SPRT®

EU1122 KIOSK PRINTER USERS' MANUAL

（SP-EU1122）

VER 1.02

Beijing Spirit Technology Development Co.,Ltd

Safety Instruction

Safety warming

1), The printer head is heating parts, do not touch the printer head and surrounded parts during printing and end printing.

2), Do not touch the surface of the printer head and connected socket, to avoid the electrostatic damage of the print head.

Notice

1)   Printing units should be installed in a flat, stable place;

2) Keeping enough space around the printing units to be convenient for operation and maintenance;

3)   Far away from water for all printing units;

4)   Do not use and store printing units in high temperature, damp and polluted places. Avoid sunlight, strong light and heat direct sources;

5)   Avoid the printing units in the vibration;

6)   Avoid the damp air condensation on the surface of the printing units. If condensation has been formed, do not open the power of the printing units before the dew disappear;

7)   Keep the printing units power adapter connected to a properly grounded outlet; avoid using the same socket with large motor or other devices which can lead to the power supply voltage fluctuation;

8)   If no use the printing units for a long time, please disconnect the power of the power adapter;

9)   To avoid water or conductive material into the printing units interior, once occurred, should immediately shut off the power;

10) Printer shall not print under the conditions of no paper, otherwise will seriously damage the printing roller and the thermal print head;

11) In order to guarantee the print quality and product life, suggest to use the recommended paper and same quality paper;

12) In the case of printing effect meets the requirement, suggest users to set lower level print density as much as possible, to avoid affect the life of the print head;

13) The user shall not remove printing units for maintenance.

Contents

Brief Introduction

SP-EU1122 printer is a new thermal line panel printer, with drop-in paper easy loading, auto cutter,Black label detection,printing speed faster and more reliable. It well support folded paper, and paper rolls with different diameters.

SP-EU1122 printer easy operation, applications widely, especially to queue machine,POS for bank and the business of all kinds of needed docs to print.

Statement

This product belongs to class A. In the living environment, this product may cause radio Interference. In that case, the users need to take practical measures to interference.

Chapter 1 Characteristics and performance

1.1 Print performance

- Printing method: direct line thermal;
- Printing paper width: 112±0.5mm
- Resolution: 8 dots/mm,832 dots/line
- Printing speed:

  361dot row/s (45mm/s)（Driving Power 5V)
  680dot row/s (85mm/s)（Driving Power 7.2V)
  680dot row/s (85mm/s)（Driving Power 8.5V)
- MCBF: (1)Printing head life: 50km

  Operating conditions:

  * Print font 12 × 24 ASCII,Printing 50 lines per time,Intermittent reprint

  * Use specified Thermal paper

- Effective printing width: 104mm

1.2 Print paper

- The mode of thermal paper: 112*40mm
- Thermal paper roll: width ----------- 112±0.5mm

  Thickness ---------- 0.06mm～0.08mm

1.3 Character set

● ANK character set:
   12×24 dot,1.5(width)×3.00(high)mm

● Chinese:
   24×24 dot,3.00(width)×3.00(high)mm

1.4 Interface

● RS－232C serial port:
   PH-7PIN interface,support XON/XOFF and DTR/DSR.
   Baud rate:1200,2400,4800,9600,19200,38400,57600,115200bps adjustable.
   Data structure: One start bit ＋ (7 or 8)data ＋ one stop bit.
   Verify:No validation or odd and even is optional.

● USB port:
   PH-7PIN interface.

1.5 Printing control command

● Characters print command:support the double width and height printing of ANK characters, self-defined characters and Chinese; characters lines spacing can be adjusted.
● Bitmap print command:Support printing bitmaps with different density and downloaded graphics.
● GS bar-code print command: support UPC-A,UPC-E,EAN-13,EAN-8,CODE39,ITF25, CODABAR, CODE93,CODE128,PDF417,QR Code,DATA Matrix bar code print.

1.6 Power supply

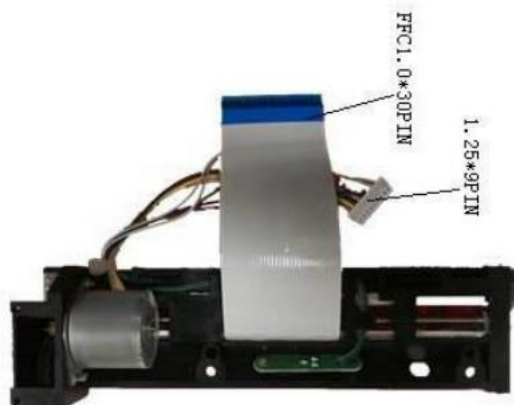● DC5-8.5,PH-7PIN socket. DC5V,2A; DC7.2V,3A; DC8.5V,3.5A ,

Chapter 2 Operating instructions

2.1 Printing Unit components
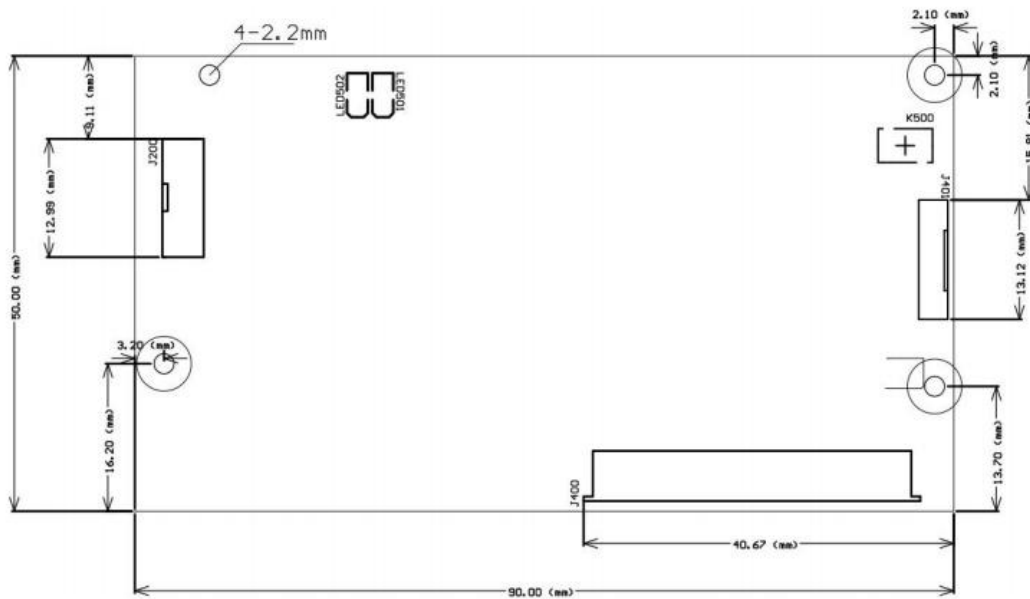
PCB Board

Mechanism

2.1.1 Printing mechanism

FFC1.0*30PIN

1.25*9PIN

FFC1.0-30PIN ....Print mechanism wiring harness
1.25*9PIN ....Motor and sensor wiring harness

2.1.2 PCB Board

No.	description
J200	Communication interface and power interface connector
J400	Print head connector
J401	Print mechanism connector
K500	FEED Button
LED502	Power LED
LED501	Error LED

2.2 Paper Loading

SP-EU1122 printer needs 112±0.5mm thermal paper roll.

Thermal paper installed as below:

In the state of power-on, pull out a little paper from the paper roll, then put the paper into the mouth of printing mechanism, the printer will auto paper feed.

⚠ **Attention**

1. Pay attention to in the direction of the paper roll, keep the print surface towards the head.

2. Please do not move the paper forward or back by hands.

3. Keep clean for the printer head or will effect the quality of the Printing

2.3 Interface connection

The PCB board adopts the communication interface and power interface to share a 1.25*7PIN socket , Noting that RS232 interface and USB interface cannot be used at the same time. If you want to change the interface mode, need to make necessary modifications to the components on the main control board.The pin assignment definition:

Line sequence No.	Function	Circuit board identification
1	Power input positive (8.5VDC 5A)	Vin
2	Power input positive (8.5VDC 5A)	Vin
3	Busy	CTS
4	Input / USB U+	RXD / U+
5	Output / USB U+	TXD / U+
6	Power input negative (GND)	GND
7	Power input negative (GND)	GND

2.4 Lights and Buttons Operation

SP-EU1122 printer has one button and two lights.

【FEED】is paper feeding button, available to print commands allow or prohibit button switch function; in the condition of allowing button control, press 【FEED】button, printer feeds paper, loosen【FEED】button, stop feeding paper.

Green power indicator light is for power light. POWER indicator lighting means printer has been switched on.

Red light is Error status indicator / interface indicator, USB interface power on,flash 3 times ,RS232 interface power on ,flash 2 times ,then it is for Error status indicator .

When the printer working with normally, the red Error light is off, the light is flashing as abnormal alarm status, When the indicator light flashes, it indicates that the rubber roller of the printing mechanism is opened during the non-printing process.

Error light flash: means there are something wrong with printer.

According to blinks in a different way, it indicates the different types of printer error:

1, Non-recoverable error, The times of lights flashing indicates wrong type, then will light for a long time.

2, Recoverable errors, the times of lights flashing means the error type, then will light-off for a long time period.
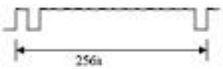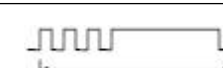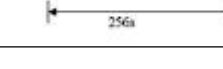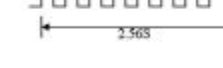
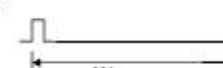3, Automatic recovery error, the lights will flash continuous.

4, Out of paper, the indicator will light for a long time. When printer rubber roller opens, it will no longer test whether printer out of paper, only check whether have paper.

Show as below:

a. Non-recoverable error, the lights will flash for some times later will lighting for a period, then circulate, the times of the lights flashing show the errors type.

Error type	Error description	ERROR lights flash type
Non-recoverable error	LED flash once:Memory read error	
	LED flash two times:Over voltage	
	LED flash three times:Under voltage	
	LED flash four times:The CPU execution error (error address)	
	LED flash five times :UIB error	
	LED flash six times:FLASH write error	
	LED flash seven times:Write error parameter	
	LED eight times:Temperature detection circuit error	

b. Recoverable errors, the lights will flash continuously, then light-off for a long time period.

Error type	Error description	ERROR lights flash type
Recoverable errors	LED flash once :cutter position error	

c. Automatic recovery error, the lights will flash continuously. Including the print head temperature error and the upper cover to open the print process error.

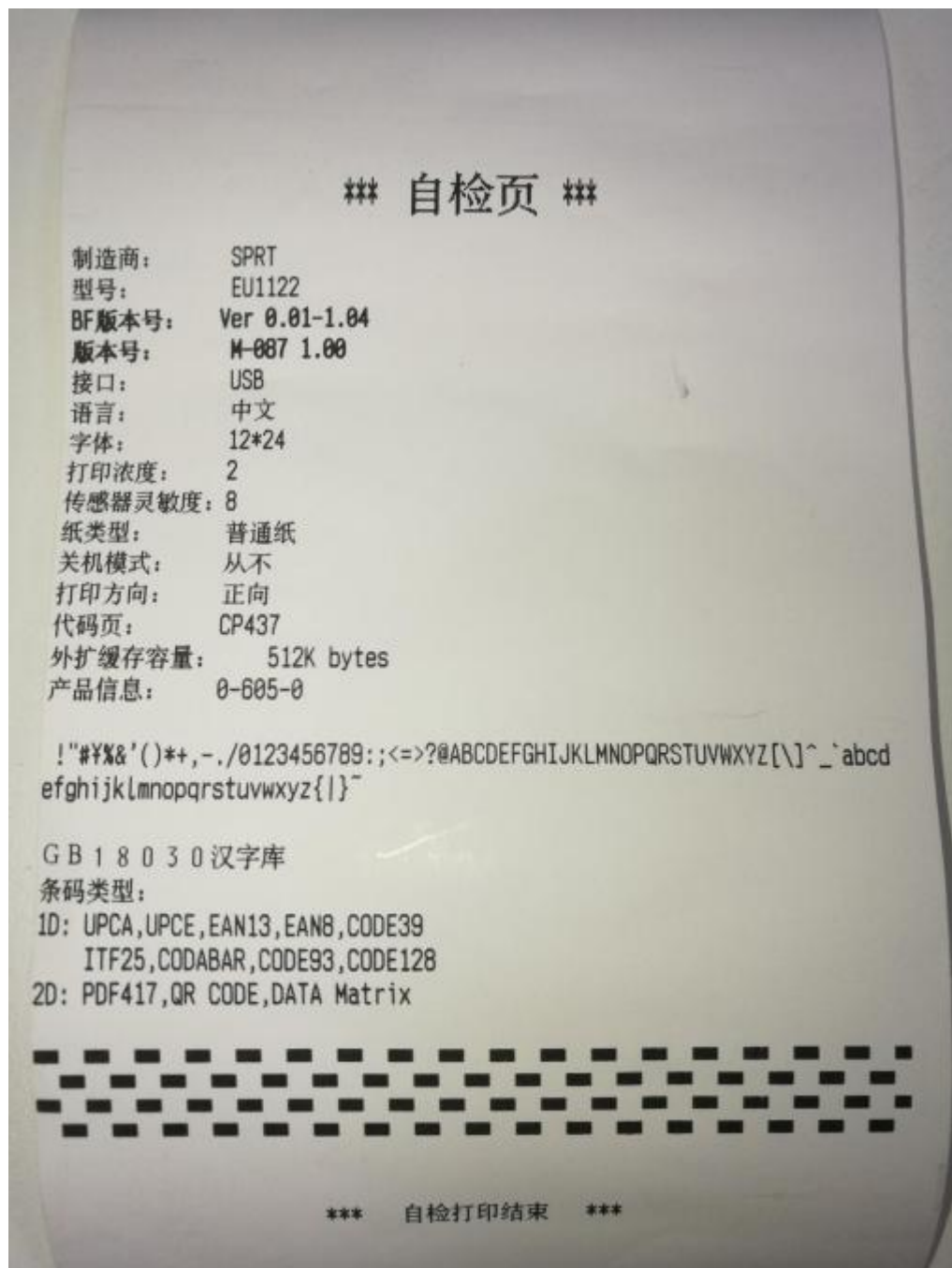| Error type	ERROR lights flash type	ERROR lights flash type
Recoverable errors	LED flash continuous: the printer head is overheating, or open the wrong printing mechanism in the process of printing roller.	

2.5 Normal working mode

When printer is off, 【printing rubber roller】is closed, then open the power button,interface indicator determines the interface status, printer enters into the normal working mode.

2.6 Self-test

Self-test can detect the printer is working correctly or not, if it can print out self-test receipt correctly, it is mean everything is normal except the port connection with PCB board, or will be need repaired.

Self-test print out in sequence: name of manufacture, printer mode, software version, interface type, parameter default value of printer's, 96 characters in the ASCII code, default code page content(set the language as English)or Chinese character name(if language set as Chinese),bar code type.

The self-test method is to press the button of 【FEED】to open the power supply, then the printer will print out the self-test receipt.

2.7 HEX Printing mode

According to below steps, the printer will enter into the HEX printing mode.

    1, Open the rubber roller of printing agencies;

    2, Press the button of【FEED】to open the power supply:

    3, Close the rubber roller printing agencies, then print out the three lines content as below:

Hexadecimal Dump

To terminate hexadecimal dump,

Press FEED button three times.

It is means the printer has enter into HEX printing mode, under this mode all the input content will be printed out as HEX DUMP, the paper will run a line after press the 【FEED】button once, totally three times, print out "*** Completed ***", quit HEX DUMP mode.

2.8 Enter into the program upgrading mode

When printer is off, open the 【printing rubber roller】 first, press the button of 【FEED】, then open the power supply, after the status indicators and lack of paper lights flashing alternately, then release the button of 【FEED】. Press the button of 【FEED】 five times, then close the 【printing rubber roller】. The printer enter into the program upgrade mode. Then the status indicator light will flash as 1s speed.

Quickly access method: Power off, open the 【printing rubber roller】 first, press the button of 【FEED】, then open the power supply, then release the 【FEED】 button quickly. The printer enters into the program upgrade mode. Then the status indicator light will flash as 1s speed.

Attention: After entering into the program upgrade mode, if the paper out indicator lights, it means that the program with this interface can not be upgraded. Serial, USB and Parallel port support upgrade online.