

TERMINAL PRINTER USER'S MANUAL

TP-821 dot matrix, one to one comm. via RS485

TP-822 dot matrix, multiple comm. via RS485

TP-831 thermal, one to one comm. via RS485

TP-832 thermal, multiple comm. via RS485

TP-922 dot matrix, multiple comm. via UNINET (Ethernet)

TP-932 thermal, multiple comm. via UNINET (Ethernet)

!!! Caution !!!

Special care required before connecting cable.

Before you turn on the power switch of ECR and TP, make sure two points below:

1. Cable type

Straight LAN cable (shielded type): between TP-8xx and ECR (RS485)

Cross LAN cable: between TP-9xx and ECR (UNINET)

Straight LAN cable: between TP-9xx (UNINET) and HUB

2. Do not connect RS485 to UNINET (Ethernet) port or UNINET (Ethernet) to RS485

If RS485 line is connected to UNINET port of TP-9xx mistakenly, TP-9xx will be broken by over voltage from RS485 line. If UNINET line is connected to RS485 of TP-8xx mistakenly, TP-8xx or the device connected to RS485 will be broken.

FERRITE CORE FOR AC CORD FOR TP-922

Fasten the attached ferrite core beside the AC cord as close as possible to the terminal printer to prevent radio interference.

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In order to setup the terminal printer and for the character print, please refer to the separate programming manual.

Note: 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.

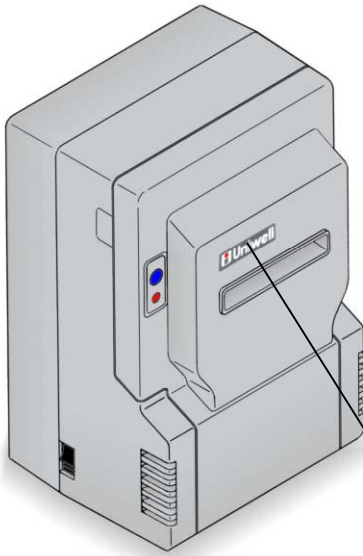
I. SPECIFICATIONS

A. Appearance

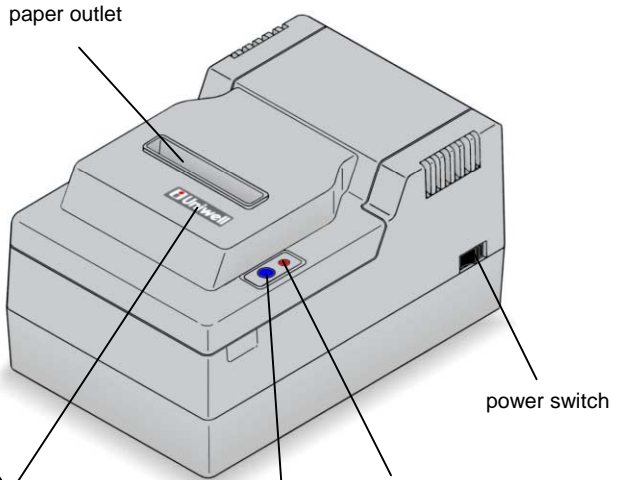
Contents in the box:

- Terminal printer
- Paper roll
- Ink ribbon (IR-41-RB: red and black, only for dot matrix printer)
- Uniwell logo seal (Before stick the seal, make sure the direction. See drawing below.)
- User's manual

Vertical & Wall-mounted position



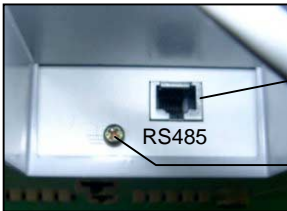
Horizontal position



Logo seal
Make sure the direction.

power LED
Orange: TP-821/831
Red: TP-822/832
Green: TP-922/932

Backside View (TP-8xx)



RJ45 8-pin modular type connector

ground terminal (M4 mm)
Ground wire is necessary to connect only when IRC communication is not stabilized.

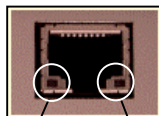
Connector Shape

TP-8xx



RS485
No LED

TP-9xx



Ethernet
Green Yellow

TP-8xx: RJ45 8-pin modular type connector for **RS485** with no LED lamp

TP-9xx: RJ45 8-pin modular type connector for **UNINET** (Ethernet) with two LED lamps

Green LED indicates receive activity.

Yellow LED indicates good link status for 100Base-TX/10Base-T.

B. Specifications

Connectability Feature
TP-821/831 are for one to one connection via RS485 (ECR ID should be set to #1.)
TP-822/832 can be connected to a multi-drop system with a printer ID # via RS485. (sharing printer)
TP-922/932 can be connected to a multi-drop system with a local IP address via UNINET (Ethernet).
* TP-8x1 and TP-8x2 can not be used on the same IRC line.

		Dot Matrix Printer TP-821/822/922	Thermal Printer TP-831/832/932
Print mechanism		Citizen DP416-DF, 9-pin serial impact dot matrix printer	Citizen LT-1320, line thermal printer
Print method		Bi-directional printing	Line thermal dot printing
Number of normal size characters		Max. 46 characters	Max. 48 characters
Print speed		3.0 lines/sec (46 characters/line)	80 mm/sec
Line feed speed		30 lines/sec (46 characters/line)	80 mm/sec
Character composition		9 (Vertical) x 7 (Horizontal) dots	24 (Vertical) x 12 (Horizontal) dots
Character size		3.1 (Vertical) x 1.2 (Horizontal) mm	3.0 (Vertical) x 1.5 (Horizontal) mm
Paper	Media	Fine quality roll paper	Single thermal roll TF50KS-E2C, Nippon Paper Industries
	Width	76 mm +/- 0.4 mm	80 mm +/- 0.1 mm
	Diameter	Paper : max. ø80 mm, Paper roll core : inner ø12 mm, outer ø 18 mm	
	Thickness	0.06 ~ 0.09 mm	0.06 ~ 0.09 mm
Ink ribbon	IR-41-RB (REF.#34287)	Red and black, Life: red 0.8/black 0.8 million characters	no ink ribbon
	IR-41-P (REF.#34289)	Purple, Life: 4.5 million characters	no ink ribbon
Reliability of printer head		MCBF: 2.5 million lines 80 million characters	Resistance to Pulse: more than 50 million pulse Resistance to Wear: more than 50 km
Printer weight without paper		Approx. 2.2 kg	Approx. 2 kg
Auto-cut mechanism		CBM AC-130 (single paper only)	
Kinds of character		Normal size character, Upside-down character, Double-width character, Double-height character, Double-width & double-height character	
Buffer size		Receive buffer: 8K bytes, Print buffer: 200 lines (9K bytes)	
Print buffer back-up		More than 2 hours	
TP-8xx communication method		Interface: RS485, RJ45 8-pin modular type connector Method: Uniwell protocol Speed: 38400 bps / 19200 bps	
TP-9xx communication method		Interface: UNINET (Ethernet), RJ45 8-pin modular type connector Method: TCP/IP Speed: 100Base-TX / 10Base-T	
Synchronism method		Asynchronous	
Dimensions		165 (W) x 247 (D) x 135 (H) mm included height of foot	
Power supply	Input	AC120 V +/- 10%, 60 Hz, AC230 V +/- 10%, 50/60 Hz	
	Consumption	AC230V 0.3A, AC120V 0.4A	
Temperature & humidity	Operation	0 to 45°C (32 to 113°F), 35 to 85% RH without dew condition	
	Storage	-20 to 60°C (-4 to 140°F), 10 to 90% RH	

II. SETTING AN INK RIBBON AND A PAPER ROLL

Do not touch the header and metal parts because they are extremely hot.

A. Ink Ribbon (Dot Matrix Printer)

Use only the designated ribbon cassette (IR-41-RB or IR-41-P). A non-designated ribbon cassette will cause malfunction in printing quality.

Attachment of ribbon cassette

1. Open the printer cover.
2. Pull up the auto-cutter unit.

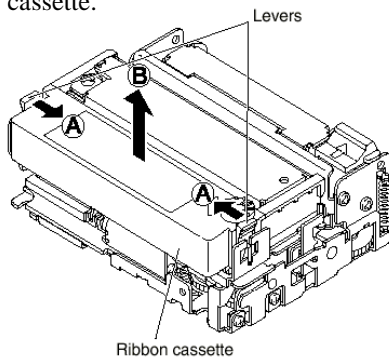


3. Turn the ribbon cassette winding axle in a clockwise direction to make the ink ribbon taut.
4. Insert the ribbon cassette in the ribbon plate.
5. Insert the ribbon between the ribbon mask and head.
6. After insertion, turn the ribbon cassette winding axle to take up any slack in the ribbon.
7. Pull down the auto-cutter unit and close the printer cover.



Removal of ribbon cassette

Grasp the levers on both sides of the ribbon cassette (A) and pull up the cassette.

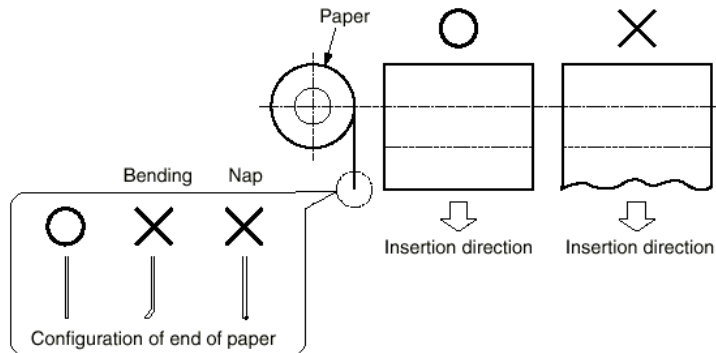


B. Paper Roll

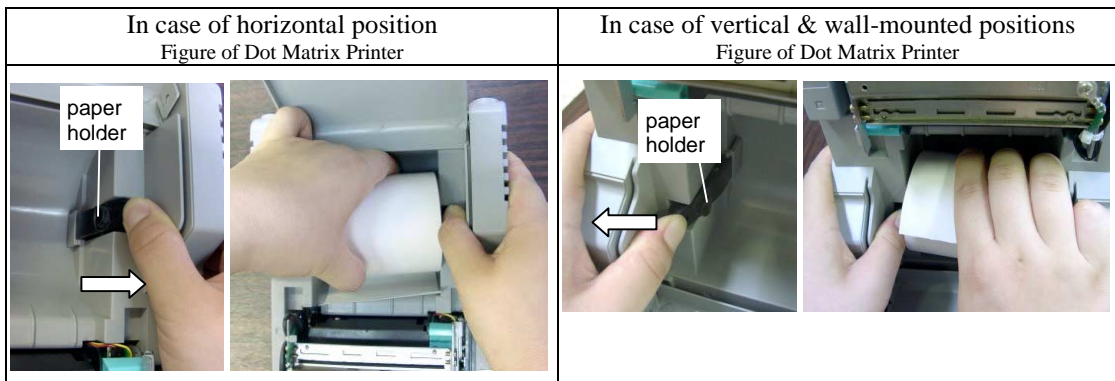
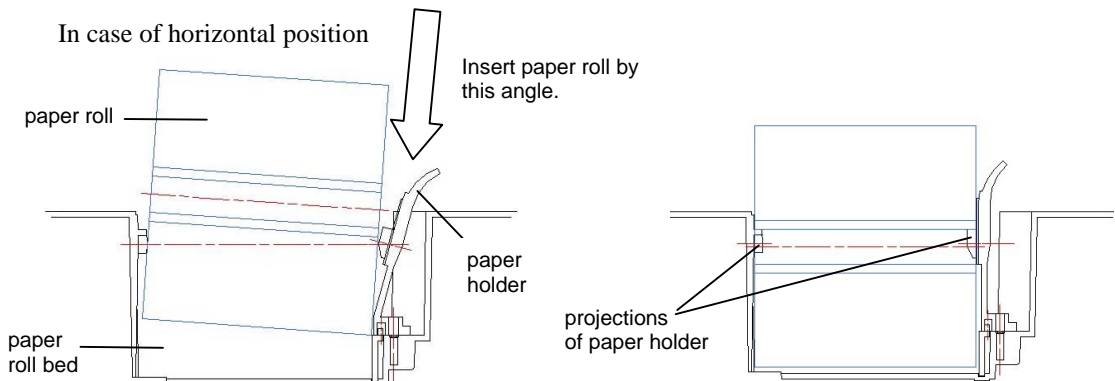
Use only the fine quality paper roll. A non-designated paper roll will cause malfunction in printing quality.

Fitting a paper roll

1. Open the printer cover.
2. Make sure that the leading edge of the new paper roll is cut straight across.



3. Keep the paper holder open to the right in case of horizontal position or to the left in case of vertical & wall-mounted positions. Then, place the paper roll into the paper roll bed.



- Make sure that the projections of paper holders are fitted into the core of paper roll. In case of horizontal position.

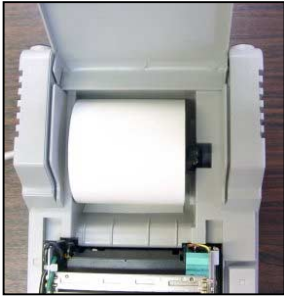
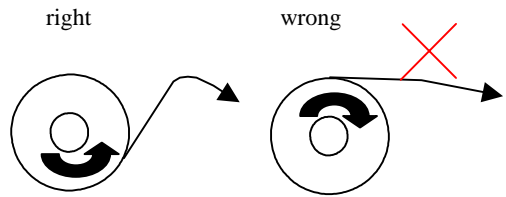


Figure of Dot Matrix Printer

- Insert the leading edge of the paper into the paper inlet. Then, paper is automatically pulled in when the printer power switch is on.



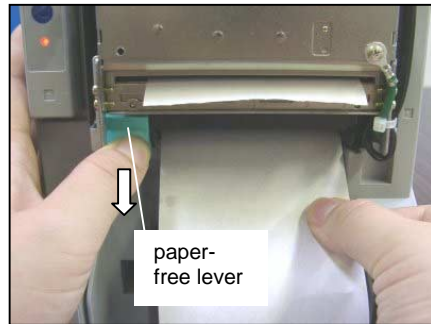
In case of horizontal position Figure of Dot Matrix Printer	In case of vertical & wall-mounted positions Figure of Dot Matrix Printer
<p>Figure of Thermal Printer</p>	<p>Figure of Thermal Printer</p>

Removal of paper roll

Dot Matrix Printer

1. Open the printer cover.
2. Push the paper-free lever to the back in case of horizontal position or to the below in case of vertical & wall-mounted positions and pull the paper up or to the back to remove.

In case of vertical & wall-mounted positions



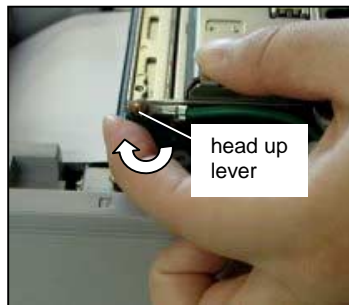
Thermal Printer

1. Open the printer cover.
2. Pull the head up lever and pull the paper up or to the back to remove.

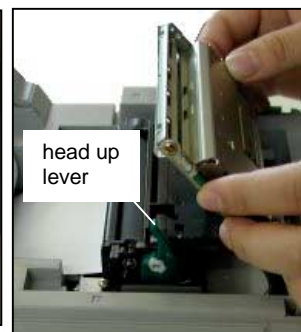
In case of vertical & wall-mounted positions



In case of horizontal position

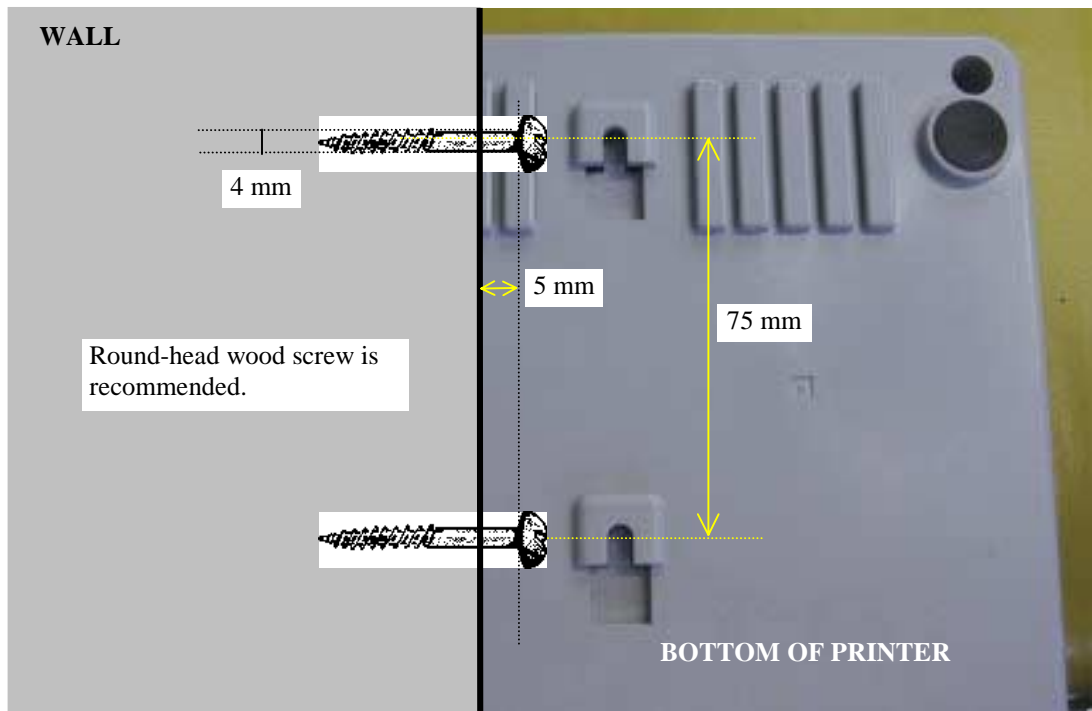


You can make wider clearance when you open the auto-cutter unit (pull the cutter lock lever to the right) since the head up lever can go up more.



III. HOW TO HANG ON A WALL

Prepare two screws and fix them on a wall as follows:



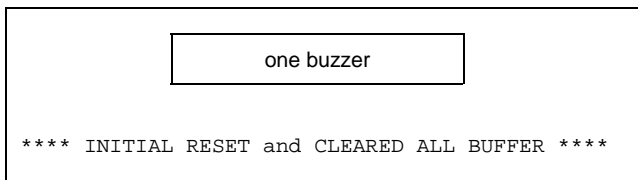
IV. INITIAL RESET & BUFFER CLEAR, FLAG CONDITION PRINT

A. Initial Reset & Buffer Clear

Turn the power switch ON while pressing FEED switch until one buzzer sounds.

Then Initial reset and buffer clear are finished with "**** INITIAL RESET and CLEARED ALL BUFFER ****" message.

Print Sample



initial reset & buffer clear message

B. Flag Condition Print

In order to see the printer settings, print the flag condition.

Turn the power switch ON while pressing FEED switch until first one highest-tone buzzer and second two high-tone buzzer sounds. Initial reset and buffer clear are also done by this operation. Then following contents are printed automatically.

Print Sample for TP-822

one buzzer
two buzzer
ON : Test mode OFF: Flag mode
one buzzer
Press feed switch same number of times as number shown below
1 : All flag setting
2 : Printer ID number
3 : Baud rate
4 : Print direction
5 : Ribbon
6 : Cut method
7 : Auto cut by
8 : Character
9 : Not used
10 : Not used
OFF: Print flag condition
one buzzer
***** * FLAG CONDITION * *****
Printer ID number : # 1 Baud rate : 19200bps Print direction : Normal Ribbon : 2-color Cut method : Full cut Auto cut by : Text end Character : Normal
TP-822-01-Vx.xx < xxxx > xxxxxx
Copyright <C> 2002 Uniwell Corporation

- 2. Printer ID number for TP-822/832
- 5. Ribbon for dot matrix printer
- 8. Character for dot matrix printer
- 9. Beeping in print for thermal printer
- 10. Beeping after paper cut for thermal printer

TP-822/832 only: Printer ID
TP-82x only: Ribbon and Character
TP-83x only: Beeping in print and Beeping after paper cut

Model - Type - Version, < check-sum >
summarized number of printed lines
(not resettable)

Print Sample for TP-922

one buzzer

two buzzer

ON : Test mode
 OFF: Flag mode

one buzzer

Press feed switch same number of times
 as number shown below

- 1 : All flag setting
 - 2 : Printer ID number
 - 3 : Baud rate
 - 4 : Print direction
 - 5 : Ribbon
 - 6 : Cut method
 - 7 : Auto cut by
 - 8 : Character
 - 9 : Not used
 - 10 : Not used
 - 11 : IP address selection
 - 12 : Set default config data
- OFF: Print flag condition

- 5. Ribbon for dot matrix printer
- 8. Character for dot matrix printer
- 9. Beeping in print for thermal printer
- 10. Beeping after paper cut for thermal printer

one buzzer

```
*****
*                                     *
*           SET UP CONDITION         *
*                                     *
*****
```

```
MAC address           : 00-A0-C2-FF-FC-01
Local IP address      : 192.168.0.100
Subnet mask           : 24
Gateway IP address    : 0.0.0.0
Local port number     : 9004
Foreign port number   : 9004
Printer ID number     : # 1
Baud rate             : 10Base-T
Print direction       : Normal
Ribbon                : 2-color
Cut method            : Partial cut
Auto cut by           : Text end
Character              : Normal
IP address selection  : ID in IP
```

TP-922 only: Ribbon and Character
 TP-932 only: Beeping in print and Beeping
 after paper cut

TP-922-01-Vx.xx < xxxx >
 Copyright <C> 2004 Uniwell Corporation

Model - Type - Version, < check-sum >
 summarized number of printed lines
 (not resettable)

V. PRINTER ERROR

<p>Printer Error paper jam, mechanical trouble, etc.</p>	<p>High-long-tone alarm sounds continuously and the received print data is saved in the buffer.</p> <p>[Solution]</p> <ol style="list-style-type: none"> 1. Turn the power switch off. 2. Fix the paper jam or mechanical troubles. 3. Turn the power switch on. The remaining print data will be printed automatically with a power down message "////////////////////".
<p>Head Up Error (only for thermal printer)</p>	<p>Low-tone alarm sounds intermittently.</p> <p>[Solution] Return the head up lever.</p>
<p>IRC Communication Error</p>	<p>Low-long-tone alarm sounds continuously.</p> <p>[Solution]</p> <ol style="list-style-type: none"> 1. Turn the power switch off. 2. Check the communication settings are complied with ECR settings. Check the cable is correctly connected. 3. Turn the power switch on.
<p>Paper Near End of Roll</p>	<p>There is no message on the printer. When you see the red line on the paper, prepare new paper roll.</p>
<p>Paper Out</p>	<p>Middle-tone alarm sounds intermittently. The data is re-transmitted to the printer until the printer buffer becomes full. When the printer buffer becomes full, the warning message is displayed on ECR.</p> <p>[Solution] Insert new roll paper then paper is loaded and printing is continued automatically.</p>
<p>Buffer Clear Operation</p>	<p>See page 8.</p>
<p>UNINET Controller Error (only for TP-9xx)</p>	<p>High-middle-low tone alarm sounds continuously.</p> <p>[Solution] Turn the power switch off. Contact your distributor for repair.</p>

VI. MAINTENANCE

A. Attentions

During use


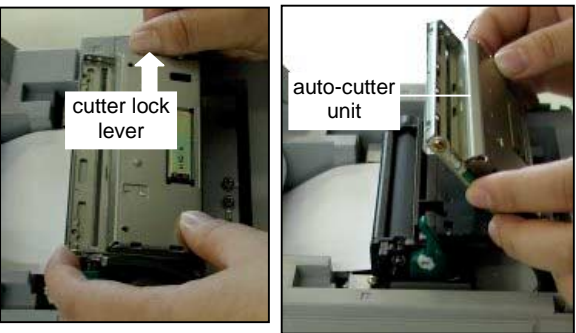
1. Do not attempt to print when there is no recording paper or ribbon cassette inserted in the printer. This could cause damage to the printing head and platen surface, thus affecting printing quality and product life.
2. Dot matrix printer: Do not attempt to move the printing head sideways with your hand. Because the belt driving the printing head is connected directly to the bearings, this could place an excessive load on the belt and carriage drive pin, causing timing aberrations.
3. This printer uses a permanent magnet (motor) and electromagnet. Avoid use in areas with a large amount of iron filings, dust or dirt.

Regarding storage

Avoid storage in dirty, dusty areas or in areas with high temperature or humidity.

B. Cleaning

1. After using 10 paper rolls or using the printer for 6 months, clean the printer and remove all paper dust and dirt. Suction cleaning (with a vacuum cleaner) is best for sucking up dirt from hard-to-reach areas.

Dot Matrix Printer Open the printer cover and pull up the auto-cutter unit to remove paper dust.	Thermal Printer Open the printer cover. Pull the cutter lock lever to the right and open the auto-cutter unit.
	

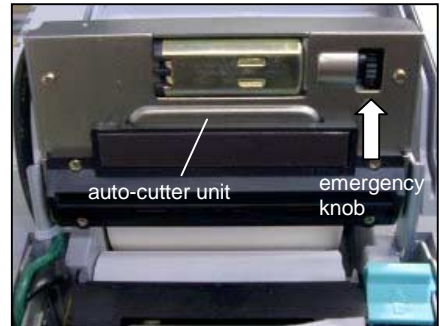
2. Use alcohol or benzene to remove soiling. Never use thinners, triethylene or ketone solvents for cleaning as these could warp or damage plastic parts.

C. In case that the auto-cutter does not return

If the auto-cutter is locked by a paper jam or if something come into the auto-cutter and locked, follow the steps below:

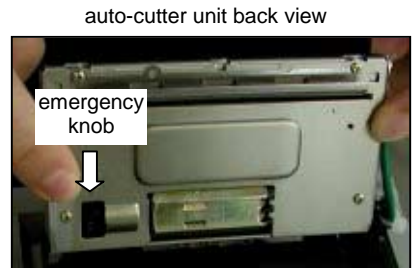
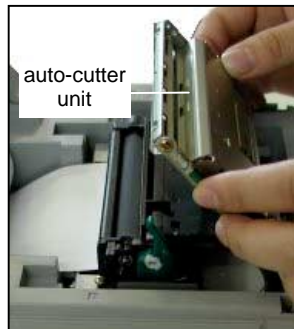
Dot Matrix Printer

1. **Turn the power switch off.** Open the printer cover.
2. Pull up the auto-cutter unit.
3. Turn the emergency knob in order to draw in the cutter to the direction that the arrow shows.
4. Then, remove the paper or the something.
5. Pull down the auto-cutter unit. Close the printer cover.
6. Turn the power switch on. Then auto-cutter position is reset automatically.

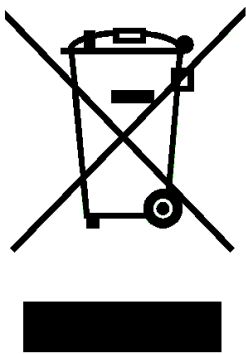


Thermal Printer

1. **Turn the power switch off.** Open the printer cover.
2. Pull the cutter lock lever to the right and open the auto-cutter unit.
3. Turn the emergency knob in order to draw in the cutter to the direction that the arrow shows.
4. Then, remove the paper or the something.
5. Pull down the auto-cutter unit. Close the printer cover.
6. Turn the power switch on. Then auto-cutter position is reset automatically.



Do not touch the print head by hand right after printing since it is very hot.



The crossed-out wheeled bin symbol is used to show that this product must not be treated as general household waste. Please contact the supplier of this product to ensure that it is disposed of correctly.

You will be helping to prevent potentially negative consequences for the environment and human health, which could otherwise be caused by incorrect waste handling of the product.