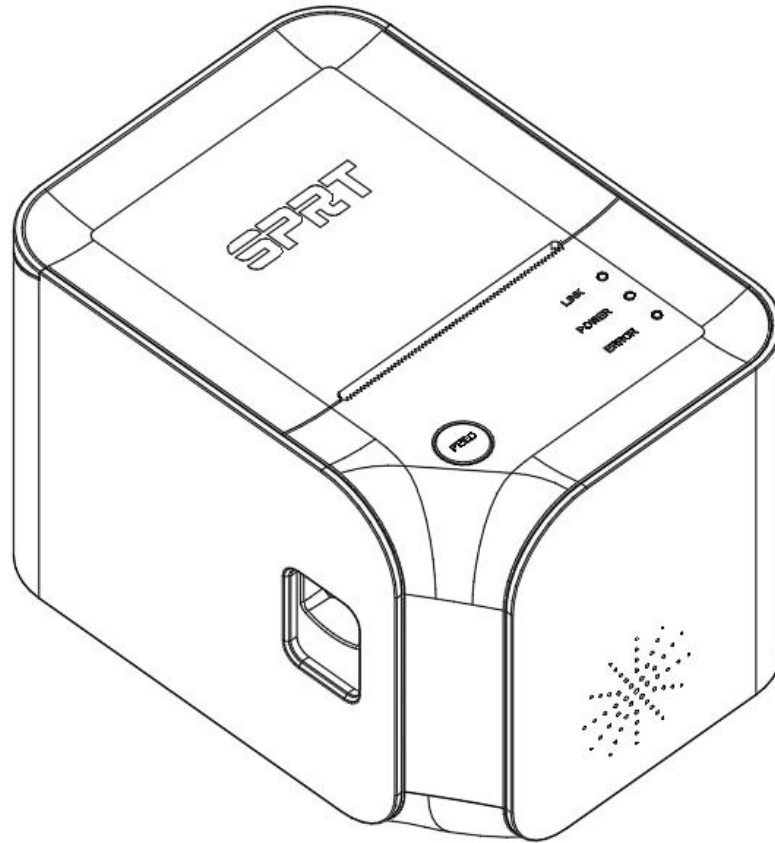


# SP—POS588 Thermal Printer



## User's Manual

(VER1.01)

Beijing Spirit Technology Development Co, Ltd.  
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## **Introduction**

SP- POS588 printer is a new type line thermal printer, it features in fast speed print, low print noise, high reliability, perfect print quality and ribbon needless avoiding the vexation of regular maintenance.

SP-POS588 printer: small in outline dimension, simple operation, and extensive application, especially suitable for commercial cash register, PC-POS, bank POS and all kinds of receipts print.

## Chapter 1 Characteristic and Specification

### 1.1 Printing specification

- Printing method: direct thermal
- Printing paper width: 57.5±0.5mm
- Printing density: 8 dots/mm, 384 dots/line
- Printing speed: approx. 80mm/s (max) ( 25% printing density)
- Reliability:
  - Printing head life: 50km
  - Using condition:
    - \* Print 12 × 24 ASCII characters, print 50 lines each time, intermittent print repeatedly
    - \* Each dot-line printing at the same time should not exceed 25%, each character-line and one dot vertically printing repeatedly should not exceed 11 times
    - \* Use specified thermal paper
- Valid printing width: 48mm

### 1.2 Printing Paper

- Paper Type: thermal paper 57.5xΦ80 mm (MAX)
- Paper Thickness ————— 0.06-0.08mm
- Paper Loading: Easy Paper Loading
- Paper Cutting: Manual Paper Cutting

### 1.3 Printing Font

- ANK Character set:
  - 12×24 dots, 1.5 (W) ×3.00 (H) mm;
- GB2312-80(Chinese):
  - 24×24 dots, 3.00 (W) ×3.00 (H) mm.

### 1.4 Interface

- USB interface:
  - Standard B type USB interface.
- Bluetooth interface
- WIFI interface

## 1.5 Printing Control Command

- Character print command: supports double width and double height printing of ANK characters, user-defined characters and Chinese characters, the character line spacing is adjustable.
- Graphics print command: supports the printing of bit map graphics with different density
- GS bar code print command:  
1D barcode: supports UPC-A, UPC-E, EAN-13, EAN-8, CODE39, ITF25, CODABAR, CODE93, CODE128 barcode print.  
2D barcode: supports PDF417, QRCODE, DataMatrix barcode print.

## 1.6 Power Supply

- DC8.5V±5%, 3A(three core)

## 1.7 Operation Environment

- Operation environment temperature: 0~50℃  
Relative humidity: 10~80%
- Storage temperature: -20~60℃  
Relative humidity: 10~90%

## 1.8 Outline Dimension

- Dimension: 143(L) X 103 (W) X103(H) mm
- Weight: 410g (not including paper)

## Chapter 2 Installation and Operation

### 2.1 Printer Appearance

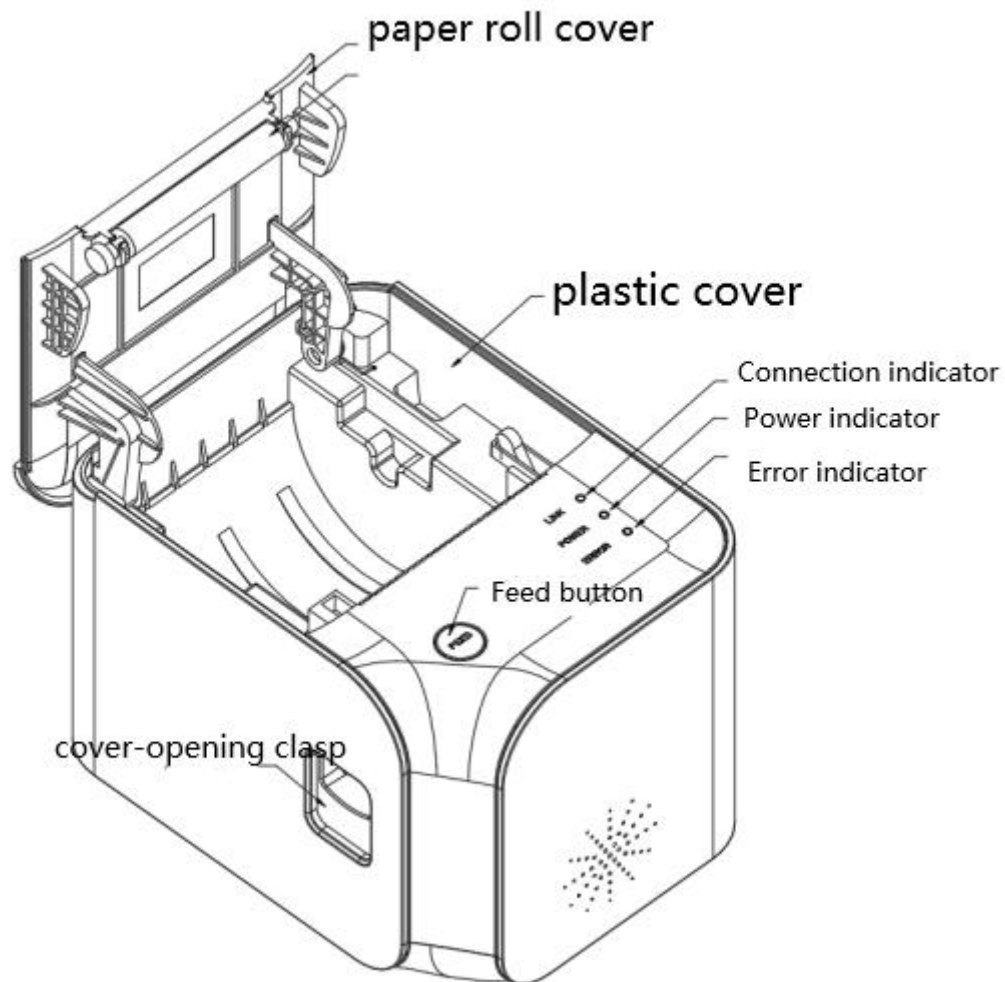


Figure 2-1-1 printer outer appearance

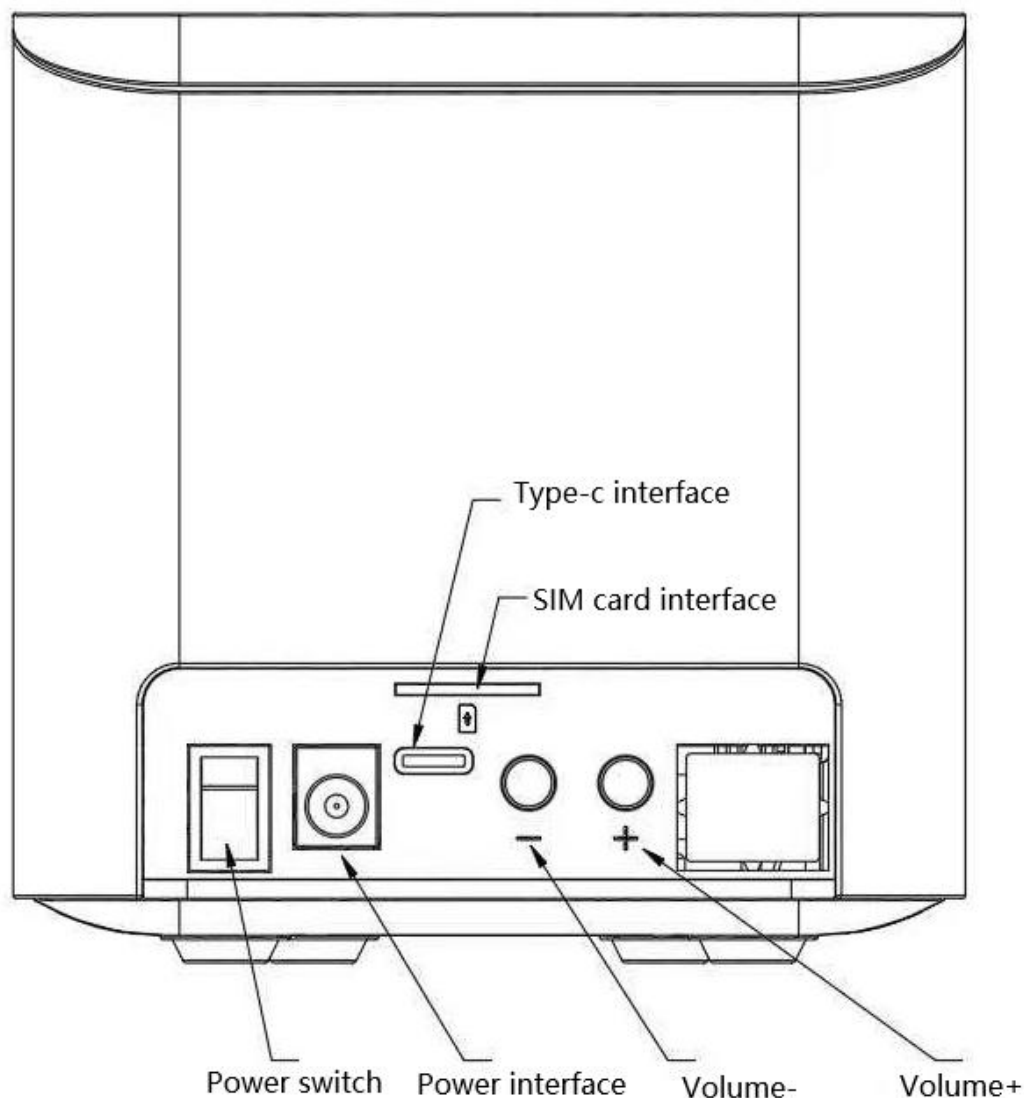


Figure 2-1-2 printer outer appearance(back view)

## 2.2 Paper Installation

SP-POS588 adopts 58mm width thermal paper.

The steps of thermal paper installation are as the following:

1. When there is no paper in the print head, pls don't press **【FEED】** button to avoid affecting the life of printing head. Press the cover-opening clasp down to open the paper compartment cover to change the paper.
2. After paper case cover is closed, pls do not draw the paper forwards or backwards with hands.

## 2.3 Model

Model	Description
SP-POS588BTDMVTd	USB+Bluetooth+Voice Warning
SP-POS588WVTd	USB+WiFi+Voice Warning

## 2.4 Interface Connection

### 2.4.1 USB Interface Connection

The standard configuration of the printer is equipped with a standard USB TO Type-C cable, which is used to connect the printer and the host device. The printer's USB belongs to the type of slave device (DEVICE); the appearance and pin definitions are shown in the figure below:

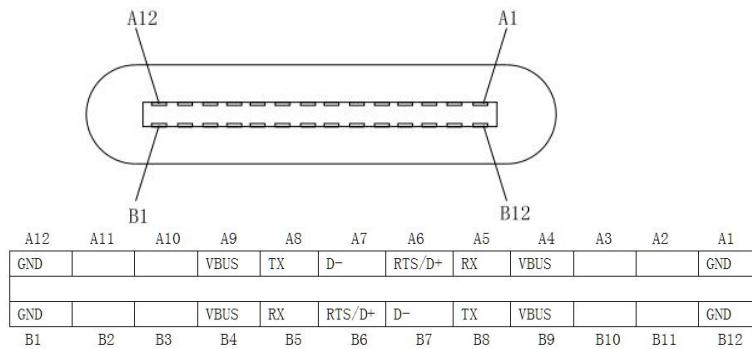


Fig2-4-1. Pin Order of the Type C Port

### 2.4.2 Bluetooth Interface Connection

The handheld terminal, notebook or other terminals with Bluetooth can drive the printer through Bluetooth interface. POS588 printer can support Bluetooth2.0/Bluetooth4.0 principles. Power rate is CLASS2, Valid distance is 10m. Device name is POS58BT Printer, initial password is “1234”. Device name and password can also be set and changed by “Setting Tool”.

Before printing, POS588 printer needs to pair with the host firstly. The pairing process is as below:

1. Turn on the printer
2. The host searches the Bluetooth devices



3. If several Bluetooth devices are found, pls choose POS58BT Printer.
4. Input password "1234".
5. Complete pairing.

Please refer to the Bluetooth function description of the master device for the specific pairing method.

During pairing, the printer must be on.

Note: If the device name is not changed, during pairing, pls do not turn on several printers at the same time. Otherwise, it will be difficult to identify the one printer paired.

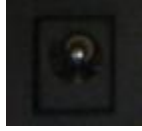
### **2.4.3 Wifi Interface Connection**

The printer supports 2.4G WiFi module communication function, and the printer supports WeChat distribution network function, which can quickly realize the connection between the printer WiFi and the router; the specific operation steps through WeChat distribution network are as follows:

1. Press and hold the [Volume -] button to turn on the device. After turning on the button, do not release the button. Press and hold for about 3 seconds. The printer will enter the intelligent network configuration mode, and the voice prompt "Start network configuration" will be displayed, and the blue [LINK] indicator light flashes. The network distribution operation can be carried out at the time.
2. Make sure that the mobile phone is connected to the router and the network is normal. Use the mobile phone WeChat to scan the QR code on the bottom of the printer to enter the network configuration interface, and click the "Start Network Configuration" button.
3. Enter the password of the router connected to the mobile phone, and then click the "Connect" button. The printer will start to configure the network. After the network is configured successfully, the printer will automatically connect to the router and give a voice prompt "Wireless network is connected". At the same time, it will print the IP address. Users can send data to the printer through this IP address.
4. If the printer has completed the network configuration, the network configuration information will be automatically saved, and the next time the machine is turned on, it will automatically connect Wifi. After the connection is successful, the voice prompt "wireless network is connected".

## 2.4.4 Power Connection

SP-POS588 uses external power supply as 12VDC $\pm$ 5%, 3A, three core model, as below:



## 2.5 Buttons and Indicators

### 2.5.1 Power switch



Control on/off status of power.  is off status. Press “-” is on status.

### 2.5.2 Feed Button

There are 1 paper feed button and 2 volume adjustment buttons on the printer.

As shown in Figure 2-1-2, the printer has two buttons, [Volume +] and [Volume -], which can adjust the volume of the speaker's voice. When the printer is in normal working state, when press the button each time, the volume increases or decreases by one level with voice prompts at the same time.

【FEED】 is paper feed button. Print command can enable or disable 【FEED】 status to be on or off. Under enable status, hold down 【FEED】, start paper feeding, release the button paper feeding stops.

### 2.5.3 Opening Upper Cover Button

Press down on the cover-opening clasp to open the paper compartment cover.

### 2.5.4 Power indicator light (green)

[POWER] The indicator light is the power indicator. If the power is on, the power indicator light will be on.

### 2.5.5 Error indicator light (red)

[ERROR] The indicator is an error status indicator, when the printer is working normally, the red ERROR indicator is off, and the indicator flashes as an abnormal alarm state.

The error indicator flashes: it indicates that the printer has an error. According to the different flashing modes, it indicates the type of printer error.

The error status indication is as below:

Light status	Description
off	Normal status
Flicker 1 time and stay 1s	Paper out and waiting for loading
Flicker 2 times and stay 1s off	Print head is overheated and just waiting for back to normal
Flicker 3 times and stay 1s off	Thermal print head damaged, needs to repair.

### 2.5.6 Connection indicator light (blue)

[LINK] The indicator light is a connection indicator, indicating the status of Bluetooth or wireless network connection. When not connected, the indicator light is off. The indicator light flashes during the network configuration process. The indicator light is on after the printer connects to the Bluetooth or wireless network successfully.

### 2.5.7 Speaker

The speaker prompts the printer error status (out of paper, overheated head), network connection status, etc. through a human voice.

## 2.6 Self-test

The self-test can check the condition of printer. In the self-test, software version, interface type, characters, etc will be printed. If the printer prints out the self-test receipt correctly, it means the printer works normally except the interface with host. Otherwise it needs to repair.

Method of self-test: Holding down **【FEED】** button and turn on the power, the red indicator light will flicker at 1 time/s, within 3 times then release the button, self-test begins automatically.

## 2.7 Hexadecimal Dump

Holding down **【FEED】** button and turn on the power, the red indicator light will flicker at 1 time/s, after 3 times then release the button, the red light will go on flicker 3 times, then the printer will print out 3 lines information as bellow:

Hexadecimal Dump  
To terminate hexadecimal dump,  
Press FEED button three times.

Under this mode, all the input will print out as Hexadecimal data. Put the **【FEED】** button will feed one line each time. 3 times together will print out as bellow:

\*\*\* Completed \*\*\*

Then quit the Hexadecimal Dump print mode.

## **2.8 Upgrade Mode**

### **a. Quick access method:**

In the shutdown state, make sure that the paper compartment cover is closed when the printer has no paper, press and hold the [FEED] button, turn on the power switch, and quickly release the [FEED] button, the printer enters the program upgrade mode. At this time, the red indicator light will enter a flashing state of on for 1s and then off for 1s.

Use the "UpdateFirmware.exe" (PC-side upgrade tool) upgrade tool to upgrade.

### **b. Upgrade in print mode:**

Connect the USB data cable to the computer, and the printer is turned on normally. At this time, it can be upgraded through the PC-side upgrade tool.

1. Open the "UpdateFirmware.exe" upgrade tool.

2. Select the USB port, open the port, select the "firmware file" that needs to be upgraded, click "start upgrade", wait until the data update is completed, the printer automatically enters the upgrade mode.

3. The red indicator light will enter a flashing state of on for 1s and then off for 1s. After the upgrade is completed, the printer will automatically print out the self-checking sample and enter the normal working mode.

## **Chapter 3 Printing Driver Installation**

Printing driver for SP-POS588 series printer can be downloaded from the company of our website ([www.sprt-printer.com](http://www.sprt-printer.com)). After downloading, the name of driver software is SP-DRV211. During installing driver software, choose printer model "58 thermal series". About other operation, pls refer to the detailed installation manual.

## Appendix 1 Performance Index

Property		
Printing property	Print method	Direct thermal
	Print density	8 dots/mm, 384 dots/line
	Print speed	80mm/sec (25% printing density)
	Valid print width	48mm
	Print width	57.5mm±0.5mm
Printing character	Custom character	Support Custom character
	Graphic printing	Support different density bitmap and download bitmap printing
	Chinese	National standard three-level font: 24×24 dot matrix
	Print Font	ASCII: 9×17, 12×24
	Barcode	1D barcode: UPC-A; UPC-E; EAN-13; EAN-8; CODE39; CODE93; CODABAR; ITF25; CODE128 2D barcode: PDF417、QRCODE、DataMatrix
Interface	USB , WIFI, Bluetooth	
Function	Out of paper alarm, overheat protection, voice alarming	
Power supply	DC power supply	DC 8.5V±5%, 3A
Paper	Paper Type	Thermal Paper58×Ø 60mm
	paper thickness	0.06mm ~ 0.08mm
	Paper loading method	Easy paper loading
	Paper cutting method	Manual cutting
Physical properties	Size	143mm×103mm×103mm (L×W×H)
	Weight	410 g(not including paper roll)
Operation Environment	Operation temperature	0 ~ 50°C/10 ~ 80%(Relative humidity)
	Storage temperature	- 20 ~ 60°C/10 ~ 90% (Relative humidity)
Reliability	Print head life	50km

**Warning**

This is a class A product. In the domestic environment, this product may cause radio interference, in which case the user may be required to take adaptable measures.