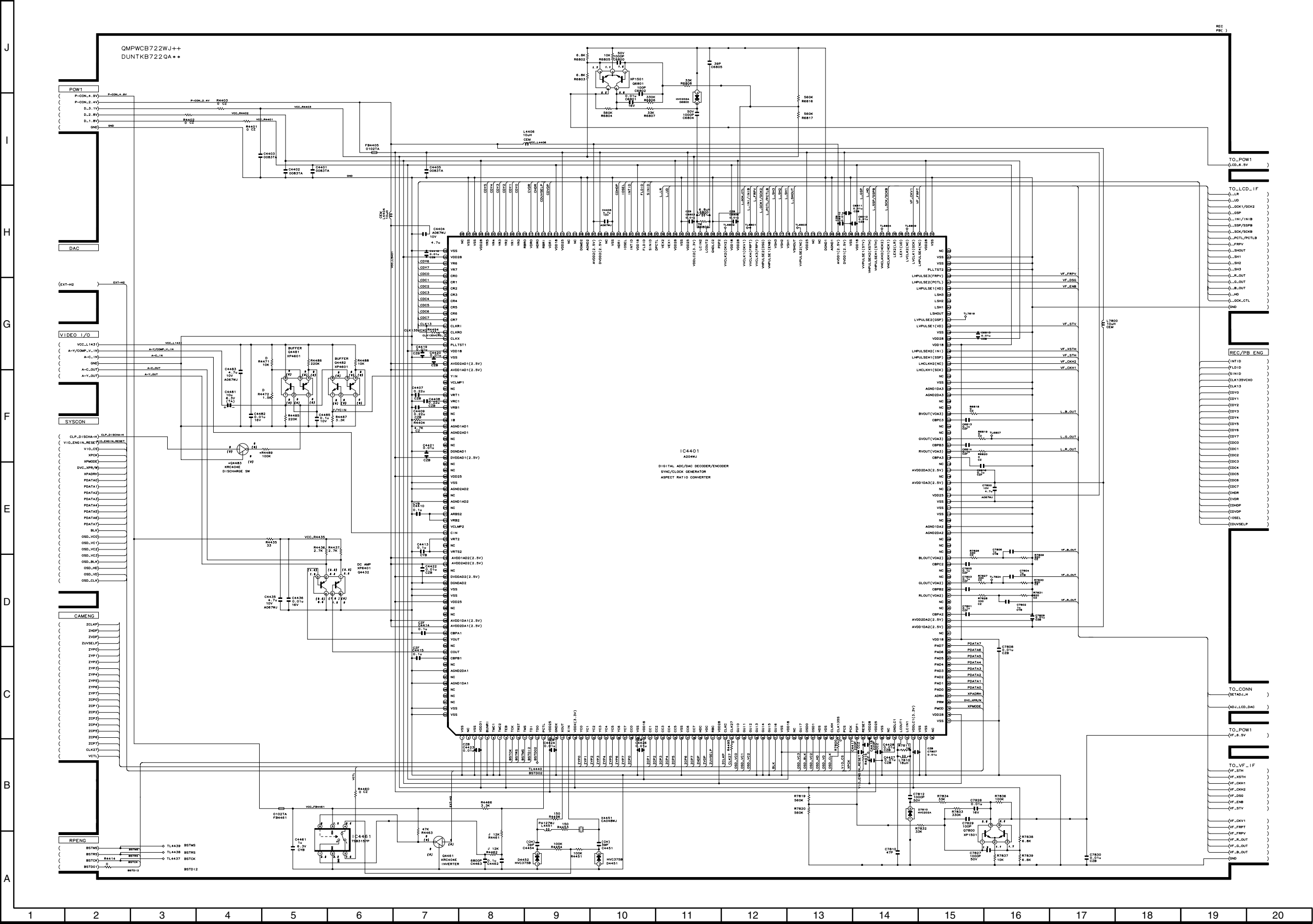
14-9. CONNECTION(B-B) SCHEMATIC DIAGRAM



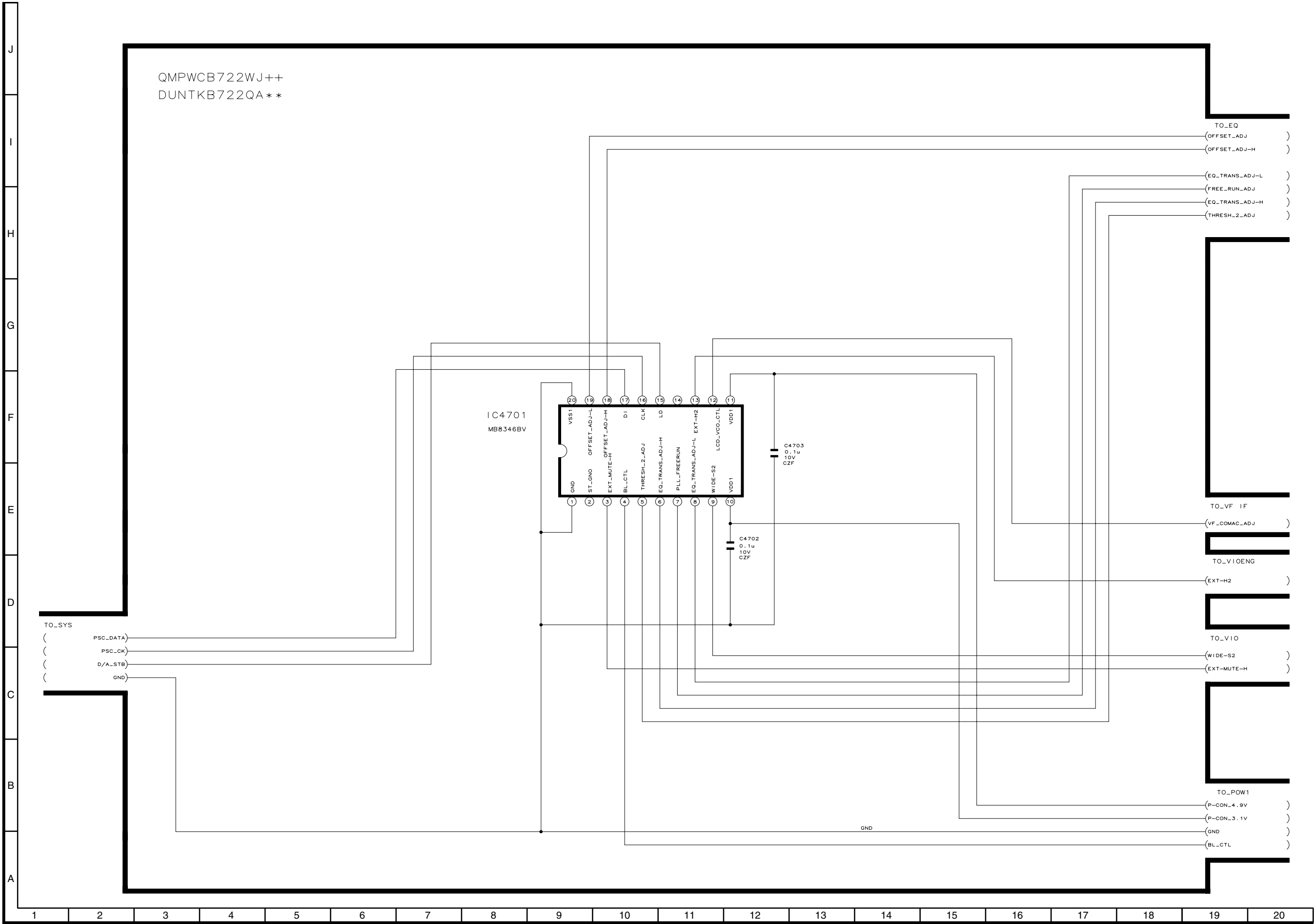
14-11. CAM/CARD MiCON SCHEMATIC DIAGRAM



14-12. VIDEO I/O ENGINE SCHEMATIC DIAGRAM



14-13. DAC SCHEMATIC DIAGRAM



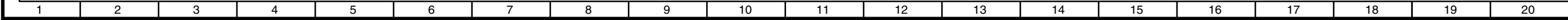
QMPWCB722WJ++
DUNTKB722QA**

VF INTERFACE
IC8800
MM1323XV

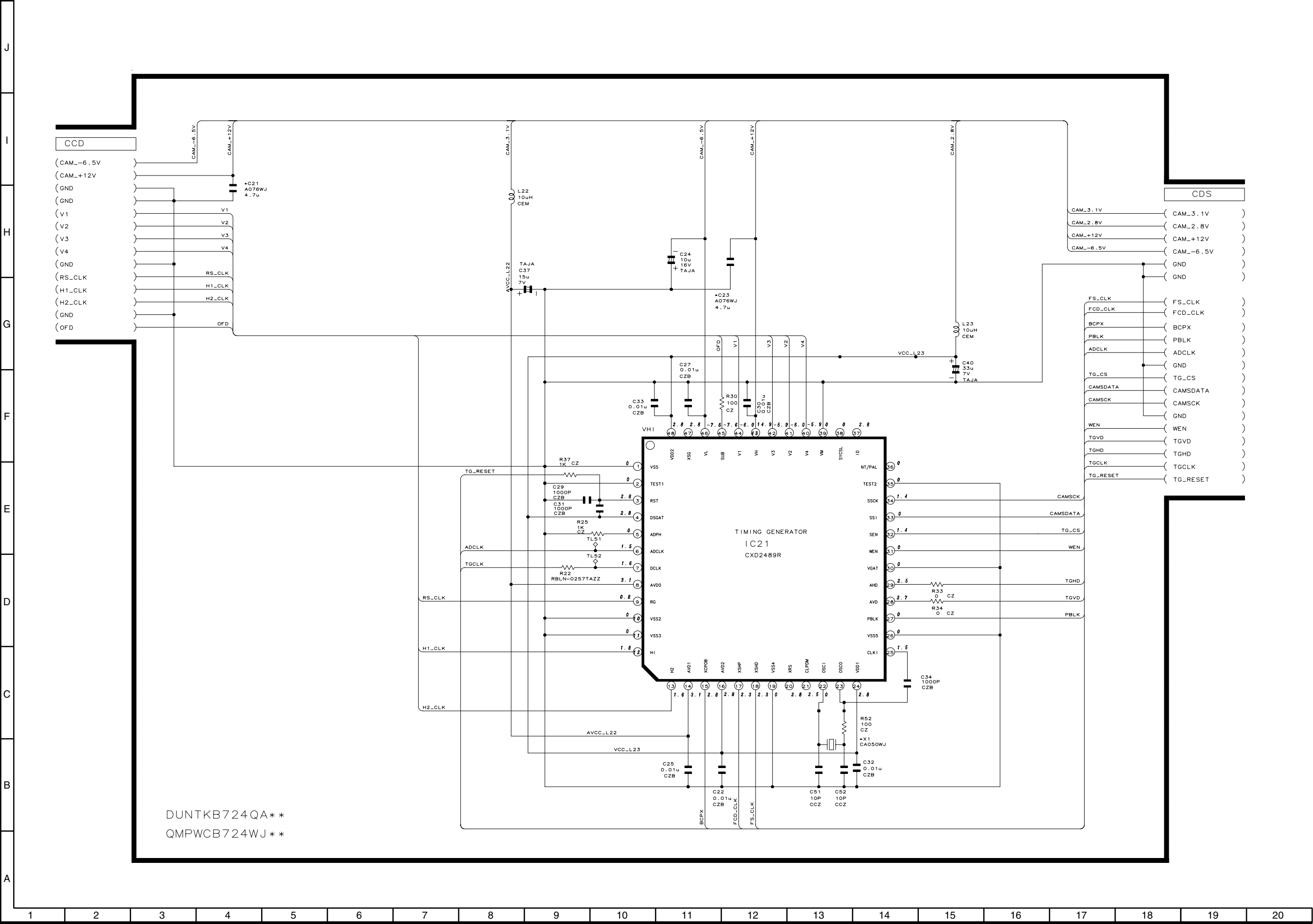
Pinout Table (SC8800):

Pin	Signal	Pin	Signal
1	XSTH	13	CKV2
2	STH	14	ENB
3	VSS	15	STV
4	CKH1	16	CKV1
5	GND	17	COM
6	CKH2	18	VF_3.1V
7	VDD	19	VBUS
8	DSG	20	VBUS
9	VR	21	-D
10	VB	22	+D
11	VG	23	GND
12	DSG	24	+L i
13	VBB	25	LCD_CLOSE
14	ENB	26	
15	STV	27	
16	CKV1		
17	CKV2		
18	COM		
19	VF_3.1V		
20	VBUS		
21	-D		
22	+D		
23	GND		
24	+L i		
25	LCD_CLOSE		
26			
27			

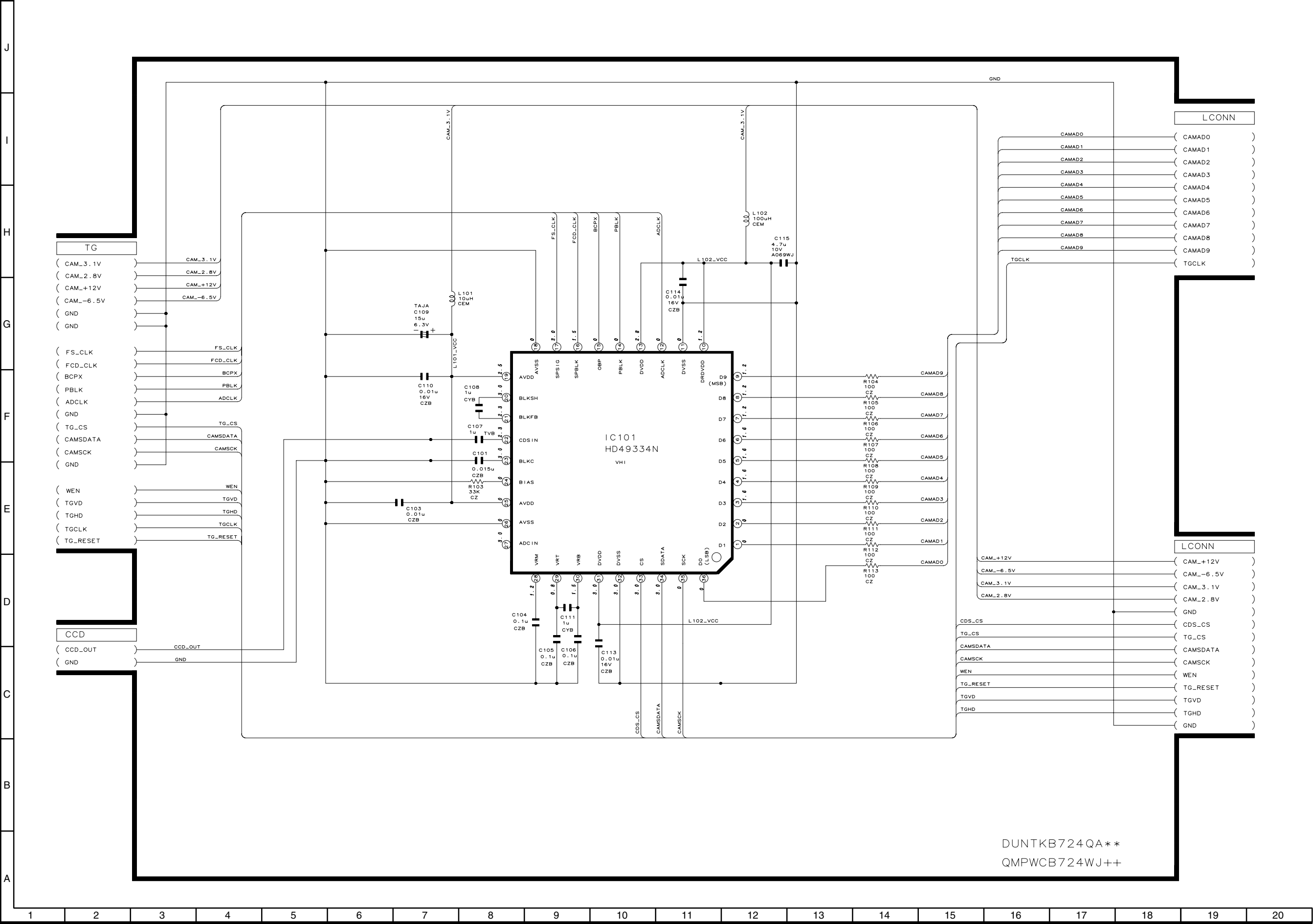
A
B
C
D
E
F
G
H
I
J



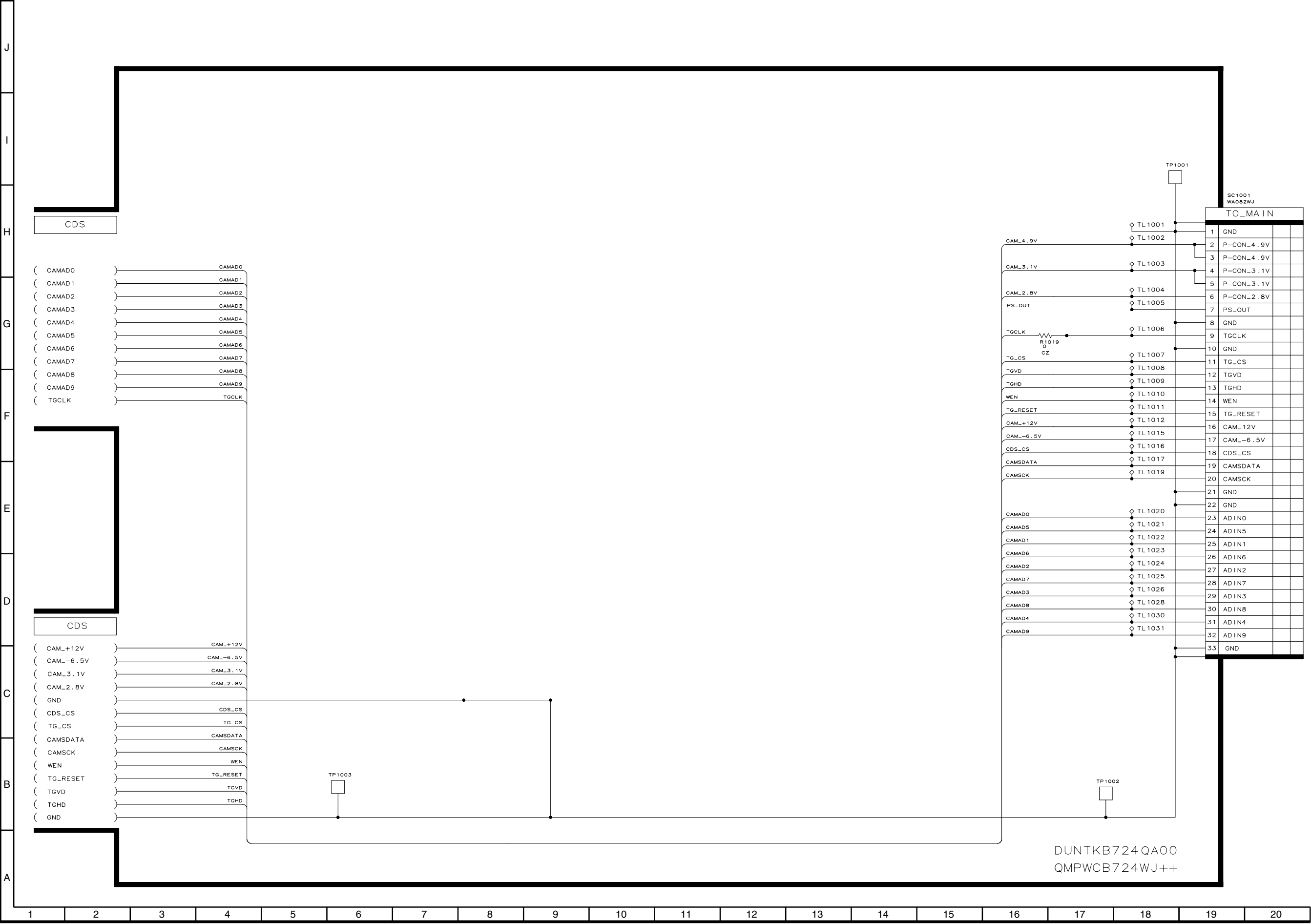
14-16. TG SCHEMATIC DIAGRAM



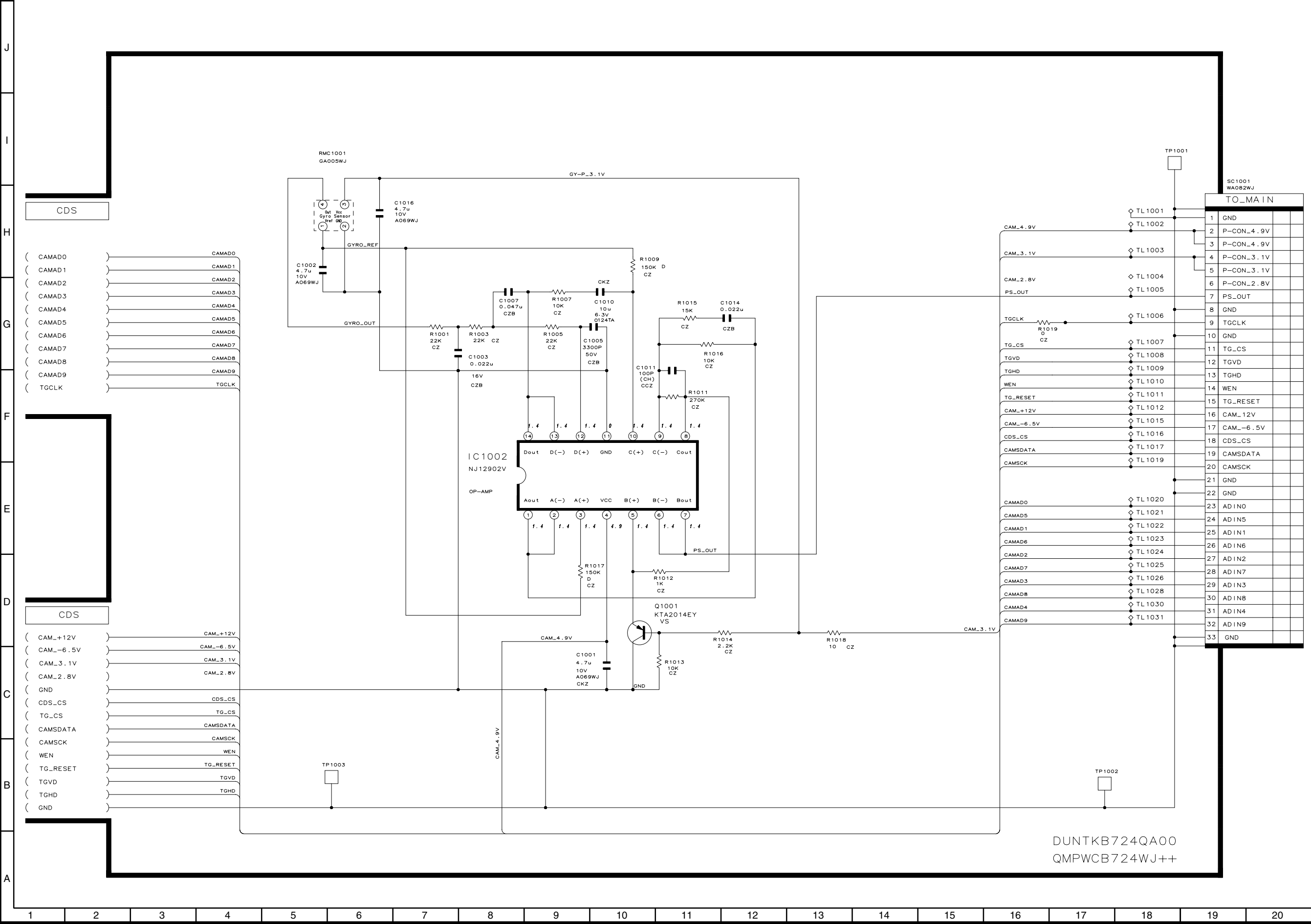
14-17. CDS SCHEMATIC DIAGRAM



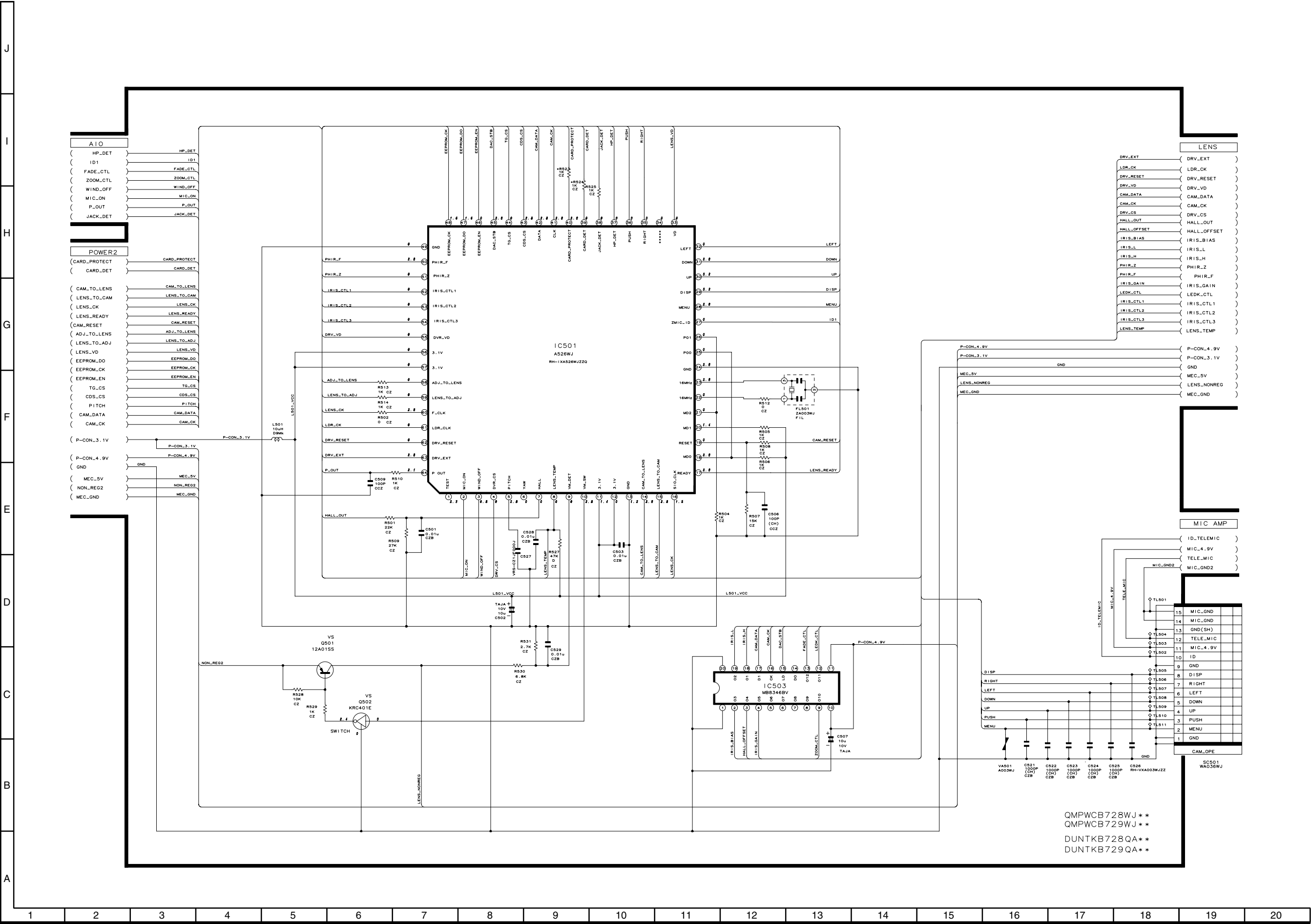
14-18. LCONN SCHEMATIC DIAGRAM(VL-Z3U)



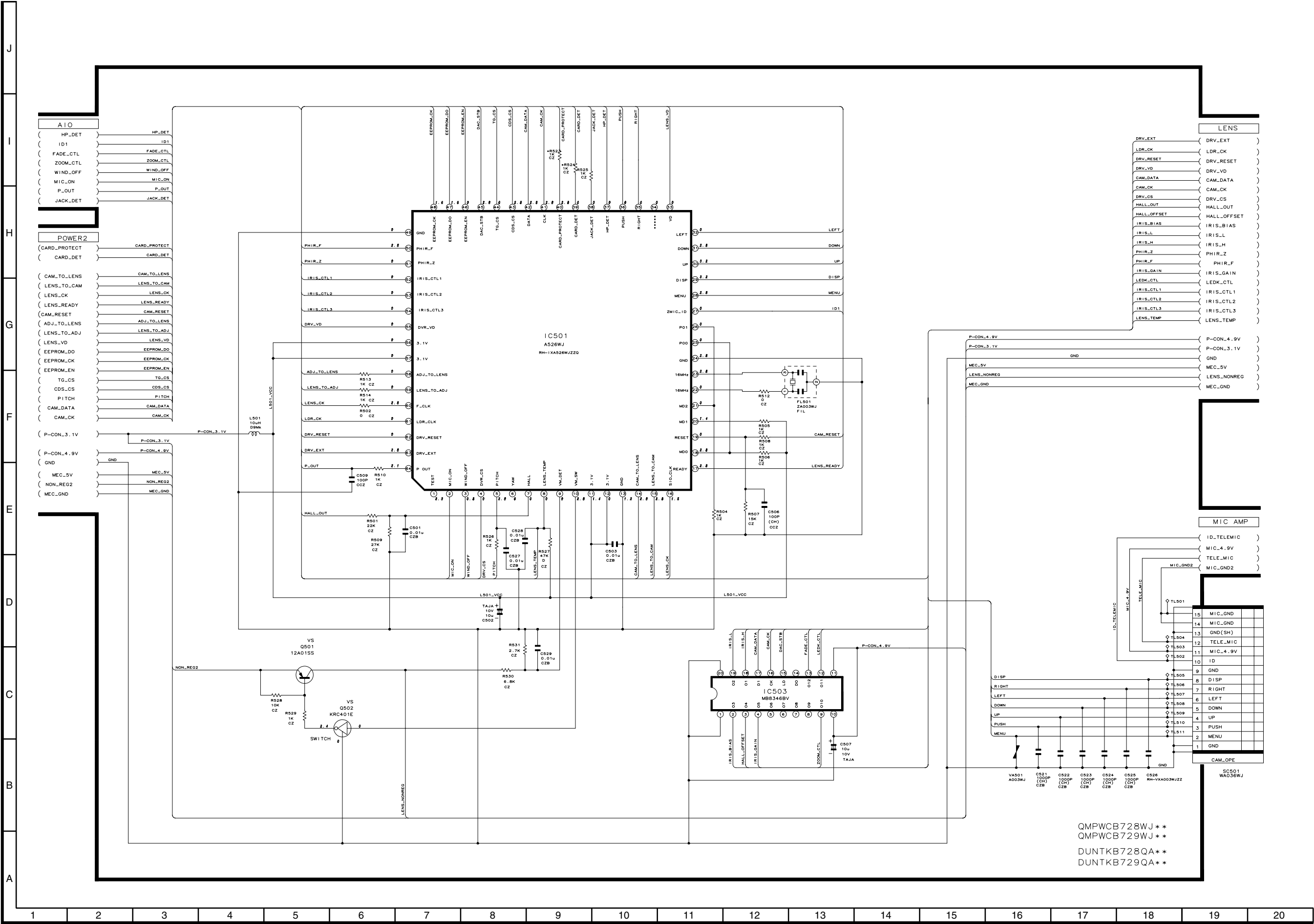
14-18. LCONN SCHEMATIC DIAGRAM(VL-Z5U)



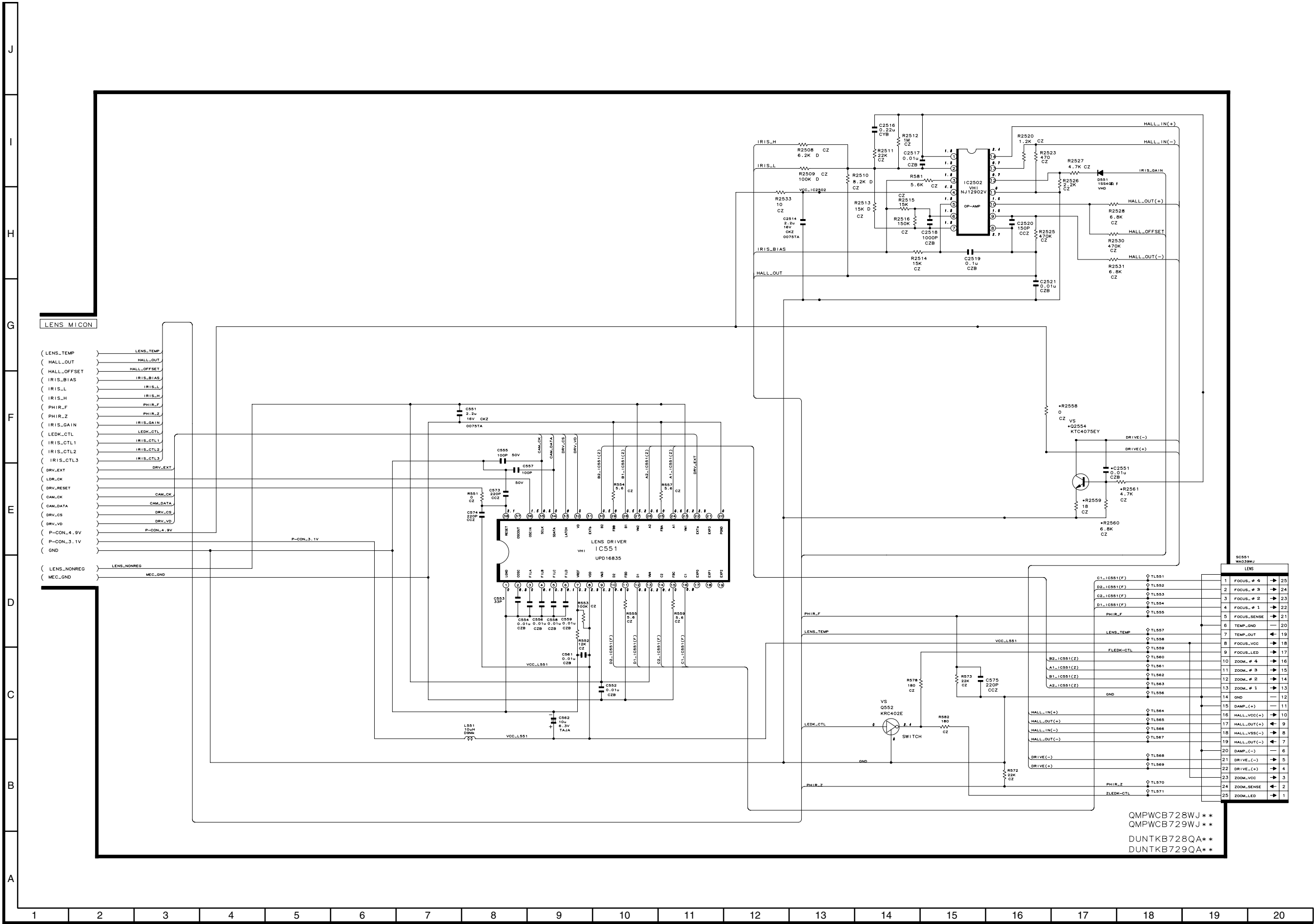
14-19. LENS MiCON SCHEMATIC DIAGRAM (VL-Z3U)



14-19. LENS MiCON SCHEMATIC DIAGRAM (VL-Z5U)



14-20. LENS SCHEMATIC DIAGRAM

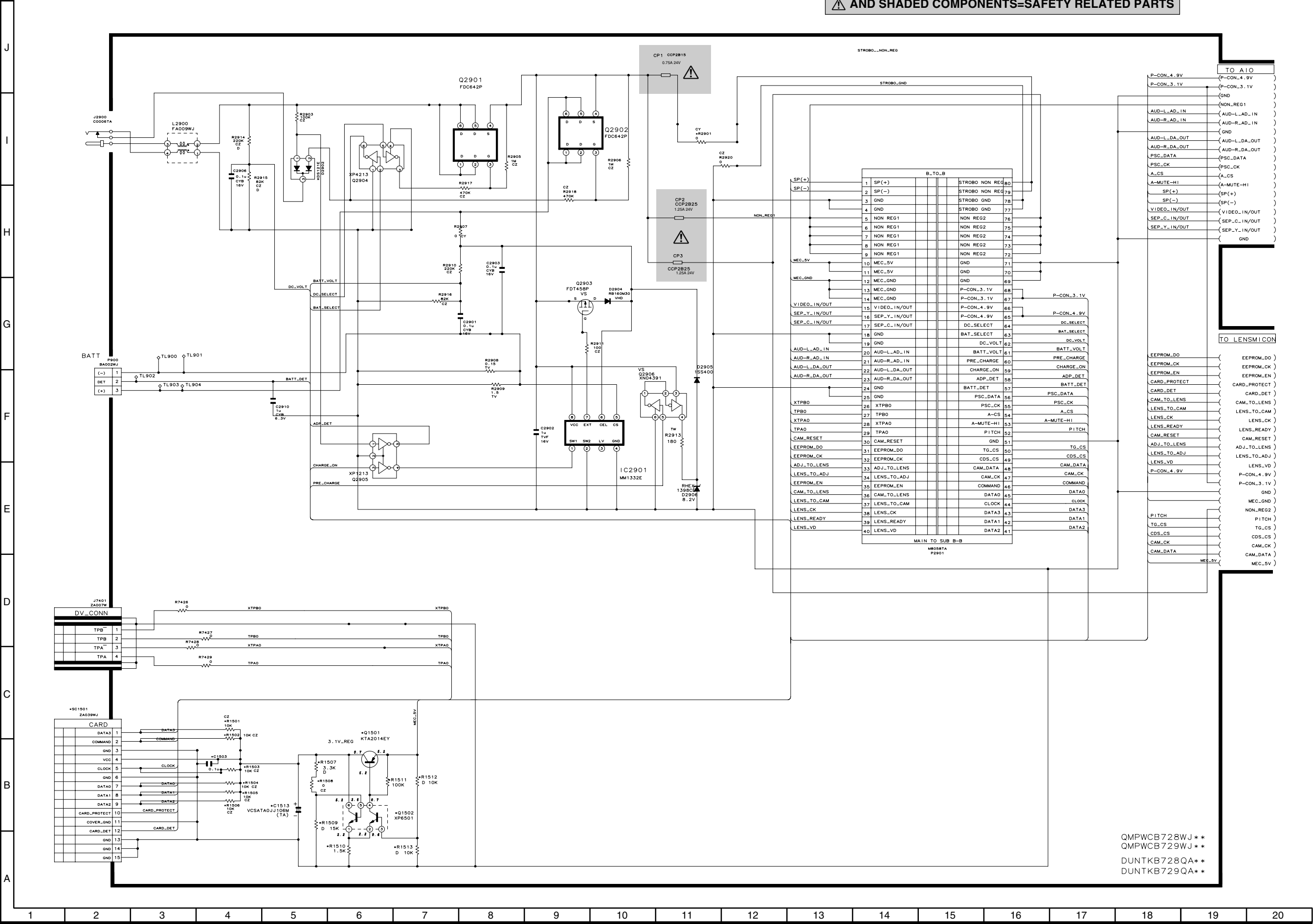


[illegible]

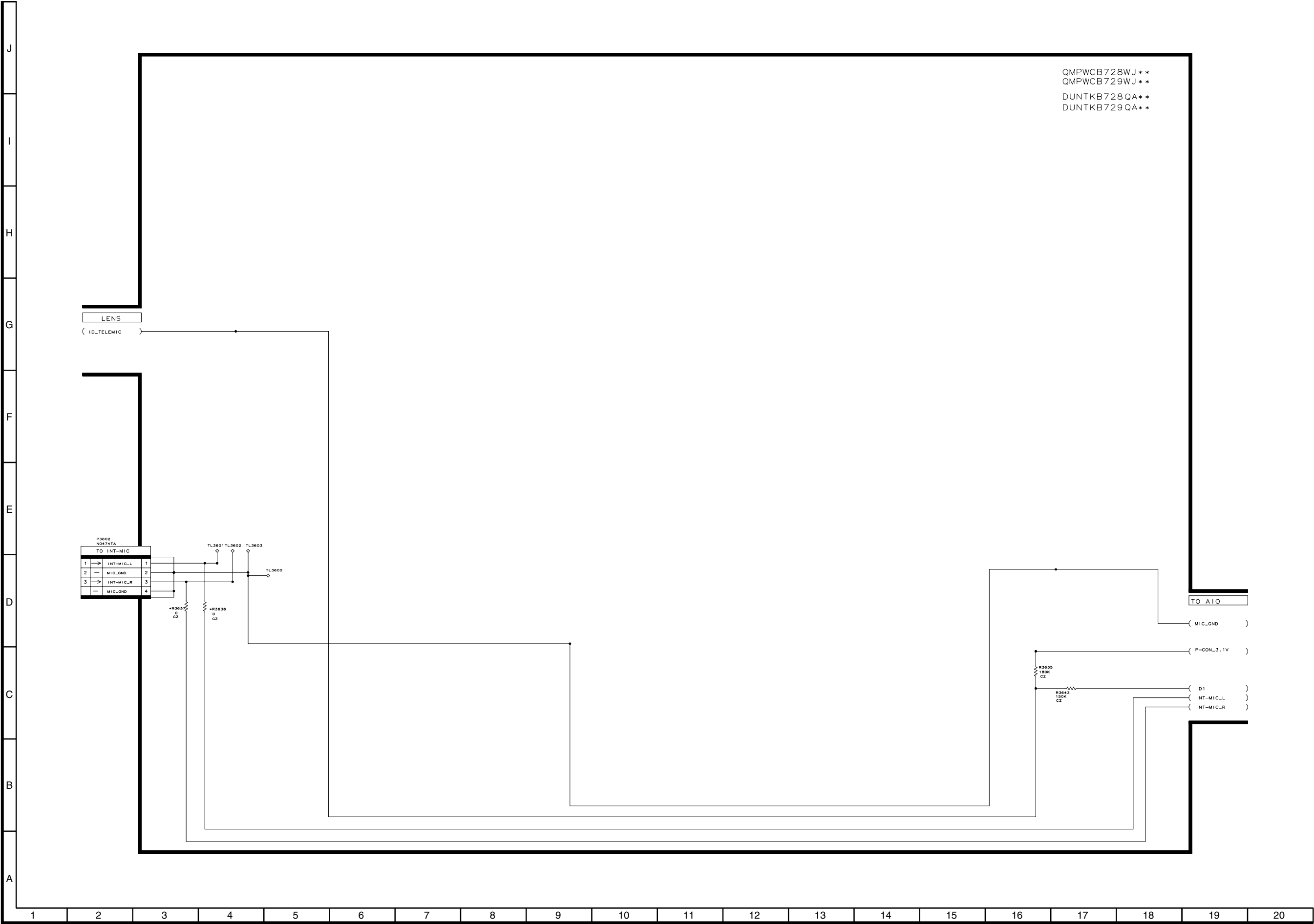
[illegible]

14-22. POWER2 SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

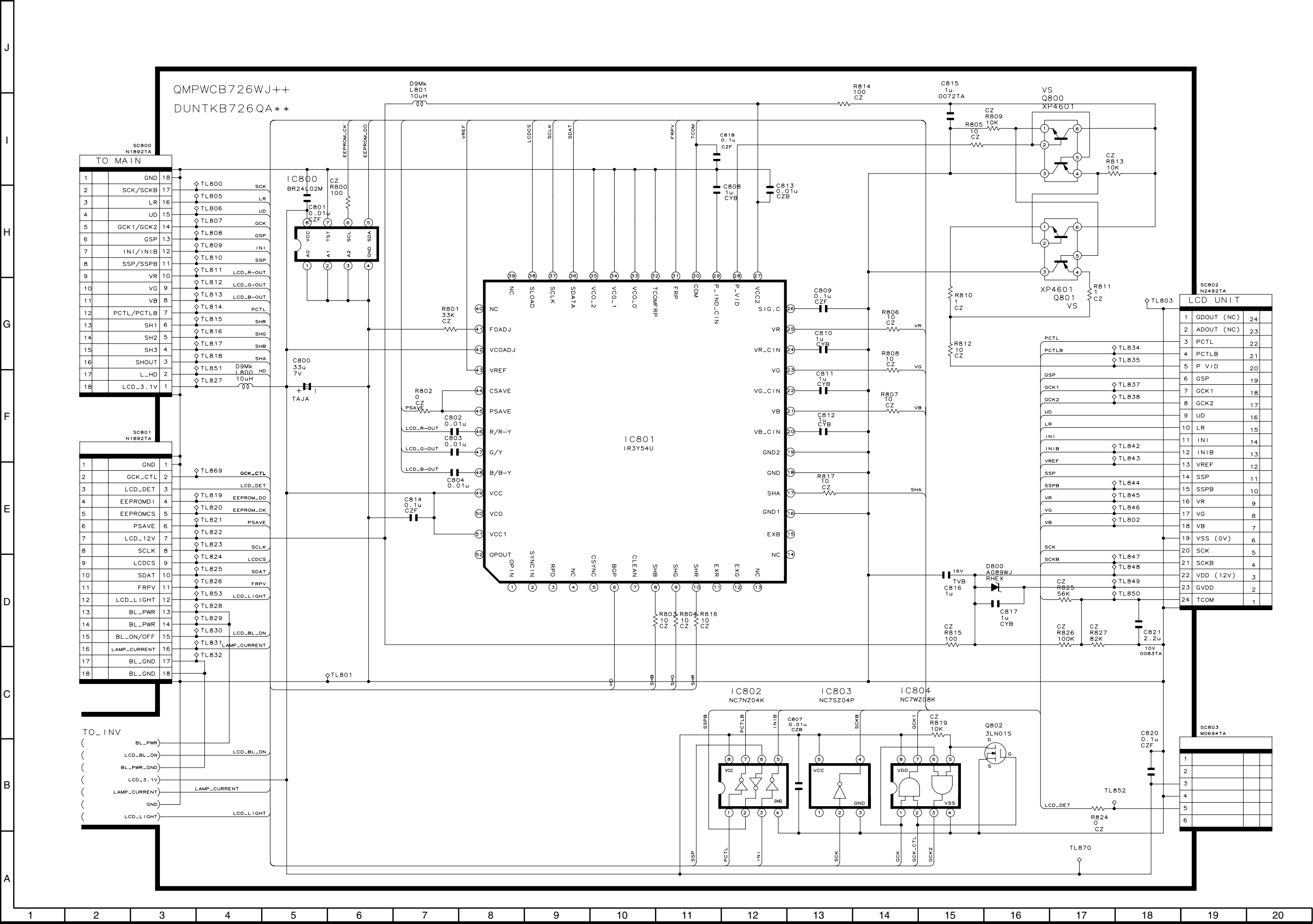


14-23. MiC AMP SCHEMATIC DIAGRAM



QMPWCB728WJ**
QMPWCB729WJ**
DUNTKB728QA**
DUNTKB729QA**

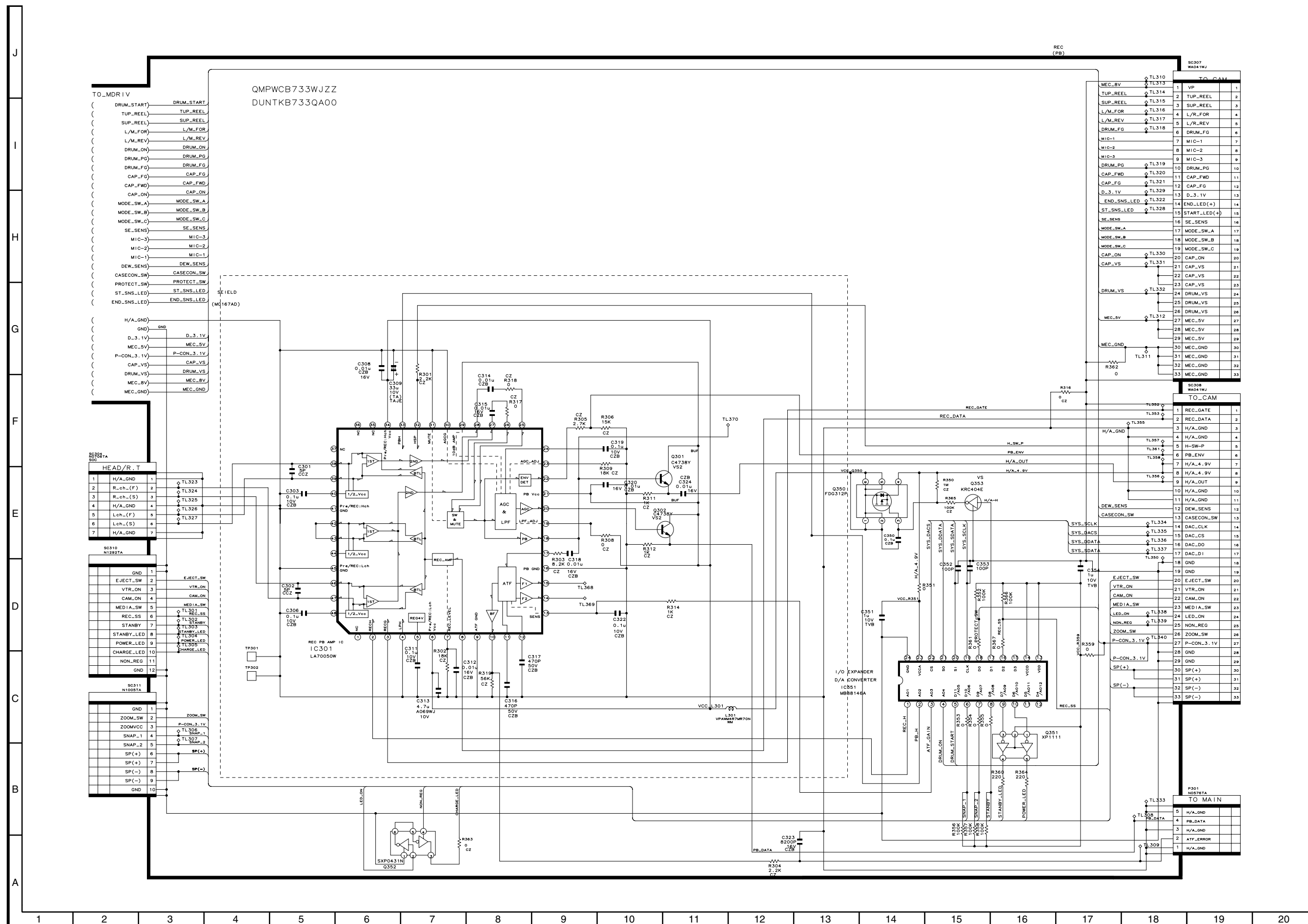
14-24. LCD SCHEMATIC DIAGRAM



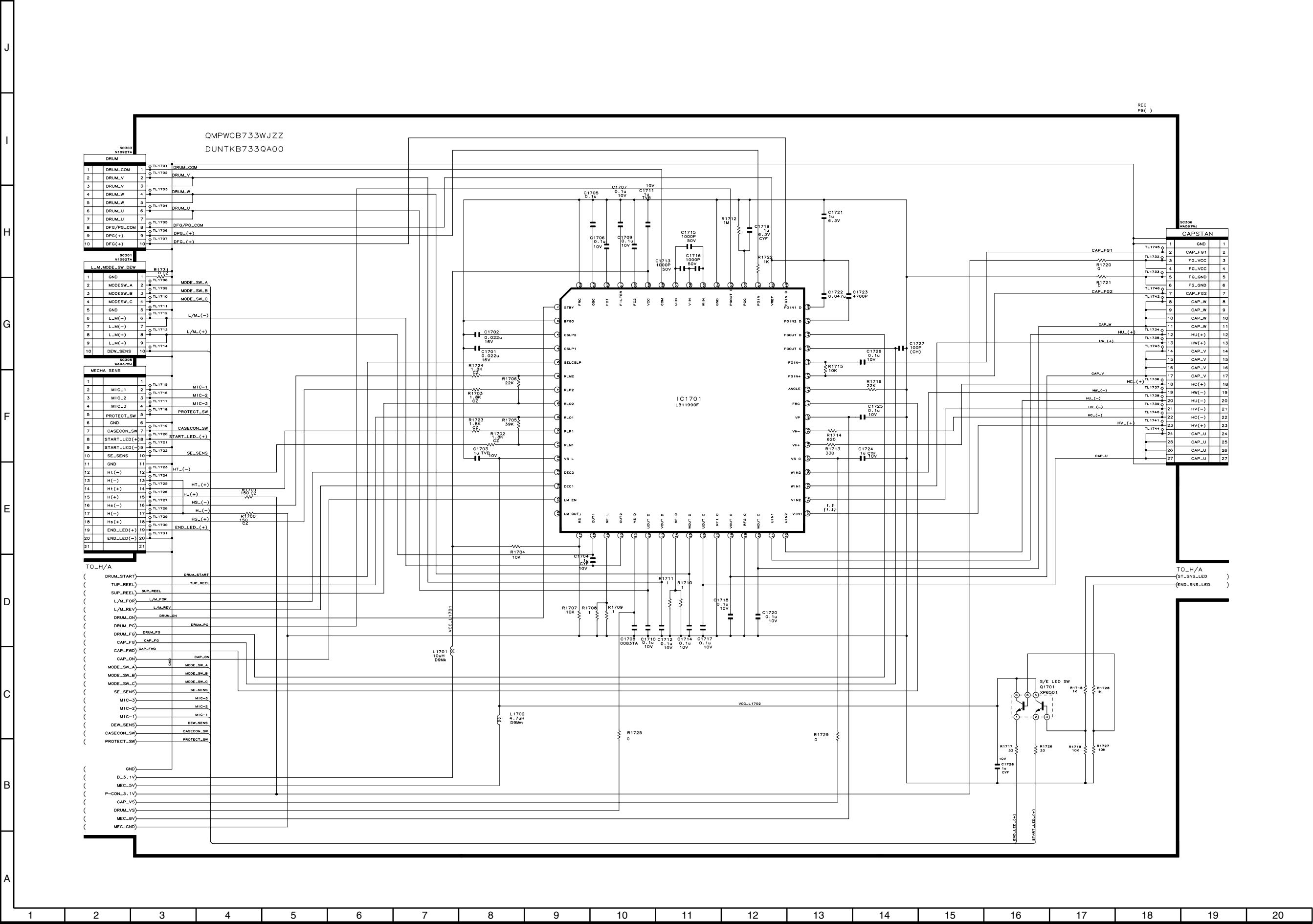
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



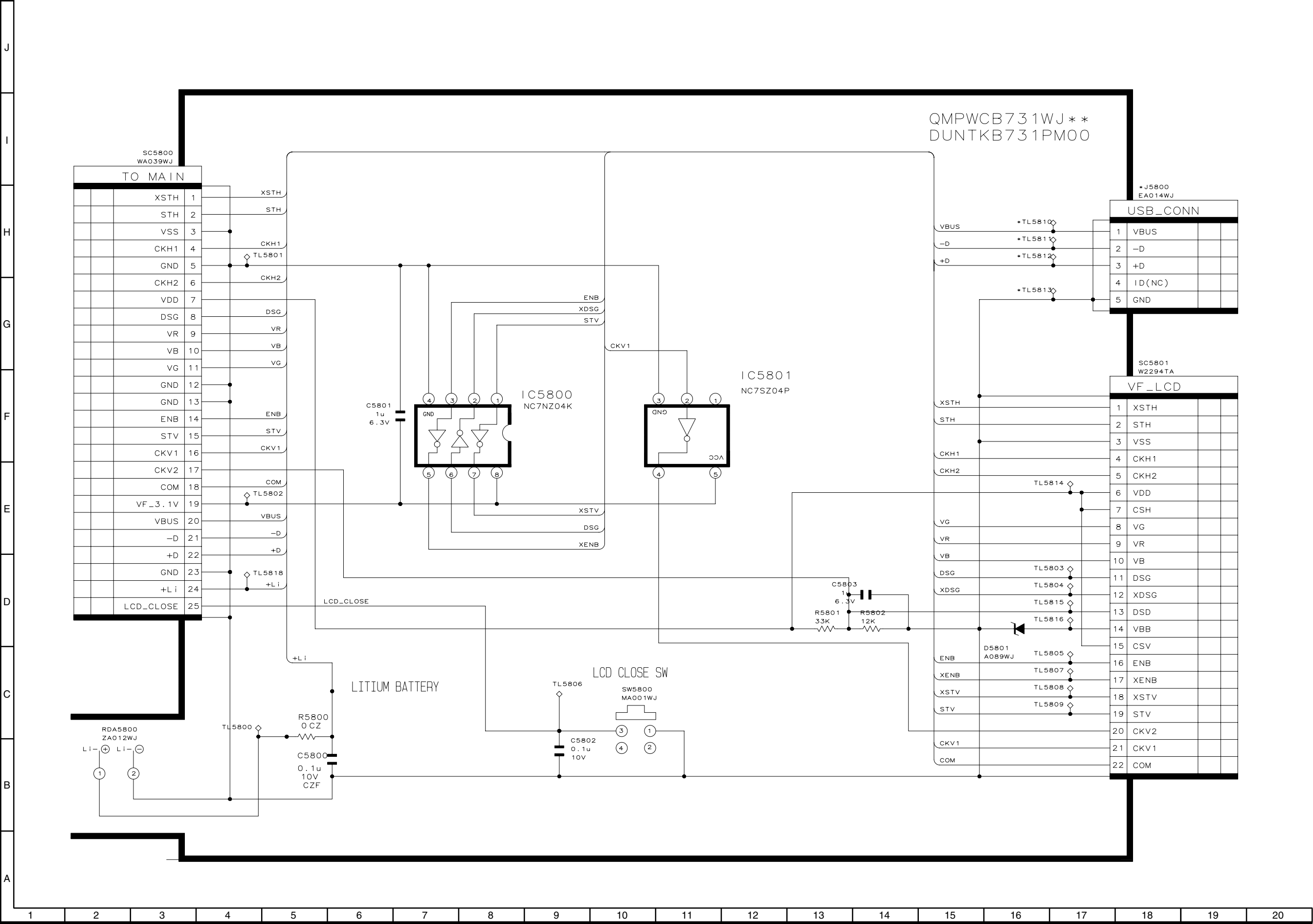
14-26. HEAD AMP SCHEMATIC DIAGRAM



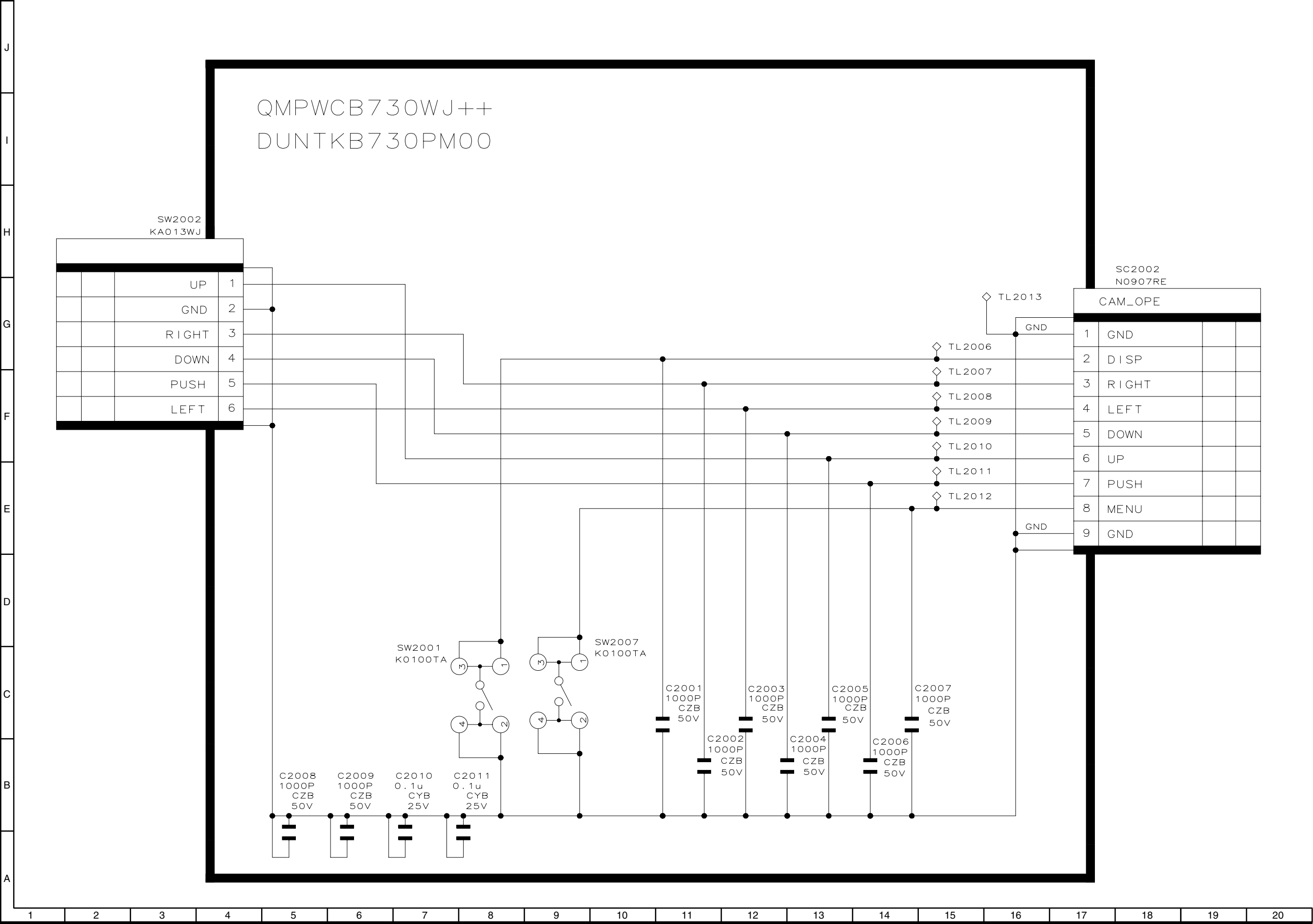
14-27. MOTOR DRIVE SCHEMATIC DIAGRAM



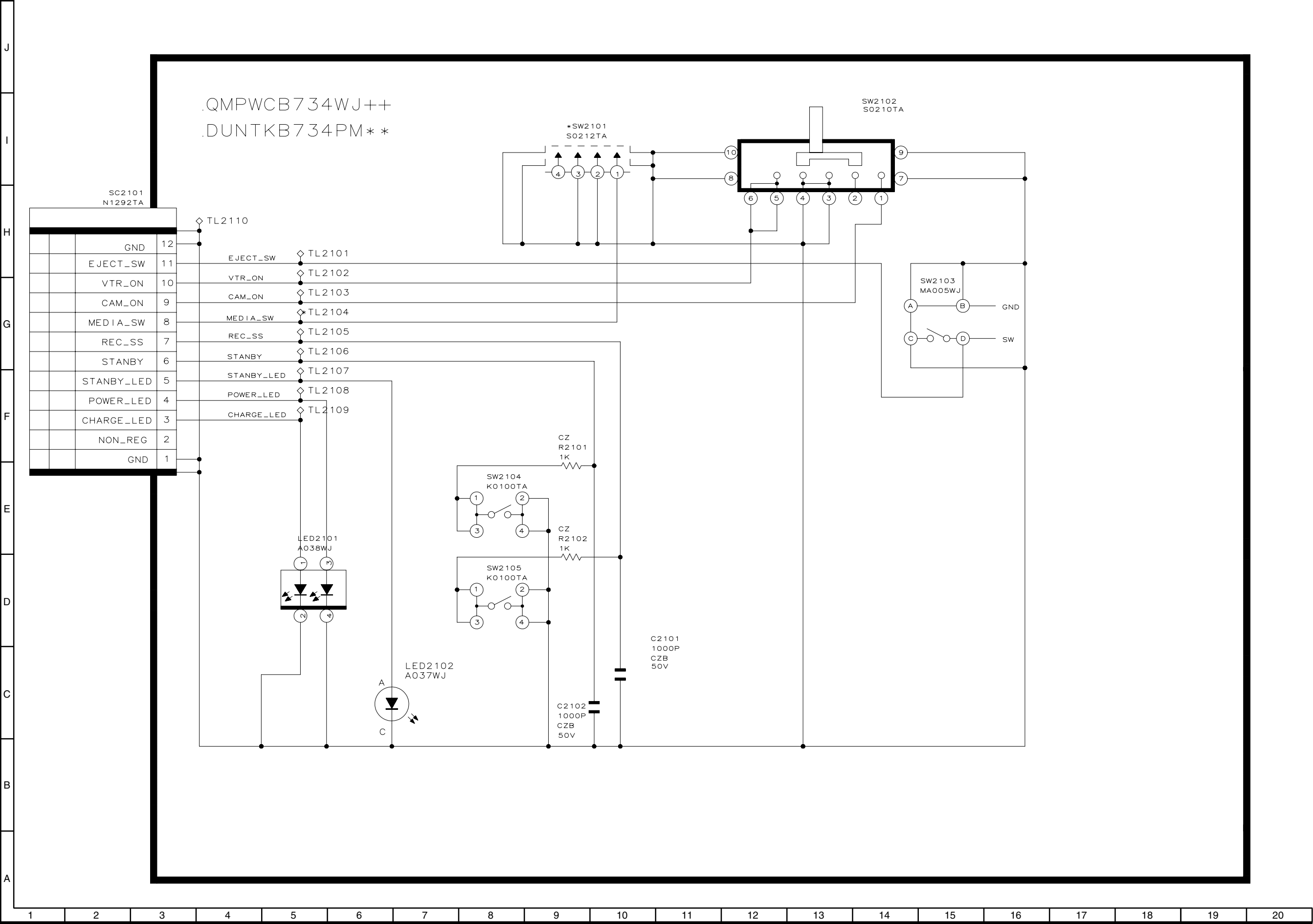
14-28. LITHIUM SCHEMATIC DIAGRAM



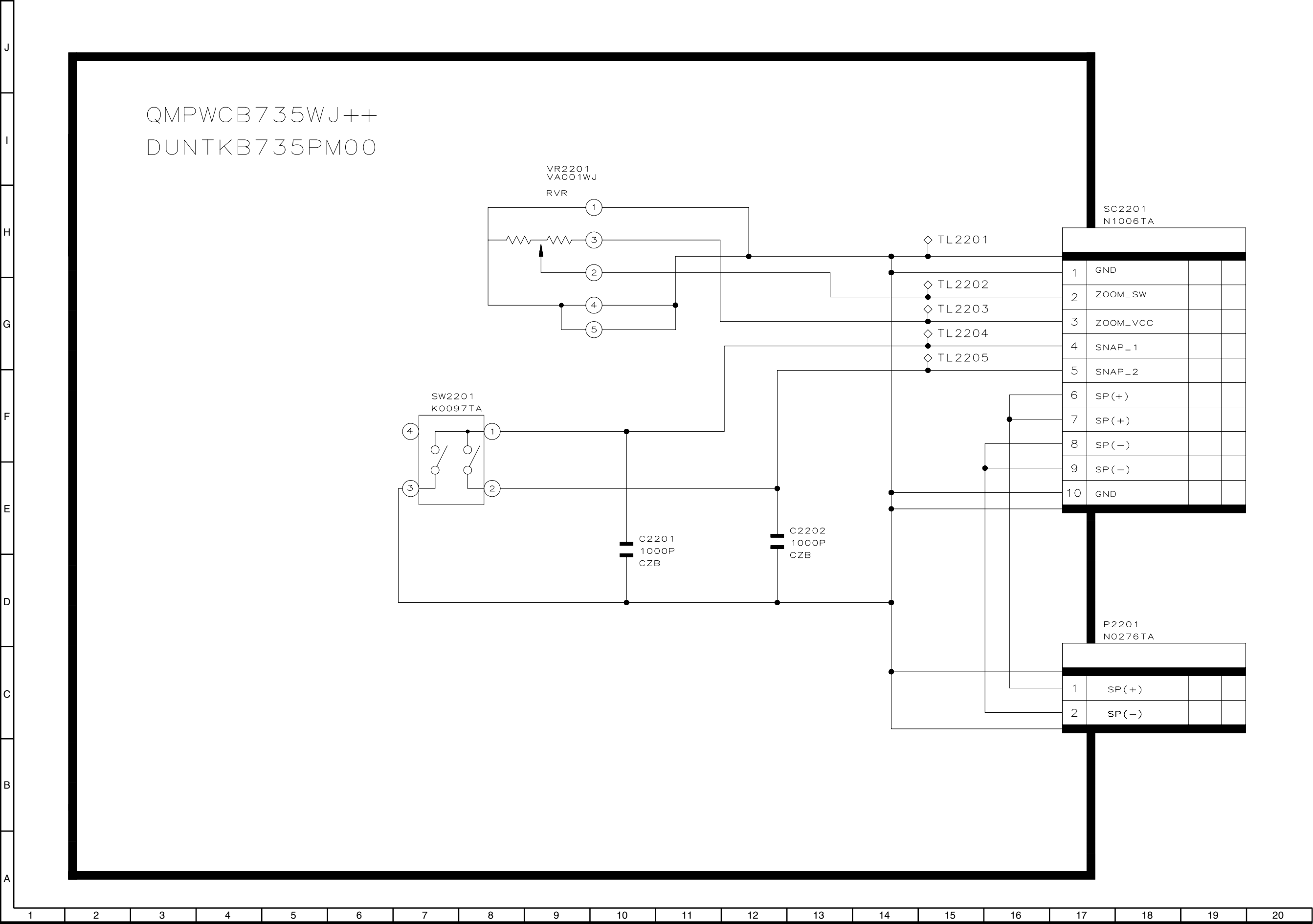
14-29. OPERATION SCHEMATIC DIAGRAM



14-30. VCR OPERATION SCHEMATIC DIAGRAM

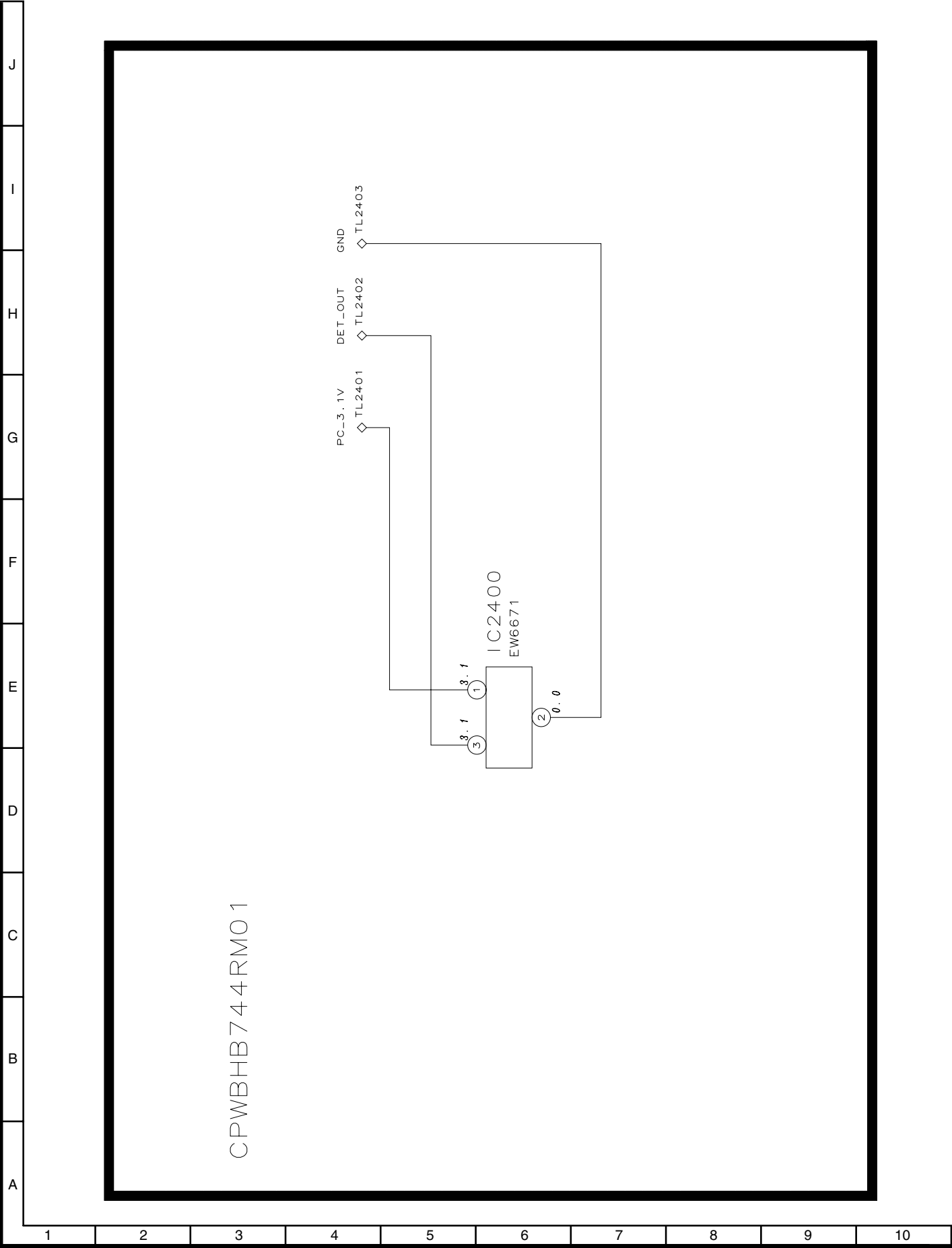


14-31. ZOOM SW SCHEMATIC DIAGRAM

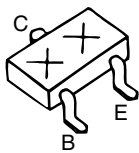




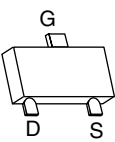
14-33. HOLE SENSOR UNIT SCHEMATIC DIAGRAM



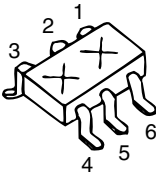
15. SEMICONDUCTOR LEAD IDENTIFICATION



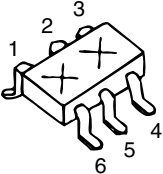
2SC4738Y KTA2014EY
FMMT619 KTC4075EY
2SC5376B RT1N144U
12A01M 15C01M
KRC401E 15C01SS
KRC402E 12A01SS
KRC404E



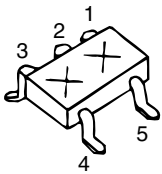
3LN01S



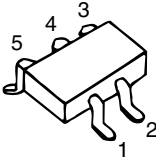
XP05534 EMD12
7SB3157P XP4501
MCH6617 XP6401
XP0431N XP4313
FDG312P XP4601
FDC642P XP6501
XP4316



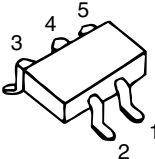
XN04391



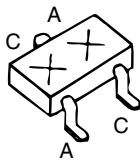
TA75S01F NJU7008F
XP1111 XP1501
NC7SZ04P XP4213
XP1213



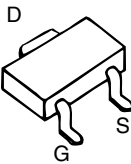
CPH5504



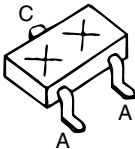
FMG12



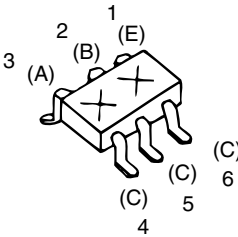
DAN217U



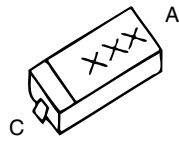
FDT458P



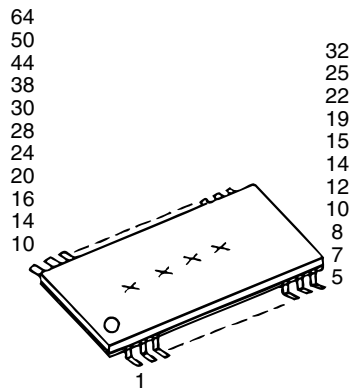
KDS121E



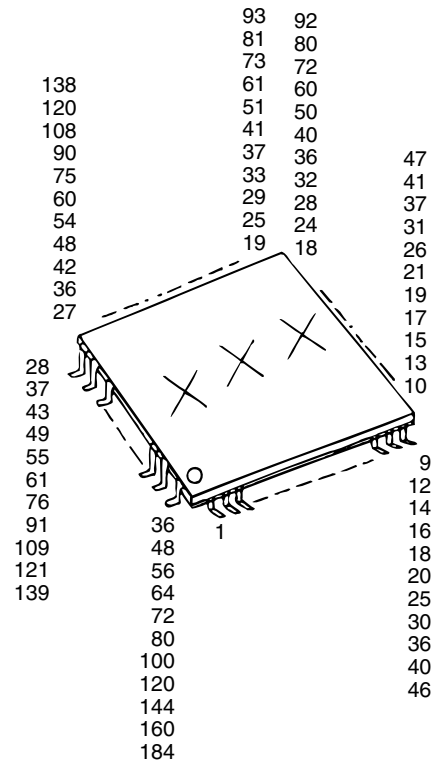
XN09D61



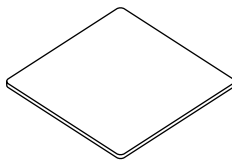
EX1394CE	HVC362
HVC359TR	HVC375B
RB160M30	HVC202A
A089WJ	1SS400



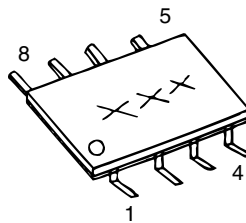
UPD16835	PCM3008
MB8346BV	IXA532WJ
MB88146A	LA73070V
MM1323XV	R2101S01
ADC08351	NJ12902V



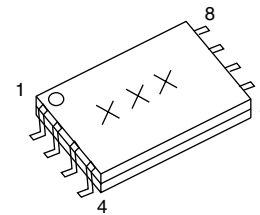
BH7277KV	LB11990F
MB3881++	LA74206W
CXD2489R	LA70050W
IXA526WJ	



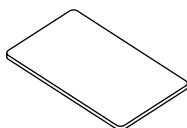
IX0850TA	IXA504WJ
IX0809TA	IXA204WJ
IXA531WJ	LB11990F
	IR3Y54U



NJM2143R
TLC2940
BR24L64F



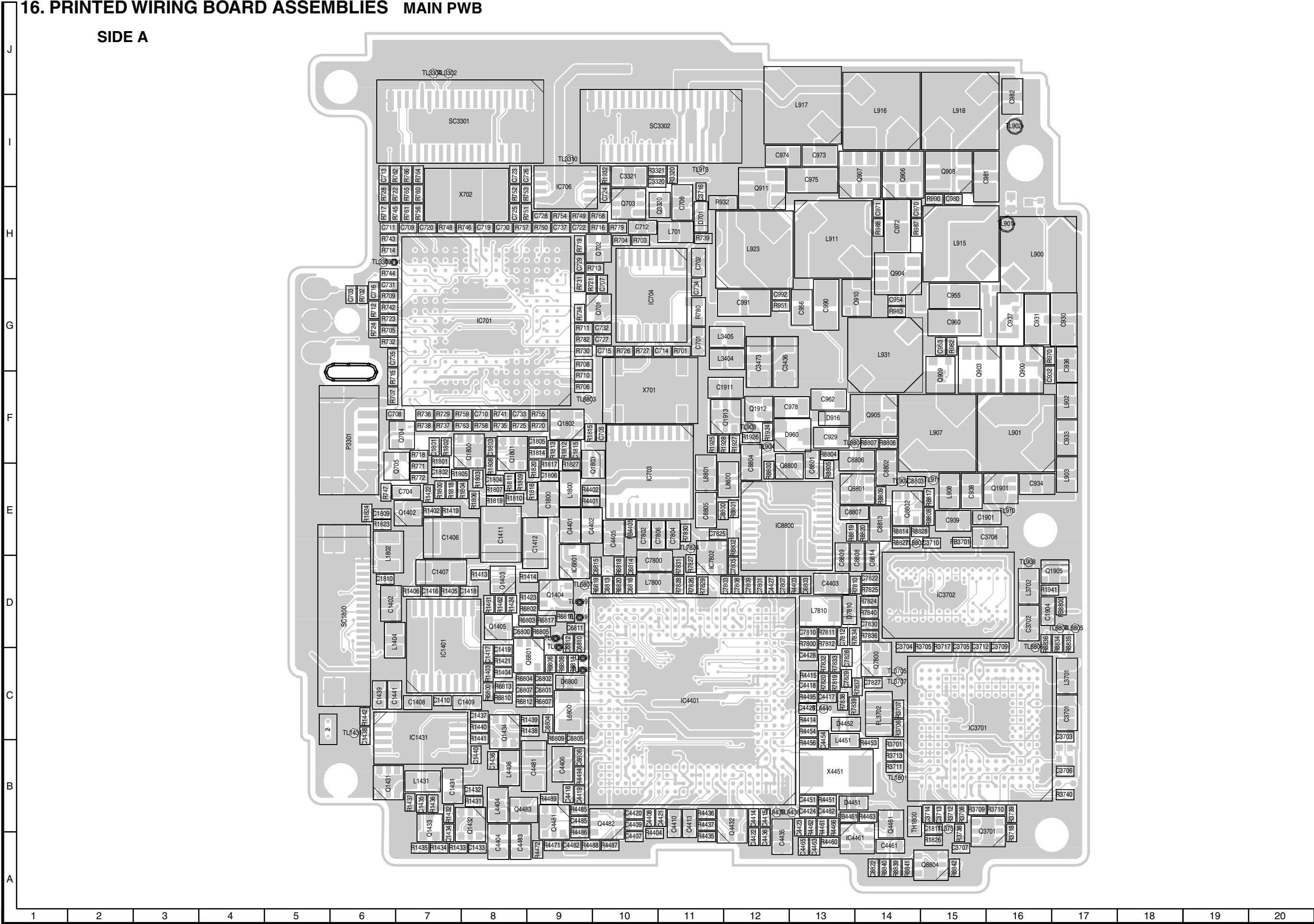
NJU7015R
NJM2535V
NC7NZ04K
NC7WZ08K
BR24L02M



IXA550WJ
ADC8351C

16. PRINTED WIRING BOARD ASSEMBLIES MAIN PWB

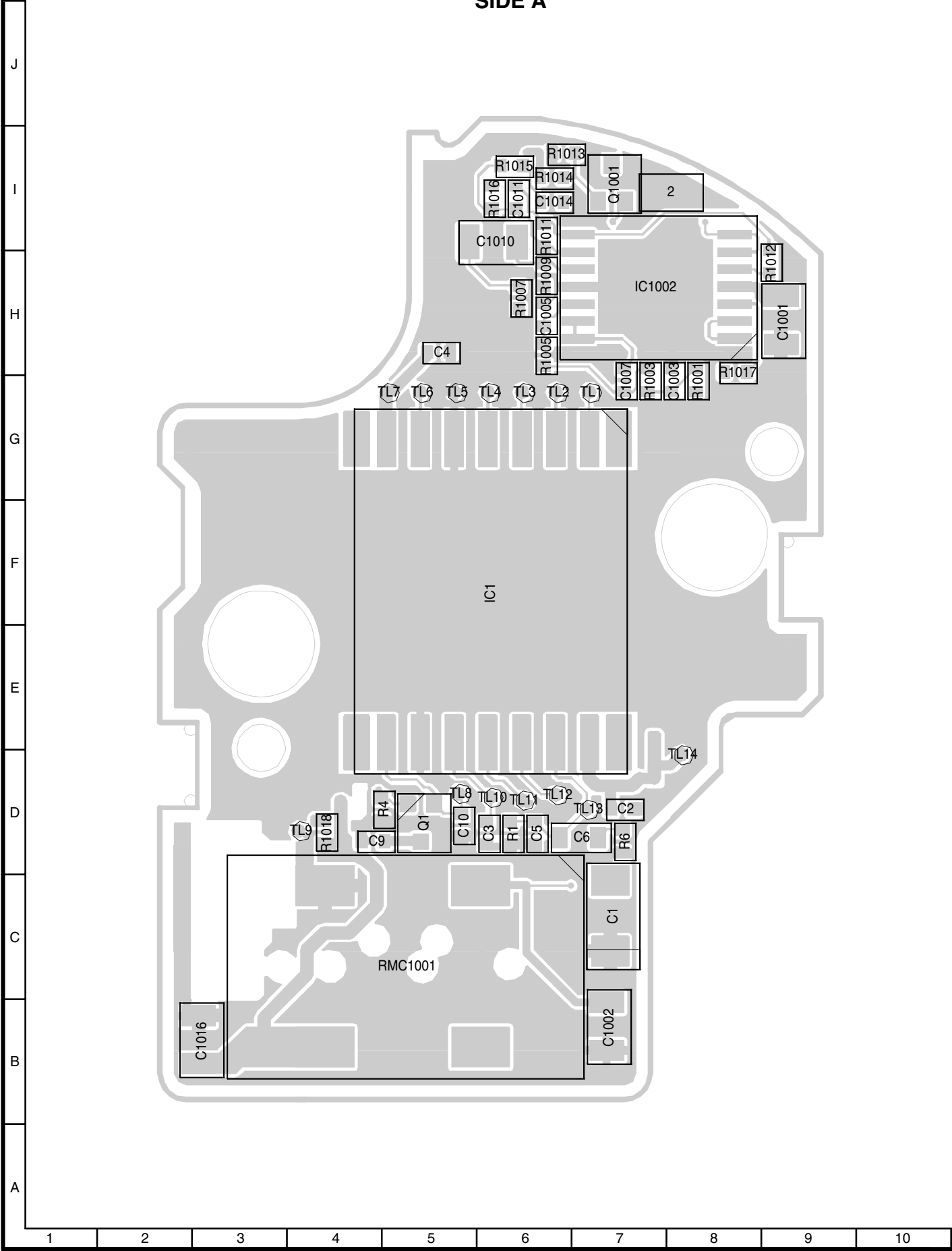
SIDE A



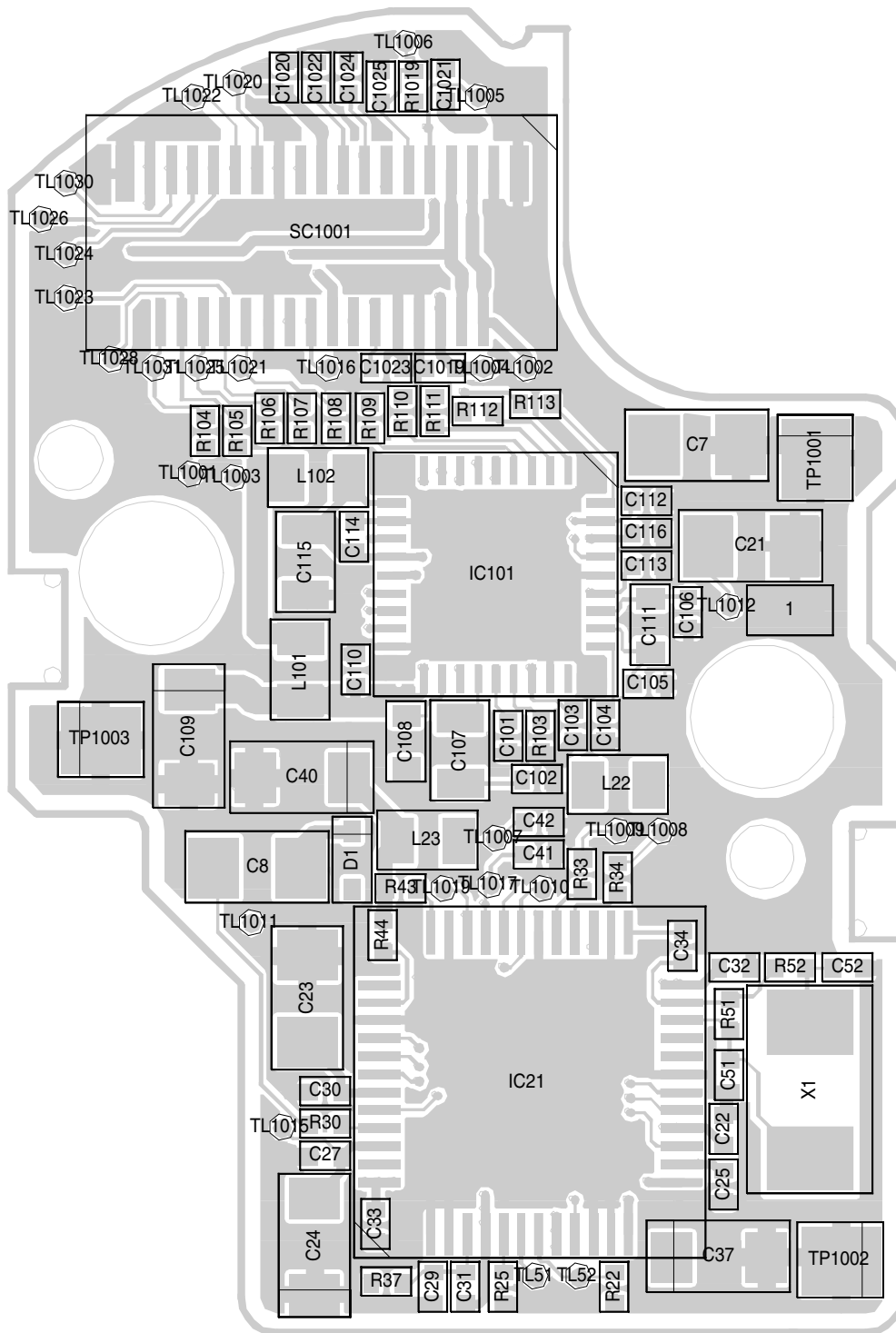
SIDE B

CCD PWB

SIDE A



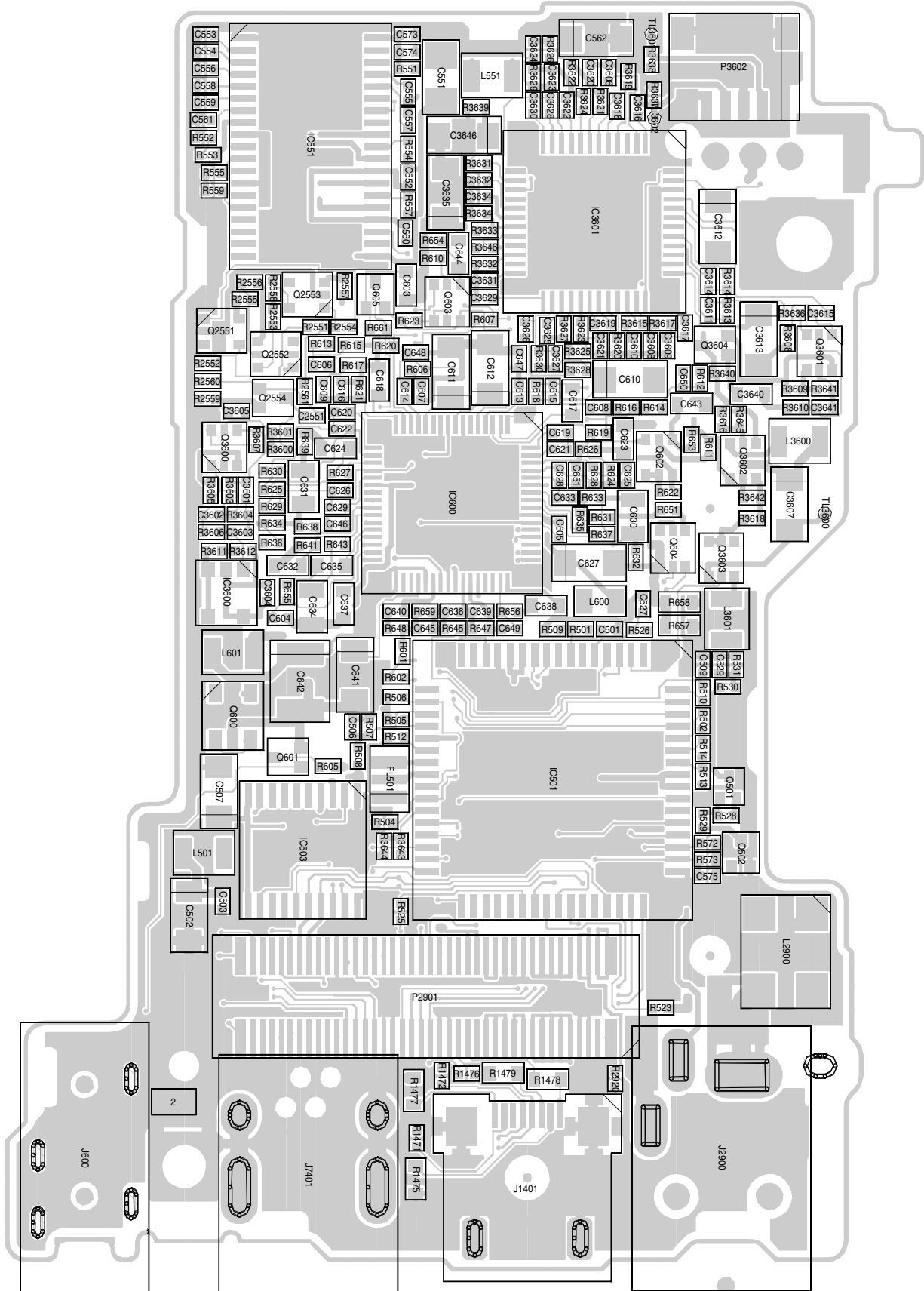
SIDE B



10	11	12	13	14	15	16	17	18	19
----	----	----	----	----	----	----	----	----	----

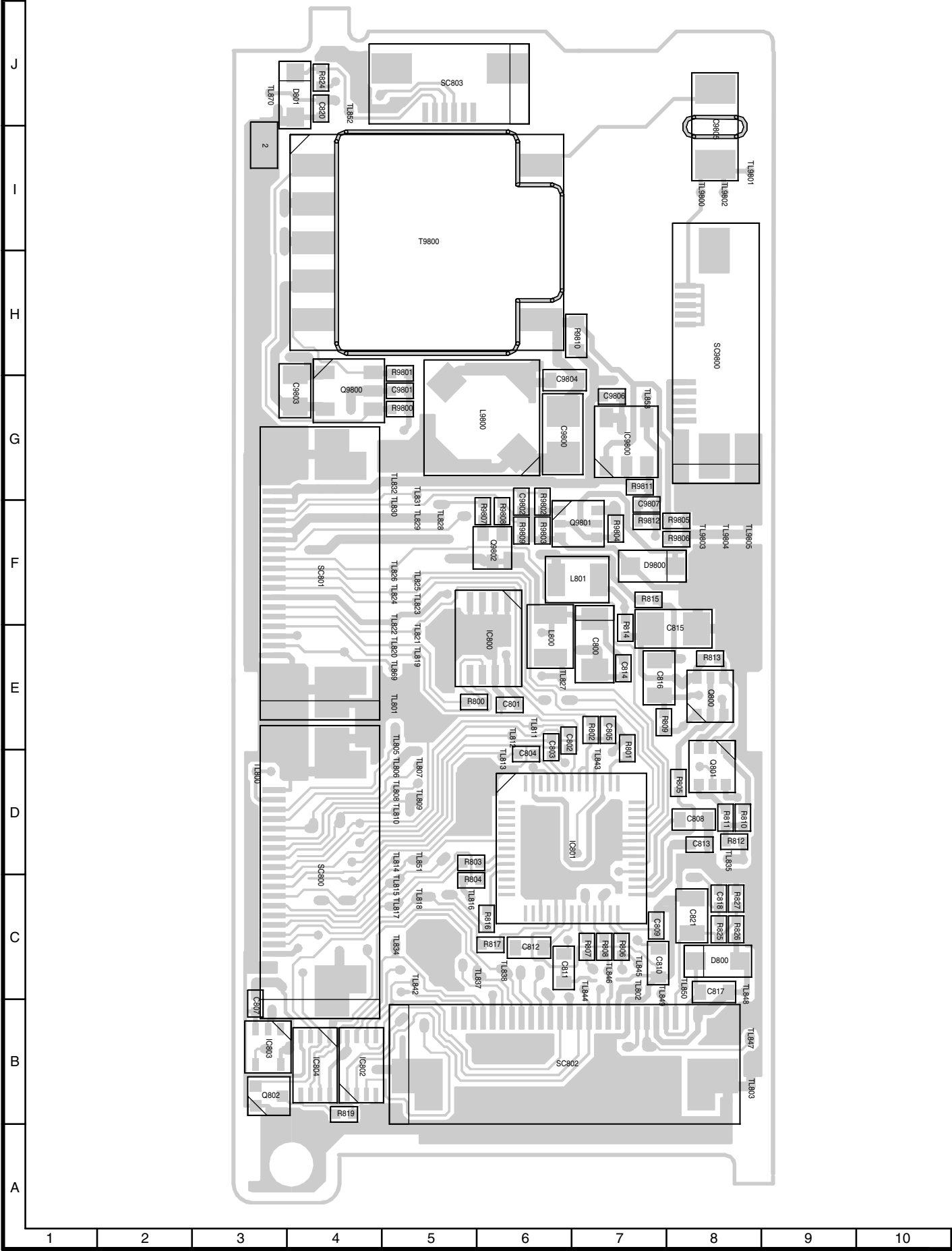
PCB layout diagram showing component placement and labels. The diagram is oriented with the top edge labeled "SIDE A". The layout includes various components such as resistors (R), capacitors (C), diodes (D), transistors (Q), integrated circuits (IC), and surface-mount components (SMD). The components are arranged in a grid-like pattern, with labels indicating their values and positions. The layout is divided into sections by a central vertical line, with components labeled on both sides. The bottom edge of the diagram is labeled with a grid of coordinates (A-J, 1-10).

SIDE B

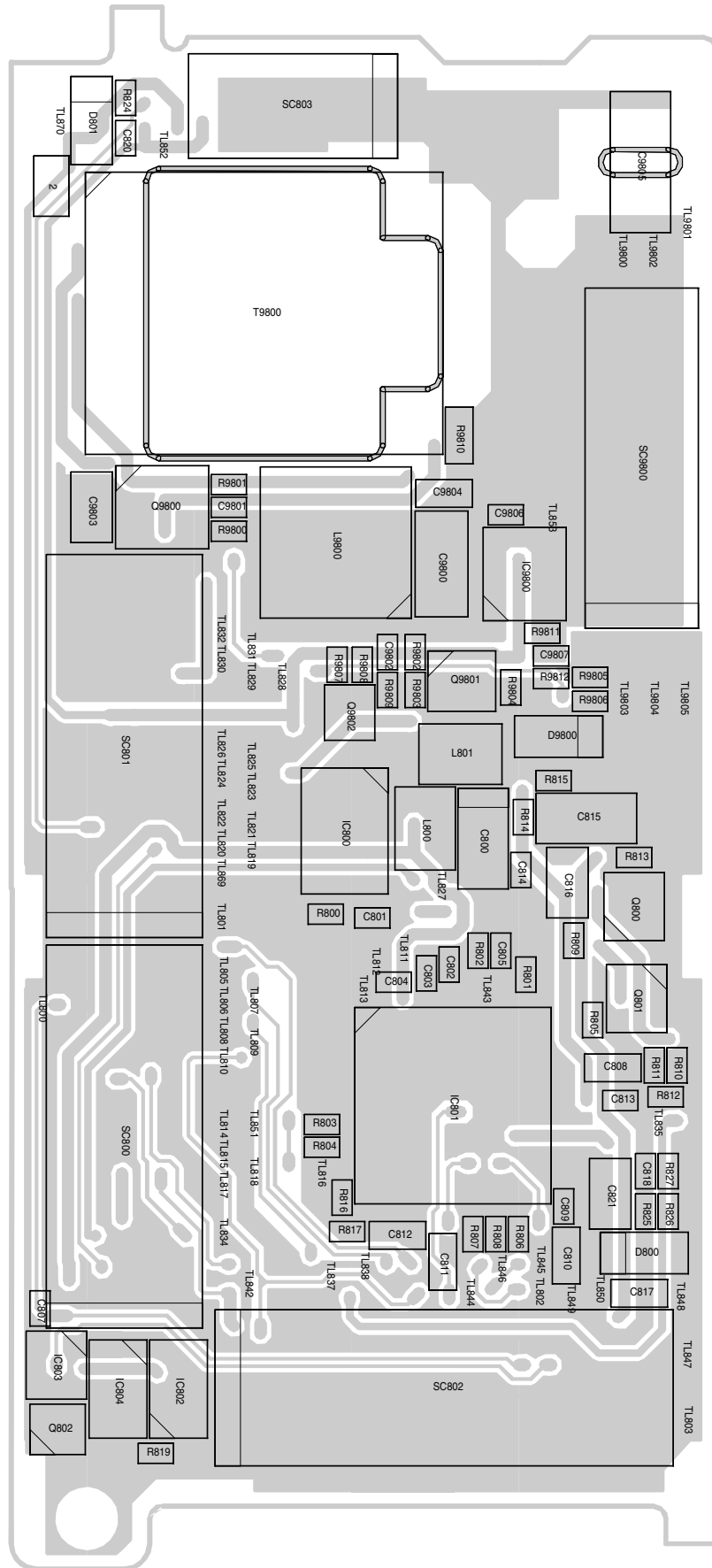


LCD PWB

SIDE A



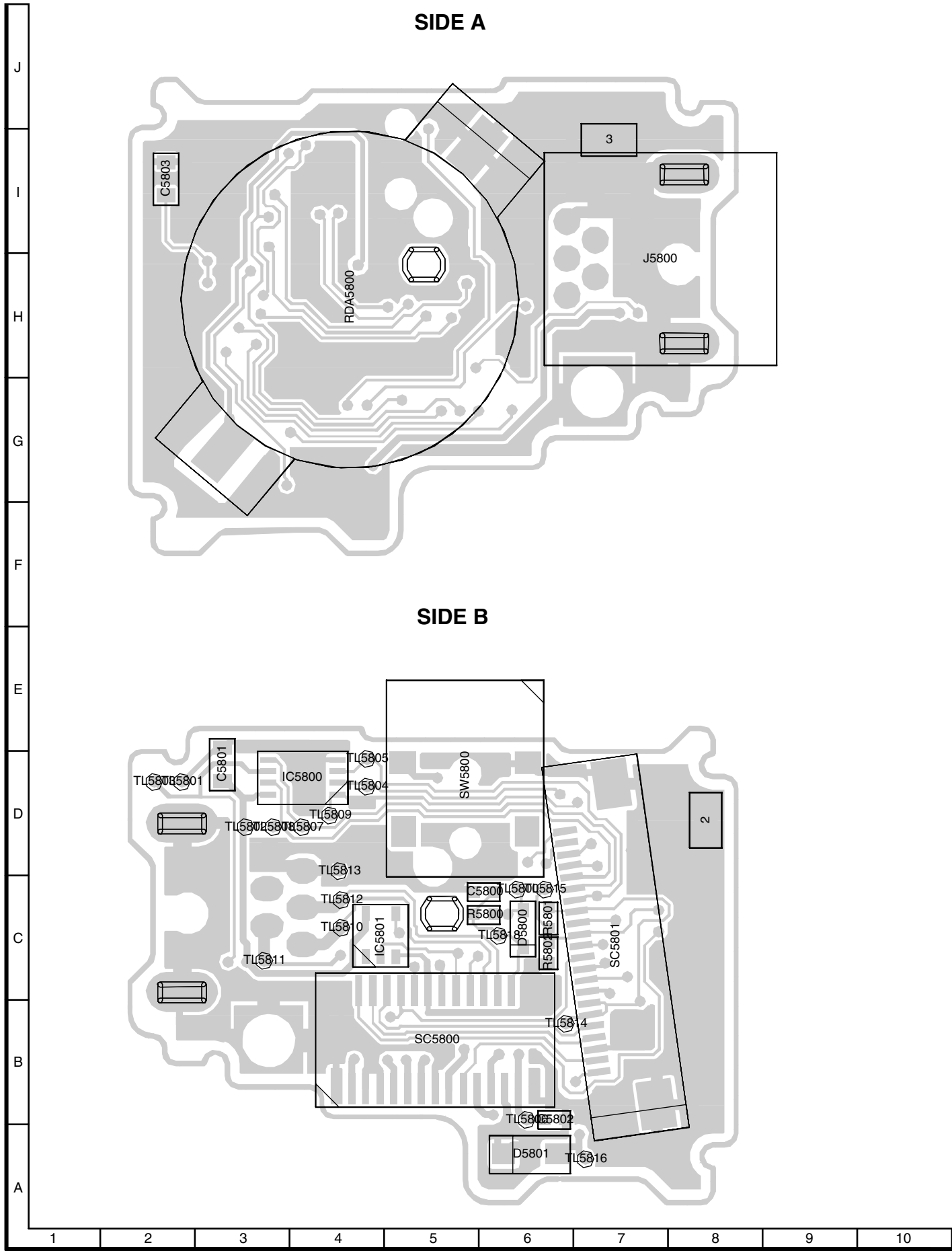
SIDE B



SIDE B

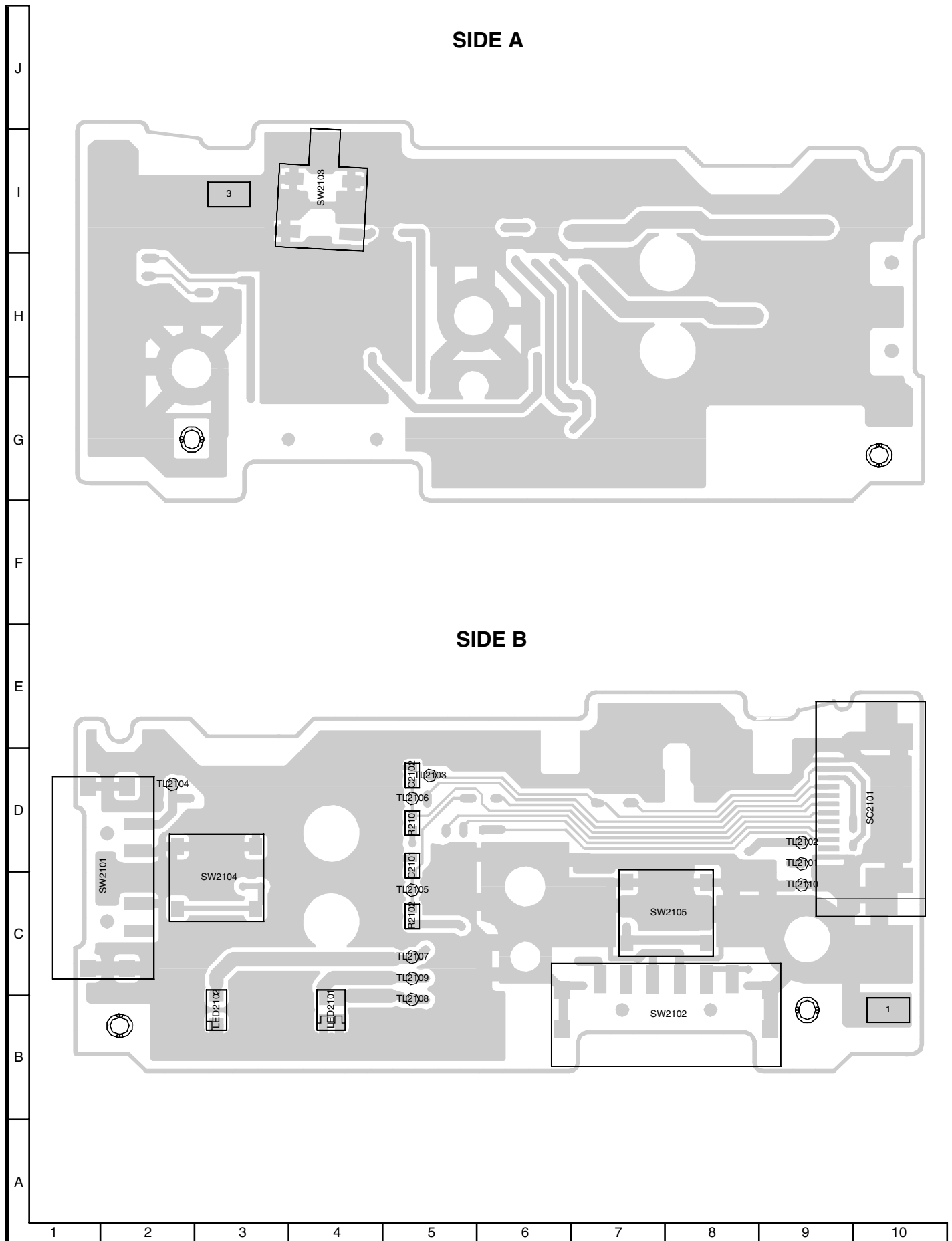


LITHIUM PWB

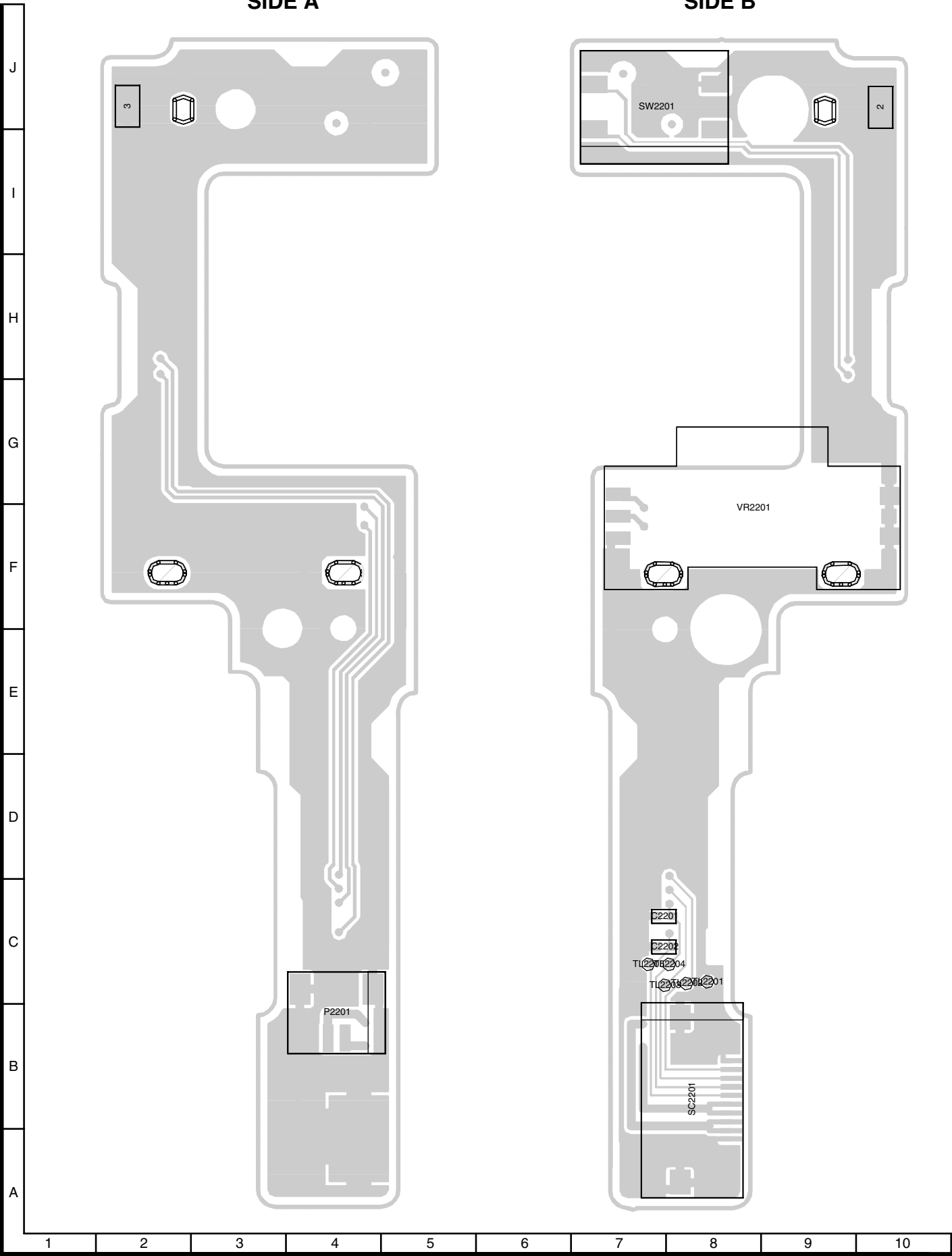




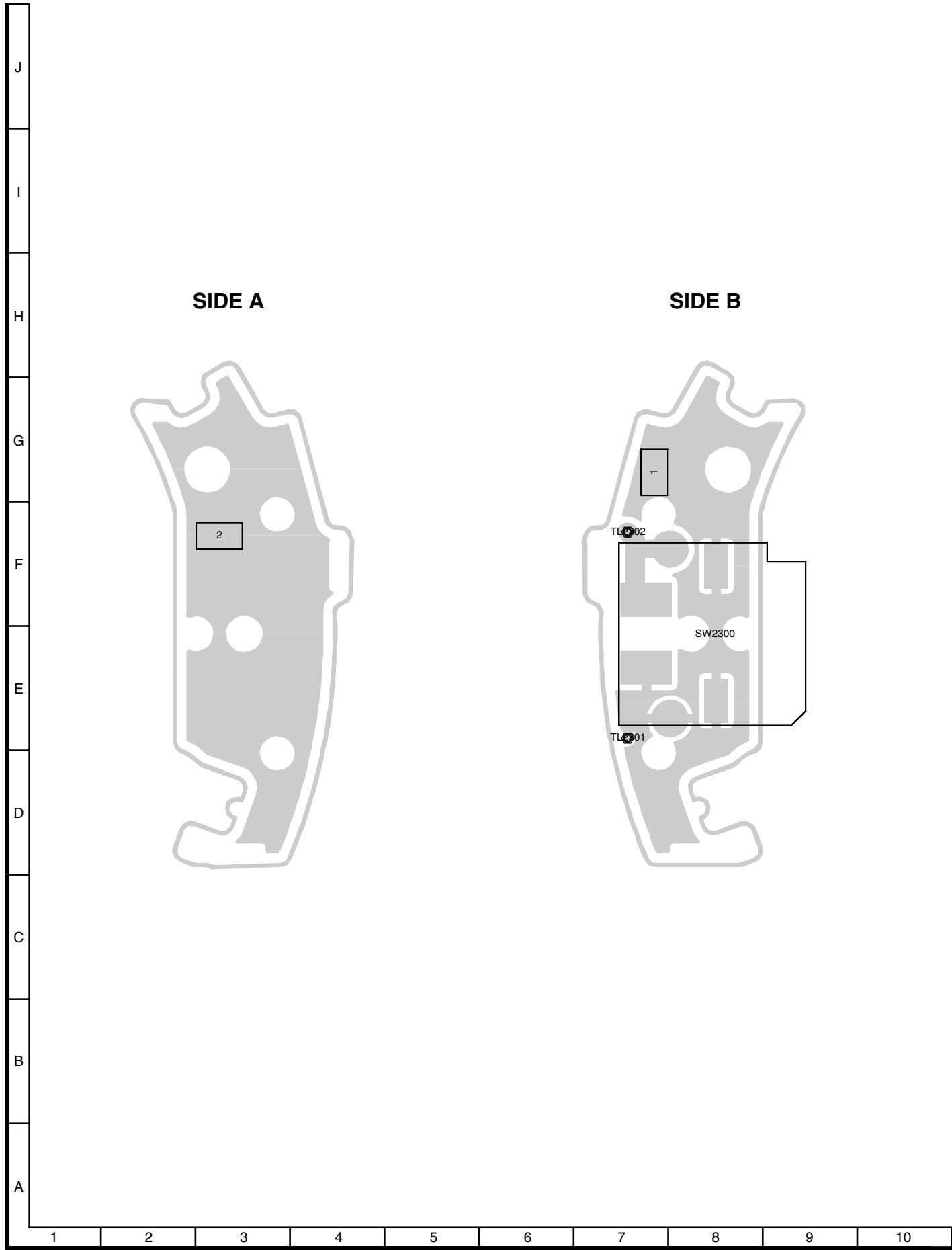
VCR OPERATION PWB



ZOOM SW PWB



MECHA REVERSION DETECTION PWB



- M E M O -

[illegible]

17. REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pièces marquées "△" sont importantes pour maintenir la sécurité de l'appareil. Ne remplacer ces pièces que par des pièces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctionnement de l'appareil.

" HOW TO ORDER REPLACEMENT PARTS "

in USA: Contact your nearest SHARP Parts Distributor. For location of SHARP Parts Distributor, Call Toll-free 1-IBE800-SHARP

in CANADA: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |
| 5. PRICE CODE | |

△ MARK: SAFETY RELATED PARTS
△ PIECES: RELATIVES A LA SECURITE

PWB ASSEMBLY IS NOT REPLACEMENT ITEM
L'ASSEMBLAGE P.C.I. EST UN ARTICLE NON REMPLACABLE

Ref. No.	Part No.	★	Description	Code
PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)				
	DUNTKB722QA02		MAIN PWB Unit (VL-Z5U/C)	—
	DUNTKB722QA03		MAIN PWB Unit (VL-Z5K)	—
	DUNTKB722QA07		MAIN PWB Unit (VL-Z3U/C)	—
	DUNTKB722QA10		MAIN PWB Unit (VL-Z3K)	—
	DUNTKB724QA00		CCD PWB Unit (VL-Z5U/C/K)	—
	DUNTKB724QA02		CCD PWB Unit (VL-Z3U/C/K)	—
	DUNTKB728QA06		SUB PWB Unit (VL-Z5K)	—
	DUNTKB728QA12		SUB PWB Unit (VL-Z3K)	—
	DUNTKB729QA04		SUB PWB Unit (VL-Z5U/C)	—
	DUNTKB729QA09		SUB PWB Unit (VL-Z3U/C)	—
	DUNTKB726QA00		LCD PWB Unit	—
	DUNTKB733QA00		HEAD AMP PWB Unit	—
	DUNTKB731PM00		LITHIUM PWB Unit	—
	DUNTKB730PM00		OPERATION PWB Unit	—
	DUNTKB734PM00		VCR OPERATION PWB Unit	—
	DUNTKB735PM00		ZOOM SW PWB Unit	—
	DUNTKB732PM00		MECHA REVERSION DETECTION PWB Unit	—

Ref. No.	Part No.	★	Description	Code
DUNTKB722QA02(VL-Z5U/C) DUNTKB722QA03(VL-Z5K) DUNTKB722QA07(VL-Z3U/C) DUNTKB722QA10(VL-Z3K) MAIN PWB UNIT				

INTEGRATED CIRCUITS

IC201	RH-iX0850TAZZQ		IX0850TA, CAM ENG	BC
IC203	RH-iXA550WJZZY		IXA550WJ	AU
IC405	VHiNJU7015R-1Y		NJU7015R	AF
IC407	RH-iXA550WJZZY		IXA550WJ, Codec External Memory	AU
IC408	RH-iXA550WJZZY		IXA550WJ, ECC External Memory	AU
IC452	RH-iX0809TAZZQ		IX0809TA, Codec/ECC/PCM/CLK, Gen/DIF	BM
IC701	RH-iXA531WJZZQ		IXA531WJ, Mec/System Micon	AX
IC703	RH-iXA532WJZZY		IXA532WJ, Character Generator	AL
IC704	VHiR2101S01-1Y		R2101S01	AH
IC705	VHiBR24L64F-1Y		BR24L64F, E ² PROM	AK
IC706	VHiNJM2143R-1Y		NJM2143R, 2.8V/2.5V Reg	AE
IC900	VHiMB3881+-1Y		MB3881+-, Power_CLT	AT
IC901	VHiNJM2143R-1Y		NJM2143R	AE
IC902	VHiNJM2143R-1Y		NJM2143R	AE
IC1401	VHiLA73070V-1Y		LA73070V, Video Out	AK
IC1431	VHiNJM2535V-1Y		NJM2535V, Video In SW	AE
IC1602	VHiPCM3008+-1Y		PCM3008T+, 18Bit ADC/DAC	AN
IC3401	VHiBH7277KV-1Y		BH7277KV, EQ/PLL IC	AX
IC3402	VHiTLC2940/-1Y		TLC2940, VCO IC	AM
IC3403	VHiNC7SZ04P-1Y		NC7SZ04P, Inv IC	AD
IC3404	VHiADC8351C-1Y		ADC8351C, A/D Conv IC	AM
IC3405	VHi7SB3157P-1Y		7SB3157P	AE
IC3407	VHiNJU7008F-1Y		NJU7008F	AE
IC3701	RH-iXA504WJZZQ		IXA504WJ, Camera/ Card Micro Computer	BA
IC3702	RH-iXA550WJZZY		IXA550WJ, ECC External Memory	AU
IC4401	RH-iXA204WJZZQ		IXA204WJ, Digital ADC/DAC Decoder	BB
IC4461	VHi7SB3157P-1Y		7SB3157P	AE
IC4701	VHiMB8346BV-1Y		MB88346BV	AN
IC8800	VHiMM1323XV-1Y		MM1323XV, LCD Interface	AN

TRANSISTORS

Q701	VSRT1N144U/-1Y		RT1N144U	AB
Q702	VSKTA2014EY-1Y		KTA2014EY	AB
Q704	VSKTA2014EY-1Y		KTA2014EY	AB
Q705	VSKTA2014EY-1Y		KTA2014EY	AB
Q900	VSN09D61+-1Y		XN09D61+-	AD
Q901	VS15C01SS+-1Y		15C01SS+-	AC
Q902	VS12A01M+-1Y		12A01M+-	AC
Q903	VSN09D61+-1Y		XN09D61+-	AD
Q904	VSN09D61+-1Y		XN09D61+-	AD
Q905	VSFMMT619/-1Y		FMMT619	AE
Q906	VSN09D61+-1Y		XN09D61+-	AD
Q907	VSN09D61+-1Y		XN09D61+-	AD
Q908	VSN09D61+-1Y		XN09D61+-	AD
Q911	VSN09D61+-1Y		XN09D61+-	AD
Q1402	VS2SC5376B+-1Y		2SC5376B+-	AC
Q1403	VS2SC5376B+-1Y		2SC5376B+-	AC
Q1404	VSP4313/-1Y		XP4313	AC
Q1405	VS2SC5376B+-1Y		2SC5376B+-	AC
Q1431	VSP4313N+-1Y		XP4313N+-	AB
Q1432	VSP4601/-1Y		XP4601	AC
Q1433	VSKTC4075EY-1Y		KTC4075EY	AB
Q1434	VSP6401/-1Y		XP6401	AC
Q1800	VSP6401/-1Y		XP6401	AC
Q1801	VSP6401/-1Y		XP6401	AC
Q1802	VSP6401/-1Y		XP6401	AC
Q1901	VSP4316/-1Y		XP4316	AC
Q1902	VSMCH6617+-1Y		MCH6617+-	AE

[illegible]

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C456	RC-KZA067WJZZY	4.7	10V Ceramic	AB	C946	VCKYTV1AB105KY	1	10V Ceramic	AC
C460	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C948	RC-KZA069WJZZY	4.7	10V Ceramic	AB
C462	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C949	VCKYTV1AB105KY	1	10V Ceramic	AC
C463	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C951	VCKYTV1AB105KY	1	10V Ceramic	AC
C465	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C952	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C473	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB	C953	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C474	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB	C954	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C475	VCKYCVZ1HB221KY	220p	50V Ceramic	AA	C955	RC-KZ0075TAZZY	2.2	16V Ceramic	AC
C476	VCKYCVZ1HB221KY	220p	50V Ceramic	AA	C956	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C477	VCKYCVZ1HB221KY	220p	50V Ceramic	AA	C957	VCKYTV1AB105KY	1	10V Ceramic	AC
C478	VCKYCVZ1HB221KY	220p	50V Ceramic	AA	C960	RC-KZA002WJZZY	4.7	16V Ceramic	AC
C701	VCKYCY1CB104KY	0.1	16V Ceramic	AB	C962	RC-KZA066WJZZY	1	25V Ceramic	AB
C702	VCKYCY0JF105ZY	1	6.3V Ceramic	AB	C966	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C703	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C970	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C704	VCKYCY0JB105KY	1	6.3V Ceramic	AC	C971	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C705	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C972	RC-KZA002WJZZY	4.7	16V Ceramic	AC
C706	RC-KZA067WJZZY	4.7	10V Ceramic	AB	C973	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C708	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C974	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C709	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C978	RC-KZA066WJZZY	1	25V Ceramic	AB
C710	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C980	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C711	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C981	RC-KZ0075TAZZY	2.2	16V Ceramic	AC
C712	VCKYCY0JB105KY	1	6.3V Ceramic	AC	C982	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C713	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C983	VCKYTV1AB105KY	1	10V Ceramic	AC
C716	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C990	RC-KZ0075TAZZY	2.2	16V Ceramic	AC
C719	VCCCCZ1HH270JY	27p	50V Ceramic	AB	C991	RC-KZA002WJZZY	4.7	16V Ceramic	AC
C720	VCCCCZ1HH270JY	27p	50V Ceramic	AB	C992	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB
C721	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C993	VCKYCY1AB224KY	0.22	10V Ceramic	AB
C722	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB	C1201	VCCCCZ1HH6R0DY	6p	50V Ceramic	AA
C723	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB				(Z3K/Z5K)	
C724	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1402	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C725	VCKYCVZ1EB682KY	6800p	25V Ceramic	AB	C1406	VCSATE0JJ107MY	100	6.3V Tantalum	AE
C726	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1407	VCSATA0JJ336MY	33	6.3V Tantalum	AD
C727	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1408	VCKYCY0JF105ZY	1	6.3V Ceramic	AB
C728	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1409	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C729	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1410	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB
C730	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1411	VCSATE0JJ107MY	100	6.3V Tantalum	AE
C731	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1412	VCSATA0JJ336MY	33	6.3V Tantalum	AD
C732	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1416	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C733	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1417	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB
C734	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB	C1418	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C735	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C1419	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB
C737	VCKYCVZ1EB682KY	6800p	25V Ceramic	AB	C1431	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C904	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C1432	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C905	VCKYCVZ0JB224KY	0.22	6.3V Ceramic	AB	C1433	VCCCCZ1HH150JY	15p	50V Ceramic	AB
C906	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C1434	VCCCCZ1HH680JY	68p	50V Ceramic	AB
C907	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1435	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C908	VCKYCVZ1AB473KY	0.047	10V Ceramic	AB	C1436	VCCCCZ1HH150JY	15p	50V Ceramic	AB
C910	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB	C1437	VCCCCZ1HH680JY	68p	50V Ceramic	AB
C911	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB	C1438	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB
C912	VCKYCY1CB104KY	0.1	16V Ceramic	AB	C1439	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C913	VCKYCVZ1HB222KY	2200p	50V Ceramic	AB	C1440	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C914	VCCCCZ1HH101JY	100p	50V Ceramic	AB	C1441	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C915	VCKYCY1AB224KY	0.22	10V Ceramic	AB	C1603	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C916	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1604	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C917	VCKYCVZ1HB221KY	220p	50V Ceramic	AA	C1605	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C918	VCKYCVZ1HB221KY	220p	50V Ceramic	AA	C1608	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C919	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1610	VCKYCVZ1AF104ZY	0.1	10V Ceramic	AB
C920	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB	C1611	VCKYCY1AB474KY	0.47	10V Ceramic	AC
C921	VCKYCY1CB104KY	0.1	16V Ceramic	AB	C1617	VCKYCY1AB474KY	0.47	10V Ceramic	AC
C922	VCKYCY1CB104KY	0.1	16V Ceramic	AB	C1800	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C923	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1801	VCCCCZ1HH180JY	18p	50V Ceramic	AB
C924	VCKYCVZ1HB471KY	470p	50V Ceramic	AB	C1802	VCCCCZ1HH680JY	68p	50V Ceramic	AB
C926	VCKYCY1EB223KY	0.022	25V Ceramic	AA	C1803	VCCCCZ1HH180JY	18p	50V Ceramic	AB
C927	VCKYCVZ1HB471KY	470p	50V Ceramic	AB	C1804	VCCCCZ1HH680JY	68p	50V Ceramic	AB
C928	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB	C1805	VCCCCZ1HH180JY	18p	50V Ceramic	AB
C929	RC-KZA066WJZZY	1	25V Ceramic	AB	C1806	VCCCCZ1HH680JY	68p	50V Ceramic	AB
C930	RC-KZA002WJZZY	4.7	16V Ceramic	AC	C1811	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C931	RC-KZ0075TAZZY	2.2	16V Ceramic	AC	C1815	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB
C932	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1901	VCKYCY1EB104KY	0.1	25V Ceramic	AB
C933	RC-KZA067WJZZY	4.7	10V Ceramic	AB	C1902	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB
C934	RC-KZ0083TAZZY	2.2	10V Ceramic	AC	C1903	VCKYCY1EB104KY	0.1	25V Ceramic	AB
C936	RC-KZA069WJZZY	4.7	10V Ceramic	AB	C1904	VCKYCY1EB104KY	0.1	25V Ceramic	AB
C938	RC-KZA067WJZZY	4.7	10V Ceramic	AB	C1905	VCKYCVZ1CB103KY	0.01	16V Ceramic	AB
C939	VCKYTV1AB105KY	1	10V Ceramic	AC	C1906	RC-KZA069WJZZY	4.7	10V Ceramic	AB
C943	VCKYCVZ1HB102KY	1000p	50V Ceramic	AB	C1907	VCKYCVZ1AB104KY	0.1	10V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C1908	VCKYCY1EB104KY	0.1	25V Ceramic	AB	C3716	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C1909	RC-KZ1025CEZZY	1	10V Ceramic	AB	C3717	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C1910	VCKYCY1EB104KY	0.1	25V Ceramic	AB	C4401	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C1911	RC-KZA069WJZZY	4.7	10V Ceramic	AB	C4402	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C1912	VCKYCY1EB104KY	0.1	25V Ceramic	AB	C4403	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C1913	VCKYCY1EB104KY	0.1	25V Ceramic	AB	C4404	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C1914	VCKYTV1CB105KY	1	16V Ceramic	AC	C4405	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C1915	VCKYCY1EB104KY	0.1	25V Ceramic	AB	C4406	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C1916	VCKYCY1EB104KY	0.1	25V Ceramic	AB	C4407	VCKYCY0JB224KY	0.22	6.3V Ceramic	AB
C1917	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C4408	VCKYCY0JB224KY	0.22	6.3V Ceramic	AB
C1918	VCKYCY1AB104KY	0.1	10V Ceramic	AB	C4409	VCKYCY0JB224KY	0.22	6.3V Ceramic	AB
C3320	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4410	VCKYCY1CB104KY	0.1	16V Ceramic	AB
C3321	VCKYTV1CB105KY	1	16V Ceramic	AC	C4413	VCKYCY1CB104KY	0.1	16V Ceramic	AB
C3401	VCCCCZ1HH390JY	39p	50V Ceramic	AB	C4414	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3402	VCCCCZ1HH100DY	10p	50V Ceramic	AB	C4415	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3403	VCCCCZ1HH100DY	10p	50V Ceramic	AB	C4416	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3405	VCCCCZ1HH820JY	82p	50V Ceramic	AB	C4417	VCCCCZ1HH221JY	220p	50V Ceramic	AB
C3406	VCKYCY0JB105KY	1	6.3V Ceramic	AC	C4418	VCCCCZ1HH221JY	220p	50V Ceramic	AB
C3407	VCCCCZ1HH101JY	100p	50V Ceramic	AB	C4419	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3408	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4420	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3409	VCKYCY1HB471KY	470p	50V Ceramic	AB	C4421	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3410	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4422	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3411	VCKYCY1HB471KY	470p	50V Ceramic	AB	C4423	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3412	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4424	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3413	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4426	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3414	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4427	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3415	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4428	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3416	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4435	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C3417	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4436	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3418	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4451	VCCCCZ1HH390JY	39p	50V Ceramic	AB
C3419	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4454	VCCCCZ1HH390JY	39p	50V Ceramic	AB
C3421	VCCCCZ1HH121JY	120p	50V Ceramic	AB	C4461	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3423	VCCCCZ1HH121JY	120p	50V Ceramic	AB	C4462	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C3424	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C4463	VCKYCY1EB682KY	6800p	25V Ceramic	AB
C3426	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C4481	VCSATA0JJ106MY	10	6.3V Tantalum	AD
C3428	VCKYCY0JB105KY	1	6.3V Ceramic	AC	C4482	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3429	VCKYCY1HB102KY	1000p	50V Ceramic	AB	C4483	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C3430	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4485	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3431	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C4702	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3432	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C4703	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3433	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C6800	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C3434	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C6801	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3436	VCSATA0YJ336MY	33	7V Tantalum	AD	C6802	VCCCCZ1HH101JY	100p	50V Ceramic	AB
C3442	VCCCCZ1HH180JY	18p	50V Ceramic	AB	C6803	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3443	VCCCCZ1HH220JY	22p	50V Ceramic	AB	C6804	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C3444	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C6805	VCCCCZ1HH390JY	39p	50V Ceramic	AB
C3451	VCCCCZ1HH100DY	10p	50V Ceramic	AB	C6806	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3452	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C6810	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3454	VCKYCY0JB105KY	1	6.3V Ceramic	AC	C6811	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3455	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C6812	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3456	RC-KZA067WJZZY	4.7	10V Ceramic	AB	C6813	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3457	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C6814	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3458	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C6815	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3462	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C6816	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3465	VCCCCZ1HH100DY	10p	50V Ceramic	AB	C7400	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3467	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C7401	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3470	VCCCCZ1HH5R0CY	5p	50V Ceramic	AA	C7404	VCKYCY1EB472KY	4700p	25V Ceramic	AB
C3471	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C7413	VCKYCY1HB221KY	220p	50V Ceramic	AA
C3473	VCSATA0YJ336MY	33	7V Tantalum	AD	C7414	VCCCCZ1HH330JY	33p	50V Ceramic	AB
C3474	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C7417	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3475	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C7800	RC-KZA067WJZZY	4.7	10V Ceramic	AB
C3476	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C7801	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3477	VCKYCY1AF104ZY	0.1	10V Ceramic	AB	C7802	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3478	VCCCCZ1HH390JY	39p	50V Ceramic	AB	C7803	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3479	VCKYCY0JB224KY	0.22	6.3V Ceramic	AB	C7804	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3481	VCCCCZ1HH100DY	10p	50V Ceramic	AB	C7805	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C3701	VCKYTV1AB105KY	1	10V Ceramic	AC	C7806	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C3702	VCKYTV1AB105KY	1	10V Ceramic	AC	C7807	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3704	VCKYCY1HB102KY	1000p	50V Ceramic	AB	C7808	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3706	VCKYCY1AB104KY	0.1	10V Ceramic	AB	C7809	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3708	RC-KZA067WJZZY	4.7	10V Ceramic	AB	C7810	VCCCCZ1HH470JY	47p	50V Ceramic	AB
C3709	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C7812	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C3710	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C7827	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C3712	VCKYCY1AB104KY	0.1	10V Ceramic	AB	C7828	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C3714	VCKYCY1CB103KY	0.01	16V Ceramic	AB	C7829	VCCCCZ1HH101JY	100p	50V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C7830	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R728	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
C8800	VCKYCZ1HF103ZY	0.01	50V Ceramic	AB	R729	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
C8801	VCKYCY0JF105ZY	1	6.3V Ceramic	AB	R730	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
C8802	VCKYTV1CB105KY	1	16V Ceramic	AC	R731	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
C8803	VCKYCZ1HF103ZY	0.01	50V Ceramic	AB	R732	VRS-CZ1JF474DY	470k	1/16W Metal Oxide	AA
C8804	VCKYTV1AB105KY	1	10V Ceramic	AC	R733	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
C8805	RC-KZA067WJZZY	4.7	10V Ceramic	AB	R734	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
C8806	VCKYTV1EB104KY	0.1	25V Ceramic	AB	R735	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
C8807	VCKYCY0JB105KY	1	6.3V Ceramic	AC	R736	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
C8808	VCKYCY0JB105KY	1	6.3V Ceramic	AC	R737	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
C8809	VCKYCY0JB105KY	1	6.3V Ceramic	AC	R738	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
C8813	VCKYTV1CB105KY	1	16V Ceramic	AC	R739	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
C8816	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R741	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
C8822	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R742	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
RESISTORS					R743	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R219	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R744	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R245	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R745	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R246	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R746	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R401	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R747	VRS-CZ1JF184JY	180k	1/16W Metal Oxide	AA
R402	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R748	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R403	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R749	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R404	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R750	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R406	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA	R751	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R407	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA	R752	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R408	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R753	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R409	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R754	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R410	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R755	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R411	VRS-CZ1JF154JY	150k	1/16W Metal Oxide	AA	R756	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R412	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA	R757	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R413	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R758	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R416	VRS-CZ1JF823JY	82k	1/16W Metal Oxide	AA	R759	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R418	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA	R760	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R428	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R761	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R432	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R762	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R436	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA	R764	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R437	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA	R765	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R438	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R766	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R440	VRS-CZ1JF393JY	39k	1/16W Metal Oxide	AA	R767	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R441	VRS-CZ1JF563JY	56k	1/16W Metal Oxide	AA	R771	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R442	VRS-CZ1JF114JY	110k	1/16W Metal Oxide	AA	R772	VRS-CZ1JF474JY	470k	1/16W Metal Oxide	AA
R443	VRS-CZ1JF005JY	1M	1/16W Metal Oxide	AA	R779	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R462	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R780	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R463	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R782	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R467	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R902	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R468	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R903	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R471	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA	R904	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R477	VRS-CZ1JF823JY	82k	1/16W Metal Oxide	AA	R905	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R478	VRS-CZ1JF823JY	82k	1/16W Metal Oxide	AA	R906	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R701	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA	R907	VRS-CZ1JF822JY	8.2k	1/16W Metal Oxide	AA
R702	VRS-CZ1JF750JY	75	1/16W Metal Oxide	AA	R909	VRS-CZ1JF562DY	5.6k	1/16W Metal Oxide	AA
R703	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA	R910	VRS-CZ1JF272DY	2.7k	1/16W Metal Oxide	AB
R704	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA	R912	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R705	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA	R914	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R706	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R917	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R707	VRS-CZ1JF184JY	180k	1/16W Metal Oxide	AA	R918	VRS-CZ1JF472DY	4.7k	1/16W Metal Oxide	AB
R708	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R919	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R709	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R920	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R710	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R924	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R711	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R926	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
R712	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA	R927	VRS-CZ1JF683DY	68k	1/16W Metal Oxide	AA
R713	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA	R928	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R714	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R929	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R715	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R930	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R716	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R931	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R717	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R932	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R718	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R933	VRS-CZ1JF683JY	68k	1/16W Metal Oxide	AA
R719	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA	R934	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R720	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R935	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R721	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R936	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R722	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R937	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R723	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R938	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R724	VRS-CZ1JF823DY	82k	1/16W Metal Oxide	AA	R939	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R725	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R940	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R726	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R941	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
					R942	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R943	VRS-CZ1JF303DY	30k	1/16W Metal Oxide	AA	R1909	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R946	VRS-CZ1JF163DY	16k	1/16W Metal Oxide	AA	R1910	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R948	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA	R1911	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R949	VRS-CZ1JF681DY	680	1/16W Metal Oxide	AB	R1912	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R951	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA	R1913	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R952	VRS-CZ1JF223DY	22k	1/16W Metal Oxide	AB	R1914	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R954	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA	R1915	VRS-CZ1JF363DY	36k	1/16W Metal Oxide	AA
R957	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA	R1916	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R959	VRS-CZ1JF123DY	12k	1/16W Metal Oxide	AA	R1917	VRS-CZ1JF163JY	16k	1/16W Metal Oxide	AA
R960	VRS-CZ1JF182DY	1.8k	1/16W Metal Oxide	AA	R1918	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R962	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA	R1919	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R965	VRS-CZ1JF122DY	1.2k	1/16W Metal Oxide	AA	R1920	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
R966	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R1921	VRS-CZ1JF243DY	24k	1/16W Metal Oxide	AA
R968	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R1922	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R970	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA	R1923	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R972	VRS-CZ1JF133DY	13k	1/16W Metal Oxide	AA	R1924	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R973	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R1925	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R974	VRS-CZ1JF102DY	1k	1/16W Metal Oxide	AA	R1926	VRS-CZ1JF332DY	3.3k	1/16W Metal Oxide	AA
R975	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA	R1927	VRS-CZ1JF271DY	270	1/16W Metal Oxide	AA
R977	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R1928	VRS-CZ1JF182DY	1.8k	1/16W Metal Oxide	AA
R979	VRS-CZ1JF104DY	100k	1/16W Metal Oxide	AA	R1929	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R980	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R1931	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R982	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA	R1932	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R983	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA	R1933	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R987	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA	R1934	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R988	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA	R1935	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R990	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA	R1936	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1402	VRS-CZ1JF470JY	47	1/16W Metal Oxide	AA	R1937	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R1403	VRS-CZ1JF470JY	47	1/16W Metal Oxide	AA	R1938	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R1404	VRS-CZ1JF270JY	27	1/16W Metal Oxide	AA	R1939	VRS-CZ1JF562DY	5.6k	1/16W Metal Oxide	AA
R1405	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R1940	VRS-CZ1JF203DY	20k	1/16W Metal Oxide	AA
R1406	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R1943	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R1413	VRS-CZ1JF470JY	47	1/16W Metal Oxide	AA	R1948	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1414	VRS-CZ1JF270JY	27	1/16W Metal Oxide	AA	R1993	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R1419	VRS-CZ1JF270JY	27	1/16W Metal Oxide	AA	R3320	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R1422	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R3321	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1423	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R3401	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA
R1424	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R3402	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R1431	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R3403	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R1432	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA	R3404	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA
R1433	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3405	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R1434	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3406	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R1435	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R3407	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R1436	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA	R3408	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1437	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA	R3409	VRS-CZ1JF121JY	120	1/16W Metal Oxide	AA
R1438	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R3410	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R1439	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R3411	VRS-CZ1JF391JY	390	1/16W Metal Oxide	AA
R1440	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3412	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R1441	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3413	VRS-CZ1JF391JY	390	1/16W Metal Oxide	AA
R1442	VRS-CZ1JF750JY	75	1/16W Metal Oxide	AA	R3414	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1462	VRS-CZ1JF474DY	470k	1/16W Metal Oxide	AA	R3415	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R1800	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R3416	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R1801	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3417	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R1802	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3418	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA
R1804	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R3419	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R1806	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R3420	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R1807	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3421	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R1808	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3422	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R1810	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R3423	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R1812	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R3424	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R1813	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3425	VRS-CZ1JF122DY	1.2k	1/16W Metal Oxide	AA
R1814	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA	R3426	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R1816	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R3427	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1823	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA	R3428	VRS-CZ1JF273DY	27k	1/16W Metal Oxide	AA
R1824	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R3429	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R1825	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA	R3430	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
R1826	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA	R3431	VRS-CZ1JF824JY	820k	1/16W Metal Oxide	AA
R1901	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA	R3432	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
R1902	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R3433	VRS-CZ1JF335JY	3.3M	1/16W Metal Oxide	AA
R1903	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA	R3434	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1904	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA	R3435	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R1905	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA	R3436	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R1906	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA	R3437	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R1907	VRS-CZ1JF222DY	2.2k	1/16W Metal Oxide	AA	R3439	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1908	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA	R3440	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R3442	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA	R6804	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R3445	VRS-CZ1JF122DY	1.2k	1/16W Metal Oxide	AA	R6805	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R3451	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA	R6806	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA
R3452	VRS-CZ1JF820JY	82	1/16W Metal Oxide	AA	R6807	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R3454	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R6808	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R3457	VRS-CZ1JF820JY	82	1/16W Metal Oxide	AA	R6809	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R3462	VRS-CZ1JF271JY	270	1/16W Metal Oxide	AA	R6816	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R3463	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA	R6817	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R3468	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA	R6818	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3469	VRS-CZ1JF390JY	39	1/16W Metal Oxide	AA	R6819	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3470	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA	R6820	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3471	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R7401	VRS-CZ1JF561JY	560	1/16W Metal Oxide	AA
R3472	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA	R7402	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R3473	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA	R7403	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R3478	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA	R7413	VRS-CZ1JF512DY	5.1k	1/16W Metal Oxide	AA
R3479	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA	R7415	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R3480	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA	R7416	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R3481	VRS-CZ1JF681JY	68	1/16W Metal Oxide	AB	R7417	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R3482	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA	R7418	VRS-CZ1JF560DY	56	1/16W Metal Oxide	AA
R3486	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R7419	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R3487	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA	R7420	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R3488	VRS-CZ1JF681DY	680	1/16W Metal Oxide	AB	R7422	VRS-CZ1JF392DY	3.9k	1/16W Metal Oxide	AA
R3489	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA	R7423	VRS-CZ1JF392DY	3.9k	1/16W Metal Oxide	AA
R3492	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R7424	VRS-CZ1JF242DY	2.4k	1/16W Metal Oxide	AA
R3493	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R7800	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R3495	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R7811	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R3496	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA	R7819	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R3499	VRS-CZ1JF271JY	270	1/16W Metal Oxide	AA	R7820	VRS-CZ1JF564JY	560k	1/16W Metal Oxide	AB
R3701	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7826	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R3702	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA	R7827	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R3703	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R7828	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R3704	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R7829	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R3705	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R7830	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R3706	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA	R7831	VRS-CZ1JF821JY	820	1/16W Metal Oxide	AA
R3707	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA	R7832	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R3708	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7833	VRS-CZ1JF334JY	330k	1/16W Metal Oxide	AA
R3709	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7834	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R3710	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7836	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R3711	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7837	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R3712	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7838	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R3713	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R7839	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB
R3717	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA	R8800	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R3718	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA	R8801	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA
R3738	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R8804	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R3739	VRS-CZ1JF220JY	22	1/16W Metal Oxide	AA	R8805	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R3740	VRS-CZ1JF220JY	22	1/16W Metal Oxide	AA	R8806	VRS-CZ1JF563JY	56k	1/16W Metal Oxide	AA
R4401	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R8807	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R4402	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R8808	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R4403	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R8809	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R4404	VRS-CZ1JF472DY	4.7k	1/16W Metal Oxide	AB	R8810	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R4414	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R8814	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
R4415	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R8815	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA
R4435	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA	R8816	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R4436	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R8817	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
R4437	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R8818	VRS-CZ1JF151DY	150	1/16W Metal Oxide	AA
R4451	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R8819	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4453	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA	R8820	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R4454	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R8825	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R4456	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA	R8826	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
R4460	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R8827	VRS-CZ1JF393DY	39k	1/16W Metal Oxide	AA
R4461	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA	R8828	VRS-CZ1JF303DY	30k	1/16W Metal Oxide	AA
R4462	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA	R8832	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R4463	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA	R8834	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R4466	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA	R8835	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R4471	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA	R8836	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R4472	VRS-CZ1JF152DY	1.5k	1/16W Metal Oxide	AA	R8838	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R4485	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA	R8839	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R4486	VRS-CZ1JF224JY	220k	1/16W Metal Oxide	AA	R8840	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R4487	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA	R8841	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R4488	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R8842	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R4489	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA					
R4494	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA					
R4495	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA					
R6802	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB					
R6803	VRS-CZ1JF682DY	6.8k	1/16W Metal Oxide	AB					

VL-Z3U/Z5U

Ref. No.	Part No.	★	Description	Code
FB204	RBLN-0102TAZZY		Balun, BLN-0102TA	AB
FB415	RBLN-0257TAZZY		Balun, BLN-0257TA	AB
FB456	RBLN-0102TAZZY		Balun, BLN-0102TA	AB
FB900	RBLN-0119TAZZY		Balun, BLN-0119TA	AC
FB901	RBLN-0119TAZZY		Balun, BLN-0119TA	AC
FB3701	RBLN-0102TAZZY		Balun, BLN-0102TA	AB
FB4405	RBLN-0102TAZZY		Balun, BLN-0102TA	AB
FB4461	RBLN-0102TAZZY		Balun, BLN-0102TA	AB
FB7401	RBLN-0102TAZZY		Balun, BLN-0102TA	AB
FB8800	RBLN-0102TAZZY		Balun, BLN-0102TA	AB

MISCELLANEOUS PARTS

P1201	QPLGN0276TAZZY		Plug, 2Pin	AD
P3301	QPLGN0576TAZZY		Plug, 5Pin	AC
P8800	QPLGN0274TAZZY		Plug, 2Pin	AC
P3303	QCNCMA088WJZZY		Connector, 30Pin	AF
RMC701	RRMCUA012WJZZ		Remote Receiver	AF
SC1201	QCNCW8089TAZZY		Connector, 80Pin	AK
SC1202	QCNCW3396TAZZY		Connector, 33Pin	AG
SC1800	QCNCW1895TAZZY		Connector, 18Pin	AE
SC1801	QCNCW1894TAZZY		Connector, 18Pin	AE
SC3301	QCNCWA082WJZZY		Connector, 33Pin	AG
SC3302	QCNCWA041WJZZY		Connector, 33Pin	AE
SC8800	QCNCWA081WJZZY		Connector, 27Pin	AG

DUNTKB724QA00(VL-Z5U/C/K)
DUNTKB724QA02(VL-Z3U/C/K)
CCD PWB UNIT

INTEGRATED CIRCUITS

IC21	VHiCXD2489R-1Y		CXD2489R	AW
IC101	VHiHD49334N-1Y		HD49334N	AP
IC1002	VHiNJ12902V-1Y		NJM12902V (Z5U/C/K)	AE

TRANSISTORS

Q1	VS2SC5384C/-1Y		2SC5384C	AB
Q1001	VSKTA2014EY-1Y		KT2014EY (Z5U/C/K)	AB

DIODE

D1	VHD1SS400+-1Y		1SS400++	AB
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PACKAGED CIRCUIT

X1	RCRSCA050WJZZY		Crystal, CRSCA050WJ	AG
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COILS

L22	VPCEM100MR70NY		Peaking, 10μH	AC
L23	VPCEM100MR70NY		Peaking, 10μH	AC
L101	VPCEM100MR70NY		Peaking, 10μH	AC
L102	VPCEM101M7R0NY		Peaking, 100μH	AB

CAPACITORS

C1	VCSATA1CJ106MY	10	16V	Tantalum	AD
C2	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C3	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C4	VCKYCZ1EB103KY	0.01	25V	Ceramic	AA
C5	VCKYCZ1HB222KY	2200p	50V	Ceramic	AB
C6	VCKYCY1EB104KY	0.1	25V	Ceramic	AB
C7	RC-KZA076WJZZY	4.7	16V	Ceramic	AC
C8	RC-KZA080WJZZY	1	35V	Ceramic	AB
C9	VCKYCZ1EB103KY	0.01	25V	Ceramic	AA
C21	RC-KZA076WJZZY	4.7	16V	Ceramic	AC
C22	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C23	RC-KZA076WJZZY	4.7	16V	Ceramic	AC
C24	VCSATA1CJ106MY	10	16V	Tantalum	AD
C25	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C27	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C29	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C30	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB
C31	VCKYCZ1HB102KY	1000p	50V	Ceramic	AB
C32	VCKYCZ1CB103KY	0.01	16V	Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C33	VCKYCZ1CB103KY	0.01	16V Ceramic	AB
C34	VCKYCZ1HB102KY	1000p	50V Ceramic	AB
C37	VCSATA0YJ156MY	15	6.3V Tantalum	AD
C40	VCSATA0YJ336MY	33	7V Tantalum	AD
C51	VCCCCZ1HH100DY	10p	50V Ceramic	AB
C52	VCCCCZ1HH100DY	10p	50V Ceramic	AB
C101	VCKYCZ1CB153KY	0.015	16V Ceramic	AB
C103	VCKYCZ1CB103KY	0.01	16V Ceramic	AB
C104	VCKYCZ1AB104KY	0.1	10V Ceramic	AB
C105	VCKYCZ1AB104KY	0.1	10V Ceramic	AB
C106	VCKYCZ1AB104KY	0.1	10V Ceramic	AB
C107	VCKYTV1CB105KY	1	16V Ceramic	AC
C108	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C109	VCSATA0JJ156MY	15	6.3V Tantalum	AC
C110	VCKYCZ1CB103KY	0.01	16V Ceramic	AB
C111	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C113	VCKYCZ1CB103KY	0.01	16V Ceramic	AB
C114	VCKYCZ1CB103KY	0.01	16V Ceramic	AB
C115	RC-KZA069WJZZY	4.7	10V Ceramic	AB
C1001	RC-KZA069WJZZY	4.7	10V Ceramic	AB

C1002	RC-KZA069WJZZY	4.7	10V Ceramic	AB
C1003	VCKYCZ1CB223KY	0.022	16V Ceramic	AC
C1005	VCKYCZ1HB332KY	3300p	50V Ceramic	AA
C1007	VCKYCZ1AB473KY	0.047	10V Ceramic	AB
C1010	RC-KZ0124TAZZY	10	6.3V Ceramic	AC
C1011	VCCCCZ1HH101JY	100p	50V Ceramic	AB
C1014	VCKYCZ1CB223KY	0.022	16V Ceramic	AC
C1016	RC-KZA069WJZZY	4.7	10V Ceramic	AB

RESISTORS

R4	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R6	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R25	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R30	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R33	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R34	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R37	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R52	VRS-CZ1JF101DY	100	1/16W Metal Oxide	AA
R103	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R104	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R105	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R106	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R107	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R108	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R109	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R110	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R111	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R112	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R113	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
R1001	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R1003	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R1005	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R1007	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1009	VRS-CZ1JF154DY	150k	1/16W Metal Oxide	AB
R1011	VRS-CZ1JF274JY	270k	1/16W Metal Oxide	AA
R1012	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1013	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R1014	VRS-CZ1JF222JY		2.2k 1/16W Metal Oxide (Z5U/C/K)	AA	VA602	RH-VXA003WJZZY		Varistor (Z5U/C/K)	AC
R1015	VRS-CZ1JF153JY		15k 1/16W Metal Oxide (Z5U/C/K)	AA	VA603	RH-VXA003WJZZY		Varistor (Z5U/C/K)	AC
R1016	VRS-CZ1JF103JY		10k 1/16W Metal Oxide (Z5U/C/K)	AA	COILS				
R1017	VRS-CZ1JF154DY		150k 1/16W Metal Oxide (Z5U/C/K)	AB	FL501	RFILZA003WJPZY		Filter, FiLZA003WJ	AD
R1018	VRS-CZ1JF100JY		10 1/16W Metal Oxide (Z5U/C/K)	AA	L501	VPD9M100KR86NY		Peaking, 10μH	AC
R1019	VRS-CZ1JF000JY		0 1/16W Metal Oxide	AA	L551	VPD9M100KR86NY		Peaking, 10μH	AC
BALUN					L600	VPCEM470M3R7NY		Peaking, 47μH	AC
R22	RBLN-0257TAZZY		Balun, BLN-0257TA	AB	L601	VPBWM100KR50NY		Peaking, 10μH	AC
MISCELLANEOUS PARTS					L2900	RCiLFA009WJZZY		Coil, CiLFA009WJ	AG
RMC1001	RSNSGA005WJPZY		Gyro Sensor (Z5U/C/K)	AW	CAPACITORS				
SC1001	QCNCWA082WJZZY		Connector, 33Pin	AG	C501	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
TP1001	QLUGZA001WJZZY		Lug	AB	C502	VCSATA1AJ106MY	10	10V Tantalum	AC
TP1002	QLUGZA001WJZZY		Lug	AB	C503	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
TP1003	QLUGZA001WJZZY		Lug	AB	C506	VCCCCZ1HH101JY	100p	50V Ceramic	AB
DUNTKB728QA06(VL-Z5K) DUNTKB728QA12(VL-Z3K) DUNTKB729QA04(VL-Z5U/C) DUNTKB729QA09(VL-Z3U/C) SUB PWB UNIT					C507	VCSATA1AJ106MY	10	10V Tantalum	AC
					C509	VCCCCZ1HH101JY	100p	50V Ceramic	AB
					C521	VCKY CZ1HB102KY	1000p	50V Ceramic	AB
					C522	VCKY CZ1HB102KY	1000p	50V Ceramic	AB
					C523	VCKY CZ1HB102KY	1000p	50V Ceramic	AB
					C524	VCKY CZ1HB102KY	1000p	50V Ceramic	AB
					C525	VCKY CZ1HB102KY	1000p	50V Ceramic	AB
					C527	VCKY CZ1CB103KY	0.01	16V Ceramic (Z5U/C/K)	AB
					C528	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
					C529	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
INTEGRATED CIRCUITS					C551	RC-KZ0075TAZZY	2.2	16V Ceramic	AC
△ CP1	QPRTRA002WJZZY		PRTRA002WJ, 0.75A 24V	AD	C552	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
△ CP2	VHiCCP2B25/-1Y		CCP2B25, 1.25A 24V	AD	C553	VCCCCZ1HH330JY	33p	50V Ceramic	AB
△ CP3	VHiCCP2B25/-1Y		CCP2B25, 1.25A 24V	AD	C554	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
IC501	RH-iXA526WJZZQ		IXA526WJ	AR	C555	VCCCCZ1HH101JY	100p	50V Ceramic	AB
IC503	VHiMB8346BV-1Y		MB88346BV	AN	C556	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
IC551	VHiUPD16835-1Y		UPD16835, Lens Driver	AM	C557	VCCCCZ1HH101JY	100p	50V Ceramic	AB
IC600	VHiLA74206W-1Q		LA74206W	AP	C558	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
IC2502	VHiNJ12902V-1Y		NJM12902V	AE	C559	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
IC2901	VHiMM1332E/-1Y		MM1332E	AH	C561	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
TRANSISTORS					C562	VCSATA0JJ106MY	10	6.3V Tantalum	AD
Q501	VS12A01SS++-1Y		12A01SS++	AC	C573	VCCCCZ1HH221JY	220p	50V Ceramic	AB
Q502	VSKRC401E++-1Y		KRC401E++	AB	C574	VCCCCZ1HH221JY	220p	50V Ceramic	AB
Q552	VSKRC402E++-1Y		KRC402E++	AB	C575	VCCCCZ1HH221JY	220p	50V Ceramic	AB
Q600	VSMG12////-1Y		FMG12	AD	C603	VCKYCY0JB105KY	1	6.3V Ceramic	AC
Q601	VSKRC404E++-1Y		KRC404E++ (Z5U/C/K)	AB	C605	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
Q602	VSP6501////-1Y		XP6501	AC	C606	VCKY CZ1CB103KY	0.01	16V Ceramic	AB
Q603	VSP6501////-1Y		XP6501	AC	C607	VCKY CZ1HB102KY	1000p	50V Ceramic	AB
Q604	VSP4313////-1Y		XP4313	AC	C608	VCKY CZ1HB392KY	3900p	50V Ceramic	AA
Q605	VSKTC4075EY-1Y		KTC4075EY	AB	C609	VCKY CZ1HB392KY	3900p	50V Ceramic	AA
Q1501	VSKTA2014EY-1Y		KTA2014EY	AB	C610	VCSATA0JJ106MY	10	6.3V Tantalum	AD
Q1502	VSP6501////-1Y		XP6501	AC	C611	VCSATA0JJ106MY	10	6.3V Tantalum	AD
Q2554	VSKTC4075EY-1Y		KTC4075EY	AB	C612	VCSATA0JJ336MY	33	6.3V Tantalum	AD
Q2901	VSFDC642P++-1Y		FDC642P++	AE	C613	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
Q2902	VSFDC642P++-1Y		FDC642P++	AE	C614	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
Q2903	VSFDT458P++-1Y		FDT458P++	AE	C615	VCKY CZ1HB222KY	2200p	50V Ceramic	AB
Q2904	VSP4213////-1Y		XP4213	AC	C616	VCKY CZ1HB222KY	2200p	50V Ceramic	AB
Q2905	VSP1213////-1Y		XP1213	AC	C617	VCKYCY1CB333KY	0.033	16V Ceramic	AA
Q2906	VSN04391/-1Y		XN04391	AC	C618	VCKYCY1CB333KY	0.033	16V Ceramic	AA
DIODES					C619	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
C526	RH-VXA003WJZZY		Varistor	AC	C620	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
D551	VHD1SS400++-1Y		D1SS400++	AB	C621	VCKY CZ1AB273KY	0.027	10V Ceramic	AB
D2902	VHDKDS121E+-1Y		DKDS121E+	AB	C622	VCKY CZ1AB273KY	0.027	10V Ceramic	AB
D2904	VHDBR160M30-1Y		DRB160M30	AC	C623	VCKYCY1AB474KY	0.47	10V Ceramic	AC
D2905	VHD1SS400++-1Y		D1SS400++	AB	C624	VCKYCY1AB474KY	0.47	10V Ceramic	AC
D2906	RH-EX1398CEZZY		Zener Diode, EX1398CE	AB	C627	VCSATA0JJ336MY	33	6.3V Tantalum	AD
VA501	RH-VXA003WJZZY		Varistor	AC	C628	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
VA600	RH-VXA003WJZZY		Varistor (Z5U/C/K)	AC	C629	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
					C630	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
					C631	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
					C632	VCKYCY0JB105KY	1	6.3V Ceramic	AC
					C634	RC-KZA069WJZZY	4.7	10V Ceramic	AB
					C635	VCKYCY1AB224KY	0.22	10V Ceramic	AB
					C636	VCKY CZ1AB104KY	0.1	10V Ceramic	AB
					C637	VCKYCY0JB105KY	1	6.3V Ceramic	AC
					C638	VCKYCY1AB224KY	0.22	10V Ceramic	AB

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C641	VCSATA0JJ336MY	33	6.3V Tantalum	AD	R614	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
C642	VCSATE1AJ476MY	47	10V Tantalum	AD	R615	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
C643	VCKYCY0JB105KY	1	6.3V Ceramic	AC	R616	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
C644	VCKYCY0JB105KY	1	6.3V Ceramic	AC	R617	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
C645	VCKYCZ1AB104KY	0.1	10V Ceramic	AB	R618	VRS-CZ1JF393JY	39k	1/16W Metal Oxide	AA
C647	VCKYCZ1HB102KY	1000p	50V Ceramic	AB	R619	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
C648	VCKYCZ1HB102KY	1000p	50V Ceramic	AB	R620	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA
C650	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R621	VRS-CZ1JF393JY	39k	1/16W Metal Oxide	AA
C1503	VCKYCZ1AF104ZY	0.1	10V Ceramic	AB	R622	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
C1513	VCSATA0JJ106MY	10	6.3V Tantalum	AD	R623	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
C2514	RC-KZ0075TAZZY	2.2	16V Ceramic	AC	R624	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
C2516	VCKYCY1AB224KY	0.22	10V Ceramic	AB	R625	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
C2517	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R626	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
C2518	VCKYCZ1HB102KY	1000p	50V Ceramic	AB	R627	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
C2519	VCKYCZ1AB104KY	0.1	10V Ceramic	AB	R628	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
C2520	VCCCCZ1HH151JY	150p	50V Ceramic	AB	R629	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
C2521	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R630	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
C2551	VCKYCZ1CB103KY	0.01	16V Ceramic	AB	R631	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
C2901	VCKYCY1CB104KY	0.1	16V Ceramic	AB	R632	VRS-CZ1JF683JY	68k	1/16W Metal Oxide	AA
C2902	VCKYTV1CF105ZY	1	16V Ceramic	AB	R633	VRS-CZ1JF393JY	39k	1/16W Metal Oxide	AA
C2903	VCKYCY1CB104KY	0.1	16V Ceramic	AB	R634	VRS-CZ1JF393JY	39k	1/16W Metal Oxide	AA
C2906	VCKYCY1CB104KY	0.1	16V Ceramic	AB	R635	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
C2910	VCKYCY0JB105KY	1	6.3V Ceramic	AC	R636	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
RESISTORS					R637	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
C527	VRS-CZ1JF000JY	0	1/16W Metal Oxide (Z3U/C/K)	AA	R638	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R501	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA	R639	VRS-CZ1JF683JY	68k	1/16W Metal Oxide	AA
R502	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R643	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R504	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R645	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R505	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R651	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA
R506	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R652	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R507	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA	R653	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R508	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R654	VRS-CZ1JF332JY	3.3k	1/16W Metal Oxide	AA
R509	VRS-CZ1JF273JY	27k	1/16W Metal Oxide	AA	R655	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R510	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R656	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
R512	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R657	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R513	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R658	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R514	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R659	VRS-CZ1JF681JY	680	1/16W Metal Oxide	AA
R523	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R661	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R524	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R1471	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R525	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R1472	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R526	VRS-CZ1JF102JY	1k	1/16W Metal Oxide (Z5U/C/K)	AA	R1475	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R527	VRS-CZ1JF473DY	47k	1/16W Metal Oxide	AA	R1476	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R528	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R1477	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA
R529	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA	R1501	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R530	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA	R1502	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R531	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA	R1503	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R551	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	R1504	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R552	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA	R1505	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R553	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	R1506	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R554	VRS-CZ1JF5R6JY	5.6	1/16W Metal Oxide	AA	R1507	VRS-CZ1JF332DY	3.3k	1/16W Metal Oxide	AA
R555	VRS-CZ1JF5R6JY	5.6	1/16W Metal Oxide	AA	R1508	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R557	VRS-CZ1JF5R6JY	5.6	1/16W Metal Oxide	AA	R1509	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R559	VRS-CZ1JF5R6JY	5.6	1/16W Metal Oxide	AA	R1510	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
R572	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA	R1511	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R573	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA	R1512	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R578	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA	R1513	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
R581	VRS-CZ1JF562JY	5.6k	1/16W Metal Oxide	AA	R2508	VRS-CZ1JF622DY	6.2k	1/16W Metal Oxide	AA
R582	VRS-CZ1JF181JY	180	1/16W Metal Oxide	AA	R2509	VRS-CZ1JF104DY	100k	1/16W Metal Oxide	AA
R600	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	R2510	VRS-CZ1JF822DY	8.2k	1/16W Metal Oxide	AA
R601	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA	R2511	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R602	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA	R2512	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R603	VRS-CZ1JF121JY	120	1/16W Metal Oxide (Z5U/C/K)	AA	R2513	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA
R604	VRS-CZ1JF121JY	120	1/16W Metal Oxide (Z5U/C/K)	AA	R2514	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R605	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA	R2515	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R606	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R2516	VRS-CZ1JF154JY	150k	1/16W Metal Oxide	AA
R607	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R2520	VRS-CZ1JF122JY	1.2k	1/16W Metal Oxide	AA
R610	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R2523	VRS-CZ1JF471JY	470	1/16W Metal Oxide	AA
R611	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA	R2525	VRS-CZ1JF474JY	470k	1/16W Metal Oxide	AA
R612	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R2526	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R613	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA	R2527	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA
					R2528	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
					R2530	VRS-CZ1JF474JY	470k	1/16W Metal Oxide	AA
					R2531	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA
					R2533	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
					R2558	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R2559	VRS-CZ1JF180JY	18	1/16W Metal Oxide	AA	COILS AND TRANSFORMER				
R2560	VRS-CZ1JF682JY	6.8k	1/16W Metal Oxide	AA	L800	VPD9M100KR86NY		Peaking, 10μH	AC
R2561	VRS-CZ1JF472JY	4.7k	1/16W Metal Oxide	AA	L801	VPD9M100KR86NY		Peaking, 10μH	AC
R2901	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	L9800	RCiLPA051WJZZY		Coil, 33μH	AD
R2903	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA	△ T9800	RTRNZA023WJZZY		Transformer	AH
R2905	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA	CAPACITORS				
R2906	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA	C800	VCSATA0YJ336MY	33	7V Tantalum	AD
R2907	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	C801	VCKYGCZ1HF103ZY	0.01	50V Ceramic	AB
R2908	VRS-TV2BDR15JY	0.15	1/8W Metal Oxide	AA	C802	VCKYGCZ1CB103KY	0.01	16V Ceramic	AB
R2909	VRS-TV1JD1R5JY	1.5	1/16W Metal Oxide	AA	C803	VCKYGCZ1CB103KY	0.01	16V Ceramic	AB
R2910	VRS-CZ1JF224DY	220k	1/16W Metal Oxide	AA	C804	VCKYGCZ1CB103KY	0.01	16V Ceramic	AB
R2911	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA	C807	VCKYGCZ1CB103KY	0.01	16V Ceramic	AB
R2913	VRS-TW2HF181JY	180	1/2W Metal Oxide	AA	C808	VCKYCY0JB105KY	1	6.3V Ceramic	AC
R2914	VRS-CZ1JF224DY	220k	1/16W Metal Oxide	AA	C809	VCKYGCZ1AF104ZY	0.1	10V Ceramic	AB
R2915	VRS-CZ1JF823DY	82k	1/16W Metal Oxide	AA	C810	VCKYCY0JB105KY	1	6.3V Ceramic	AC
R2916	VRS-CZ1JF823DY	82k	1/16W Metal Oxide	AA	C811	VCKYCY0JB105KY	1	6.3V Ceramic	AC
R2917	VRS-CZ1JF474JY	470k	1/16W Metal Oxide	AA	C812	VCKYCY0JB105KY	1	6.3V Ceramic	AC
R2918	VRS-CZ1JF474JY	470k	1/16W Metal Oxide	AA	C813	VCKYGCZ1CB103KY	0.01	16V Ceramic	AB
R2920	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	C814	VCKYGCZ1AF104ZY	0.1	10V Ceramic	AB
R3635	VRS-CZ1JF184JY	180k	1/16W Metal Oxide	AA	C815	RC-KZ0072TAZZY	1	25V Ceramic	AC
R3637	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	C816	VCKYTV1CB105KY	1	16V Ceramic	AC
R3638	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA	C817	VCKYCY0JB105KY	1	6.3V Ceramic	AC
R3643	VRS-CZ1JF154JY	150k	1/16W Metal Oxide	AA	C818	VCKYGCZ1AF104ZY	0.1	10V Ceramic	AB
R7426	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	C820	VCKYGCZ1AF104ZY	0.1	10V Ceramic	AB
R7427	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	C821	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
R7428	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	C9800	RC-KZA002WJZZY	4.7	16V Ceramic	AC
R7429	VRS-CY1JF000JY	0	1/16W Metal Oxide	AA	C9801	VCKYGCZ1AF104ZY	0.1	10V Ceramic	AB
BALUNES					C9802	VCKYGCZ1CB103KY	0.01	16V Ceramic	AB
FB600	RBLN-0120TAZZY		Balun, BLN-0120TA (Z5U/C/K)	AC	C9803	RC-CZ0061TAZZY	2200p	25V Ceramic	AD
R1478	RBLN-0083GEZZY		Balun, BLN-0083GE	AB	C9804	VCKYCY1HB332KY	3300p	50V Ceramic	AA
R1479	RBLN-0083GEZZY		Balun, BLN-0083GE	AB	C9805	RC-KZA052WJZZY	18p	3kV Ceramic	AD
R1480	RBLN-0083GEZZY		Balun, BLN-0083GE	AB	C9806	VCKYGCZ1AF104ZY	0.1	10V Ceramic	AB
MISCELLANEOUS PARTS					C9807	VCKYGCZ1AB104KY	0.1	10V Ceramic	AB
J600	QJAKE0060TAZZ		Jack, 4Pin (Z5U/C/K)	AE	RESISTORS				
J1401	QJAKE0080TAZZY		Jack, 8Pin	AG	R800	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
J2900	QJAKC0006TAZZ		Jack, 3Pin	AE	R801	VRS-CZ1JF333DY	33k	1/16W Metal Oxide	AA
J7401	QJAKZA007WJZZ		Jack, 4Pin	AE	R802	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
P900	QTANBA002WJZZ		Terminal, 3Pin	AF	R803	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
P2901	QCNCM8058TAZZY		Connector, 80Pin	AG	R804	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
P3602	QPLGN0474TAZZY		Plug, 4Pin	AD	R805	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
SC501	QCNCWA036WJZZY		Connector, 15Pin	AD	R806	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
SC551	QCNCWA039WJZZY		Connector, 5Pin	AE	R807	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
SC1501	QSOCZA039WJZZY		Socket, 15Pin	AK	R808	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
DUNTKB726QA00 LCD PWB UNIT					R809	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
INTEGRATED CIRCUITS					R810	VRS-CZ1JF1R0JY	1	1/16W Metal Oxide	AA
IC800	VHiBR24L02M-1Y		BR24L02M	AE	R811	VRS-CZ1JF1R0JY	1	1/16W Metal Oxide	AA
IC801	VHiIR3Y54U+-1Q		IR3Y54U	AS	R812	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
IC802	VHiNC7NZ04K-1Y		NC7NZ04K	AD	R813	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
IC803	VHiNC7SZ04P-1Y		NC7SZ04P	AD	R814	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
IC804	VHiNC7WZ08K-1Y		NC7WZ08K	AD	R815	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
IC9800	VHiTA75S01F-1Y		TA75S01F, I DFT	AD	R816	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
TRANSISTORS					R817	VRS-CZ1JF100JY	10	1/16W Metal Oxide	AA
Q800	VSXP4601///-1Y		XP4601	AC	R819	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
Q801	VSXP4601///-1Y		XP4601	AC	R824	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
Q802	VS3LN01S///-1Y		3LN01S	AC	R825	VRS-CZ1JF563JY	56k	1/16W Metal Oxide	AA
Q9800	VSCPH5504++-1Y		CPH5504++	AE	R826	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
Q9801	VSXP4601///-1Y		XP4601	AC	R827	VRS-CZ1JF823JY	82k	1/16W Metal Oxide	AA
Q9802	VSKTC4075EY-1Y		KTC4075EY	AB	R9800	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
DIODES					R9801	VRS-CZ1JF152JY	1.5k	1/16W Metal Oxide	AA
D800	RH-EXA089WJZZY		Zener Diode, EXA089WJ	AB	R9802	VRS-CZ1JF182DY	1.8k	1/16W Metal Oxide	AA
D9800	RH-EXA089WJZZY		Zener Diode, EXA089WJ	AB	R9803	VRS-CZ1JF103DY	10k	1/16W Metal Oxide	AA
MISCELLANEOUS PARTS					R9804	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
SC800	QSOCN1892TAZZY		Socket, 18Pin	AD	R9805	VRS-CZ1JF271DY	270	1/16W Metal Oxide	AA
					R9806	VRS-CZ1JF271DY	270	1/16W Metal Oxide	AA
					R9807	VRS-CZ1JF101JY	100	1/16W Metal Oxide	AA
					R9808	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
					R9809	VRS-CZ1JF473JY	47k	1/16W Metal Oxide	AA
					R9810	VRS-CY1JFR22JY	0.22	1/16W Metal Oxide	AA
					R9811	VRS-CZ1JF102DY	1k	1/16W Metal Oxide	AA
					R9812	VRS-CZ1JF153DY	15k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
SC801	QSOCN1892TAZZY		Socket, 18Pin	AD
SC802	QSOCN2492TAZZY		Socket, 24Pin	AE
SC803	QCNCW0694TAZZY		Connector, 6Pin	AD
SC9800	QSOCN1019TAN1Y		Socket, 10Pin	AG

DUNTKB733QA00 HEAD AMP PWB UNIT

INTEGRATED CIRCUITS

IC301	VHILA70050W-1Y		LA70050W, Rec PB Amp IC	AQ
IC351	VHIMB88146A-1Y		MB88146A, I/O Expander	AH
IC1701	VHILB11990F-1Y		LB11990F	AQ

TRANSISTORS

Q301	VS2SC4738Y/-1Y		2SC4738Y	AA
Q302	VS2SC4738Y/-1Y		2SC4738Y	AA
Q350	VSFDG312P++-1Y		FDG312P++	AD
Q351	VSXP11111+++1Y		XP11111+++	AB
Q352	VSXP0431N++-1Y		XP0431N++	AB
Q353	VSKRC404E++-1Y		KRC404E++	AB
Q1701	VSXP6501///-1Y		XP6501///	AC

COILS

L301	VPAWM4R7MR70NY		Peaking, 4.7μH	AB
L1701	VPD9M100KR86NY		Peaking, 10μH	AC
L1702	VPD9M4R7MR53NY		Peaking, 4.7μH	AB

CAPACITORS

C301	VCCCCZ1HH5R0CY	5p	50V Ceramic	AA
C302	VCCCCZ1HH5R0CY	5p	50V Ceramic	AA
C303	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C306	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C308	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C309	VCSATE1AJ336MY	33	10V Tantalum	AD
C311	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C312	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C313	RC-KZA069WJZZY	4.7	10V Ceramic	AB
C314	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C315	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C316	VCKYCY1HB471KY	470p	50V Ceramic	AB
C317	VCKYCY1HB471KY	470p	50V Ceramic	AB
C318	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C319	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C320	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C322	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C323	VCKYCY1CB822KY	8200p	16V Ceramic	AB
C324	VCKYCY1CB103KY	0.01	16V Ceramic	AB
C350	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C351	VCKYTV1AB105KY	1	10V Ceramic	AC
C352	VCCCCZ1HH101JY	100p	50V Ceramic	AB
C353	VCCCCZ1HH101JY	100p	50V Ceramic	AB
C354	VCKYTV1AB105KY	1	10V Ceramic	AC
C1701	VCKYCY1CB223KY	0.022	16V Ceramic	AC
C1702	VCKYCY1CB223KY	0.022	16V Ceramic	AC
C1703	VCKYTV1AB105KY	1	10V Ceramic	AC
C1704	VCKYCY1AF105ZY	1	10V Ceramic	AC
C1705	VCKYCY1AB104KY	0.1	10V Ceramic	AB
C1706	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1707	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1708	RC-KZ0083TAZZY	2.2	10V Ceramic	AC
C1709	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1710	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1711	VCKYTV1AB105KY	1	10V Ceramic	AC
C1712	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1713	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C1714	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1715	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C1716	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C1717	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1718	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1719	VCKYCY0JF105ZY	1	6.3V Ceramic	AB
C1720	VCKYCY1AF104ZY	0.1	10V Ceramic	AB

Ref. No.	Part No.	★	Description	Code
C1721	VCKYCY0JF105ZY	1	6.3V Ceramic	AB
C1722	VCKYCY1CB473KY	0.047	16V Ceramic	AA
C1723	VCKYCY1EB472KY	4700p	25V Ceramic	AB
C1724	VCKYCY1AF105ZY	1	10V Ceramic	AC
C1725	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1726	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C1727	VCCCCZ1HH101JY	100p	50V Ceramic	AB
C1728	VCKYCY1AF105ZY	1	10V Ceramic	AC

RESISTORS

R301	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R302	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R303	VRS-CZ1JF822JY	8.2k	1/16W Metal Oxide	AA
R304	VRS-CZ1JF222JY	2.2k	1/16W Metal Oxide	AA
R305	VRS-CZ1JF272JY	2.7k	1/16W Metal Oxide	AA
R306	VRS-CZ1JF153JY	15k	1/16W Metal Oxide	AA
R308	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R309	VRS-CZ1JF183JY	18k	1/16W Metal Oxide	AA
R311	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R312	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R314	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R316	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R317	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R318	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R319	VRS-CZ1JF563JY	56k	1/16W Metal Oxide	AA
R350	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R351	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R352	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R353	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R354	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R355	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R356	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R357	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R358	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R359	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R360	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R361	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R362	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R363	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R364	VRS-CZ1JF221JY	220	1/16W Metal Oxide	AA
R365	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R366	VRS-CZ1JF104JY	100k	1/16W Metal Oxide	AA
R367	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1700	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R1701	VRS-CZ1JF151JY	150	1/16W Metal Oxide	AA
R1702	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R1703	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R1704	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1705	VRS-CZ1JF393JY	39k	1/16W Metal Oxide	AA
R1706	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R1707	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1708	VRS-CZ1JF1R0JY	1	1/16W Metal Oxide	AA
R1709	VRS-CZ1JF1R0JY	1	1/16W Metal Oxide	AA
R1710	VRS-CZ1JF1R0JY	1	1/16W Metal Oxide	AA
R1711	VRS-CZ1JF1R0JY	1	1/16W Metal Oxide	AA
R1712	VRS-CZ1JF105JY	1M	1/16W Metal Oxide	AA
R1713	VRS-CZ1JF331JY	330	1/16W Metal Oxide	AA
R1714	VRS-CZ1JF621JY	620	1/16W Metal Oxide	AA
R1715	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1716	VRS-CZ1JF223JY	22k	1/16W Metal Oxide	AA
R1717	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R1718	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1719	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1720	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1721	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1722	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1723	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R1724	VRS-CZ1JF182JY	1.8k	1/16W Metal Oxide	AA
R1725	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1726	VRS-CZ1JF330JY	33	1/16W Metal Oxide	AA
R1727	VRS-CZ1JF103JY	10k	1/16W Metal Oxide	AA
R1728	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R1729	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R1731	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
MISCELLANEOUS PARTS				
P301	QPLGN0576TAZZY		Plug, 5Pin	AC
SC301	QSOCN1092TAZZY		Socket, 10Pin	AD
SC303	QSOCN1092TAZZY		Socket, 10Pin	AD
SC304	QSOCN0706TAN1Y		Socket, 7Pin	AE
SC305	QCNCWA037WJZZY		Connector, 21Pin	AD
SC306	QCNCWA081WJZZY		Connector, 27Pin	AG
SC307	QCNCWA041WJZZY		Connector, 33Pin	AE
SC308	QCNCWA041WJZZY		Connector, 33Pin	AE
SC310	QSOCN1292TAZZY		Socket, 12Pin	AD
SC311	QSOCN1005TAN1Y		Socket, 10Pin	AE
TP301	QLUGZA001WJZZY		Lug	AB
TP302	QLUGZA001WJZZY		Lug	AB

DUNTKB731PM00 LITHIUM PWB UNIT

INTEGRATED CIRCUITS

IC5800	VHiNC7NZ04K-1Y		NC7NZ04K	AD
IC5801	VHiNC7SZ04P-1Y		NC7SZ04P	AD

DIODE

D5801	RH-EXA089WJZZY		Zener Diode, EXA089WJ	AB
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CAPACITORS

C5800	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C5801	VCKYCY0JB105KY	1	6.3V Ceramic	AC
C5802	VCKYCY1AF104ZY	0.1	10V Ceramic	AB
C5803	VCKYCY0JB105KY	1	6.3V Ceramic	AC

RESISTORS

R5800	VRS-CZ1JF000JY	0	1/16W Metal Oxide	AA
R5801	VRS-CZ1JF333JY	33k	1/16W Metal Oxide	AA
R5802	VRS-CZ1JF123JY	12k	1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

J5800	QJAKEA014WJZZ		Jack, 5Pin	AE
RDA5800	QTANZA012WJZZY		Terminal, 2Pin	AE
SC5800	QCNCWA039WJZZY		Connector, 25Pin	AE
SC5801	QCNCW2294TAZZY		Connector, 22Pin	AE
SW5800	QSW-MA001WJZZY		Switch, LCD Close SW	AD

DUNTKB730PM00 OPERATION PWB UNIT

CAPACITORS

C2001	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2002	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2003	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2004	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2005	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2006	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2007	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2008	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2009	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2010	VCKYCY1EB104KY	0.1	25V Ceramic	AB
C2011	VCKYCY1EB104KY	0.1	25V Ceramic	AB

MISCELLANEOUS PARTS

SC2002	QSOCN0907REN1Y		Socket, 9Pin	AD
SW2001	QSW-K0100TAZZY		Switch	AC
SW2002	QSW-KA013WJZZ		Switch	AL
SW2007	QSW-K0100TAZZY		Switch	AC

Ref. No.	Part No.	★	Description	Code
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DUNTKB734PM00 VCR OPERATION PWB UNIT

LED'S

LED2101RH-PXA038WJZZY			PhotoDIODE	AC
LED2102RH-PXA037WJZZY			PhotoDIODE	AB

CAPACITORS

C2101	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2102	VCKYCY1HB102KY	1000p	50V Ceramic	AB

RESISTORS

R2101	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA
R2102	VRS-CZ1JF102JY	1k	1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

SC2101	QSOCN1292TAZZY		Socket, 12Pin	AD
SW2101	QSW-S0212TAZZY		Switch, MEDIA	AD
SW2102	QSW-S0210TAZZY		Switch	AD
SW2103	QSW-MA005WJZZY		Switch, EJECT	AD
SW2104	QSW-K0100TAZZY		Switch, STANBY	AC
SW2105	QSW-K0100TAZZY		Switch, REC	AC

DUNTKB735PM00 ZOOM SW PWB UNIT

CONTROL

VR2201	RVR-VA001WJZZY		Variable Resistor	AG
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CAPACITORS

C2201	VCKYCY1HB102KY	1000p	50V Ceramic	AB
C2202	VCKYCY1HB102KY	1000p	50V Ceramic	AB

MISCELLANEOUS PARTS

	PSLDMA195WJZZ		Shield	AD
P2201	QPLGN0276TAZZY		Plug, 2Pin	AD
SC2201	QSOCN1006TAN1Y		Socket, 10Pin	AE
SW2201	QSW-K0097TAZZY		Switch	AD

DUNTKB732PM00 MECHA REVERSION DETECTION PWB UNIT

MISCELLANEOUS PART

SW2300	QSW-M0018TAZZY		Switch	AC
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Ref. No.	Part No.	★	Description	Code
MECHANISM PARTS				
300	CCHSMA013WJ01		Mecha Chassis Service	BQ
301	LCHSMA013WJZZ		Main Chassis Ass'y	AQ
302	QSW-RA002WJZZ		Mode SW	AF
303	QPWBHB546WJZZ		LM/Mode FPC	AG
304	NGERHA001WJFW		Main Cam	AD
305	MLEVFA007WJFW		Ejection Lever	AD
306	NGERHA002WJFW		Sub Cam	AD
307	MLEVFA002WJFW		SL Drive Lever	AD
308	MLEVFA004WJFW		S brake Operating Lever	AC
309	MLEVFA003WJFW		T arm Operating Lever	AE
310	PGIDMA003WJZZ		SLA Support	AC
311	RMOTMA002WJZZ		L Motor Ass'y	AN
312	RDTCH0039GEZZ		Dew Sensor	AD
313	PGIDMA002WJZZ		TLA Support	AC
314	NGERHA007WJZZ		Center Gear	AE
315	RMOTVA001WJZZ		Capstan Motor Ass'y	AY
316	NPLYVA001WJZZ		Relay Pulley	AD
317	CGIDMA005WJ01		Drum Base Ass'y	AN
318	CARMMA003WJ01		Tu Pole Base Loading Arm Ass'y	AP
319	NGERHA005WJZZ		Tu Loading Gear	AC
320	MSPRDA009WJFJ		Tu Press SPR	AC
321	CARMMA001WJ01		S Pole Base Loading Arm Ass'y	AQ
322	NGERHA004WJZZ		S Loading Gear	AC
323	MSPRDA008WJFJ		S Press SPR	AC
324	NGERHA006WJZZ		Loading Drive Gear	AD
325	PGIDMA001WJZZ		Guide Rail	AC
326	MLEVFA005WJZZ		Pinch Press Lever Ass'y	AG
327	MSPRTA002WJFJ		Pinch Press SPR	AC
328	MSPRDA007WJFJ		Pinch Lever Return SPR	AC
329	MLEVFA015WJZZ		Pinch Lever Ass'y	AQ
341	CCHSSA001WJ01		Sensor FPC Affixing Slide Chassis Ass'y	BC
342	LANGGA012WJFW		Slide Adjustment ANG	AC
343	LANGJA001WJFW		T-SPR Adjustment ANG	AC
344	MSPRDA010WJFJ		Tu guide Arm SPR	AC
345	MLEVFA012WJZZ		Tu guide Arm Ass'y	AG
346	MSPRCA022WJFJ		Guide Adjustment SPR	AC
347	PGIDSA003WJFW		Tu Guide Flange	AC
348	PGIDPA001WJFW		Tu Guide	AD
349	LX-NZ0102GEFW		Guide Nut	AC
350	MLEVFA011WJFW		VSR Brake Lever	AE
351	NGERHA008WJZZ		T Brake Gear	AE
352	MLEVPA003WJZZ		T Main Brake	AC
353	NDAiVA001WJZZ		S Reel Table Ass'y	AL
354	NDAiVA002WJZZ		Tu Reel Table Ass'y	AL
355	MLEVPA002WJZZ		S Main Brake	AE
356	MSPRTA004WJFJ		S Brake SPR	AC
357	CLEVFA009WJ01		Tension Arm Ass'y	AK
358	LBNDKA001WJZZ		Tension Band Ass'y	AE
359	MSPRTA003WJFJ		T Arm SPR	AC
371	MARMMA005WJZZ		Swing Arm Ass'y	AG
372	LANGFA011WJZZ		Reel Cover Ass'y	AG
373	LANGGA013WJFW		Down Guide	AF
374	PCOVPA009WJZZ		Cassette Lid	AC
375	TLABHA012WJZZ		Cassette Control Caution Label	AC
376	TLABHA015WJZZ		Cassette Control Lock Label	AC
377	DDRMVA001WJ01		Drum Ass'y	BN
400	LX-BZ3131GEFN		Special Screw M1.4 x L1.6	AA
401	LX-HZ3089GEFF		S Tight M1.4 x 2	AA
402	LX-HZ3076GEFF		S Tight M1.4 x 3	AA
403	LX-BZA016WJFF		Special Screw M1.4 x L2.0	AC
404	LX-BZA015WJFF		Special Screw M1.4 x L1.5	AC
405	LX-BZ3135GEFF		Precision Type2 M1.4 x L1	AA
406	LX-BZA017WJFF		L Motor Installation Screw	AC
407	LX-BZ3159GEFF		Precision Type2 M1.7 x L2.5	AA
408	LX-WZ1029GE00		CW ø 1.2 ø 3t0.25	AA
409	LX-WZ1052GE00		CW ø 0.7 ø 1.8t0.2	AA

Ref. No.	Part No.	★	Description	Code
410	XWHJZ21-02040		W ø 2.1 ø 4.0t0.25	AA
CASSETTE CONTROL PARTS				
200	CHLDXA002WJ01		Cassette Control Ass'y	AQ
201	LHLDXA002WJZZ		Housing Ass'y	AN
202	MSPRTA005WJFJ		UP-SPR-R	AC
203	MSPRTA008WJFJ		UP-SPR-L	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
CABINET PARTS LIST					8-4	LHLDZA156WJZZ		VF LCD Support Holder	AC
1	CCOVHA030WJK1		KS Adjusting Cover	AH	8-5	PSHEPA093WJZZ		VF Side Blind Sheet	AB
1-2	GFTAUA001WJSA		Card Lid	AD	8-6	PSPAGA069WJZZ		VF LCD Spacer	AD
1-3	NSFTZA023WJFW		Card Lid Shaft	AA	8-7	QEARPA068WJFW		VF Relay PWB Earth Plate	AD
2	CCABAA246WJK4		KS Camera R Cabinet	AN	8-8	QEARPA070WJFW		VF Side Operation PWB	AD
2-2	LANGKA120WJFW		PWB mounting Angle	AG				Earth Plate	
3	CCABBA176WJK1		KS Camera L Cabinet	AW	8-9	RLCUCA003WJZZ		Backlight Unit	BH
			(Z5U)		9-1-2	LANGKA125WJFW		Lens Fixing Bracket A	AF
3	CCABBA176WJK2		KS Camera L Cabinet	AW	10-1	CANGKA117WJ01		KS LCD Shield Case	AL
			(Z5C/K)					(Rear)	
3	CCABBA185WJK1		KS Camera L Cabinet	AW	10-1-2	PSHEPA072WJZZ		Lightproof Sheet	AF
			(Z3U)		10-1-3	PTPEHA017WJZZ		LCD Fixing Tape	AC
3	CCABBA185WJK2		KS Camera L Cabinet	AV	10-2	CCABDA013WJK8		KS LCD Cabinet	AM
			(Z3C/K)		10-2-2	TLABZA246WJZZ		Feature Label	AD
3-2	GCOVAA319WJSA		Pop-up Cover	AC				(Z5U/C/K)	
3-3	HBDGB3137CESD		SHARP Badge(Z5U/C/K)	AG	10-2-2	TLABZA247WJZZ		Feature Label	AD
3-4	JBTN-A129WJSA		Display Button	AE				(Z3U/C/K)	
3-5	JKNBPA010WJSA		Battery Lock Knob	AE	10-2-3	PSHEPA099WJZZ		LCD Cabinet	AB
3-6	LANGKA156WJFW		Pop-up Cover Fitting	AD				Attachment (KS Attachment)	
3-7	LHLDZA147WJSA		Battery Lock Holder	AD	10-3	CCOVAA314WJK1		LCD Tilt Unit Ass'y	BA
3-8	MSPRCA019WJFJ		Battery Lock Spring	AA	10-3-3	LANGKA119WJZZ		LCD Tilt Unit	AX
3-9	MSPRCA025WJFJ		Pop-up Cover Spring	AA	10-3-4	QPWBHB736WJZZ		LCD Tilt FPC	AR
3-10	PSHEPA095WJZZ		Battery Blind Sheet	AC	10-3-5	TMAGTA001WJZZ		Magnet	AD
3-11	PSPAZA185WJZZ		LCD Spacer	AB	10-4	CLMPVA002WJ01		Lamp Unit	AR
3-12	TLABHA020WJZZ		Lithium Label	AC	10-6	DUNTKB726QA00		LCD PWB Unit	—
3-14	PSLDMA196WJZZ		Electrostatic Spacer	AD	10-7	GCOVAA313WJKA		LCD Front Cover	AL
3-15	PSPAHA138WJZZ		Top Face Sliding Spacer	AB	10-8	LANGKA118WJFW		LCD Shield Case (Front)	AF
3-16	PSPAZA259WJZZ		Top Face Sliding Spacer B	AB	10-9	PGiDM0036TAZZ		Optical Waveguide	AG
4	CCABCA007WJK1		KS Terminal Cabinet	AR	10-10	PMiR-A022WJZZ		Reflection Sheet	AC
			(Z5U/C/K)		10-11	PSHEPA076WJZZ		DBEF Sheet	AG
4	CCABCA010WJK1		KS Terminal Cabinet	AQ	10-12	PSHEPA087WJZZ		Prism Sheet	AF
			(Z3U/C/K)		10-13	PSHEPA092WJZZ		Diffusion Sheet	AD
4-2	GCOVAA315WJSA		Terminal Cover	AL	10-14	PSLDMA167WJZZ		Shield Sheet	AC
4-3	GCOVAA317WJSA		DC Terminal Cover	AD	10-15	RLCDVA002WJZZ		LCD Panel	BN
4-4	PSLDMA195WJZZ		Electrostatic Sheet	AD	10-16	PSHEPA098WJZZ		Lightproof Sheet A	AE
5	CCOVAA321WJK3		KS Camera Front Cover	AX	10-17	PSHEPA105WJZZ		Creak-preventive Sheet	AB
			(Z5U/C/K)		10-18	PSPAZA272WJZZ		LCD PWB Spacer A	AB
5	CCOVAA321WJK6		KS Camera Front Cover	AX	10-19	PSPAZA273WJZZ		LCD PWB Spacer B	AB
			(Z3U/C/K)		11	DUNTKB722QA02		Main PWB Unit(Z5U/C)	—
5-2	GCOVAA322WJKA		Lens Cover	AF	11	DUNTKB722QA03		Main PWB Unit(Z5K)	—
5-3	GCOVAA390WJSA		Remote Control Cover	AE	11	DUNTKB722QA07		Main PWB Unit(Z3U/C)	—
			(Z3U/C/K)		11	DUNTKB722QA10		Main PWB Unit(Z3K)	—
5-3	GCOVAA350WJSA		Remote Control Cover	AH	11-2	LHLDZA173WJZZ		R/C Element Holder	AC
			(Z5U/C/K)		11-3	RRMCUA012WJZZ		R/C	AF
5-4	HDECAA012WJSB		Microphone Grill	AG	12	DUNTKB728QA06		Sub PWB Unit(Z5K)	—
5-5	HiNDPA432WJSA		Lens Cover Nameplate	AD	12	DUNTKB728QA12		Sub PWB Unit(Z3K)	—
5-6	LHLDZA148WJZZ		Microphone Holder	AD	12	DUNTKB729QA04		Sub PWB Unit(Z5U/C)	—
5-7	PCOVPA016WJZZ		Microphone Sheet	AC	12	DUNTKB729QA09		Sub PWB Unit(Z3U/C)	—
5-8	QEARPA062WJFJ		Microphone Earth	AC	13	DUNTKB730PM00		Operation PWB Unit	—
5-9	RMiCC0108TAZZ		Microphone Unit	AP	14	DUNTKB731PM00		Lithium PWB Unit	—
5-10	ZTAPEZ800020E		Microphone Lead Sheet	AA	16	GCOVAA383WJSA		Lens Hood(Z5U/C/K)	AQ
6	CCOVAA379WJK1		KS Camera Top Face	AN	16-1	GCOVAA382WJSA		Lens Hood(Z3U/C/K)	AE
			Cover		16-2	GCOVAA358WJSA		Lens Cover(Z3U/C/K)	AG
6-3	LANGKA151WJFW		Top Face Cover Fitting	AF	18	LANGKA130WJFW		LCD Tilt Reinforcing Fitting	AF
7	CCOVAA373WJK1		KS Camera Bottom Cover	AN	19	LANGKA131WJFW		Radiating Angle	AE
7-2	LANGKA159WJZZ		Bottom Cover Fitting B	AH	20	LHLDZA172WJSA		Operation PWB Fixing	AD
8-1	DHLDZA154WJ01		Slide Support Holder Ass'y	AZ				Holder	
8-1-1	GCOVAA328WJSA		VF Eye Cap	AH	21	MLEVPA005WJSA		LCD Lock Lever	AC
8-1-2	GCOVAA330WJSA		VF Dust Removing	AC	22	MSPRCA026WJFJ		LCD Lock Spring	AA
			Window Cover		24	QEARPA061WJFW		Operation Unit Earth Plate	AC
8-1-3	JKNBPA011WJSA		VF Diopter Scale Control	AC	26	QPWBHB742WJZZ		Lithium PWB FPC	AE
8-1-4	LANGGA017WJ00		VF Slide Cover	AM	28	GFTA004WJSA		Lithium Lid	AE
8-1-5	LANGKA128WJZZ		VF Diopter Scale Fixing	AM	29	TLABMA402WJZZ		Model Label(Z5U)	AC
			Bracket Ass'y		29	TLABMA403WJZZ		Model Label(Z5C)	AD
8-1-6	LHLDZA151WJZZ		VF Eye Cap Fixing Holder	AD	29	TLABMA404WJZZ		Model Label(Z5K)	AC
8-1-7	LHLDZA152WJKA		VF Diopter Scale Holder	AD	29	TLABMA443WJZZ		Model Label(Z3U)	AC
8-1-9	LHLDZA181WJSA		VF Diopter Scale Control	AC	29	TLABMA444WJZZ		Model Label(Z3C)	AD
			Holder		29	TLABMA445WJZZ		Model Label(Z3K)	AD
8-1-10	MSPRPA021WJFJ		Diopter Scale Control	AC	30	HiNDPA390WJSA		Lens Nameplate	AD
			Rotary Spring		31	QPWBHB744WJZZ		Hole Sensor PWB	AB
8-1-11	PLNSVA001WJNA		VF Lens Unit	AG	32	VHiEW6671++-1Y		Hole Sensor	AE
8-2	LANGKA133WJFW		VF Fixing Bracket	AF	33	QPWBHB772WJZZ		Operation FPC	AE
8-3	LHLDZA155WJZZ		VF LCD Holder	AC	a	XiPSN17P02000		Screw M1.7 x 2	AA
					b	XiPSN17P03000		Screw M1.7 x 3	AA
					c	XiPSN17P04000		Screw M1.7 x 4	AA

Ref. No.	Part No.	★	Description	Code
e	XiPSF17P03000		Screw M1.7 x 3	AA
n	LX-HZ0050TAF		Screw M1.7-4 TAP	AA
o	LX-HZA009WJFD		Screw	AA
p	LX-HZ0063TAFN		Screw M1.7-6 TAP GIN	AA
q	XiPSN17P06000		Screw M1.7 x 6	AA
r	XiPSN20P08000		Screw M2.0 x 8	AA
s	XiPSF14P06000		Screw M1.4 x 6	AA
x	LX-HZ0050TAFN		Screw M1.7 x 4 TAP	AA

CABINET MECHANISM PARTS LIST

101	CANGKA141WJ01	KS Camera Tilt	BA
101-2	LANGKA143WJFW	Tilt Ring Fitting	AH
101-3	LANGKA144WJFW	Tilt FPC Fitting	AF
101-4	LANGKA145WJFW	Tilt Holding Ring	AF
101-5	LHLDZA165WJZZ	Tilt FPC Fixing Holder	AD
101-6	PSHEPA079WJZZ	Tilt FPC Sheet A	AB
101-7	PSHEPA080WJZZ	Tilt FPC Sheet B	AB
101-8	PSPAZA170WJZZ	Norglide Ring	AG
101-9	PSPAZA172WJZZ	Tilt Ring Epacer	AE
101-10	QCNW-B171WJZZ	Tilt Ring Wire	AF
101-11	QEARPA063WJFN	Tilt Earth Ring	AE
101-12	QPWBHB737WJZZ	Tilt FPC	AN
103	CCOVAA353WJK1	KS Preparation Cover	AS
103-2	JBTN-A130WJSA	Snap Button	AG
103-3	JKNBPA013WJSA	Zoom Knob	AE
103-4	LHLDZA160WJZZ	Zoom Knob Holder	AC
103-5	LHLDZA163WJZZ	Zoom Base Holder	AC
103-6	MSPRCA020WJFJ	Zoom Knob Spring	AA
103-7	PSPAZA217WJZZ	Zoom Spacer	AB
104	CCOVAA338WJK1	KS Tilt Cover	AK
105	CCOVAA354WJK1	KS VCR Operation Cover	AT
105-2	GCOVAA344WJZZ	LED Cover	AC
105-3	GCOVAA345WJSA	Power Knob Cover	AE
105-4	JBTN-A132WJSA	Power Lock Button	AC
105-5	JBTN-A133WJSA	S/S Button	AH
105-6	JBTN-A134WJSC	Standby Button	AD
105-7	JKNBPA015WJSC	Power Knob	AD
105-8	MSPRCA023WJFJ	Lock Button Spring	AA
106	GCOVAA340WJKA	VCR Front Cover(Z3U/C/K)	AK
106	GCOVAA340WJKC	VCR Front Cover(Z5U/C/K)	AK
108	DUNTKB732PM00	Mechanism Reversion	—
		Detection PWB Unit	—
109	DUNTKB733QA00	Head Amp PWB Unit	—
110	DUNTKB734PM00	VCR Operation PWB Unit	—
111	DUNTKB735PM00	Zoom SW PWB Unit	—
112	GCOVAA337WJSA	Lock Support Cover	AD
113	GCOVAA341WJKC	VCR Bottom Cover	AK
114	GCOVAA386WJKC	Strap Cover	AG
115	GFTACA021WJKC	Cassette Lid	AK
116	JKNBPA017WJSA	Lid Opening Knob	AC
117	JKNBPA014WJSC	Media Selector Knob	AE
118	LANGKA138WJ01	Chassis Frame	AY
119	LHLDZA162WJZZ	Lid Lock	AD
120	LHLDZA164WJZZ	Selector Knob Holder	AC
121	LHLDZA178WJZZ	Lid lock Holder	AD
122	MSPRTA007WJFJ	VCR Lid Lock Spring	AB
123	PSHEPA085WJZZ	Cassette Lid Backside	AB
		Sheet	—
125	QCNW-B167WJZZ	Operation PWB FFC	AC
126	QEARPA065WJFW	Zoom SW PWB Earth Plate	AC
127	QEARPA066WJFW	Power Knob Earth Plate	AC
128	QPWBHB746WJZZ	Zoom PWB FPC	AE
129	VSP0020P-B2WN	Speaker	AK
132	LHLDE1004TASA	Fixture	AC
133	GCOVAA420WJSA	Strap Front Angle Cover	AD
134	GCOVAA421WJSA	Strap Rear Angle Cover	AD
a	XiPSN17P02000	Screw M1.7 x 2	AA
b	XiPSN17P03000	Screw M1.7 x 3	AA
d	XiPSF17P02000	Screw M1.7 x 2	AA
e	XiPSF17P03000	Screw M1.7 x 3	AA
f	XiPSF17P04000	Screw M1.7 x 4	AA

Ref. No.	Part No.	★	Description	Code
g	LX-BZA024WJFD		Tilt Screw	AA
h	LX-BZ0220TAF		Screw M1.7 x 2	AB
k	LX-BZA023WJFD		Floating Screw B	AA
u	LX-BZ0221TAF		Screw M1.7 x 3	AB
w	LX-BZA022WJFN		Floating Screw A	AA
x	LX-HZ0050TAFN		Screw M1.7 x 4 TAP	AA
y	LX-HZ0081TAFN		Screw M1.7 x 5	AA

LENS UNIT PARTS LIST

2	DUNTKB724QA00	CCD PWB Unit	—
		(Z5U/C/K)	—
2	DUNTKB724QA02	CCD PWB Unit	—
		(Z3U/C/K)	—
3	CLNS-A005RMA6	CCD Service	BM
4	PCOVMA004WJ00	Dustproof Rubber	AB
5	PfLWA017WJZZ	Crystal LFO	AL
6	PLNSAA005WJN1	Lens	BT
7	PSHEGA015WJZZ	Radiating Sheet A	AD
8	PSHEGA016WJZZ	Radiating Sheet B	AE
9	PSHEGA017WJZZ	Radiating Sheet C	AF
10	PSLDM141WJFW	CCD Shield Case	AC
11	QPWBHB738WJZZ	CCD—Main FPC	AD
13	XiPSN17P02000	Screw M1.7 x 2	AA
14	LX-HZ0073TAFD	Screw M1.7 x 5	AA

Ref. No.	Part No.	★	Description	Code
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SUPPLIED ACCESSORIES

ACCESSORIES

	QCNW-B173WJZZ	A/VS Cable	AR
	QCNW-A703WJZZ	USB Cable	AH
	RRMCGA149WJSA	Remote Control	AM
		(Z3K/Z5U/C/K)	
	CDSKA0080TA01	8MB SD Memory Card	BE
		(Z3K/Z5U/C/K)	
⚠	UADP-0339TAZZ	AC Adapter	AY
		(Z3U/C/Z5U/C)	
⚠	UADP-A015WJZZ	AC Adapter(Z3K/Z5K)	AY
	UBATiA007WJZZ	Battery Pack(BT-L226U)	BE
	UBATL0011TAZZ	Lithium Battery(CR2025)	AE
		(Z3K/Z5U/C/K)	
	UBATLA001WJZZ	Lithium Battery(CR1216)	AE
	TiNS-A631WJZZ	Operation Manual	AP
		(Z3K/Z5K)	
	TiNSEA050WJZZ	Operation Manual	AL
		(Z3U/Z5U)	
	TiNSLA053WJZZ	Operation Manual	AT
		(Z3C/Z5C)	
	GCOVHA002WJZZ	Lens Cap	AH
	CDSKAA028WJ01	CD-ROM	AH
	TCAUHA078WJZZ	Dew Caution Sheet	AH

ACCESSORIES

(NOT REPLACEMENT ITEM)

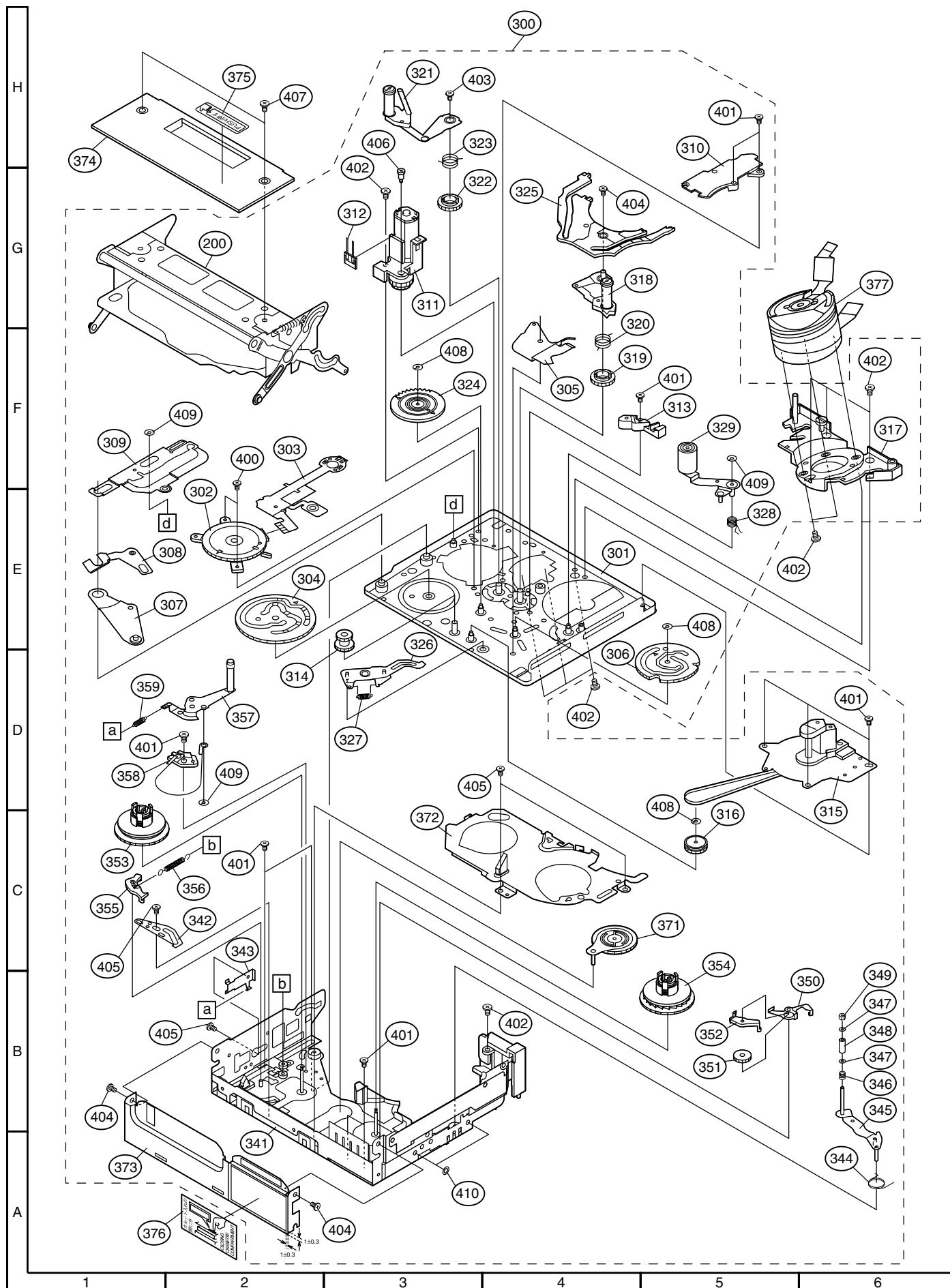
TGANE0044TAZZ	Guarantee Card(Z3U/Z5U)	—
TLABK0001TAZZ	No. Card(x2)	—

PACKING PARTS

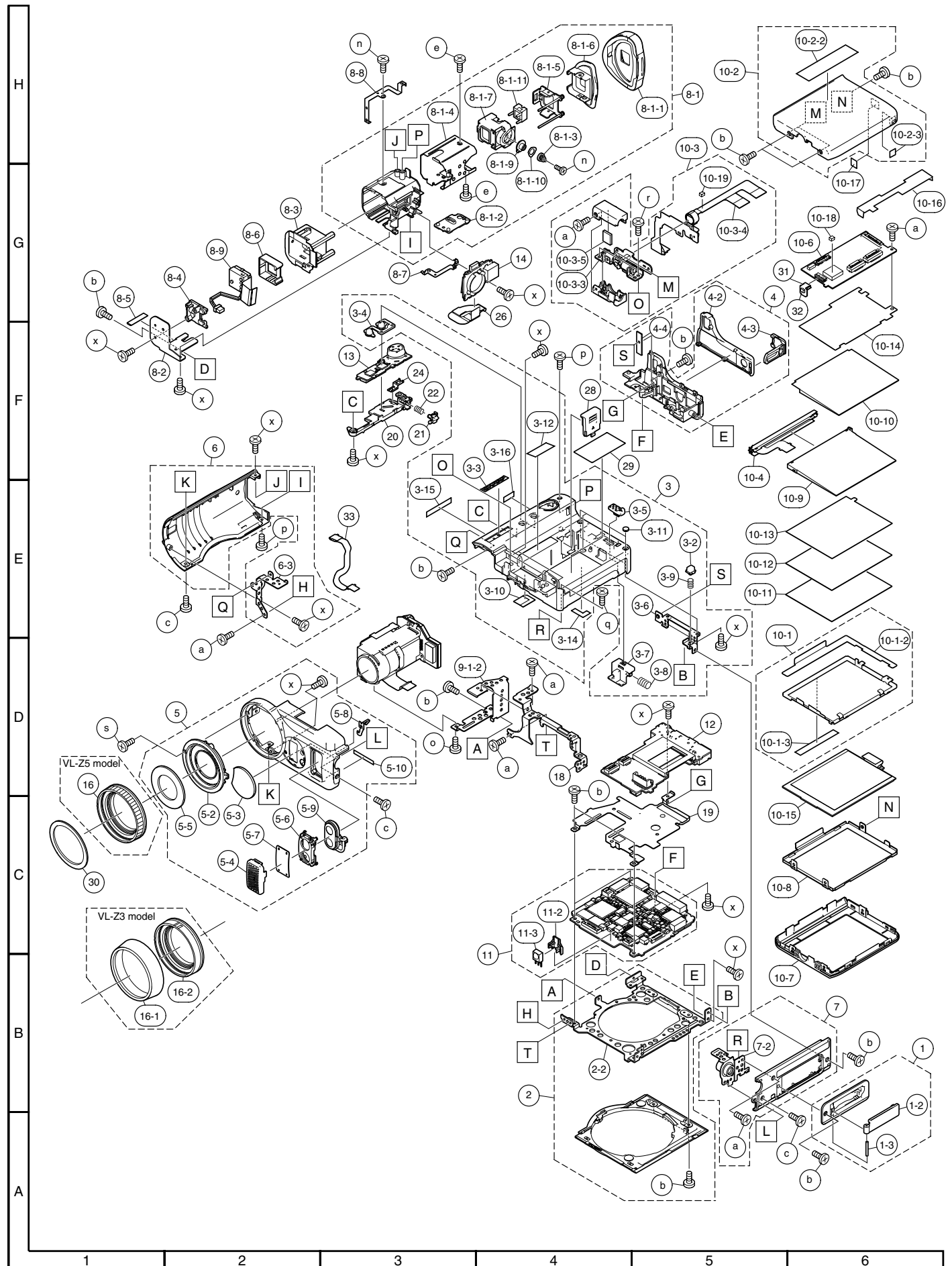
(NOT REPLACEMENT ITEM)

SPAKCA552WJZZ	Packing Case(Z5U/C)	—
SPAKCA554WJZZ	Packing Case(Z5K)	—
SPAKCA577WJZZ	Packing Case(Z3U/C)	—
SPAKCA627WJZZ	Packing Case(Z3K)	—
SPAKAA089WJZZ	Packing Add. (Bottom)	—
SPAKFA194WJZZ	Operation Manual Pad	—
	(Z3U/C/Z5U/C)	
SPAKCA517WJZZ	Packing Case	—
	(Z3U/C/Z5U/C)	
SPAKCA530WJZZ	Packing Case(Z3K/Z5K)	—
SPAKP6108TAZZ	Side Pad	—
SPAKPA088WJZZ	Wrapping Paper	—
SSAKA0100TAZZ	Polyethylene Bag	—

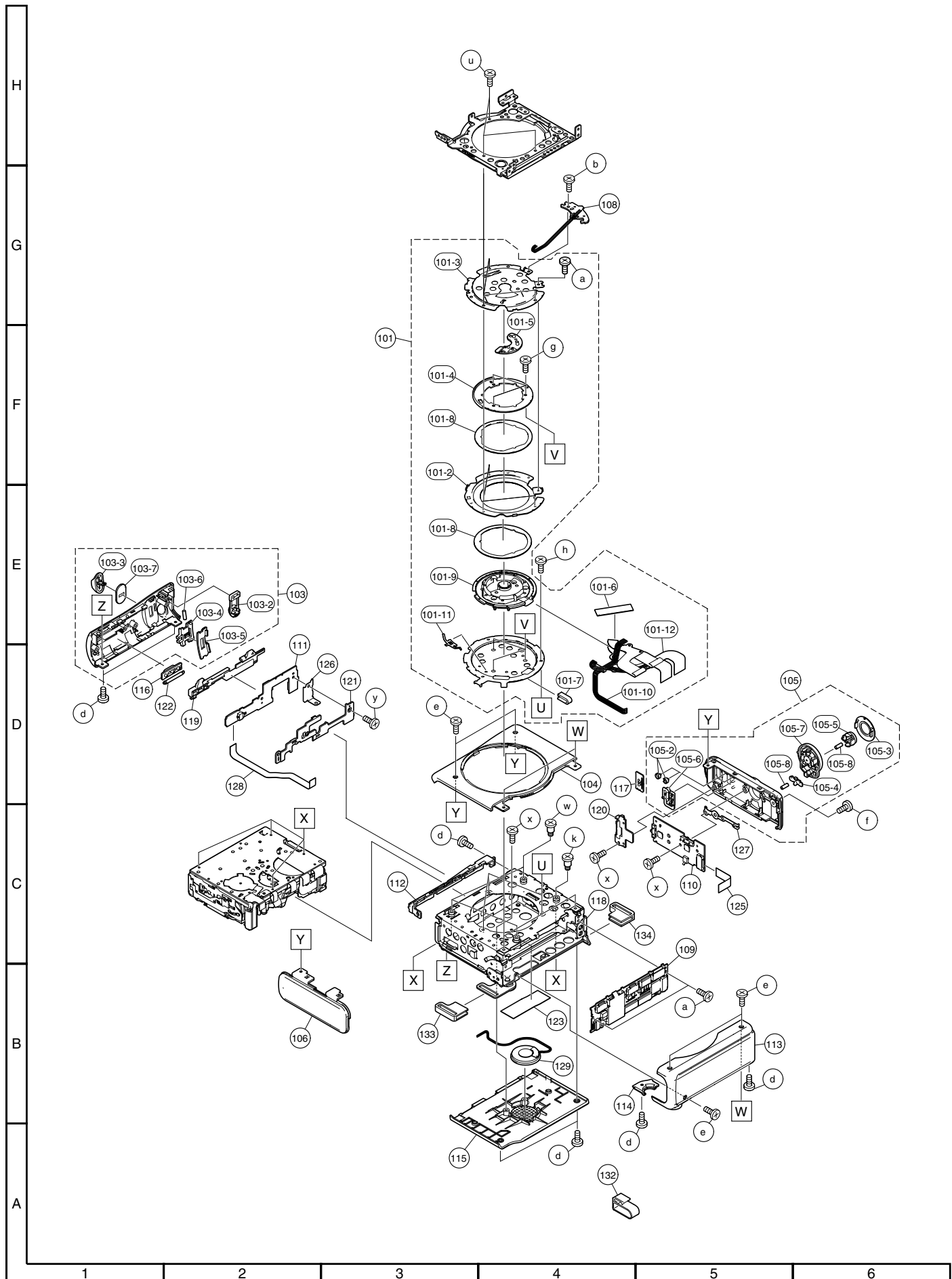
MECHANISM CHASSIS EXPLODED VIEW



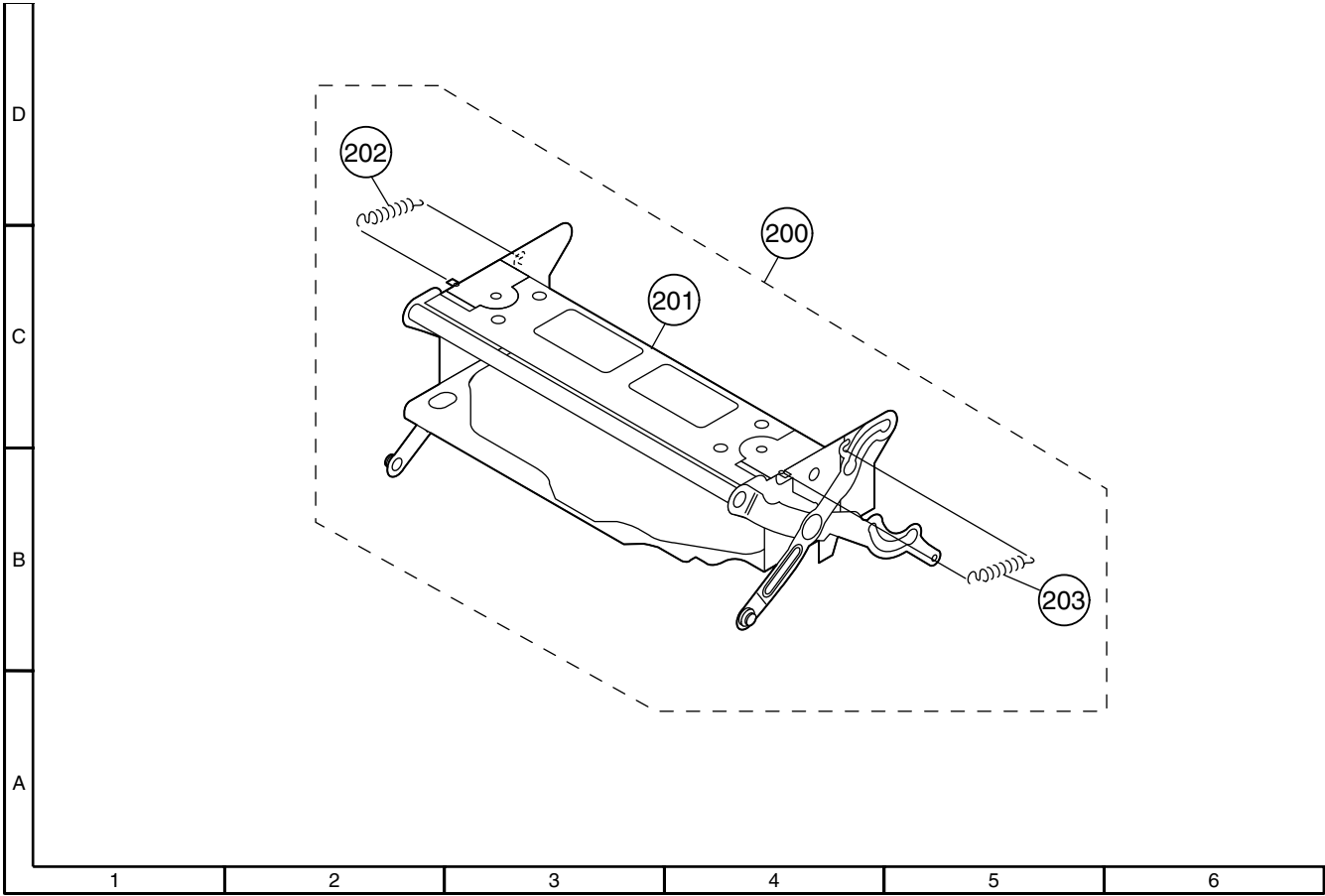
CABINET EXPLODED VIEW



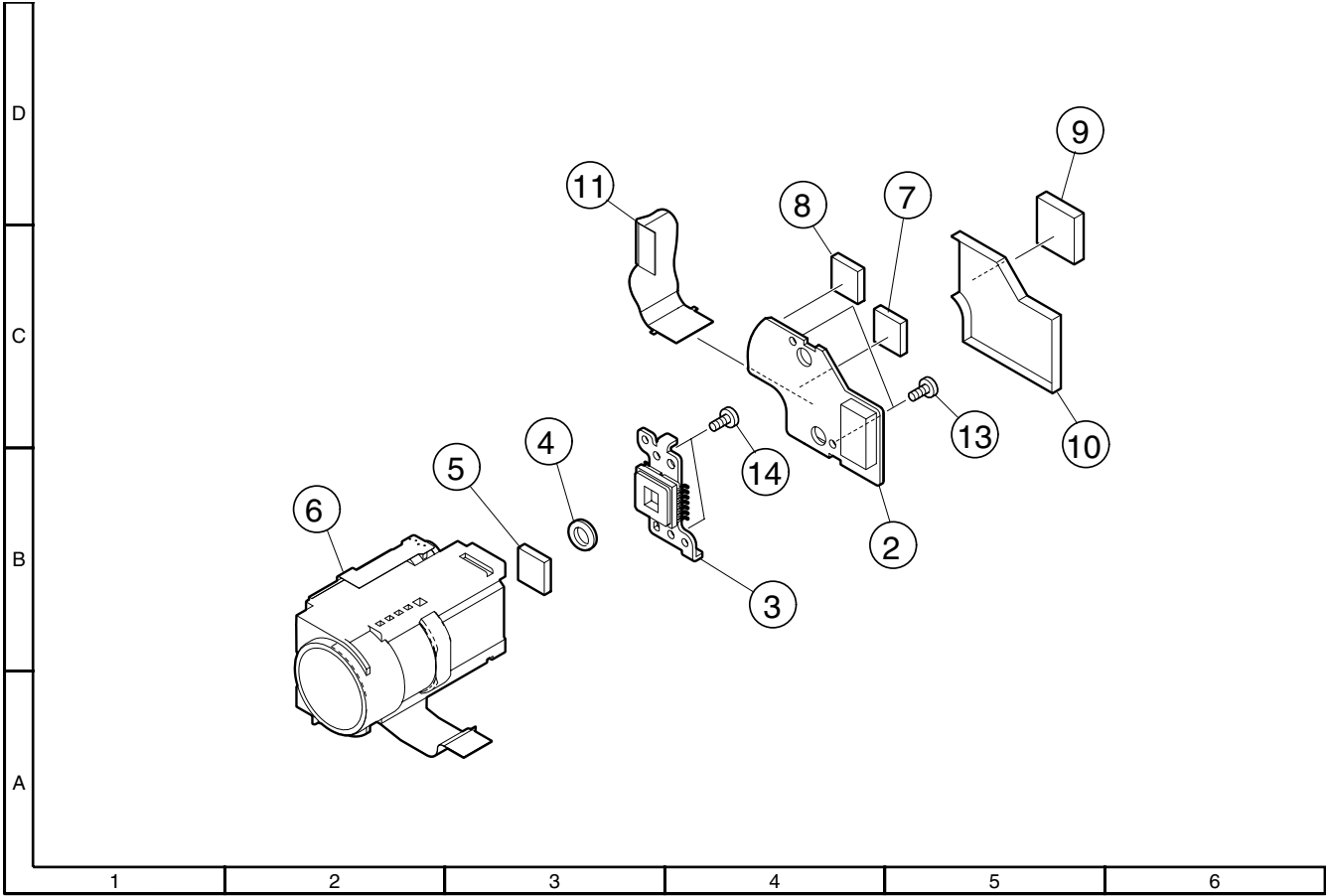
CABINET MECHANISM EXPLODED VIEW



CASSETTE CONTROL EXPLOOD VIEW



LENS UNIT EXPLOOD VIEW



VL-Z3U/Z5U SERVICE JIG SPECIFICATIONS

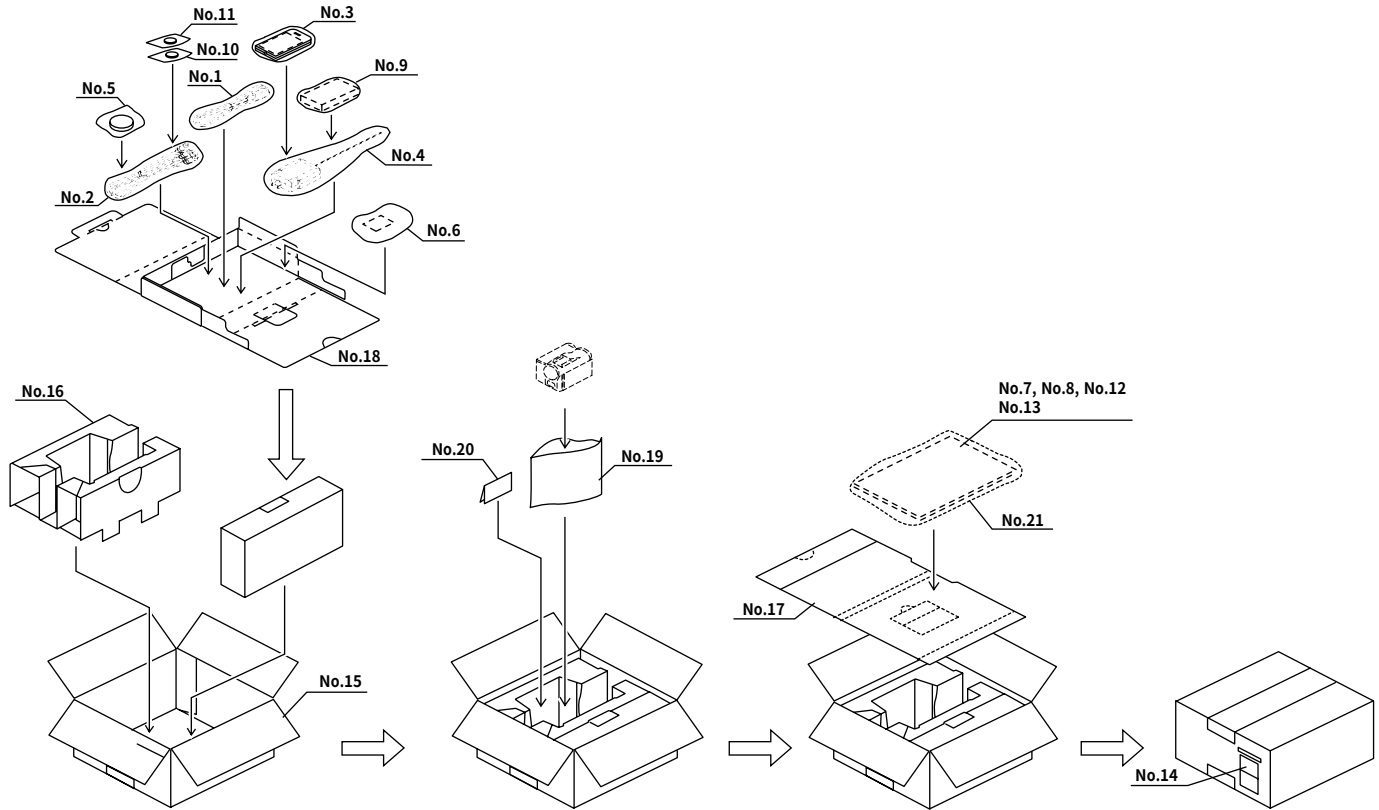
1-1. Adjusting jigs for checking the mechanism

No.	Name	New part	Type number, Application	Part code	Code
1	Cassette torque meter for PB		1mN·m/1.5mN·m	9DASD-1015	DB
2	Torque gauge		For measurement of VS-REW winding torque.	JiGTG0045	CN
3	Torque gauge head		For torque gauge shown left.	9EQTGH-DH5000	BW
4	Tension gauge 4N		For measurement of pinch roller press force.	JiGSG0400	BK
5	Dial tension gauge		PTG-10	9DAPTG-10-10W	CA
6	Torque driver 150mN·m		No. 0 cross bit, No. 00 cross bit	JiGTD1500RTDH	CB
7	Master plane		For checking of height of reel table0.	9EQMP-VLPD1	CL
8	Height adjustment jig		For height adjustment.	9DAHG-PD1	BZ
9	Driver for height adjustment		For adjustment of guide roller. Bit shape.	9EQDRIVER-DH5	BC
10	Alignment tape - (I)		Adjustment of running system(Linear signal)	VR3-GAZXS	CF
11	Alignment tape - (II)		For adjustment of SW point(Color bar signal)	VR3-GTZQS	CG
12	Bit for hexagon nut with opposite side distance of 3 mm		For installation of Tu guide nut.	95CM22001	BL
13	Reel hub for back tension measurement		Refer to Service Manual.	Prepared in the service station.	—
14	String for measuring the pinch roller pressure		Refer to Service Manual.	Prepared in the service station.	—

1-2. Parts for periodical inspection and maintenance

No.	Name	New part	Type number, Application	Part code	Code
1	Oil		Cosmo Hydro HV22	9EQ-OIL-HV22	AE
2	Cleaning paper		Dusper Σ (SIGMA) ozu Co., LTD	JiGDUSPER	AP
3	Grease: Moly Coat YM-103		Dow corning	99FGREASE-YM103	AH
4	Dry grease CFD-409Z		Sankei Chemical	_____	—
5	Loctite adhesive (1401B)		Three Bond	_____	—

18. PACKING OF THE SET



ACCESSORIES

No.	Model	Parts Code	Description	Remarks
1	– Common parts –	QCNW-A703WJZZ	USB Cable	
2	– Common parts –	QCNW-B173WJZZ	AV/S Cable	
3	Z3K/Z5U/C/K	RRMCGA149WJSA	Remote Control	
4	Z3U/C/Z5U/C	UADP-0339TAZZ	AC Adapter	⚠
	Z3K/Z5K	UADP-A015WJZZ	AC Adapter	⚠
5	– Common parts –	GCOVHA002WJZZ	Lens Cap	
6	Z3K/Z5U/C/K	CDSKA0080TA01	8MB SD Memory Card	
7	Z3K/Z5K	TiNS-A631WJZZ	Operation Manual	
	Z3U/Z5U	TiNSEA050WJZZ	Operation Manual	
	Z3C/Z5C	TiNSLA053WJZZ	Operation Manual	
8	– Common parts –	CDSKAA028WJ01	CD-ROM	
9	– Common parts –	UBATiA007WJZZ	Battery Pack (BT-L226U)	
10	Z3K/Z5U/C/K	UBATL0011TAZZ	Lithium Battery (CR2025)	
11	– Common parts –	UBATLA001WJZZ	Lithium Battery (CR1216)	
12	– Common parts –	TCAUHA078WJZZ	Dew Caution Sheet	

ACCESSORIES (NOT REPLACEMENT ITEM)

No.	Model	Parts Code	Description	Remarks
13	Z3U/Z5U	TGANE0044TAZZ	Guarantee Card	★
14	– Common parts –	TLABK0001TAZZ	No. Card(x2)	★

PACKING PARTS (NOT REPLACEMENT ITEM)

No.	Model	Parts Code	Description	Remarks
15	Z5U/C	SPAKCA552WJZZ	Packing Case	★
	Z5K	SPAKCA554WJZZ	Packing Case	★
	Z3U/C	SPAKCA577WJZZ	Packing Case	★
	Z3K	SPAKCA627WJZZ	Packing Case	★
16	– Common parts –	SPAKAA089WJZZ	Packing Add.(Bottom)	★
17	Z3U/C/Z5U/C	SPAKFA194WJZZ	Operation Manual Pad	★
18	Z3U/C/Z5U/C	SPAKCA517WJZZ	Packing Case	★
	Z3K/Z5K	SPAKCA530WJZZ	Packing Case	★
19	– Common parts –	SPAKPA088WJZZ	Wrapping Paper	★
20	– Common parts –	SPAKP6108TAZZ	Side Pad	★
21	– Common parts –	SSAKA0100TAZZ	Polyethylene Bag	★

MARK ★ Not Replacement Item

SHARP

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Production : Japan

SA. DS

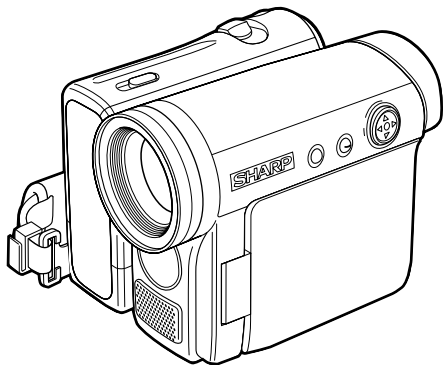
SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan

SHARP SERVICE MANUAL

S73G1VL-Z3U//

SUPPLEMENT

LIQUID CRYSTAL DISPLAY CAMCORDER NTSC



MODELS

VL-Z3U
VL-Z5U

In the Parts List of the Service Manual in question, there are some modifications in the service parts because the model is now manufactured in SMM, not in Japan. Accordingly, we have issued this revised one with the modified parts listed. For the other parts, you are requested to refer back to the already issued Service Manual for VL-Z3U/Z5U(S53A8VL-Z3U//).

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JAPAN PRODUCTION TO SMM PRODUCTION	2

VL-Z3U/Z5U
Supplement
JAPAN PRODUCTION TO SMM PRODUCTION

★MARK : SPARE PARTS-DELIVERY SECTION:ALL SMM

***1 Japan Production, *2 SMM Production**

MODEL		VL-Z3U	VL-Z3U	VL-Z3U	VL-Z5U	VL-Z5U	
Japan Production		* 1 (A3VLZ3U)	* 1 (A3VLZ3UMM)	* 1 (A3VLZ3C)	* 1 (A3VLZ5U)	* 1 (A3VLZ5C)	
SMM Production		* 2 (A3OUZ3U)	* 2 (A3OUZ3UMM)	* 2 (A3OUZ3C)	* 2 (A3OUZ5U)	* 2 (A3OUZ5C)	
Interchangeability		A: Completely interchangeable. (OLD = NEW) B: Interchangeable from OLD to NEW. (OLD to NEW) C: Interchangeable from NEW to OLD. (NEW to OLD) D: Not interchangeable. (NEW x OLD)					
Ref no.	Description		Japan Parts → SMM Parts		★	Interchangeability	Price Code
PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)							
	MAIN PWB Unit(VL-Z5U)		DUNTKB722QA02	DUNTKB722QA46	V	D	—
	MAIN PWB Unit(VL-Z3U/Z3C)		DUNTKB722QA07	DUNTKB722QA35	V	A	—
	MAIN PWB Unit(VL-Z3UMM)		—	DUNTKB722QA54	V	D	—
	CCD PWB Unit(VL-Z5U)		DUNTKB724QA00	DUNTKB724QA24	V	D	—
	CCD PWB Unit(VL-Z3U/Z3C)		DUNTKB724QA02	DUNTKB724QA20	V	A	—
	CCD PWB Unit(VL-Z3UMM)		—	DUNTKB724QA22	V	D	—
	SUB PWB Unit(VL-Z5U)		DUNTKB729QA04	DUNTKB729QA22	V	D	—
	SUB PWB Unit(VL-Z3U/Z3C)		DUNTKB729QA09	DUNTKB729QA20	V	A	—
	SUB PWB Unit(VL-Z3UMM)		—	DUNTKB729QA20	V	A	—
	LCD PWB Unit		DUNTKB726QA00	DUNTKB726QA05	V	A	—
	LCD PWB Unit(VL-Z3UMM)		—	DUNTKB726QA05	V	A	—
	HEAD AMP PWB Unit		DUNTKB733QA00	DUNTKB733QA05	V	A	—
	HEAD AMP PWB Unit(VL-Z3UMM)		—	DUNTKB733QA05	V	A	—
	LITHIUM PWB Unit		DUNTKB731PM00	DUNTKB731PM20	V	A	—
	LITHIUM PWB Unit(VL-Z3UMM)		—	DUNTKB731PM20	V	A	—
	OPERATION SW PWB Unit		DUNTKB730PM00	DUNTKB730PM20	V	A	—
	OPERATION SW PWB Unit(VL-Z3UMM)		—	DUNTKB730PM20	V	A	—
	VCR OPERATION PWB Unit		DUNTKB734PM00	DUNTKB734PM20	V	A	—
	VCR OPERATION PWB Unit(VL-Z3UMM)		—	DUNTKB734PM20	V	A	—
	ZOOM SW PWB Unit		DUNTKB735PM00	DUNTKB735PM20	V	A	—
	ZOOM SW PWB Unit(VL-Z3UMM)		—	DUNTKB735PM20	V	A	—
	MEKA REVERSION DETECTION PWB Unit		DUNTKB732PM00	DUNTKB732PM20	V	A	—
	MEKA REVERSION DETECTION PWB Unit(VL-Z3UMM)		—	DUNTKB732PM20	V	A	—
CABINET PARTS LIST							
1	KS Adjusting Cover		CCOVHA030WJK1	CCOVHA030LM01	V	A	AH
3	KS Camera L Cabinet(L-Z3U)		CCABBA185WJK1	CCABBA185WJK3	V	A	AV
4	Ks Terminal Cabinet(VL-Z3U/Z3C)		CCABCA010WJK1	CCABCA010WJK4	V	A	AQ
5	KS Camera Front Cover(VL-Z3U/Z3C)		CCOVAA321WJK6	CCOVAA321LM01	V	A	AX
6	KS Camera Top Face Cover		CCOVAA379WJK1	CCOVAA379LM01	V	A	AN
7	KS Camera Bottom Cover		CCOVAA373WJK1	CCOVAA373LM01	V	A	AN
8-1	Slide Support Holder Ass'y		DHLDZA154WJ01	DHLDZA154WJ02	V	A	AZ
10-1	KS LCD Shield Case(Rear)		CANGKA117WJ01	CANGKA117LM01	V	A	AL
10-3	LCD Tilt Unit Ass'y		CCOVAA314WJK1	CCOVAA314LM01	V	A	BA
10-4	Lamp Unit		CLMPVA002WJ01	CLMPVA002QA01	V	A	AR
10-6	LCD PWB Unit		DUNTKB726QA00	DUNTKB726QA05	V	A	—
12	SUB PWB Unit(VL-Z5U/Z5C)		DUNTKB729QA04	DUNTKB729QA22	V	A	—
29	Model Label(L-Z3U)		TLABMA443WJZZ	TLABMA540WJZZ	V	D	AC
CABINET MECHANISM PARTS LIST							
101	KS Camera Tilt		CANGKA141WJ01	CANGKA141WJ02	V	A	BA
103	KS Preparation Cover(VL-Z3U/Z3C)		CCOVAA353WJK2	CCOVAA353WJKA	V	A	AS
105	KS VCR Operation Cover		CCOVAA354WJK1	CCOVAA354WJK4	V	A	AT
LENS Unit PARTS LIST							
2	CCD PWB Unit(VL-Z5U)		DUNTKB724QA00	DUNTKB724QA24	V	A	—
2	CCD PWB Unit(VL-Z3U/Z3C)		DUNTKB724QA02	DUNTKB724QA20	V	A	—
ACCESSORIES							
	A/VS Cable		QCNW-B173WJZZ	QCNW-B173WJZZ	V	A	AR
	USB Cable		QCNW-A703WJZZ	QCNW-B400WJPZ	V	A	AH
	Operation Manual(VL-Z3U/Z5U)		TiNSEA050WJZZ	TiNSEA050WJN1	V	A	AL
	Operation Manual(Z3C)		TINSLA053WJZZ	TINSLA053WJN1	V	A	AT
	CD-ROM		CDSKAA028WJ01	CDSKAA028WJN1	V	A	AH
ACCESSORIES (NOT REPLACEMENT ITEM)							
	Guarantee Card(VL-Z3U/Z5U)		TGANE0044TAZZ	TGANE0071TAZZ	V	A	—
PACKING PARTS (NOT REPLACEMENT ITEM)							
	Paking Case		SPAKCA577WJZZ	SPAKCA734WJZZ	V	D	—
	Packing Add.(Bottom)		SPAKAA089WJZZ	SPAKAA097WJZZ	V	A	—