

SNR-EP8305

Specification



Revised record

Publish date	Revised version	Noted
2019.02.19	V1.0	2019 Organisation
2019.04.25	V2.0	Updated Physical Drawings and Parameters
2019.05.31	V3.0	Updated diagrams and parameters
2019.11.08	V4.0	Updated Indicator Description
2020.06.01	V5.0	Add Derivative Models
2020.06.08	V6.0	Updated description of paper exhaustion

* The information provided in this specification is for reference only, and the specific configuration information is subject to the sales contract.

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Products

SNR-EP8305 print module adopts line type thermal print head, which has the features of high speed printing, low noise, high reliability, high print quality, large paper thickness, compact structure, etc., which makes the installation and maintenance more convenient and quick.

This module ALL-IN-ONE, the control board and the movement are completely integrated, greatly saving the space of the module, greatly facilitating the development and design of the mould. This printer has the functions of easy paper loading, sliding automatic paper cutting and so on.

This printer has a variety of mounting options, and the printer's multifunction control is easy to operate and features include:

1. Positioning hole installation allows three ways on the side, front and rear of the print.
2. Paper will be exhausted manually adjustable size, the most accurate paper will be exhausted detection (can be accurate number of sheets)
3. Various ways to open the cover: 1. Pressing the cover opening spanner 2. Through the cover opening button 3. Computer sends the cover opening command.
4. High-speed thermal printing
5. With paper jammer detection status
6. Optional multi-position black mark sensor (printing surface left and right, non-printing surface left, middle and right a total of 5 positions)
7. Various sensors to help control
8. Unattended embedded thermal printer
9. Diversified interface options: serial port (RS232/TTL) and USB can be selected, and provide comprehensive software commands and simple driver (xp/win7/win8/linux/Android).
10. The printer control board supports a variety of bar code printing, including: EAN8, EAN13, CODE39, CODE128 and other one-dimensional bar code printing.
11. The printer control panel supports QR code printing.
12. Characters: Simplified Chinese (GB-18030), Traditional Chinese (GIG-5), Korean, Japanese (Shift-JIS), Vietnamese (Code1258), the euro symbol (Code855), Slavic 2 (Code866) and so on.

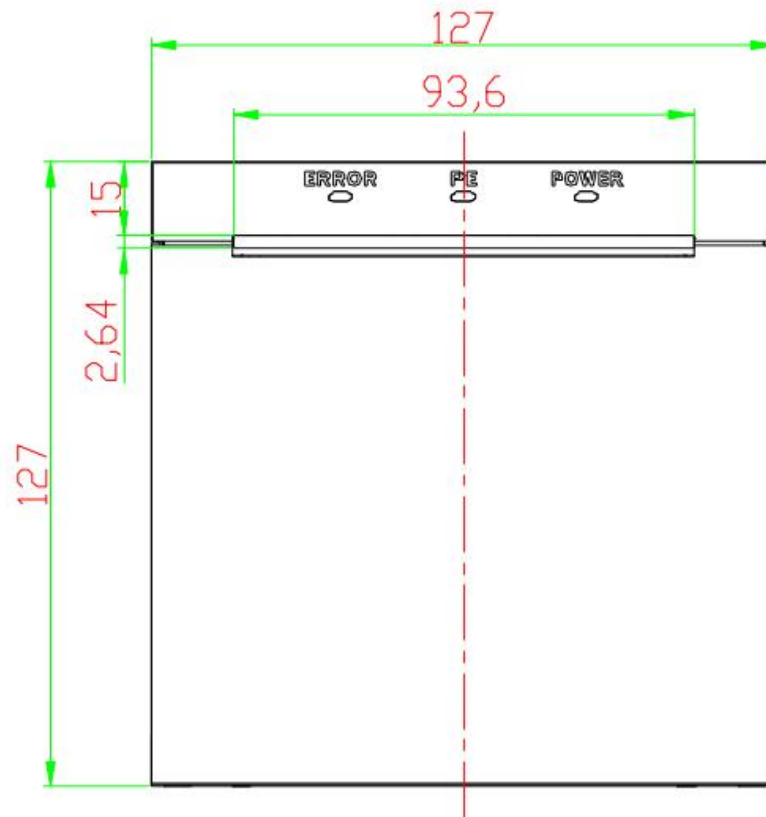
Specification & Requirements

Main technical specifications

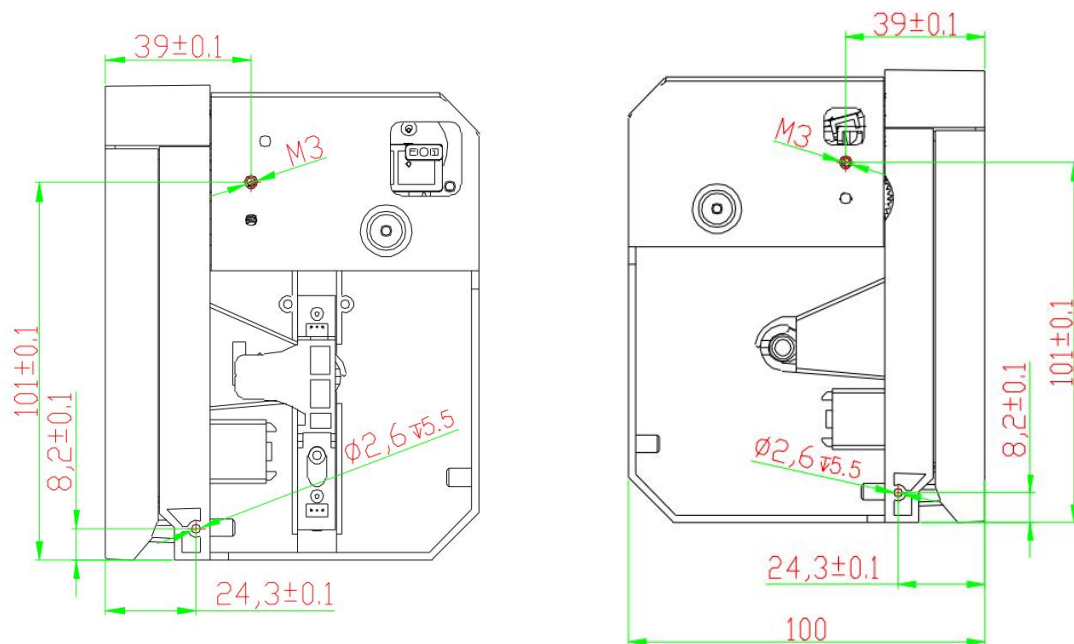
This technical specification is for use with the SNR-EP8305 structural print module.

Model		SNR-EP8305
Printing	Method	Linear Thermal Printing
	Paper width	80mm、58mm
	Print speed	250 mm/s(max)
	Dot density	8 dots/mm
	Print dots	576dots/line
	Print width	72mm(max)

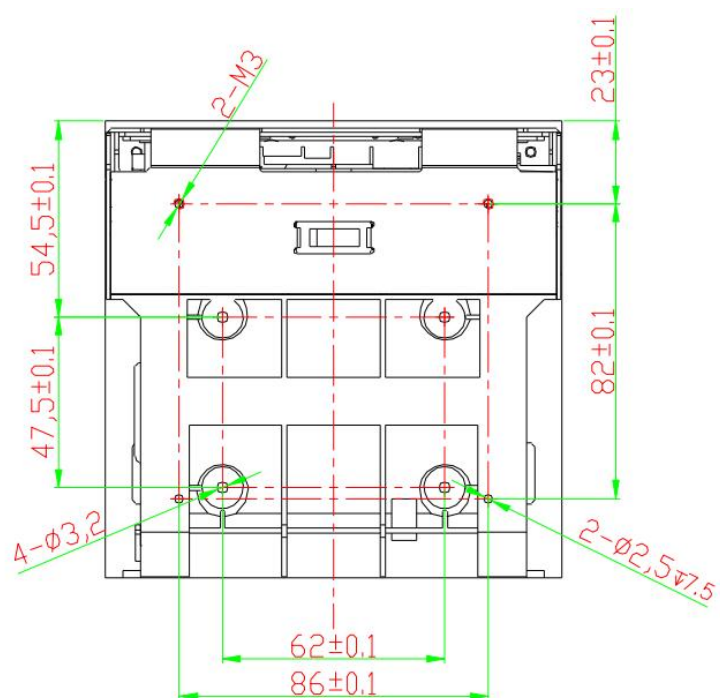
	Paper feed method	Easy-to-fill paper
	Print length	100KM
Cutter	Paper cut	Slide
	Cutting conditions	Partial cut, full cut
	Cutting thickness	60 - 120 um
	Cutter life	1000,000times
End-of-paper or last-paper detection sensor		Reflective Photoelectric Sensors
Print head temperature		Thermistor
Operating voltage		DC24 ±10% V
Average current		24V/2A (25% of effective print points)
Peak current		6.5A
Environments	Operating temperature	-10~50 °C(no condensation)
	Operating humidity	20%~85%RH(85%RH at 40°C)
	Storage temperature	-20~60°C(no condensation)
	Storage humidity	10%~90%RH(90%RH at 50°C)
Weight		Approx. 0.90kg (excluding paper rolls)
Port		Serial port, USB port,Ethernet Port
Mechanical life		100 km
Maximum paper roll diameter		80 mm
Size (W*D*H)		W127mm * D127mm * H100mm



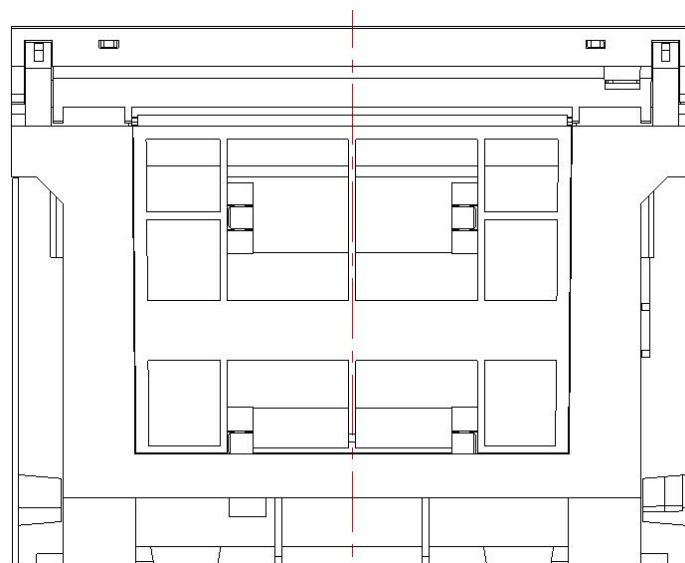
Main view



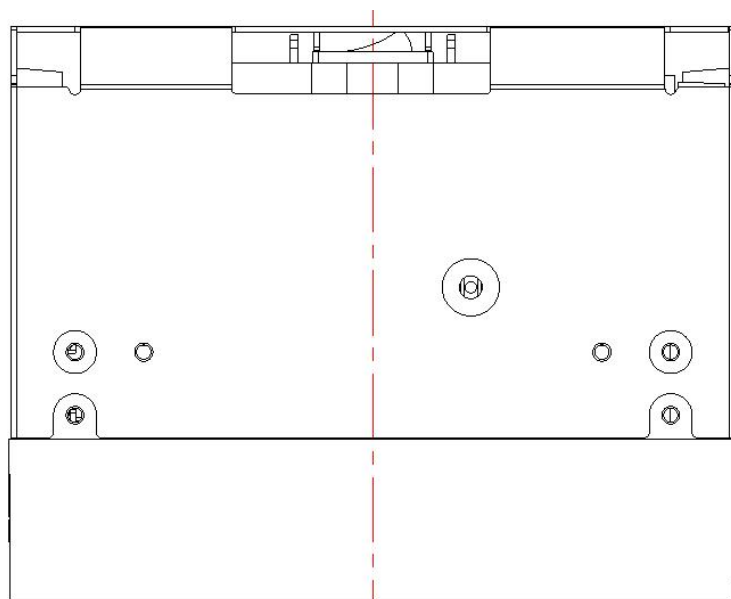
Side view



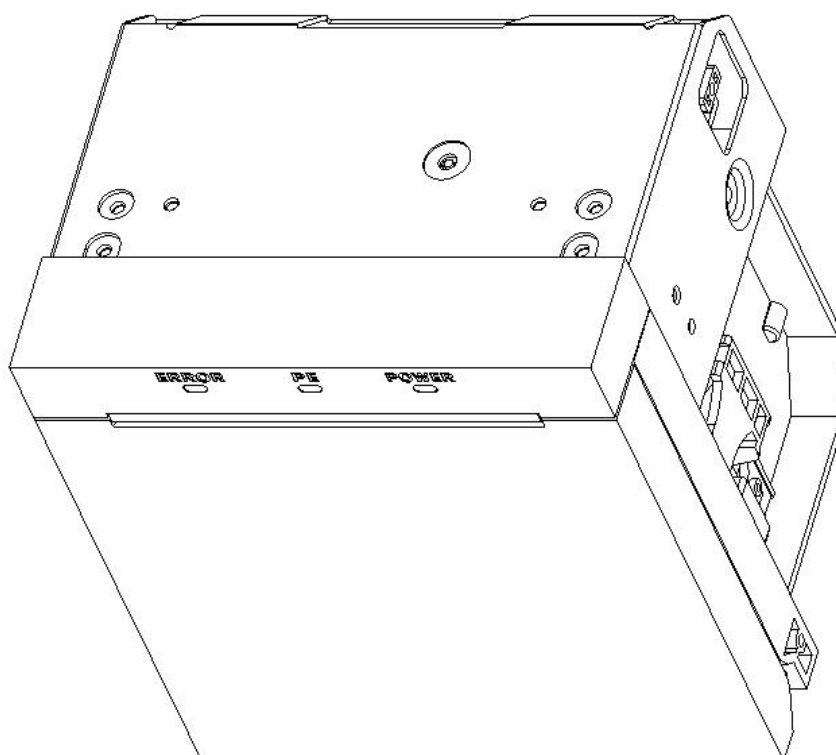
Rear view



Elevation view



Top view



Hologram

Dimensional drawing of mounting panel:

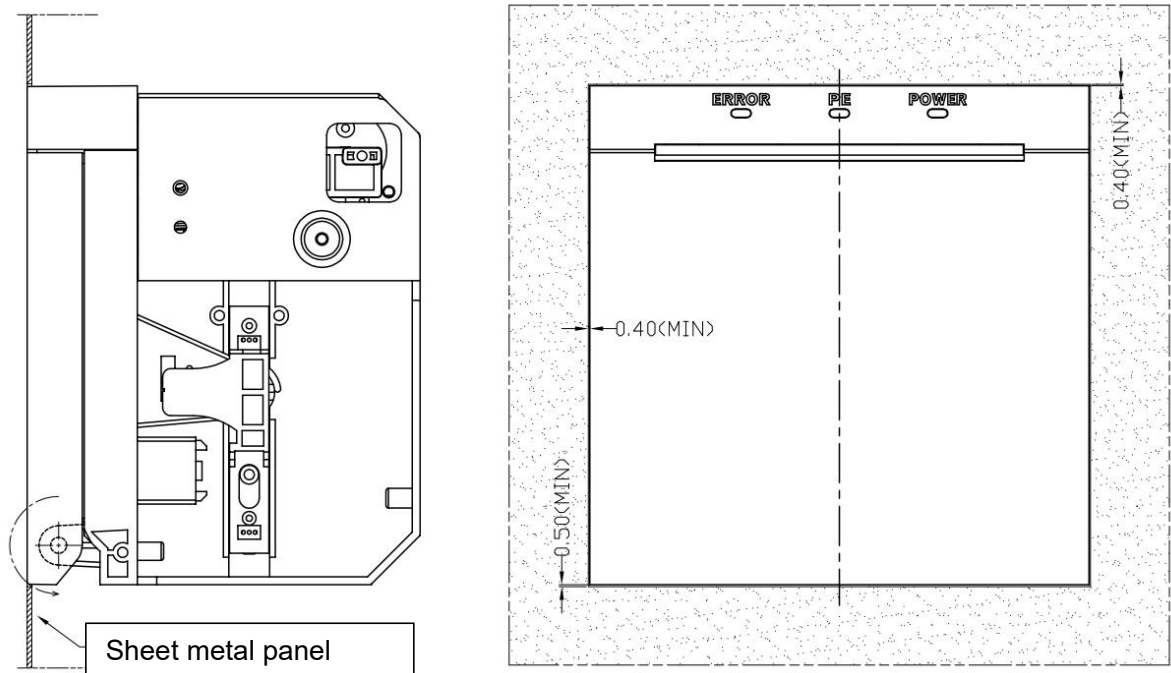


Fig. 1

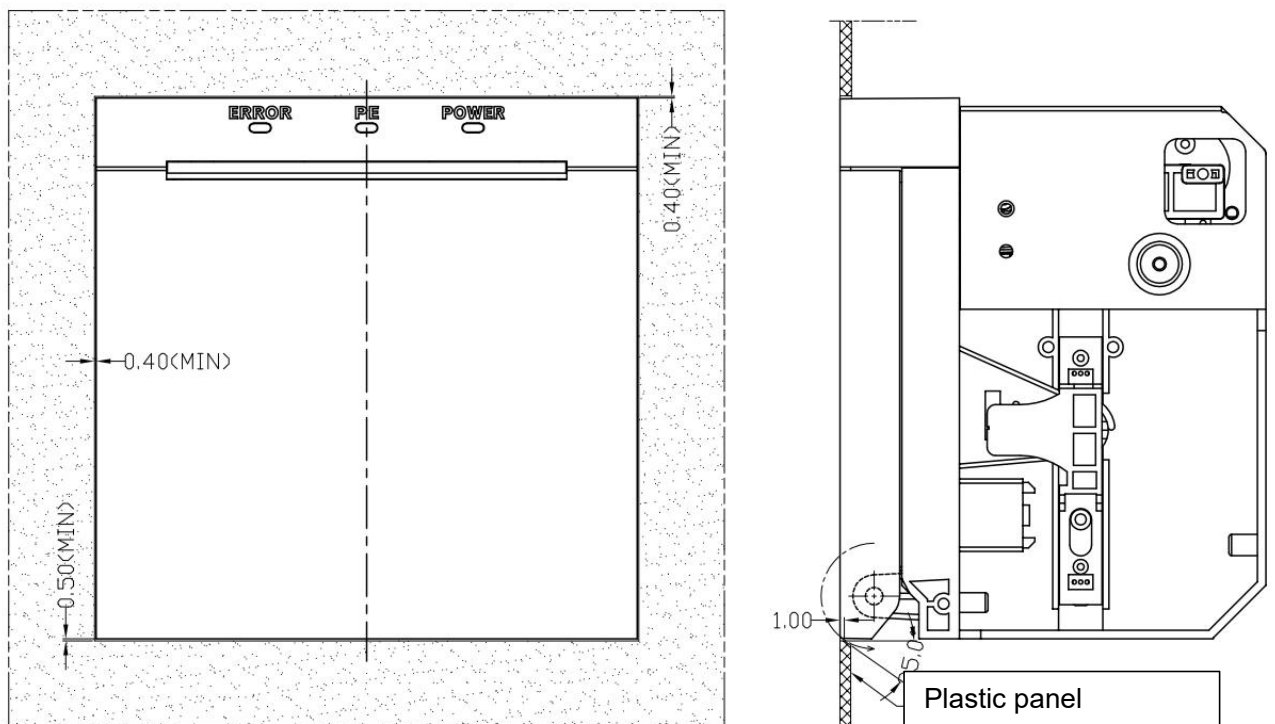


Fig. 2

*Suggested panel mounting clearance as above.

Installation and operation

SNR-EP8305 printer power connection

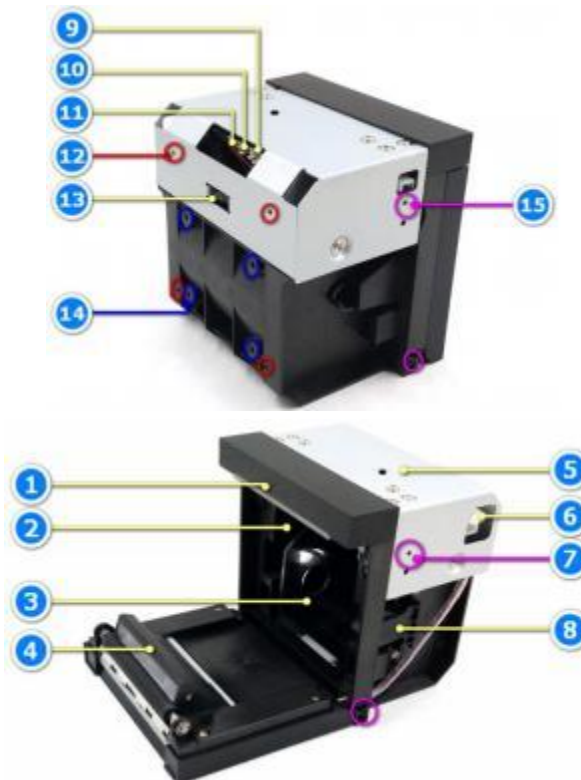
WARNING: Always ensure that the 220V (110V) power plug is not plugged into an energised power strip, as this may damage the power supply or the printer.

1. First check that the printer's power switch is off.
2. Check that the input power supply voltage to the printer is within $24\pm 10\%$ V.
3. After connecting the power supply, observe whether the printer is normal, if it is not normal (the power light is on, the error light and the paper light are blinking), please turn off the power immediately.

Tip: Check that the power is off before connecting any cables (must be done with the power off).

The module diagram is shown below:

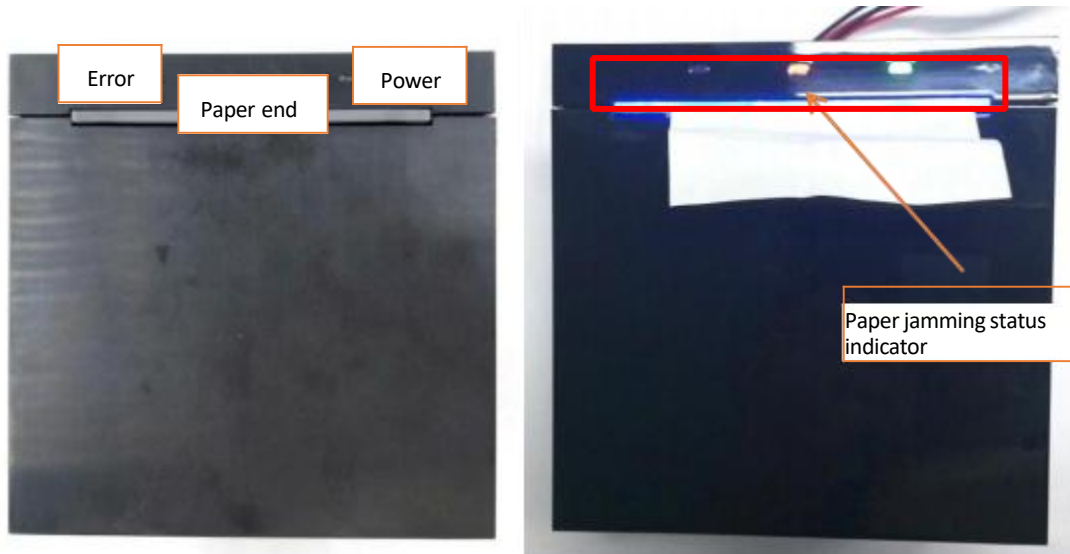
- | | |
|------------------------------|-------------------------------|
| 1 LED | 9 Power supply port |
| 2 Paper bin | 10 Serial port |
| 3 58mm paper limit board | 11 USB port |
| 4 Printhead | 12 Mounting positioning holes |
| 5 Paper feed button | 13 Power button |
| 6 Open wrench | 14 Mounting positioning holes |
| 7 Mounting positioning holes | 15 Mounting positioning holes |
| 8 End of Paper sensor | |



Buttons and indicators

There are three indicators on the panel to indicate the various states of the printer after powering up, with the following meanings:

- ◇ The Power LED is always on, indicating that the power is on;
- ◇ The Error LED is always on, the paper hatch is not closed in place, or some other error has occurred;
- ◇ Paper end is always lit, indicating that the paper compartment is out of paper or the print head is out of paper, or an end-of-paper condition has been detected.



The printer has three indicator lights and a paper plugging light at the paper outlet to indicate the various states of the printer after powering up, with the following meanings:

Power LED		On	Normal power-on voltage
		Off	Unplugged
Paper end LED		On	Out of paper or about to run out of paper
		Off	Indicates normal in the energised state
Error LED		Normally 1 flash every 320ms.	Recoverable
Cover open error	The printer won't work because the head cover is open.	1 flash every 320ms	When the printhead cover is pressed
Auto Cutter Error	Automatic cutter does not work properly	1 flash every 5s	Recovered by re-powering up
Black Label Sensor Detection Error	The black mark is not detected even if the black mark is printed correctly on the paper roll.	3 flashes at 5s intervals	Installation of paper rolls with printed black labels
Outlet light board	When the printer is jammed	Blue light flashing	Manually troubleshooting
	Normal	Blue light off.	Normal

Introduction to positioning hole mounting

- 1、Front mount (note: face cover must be opened to install screws)
- 2、Post-mount
- 3、Side mount



Front mount



Post-mount

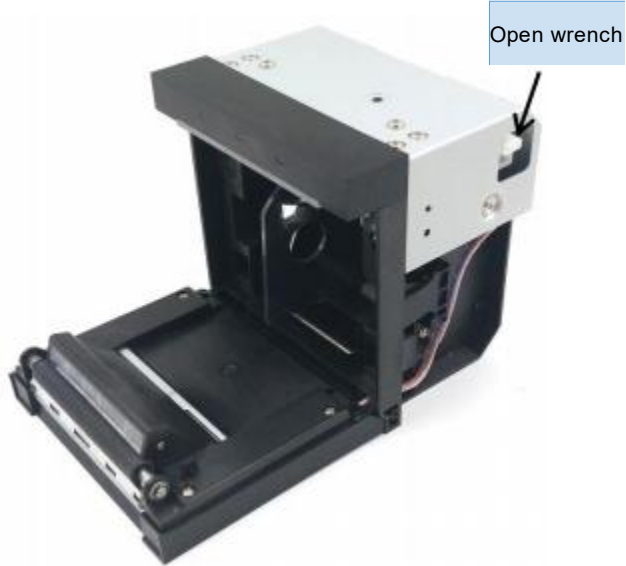


Side mount

Paper roll installation

1) Opening method:

1* Press and hold the lid opening spanner to open



2* Opened by opening button

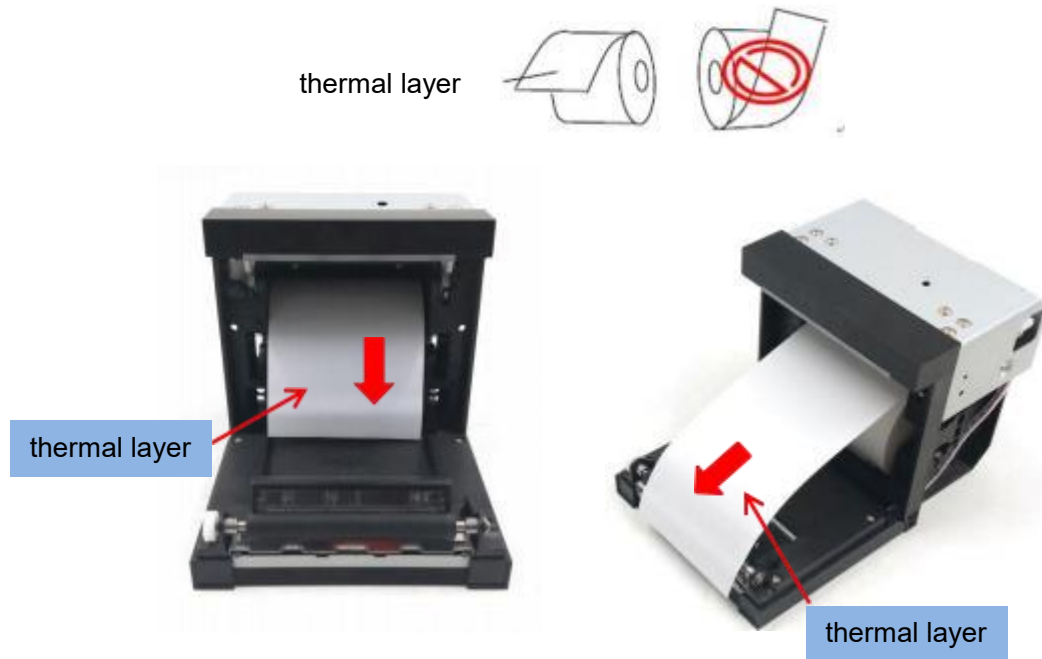


3*The paper bin can be opened by sending the 1378 Cover Open command from the computer.

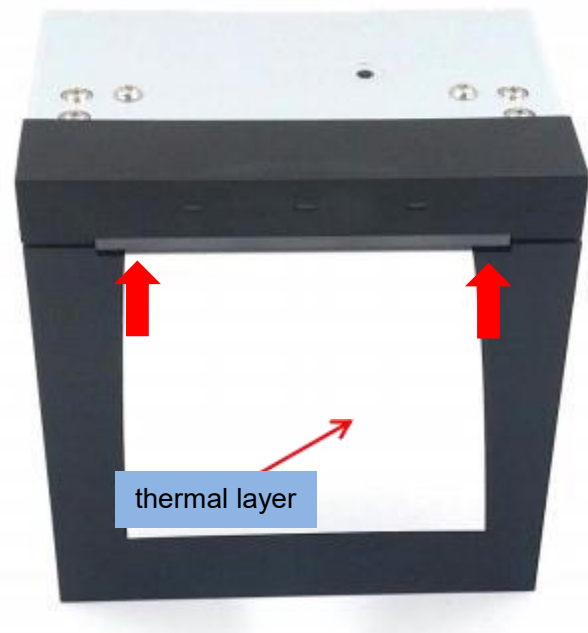
2) Which should be noted when loading paper using scissors to print paper rolls of paper head cut flush, as shown in the following figure:



-
- 3) Place the paper roll horizontally or perpendicular to the printer module into the paper inlet, in the direction shown:



- 4) Close the headstock and place your hands on either side of the outer frame and push in to return it to its original position.



5) When using a 58mm paper roll, the 58 limited must be used, and the corresponding slot must be attached as shown in Figure 1 on the right; when using an 80mm paper roll (the paper will be adjusted to the uppermost position), you can choose to use the threading spindle or not, and the position of the threading spindle's mounting slot is as shown in Figure 2 on the right.



58 limited



Fig 1: Attaching the 58 limited



roll spindle

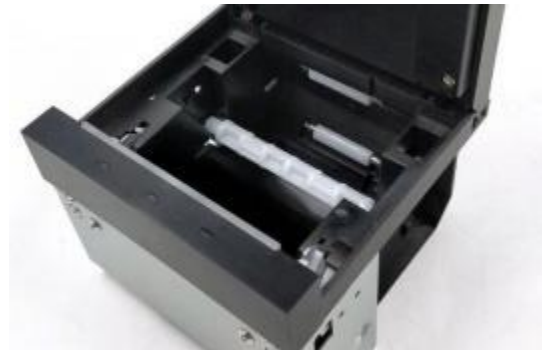


Fig 2: Positioning of the roll spindle

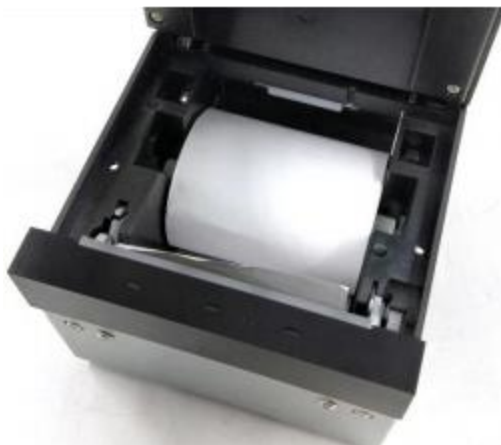


Fig. 3: Paper loading with roll spindle



Fig. 4: Paper loading without roll spindle

Self-test to check whether the printer can work properly.

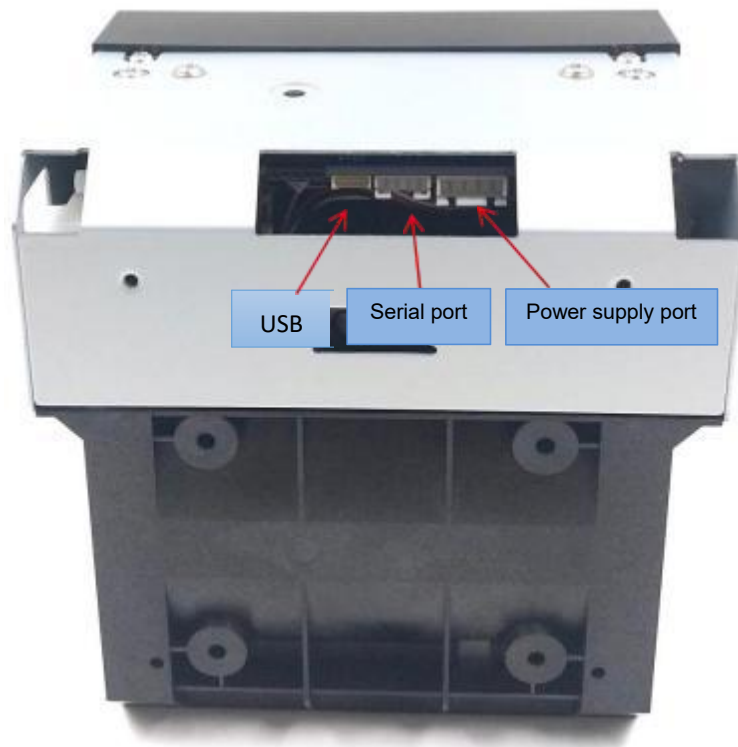
① Just press and hold the paper go button while turning on the power;

The self-test is shown below:

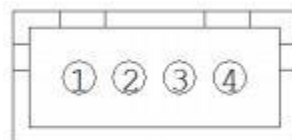


Port connections

Discrete port



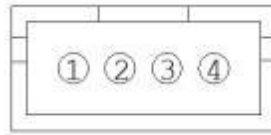
Power supply port



Pin definitions are as follows:

Power supply port pins	Definitions
1 、 2	DC24V
3 、 4	GND

RS232 serial port



Pin definitions are as follows:

Serial port pins	Definitions
1	GND
2	TXD
3	RXD
4	DTR

USB port

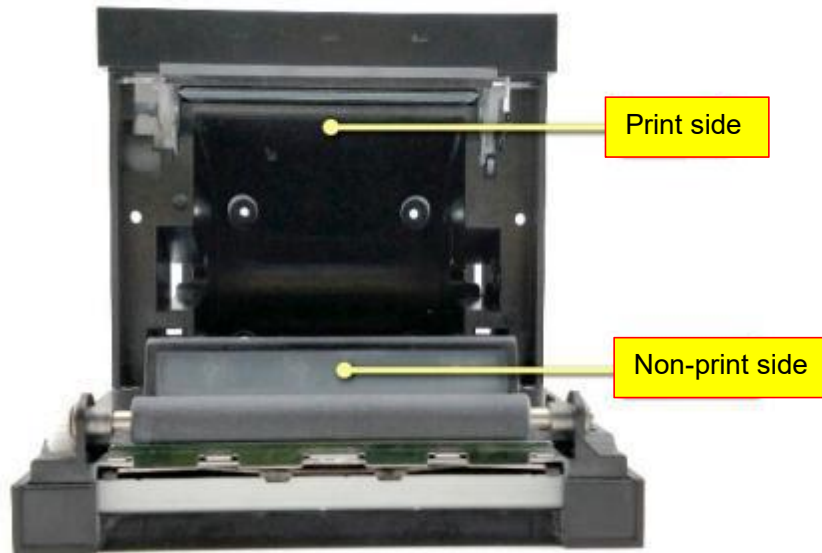


Pin definitions are as follows:

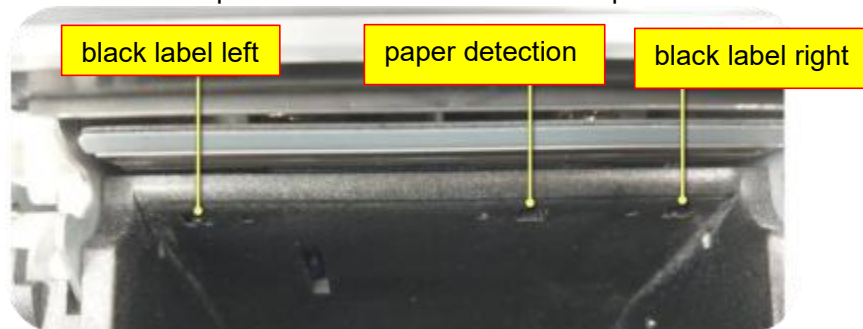
USB port pins	Definitions
1	VBUS
2	USB-DM
3	USB-DP
4	GND

Sensor description

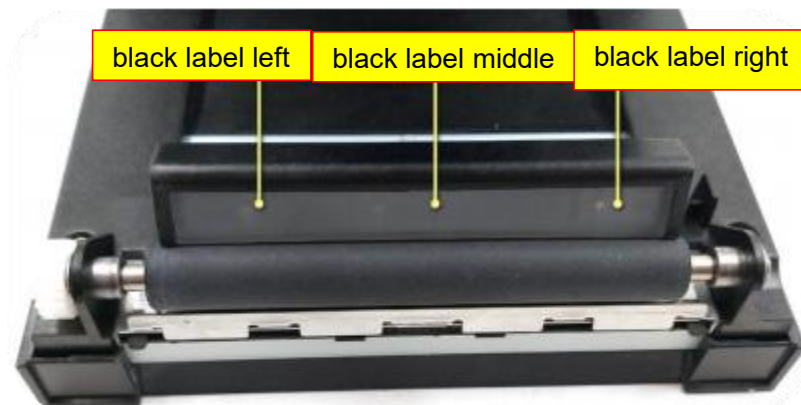
The SNR-EP8305 printer uses multiple sensors to provide feedback to the host system, and the location of each sensor in the printer is shown:



*Position of the black label and presence detection sensor on the print side



* Non-printing surface black mark detection sensor position



□ **Paper detection sensors:**

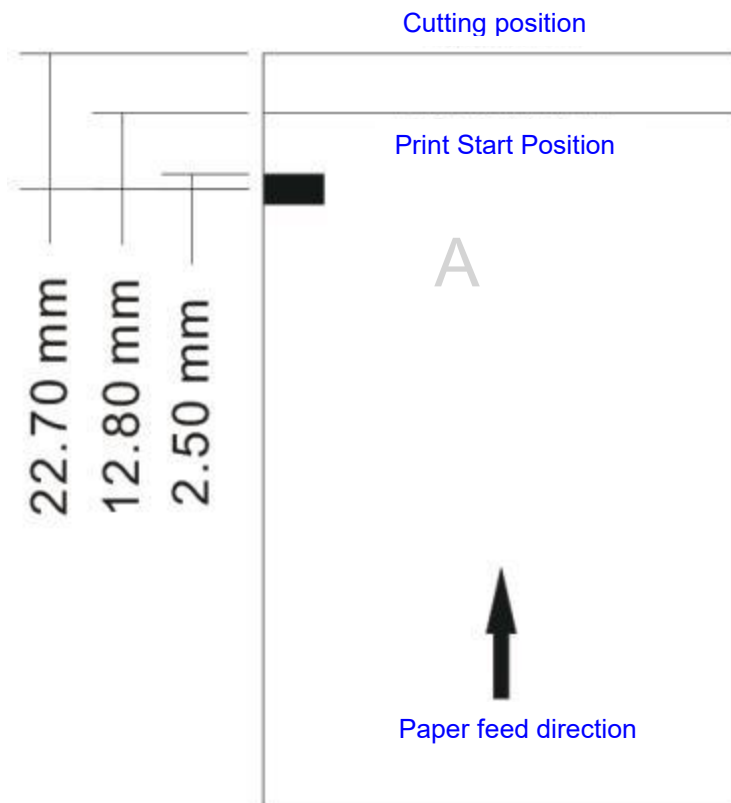
The paper detection sensor detects if paper is ready to print and triggers the sensor to drive the motor for continuous paper travel or printing.

□ **Open lid detection sensors:**

The open cover detection sensor mounted on the inner left side panel is activated when the top cover is closed and the latch presses down on the switch arm. When the top cover is open, the printer goes offline.

□ **Black label detection sensors:**

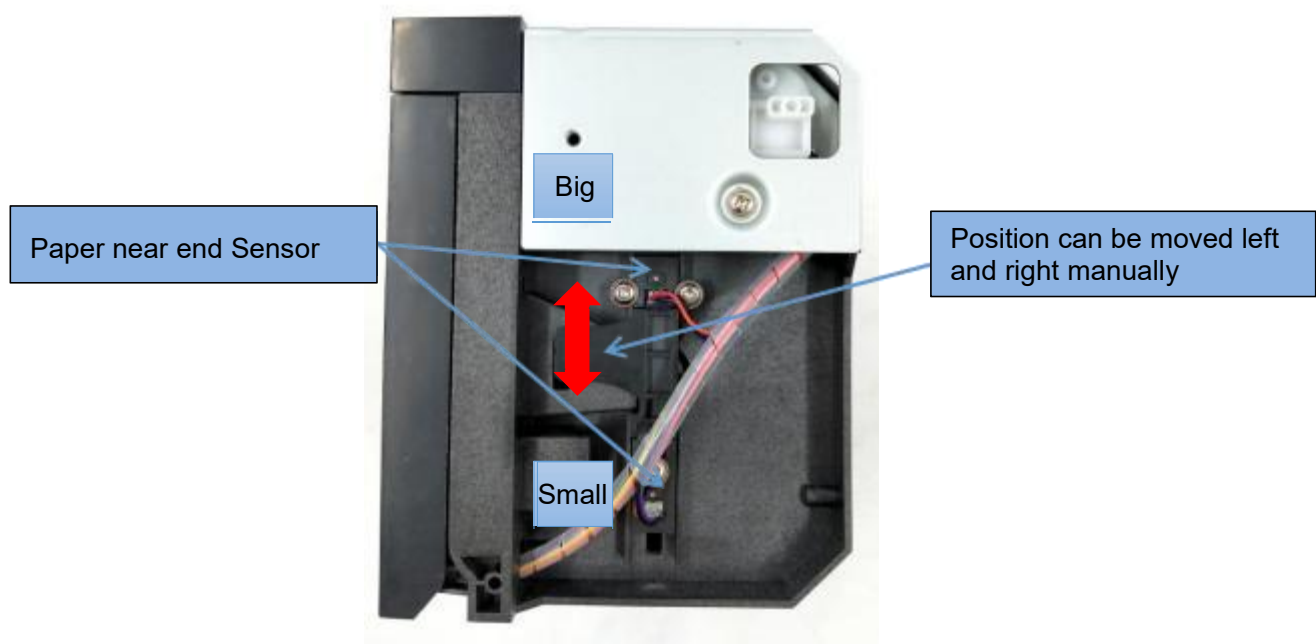
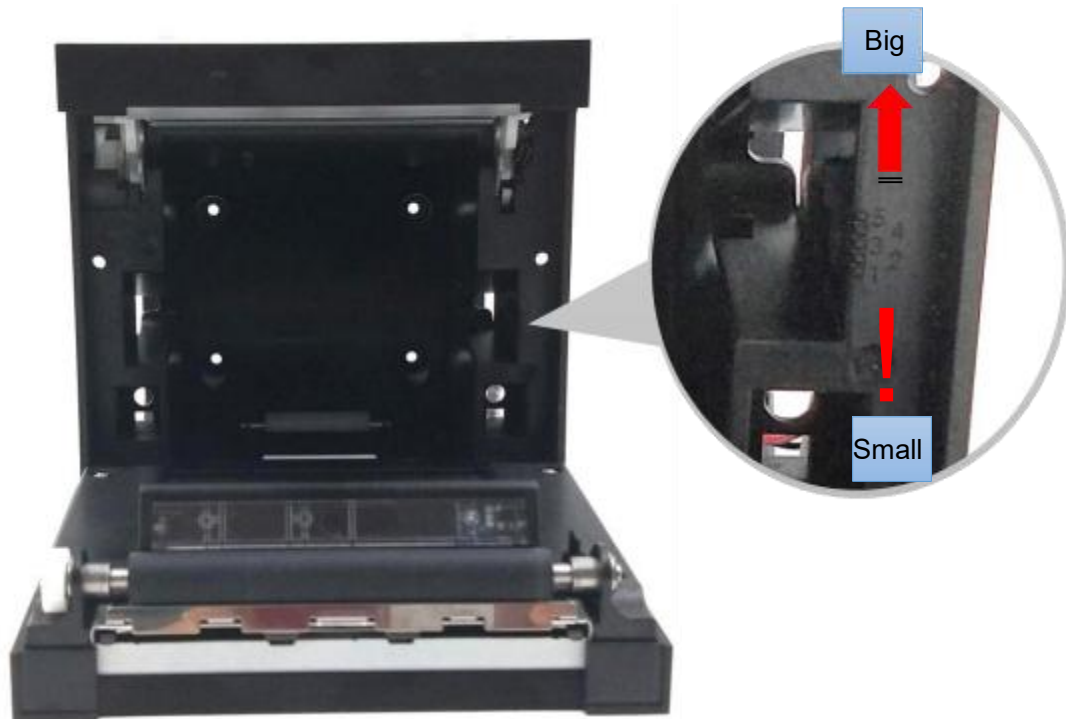
The black label detection sensor is installed in the paper path and detects a pre-printed black mark on the ticket (if present). This black label is used to position the paper on the preprinted paper for printing. Typically, the ticket is pre-positioned to the marking point and when the ticket is completed, the paper is fed to the marking point and then cut. The location of the marking point is shown in Figure A. The paper width is 80mm and the paper width is 58mm. (Marker locations are on the non-thermal layer).



□ **Paper near end detection sensors:**

The end-of-roll detection sensor, located in the end-of-roll holder, detects if the paper roll is full. If the sensor detects no paper in the specified position, the PE lamp illuminates.

In the end-of-paper device, the end-of-paper position can be adjusted by moving the end-of-paper holder (in the direction shown below). When the paper spindle is used, the end-of-paper position can be adjusted to the upper position (in the larger direction as shown in the figure below), and without the paper spindle, the end-of-paper position has to be adjusted to the lower position (in the smaller direction as shown in the figure below).



Cleaning the printer

If there are obvious stripes on the ticket printed by the printer or the printing content is not completely displayed, it is necessary to clean the print head. When cleaning the printer, it should be noted that the printer is in a power off state. If the printer has just printed, it should wait for 10-20 minutes for the printer to cool to room temperature.

Clean the print head: Turn the lid wrench upward, use a soft brush to clean the paper channel in the printer and the residual paper scraps in various sensors (remember not to contact the print head and the sensor directly with hands, metal objects), and then use the alcohol sticky wet cotton ball (should be wring out) to wipe the dust and dirt on the thermal sheet of the print head.

Derivative models

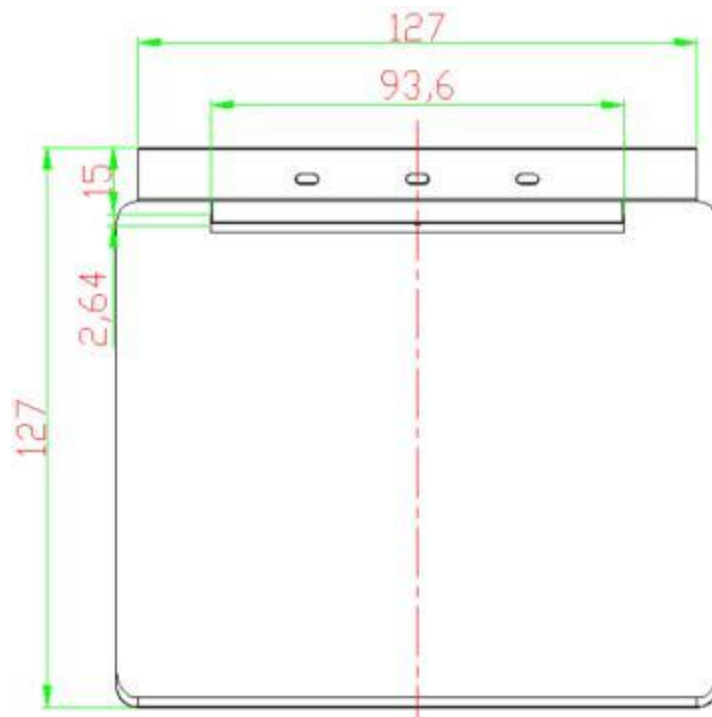
Model B

(Model B: black and white optional)

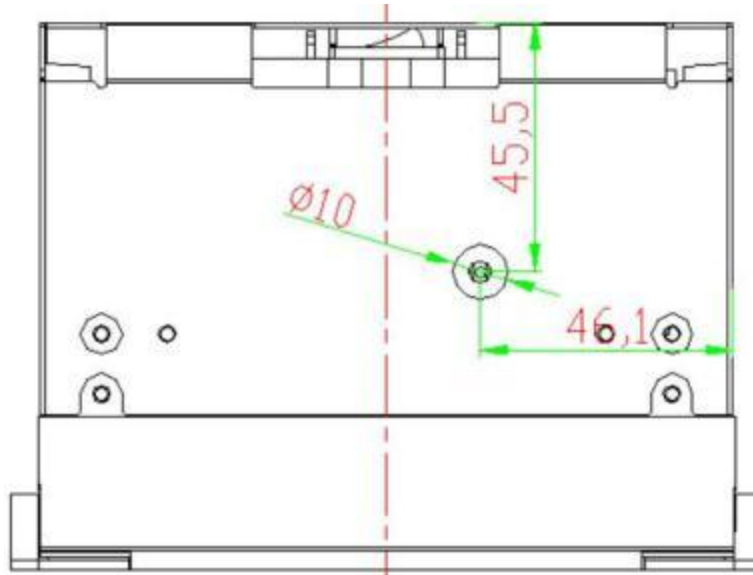
Features: The rounded corner of the panel is suitable for the embedding of the glass panel, and the upper part of the printer can be hidden behind the glass panel, making the overall appearance of the machine more concise;



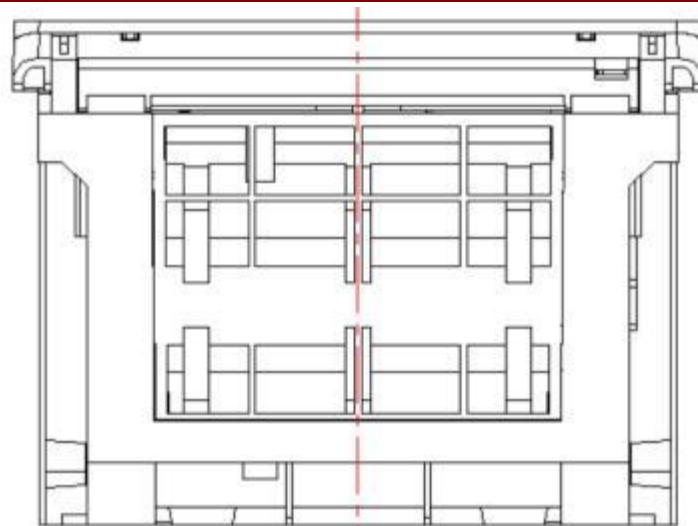
Dimensions of model B:



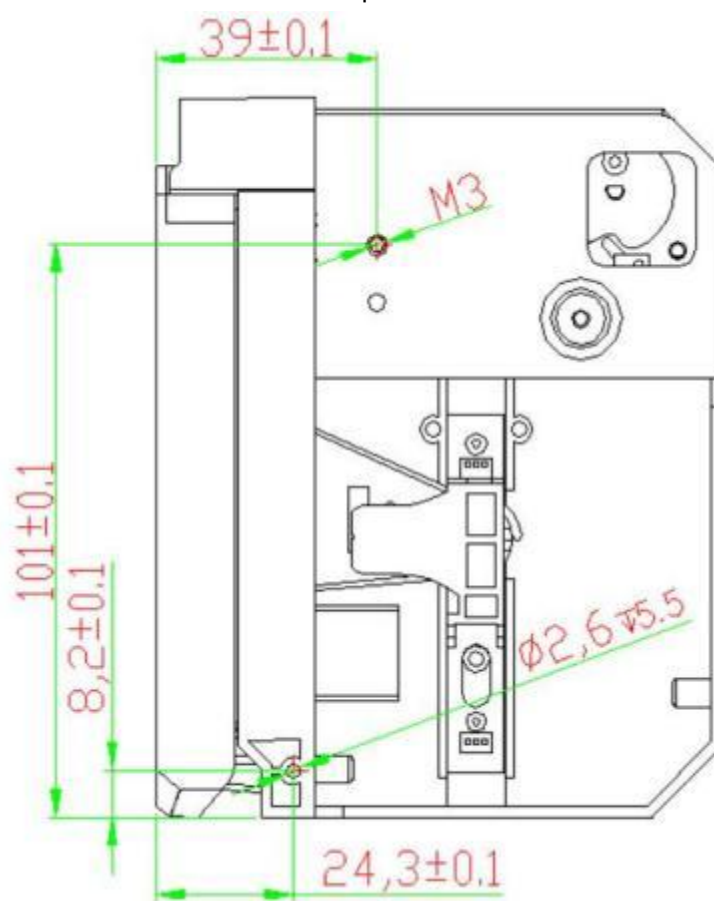
Main view



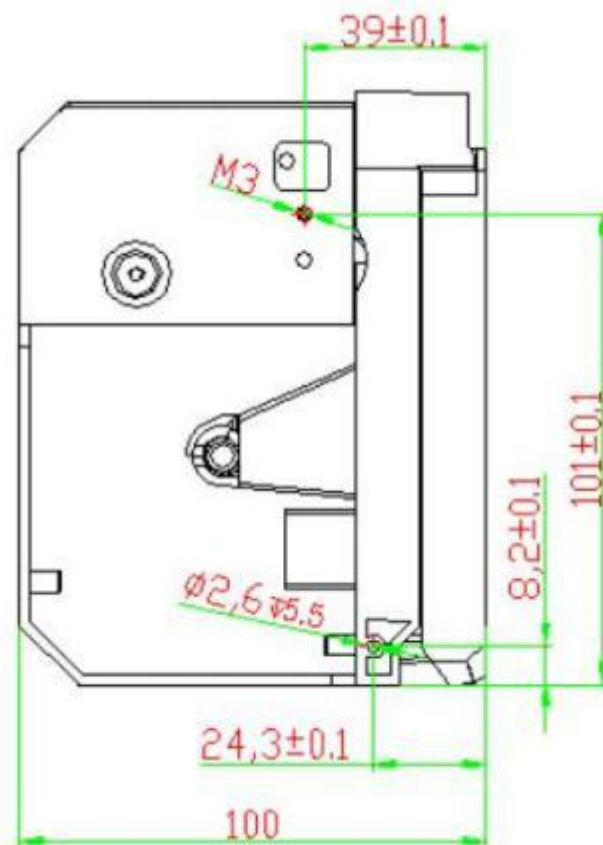
Elevation view



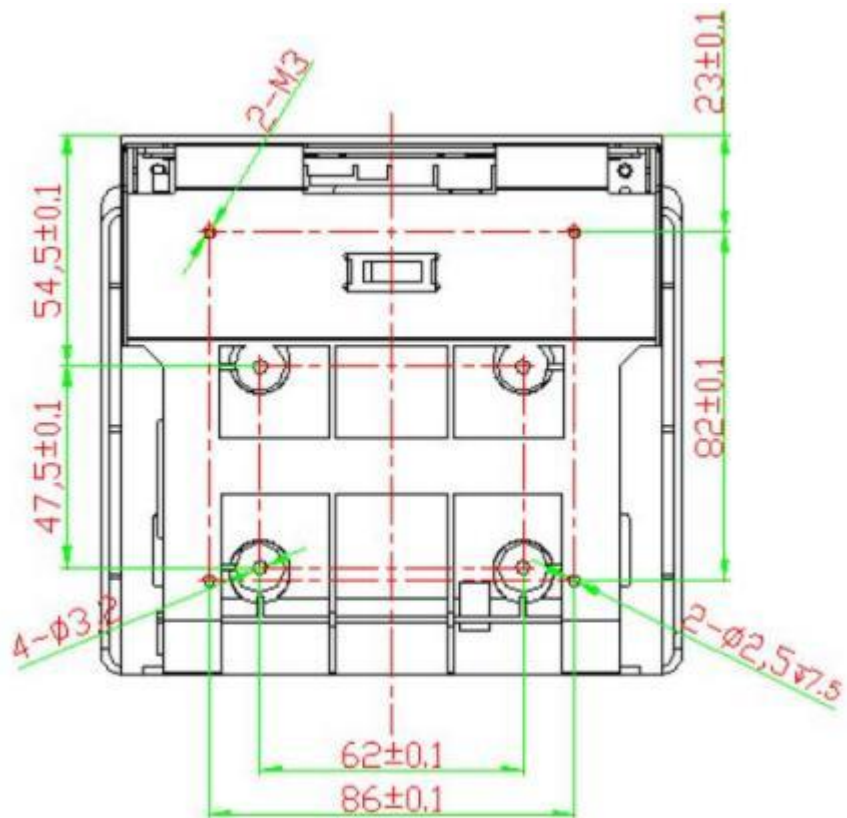
Top view



Right view



Left view



Rear view

Precautions

Safe precautions

1. Do not apply a current or voltage in excess of the maximum absolute rating to any pin, if a current or voltage in excess of the maximum absolute rating is applied, the current flowing through the device may cause thermal damage.
2. Do not short-circuit any output pins with the power supply.
3. If the conductive material falls onto the circuit board, the pins on the circuit board will short circuit, and too much current will cause thermal damage.
4. Make sure to use the specified cable to connect the device.
5. An incorrect connection can cause a fire.
6. Do not disassemble or modify the product.
7. Making incorrect changes to this product may result in injuries such as fire or electric shock.

Precautions for use

1. Use the printing paper provided or confirmed by the supplier to meet the requirements, otherwise it may affect the print quality and print head life, and even damage the print head.
2. The width of the printing paper roll, the minimum diameter of the inner diameter and the maximum diameter of the outer diameter should meet the error requirements, and the paper head should be bypected from the stainless steel, otherwise the paper will not be reliably switched on or the paper is not smooth or straight, which affects the normal work of the printer.
3. Do not unplug the signal interface cable when the printer is live.
4. After printing, if you open the machine head, do not touch the print head or motor housing immediately to avoid being burned by the high temperature of the metal housing.
5. The friction between the roller and the thermal paper is very large, when there is no paper in the print head, the paper should be avoided at this time, but not to print, otherwise it is easy to damage the thermal film.
6. The print head needs to be cleaned regularly (with anhydrous alcohol) to ensure print quality and service life.
7. If the printer works outdoors, pay attention to dust cleaning of the printer regularly to avoid the sensor can not accurately and effectively report the status of the printer due to dust coverage.
8. Do not block the outlet with your hand:



Precautions for transport and storage

1. Ensure that the device is placed on a firm, stable horizontal surface.
2. The printer should be packed with foam and foam bags when transporting it.
3. If the device falls, it may be damaged or otherwise injured.
4. Excessive humidity and too much dust may damage the equipment.
5. Do not place heavy objects on this product, and never stand or lean on this product.
6. Equipment may fall or collapse, resulting in damage and possible damage.
7. To ensure safety, when not using the product for a period of time, please unplug the power plug of the product.

(The manufacturer has the right to modify the contents of the manual without prior notice!)