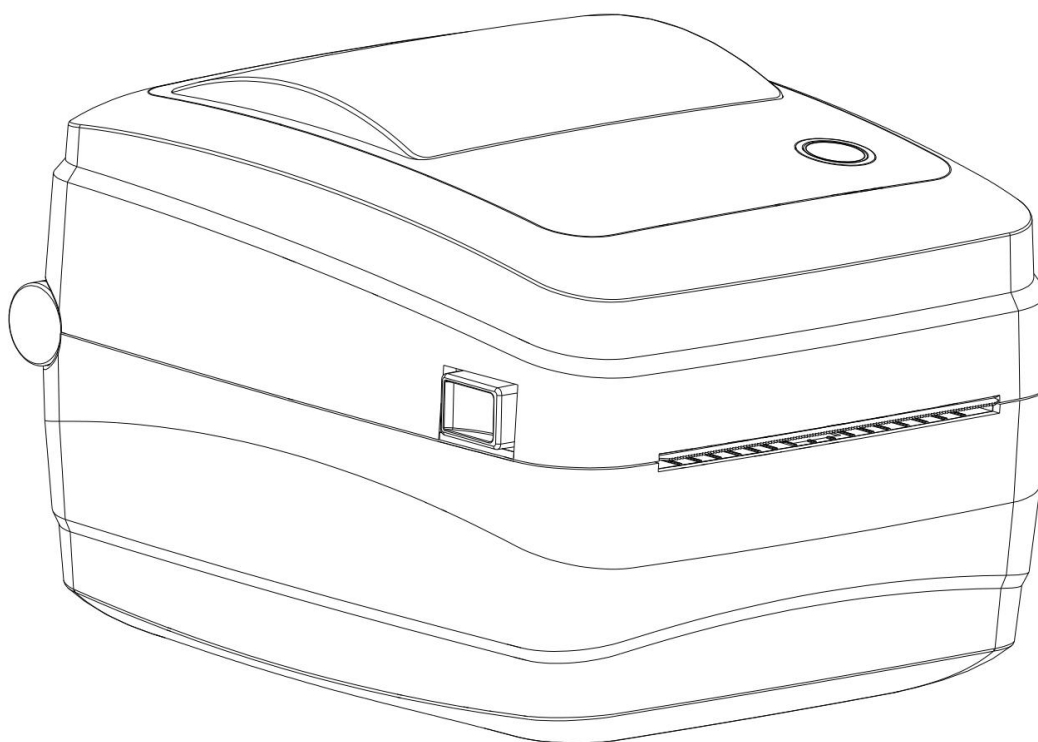


4 Inch Thermal Label and Receipt Printer

User Manual Rev1.0



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1. Product Introduction

Thank you for your purchasing of 2 in 1 thermal label and receipt printer. This printer will provide you with safe, reliable and efficient printing quality. At the same time, this printer is in high quality and easy to operate, it is your best choice.

1.1 Safety warning

-  Warning: The print head is a heat-generating part. Do not touch the print head and surrounding parts during and just after printing.
-  Warning: Do not touch the surface of the printer head and the connecting part to avoid damage to the print head due to static electricity.
-  Warning: Do not touch the tearing blade to avoid injury.
-  Warning: The printer instructions must be strictly followed to configure and use the printer, so as not to harm the human and damage the device.
-  Warning: Before operating and using the printer, please read the following precautions carefully.
-  Warning: Operation of this equipment in a residential environment may cause radio interference
-  Warning: This product is only suitable for use in areas altitude below 2000 meters, and is only suitable for use in areas with non-tropical climate conditions.

1.2 Notes

- The printer should be installed in a flat and stable place;
- Leave enough space around the printer for operation and maintenance;
- The printer should be far away from water source and avoid direct sunlight, strong light and heat source;
- Do not use and store the printer in places with high temperature, high humidity and serious pollution;
- Avoid placing the printer where there is vibration and shock;
- Avoid Moist air forming dew on the surface of the printer. If it has formed, do not turn on the power of the printer before the dew disappears;
- Connect the power adapter of the printer to an appropriate grounded socket, avoid using the same socket with a large motor or other equipment that can cause power supply voltage fluctuations;
- If the printer will not be used for a long time, please disconnect the power supply of the printer;

- Avoid water or conductive substances (such as metal) from entering the printer. Once it occurs, turn off the power immediately;
- The printer must not print without paper, otherwise it will seriously damage the printer rubber roller and print head;
- When connecting or disconnecting each interface, you must turn off the power to avoid damage to the printer control circuit;
- When the printing effect meets the usage requirements, it is recommended that the user set the low-level printing density as much as possible to avoid affecting the service life of the print head;
- Users are not allowed to dismantle the printer for maintenance.

2. Overview

2.1 Introduction

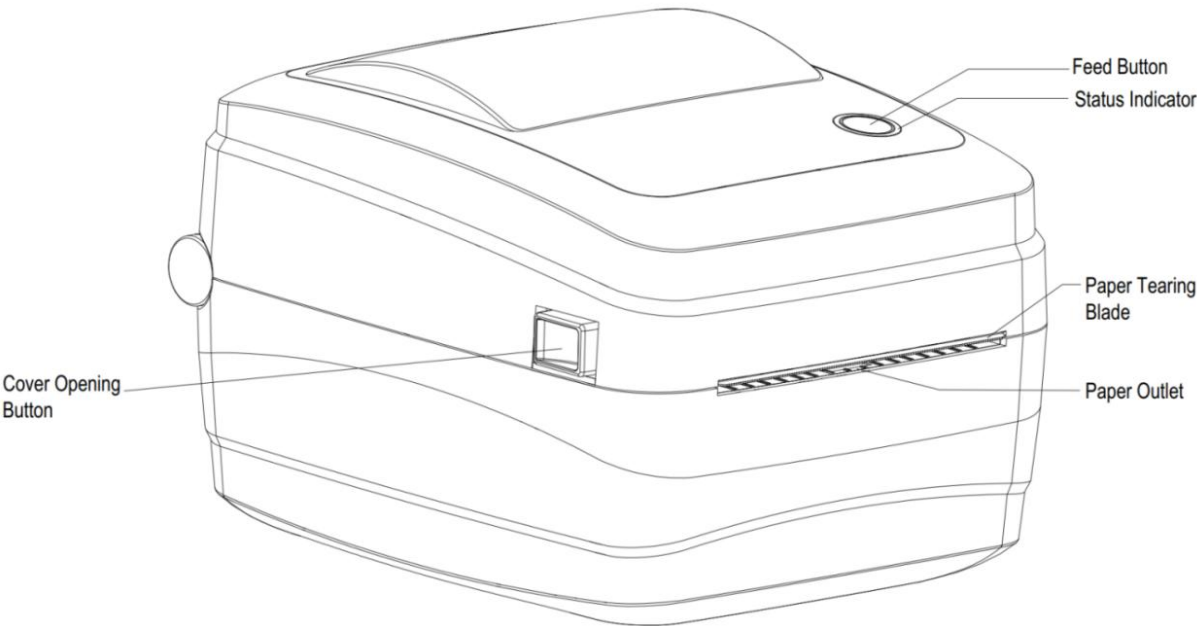
This printer can meet the needs of both label and receipt printing. It is also meet the need of real-time printing, batch printing. It can be widely used in transportation, postal, logistics, supermarket, catering and other fields. This label printer can be connected to related devices through a standard USB interface (Ethernet/Bluetooth/WIFI optional). It is direct thermal method printing. The following type label papers are all supported: Continuous, gap, black mark, fan-fold, punched hole, label paper, tag paper card.

This printer is direct thermal printing method. The printing speed can be adjusted to 2.0, 3.0, 4.0, 5.0 inches per second. The printer support 1D and 2D barcodes. Support 4 different label printing directions. Through the zoom function, the font can be enlarged 1-10 times. Therefore, you can greatly improve the efficiency of label printing in a short time.

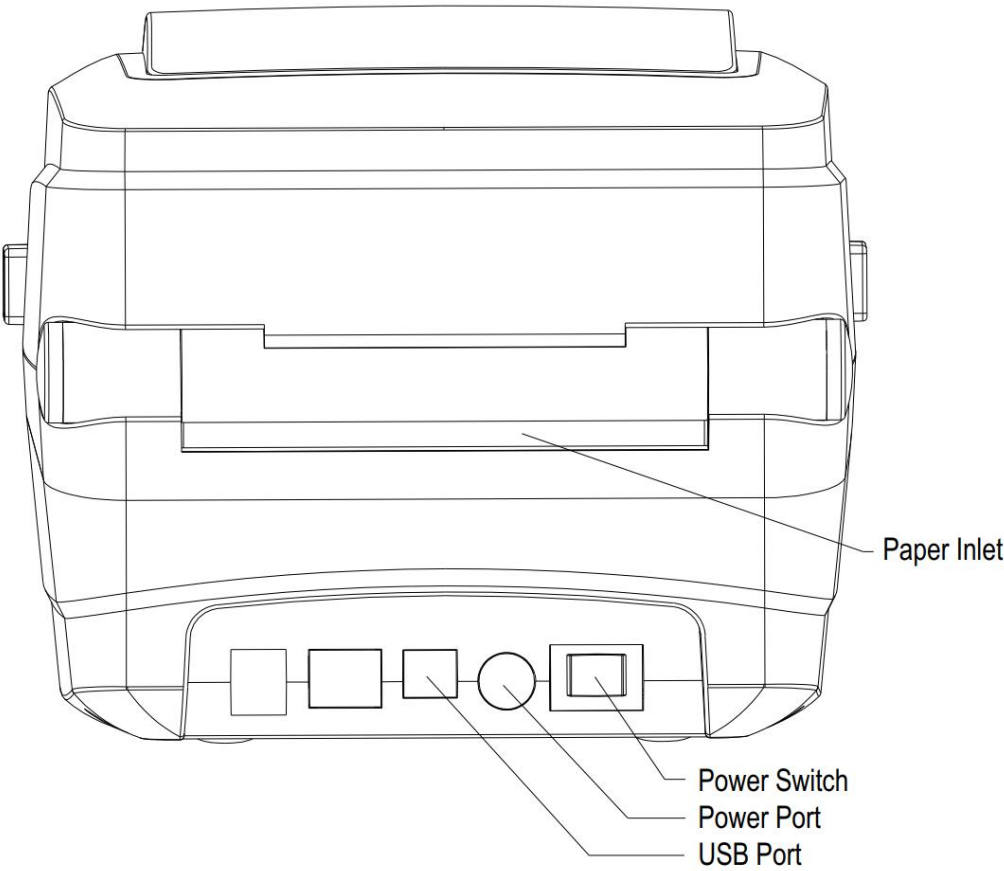
2.2 Main features

- Maximum printing speed 170mm/sec;
- Support TSPL, CPCL and ESC/POS multiple command sets;
- Support different sizes of thermal label paper and receipt paper;
- Meet the medium range from 37mm -123mm, easy to operate;
- Automatic paper detection and positioning function;
- Temperature self-adaption control;

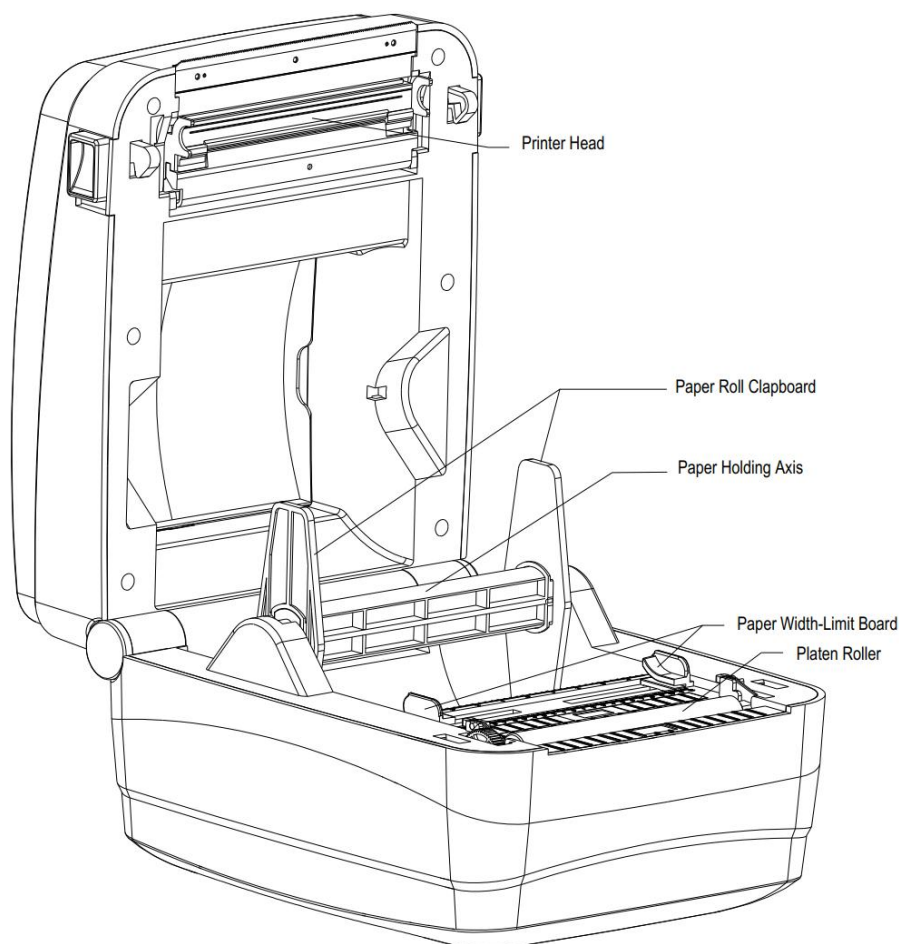
3. Appearance and Components



Picture 1



Picture 2



Picture 3

4. Installation and Operation

4.1 Printer installation

- 1.Put printer on a stable place and make sure the power is turned off.
- 2.Insert the USB(Or RJ45 etc) cable one side to the printer, and the other side to the computer.
- 3.Insert the power cord one side with printer, and the other side to an AC socket

Note: When inserting the power cord into the printer, make sure that the printer power switch is turned off.

4.2 Label paper installation


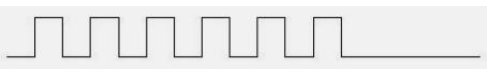


1. Push both side buttons forward, to open the top cover of the printer.
2. Place the label roll on the roll holder. (printing side up).
3. Pass the label through the groove in the middle of the lead and pull the label over the rubber rollers.
4. Close the printer cover.

4.3 LED indicator and button function

The printer has a feed button and an indicator light that will display three colors. Press the feed button and turn power switch according to different color indicator lights, it can enable the printer to have multiple functions, such as: feeding paper, calibrating label sensor, printing self-test values, initializing the printer, etc. The details, pls see followings:

4.3.1, LED Indicators

The status light turn blue is the normal power-on state. When there is an error, the status indicator light with the buzzer together shows error status.

Buzzer and the indicator flashing times	Status
	Printer head over heated
	Top cover not close, show error
	Printer lack paper,show error
	Label position error

4.3.2, Key functions

Paper feeding: When the printer is ready (LED blue light), click the button,in label mode: the printer will enter into next label paper; In receipt mode: the printer feeding out paper until release the button.

Calibrate paper (in label mode): Press and hold the paper feed button,and turn on power switch, keep press feed button for 2 seconds and release the button after the buzzer sound. Then the printer will enter into paper calibration function. After the calibration is completed, the machine will automatically enter the normal printing mode.

4.4. Button operation when power on

4.4.1 Print a self-test page

In the off state,press feed button and power on, keep press feed button until you see red light on, release your hand,the printer will print the self-test page.

4.4.2 Calibrate paper (for label mode only)

In the off state,press feed button and power on, keep press feed button until you see red light →blue light on, release your hand,the printer will calibrate paper automatically.

4.4.3 Change mode

In the off state,press feed button and power on, keep press feed button until you see red light →blue light→purple light on, release your hand,the printer will change to another mode. Do this step again will back to the original one.

4.4.4 Wi-Fi setting (Only printer with Wi-Fi port)

In the off state, press feed button and power on, keep press feed button until you see red light → blue light → purple light → blue light on, release your hand, then printer will print something and get into Wi-Fi setting mode. You can use an application for Wi-Fi Setting based on printed prompt information, or you can use wechat to scan QR code and set Wi-Fi. After the network configuration is completed, the printer will print out a prompt message indicating that the network configuration is successful, and at the same time print out the new IP address of the printer's Wi-Fi interface

5. Printer Usage

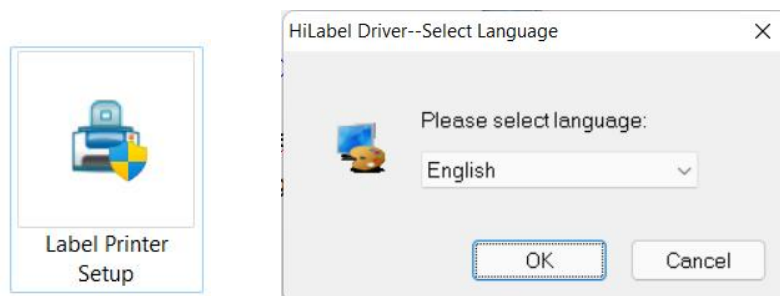
5.1 Label mode

5.1.1 Label software driver controls printing directly

In normal mobile terminal (such as Android or iOS operating systems) application, the label editing software can directly control printer to print, and no need install the printer driver.

5.1.2 Install the printer driver in Windows computer

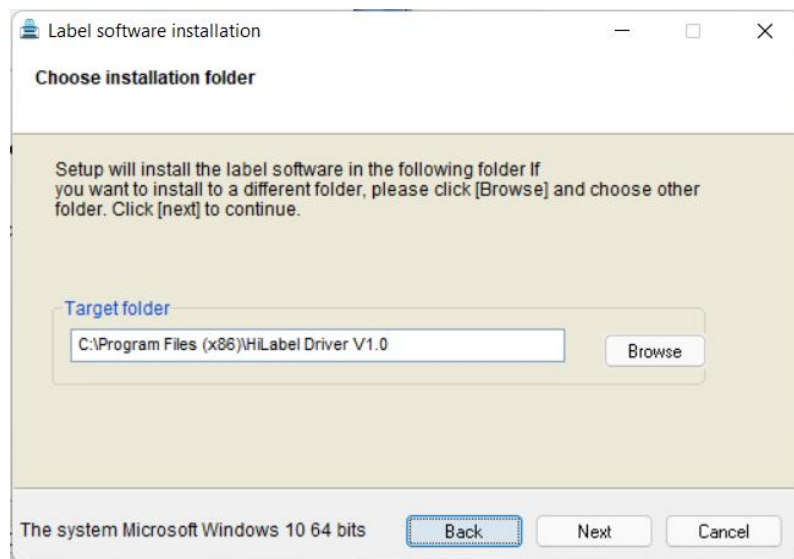
1) Get the driver installation file from the CD or from the company website, and double-click to open it. After you open the file, select the appropriate language and click "OK" to install.



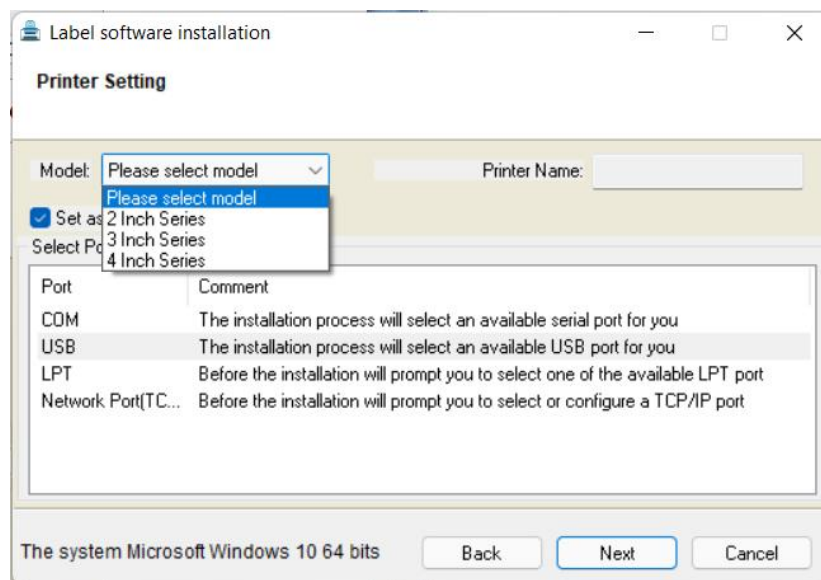
2) Click "Next" with the default settings



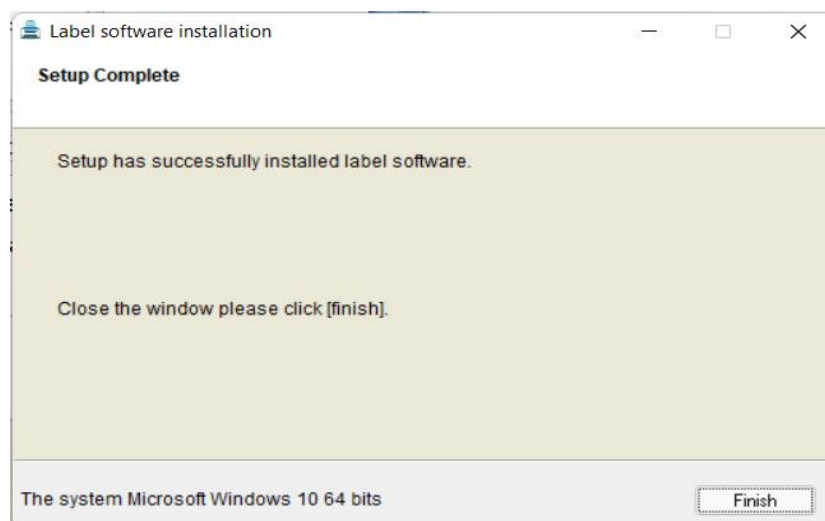
3) Select the driver installation directory and choose "Next".



4) Select the printer model (this printer needs to select "4 Inch Series"), the printer port and click "Next"



5) when the installation come to following step, it means that the driver installation is complete. At this time, you can use the third-party label editing software for label editing and printing.



5.2 Receipt Mode

This printer can support 80mm receipt printing, and there are two ways to use it, one is to use the port to directly drive the printing, and the other is to directly install the driver under Windows.

5.2.1. Port direct drive

In this way, there is no need to install the driver, only the characters (commands and data) are directly output to the port, and the hard font library inside the printer realizes the conversion and printing of characters. It is more convenient to control the printer by direct drive port. If you use the port drive, you need to use the print instruction set to control the printing. The 80MM series thermal printer has integrated the ESC/POS instruction set inside.

5.2.2. Driver installation under Windows

Get the driver from CD, and install it in Windows system. After installation, you only need to call the driver program in the software to realize printing. In this way, there have a Windows driver that converts characters into graphic dot matrix for printing.

Windows Driver installation steps

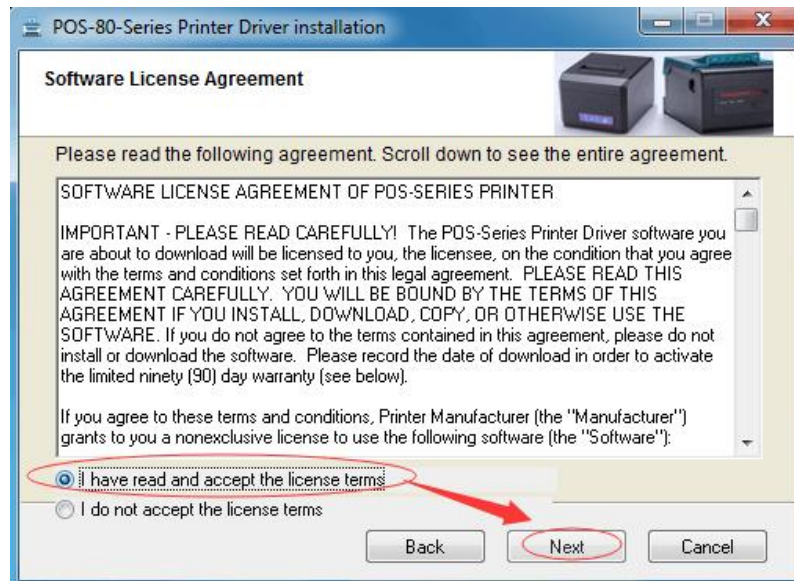
- (1) Double click the driver setup file "POS-80-Series.exe", select language and click "OK"



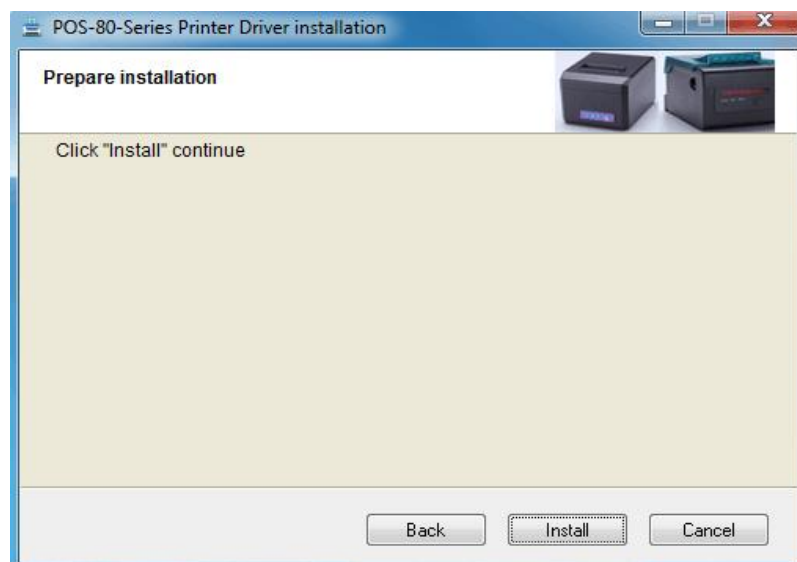
- (2) Click the "Next" step



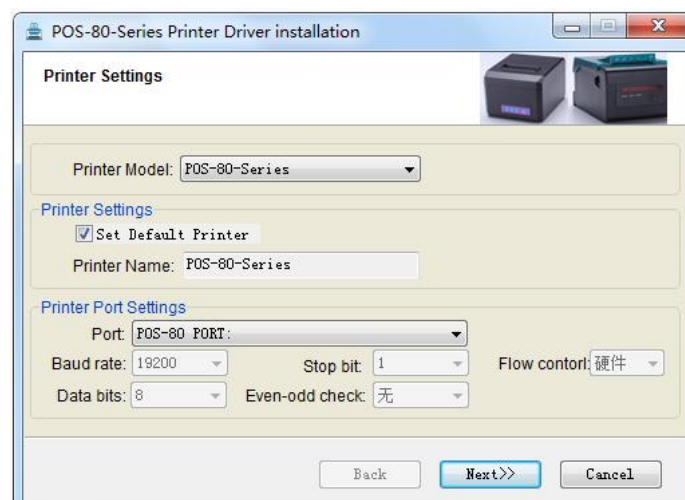
- (3) Select "I have read and accept the license terms", click "Next"



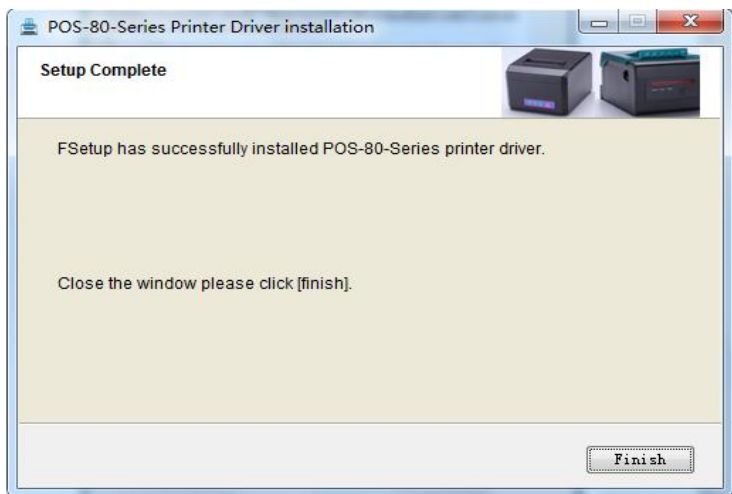
- (4) Click "Install"



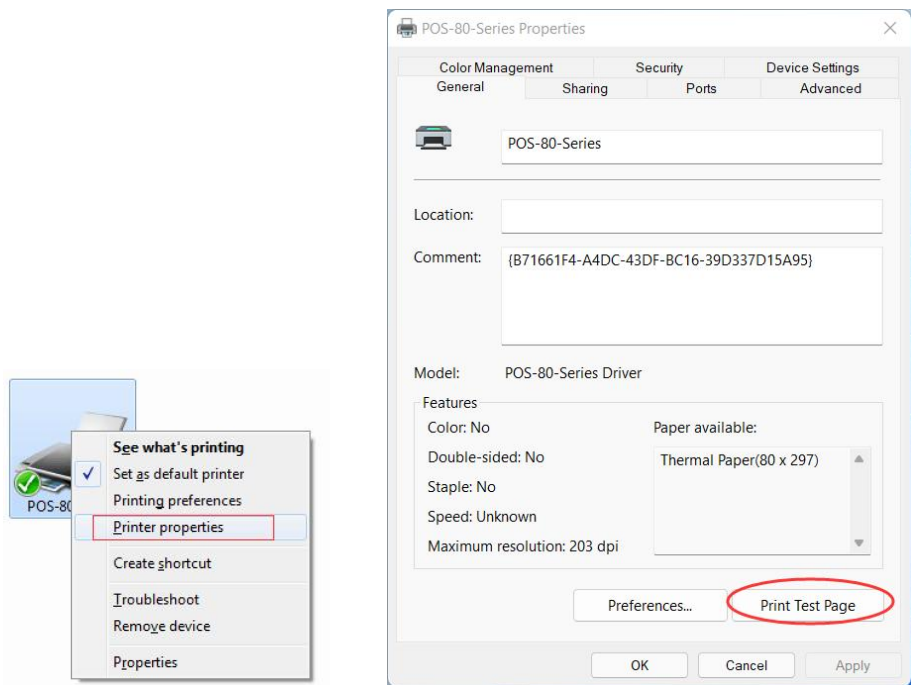
- (5) Select the corresponding port(the USB interface can directly use the default interface), and click "Next"



(6) Click "Finish" to complete the driver installation. After this step completed, mean the driver have been installed successfully



(7) Print a test, select the printer properties in "Devices and Printers", after selecting the port, you can print a test page to check whether the printer is connected well or not.



6. Technical Datas

Items	Parameters/Descriptions
Control Panel	A power switch,A feed button,A LED indicator (Multi-color)
Sensor	Gap sensor Black mark sensor (the sensor position moves along with the black mark) Printer head up sensor Temperature sensor (THP)

Paper Type	Label Paper	Width	37 ~ 123 mm (1.5inch ~ 4.8inch)
		Diameter	25-120mm
		Length	10-260mm
		Gap Size	Minimum 2 mm
		Media Type	Continuous, gap, black mark, fan-fold, punched hole, label paper, tag paper card
		Thickness	0.05mm-0.26mm
	Receipt Paper	Width	80mm
		Diameter	80mm(Max)
Label Paper Type		Roll type or Stack type	
Printer Size		240 mm (L) x190 mm (W) x170 mm (H)	
Printer Weight		1.55kg (Pure printer weight without package)	
Open Method		Shell way	
Print Method		Direct thermal	
Print Location		Center printing	
Resolution		203 dpi(Speed=6.0inch)	
Print Density		1-15 density Level	
Speed		170mm/sec	
Printing Width		37.5-108mm (4.25inch)	
Max Printing Height		260mm	
Memory		512KB Flash Memory/320KBRAM+ 2MB PSRAM	
Interface		USB2.0(Standard USB-B) / Ethernet(Optional) / Bluetooth(Optional) / Wi-Fi(Optional)	
1D Barcode		1D barcode: Code 39, Code 93, Code 128UCC, Code 128 subsets A, B, C, Codabar, Interleaved 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC 2(5) digits add-on	
2D BarCode		2D barcode: PDF-417, QR code	
Rotation		0°, 90°, 180°, 270°	
Emulation		TSPL, CPCL, ESC/POS	
Driver		(1) Windows: XP/7/8/10/11 (32-bits and 64-bits) ; (2) Mac: v10.7.x/v10.8.x/v10.9.x/10.10.x/10.11.x etc; (3) Linux: centos 7.0 X64/ubuntu 12.04 X86 and X64 version;	
TPH Working Life		Over 100,000,000 pulses or over 50 km	
Gear Working life		More than 200 kilometers	
Power Adaptor		Input: AC 100V~240V (50Hz/60Hz) Output: DC 24V $\overline{=}$ 2.5A	
Using Environment	working altitude	Only suitable for safe use in areas below 2000m above sea level	
	working	5℃~50℃ (non-condensing)	
	storage	-20℃~60℃ (non-condensing)	
	Working humidity	20%~85% RH (non-condensing)	
	Storage humidity	5%~95% RH (non-condensing)	

7. Maintenance

Take this simple printer maintenance procedure not only to ensure the printing quality, but also extend the life of the printer. The following are some of our recommended maintenance.

Please use the tools listed below to clean and maintain your printer:

- Cotton swab
- Cotton
- Air spray gun or vacuum tool
- 100% alcohol (industrial alcohol)

Please follow the below cleaning steps :

Printer parts	method
Print head	①Please turn off the printer ②Let the print head cool for at least one minute ③Wipe the surface of the print head with cotton 100% alcohol
Rubber roller	①Please turn off the printer ②While turning the rubber roller, carefully wipe the rubber with 100% alcohol on cotton cloth or cotton
Outside	Wipe the outside with a damp cloth
Inside	Use an air gun or vacuum cleaner to remove dust from the machine

Attention:

- The daily maintenance of the printer must ensure that the power is turned off;
- It is not allowed to touch the surface of the print head with hands and metal objects, and do not use tools such as tweezers to scratch the surface of the print head, printing roller and sensor
- Do not use gasoline, acetone and other organic solvents to wipe the print head and rubber roller, medical alcohol may damage the print head;
- After the gap sensor is cleaned, the paper gap check should be re-checked;
- Wait for the alcohol to completely evaporate before turning on the power to continue printing.