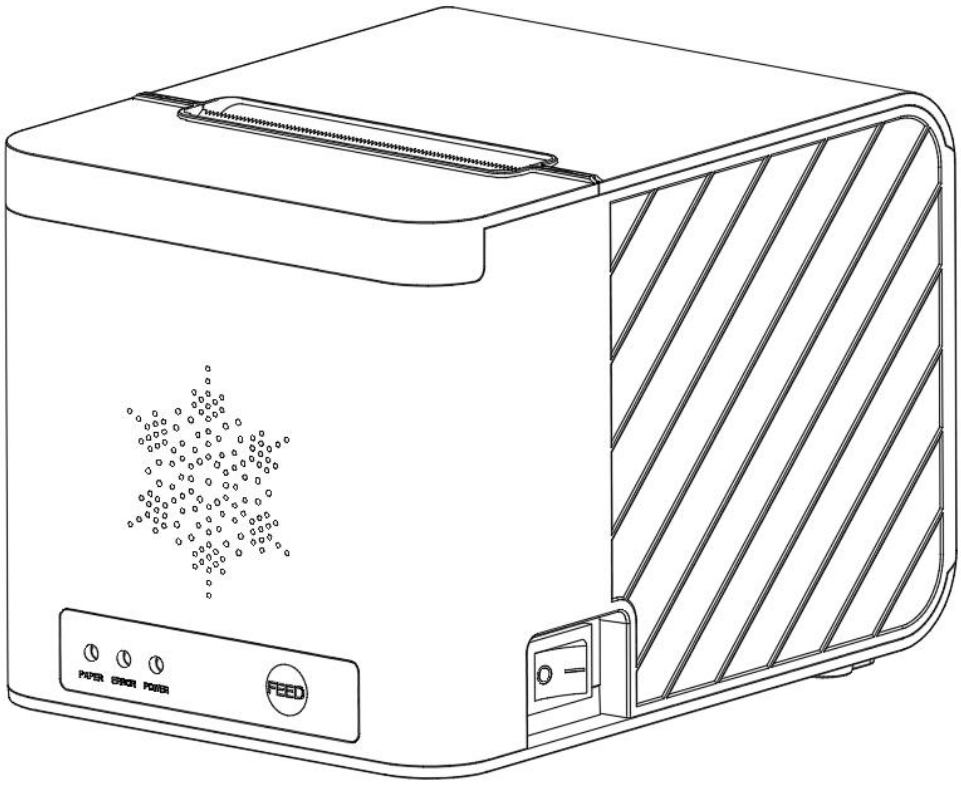
SPRT

POS Thermal Receipt Printer

（SP-POS8811A）

（Ver 1.01）



Beijing Spirit Technology Development Co.,Ltd.

www.sprt-printer.com

Content

Introduction 3
Chapter 1 Feature and Performance 3
1.1 Print Performance 3
1.2 Printer Paper 3
1.3 Print Font 4
1.4 Interface 4
1.5 Print Control Commands 4
1.6 Power Supply 5
1.7 Operation Environment 5
1.8 Outline Dimension 5
1.9 Model classification 5
Chapter 2 Operation Specification 5
2.1 Printer Appearance 5
2.2 Paper Installation 6
2.2.1 Paper Loading 6
2.2.2 Solution to Paper Jam 6
2.3 Interfaces 7
2.3.1 Ethernet Interface 7
2.3.2 USB Interface 7
2.3.3 Bluetooth Connection 8
2.3.4 Cash Drawer Interface 8
2.4 Indicators, Buzzers and Buttons 10
2.5 Power on status 12
2.6 Self-test 12
2.7 Hexadecimal Printing 13
2.8 Parameter Setting 14
2.9 Program upgrade 14
Appendix A 15

Introduction

POS8811A 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.

POS8811A 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.

Warning

This is grade A product, which may lead to wireless radio interference. Under this circumstance, it may need users to apply practical measures for this interference

Chapter 1 Feature and Performance

1.1 Print Performance

● Printing Method: Thermal line printing

● Paper Width: 79.5±0.5mm

● Print Resolution: 8dots/mm, 576dots/line

● Print Speed: Maximum 160 mm/s (25% print density)

● Reliability:

(1) Print Head Lifespan: 150km

Usage conditions:

* Printing 12 x 24 characters, print 50 lines each time, intermittent repeat printing

* Use specified thermal paper.

(2) Cutter Lifespan: 1,500,000 times.

(3) Effective Print Width: 72mm

1.2 Printer Paper

● Thermal paper roll model: TF50KS-E (Japan paper co.ltd)

AF50KS-E(JUJO THERMAL)

● Thermal paper roll: paper type ---------- ordinary thermal paper 80xф80mm (maximum)

Inner diameter ---------- ф13mm (minimum)

Paper thickness ---------- 0.06mm～0.08mm

1.3 Print Font

● ANK Character Set

12×24 dots, 1.5（W）×3.00（H）mm

● GB GB2312-80(Chinese):

24×24 dots, 3.00（W）×3.00（H）mm.

1.4 Interface

● Ethernet Interface：

Standard Ethernet interface.

● USB Interface:

Standard Ethernet interface.

● Bluetooth:

Multi Mode Bluetooth.

● Cash Drawer Control

DC24V, 1A, 6-pin RJ-11 socket.

1.5 Print Control Commands

● Character print commands: support double-width, double height print of ANK characters, user-defined characters and Chinese characters, the character line spacing is adjustable.

● Graphics print commands: support the print of bit-map graphics and download bit-map graphics with different density

● GS bar code print commands:

support UPC-A, UPC-E, EAN-13, EAN-8, CODE39, ITF25, CODEBAR, CODE93, CODE128, PDF417, QR code, DATA Matrix code print.

1.6 Power Supply

● DC24V±10%, 1A/1.25A, A-1009-3P power socket

1.7 Operation Environment

● Operation temperature: 0～50℃; Relative humidity: 10～80％

● Storage temperature: -20～60℃; Relative humidity: 10～90℃

1.8 Outline Dimension

● 165(L)mm×120(W) mm×119 (H)mm

1.9 Model classification

Model	Interface	Print speed (Max)
SP-POS8811Ed SP-POS8822Ed	Ethernet	160mm/s
SP-POS8811UEd SP-POS8822UEd	USB+Ethernet	
SP-POS8811UEdvt SP-POS8822UEdvt	USB+Ethernet+Voice Broadcast	
SP-POS8811UBTMM SP-POS8822UBTMM	USB+Bluetooth	

Chapter 2 Operation Specification

2.1 Printer Appearance

The names of the various parts of the printer are shown in Figure 2-1.

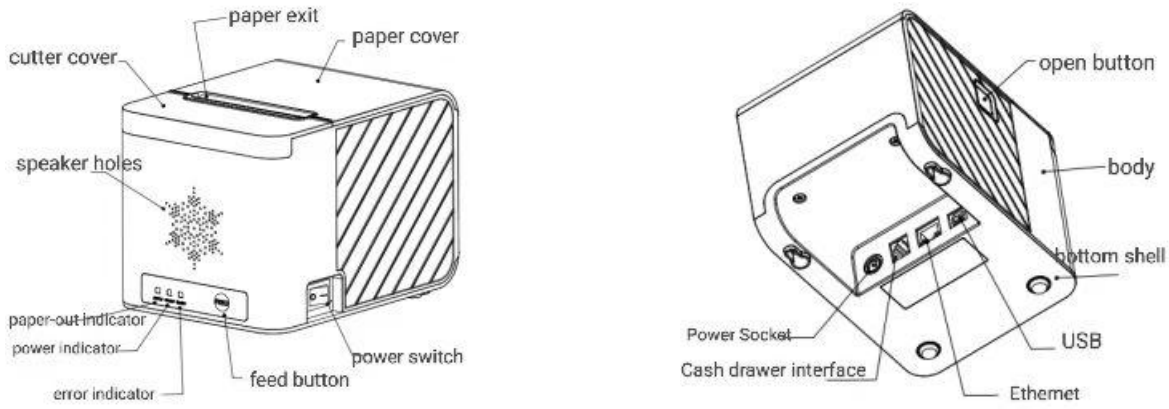


Figure 2-1 The name of each part of the printer

2.2 Paper Installation

2.2.1 Paper Loading

Steps of Loading Thermal Paper are as below:

Hold down the upper cover button on the left side, open the movable upper cover, draw a certain length of the paper roll, put the paper end on the print head, close the upper cover and press it downwards lightly.

Caution:

1. Pay attention to the direction of loading paper, make the printing surface face to the print head.
2. Please don't feed or draw the paper forwards or backwards with hands.
3. Keep clean of the print head, avoid to influence the printing quality.

2.2.2 Solution to Paper Jam

If cutter jam, turn off the power, and turn on again, the cutter will be back to original position. If paper jam, open the printer paper cover, and take out the paper. If the cutter still does not return to its original position after turning on the power again, open the cover of it, and turn the white plastic gear by the direction suggestive on the cutter by hand to make the cutter be back to the original position.

2.3 Interfaces

2.3.1 Ethernet Interface

The model equipped with an Ethernet port uses an RJ45 type network socket, as shown in Figure 2-2 in terms of appearance.

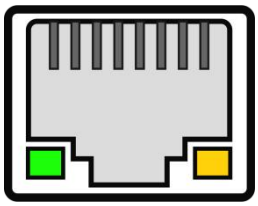


Figure 2-2 Ethernet Interface

1、Switch on DHCP：

Connect the device to the router through the network cable, open the paper cover and put in thermal paper, hold down the [FEED] key to power on. Press the [FEED] key for 3 times after the red light flicker out, and then close the paper bin cover, the printer will print out the prompt information;

2、Obtain the fixed IP address of the current network segment：

When the Operation DHCP function turns on, open the cover of the printer in the startup state, press the [FEED] for one time, and then close the cover. The prompt message will be printed after successfully obtaining it.

2.3.2 USB Interface

The standard configuration of the POS8811A printer includes a standard USB printer line with a Type D port data cable, which is used to connect the printer with the host device. The USB of the printer belongs to the peripheral device type (DEVICE), as shown in Figure 2-4 in terms of appearance and pin definition.

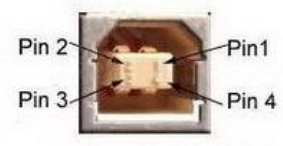


Figure 2-4 USB Interface

Pin	Function	Note
1	V Bus	Power +5V
2	Data -	Data-
3	Data +	Data+
4	GND	Ground

2.3.3 Bluetooth Connection

Hand-held device, laptop and other information terminal devices with Bluetooth can drive SP-POS8811/POS8822 to print by the Bluetooth interface. SP-POS8811/POS8822 is compatible with Bluetooth4.0 standard and effective communication distance is 10 meters. The printer's Bluetooth belongs to the slave unit. The initial name of the printer is SP-POS8811/POS8822, the initial password is '1234'. Users can change the printer name and password by using< SP-POS8811/POS8822 Setting Tools> software. Please see the details of changing the device name and password in help file of <SP-POS8811/POS8822 Setting Tools>.

Before working, SP-POS8811/POS8822 needs to be paired with host device, Pairing begins with the host device. Usual pairing steps are as below:

1.Switch on printer;

2.Host device searches for the outer Bluetooth device;

3. If there are other Bluetooth devices, please select T12 BT Printer;

4.Enter the password'1234';

5.Pairing finished.

Please see details in host device Bluetooth function instruction for reference

Statement: The multi-mode Bluetooth for the SP-POS8811/POS8822 printer allows three Android devices and one Apple device to connect to the printer at the same time.

Notice: SP-POS8811/POS8822 printer must be powered on when pairing.

2.3.4 Cash Drawer Interface

The cash drawer interface of the SP-POS8811/POS8822 printer adopts an RJ-11-6 line socket, as shown in Figure 2-5.

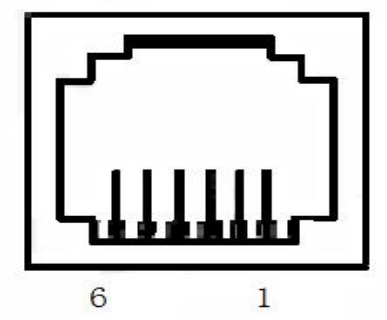


Figure 2-5 Cash Drawer Interface

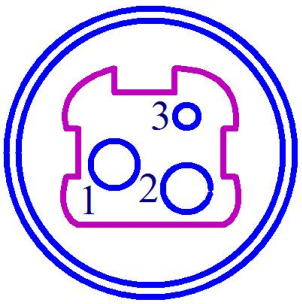
The pin definitions are as follows:

PIN No.	Signal	Direction
1	Structure ground	——
2	Cash drawer driver signal 1	Output
3	Cash drawer on/off status signal	Input
4	+24VDC	——
5	Cash drawer driver signal 2	Output
6	Signal ground	——

2.3.5 Power Connection

The rated supply voltage is 24V±10% DC, the rated current is 2.0A, and the socket is type A-1009-3P.

The appearance and pin definition are shown in Figure 2-5.



Pin No.	Signal
1	+24VDC
2	Ground
3	NC

Fig.2-5 Power socket and the Pin definition

2.4 Indicators, Buzzers and Buttons

The SP-POS8811/POS8822 printer has one button, a built-in buzzer and three indicator lights.

【FEED】is paper feeding button, the function of its enabling or disabling the button on/off can be set by print command, when the button is enabled, press 【FEED】 button, then the paper presenting driver starts up and paper fed into the printer; release【FEED】 button, paper feeding stops.

The buzzer indicates the error status type, which can be set to enabling error alarm or disabling by parameter setting. Error status type is the same as error indicator.

Green indicator POWER is for power or Bluetooth connection. (Note: for Non-Bluetooth models, the indicator will always on; for bluetooth models, it'll keep flashing slowly after the bluetooth has successfully connected)

The red PAPER indicator is for the paper status, the indicator light indicates that the printer is out of paper.

The red ERROR indicator is an error status indicator. When the printer is working normally, the red ERROR indicator is off. When the indicator is on, it means that the cover is opened during non-printing.

Voice reminder: Remind there's new order in human voice. (Only for SP-POS8811UEdvt, POS8822UEdvt version)

Error light blinks and buzzer beeps indicates there's something wrong about printer.

Different blinking type indicates the different error type of the printer:

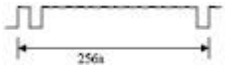
1, non-recoverable error, the times of the indicator light flashes and the buzzer ringing number indicate the type of error, and then the indicator will light up for a period of time.

2、Recoverable error, the times of the indicator light flashes and the buzzer ringing number indicate the type of error, and then the indicator will light out for a period of time.

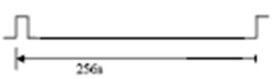
3、Auto-recoverable error, the indicator light blinks continuously and the buzzer beeps continuously.

① Non-recoverable error, the indicator flickers several times, then persistent lighting. The times of

flickering means the error type:

ERROR Type	ERROR Description	ERROR Indicator Flashing Type
Non-recoverable error	LED Flikers once:Internal memory reading and writing error	
	LED Flikers twice:over-voltage	
	LED Flikers three times:under-voltage	
	LED Flikers four times: CPU execution error (wrong address)	
	LED Flikers five times: UIB error	
	LED Flikers six times: FLASH writing error	
	LED Flikers seven times: parameter writing error	
	LED Flikers eight times: Temperature testing circuit error	

②. Recoverable error, indicator flickers constantly, then persistent off for one period.

ERROR Type	ERROR Description	ERROR Indicator Flickering Type
Recoverable error	LED Flikers once:Cutter position error	

③. Auto-recoverable error, indicator flickers constantly, including printing head over-heat error and upper case cover opening error during printing.

ERROR Type	ERROR Description	ERROR Indicator Flickering

		Type
Auto-recoverable error	LED Flickers constantly: printing head over-heat; upper case cover opening error during printing	

2.5 Power on status

Paper cover close when power off. Press the power button, the error indicator and paper out indicator flash twice alternately and out, then printer will be on the normal working mode.

2.6 Self-test

The self-test will check the condition of printer, if the printer prints out the self-test receipt correctly, it means the printer works normally, except interface with host. Otherwise it needs to repair.

The self-test will print out the name of manufacturer, printer type, interface type and printer defaulted parameter, 96 characters in ASCII and defaulted Code page content(the language is English) or the name of Chinese characters library(if the language is Chinese) and Bar code type.

Way of self-test: hold down【FEED】button and turn on the power, release the button after the error indicator and the out of paper indicator flash alternately twice. self-test begins automatically at this moment.as Fig.2-6 shows

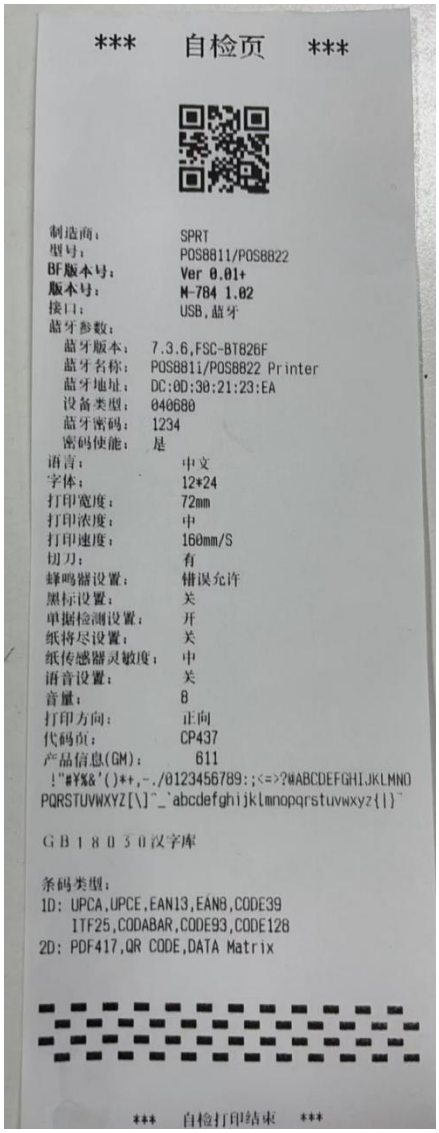


Fig.2-6

2.7 Hexadecimal Printing

Turn on the printer according to the step below, it will enter the mode of Hexadecimal Printing

1.Open the cover;

2.Hold down【FEED】button,and connect with power;

3.Close the cover, the printer will print out 3 lines as below:

Hexadecimal Dump

To terminate hexadecimal dump,

Press FEED button three times.

This means the printer has entered hexadecimal printing mode, and under this mode, all of the input will be printed out as hexadecimal number, feed one line with single-click of “FEED” button, after 3 times, it will print out “*** Completed ***”, and exit hexadecimal printing mode.

2.8 Parameter Setting

This function is to set some simple parameters of the printer.

1. Use the setting tool to set up on the PC.

2. Set by pressing the keys, the specific operation method is as follows.

Enter parameter setting method:

In the shutdown state, first open the [Face], press and hold the [FEED] key, then turn on the power switch, and release the [FEED] key after the status indicator and the out of paper indicator flash alternately. Press the [FEED] key twice, and then close the [Face Shell]. The printer enters the parameter setting mode. And print out the first settable parameter and its current set value. Please refer to Appendix A for detailed setting methods.

Exit the parameter setting method: first open the [face shell], then press the [FEED] key, then close the [face shell] and release the [FEED] key to save the set parameter value and exit the parameter setting mode. Enter normal working mode.

If the printer is turned off directly, the set parameter values will not be saved.

2.9 Program upgrade

Connect the USB data cable or ether net cable to the computer, when the printer is normally turned on and has no error status, you can upgrade through the PC upgrade tool.

1, open the "UpdateFirmware.exe" upgrade tool.

2, USB port upgrade: Select the USB port to open the port, when it has successfully connected, select the "firmware file" that need to be upgrade, click "Start Upgrade".

3, Ether net port upgrade: get the IP of the current network segment, enter the printer to get a fixed IP, when it has successfully connected, select the "firmware file" that need to be upgrade, click "Start Upgrade".

4, after the upgrade is complete, the printer automatically prints out the self-test page, and enter the normal operating mode.

Note: SP-POS8811UBTMM/POS8822UBTMM only supports USB port upgrade.

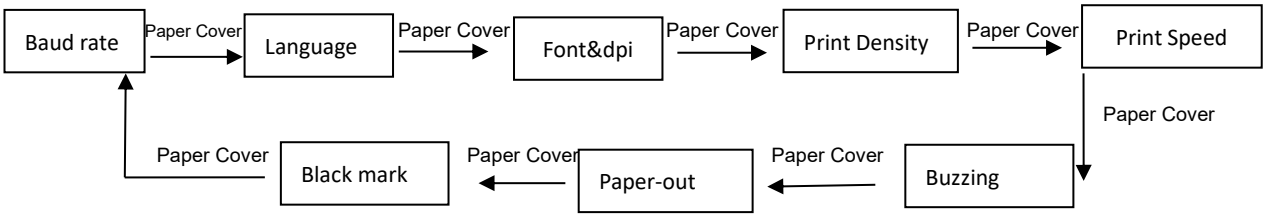
Appendix A

This appendix is a method of setting the default parameters of the printer by pressing the keys.

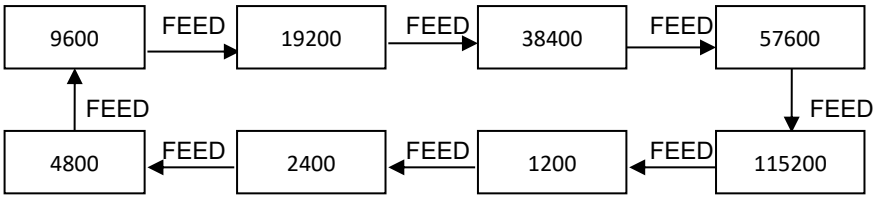
Setting description: Use the opening and closing【face】(trigger button) to select the setting item, every time you open and close the 【face】, the setting item will be changed to the next item, and the current setting value of the item will be printed out. Use the 【FEED】key to select the setting value of the setting item. Each time you press the【FEED】key, the setting value of the item will change to the lower value.

Total settings:

General Setting:



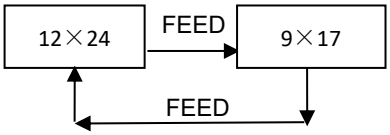
Baud rate：



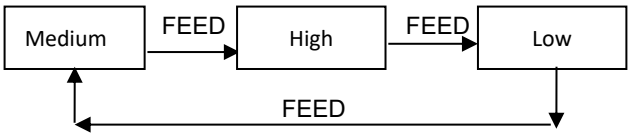
Language：



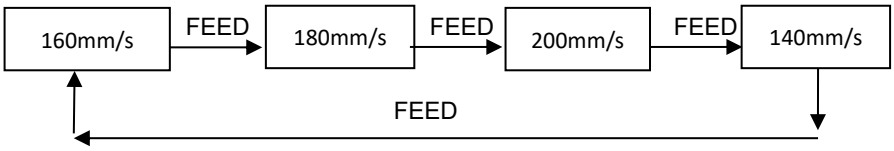
Font&dpi：



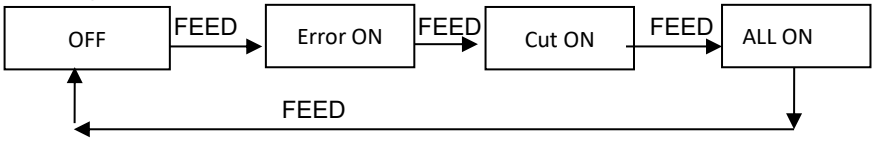
Print Density：



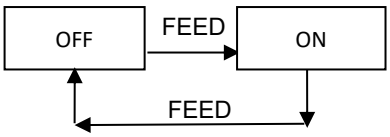
Print Speed：



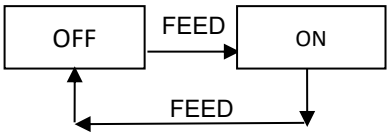
Buzzing：



Paper-out and reprint：



Black mark mode：



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

The final right of interpretation belongs to SPRT!