

PR800 User's Manual

1. General description

PR800 is a miniature direct line thermal printer that can communicate using serial ports, USB ports, network ports, and WiFi. It can print common ANK characters, simplified/traditional Chinese characters, universal extended characters, as well as one-dimensional and two-dimensional barcodes, and supports multiple international language fonts. The printing width is 72mm, the dot density is 640 dots per line, the maximum printing speed is 250mm/s, the paper roll width is 79.5 ± 0.5 mm with a maximum diameter of 80mm, and it supports paper thicknesses between 0.06-0.09mm with a line spacing of 3.75mm (adjustable by commands). In addition, it also has a dynamic cutting function, supports cash box output (DC 24V/1A), and is powered by DC 24V/2.5A. This printer is mainly used in industries such as finance, retail, catering, lottery, healthcare, postal services, public utilities, mobile policing systems, and mobile government systems.

2, Technical Specifications

Printing Parameters	
Printing method	Thermal line printer
Printing speed	250mm/s (MAX)
Printing paper width	79.5 ± 0.5 mm
Effective resolution	203 dpi (8 dot/mm)
Outside diameter of paper rollo	Φ80mm(MAX)
Thickness of printing paper	0.06-0.09mm
Effective printing width	72mm
Dot density	640dot/line
Character size	ASCII Font A: 12x24 ASCII Font B: 9×17 Chinese character 24×24
Linespace	3.75mm(Use the command to adjust the line space)
Size of receive buffer	Page mode:1M

Print character	
ASCII character set	12x24 dot, 1.5 (width)X3.00 (height)mm
National Standard Class I and II Chinese character Font	24×24 dot, 3.00 (width)X3.00 (height)mm
Type of bar code	JPCA/UPCE/EAN13/EAN8/CODE39/125/CodeBar/CODE128 /CODE93/CODE11/MSI/QRCORE/PDF417
Extended character table	PC437, Katakana, PC850, PC860, PC863, PC865, WPC1252, PC866, PC852, PC858 etc., 50 international languages in total

Interface	
Wi-Fi	2.4G/5G(802.11a/b/g/n)
USB	Universal USB Interface(Standard Type B)
Serial interface	DB9 female connector interface

Network interface	Standard RJ45-8P interface, 10M/100M transmission speed with self-adaptation 100M network LED indication data communication LED indication.
Cashbox control	The 6-wire RJ-12 socket, outputting DC 24V/1A power signal to drive the cashbox.
Power interface	Power plug DC 24V.

Keys and Indicators	
Power Switch	Yes
FEED button	Yes
POWER/Wifi indicator	White
ERROR indicator	red
PAPER indicator	red

Sensor	
Paper running out detection	Yes, through the photocoupler sensor
Paper cover openning detection	Yes

Power supply	
Power adapter	AC100~240V
Input power supply	DC 24V-2.5A
Cashbox output	DC 24V-1A

Service life	
Service life	Print head: 100 kilometers; Inner diffusion knife: one million times

Environmental requirements	
Dimensions	162*133.8*122.4mm
Environment	0°C to 50°C (operating); -40°C to 60°C (storage)

3, System detailed description and characteristics



3.1, Package Contents

- User Manual ×1
- Printer Body ×1
- USB Cable ×1
- Dedicated Power Adapter (Including Power Cord) ×1
- Test Paper Roll ×1

3.2, Key Features

- 250 mm/s high-speed printing
- Supports network printing
- Supports cash drawer control
- Compact, lightweight, and aesthetically designed
- User-friendly structure for easy maintenance
- Communication interfaces: serial port, USB, Ethernet, Wi-Fi (optional)
- Built-in data buffer (receives print data during printing)
- Low power consumption and operational costs
- Compatible with ESC/POS command set
- Supports multi-device connection from a computer
- Supports multiple international language fonts

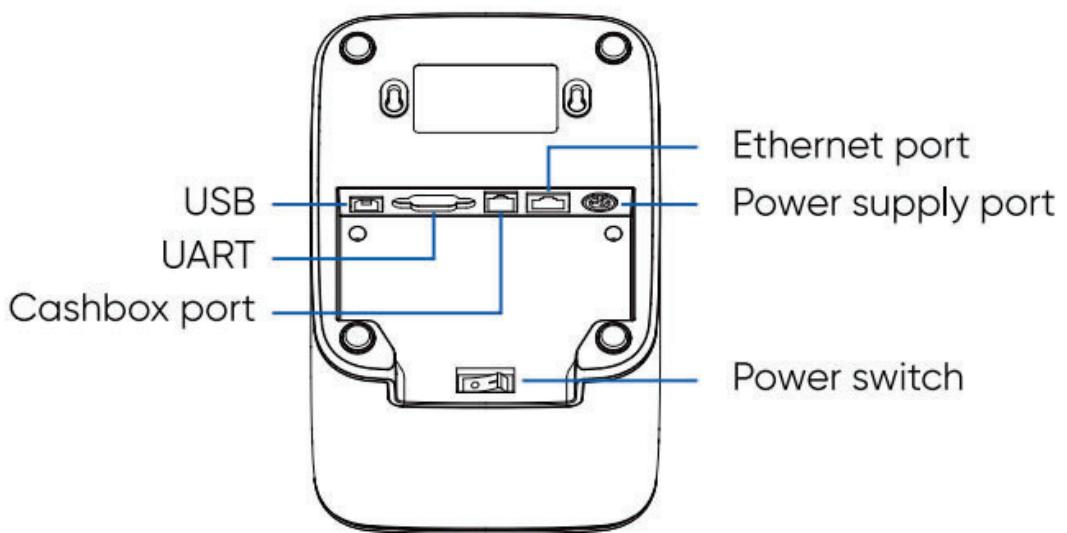
4, System maintenances method

4.1, Printer installation and operation instructions

Connecting the Printer

1. **Power Connection:** Connect the power adapter to the printer's power interface while it is turned off.
2. **USB Connection:** Plug the USB cable into the USB port on the back of the printer.

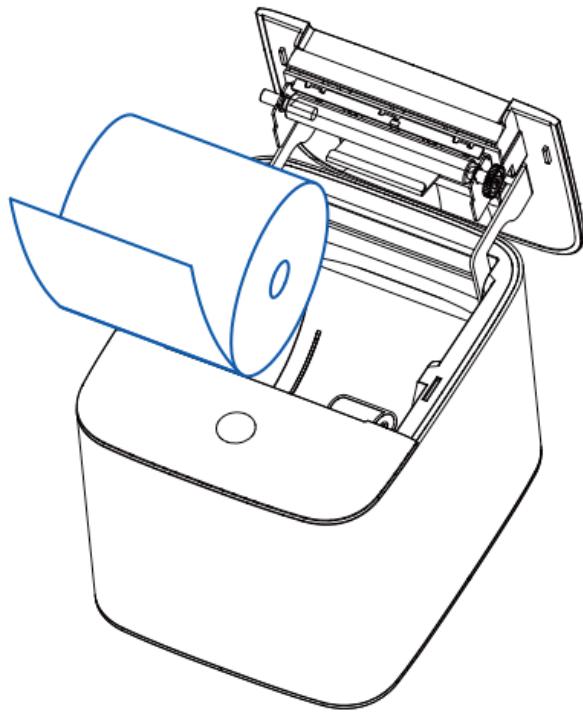
3. **Cash Drawer Connection:** Attach the cash drawer cable to the RJ12 port on the printer.
4. **Ethernet Connection:** Connect the network cable to the LAN port.
5. **Serial Connection:** Use the serial port for legacy devices if required.



Loading Paper

The printer uses 80 mm thermal paper rolls with an easy-load design. Follow these steps:

1. Open the printer cover.
2. Insert the paper roll into the paper compartment as shown.
3. Pull a small section of paper out and close the cover.
4. The printer will automatically cut excess paper upon closing the cover.



Buttons, Indicators, and Functions

1. **FEED Button:** Press to feed paper; hold for continuous feeding.
2. **LED Indicator:**
 - **White:** Normal operation (paper loaded).
 - **Red Flashing:** Error (e.g., paper-out, cutter jam, overheating).
3. **Power Switch:** Located on the bottom. "-" = ON; "o" = OFF.

Self-Test

1. Turn off the printer.
2. Hold the FEED button while turning on the printer. Release the button after a beep.
3. The printer will print a self-test report.

Cutter Jam Resolution

- **Method 1:** Power cycle the printer to reset the cutter.
- **Method 2:** Gently open the LED cover and manually rotate the cutter gear to reset it.

Caution: Avoid forcing the cover open to prevent damage.

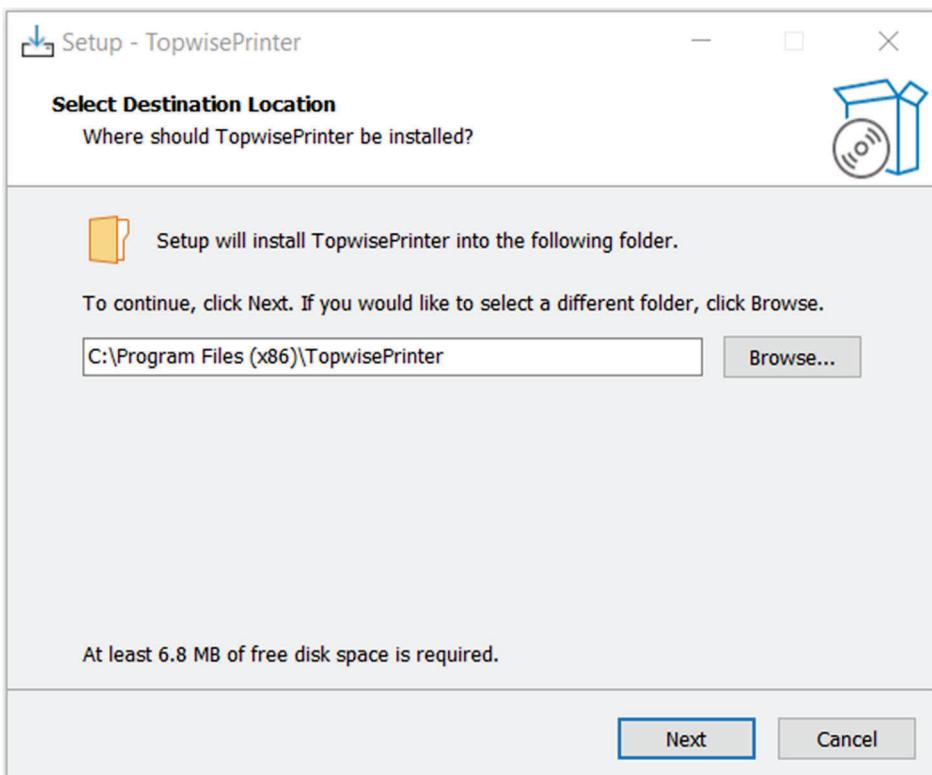
Driver Installation

Drivers for Windows, Linux, and macOS are available at:

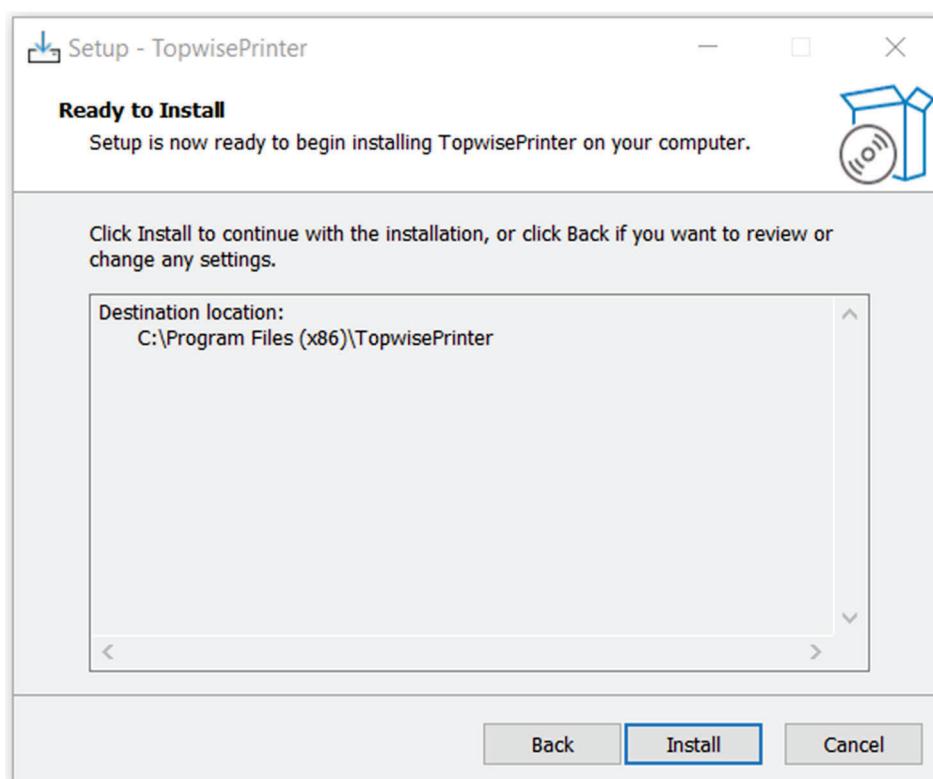
<https://www.topwisesz.com/retail/pr800>

Windows Driver Setup:

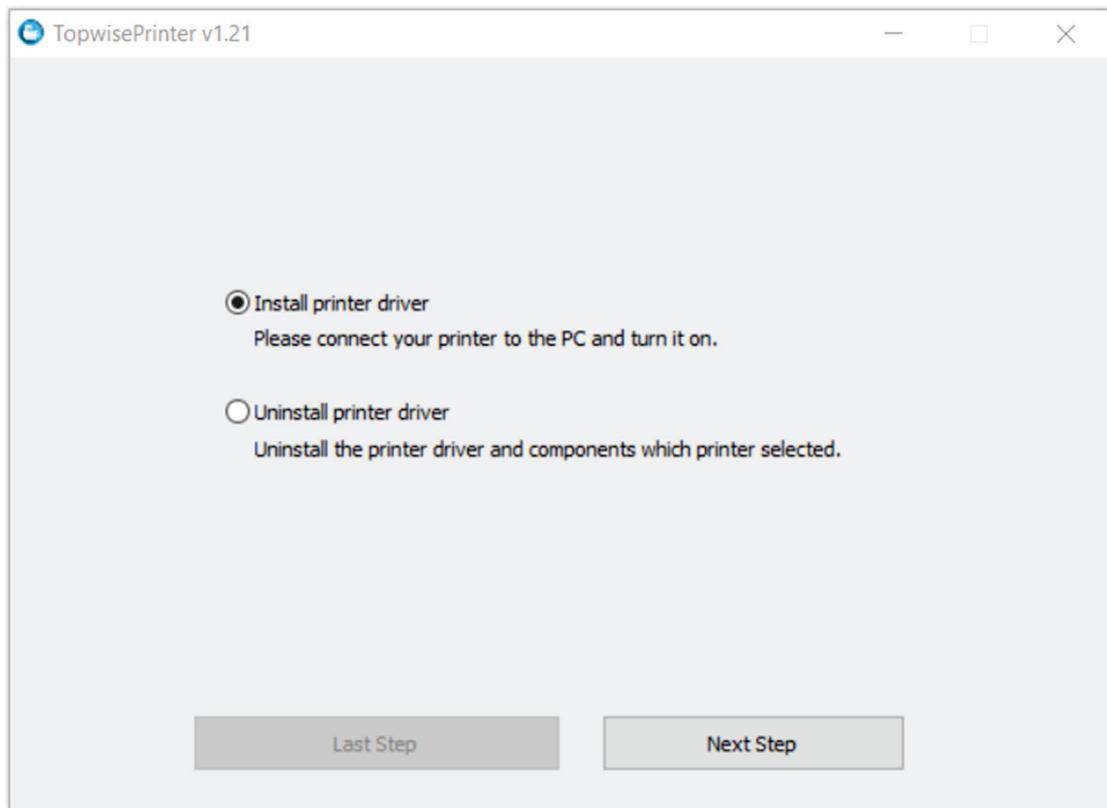
1. Double-click the driver file “TopwisePrinter.exe” and follow the prompts.
2. Select connection type (USB, Ethernet, Wi-Fi) and configure parameters (e.g., IP address for network).
3. Complete installation and print a test page via **Control Panel > Hardware > Printers > Printer Properties.**



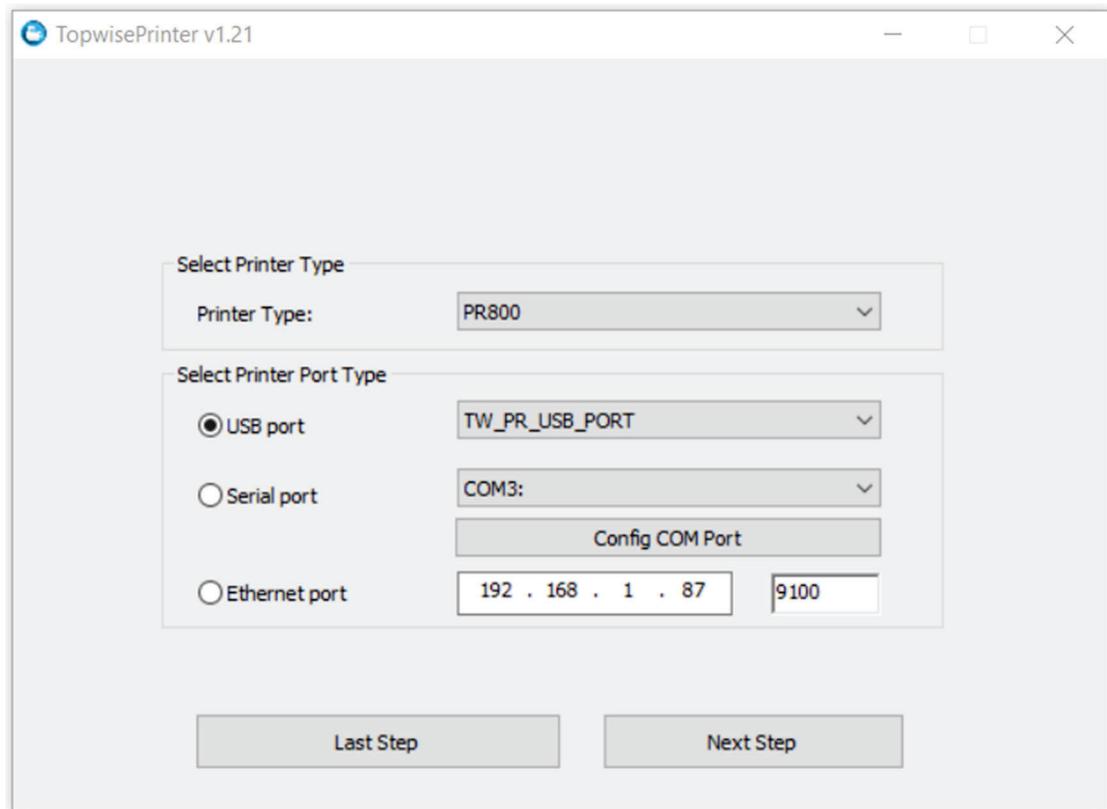
1. Click to install:



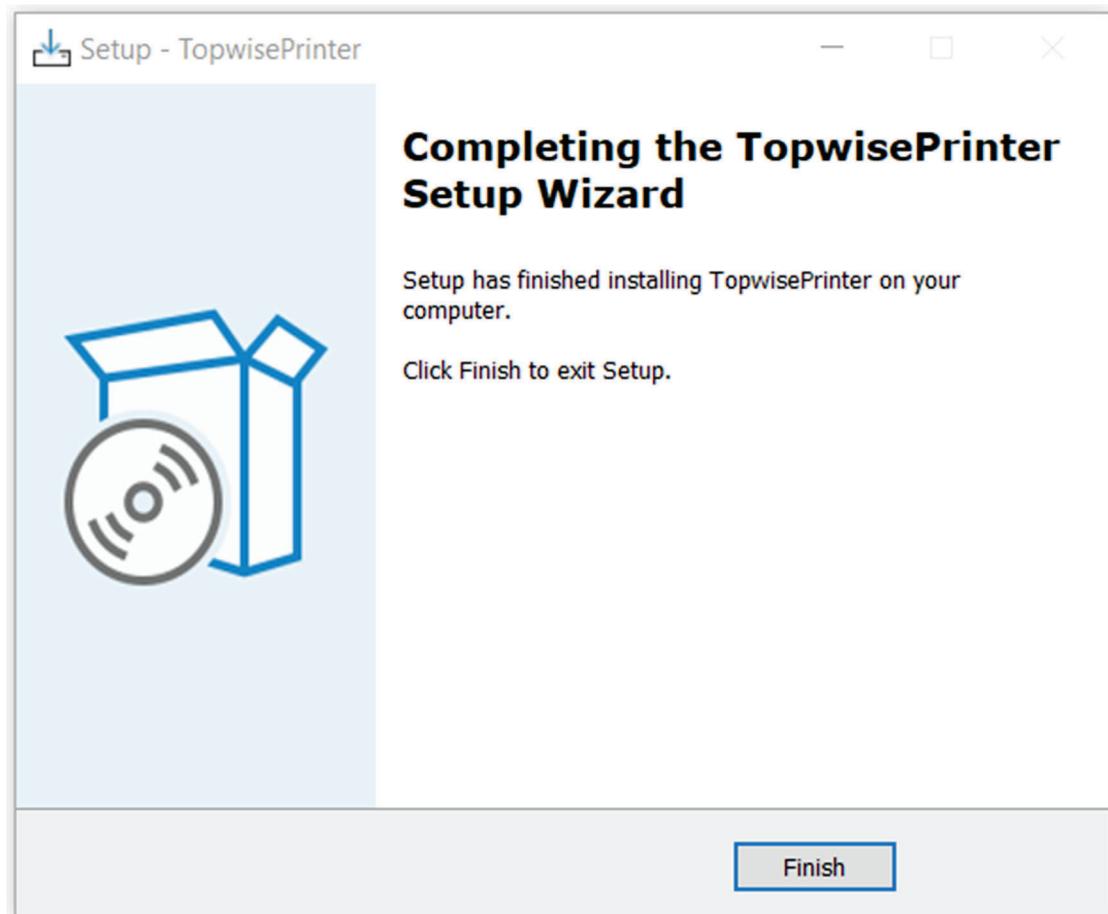
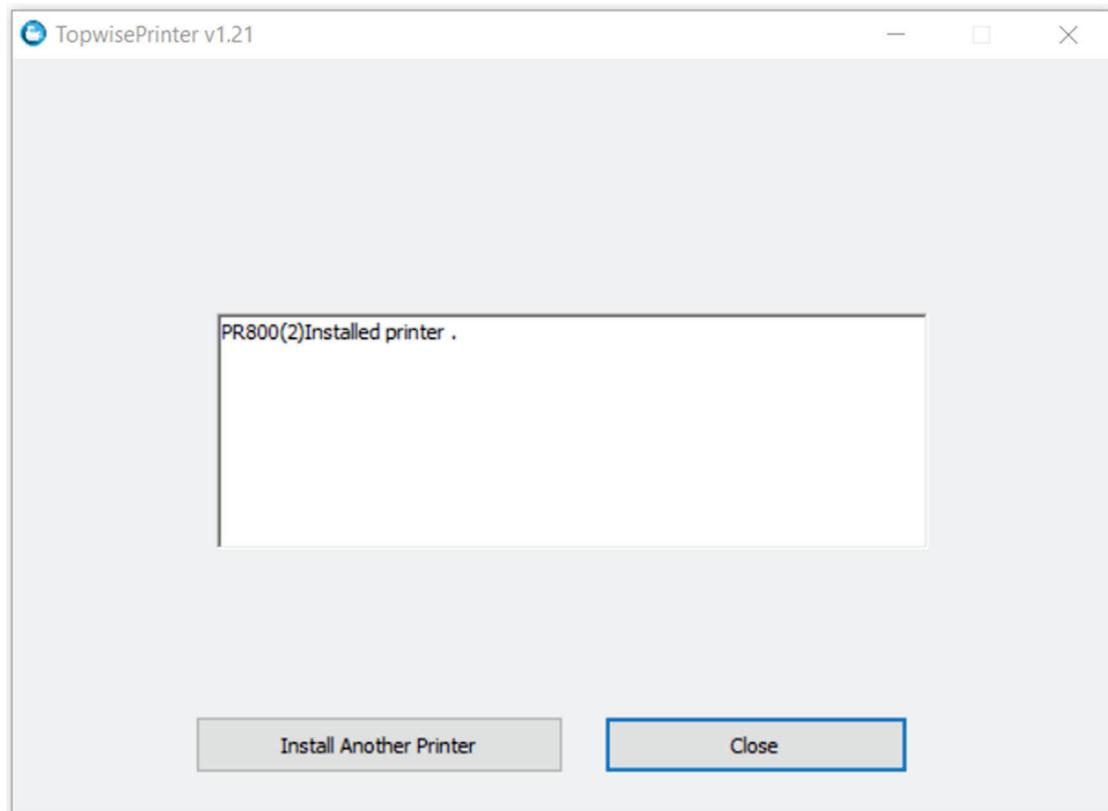
2. After decompression is complete, select Next:



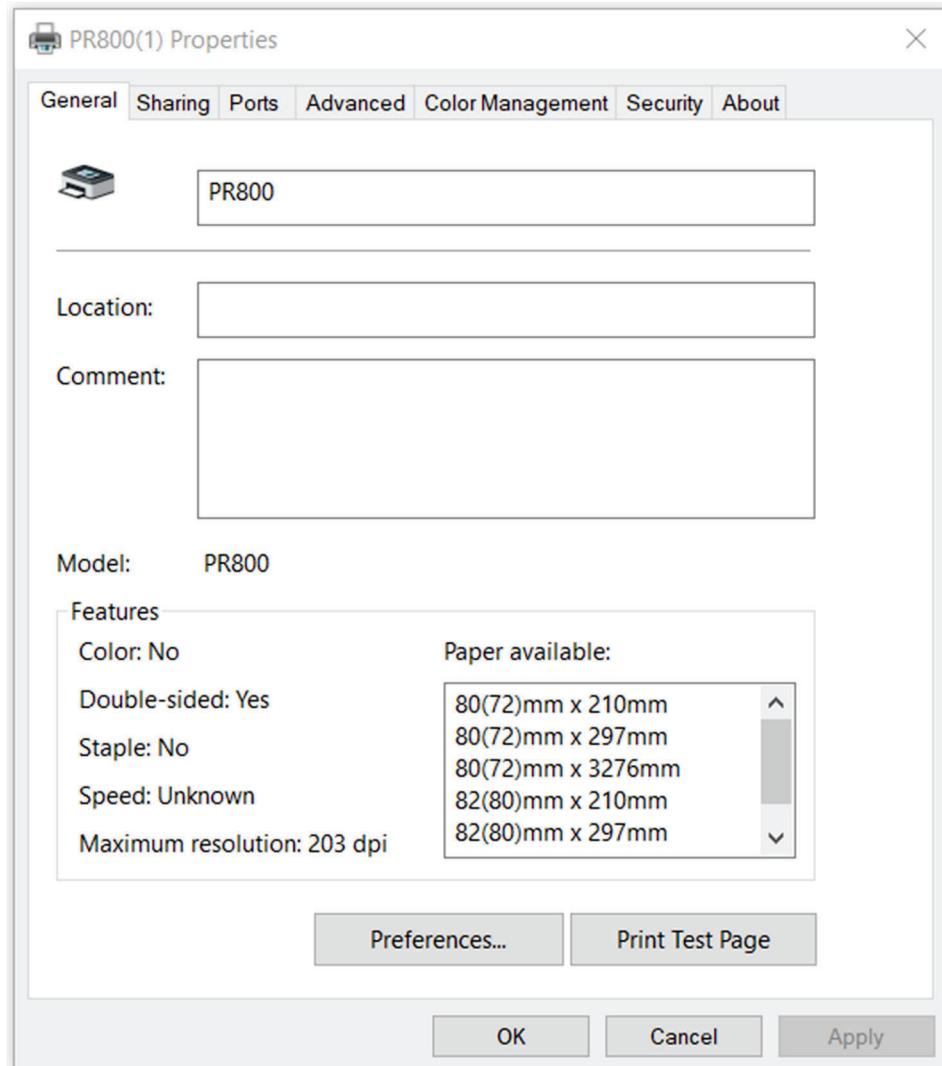
3. Select the connection mode between the printer and the cash register device, configure the serial port parameters and fill in the IP address on the printer for the serial port, network port, and WIFI connection methods, and then click "Next".



4. After installation is complete, you can choose to continue installing multiple printers, and if there is only one, choose to exit



5. Go to the control panel – Hardware and Sound – Select the PR800 printer, right-click and select Printer Properties to enter, click Print Test Page. If PR800 starts printing the test page, it means the installation is complete.



4.2, Print Head Cleaning

Clean the print head if:

- Print quality is poor.
- Vertical lines are missing.
- Paper feeding is noisy.

Steps:

1. Turn off the printer and remove any paper.
2. Allow the print head to cool if recently used.
3. Gently wipe the print head with a lint-free cloth dampened with anhydrous ethanol (do not drip).

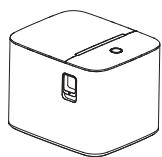
Notes:

- Always power off the printer before maintenance.
- Avoid touching the print head with hands, metal objects, or sharp tools.
- Do not use gasoline or acetone.
- Ensure ethanol fully evaporates before resuming printing.

Attachment: Simplified Version User Manual

Contents Checklist

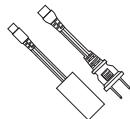
Please check the box contents after unpacking.
If any accessories are missing, please contact the dealer.



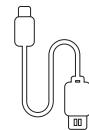
Device x 1



Manual x 1



Adapter x 1



USB Cable x 1



Printing Paper x 1

Driver Download

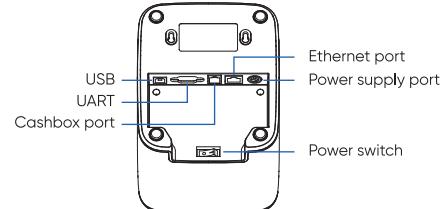
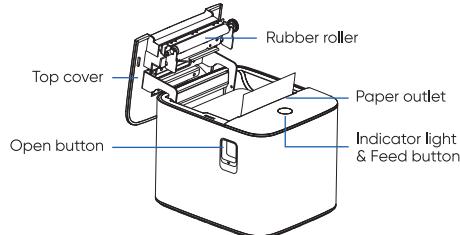
<https://www.topwisesz.com/retail/pr800>

Linux

Mac

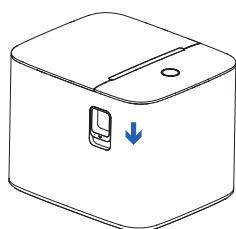
Windows

Product Appearance and Interface

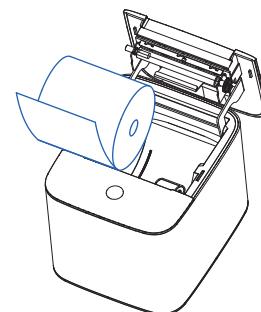
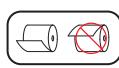


Installing the paper roll

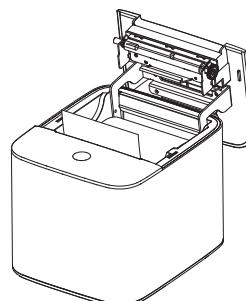
1. Face the front of the machine and press the cover button in the direction of the arrow, the cover will pop open automatically.



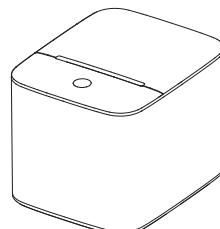
2. Load the paper roll set into the printer from top to bottom, paying attention to the direction of the paper roll.



3. Pull a portion of the paper roll through the paper guide.

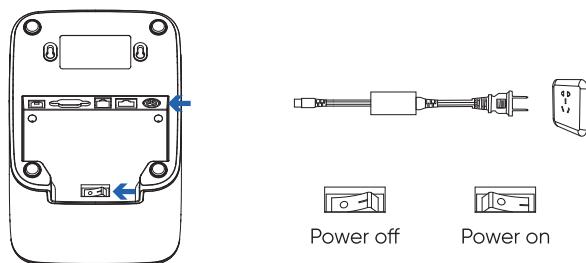


4. Press down until the top cover closes.



Installing the paper roll

5. Connect to the power supply:
Make sure the power button is off, and plug in the power cord.



Cutter reset when paper jammed

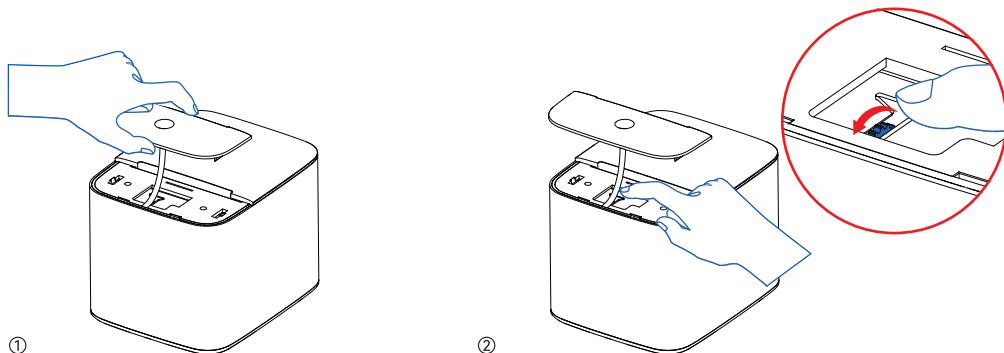
• Automatic reset after switching on

Switch the printer off and on again after 10 seconds, the printer will perform a self-test and reset the cutter automatically;

• Manual reset

- ① Snap open the panel shown below by hand or with a tool (be careful not to pull on the keypad wiring);
- ② Turn the white gear outwards (in the direction shown).
- ③ Until the cutter is fully reset (the black cutter face retracts into the printer head)

Cutter reset when paper jammed



• Beeping and flashing light

Number of beeps	Beeping alert	LED indication
1	Power on beeps once to indicate normal operation	White light always on
2	Printer head temperature detection error, may not be connected to the printer head.	
3	The printer is out of paper, you need to check whether the paper is used up or not	
4	Cutter error, need to manually return the cutter to the correct position.	
5	This alarm is triggered by an overheated printer head that exceeds 60°.	Red light always on
6	The printer paper tray is open and must be checked to ensure that the cover is properly closed.	
7	Abnormal font chip detection, need to return to factory for maintenance	

Initial Setup

Set Up The PR800 for First Use on Windows

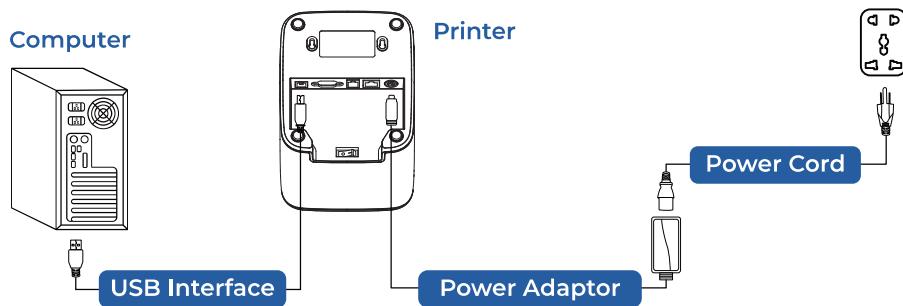
Download Windows Driver

You can download the driver and setup tool at the link below

Driver and Setting tool download: <http://topwisesz.com/retail/pr800>

USB Interface

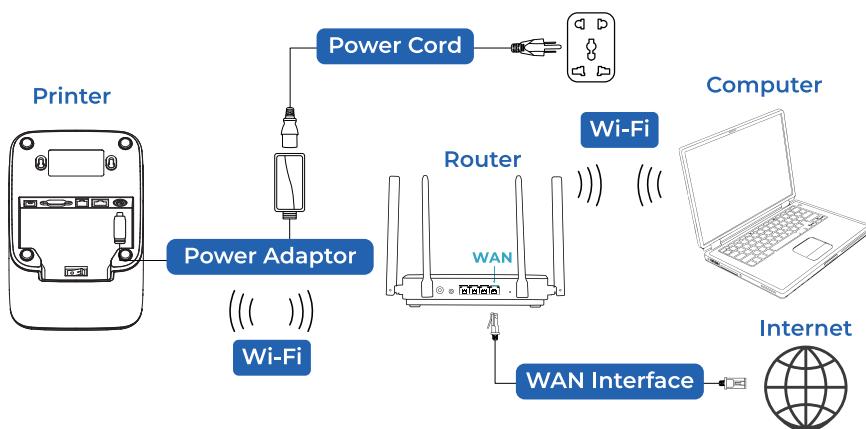
- 1) Connect the printer to the power outlet via the power cord.
- 2) Connect the printer to your Windows computer via USB.
- 3) Place the thermal paper into the printer and power it on.



Open the downloaded driver and install it. <http://topwisesz.com/retail/pr800>

Wi-Fi

Connect your computer to the wireless router. Please see the picture below.

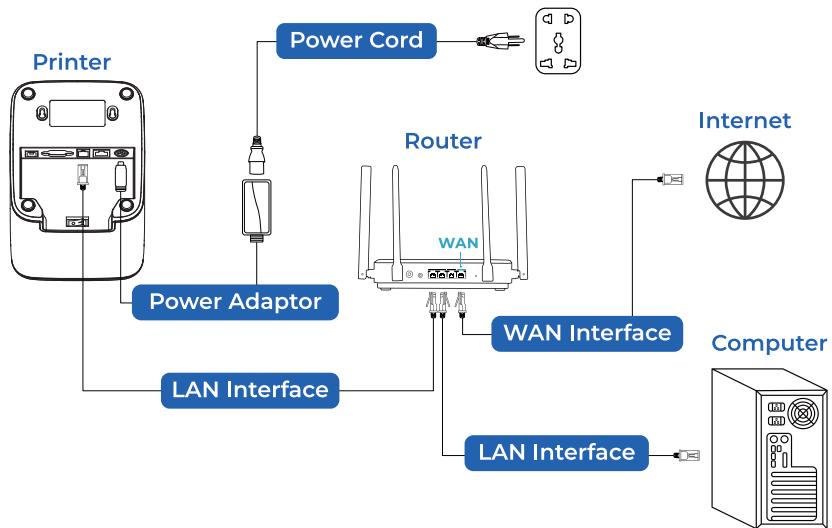


Install the driver, follow the "Wi-Fi setting guide" to set the printer's WiFi IP address, and add it as a network printer.

"Wi-Fi setting guide" download: <http://topwisesz.com/retail/pr800>

LAN Interface

To connect the printer to the router, use a network cable when the printer is turned off. Power on the printer and wait for it to automatically configure the IP address, which should take around 5 seconds.



For CE

Manufacturer Information:

Shenzhen Topwise Communication Co.,Ltd.

5/F, Shengtang Building East Block, Tairan Road 9, Futian District, Shenzhen 518042, China.

Transmitter Frequency:

2.4G Wi-Fi: 2412-2472MHz/2422-2462MHz

5G Wi-Fi: 5150-5250MHz, 5725-5850MHz

Receiver Frequency:

2.4G Wi-Fi: 2412-2472MHz/2422-2462MHz

5G Wi-Fi: 5150-5250MHz, 5725-5850MHz

RF-Output Power:

2.4G Wi-Fi: 16.90dBm

5G Wi-Fi:

5150-5250MHz: 14.07dBm

5725-5850MHz: 13.40dBm



BE	BG	CZ	DK	DE	EE	IE	EL
ES	FR	HR	IT	CY	LV	LT	LU
HU	MT	NL	AT	PL	PT	RO	SI
SK	FI	SE	NO	IS	LI	CH	TR

In all EU member states, operation of 5150-5250 MHz is restricted to indoor use only.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.