

Thermal Receipt Printer

USER'S MANUAL



CONTENTS

Chapter 1. Introduction

1-1. Warranty	3
1-2. Copyright	4
1-3. Safety Information	4
1-4. Liability Limitation	5
1-5. Installation Recommendations	7

Chapter 2. Product Overview

2-1. Inside Your Package	8
2-2. Product Outline	10
[Control Panel]	10
[Connecting Cables]	11
[Installing Paper Roll]	12
2-3. Basic Installation	13
2-4. USB Settings	17

Chapter 3. Product Settings

3-1. Specifications	18
3-2. Printer Setup	19
[Printer Firmware]	19
[NV Image Tool]	20
3-3. Printer Settings	23

Chapter 4. Maintenance

Printer Cutter Replacement	29
Motherboard Replacement	30
Printer Mechanism Replacement	35

Chapter 5. Printer Operation

5-1. Printer Self-test	37
5-2. Paper Jam Correction	38
5-3. A7 Printer Specifications	39



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 venders.
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.



Thermal Receipt Printer



Chapter 2. Product Overview

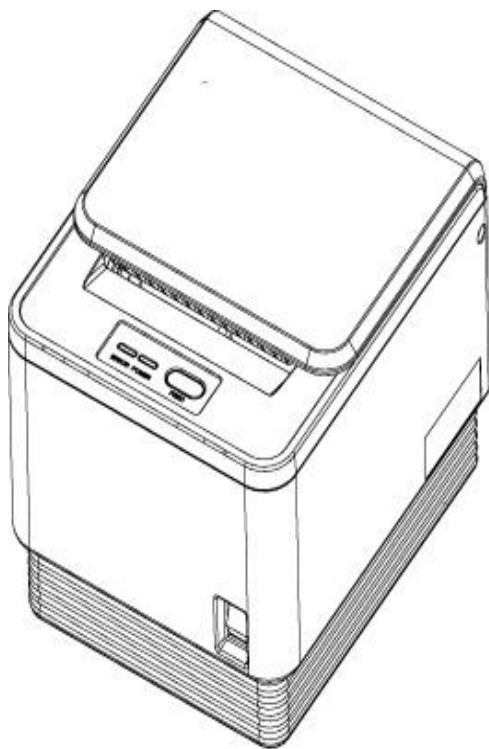
2-1. Inside Your Package

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

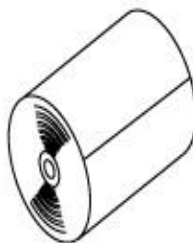
Please check that all items shown are included in your package. If anything is missing or damaged, please contact your dealer for assistance.

» The A7 printer manual and drivers can be downloaded from our website: www.posbank.com/www.easysset.org

[Package Contents]



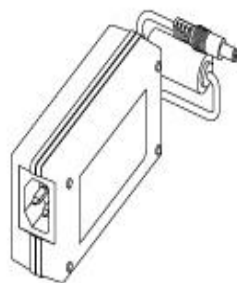
A7 printer



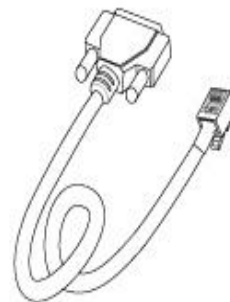
Roll paper



Installation guide



AC/DC Adapter



Interface cable

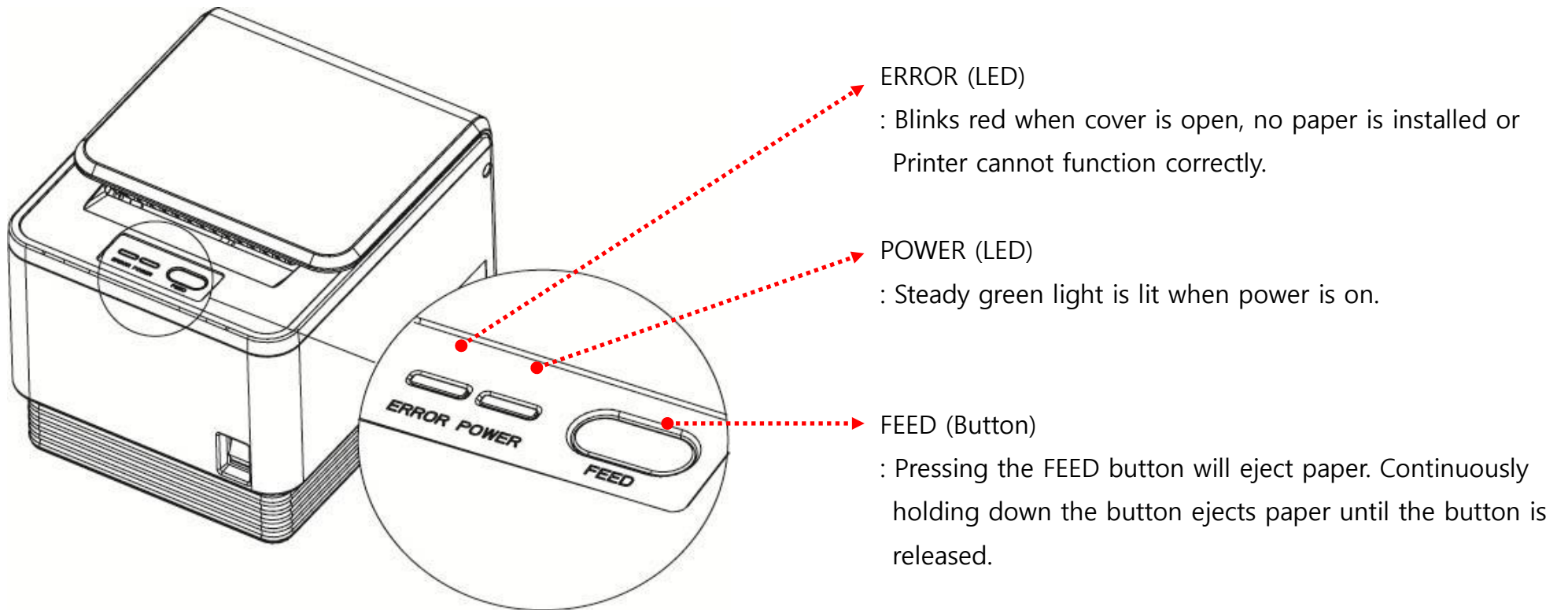


Power cord

2-2. Product Outline

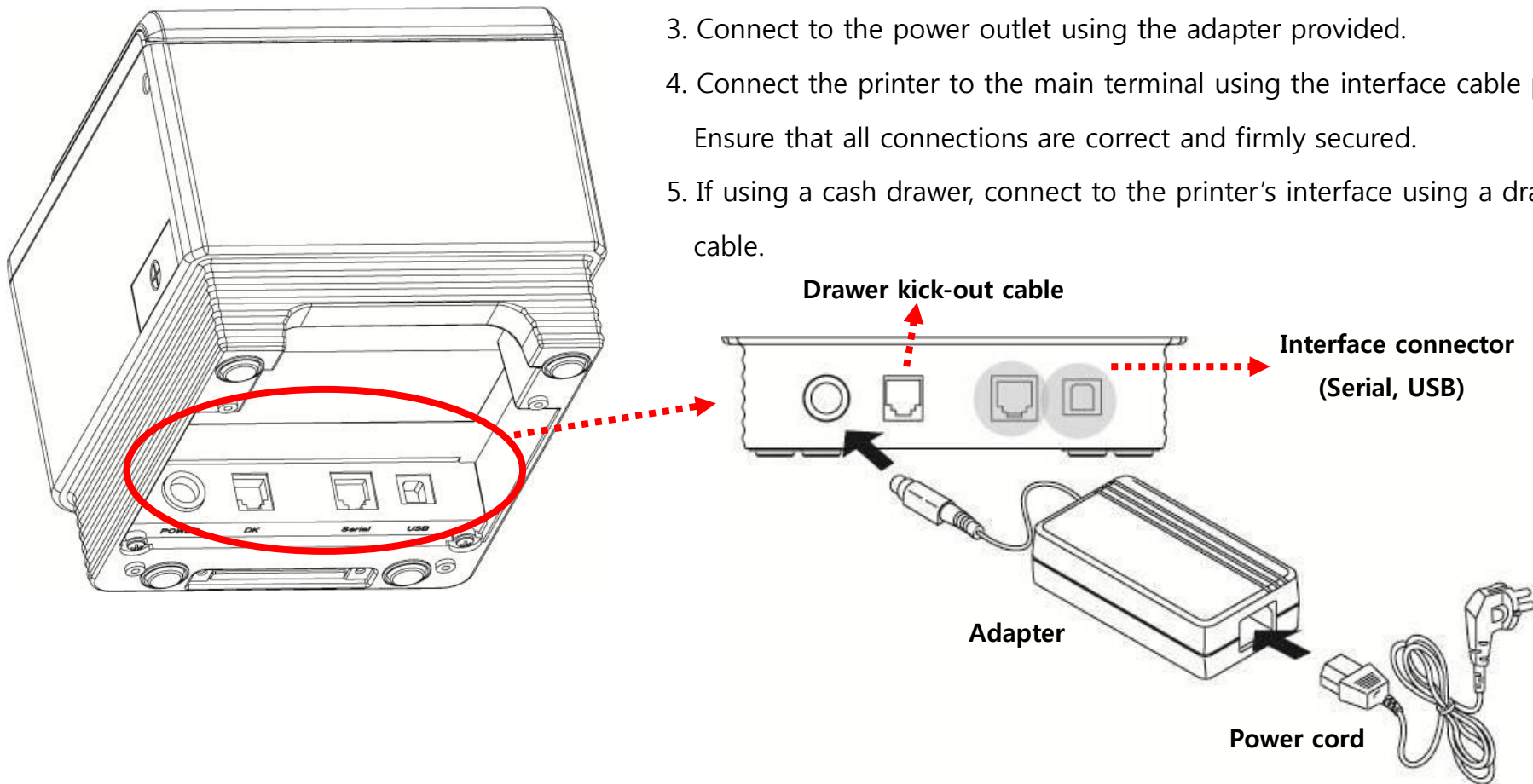
(Note: Labels may differ according to model/region)

[Control Panel]

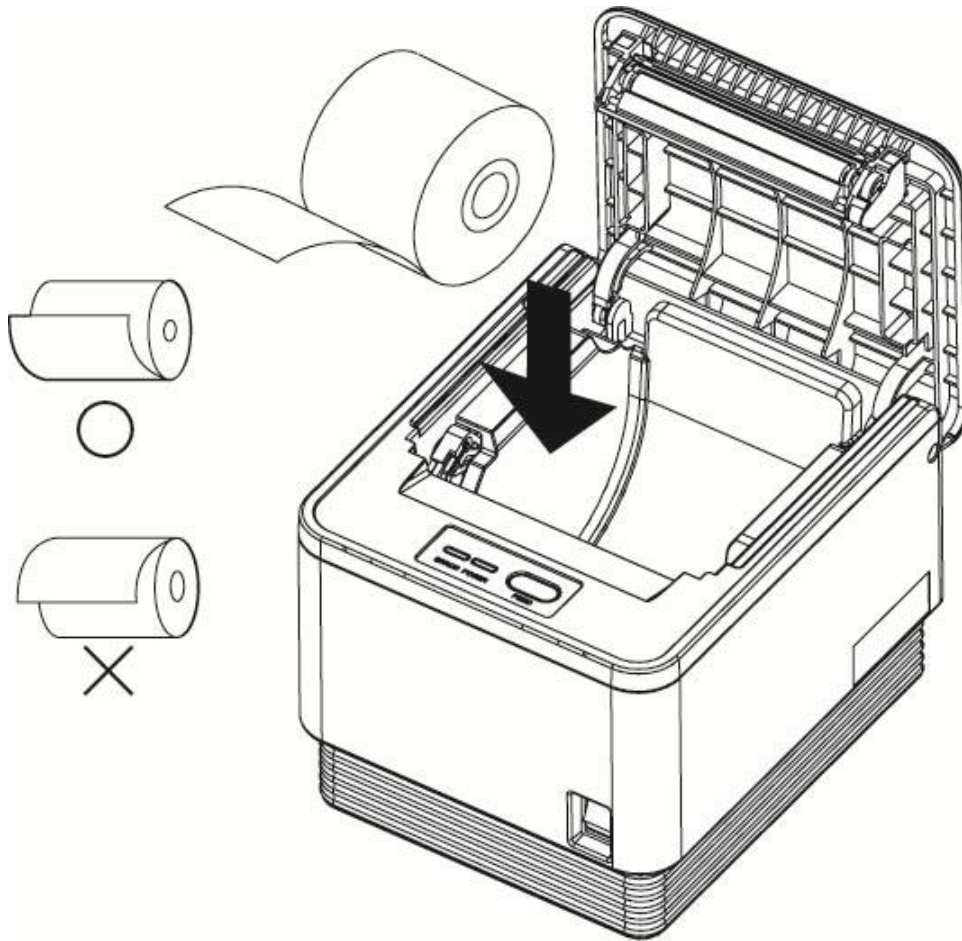


[Connecting Cables]

1. Ensure that both the printer and host terminal are switched off.
2. Connect the power cable by first pulling back on the locking mechanism and inserting into the printer's interface.
3. Connect to the power outlet using the adapter provided.
4. Connect the printer to the main terminal using the interface cable provided.
Ensure that all connections are correct and firmly secured.
5. If using a cash drawer, connect to the printer's interface using a drawer kick-out cable.



[Installing Paper Roll]



1. Push down on the level to the left side of printer to open the cover.
2. Switch off the power.
3. Remove any paper remaining inside the printer and insert a new paper roll, ensuring that the end of the roll is underneath. (as shown in the diagram)
4. Pull the end of the paper outside the machine and close the cover, ensuring that the cover is locked properly into place.
5. Switch the power back on.

[Note]

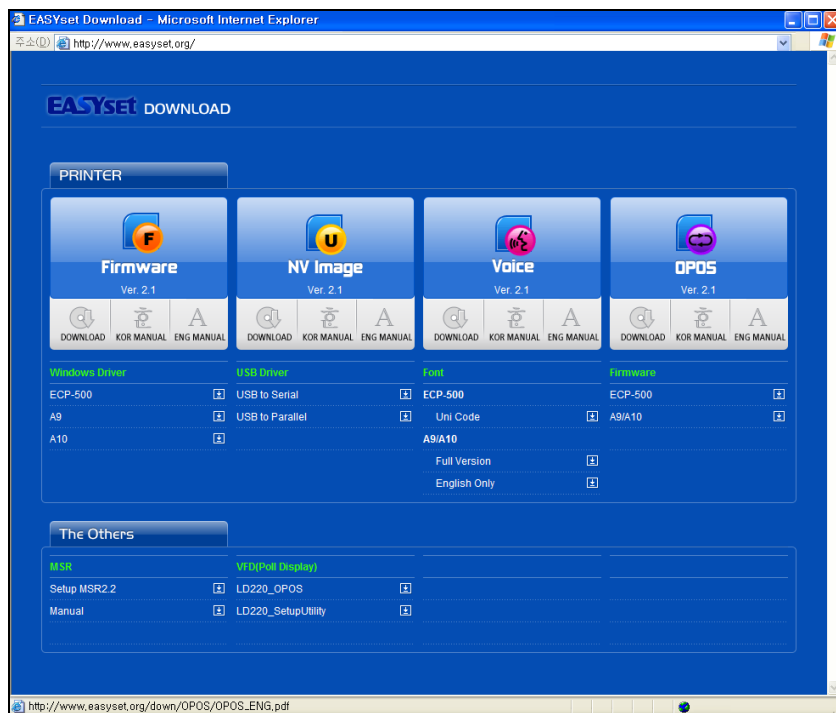
When closing the cover, press down on the center of the cover to ensure the paper is in contact with the roller.

2-3. Basic Installation

OPOS Driver

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

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

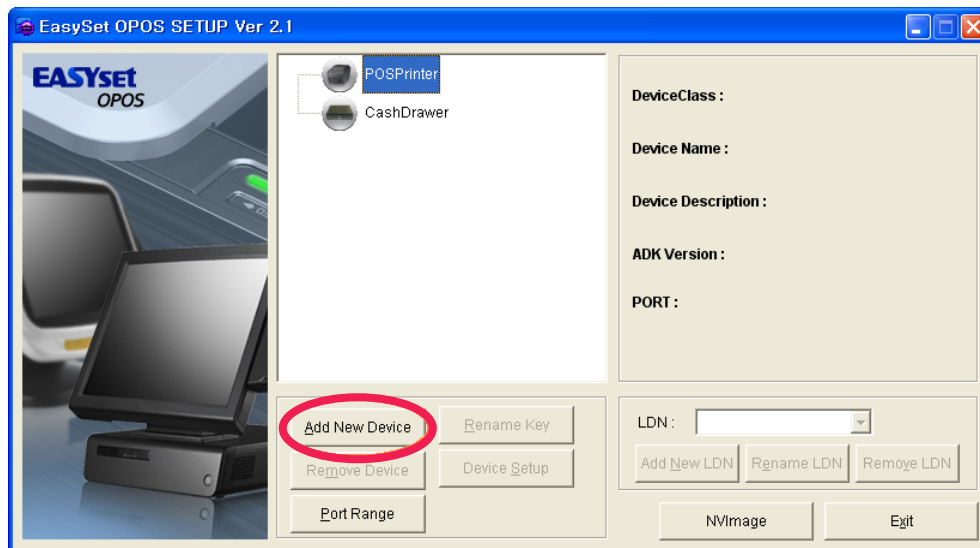


● Installation

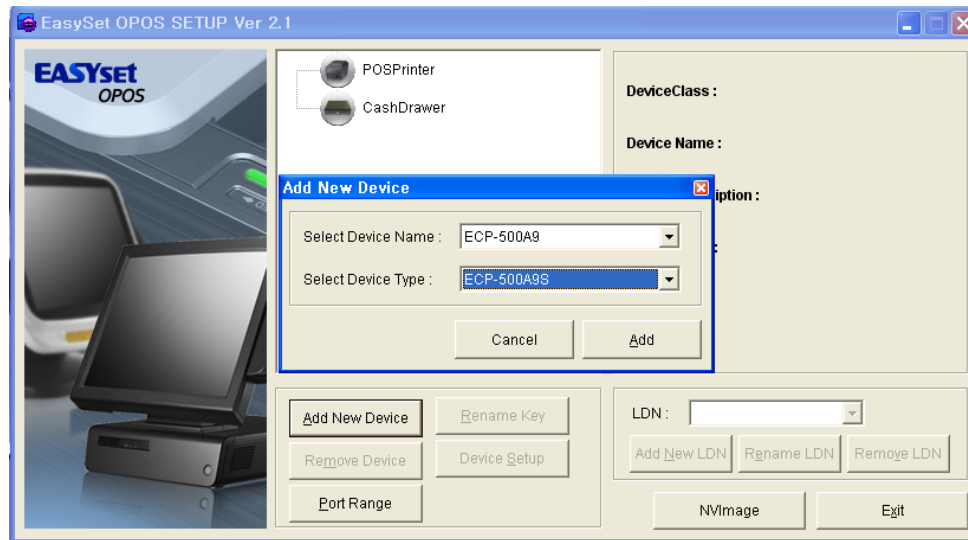
1. Download EasySet OPOS driver file and install.
2. Complete the installation of OPOS driver.
3. File is located at:

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

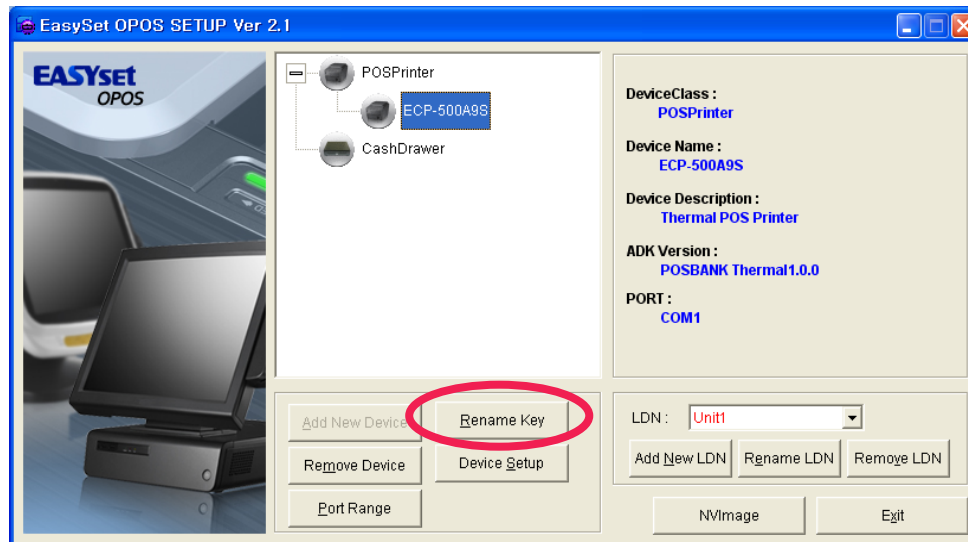
● Setting



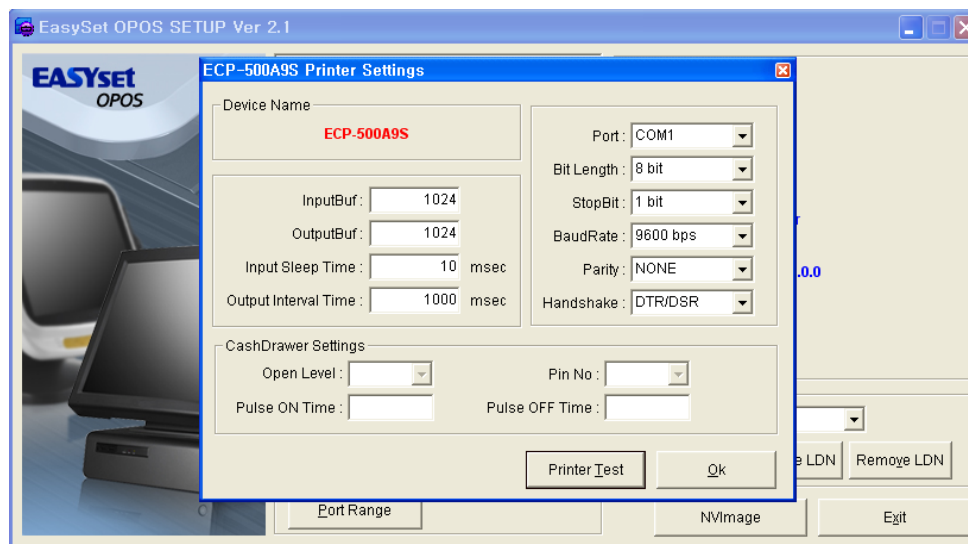
Click **"Add New Device"** to install new printer.



Select 'Device Name' and 'Device Type', then click "Add".
 ['Select Device Type': Serial, parallel or USB]



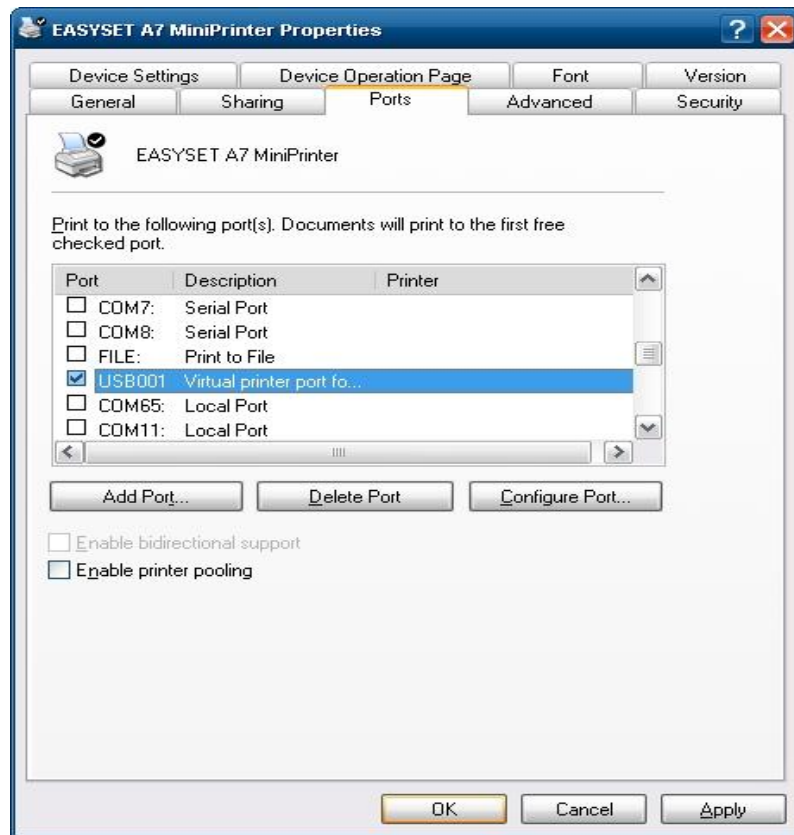
Select newly added printer and enter "Device Setup"..



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.

[USB Settings]



1. First, install the Windows Drivers from the CD.
 2. When the installation is complete, connect the USB cable.
 3. Click on Printer Properties and open the Port tab. Select the USB port that the printer is connected to and click OK.
 4. Print a test page to ensure that the printer is operating correctly.
-



Thermal Receipt Printer



Chapter 3. Product Settings

3-1. Specifications

- Versatile & adaptable applications
- Robust and cost effective
- Paper Jam-free type printing
- Easy paper loading
- Auto-cutter
- RS232/USB interfaces
- Internal buzzer
- High performance CPU
- High resolution printing (up to 203dpi)
- Melody box extension compatibility
- ESC command plus Windows / OPOS driver support
- Epson /Star cash drawer emulation via DIP Switch

3-2. Printer Setup

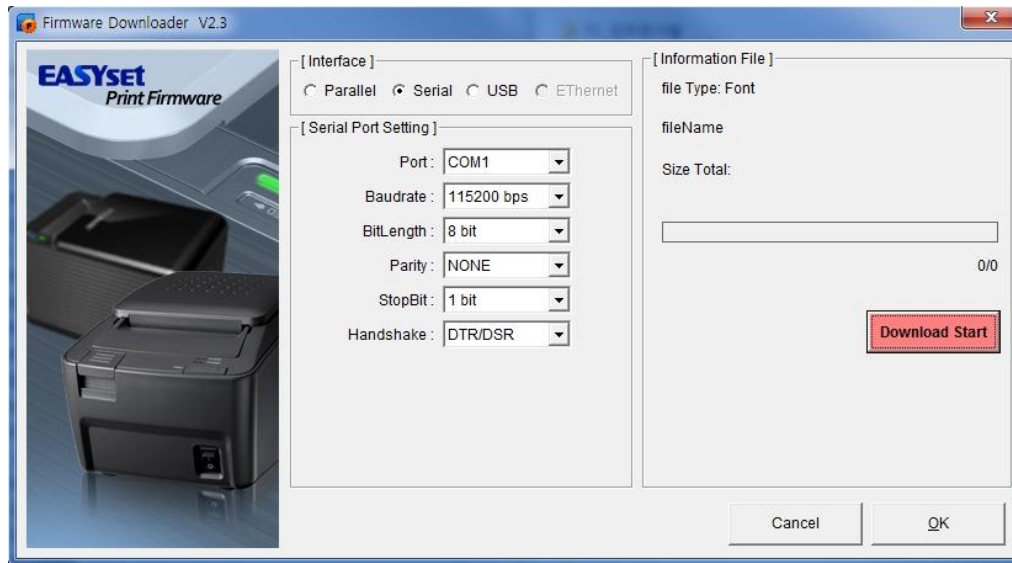


Printer Firmware

● 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]**

● Setting



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

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

After checking printer model, select **[Firmware route]**.

- A7

[C:\Program Files\EasySet\PrintFirmWare\A7\Firmware]

[Font route]

- A7

[C:\Program Files\EasySet\PrintFirmWare\A7\Font]



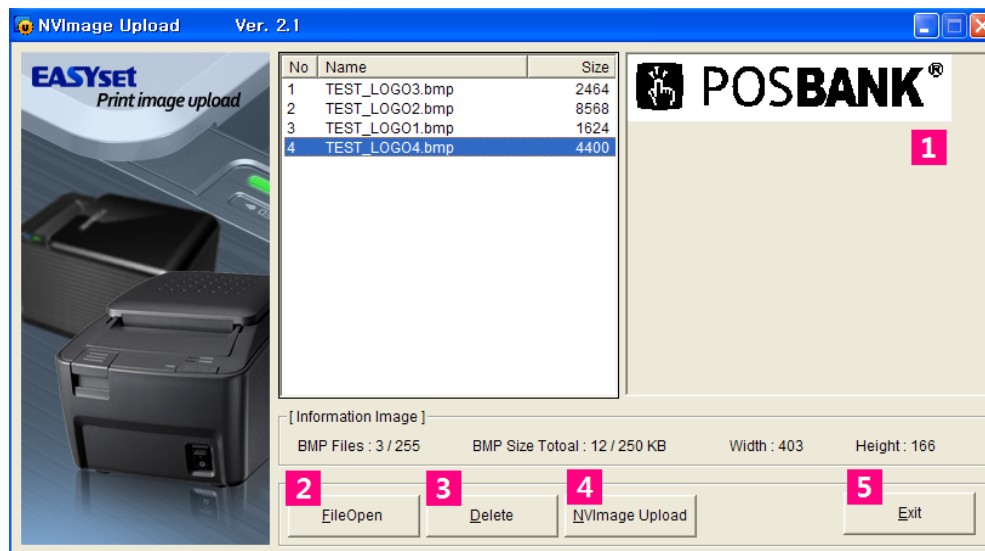
The 'NV Image Tool' program allows the user to add images to the printed receipt.

The program is compatible with ECP-500/ECP-500A, A10 printer and IMPREX internal printer.

● Installation

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

● Setting



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

Step 1. Click ② [File Open]



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], [NV Image Printout]

Step 5. Click [Test Printout] to check that your image has uploaded correctly.

Step 6. After confirming the image is correct, click [Upload] to transmit the information to the printer.

Step 7. Click [OK] to save the changes.

Step 8. After the changes have been, the applied image will be printed.

The screenshot shows the 'NVImage Upload' dialog box. It has a blue title bar with a yellow icon and a close button. The main area is divided into two sections: '[Interface]' and '[NVImage Printout]'. The '[Interface]' section has four radio buttons: 'Parallel', 'Serial' (selected), 'USB', and 'Ethernet'. Below it is the '[Serial Port Setting]' section with dropdown menus for 'Port' (COM1), 'Baudrate' (9600 bps), 'BitLength' (8 bit), 'Parity' (NONE), 'StopBit' (1 bit), and 'Handshake' (DTR/DSR). The '[NVImage Printout]' section has a 'Printing Range' section with 'All' selected and a 'Quality' section with 'Original' selected. At the bottom, there are buttons for 'Upload' (3), 'Clear' (4), 'Test Printout' (6), 'Cancel', and 'OK' (7). The 'OK' button is highlighted with a red square.

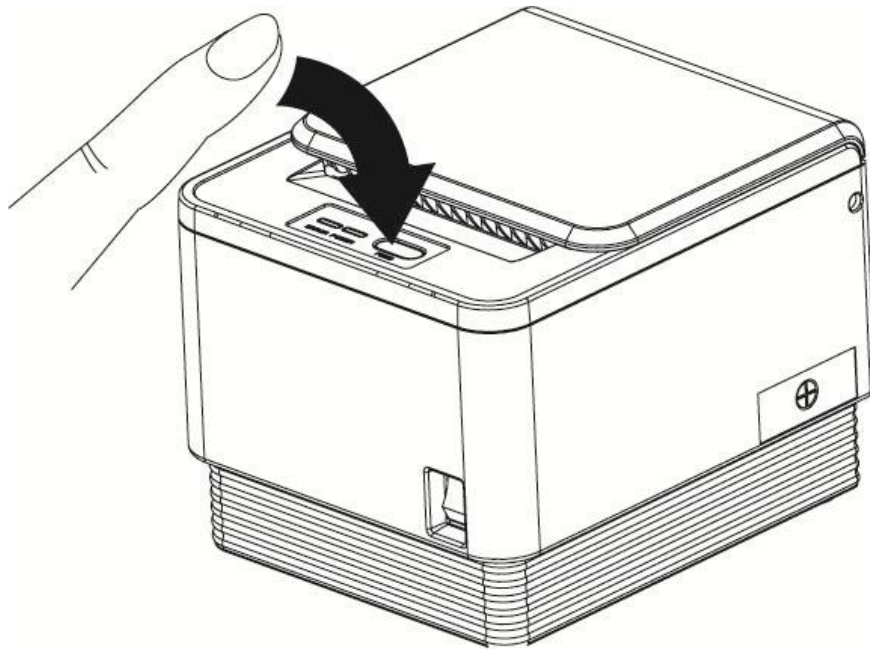
① Interface	Selects interface type
② Serial Port Setting	Choose serial port settings
③ Upload	Uploads and applies the selected image
④ Clear	Deletes the selected image
⑤ NVImage Printout	Printing Range : Chooses which pages are required Quality : Selects the quality of print required
⑥ Test Printout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

[Printer settings]

The printer properties (baudrate, density etc.) can be changed from the printer's 'Setting mode'.

To enter 'Setting mode':

1. Switch off the printer.
2. Ensure that the paper roll is inserted properly and the end of the roll is outside the printer with the cover securely fixed.
3. While holding down the FEED button, switch on the power.



4. The printer's 'Self-test' will begin.
5. Information about the printer's current state will be printed.
6. After 5 seconds without releasing the FEED button, the printer will enter 'Setting mode'.
7. The following properties available to be set will be printed:

*** Setting Mode ***

Interface : Serial

1. Step by Step
2. Serial Baudrate
3. Serial Handshaking
4. Error Sound
5. Density
6. Auto Cut
7. Auto Cut Mode
8. Code Page

* The following table shows the available options for each property in 'Setting mode'.

No	Function	Button Count	Setting	Default
1	Step by Step	Set in order		
2	Serial Baudrate	1	2400 BPS	9600BPS
		2	4800 BPS	
		3	9600 BPS	
		4	19200 BPS	
		5	38400 BPS	
		6	57600 BPS	
		7	115200 BPS	
3	Serial Handshaking	1	DTR/DSR	DTR/DSR
		2	XON/XOFF	
5	Error Sound	1	No Sound	NO Sound
		2	Internal Buzzer	
		3	External Buzzer	
6	Density	1	Low Power	Low Power
		2	Normal	
		3	Slightly	
		4	Dark	
7	Auto Cut	1	Install	Install
		2	Disable	
8	Auto Cut Mode	1	Soft Select	Soft Select
		2	Full Cut Only	

** To select the desired language, press the FEED button the corresponding number of times.*

PAGE 1	Button Count	CODE PAGE	LANGUAGE
	1	Next code page	
	2	CP-437	USA, Standard Europe
	3	Katakana	Japanese
	4	CP-850	Multilingual
	5	CP-860	Portuguese
	6	CP-863	Canadian-French
	7	CP-865	Nordic
	8	CP-1252	Latin I
	9	CP-866	Cyrillic Russian

PAGE 2	Button Count	CODE PAGE	LANGUAGE
	1	Next code page	
	2	CP-852	Latin II
	3	CP-858	Euro
	4	Thai-42	Thailand character
	5	Thai-11	Thailand character
	6	Thai-14	Thailand character
	7	Thai-16	Thailand character
	8	Thai-18	Thailand character
	9	CP-874	Thailand character

PAGE 3	Button Count	CODE PAGE	LANGUAGE
	1	Next code page	
	2	CP-737	Greek
	3	CP-775	Baltic
	4	CP-855	Cyrillic
	5	CP-857	Turkish
	6	CP-861	Icelandic
	7	CP-862	Hebrew
	8	CP-864	Arabic
	9	CP-869	Greek II

PAGE 4	Button Count	CODE PAGE	LANGUAGE
	1	CP-1251	Cyrillic
	2	CP-1253	Greek
	3	CP-1254	Turkish
	4	CP-1255	Hebrew
	5	CP-1256	Arabic
	6	CP-1257	Baltic
	7	CP-1258	Vietnam
	8	CP-950	Traditional Chinese BIG 5
	9	CP-936	Simplified Chinese GBK
	10	CP-932	Japanese Shift-JIS
	11	CP-949	Korean



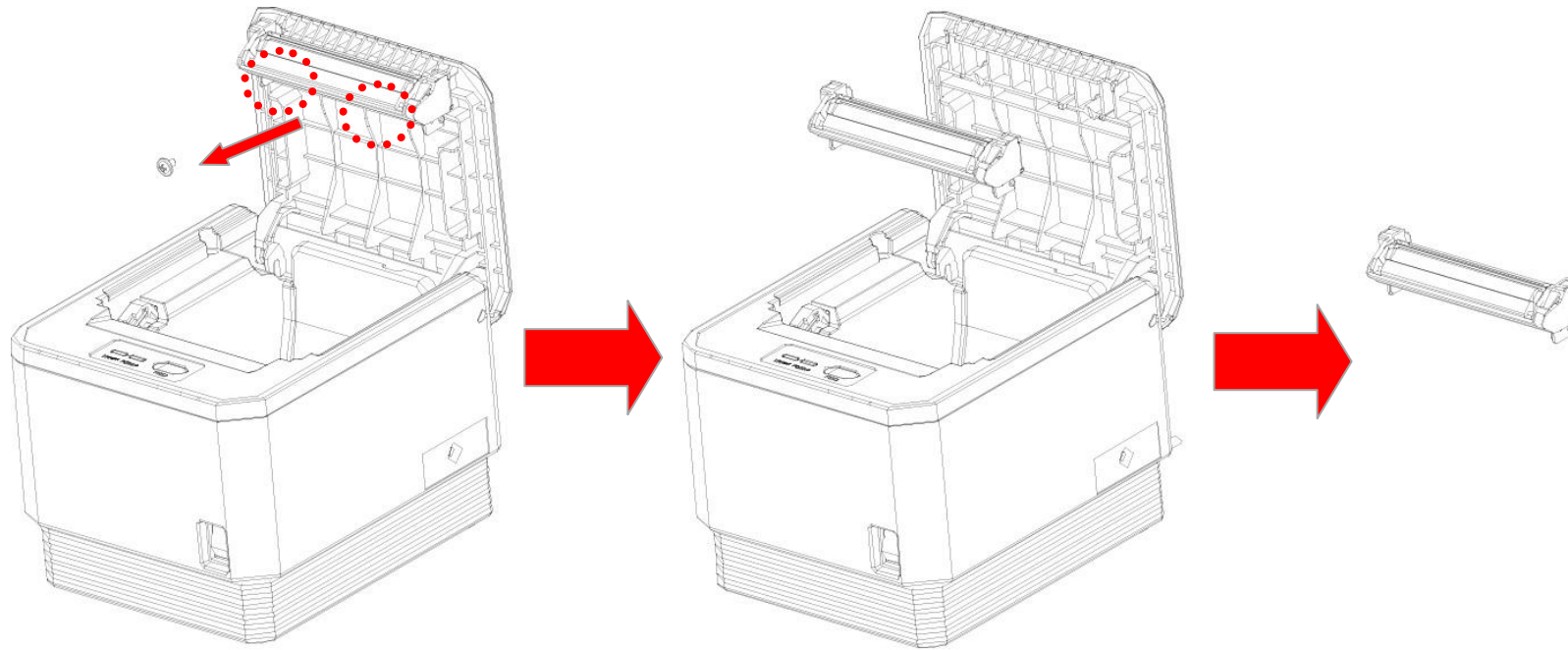
Thermal Receipt Printer



Chapter 4. Maintenance

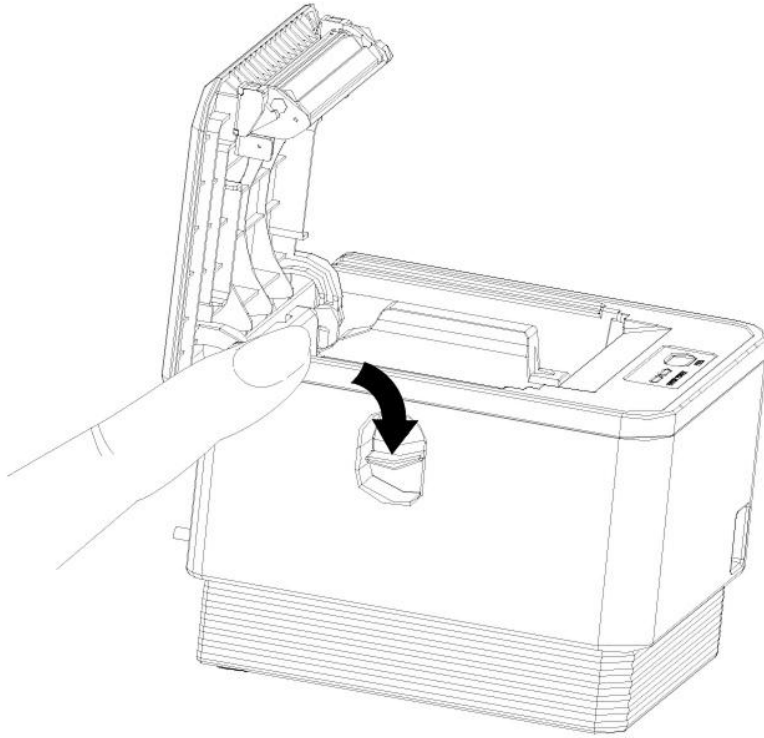
This section shows the user the correct way to remove and replace the printer cutter, motherboard and printer mechanism for the POSBANK A7 printer.

[Printer cutter replacement]

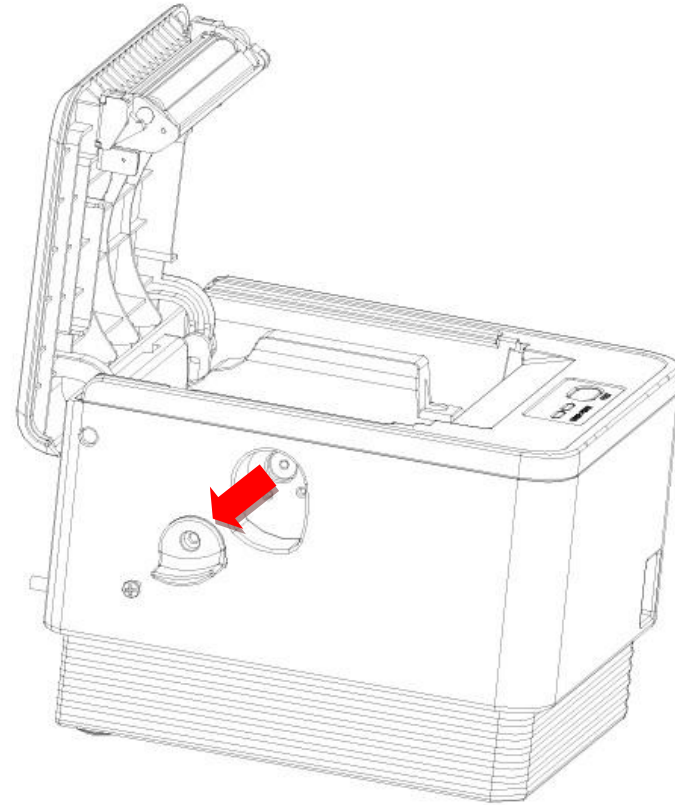


-
1. Open the printer cover and remove the 2 screws from the cutter (as shown above).
 2. Remove the cutter.
 3. Replace the cutter using the reverse procedure of steps 1-2 above.
-

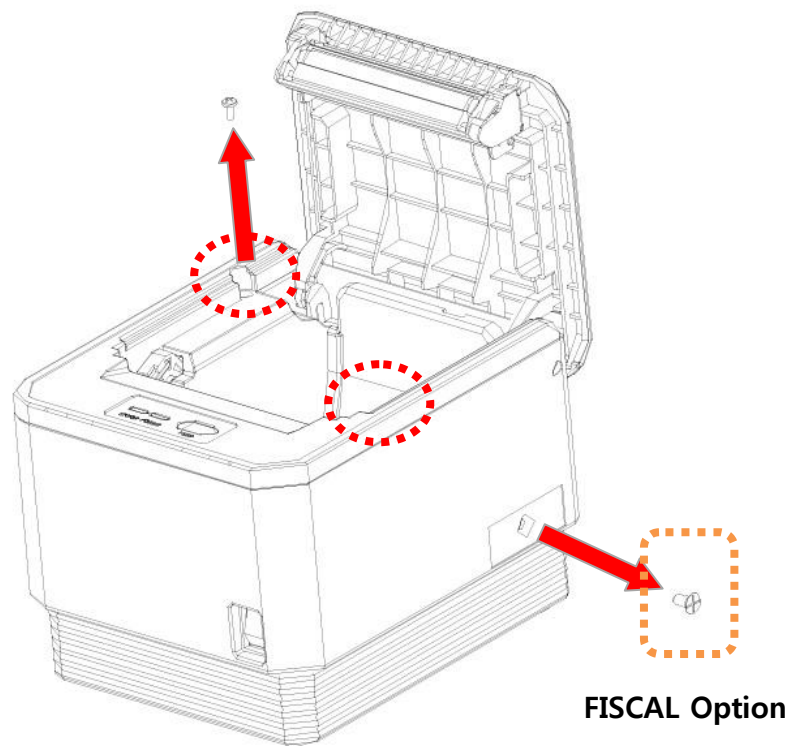
[Motherboard replacement]



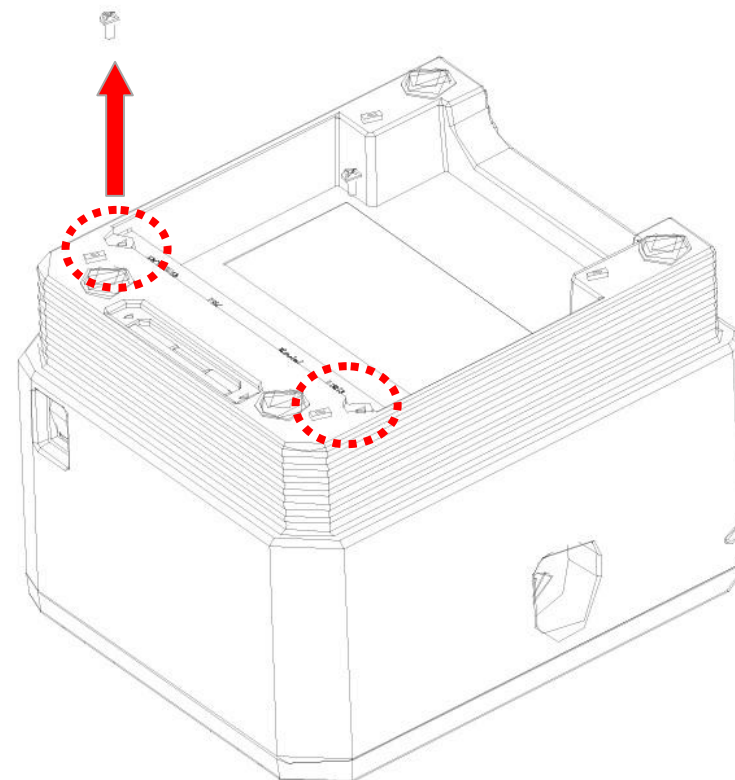
1. Remove the power cable from the unit and open the cover by pressing down on the level to the left of the printer.



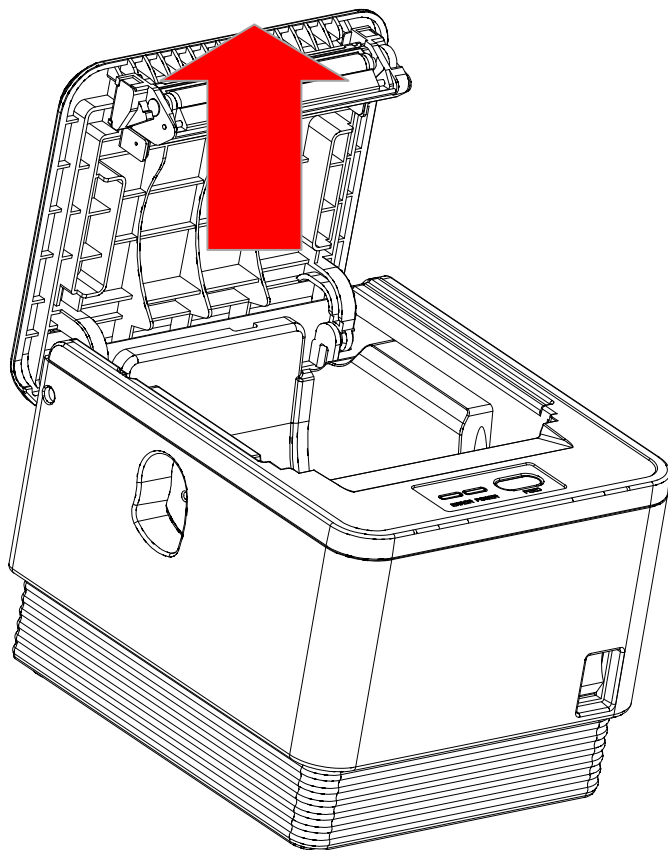
2. Remove the screw attached to the center of the lever and detach as shown above.



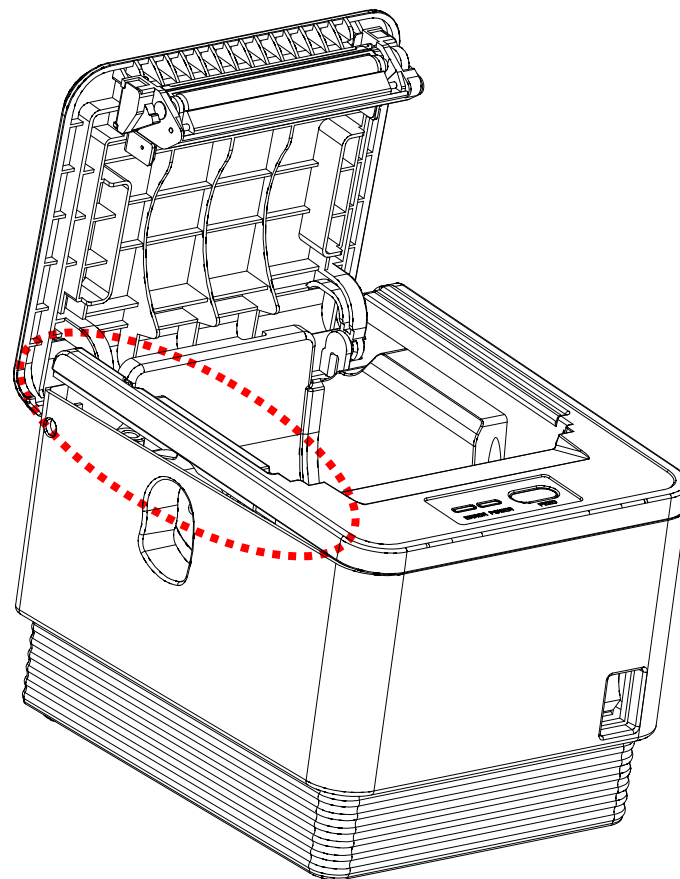
3. Remove the 2 flat-headed screws from the locations shown above.



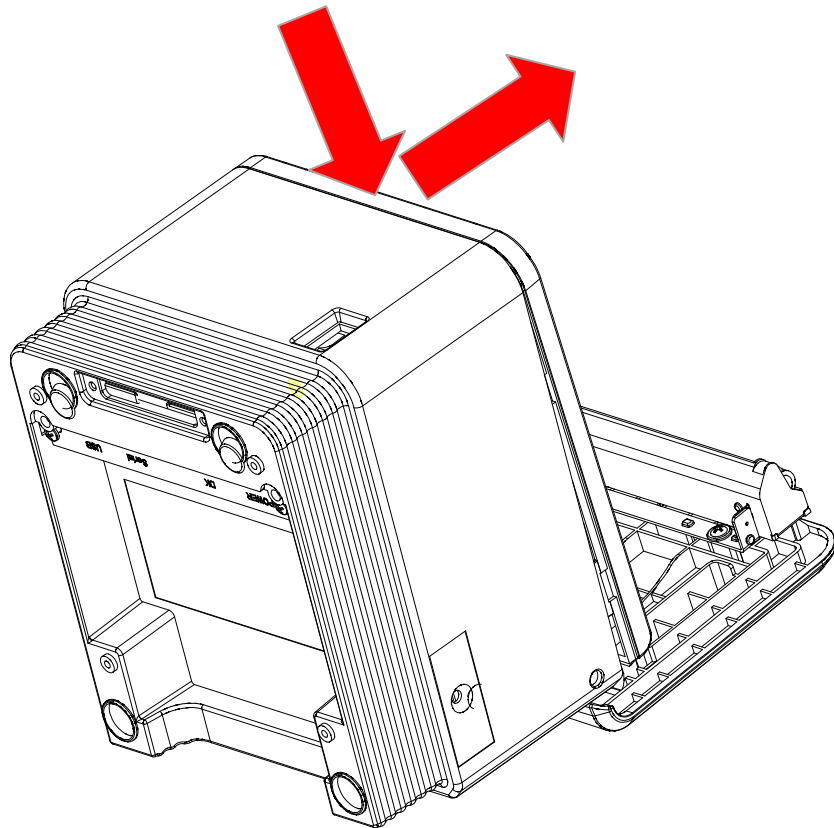
4. Remove the 2 screws from the underside of the printer (as shown above).



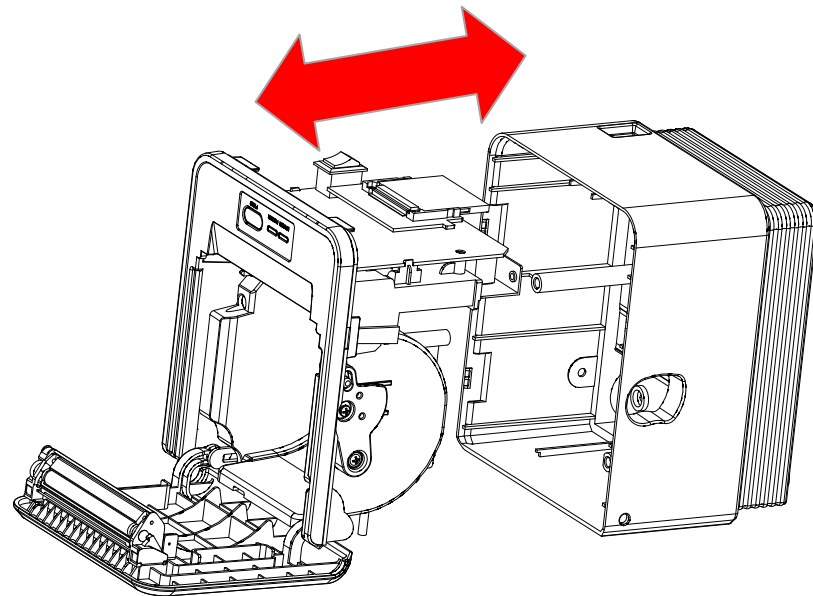
5. Ensuring that the cover is open, pull vertically upwards to separate the top casing from the bottom casing.



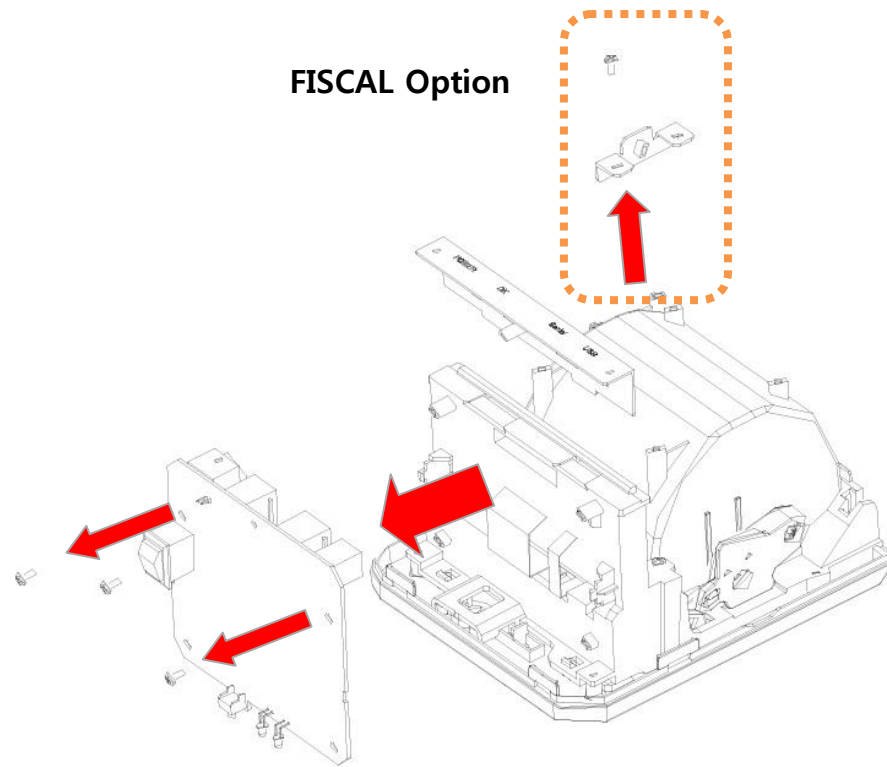
6. The side of the printer should look at above. (At this point, switch the power to ON to avoid any damage when removing.)



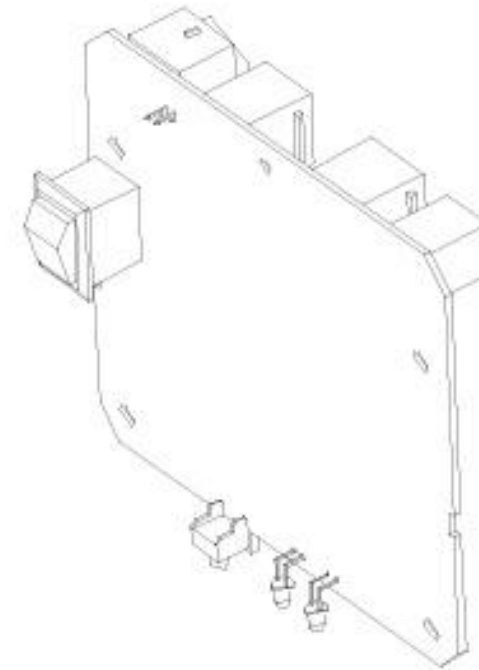
7. Push down and forward on the front lid to completely separate the two parts.



8. When separating the top case from the bottom case, take care so as not to damage the motherboard in the process.

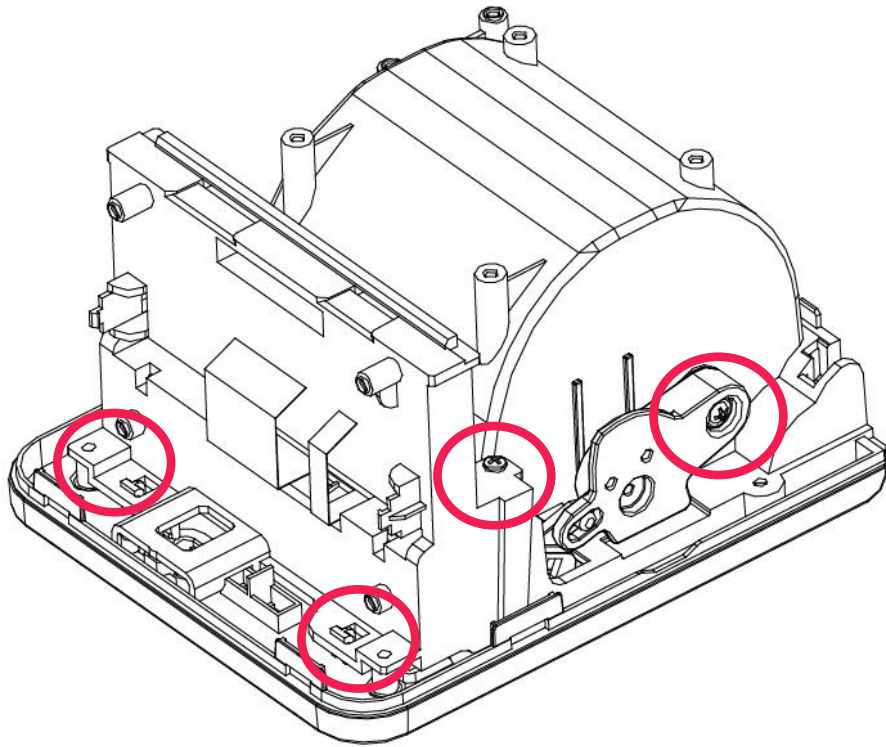


9. Remove the 3 screws from the face of the motherboard and separate from the main unit.

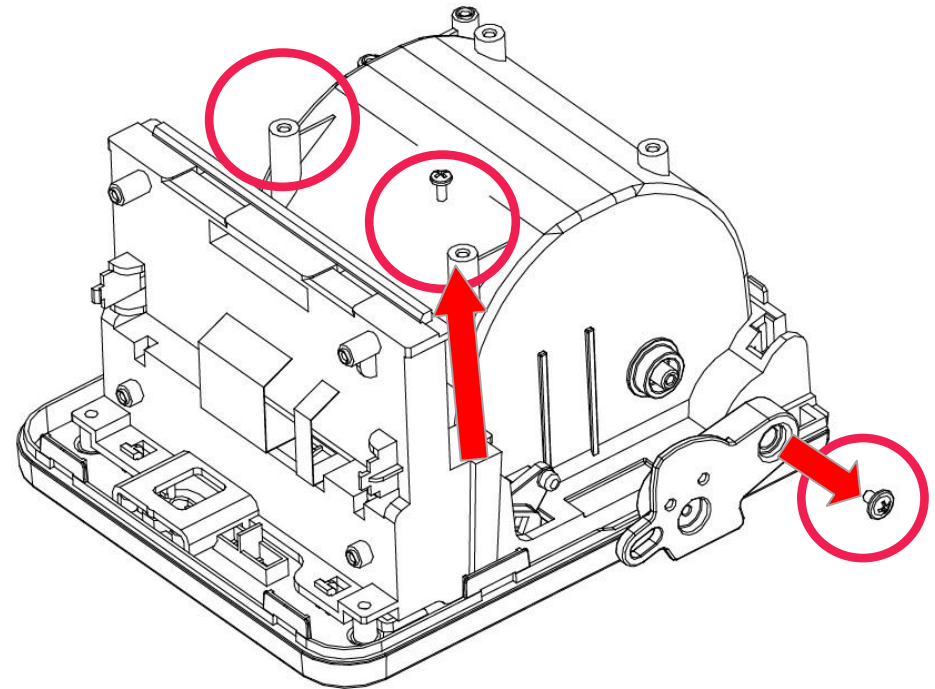


10. Replace the motherboard and reassemble the unit using the reverse of steps 1-9.
(During reassemble, ensure that the power switch is set to OFF.)

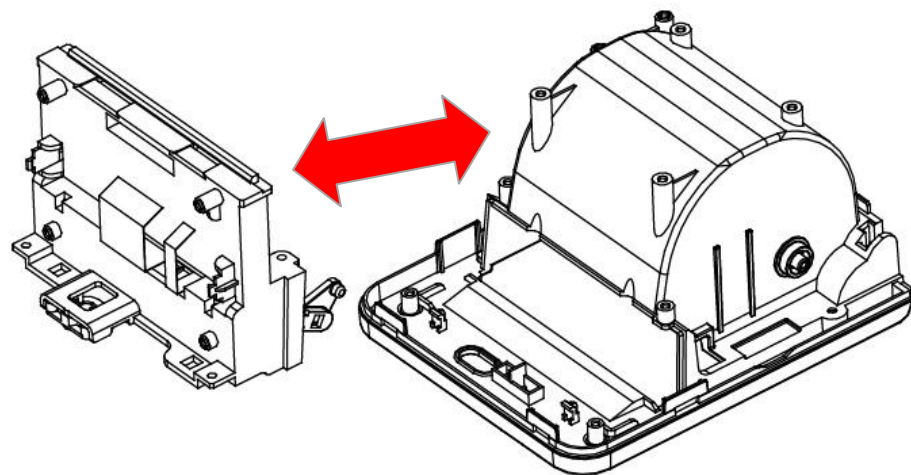
[Printer mechanism replacement]



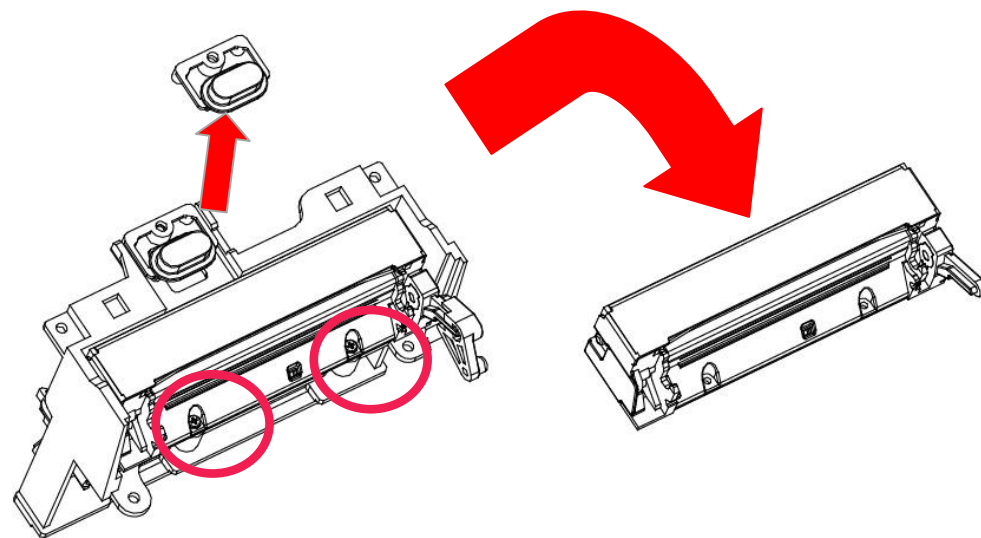
1. Remove the motherboard as shown in the previous section.



2. Remove the 2 screws from the location behind the motherboard (as shown above).
3. Remove the final screw from the side of the mechanism and remove the cover opening lever.



4. Remove the top casing from the motherboard panel.



5. Remove the 6 black circular M2.0 screws from the location shown above.
6. Remove the printer mechanism.
7. Replace the mechanism and reassemble the unit using the reverse of steps 1-7.



Thermal Receipt Printer

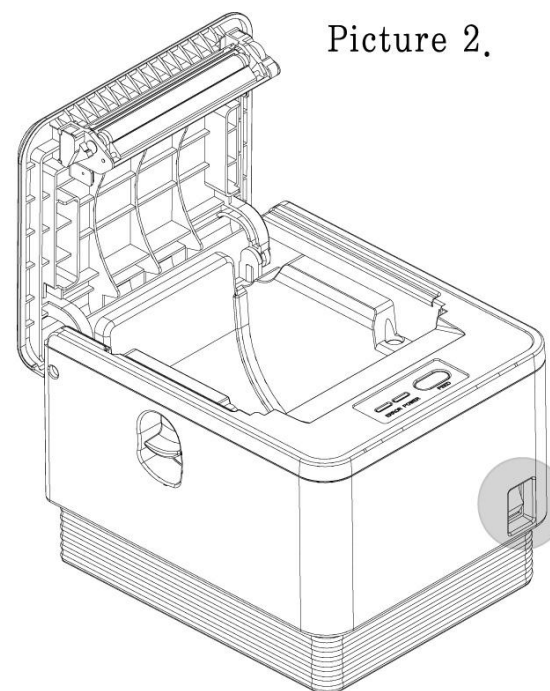
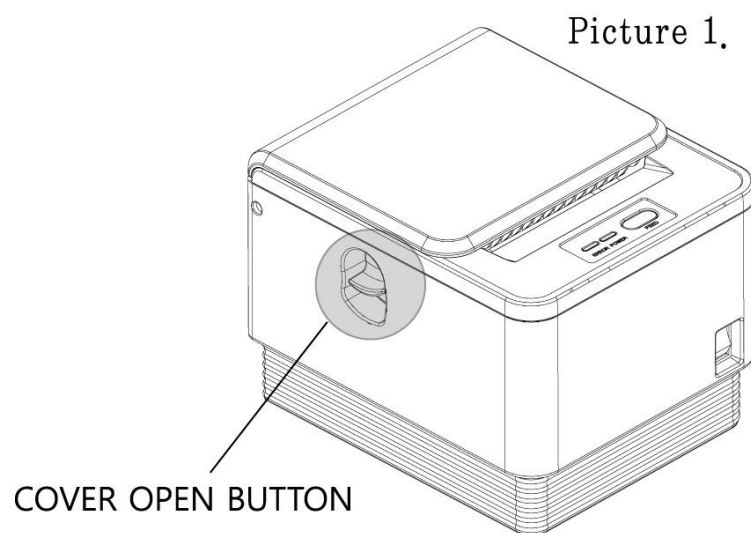


Chapter 5. Printer Operation

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. Press the FEED button one more time to print the current font setup.
6. The printer is now ready to receive data.

5-2 Paper Jam Correction



1. In the event of a paper-jam, immediately stop printing.
2. Open the top cover by pressing down on the 'COVER OPEN BUTTON' shown above.
3. By opening the cover, the paper-jam will be automatically resolved.
4. If the paper-jam is not correctly by this method, please contact your dealer.

5.3 Printer Specifications

Printing Method	Direct thermal	
Printing Speed	170mm/sec	
Dot Density (DPI)	203.2	
Dot Pitch (mm)	0.125*0.125	
Effective Printing Width	72mm, 576dots	
Printing Direction	Unidirectional with friction feed	
Character/Line	Font A	(12*24) 42 columns
	Font B	(10*20) 56 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 / USB	

Power	24 VDC / 2.5A	
Data Buffer	4 Kbyte	
Cutting	Life	700,000 cuts
	Cutting method	Partial Cut / Full Cut
Temperature	Operation	0 ~ 40°C
	Storage	-20 ~ 60°C
EMI Standard	CE, FCC, MIC	