

User's Manual

CW-01

Version 0.21

CITIZEN SYSTEMS JAPAN CO.,LTD.

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Also, the contents of this User's Manual are subject to change in the future without prior notice.

Concerning Safety Warnings

Warnings regarding safety and use, and the contents of the User's Manual, conform to standards existing as of the date published.

Concerning modification

The CW-01 printer was planned, developed, and manufactured by CITIZEN SYSTEMS JAPAN CO.,LTD. and for safety purposes, any modification of the device is prohibited.

Introduction

Thank you very much for purchasing the CW-01 Dye Sublimation digital printer. This manual explains the handling and operation required to use this printer. Please read this manual well before starting operation and please use the printer correctly. Be sure to read “In order to use safely” (Pg 2-6), and use the printer safely.

To use this printer safely

- Be sure to read this manual before use. After reading, keep it in a safe place, where it can be re-read as needed.
 - Do not touch, disassemble, or try to repair anything not covered in this manual.
-
- **To prevent personal injury or property damage, the following shall be strictly observed.**
 - **The degree of possible injury and damage due to incorrect use or improperly following instructions is described below.**



WARNING

Indicates a situation which, if not observed and handled properly, could result in death or serious injury.



CAUTION

Indicates a situation which, if not observed and handled properly, could result in injury.



This is a mark to call attention to the reader.



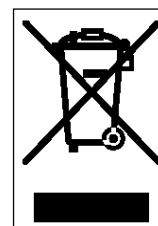
WARNING

- Never perform the following. If not avoided, these may cause damage or trouble to the printer or cause the printer to overheat and release smoke and cause burns or an electrical shock. If the printer is damaged or is malfunctioning, be sure to turn the power off immediately and remove the power cord from the outlet, then consult our service personnel.
 - Do not jolt or impact to the printer by stepping on, dropping or hitting the printer.
 - Do not place the printer in a poorly ventilated area, or shut off the air vent of the printer.
 - Do not place the printer where chemical reactions occur, such as in laboratories or where air is mixed with salt or gas.
 - Do not use a power voltage or frequency other than those specified.
 - Do not plug/unplug the power cord or attach/detach the USB cable by simply grabbing the power cord or USB cable. Do not pull or carry the printer when the tension of the power cord or USB cable is increased.
 - Do not drop or put foreign matter such as clips and pins into the printer. This may cause problems.
 - Do not plug the power cord into an outlet with many loads.
 - Do not spill drinks such as tea, coffee and juice on the printer or spray insecticide on the printer. If drink or water is spilled, first be sure to turn the power off and remove the power cord from the outlet, then consult our service personnel.
 - Do not disassemble or modify the printer.

- Discard or safely store the plastic packing bag. This bag should be kept away from children. If the bag is pulled over a child's head, it may cause suffocation.

WEEE MARK

If you want to dispose this product, do not mix with general household waste. There is a separate collection system for used electronics products in accordance with legislation under the WEEE Directive (Directive 2002/96/EC) and is effective only within European Union.



General Warnings

1. Prior to operation, read “To use this printer safety” carefully and observe them.
2. Do not drop or put foreign matter such as clips and pins into the printer. This may cause problems.
3. Be careful when moving or carrying the printer. Never try carrying the printer alone. Dropping the printer may cause injury or property damage.
4. Do not open the printer during printing.
5. When cleaning the surface of the printer case, do not use the cloth that is soaked in thinner, trichloroethylene, benzene, ketone or similar chemicals.
6. Do not use the printer where there is a lot of oil, iron particles, or dust.
7. Do not spill liquids or spray insecticide on the printer.
8. Do not jolt or impact to the printer by stepping on, dropping or hitting the printer.
9. Be careful of the edges of the parts, because injury or property damage is possible.
10. If a problem occurs during printing, stop the printer immediately and unplug the power cord from the outlet.
11. When printer trouble occurs, do not try to disassemble it. Instead, consult our service personnel.
12. Do not use this printer for applications where malfunction could be life-threatening (for example, medical, space or aeronautic applications, and similar applications that require extreme reliability.)
13. If use is intended on a transportation vehicle (train, truck, ship), please talk to a representative in advance.
14. When disposing of the printer, accessories, packaging, ribbon, or paper, please follow local waste-removal codes. If you have questions, please contact your local government office.

Warnings for Set-Up

1. Prior to operation, read “To use this printer safety” carefully and observe them.
2. Use care when moving the printer. Never try carrying the printer alone.
Dropping it could cause injury or damage to other property.
3. Do not use or store the printer near fire, excessive moisture, in direct sunlight, near an air conditioner or heater, or any other source of unusually high or low temperature or humidity, or excessive dust.
4. Do not place the printer where chemical reactions occur, such as in a laboratory.
5. Do not place the printer where air is mixed with salt or gas.
6. The printer must sit on a firm, level surface where there is ample ventilation. Never allow the printer's air vent to be blocked by a wall or other object.
7. Do not put anything on the top of printer.
8. Do not place the printer near a radio or television, and do not use the same wall outlet for the printer and radio or television. Radio or television reception could be adversely affected.
9. Do not use a power voltage or frequency other than those specified.
10. Do not put anything on the power cord or step on it.
11. Do not drag or carry the printer with the power cord or USB cable.
12. Avoid plugging the power cord into an outlet with many loads.
13. Do not bundle the power cord when inserting the plug.
14. Always grip the plug housing, not the cord, to plug/unplug the power cord.
15. Make certain the power is turned off before connecting/disconnecting the USB cable.
16. Avoid lengthening the signal cable or connecting it to any noise-producing device.
If it is unavoidable, use a shielded cable or twisted pair for each signal.
17. Place the printer near the outlet where the power cord can be unplugged easily to shut off power.
18. Use an AC outlet that accepts a three-pronged plug. Otherwise, static electricity may be generated and there will be danger of electric shock.
19. Use the appropriate specified cord set.
Only use items that are certified safe according to the standards of the country where they are to be used

Japanese Users

Cord set No 5-AB0632-1 (60001080)

	Parts number	Rating	Acquired Standard No
Plug	KP-300	125V 12A	JET-1807-43001-1004
Cord	VCTF	1.25mm ² 3G	JET-2178-12009-1003
Connector	KS-16A	125V 12A	JET-1807-43004-1005

American, Canadian Users

Cord set No INQ.1417 (60000980)

	Parts number	Rating	Acquired Standard No
Plug	CAT-009	125V 13A	UL:E69228 CSA:LL93534
Cord	SJT	1.25mm ² 3G	UL:E69167 CSA:LL97391 LL92902 LL42379
Connector	EF-28	125V 13A	UL:E69228 CSA:LL93534

Cord set No 5-AB0638 (60001010)

	Parts number	Rating	Acquired Standard No
Plug	KP-30	125V 13A	UL: E118569 CSA: LR84390
Cord	SJT	1.25mm ² 3G	UL: E42955 CSA: LL84512
Connector	KS-32	125V 13A	UL: E118569 CSA: LL84391

European Users

Cord set No 764S (60000960)

	Parts number	Rating	Acquired Standard No
Plug	203	10/16A 250V	EN60799
Cord	H05VV-F	1.00mm ² 3G	EN60799
Connector	EF-28	250V 10A	EN60799

Cord set No 764S (60001030)

	Parts number	Rating	Acquired Standard No
Plug	KP-4819Y	10 / 16A 250V	IEC60884
Cord	H05VV-F(GTCE-3)	1.00mm ² 3G	IEC60227-5
Connector	KS-31A	250V 10A	IEC60320-1

Regulatory compliance statements

American users

FCC part 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna

Increase the separation between the equipment and receiver

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Consult the dealer or an experienced radio/TV technician for help

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Caution: Use shielded cables to connect these computers.

Any changes or modifications not expressly approved by the grantee of this device could void the users authority to operate the equipment.

Canadian users

ICES-003

This digital does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of industry Canada.

Le pré'cent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Class B prescrites dans le règlement sur le brouillage radioélectrique édicte par industrie Canada.

日本のお客様へ / Japanese Users

電波障害について

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョンの受信機に近接して使用されると、受信障害を引き起こす可能性があります。

取扱説明書に従って正しい取り扱いをして下さい。

VCCI statement

This equipment is in the Class B category (information Technology Equipment to be used in a residential area or an adjacent area thereto) and conforms to standards set by the Voluntary Control Council for interference by information Technology Equipment aimed at preventing radio interference in such residential areas. When used near a radio or TV receiver, it may become the cause of radio interference. Read instructions for correct handling.

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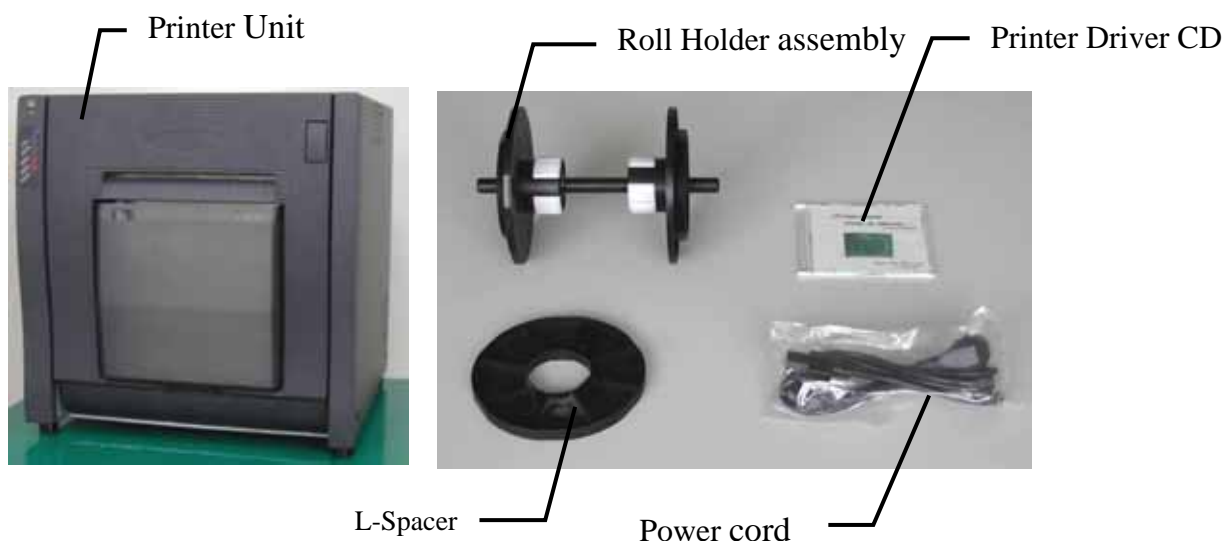
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Chapter 1 Printer Setup

1. Please check the package contents
2. Names of Components
3. Check the Paper and Ribbon
4. Connect the Power Cable
5. Connect to the Host Computer (PC)
6. Setting the Paper and Ribbon
7. Setting the Trim Tray

1. Please check the package contents

Please check that the printer and all accessories are included in the package.



At the time of installation, please remove the following packing.

- (1) Head assembly protecting pad.
- (2) Paper guide protecting pad.
- (3) Roll holder assembly protecting pad.

* Please keep the package box, packing materials for transportation.

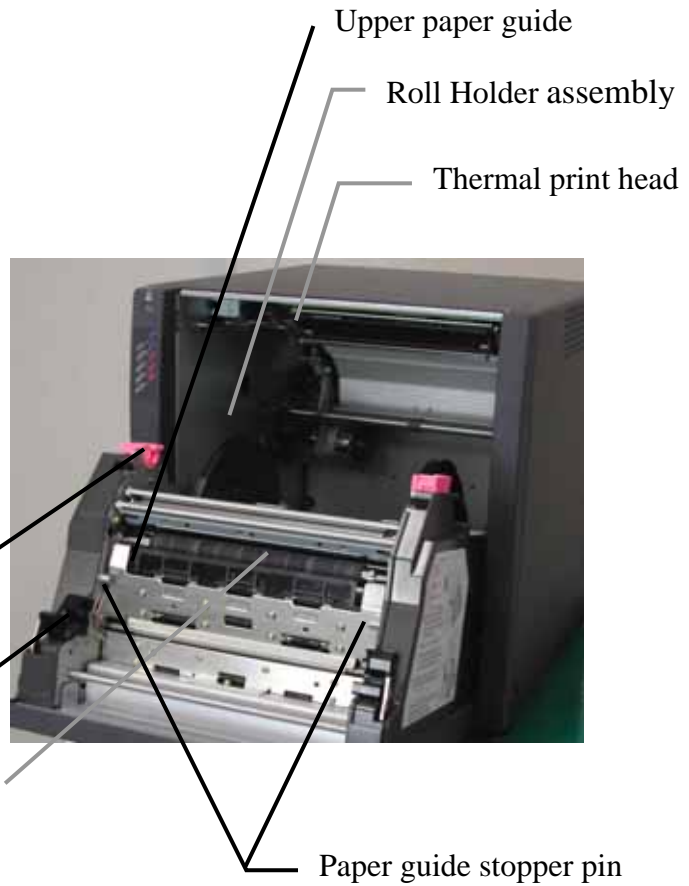
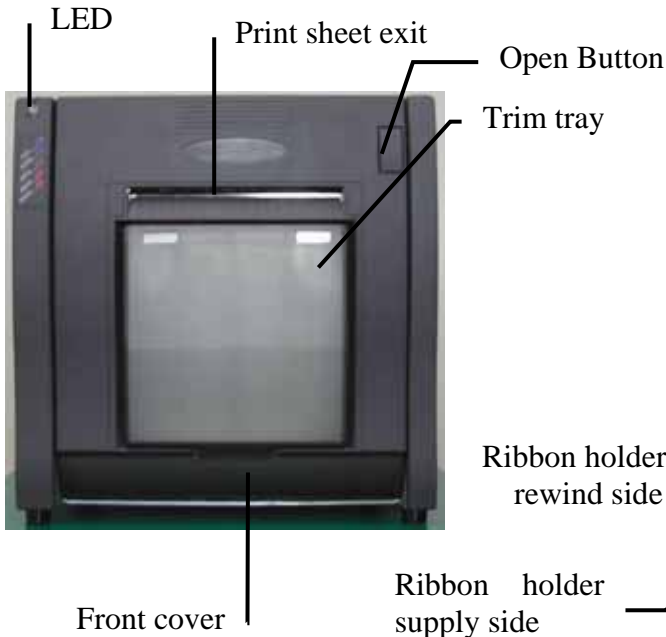


CAUTION

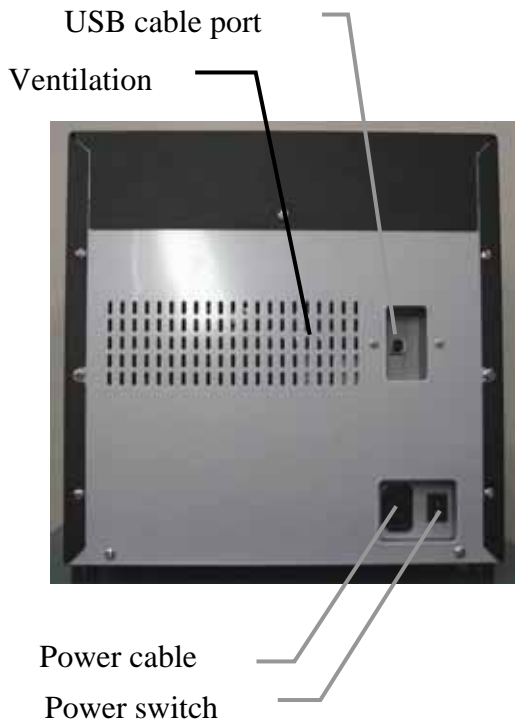
- The printer is heavy, so please be careful moving or carrying it and/or taking the printer out of the packing box.
- If the printer is dropped, it can cause injury or damage to other property.
- When you take the printer out of the box, please hold the bottom of the printer.
- If the styrene gripped when taking the printer out of the box, it can break, causing the printer to be dropped..

2. Names of Components

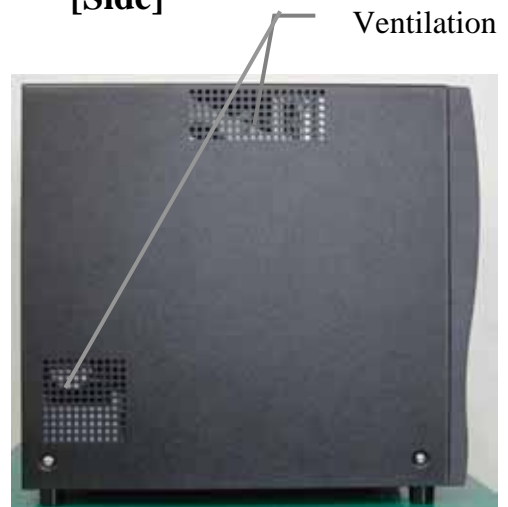
[Front]



[Back]



[Side]

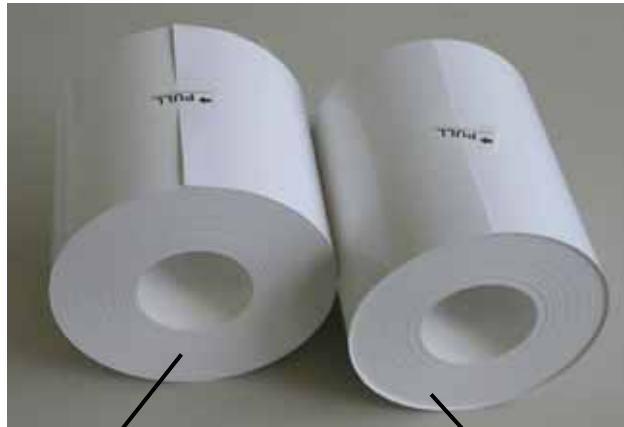


CAUTION

- Please be careful not to hurt yourself or damage anything on the edges of the printer.

3. Check the Paper and Ribbon

Paper		
Type	L-Size, 2L-Size 127mm	Post Card, A5 Wide Size 152 mm



L-Size
2L-Size

Post Card,
A5 Wide Size

Ribbon		
Type	i-Media	
	L-Size, 2L-Size 134mm	Post Card, A5 Wide Size 159 mm

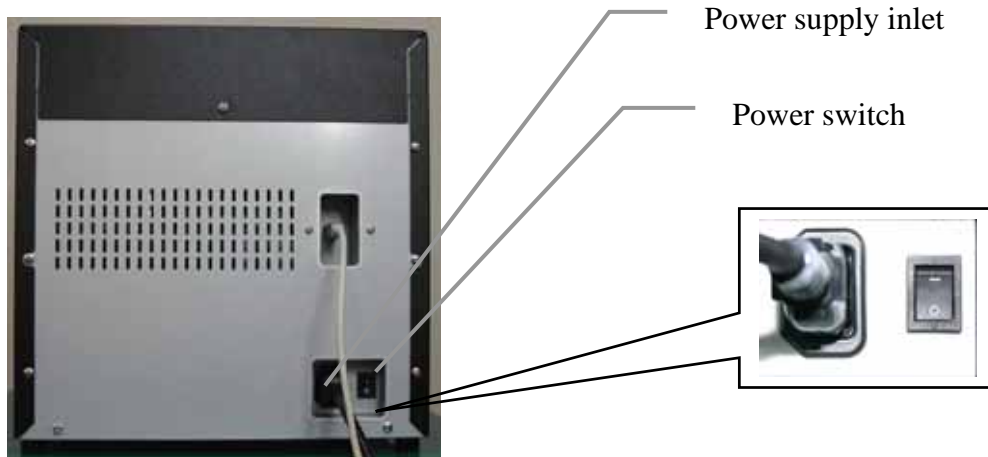
L-Size, 2L-Size

Post Card, A5 Wide Size



4. Connect the Power Cable

1. Please confirm that the power switch is turned OFF.
2. Insert the power supply cable to the printer's power supply inlet.
3. Plug the power supply cable into a wall socket.

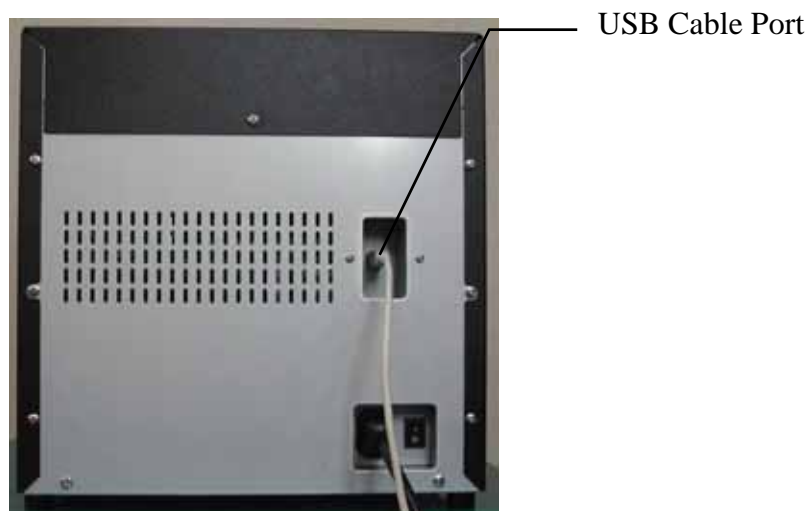


CAUTION

- Please use the power cable attached with the printer, and be sure to ground the grounding line of the plug.

5. Connect to the Host Computer (PC)

1. Please confirm that the power switches of the printer and PC are turned OFF.
2. Connect the printer and PC by USB cable.



6. Setting the Paper and Ribbon

1. Open the front cover by pressing the open button.



Open button

*** When the front cover is opened for the first time, please take out the protective pads.**

2. Put the paper on the roll holder assembly. For L-size and 2L-size, use the L-spacer.

L-size, 2L-size



L-spacer, Roll holder assembly



Post Card, A5 wide size



Roll holder assembly

Please set paper on roll holder assembly as for L-Size, 2L-Size.



*** When attaching the L-spacer, line the hooks on the L-spacer up with the holes on the roll holder.**
*** Please insert firmly so as not to have any space between the side of the roll and the flange.**

3. Set the paper into the printer.



* Please confirm that the paper holder shaft is set firmly in the guide on the printer.
Otherwise, the paper may jam.



Fit the paper to the proper position for each size, and insert it in the direction of the arrow until the buzzer makes beeping sound.
(Approx. to the dotted line)

The LED indicator should change from blinking Red to blinking Blue & Red
Please make sure that the paper is set straight.

L-size, 2L-size

Post Card, A5 wide size



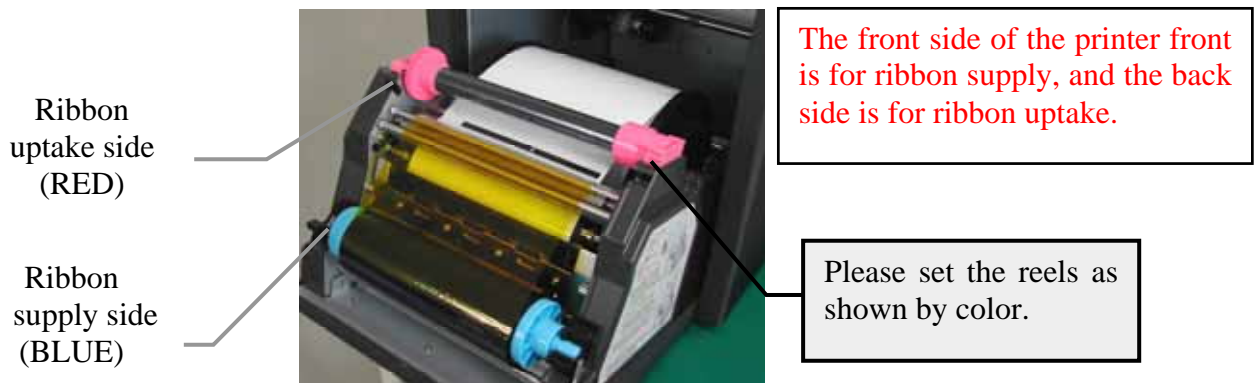
Please insert the paper referring to the paper width guide shown below.
It's recommended to insert the paper after taking up any slack on the roll for easier setting.



4. Set the ribbon in the printer

* Paying attention to the ribbon surface for front & back, set the supply and uptake ribbon reels as shown below.

* Remove any ribbon slack by turning the ribbon uptake side in the direction of the arrow approx. 5 times.



5. Close the front cover.

* When the front cover is closed, the paper initialization process will be carried out except in the case when the printer is turned on after paper setting (in that case, paper initialization is not carried out).



During the paper initialization process, outside of roll paper with dust or finger prints is removed by outputting 4 sheets of non printed paper.

* There is a IC tag implemented in the ribbon and a detector in the printer for performing color offset of media lot, detecting of media type and managing of print counter, to be communicated between host computer (PC).

If any other media with no IC tag or a different tag is set, normal print process may not be possible. For details, please contact your supplier.

If different types of media like 2L-Size and Post Card or others are used in the same printer, quality problems in the printed image will arise.

So as a rule, please do not use different types of media in the same printer.

But if for some reason different types of media must be used, first turn the printer off, take out the old media, and turn the printer on again before setting the new media.

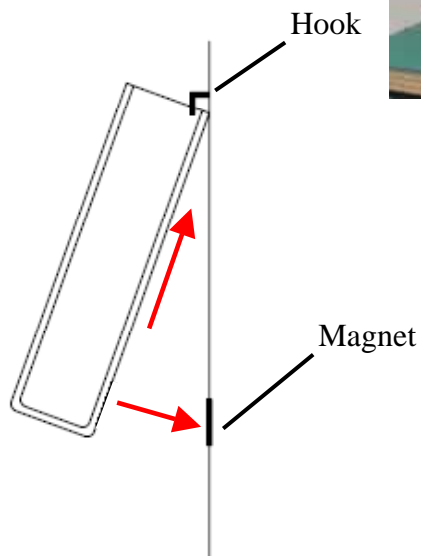
* This way, when the front cover is closed, the paper initialization process will be carried out, unless the printer is turned on after setting of the new media, in which case initialization won't take place.

7. Setting the Trim Tray

Trimmed excess from the prints are collected in the trim tray.

Please be sure to remove the scraps from the box whenever the paper media is change.

If the box is too full, the paper may get jammed.



* Please set the box by hanging it on the hook as shown above.



CAUTION

- Please do not operate the printer with the trim tray removed.
- Please be careful not to insert your finger or anything else in the cutter located over the box when the trim tray is taken out, otherwise it's possible to injure your finger.

Chapter 2 Trouble Shooting

1. Error Indication
2. If Paper is jammed
3. If Ribbon is cut
4. If power was shut off during printing

1. Error Indication



LED display for printer status.

Status	LED Indication	Solutions
Online		Printer ready
Front Cover Open		Please close front cover
(No Paper)		Please reset the paper correctly *1
Paper End		Please set new paper *2
Ribbon End		Please set new ribbon *2

*1 When the paper is properly set into position, the buzzer will beep twice, and the lamp will blink blue and red.

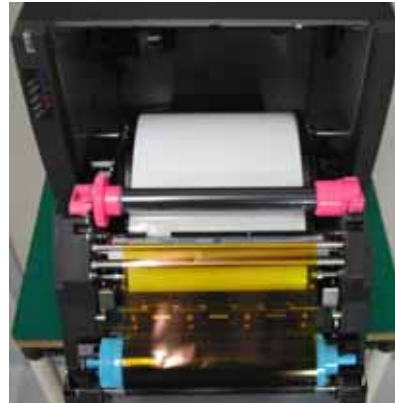
*2 Please change the paper and ribbon at the same time.

Status	LED Indication	Solutions
Head Cooling Down		Stops automatically when the head is cooled down
Paper Error		Please reset the paper correctly
Ribbon Error		Please reset the ribbon correctly
System Error		Please switch off & on again *3

*3 If the printer doesn't recover from the system error, please contact a service representative.

2. If Paper is jammed

1. Open the front cover by pressing the open button.



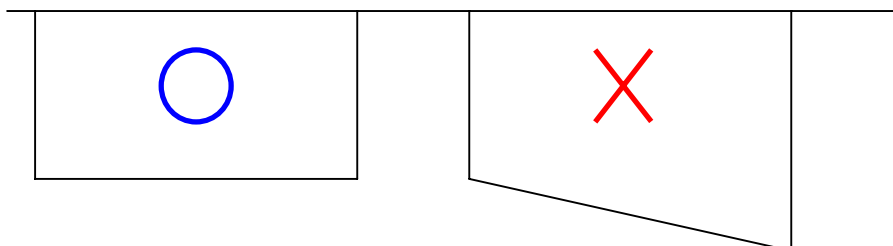
2. With scissors, evenly cut off any partially printed paper, or paper with wrinkles, etc. Then reset the paper. If wrinkles or printed paper are not removed, the paper may jam again.



* When pulling out paper, please pull slowly. Too much power may damage the printer. In case of a serious paper jam, please open the "upper paper guide" after removing the "paper guide stopper pins" on both sides with a slotted screwdriver, then pull the paper out in the direction of the arrow.



Correct paper edge cut



- If paper is not cut, it may cause abnormal printing and/or the paper to jam.

3. If Ribbon is cut

1. Open the front cover by pressing the open button.
2. Remove any incomplete prints.
If the next image is printed over the previous image, the ribbon may stick, and it may cause the paper to jam.
3. Attach the ribbon ends with cellophane tape.
4. Set the ribbon in the printer.
5. Then turn the reel on the uptake side several times until the cellophane tape disappears.



Attach with cellophane tape

4. If power was shut down during printing

* If power is shut off during printing, the front cover will be locked shut.

1. Please turn the power ON again, and when LED shows Blue, please open the front cover.
(Approx. 10 sec after turning the power on again, the LED should change to indicate blue)
2. The incomplete print will be in the printer.
Pull it out and cut it off evenly.
Then reset the paper correctly.

Please refer to “Chapter 2: When the paper jams”



CAUTION

- Please be sure not to shut the power off during printing.

Chapter 3 Maintenance

1. Cleaning the Platen Roller
2. Cleaning the Thermal Print Head
3. Cleaning the Filter

1. Cleaning the Platen Roller

Please wipe off any powder, scraps, adhesives, etc, from the ribbon and/or paper which are on the platen roller, using ethyl alcohol and a soft cloth.

Note: Only use ethyl alcohol. Never use benzene, thinner etc, since they may permeate the resin.

* If any impressions appear regularly in the same place on the prints, or if there are marks on the back (white side) in the same place on the prints, please clean the platen roller. As a rule, clean the roller about once every 4000 sheets (10 rolls).



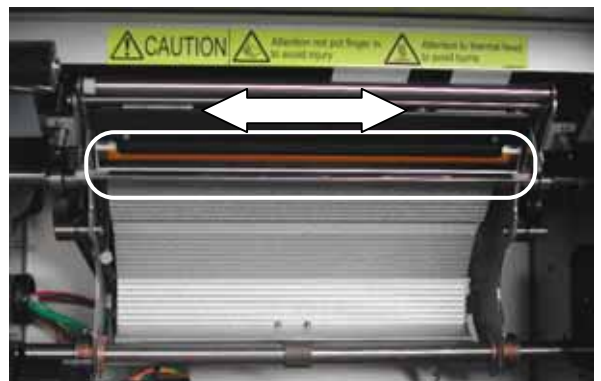
Please clean by turning the platen roller.

2. Cleaning the Thermal Print Head

If there is powder, garbage, adhesive, etc, from the ribbon and/or paper on the print head, wipe the head surface with a cleaning sheet approx. 5 times. (We suggest Japan Micro-coating head polishing film GC#10000) Always switch off the printer before cleaning. As a rule, clean the roller about once every 4000 sheets (10 rolls).

* Please do not clean the thermal print head frequently as far as print quality has no serious problem.

Note: Never use alcohol, benzene, thinner, or sand paper on the thermal head.



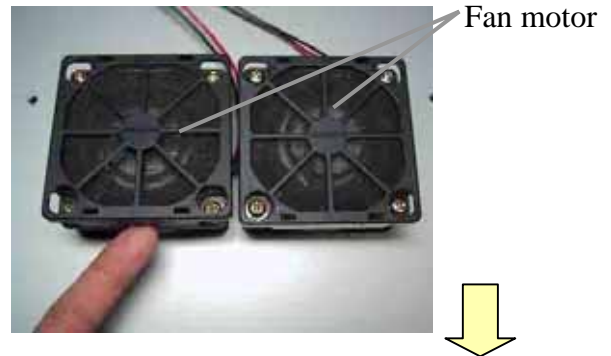
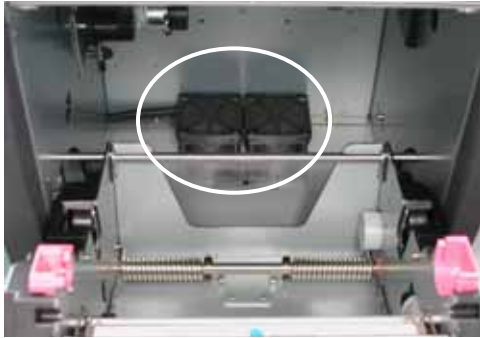
CAUTION

- Before cleaning, always switch off the printer. Otherwise, there is possibility of catching your finger in the head assembly and being injured.
- The print head will be hot just after printing. Please wait for the print head to cooler off before beginning cleaning.

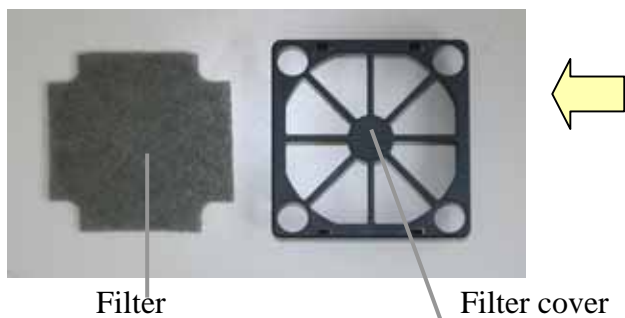
3. Cleaning the Filter

* Please clean the filter and bottom of the printer regularly.

1. Open the front cover by pressing the open button.



2. Remove the filter cover.



3. Clean the filter with a brush or vacuum. Also clean the bottom of the printer around the fan motor. (Dust might accumulate on the paper and affect the print quality adversely)

Note: If the filter is washed using water, make sure the filter is thoroughly dried before replacing it. Remaining water could cause the printer to malfunction.

4. Reset the filter in the opposite order from removing it. Push the filter cover until it clicks into place.
 - It's important to keep the filter clean.
 - If the filter is blocked or clogged, the temperature inside the printer will rise, and the thermal head will overheat.
 - If the thermal head overheats, the printer will stop, and the error LED will blink. In this case, the printer will resume printing automatically after the temperature of the thermal head drops enough for printing.
 - A similar situation may occur when the print head is overheated by continuous high power use such as when printing many black images.



CAUTION

- Before cleaning, always switch off the printer.

Appendix

1. Specifications

Item		Specifications	
Type Number		CW01-H01	
Maker		CITIZEN SYSTEMS JAPAN CO.,LTD.	
Print Technology		Dye Sublimation	
Resolution		334dpi & 600dpi	
Gray Scale		Yellow, Magenta, Cyan 256 steps each	
Interface		USB2.0 (Max. 480Mbps)	
		Buffer size for A5 Wide Size x 2 images	
Paper		Roll paper, Coreless	
Ribbon		YMC + Overcoat	
General Specification	Dimensions	322W × 366D × 335H mm	
	Weight	24Kg (Printer hardware only)	
	Power	AC100V – 240V 50/60Hz	
	Consumption	100V 3.85A, 240V 1.76A	
	Noise	A-weighted sound pressure level > 70dB: 71.7dB	
	Operation conditions	Temperature	5 degree C to 35 degree C with natural air
		Humidity	35 to 80% with no moisture nor condensation
Stock conditions	Temperature	-20 degree C to 60 degree C	
	Humidity	5 to 85% with no moisture nor condensation	
Accessories		L-Spacer, Power cord, Printer driver CD	

Media	Items / Paper Type	L-Size	Post Card	2L-Size	A5 Wide
	Paper Size mm	127 x 89	152 x 101	127 x 178	152 x 229
	Print Area mm	130 x 92	155 x 105	130 x 181	155 x 232
	Print Speed Sec/Sheet				
	Paper Capacity Sheet	660	600	350	270

* Print speed, measured by supplier's standard.
 * Specification may be changed without notice.