

Thermal Receipt Printer

USER'S MANUAL



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A10 Thermal Receipt Printer



Chapter 1. Introduction

1-1. Warranty

We guarantee our POS terminal product and its parts against defects in materials and workmanship, under proper use, for a standard period of 2 years from the original date of purchase.

During this period, we will repair or replace defective and/or faulty products or parts without charge to the customer for parts and labor.

The 1st year includes servicing and new or refurbished replacement parts free of charge, with one-way shipping costs borne by the seller. The customer shall, however, be responsible for the return delivery costs.

The 2nd year also includes free of charge servicing and parts, but a limited warranty requires the entire shipping cost to be borne by the customer.

Products out of the warranty period or scope shall be diagnosed at the customer's expense.

In the case of product damage due to error on part of the consumer, incorrect usage, carelessness or natural phenomenon, the customer shall bear the full cost for both repair and delivery.

1-2. Copyright

This publication, including all photographs, illustrations and software, is protected under international copyright law with all rights reserved to the manufacturer. Neither this manual, nor any of the material contained herein, may be reproduced without express written consent of the author.

1-3. Safety Information

1. Always ensure that the correct power voltage is used as a precaution against fire and electrical shock.
2. Avoid exposing product to direct sunlight. Do not use product in areas of high humidity.
Doing so may cause low reliability and/or operational malfunction.
3. Be careful of static electricity on PCB of system with anti-static appliances. Doing so may cause inferior reliability and shorted product life.
4. Keep product away from highly static areas. This may lead to inferior performance and reduced life cycle.
5. Do not interfere with, or obstruct metal components inside product. Doing so may cause the risk of fire or electric shock.
6. Do not pull on power cable or peripheral devices' connector cable. Doing so may cause fire, electric shock or electronic system malfunction.
7. Use caution when around other electronic devices with possible high frequency or electro-magnetic effects e.g. Audio, Electronic-range etc.
Doing so will lead to the serious risk of product malfunctioning or a system error occurring.
8. Ensure that batteries are replaced correctly. Failure to do this may result in sudden explosions.
9. Dispose of used batteries properly according to the instructions.

1-4. Liability Limitation

● Installation and maintenance

We recommend that you inquire about product installation, maintenance and repair service from the official service center and agent office.

POSBANK takes no responsibility for malfunctions or system errors occurring after service and/or system check carried out by unofficial service providers.

● High frequency appliances

This product is qualified by FCC, CE, EMI and MIC compliances, and is thus governed by these qualifications' safety regulations.

However, the product can affect and be affected by other high frequencies generated around it. As such, POSBANK does not consider liability for any system error or disorder due to this issue.

● Electronic noise emitting equipment

We recommend using the product away from electronic noise emitting equipment such as heaters, motors, fluorescent lights, TVs etc. as it may cause interruption or interference with normal operation.

● Installation location

For optimal performance, the product should be kept in an environment of lower than 65% humidity and in a temperature of 10 ~ 30°C. Please also keep away from direct sun-light.

● **Cleaning procedure**

Cleaning with chemical based products (in particular those containing benzyl or chemical thinning agents) can damage the exterior surfaces of the product. We recommend using a soft damp cloth and wiping gently, taking particular care when dealing with the LCD display screen.

● **Product limitations**

1. The use of this product for anything other than POS tasks is strictly prohibited.
The product is not supported for regular PC and interface operation.
2. This product is for business use only, and not for usage in the home.
3. Both hardware and software are both fully configured.
4. Normal operating is guaranteed on a steady power connection.

1-5. Installation Recommendations

1. Avoid installing during thunderstorms. (Possibility of dangerous exposure to electricity.)
2. Install away from damp spaces or water-leaks.
3. Beware of static occurrence during installation.
4. Use only ground connected and quality certified power cords and cables.
5. Keep out of direct sun-light, extremely high or low temperatures, or high humidity areas.
6. Install product away from areas prone to shocks or vibration.
7. Install product away from sewing machines, welding equipment, electric stoves, audio equipment and other high frequency generating equipment.
8. Installation and use in close proximity to an air-conditioning unit is not recommended.
9. Do not connect cables underneath carpets or floorboards.
10. Only use power cables supplied by pre-approved and certified vendors.
11. Never use power cords from high power source appliances.
e.g. Electronic heaters, Electric stoves, Audio equipment, Air-conditioners, Refrigerators etc.
12. The use of multiple connections in a shared power outlet/socket is not recommended.



A10 Thermal Receipt Printer



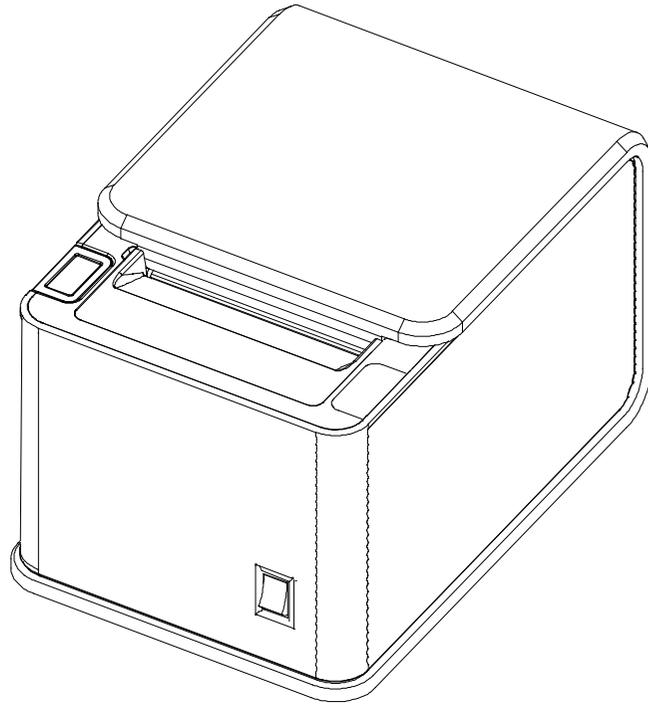
Chapter 2. Product Overview

2-1. Inside Your Package

Included in the package: Printer, power cable, interface cable, adapter, roll paper, user manual and driver CD.

Please check that all items shown are included in your package. If anything is missing or damaged, please contact your dealer for assistance.

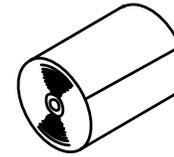
[Package Contents]



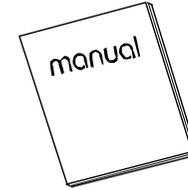
Printer unit



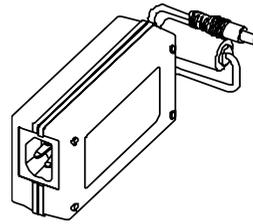
Driver CD



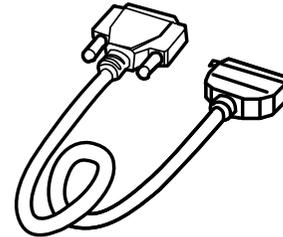
Roll paper



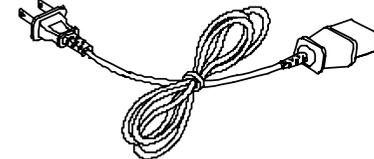
User manual



Adapter



Interface cable

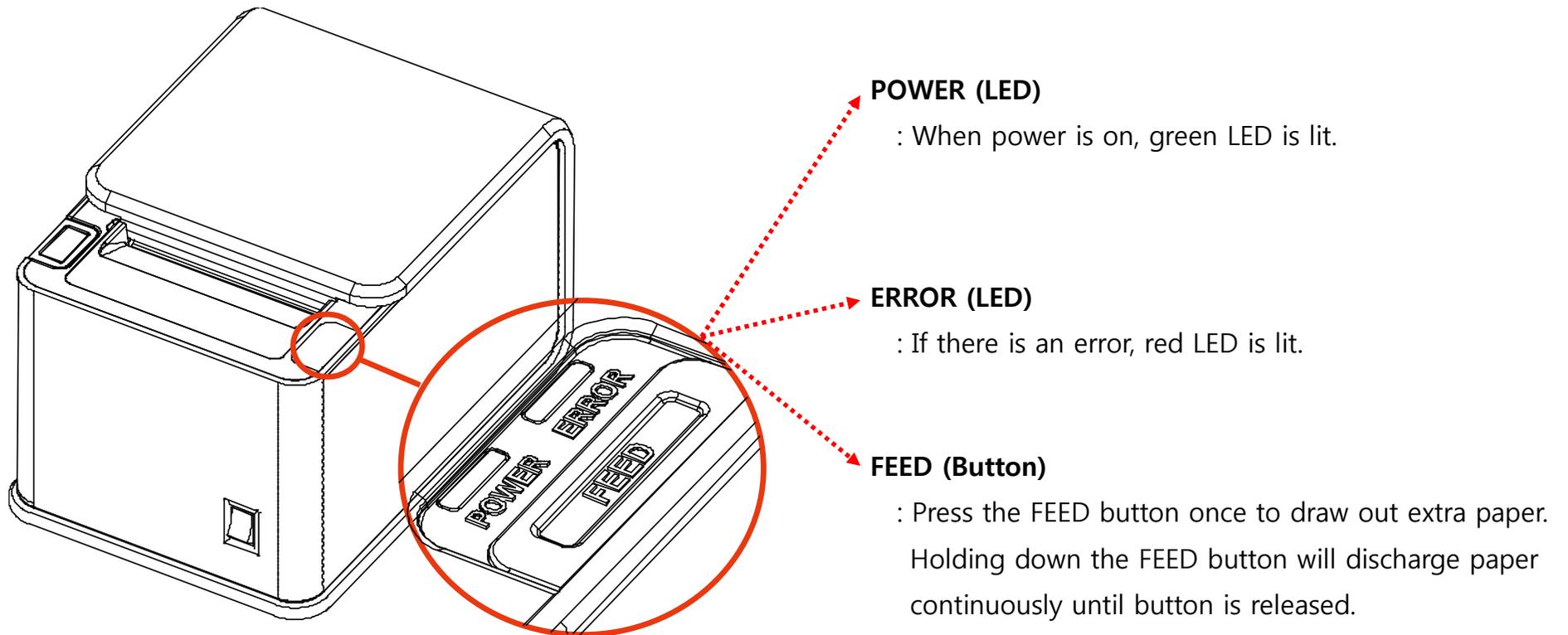


Power cable

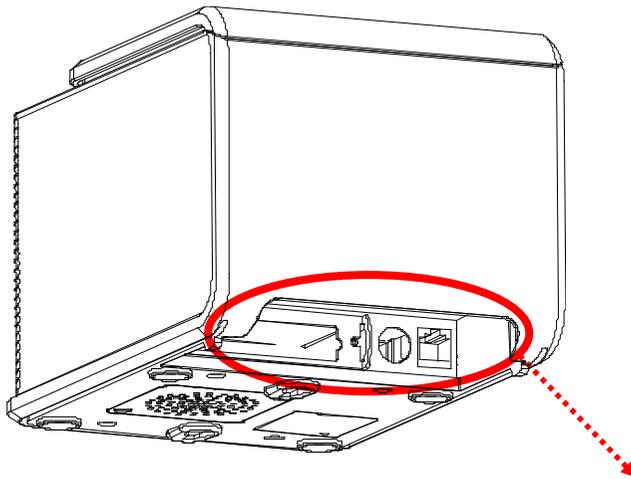
2-2. Product Outline

(Note: Labels may differ according to model/region)

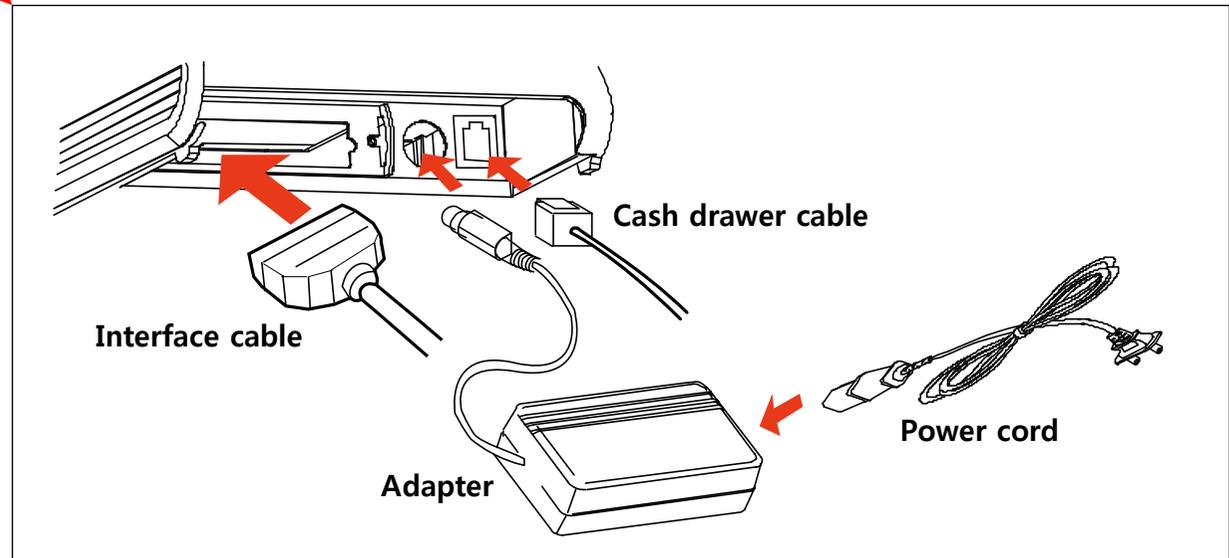
[Control Panel]



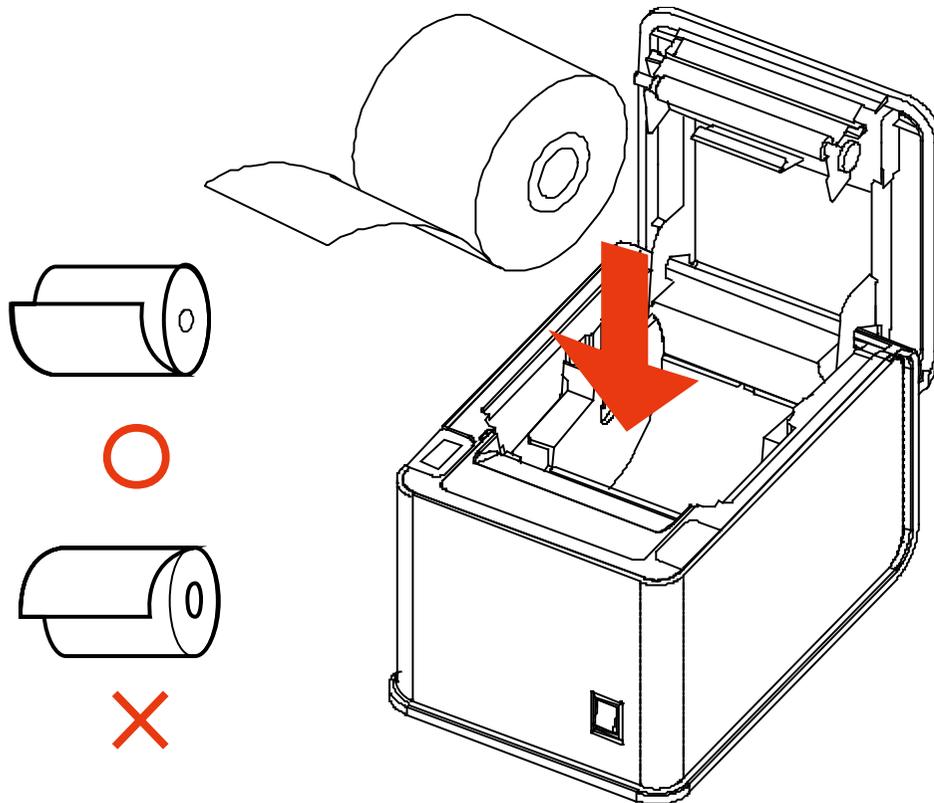
[Connecting Cables]



1. Make sure both the printer and the host computer are turned off.
2. Connect the power cord to the adapter, then connect the adapter to the rear of the printer.
3. Locate the interface port to the rear of the printer and connect the interface cable.
4. Connect cash drawer cable to the drawer port (RJ11) on the printer.



[Installing Paper Roll]



1. Press the 'Cover Open' button to open the top cover.
2. Remove any used paper roll inside and insert the new paper roll (as shown to the left).
3. Draw out the end of the paper roll and close the cover.

[Note]

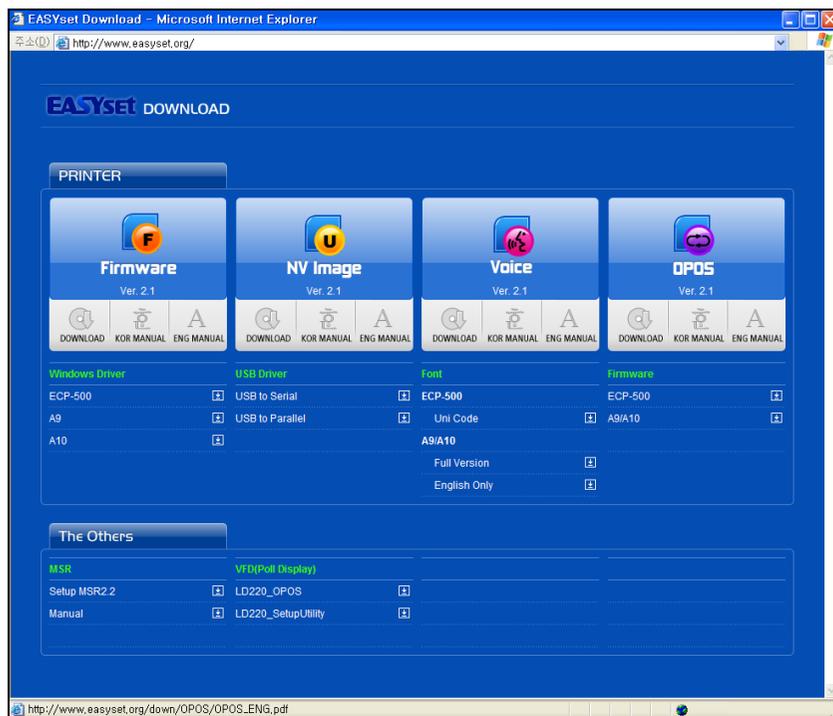
When closing the cover, press down on the center of the cover to ensure the paper is in contact with the roller.

2-3. Basic Installation

OPOS Driver

UNIPOS driver for OPOS driver system (based on Windows XP) is provided.

Alternatively, you can always download the latest OPOS driver software at: www.easysset.org.

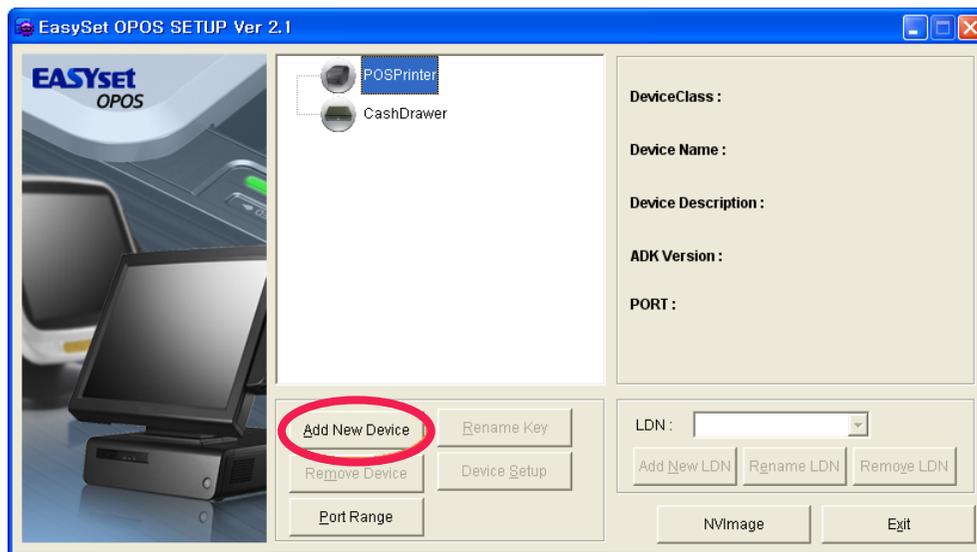


● Installation

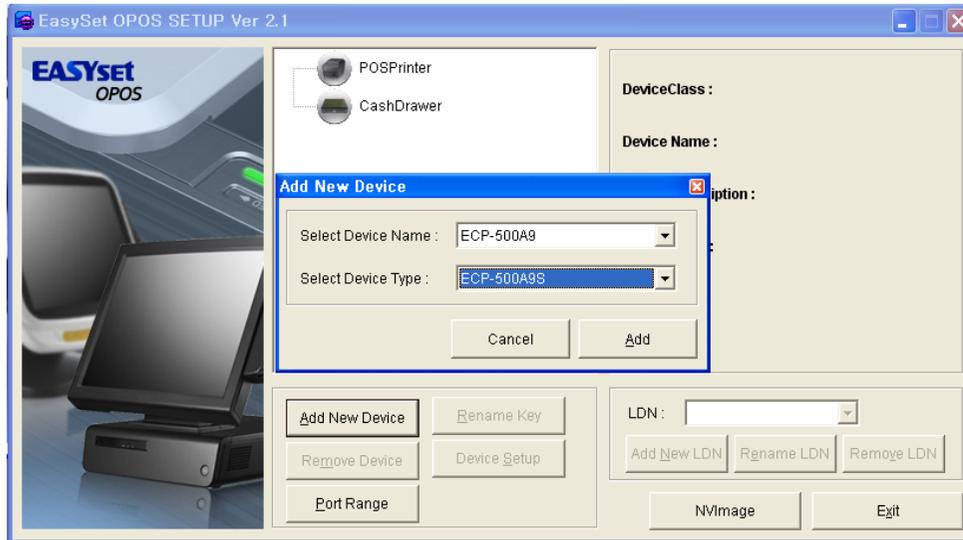
1. Download EasySet OPOS driver file and install.
2. Complete the installation of OPOS driver.
3. File is located at:

[Start] -> [All Programs] -> [EasySet] -> [OPOS] -> Execute EasySet_OPOS program.

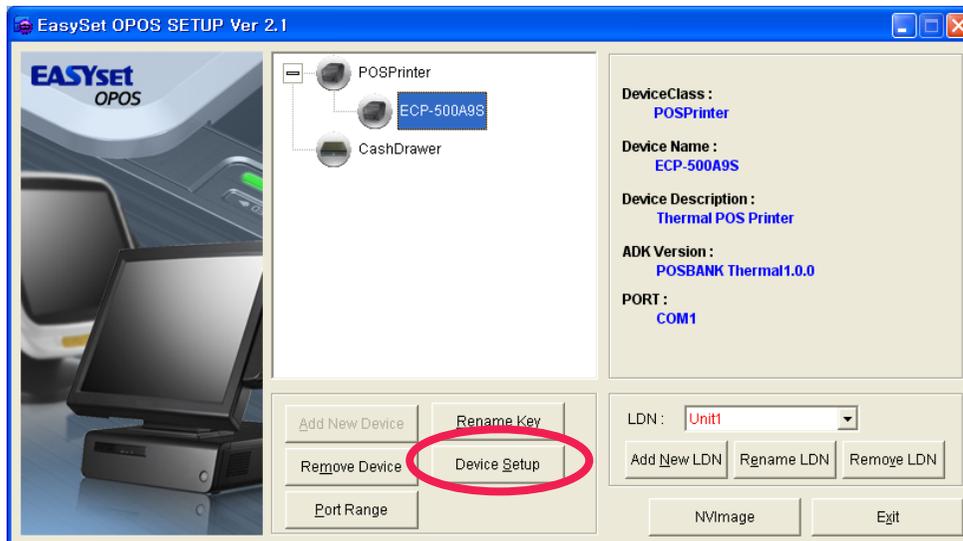
● Setup



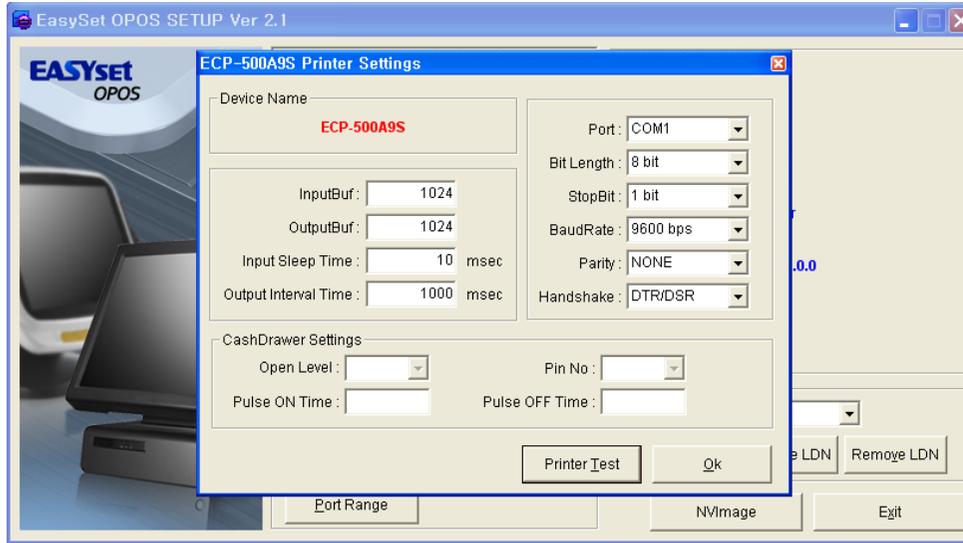
Click **"Add New Device"** to install new printer.



Select 'Device Name' and 'Device Type', then click "Add".
['Select Device Type': Selectable between serial, parallel and USB types]



Select newly added printer and enter "Device Setup".



Enter port details in the Printer Settings page and press [OK] to complete the setup.

※ When setting up the 'Cash Drawer', please use the same procedure as above.



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Chapter 3. Product Settings

3-1. Specifications

- High performance CPU (ARM 9, 32bit)
- Ultra-fast printing speed (up to 220mm/sec)
- Specially designed font provides superior readability.
(1 Byte : 14 x 28dot / 2 Byte : 28 x 28dot)
- High resolution (up to 203dpi)
- Supports various interfaces (RS232C/Parallel/USB/Ethernet/USB+Serial)
- Supports Unicode, 34 type of character set.
- Built-in Buzzer
- Additional Melody/Voice upgrade

- Windows & OPOS drivers
- Compatible with EPSON or STAR cash drawer by dip switch setting.

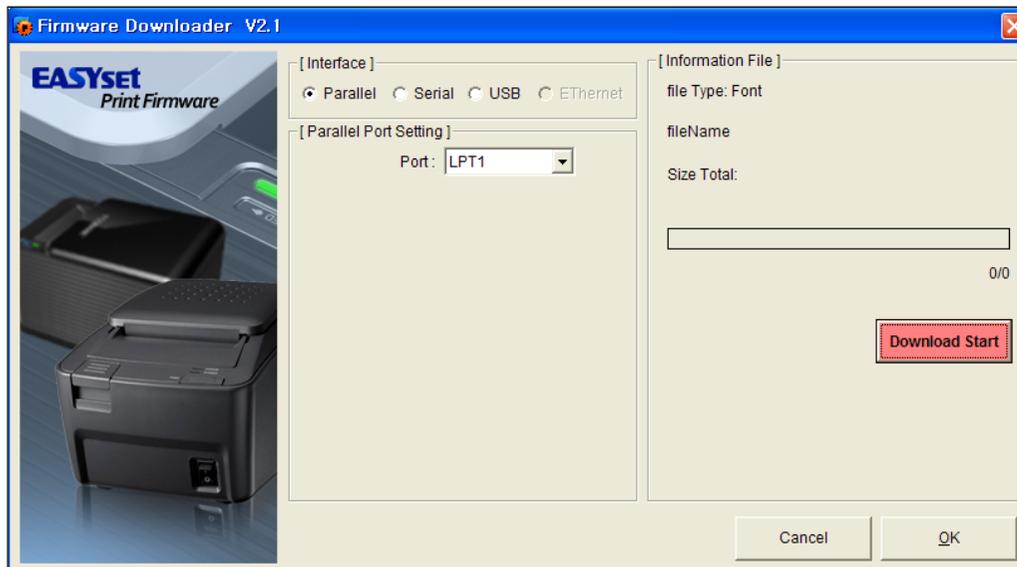
3-2. Printer Setup

Printer Firmware

● Installation

1. Insert CD or download EasySet Print Firmware driver (www.easysset.org)
2. Install Printer Firmware driver
3. Main program can be found at: **[Start] -> [All Programs] -> [EasySet] -> [PrintFirmWare]**

● Settings



Step 1. Select [Interface] and [Port].

Step 2. Click [Download Start] and choose route.

After checking printer model, select firmware route.

- **A7(ECP-500)**

[C:/Program Files/EasySet/PrintFirmWare/ARM7/Firmware]

- **A9(ECP-500A)**

[C:/Program Files/EasySet/PrintFirmWare/ARM9/Firmware]

[Font route]

- **A7(ECP-500)**

[C:/Program Files/EasySet/PrintFirmWare/ARM7/Font]

- **A9(ECP-500A)**

[C:/Program Files/EasySet/PrintFirmWare/ARM9/Font]

There are two font options in ARM9 ('only English' and 'English(full version)Korean/Chinese version').



Voice Tool

This program allows users to be notified of current printer status by voice alerts.

● Installation

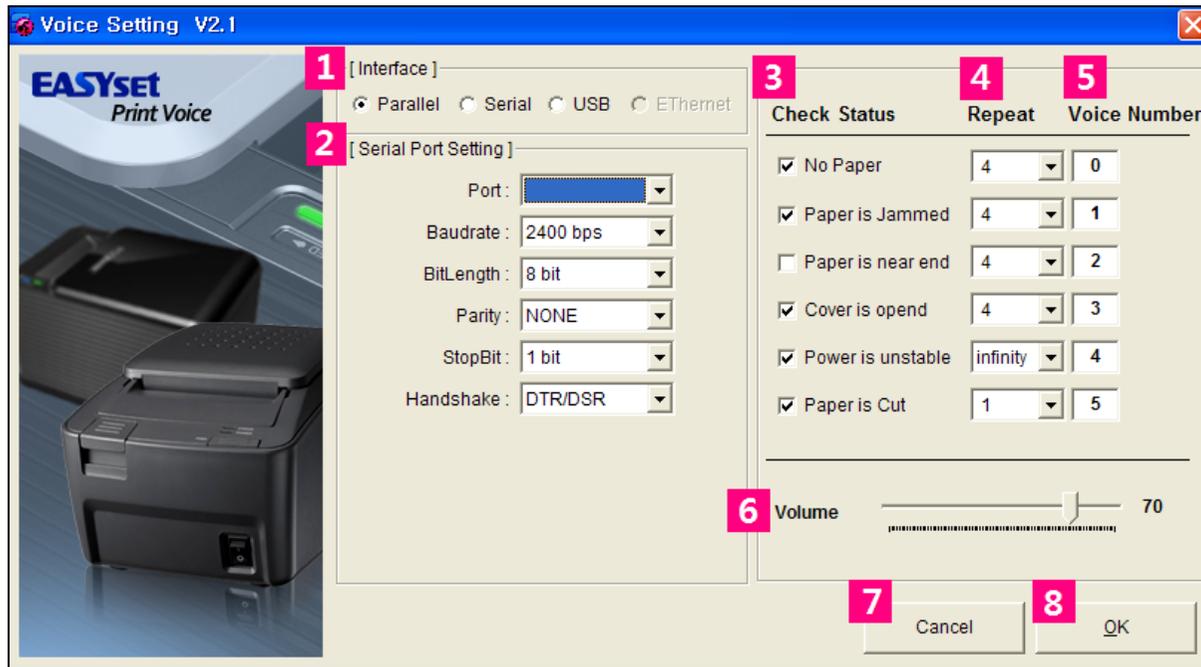
1. Insert CD or download EasySet Voice driver (www.easyset.org)
2. Install Voice Tool driver
3. Main program can be found at: **[Start] → [Program] → [EasySet] → [PrintVoice]**



Notice

- Voice function is only available for printers with internal speakers.
- Ensure to set DIP switch 1-5, 1-6 ON.

● Settings



Step 1. Select the [Interface] and [Port]

Step 2. Check required voice option

Step 3. Set the number of times for speech to be repeated and set volume

Step 4. Press [OK]

Step 5. A 1cm receipt will be printed and voice function will be applied

① Interface	Select printer interface
② Serial Port Setting	Select Port Baud rate settings should be the same as DIP switch settings
③ Check Status	Select required option: <ul style="list-style-type: none"> - No Paper : Paper Roll has run out - Paper is Jammed : There is a paper jam - Cover is opened : The cover has been left open - Power is unstable : Power supply should be checked for stability - Paper is Cut : The paper has been cut
④ Repeat	Sets the number of times for voice to be repeated
⑤ Voice Number	Selects voice
⑥ Volume	Adjust volume
⑦ Cancel	Discard changes
⑧ OK	Save and exit settings

[Voice Number]

0	There is no paper. Please insert new paper roll
1	Paper is jammed. Please remove the jammed paper
2	Paper is running out. Please prepare new paper roll
3	Cover is opened. Please close the cover
4	Power supply is unstable. Please check with adapter
5	You have a new order
6	Welcome
7	Thank you
8	Bye
9	You have an additional order
10	The order is cancelled

*** To select a melody instead of voice, please choose number '11'**

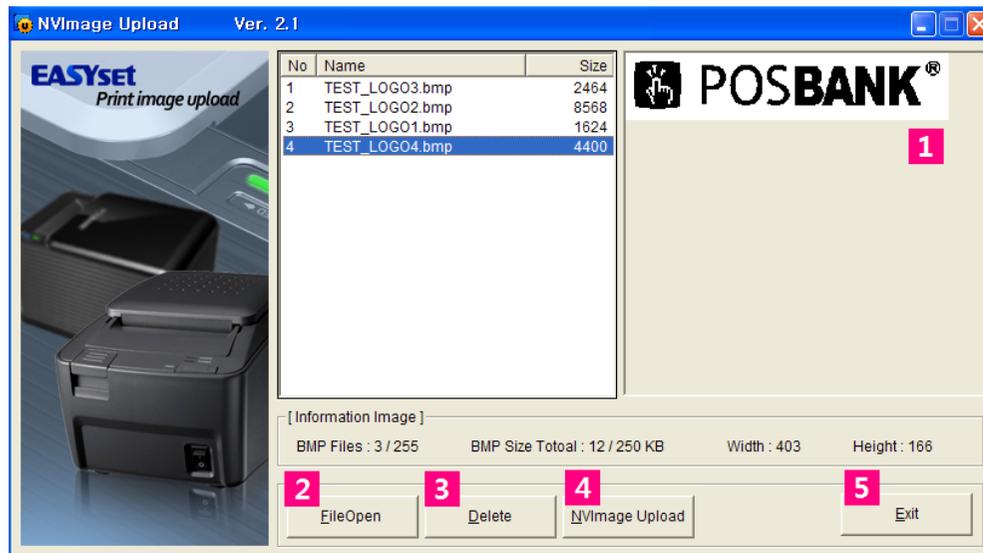
NV Image Tool

Image uploading tool.

● Installation

1. Insert CD or download EasySet NVImage driver file (www.easysset.org)
2. Install NV Image Tool driver
3. Main program can be found at: **[Start] → [All Programs] → [EasySet] → [PrintNVImage]**

● Settings



① Preview of image	② Open file	③ Delete image
④ Uploads selected image to printer		⑤ Exit

Step 1. Click ② [FileOpen]



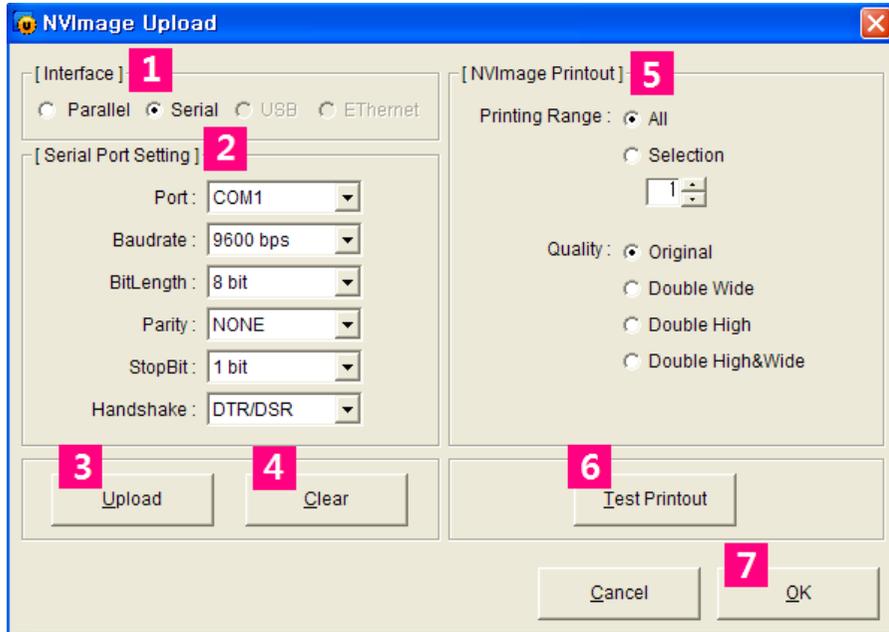
Notice

Only single color .bmp files are compatible.

Step 2. Confirm the image is correct in ① preview window

Step 3. Click ④ [NVImage Upload]

Step 4. Select [Interface], [Serial Port Setting], [NVImage Printout]

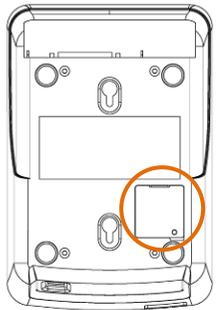


① Interface	Selects interface type
② Serial Port Setting	Choose to select serial port settings
③ Upload	Uploads and applies the selected image
④ Clear	Delete the selected image
⑤ NVImage Printout	Printing Range : Chooses which pages are required Quality : Selects the quality of print required
⑥ Test Printout	Prints test page
⑦ OK	Save and exit settings

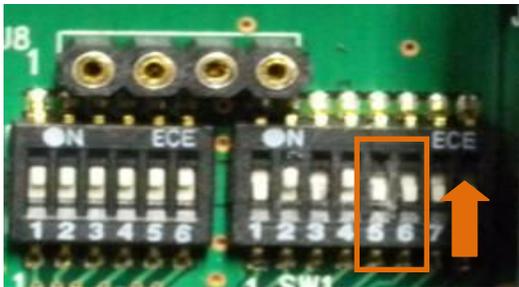
3-3. DIP Switch Settings

[DIP Switch setting]

1. Turn off printer.
2. Remove the DIP switch cover with screwdriver.



Remove the screw and open DIP switch cover



Change DIP 1-5, 1-6 to ON

[SWITCH 1]

NO	Function	Setting				Default	
1	RS232-C Transmission speed			SW-1	SW-2	SW-3	9600 BPS
		2400 BPS		OFF	OFF	OFF	
		4800 BPS		ON	OFF	OFF	
		9600 BPS		OFF	ON	OFF	
		19200 BPS		ON	ON	OFF	
		38400 BPS		OFF	OFF	ON	
		57600 BPS		ON	OFF	ON	
		115200 BPS		OFF	ON	ON	
		XON/XOFF		ON			

2	RS232-C (Handshaking)	SW-4				DTR/DSR
		DTR/DSR		OFF		
		XON/XOFF		ON		

NO	Function	Setting			Default
3	Sound	SOUND	SW-5	SW-6	NO SOUND
		NO SOUND	OFF	OFF	
		INTERNAL BUZZER	ON	OFF	
		EXTERNAL BUZZER	OFF	ON	
		VOICE	ON	ON	

[SWITCH 2]

CODE PAGE	LANGUAGE	SW1	SW2	SW3	SW4	SW5	SW6
CP-437	USA, Standard Europe	OFF	OFF	OFF	OFF	OFF	OFF
Katakana	Japanese	ON	OFF	OFF	OFF	OFF	OFF
CP-850	Multilingual	OFF	ON	OFF	OFF	OFF	OFF
CP-860	Portuguese	ON	ON	OFF	OFF	OFF	OFF
CP 863	Canadian-French	OFF	OFF	ON	OFF	OFF	OFF
CP-865	Nordic	ON	OFF	ON	OFF	OFF	OFF
CP-1252	Latin I	OFF	ON	ON	OFF	OFF	OFF

CODE PAGE	LANGUAGE	SW1	SW2	SW3	SW4	SW5	SW6
CP-866	Cyrillic Russian	ON	ON	ON	OFF	OFF	OFF
CP-852	Latin II	OFF	OFF	OFF	ON	OFF	OFF
CP-858	Euro	ON	OFF	OFF	ON	OFF	OFF
Thai-42	Thailand character	OFF	ON	OFF	ON	OFF	OFF
Thai-11	Thailand character	ON	ON	OFF	ON	OFF	OFF
Thai-14	Thailand character	OFF	OFF	ON	ON	OFF	OFF
Thai-16	Thailand character	ON	OFF	ON	ON	OFF	OFF
Thai-18	Thailand character	OFF	ON	ON	ON	OFF	OFF
CP-874	Thailand character	ON	ON	ON	ON	OFF	OFF
CP-737	Greek	OFF	OFF	OFF	OFF	ON	OFF
CP-775	Baltic	ON	OFF	OFF	OFF	ON	OFF
CP-855	Cyrillic	OFF	ON	OFF	OFF	ON	OFF
CP-857	Turkish	ON	ON	OFF	OFF	ON	OFF
CP-861	Icelandic	OFF	OFF	ON	OFF	ON	OFF
CP-862	Hebrew	ON	OFF	ON	OFF	ON	OFF
CP-864	Arabic	OFF	ON	ON	OFF	ON	OFF
CP-869	Greek II	ON	ON	ON	OFF	ON	OFF
CP-1251	Cyrillic	OFF	OFF	OFF	ON	ON	OFF
CP-1253	Greek	ON	OFF	OFF	ON	ON	OFF

CODE PAGE	LANGUAGE	SW1	SW2	SW3	SW4	SW5	SW6
CP-1254	Turkish	OFF	ON	OFF	ON	ON	OFF
CP-1255	Hebrew	ON	ON	OFF	ON	ON	OFF
CP-1256	Arabic	OFF	OFF	ON	ON	ON	OFF
CP-1257	Baltic	ON	OFF	ON	ON	ON	OFF
CP-1258	Vietnam	OFF	ON	ON	ON	ON	OFF
CP-950	Traditional Chinese Big5	OFF	OFF	ON	ON	ON	ON
CP-936	Simplified Chinese GBK	ON	OFF	ON	ON	ON	ON
CP-932	Japanese Shift-JIS	OFF	ON	ON	ON	ON	ON
CP-949	Korean	ON	ON	ON	ON	ON	ON



A10 Thermal Receipt Printer



Chapter 4. Maintenance

This section shows the user the correct way to remove, replace and setup all of the necessary parts and peripherals used with the POSBANK A10 thermal receipt printer.

[Interface Panel Removal]



1. Remove screws from either side of panel as shown above.



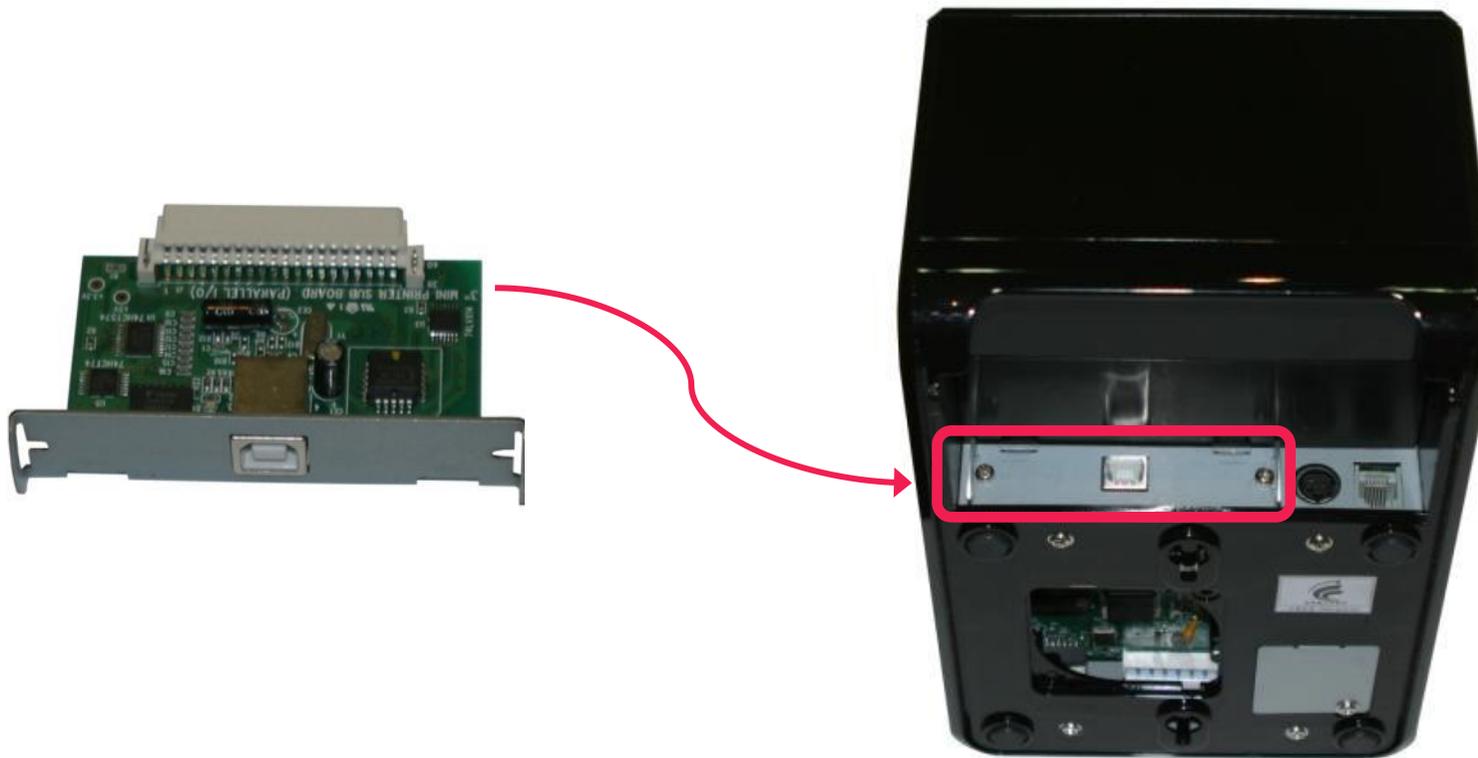
2. Pull out the fixture using the sides as a guide.



3. Completely remove panel from main unit.

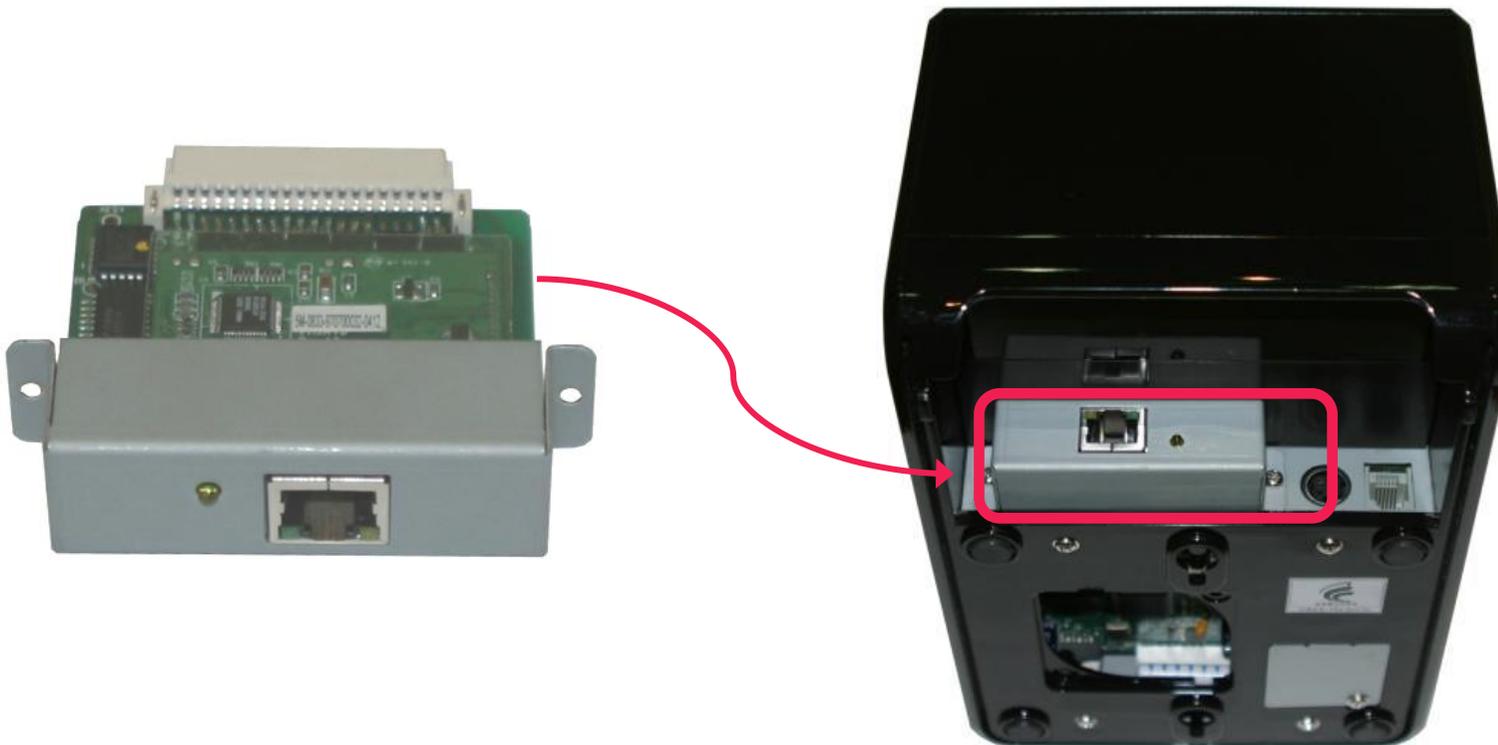
The interface panel is now completely removed

[USB Interface Replacement]



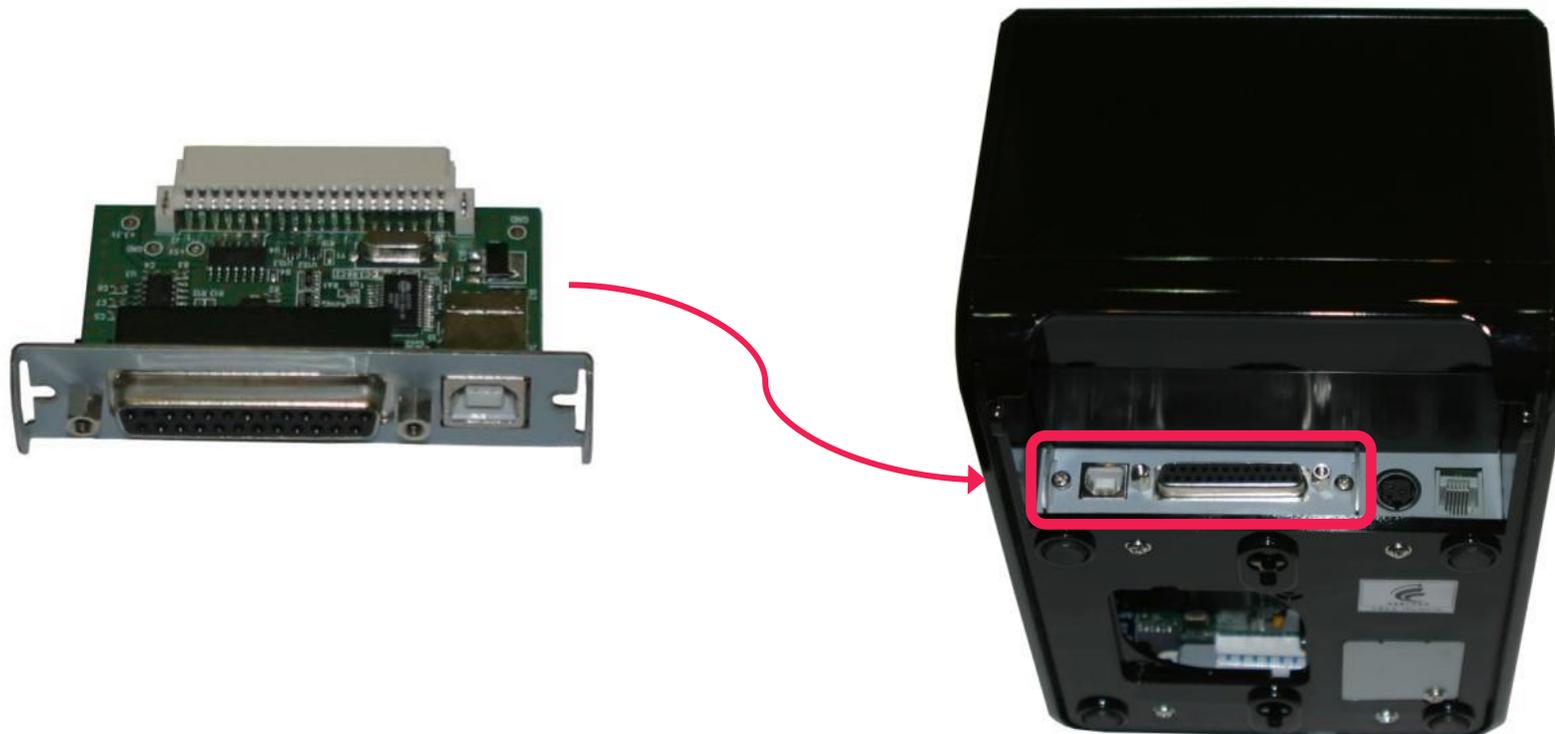
-
1. Remove interface panel as shown in P.32 – P.33.
 2. Connect new USB interface to main unit.
 3. Replace screws at either side of panel.

[Ethernet Interface Replacement]



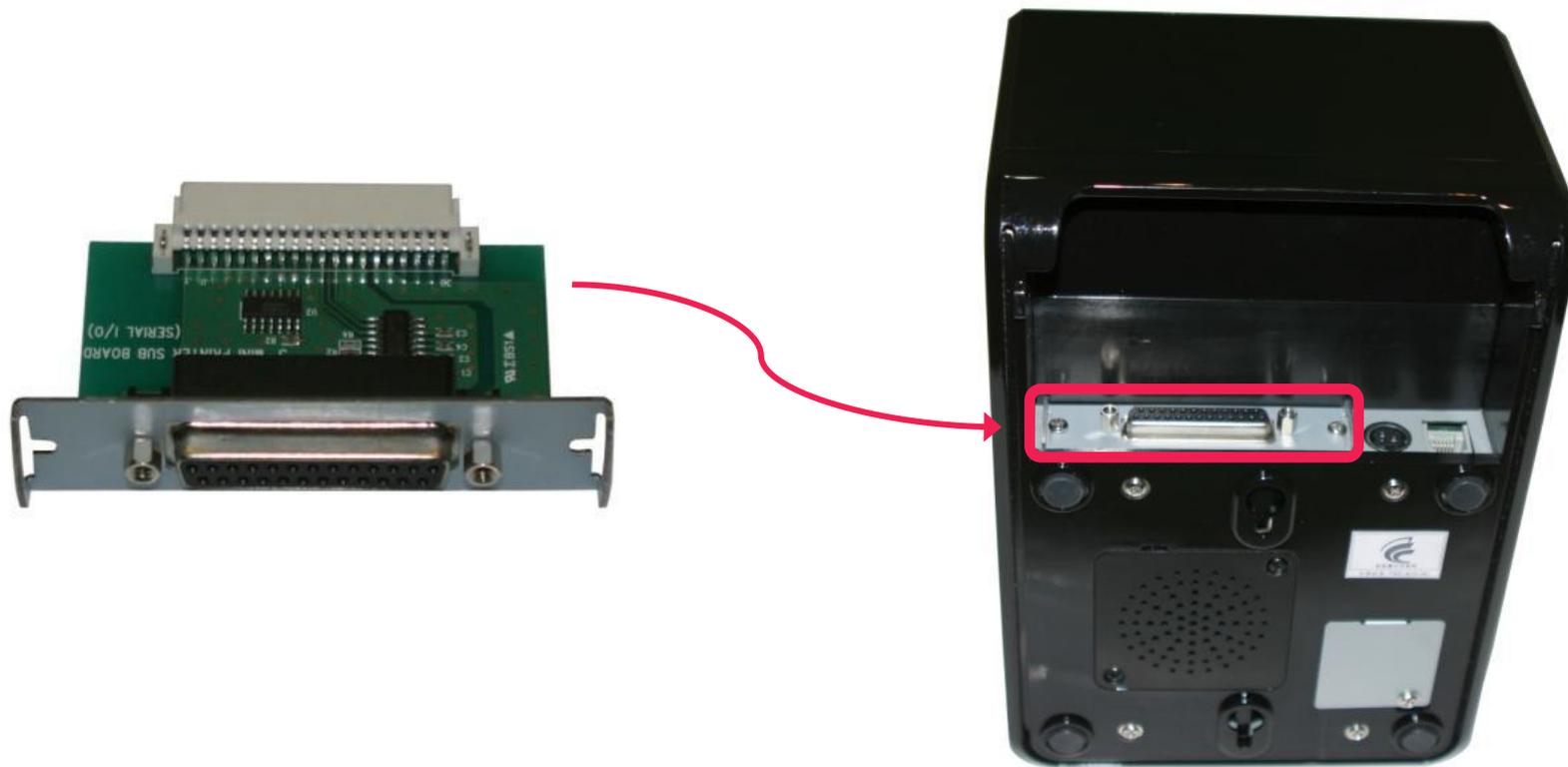
-
1. Remove interface panel as shown in P.32 – P.33.
 2. Connect new Ethernet interface to main unit.
 3. Replace screws at either side of panel.

[USB + Serial Interface Replacement]



-
1. Remove interface panel as shown in P.32 – P.33.
 2. Connect new USB + serial interface to main unit.
 3. Replace screws at either side of panel.

[Serial Interface Replacement]



-
1. Remove interface panel as shown in P.32 – P.33.
 2. Connect new serial interface to main unit.
 3. Replace screws at either side of panel.

[Parallel Interface Replacement]



-
1. Remove interface panel as shown in P.32 – P.33.
 2. Connect new parallel interface to main unit.
 3. Replace screws at either side of panel.

[Printer Cutter Replacement]

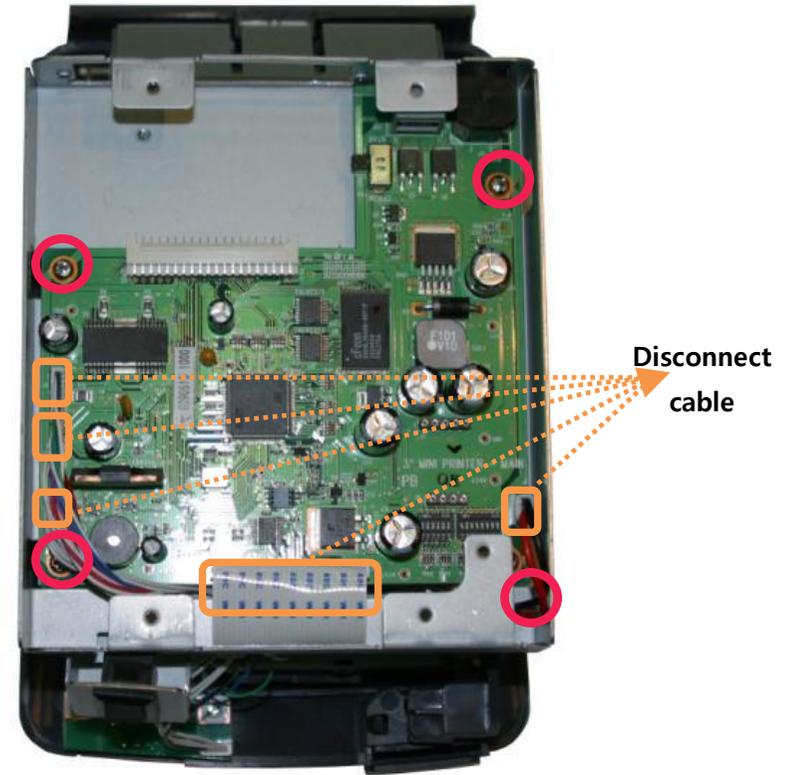


Cutter dissection



-
1. Remove both screws from either edge of printer cutter (as shown above).
 2. Remove the printer cutter.
 3. Install new printer cutter and reaffix previously removed screws.

[Motherboard Replacement]

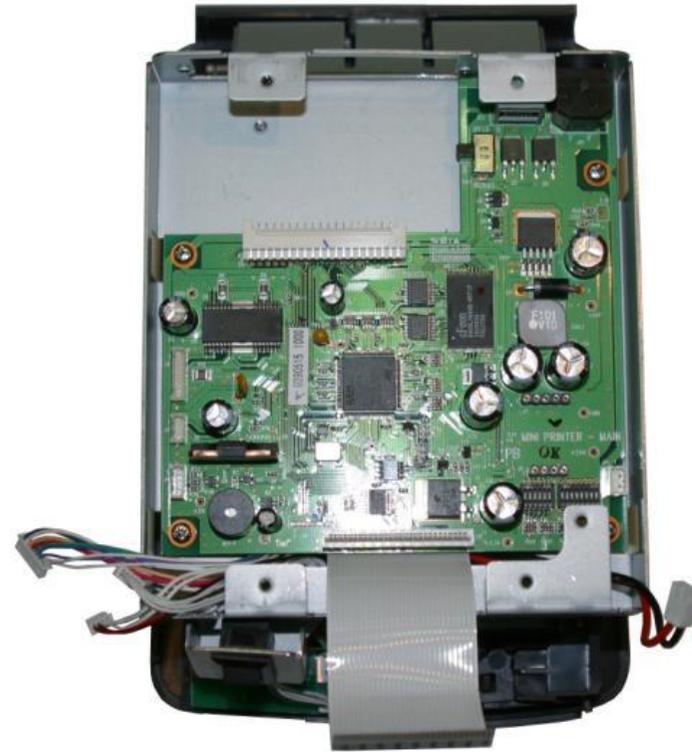


1. **Ensure** the power cable is unplugged.
2. Remove all 5 screws from underside of printer (as shown above).
3. Change power switch to **ON** before removing case. (Removal while in *OFF* position can damage the unit.)

4. Remove the 4 screws and 5 cables as shown in the marked areas above.



Motherboard is now completely removed



5. Insert new motherboard and perform the reverse of stages 1 – 4. to reassemble the main unit. *(NB: Make sure the switch is in the OFF state before reassembling. This prevents damage to machine.)*

[Printer Mechanism Replacement]

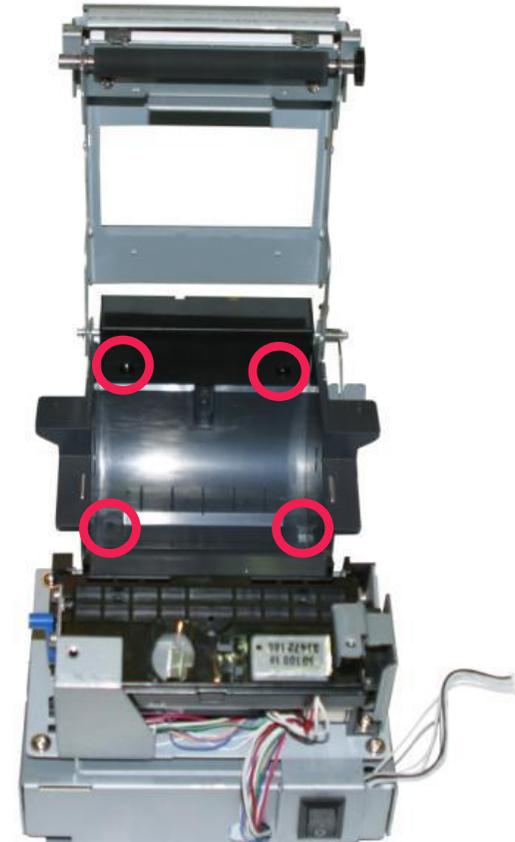


1. **Ensure** the power cable is unplugged.
2. Remove all 5 screws from the marked area under printer cover.
(4 screws from cover frame and 1 screw from main unit.)

3. Remove all 5 screws from underside of printer (as shown above).
4. Change power switch to **ON** before removing case. (Removal while in *OFF* position can damage the unit.)



5. Remove all 4 screws from the cover of the printer. (2 metal screws from upper side and 2 black screws from lower side.)
6. Completely detach printing unit from main unit.



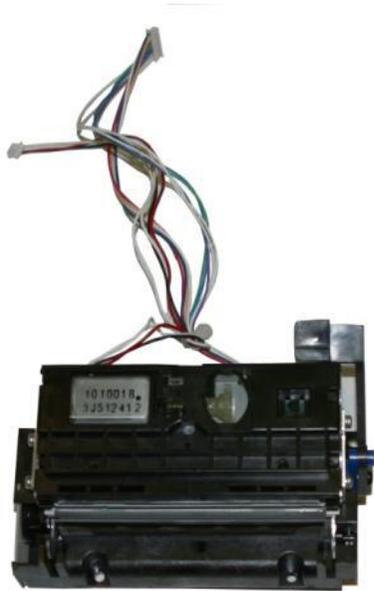
7. Remove the all 4 screws (2 metal and 2 black) as indicated above.



8. Disconnect the 2 cables as indicated above.



9. Remove the 3 screws from the areas shown above and disconnect data cable.



Printer mechanism is now completely removed



10. Install new printer mechanism unit and reassemble unit using the reverse procedure of steps 1-9.

[STAR/EPSON Cash Drawer Settings]



Remove interface panel and locate switch as shown above.

- 1) **EPSON cash drawer:** PUSH switch inwards to set to EPSON cash drawer.
 - 2) **STAR cash drawer:** PULL switch outwards to set to STAR cash drawer.
-



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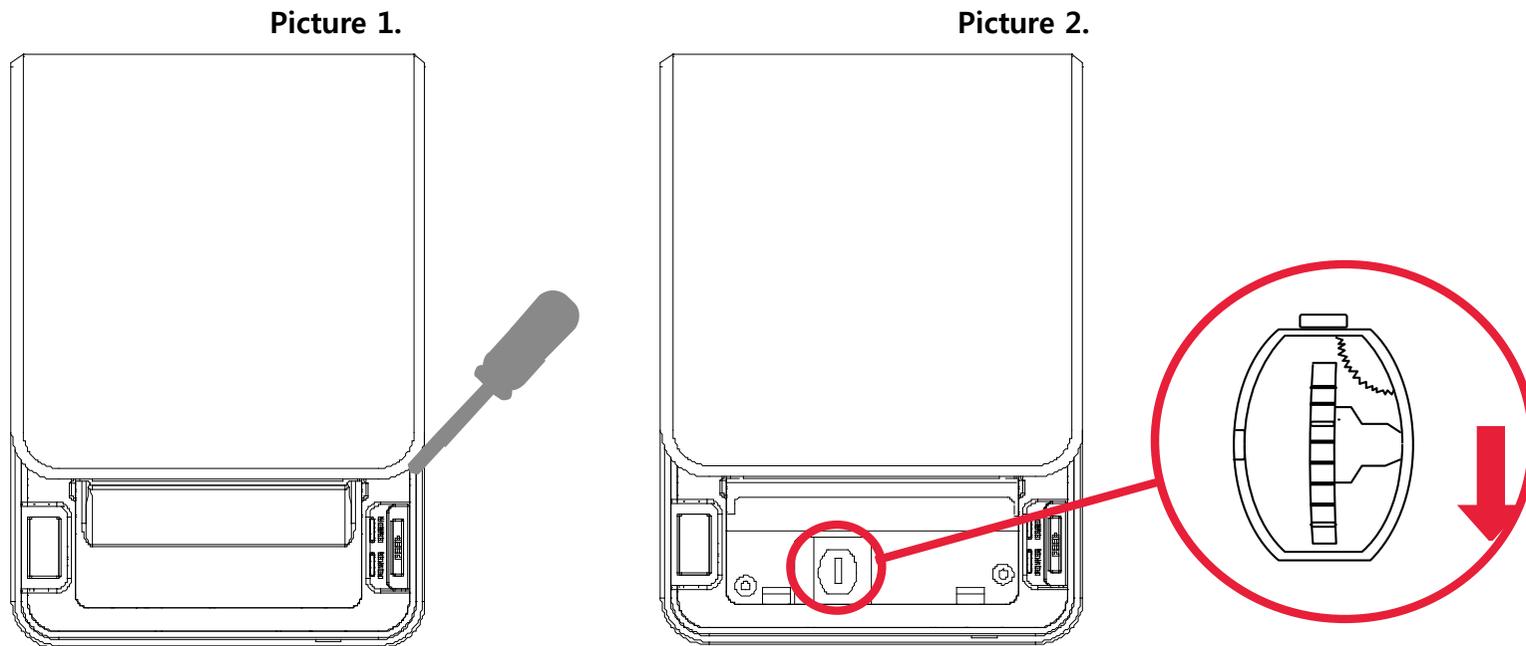


Chapter 5. Printer Operation

5-1. Printer Self-test

1. Make sure the paper roll is installed correctly.
2. While holding down the FEED button, turn on the printer to begin self-test.
3. The self-test will print out the current ROM version and DIP switch settings.
4. When self-test is complete, release the FEED button.
5. The printer is now ready to receive data.

5-2. Paper Jam Correction



1. In case paper is jammed in the printer cutter, temporarily cease printing.
2. Open the top cover and attempt to remove the jammed paper.
3. If the top cover is stuck and cannot be opened, try turning the power off and on several times.
4. If this does not rectify the problem, remove the lower-side cutter cover using a flat head screwdriver as shown in *Diagram 1*.
5. Locate the roller shown in *Diagram 2* and move in the direction indicated with the arrow (↓) until the jam is cleared.
6. When all jammed paper is removed, turn on the printer and resume normal operations.

5-3. A10 Printer Specifications

Printing Method	Direct thermal	
Printing Speed	220mm/sec	
Dot Density (DPI)	203.2	
Dot Pitch (mm)	0.125*0.125	
Effective Printing Width	74mm, 588dots	
Printing Direction	Unidirectional with friction feed	
Character/Line	Font A	(14*28) 42 columns
	Font B	(10*20) 58 columns
Paper	Type	Thermal paper
	Width	79.5mm (±0.5mm)
	Thickness	0.07mm
	Roll diameter	83 Ømm
Reliability	TPH Life	100km
	MCBF	60,000,000 lines
Character/Set	Alphanumeric character	95
	Extended graphic	128 x 35 page
Barcode	EAN-8, EAN-13, CODE39, CODE93, CODE128, ITF, UPC-A, UPC-E, CODABAR	
Emulation	ESC/POS command compatible	TM-T88III
Driver	Windows / OPOS	
Interface	Serial / Parallel / USB / Ethernet / USB +Serial combo	
Power	24 VDC / 2.5A	

Data Buffer	4 Kbyte	
Cutting	Life	1,000,000 cuts
	Cutting method	Partial Cut
Temperature	Operation	0 ~ 40°C
	Storage	-20 ~ 60°C
EMI Standard	CE, FCC, MIC	