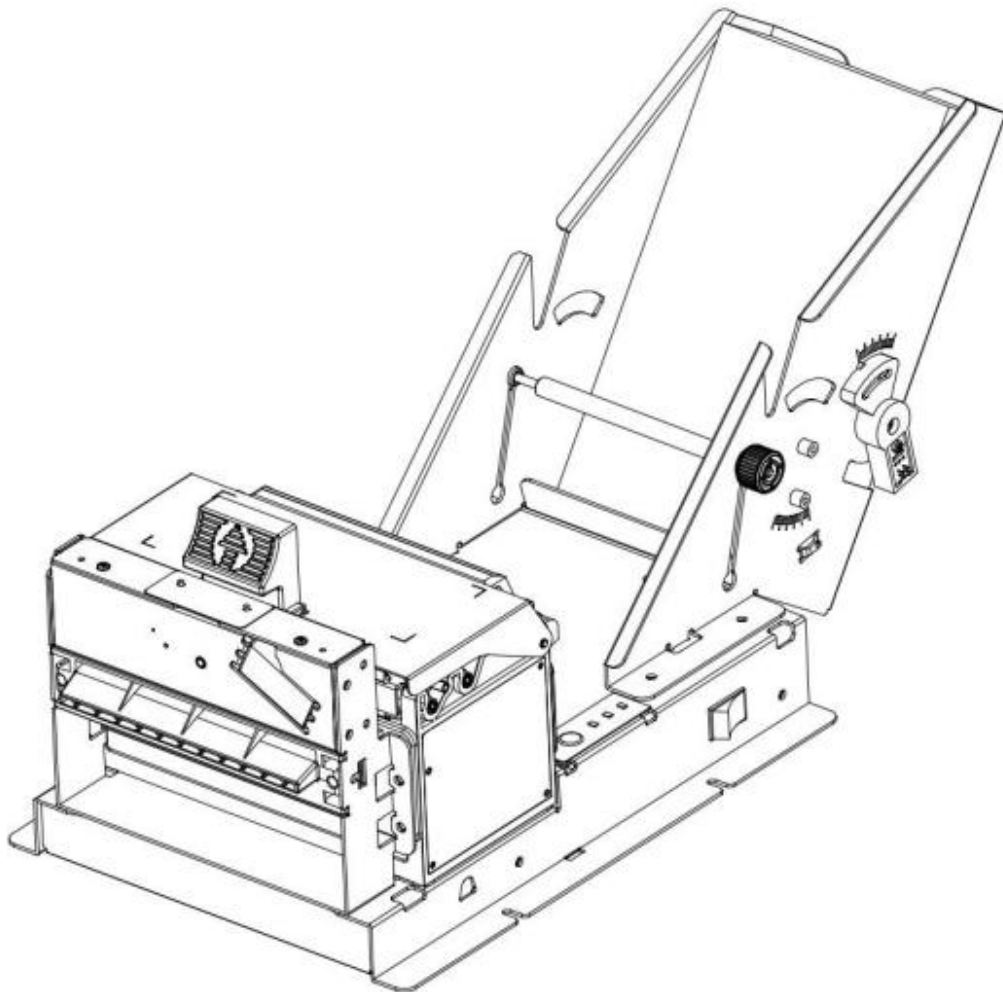


SPRT®

EU1121 KIOSK PRINTER USERS' MANUAL

(SP-EU1121)



(VER 1.05)

Beijing Spirit Technology Development Co.,Ltd

www.sprt-printer.com

Safety Instruction

Safety warning

- 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.

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Brief Introduction

SP-EU1121 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-EU1121 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: 103±0.25mm
- Resolution: 8 dots/mm, 800 dots/line
- Printing speed: max 150mm/s(25% printing density)
- MCBF: (1) Printing head life: 50km
 - Operating conditions:
 - * Print font 12 × 24 ASCII, print 50 lines per time , Intermittent reprint
 - * Use specified Thermal paper
 - (2) Auto cutter life: 300,000 cuts.
- Effective printing width: 100mm

1.2 Print paper

- The mode of thermal paper: Folding label paper

- Thermal Label paper size: width ----- 103±0.25mm
Length ----- 50~200mm

1.3 Character set

- ANK character set:
12×24 dot, 1.5(width)×3.00(high)mm
8×16dot, 1.0(width)×2.00(high)mm
- Chinese:
24×24 dot, 3.00(width)×3.00(high)mm
16×16dot, 2.00(width)×2.00(high)mm

1.4 Interface

- RS—232C serial port:
DB-9 socket(pin point),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:
Standard USB port.

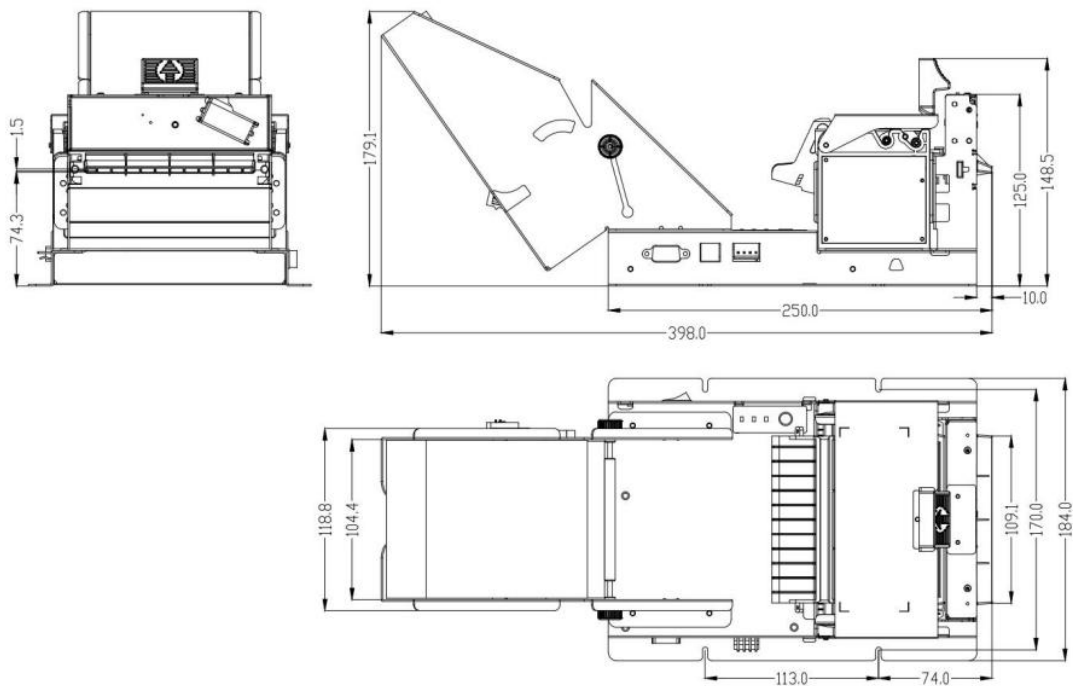
1.5 Printing control command

- 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.
- Code page: Zebra CPCL command.

1.6 Power supply

- DC24V±10%,4A,VH3.96-4P power socket

1.7 Installation Dimension



Folded paper bracket

- Outline dimension: 398mm×184mm×180mm(L×W×H)

1.8 Work Environment

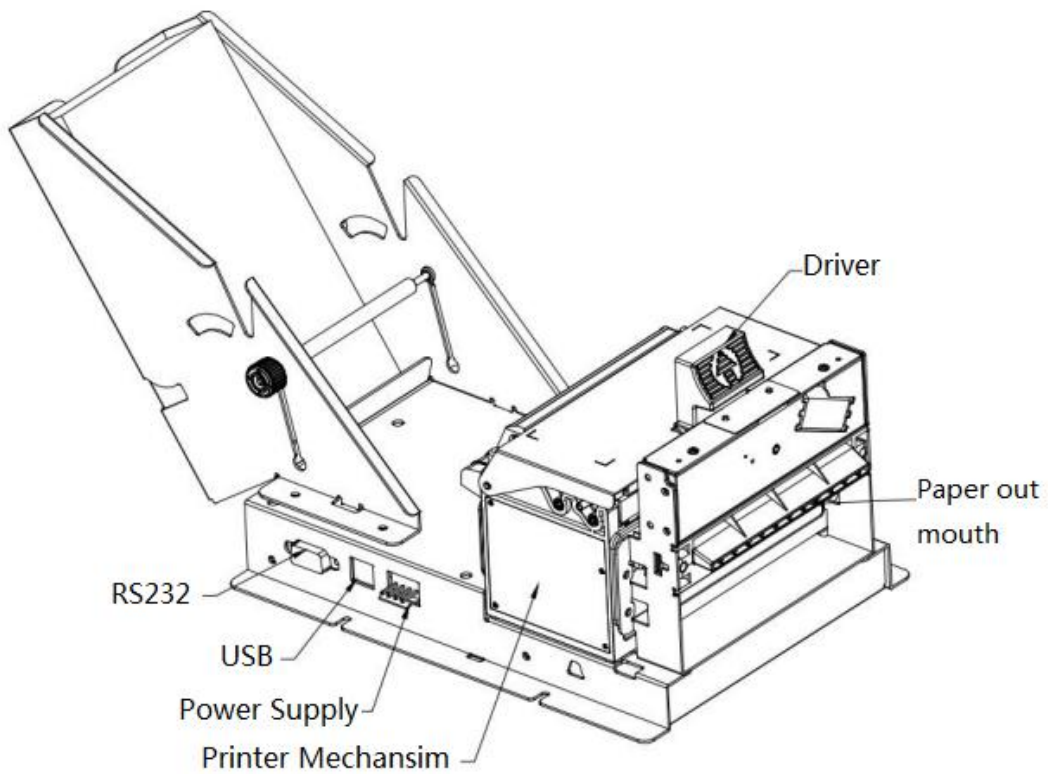
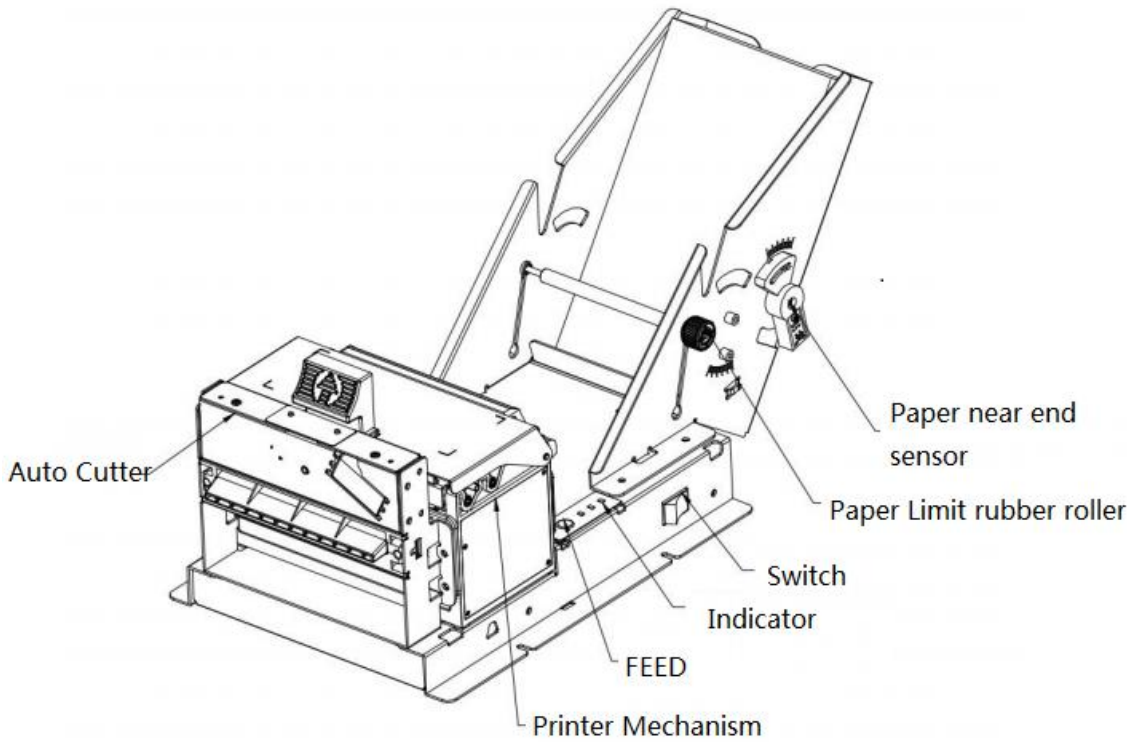
- Working stability: 0~50(no condensation)
Operating Relative Humidity: 10%~80% (no condensation)
- Storage stability: -20~60(no condensation)
Storage relative humidity: 5%~95% (no condensation)

1.9 Model Classification

model	interface
SP-EU112SU	RS-232C and USB

Chapter 2 Operating instructions

2.1 Printing Unit components



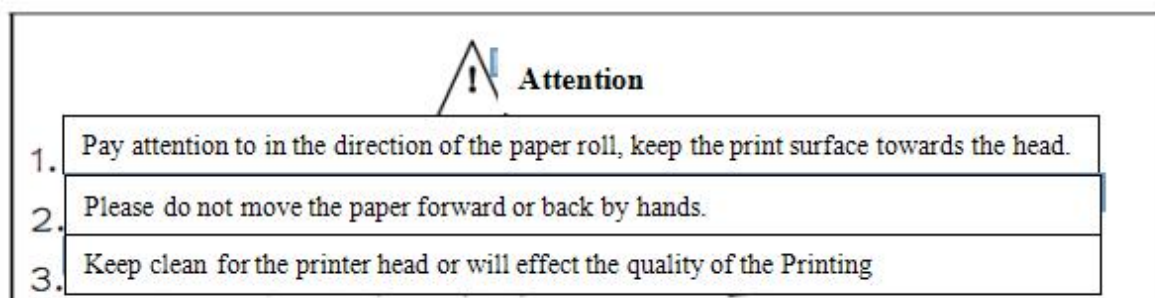
2.2 Instructions for paper install

2.2.1 Paper Loading

SP-EU1121 printer needs 103±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.



2.2.2 Solution for paper jam of cutter

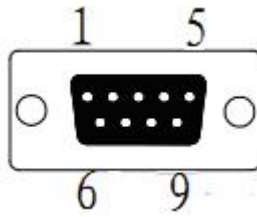
If the cutter is jammed, turn off the power and turn on the printer again, the cutter will recover. If the paper is jammed, please open the rubber roll, take out the (printer head components) and take out the paper. If the cutter does not recover after reset, you can move the plastic gears on the cutter to recover the cutter.

If you want to keep the data when the cutter is jammed, please do not turn off the power and use the manual method to recover the cutter. Then open the rubber roll, take out (printer head components) and take out the jammed paper, then install (printer head components) The printer will recover from the paper cutting errors.

2.3 Interface connection

2.3.1 Serial interface connection

SP-EU1121 printer serial interface is compatible with RS-232C, support DTR/DSR and XON/XOFF handshaking protocol. Its interface is DB-9 pin type socket outlet. The pin number of serial interface socket as shown in figure 2-5:



2-5 RS232 socket

Each pin signal is defined as shown in figure 2-5:

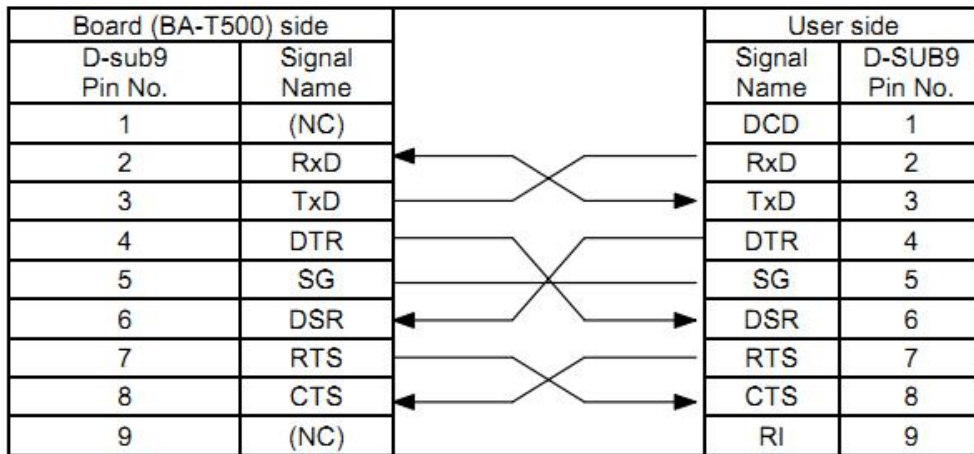
Pin No.	Signal name	Signal direction	Source	Explain
1	NC	----	----	
2	RXD	input	Host	Printer receive data from computer
3	TXD	output	printer	Printer send control code XON/XOFF and data to computer.
4	DTR	output	printer	When the signal show "MARK", it is means the printer is busy and can not receive data, when the signal show " SPACE", it is mean the printer get ready and can receive data.
5	GND	----	----	Signal ground
6	DSR	input	host	When the signal show "MARK", it is means the printer is busy and can not receive data, when the signal show " SPACE", it is mean the printer get ready and can receive data.
7	RTS	output	printer	Same as DTR
8	CTS	input	host	Same as DSR
9	NC	----	----	

2-5

Mark: ① "Source" means the original place of the signal

② Signal logic level is EIA

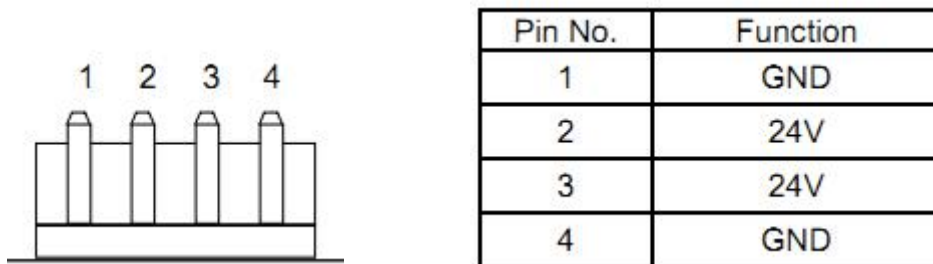
The baud rate and data structure have been set as 9600bps/8 data bits/no calibration and 1stop bit under connected with serial. SP-EU1121 printer's serial interface can be connected to the standard of RS-232C interface, the right connect way as figure 2-6.



2-6 RS232 interface with user' side connection

2.3.2 Power supply connection

For SP-EU1121 printer, the power supply is external 24V±10%, 4A, socket is VH3.96-4P type, Shape and pin definition as shown in figure 2-9,



Picture 2-9 Socket and pin definition

2.4 Lights and Buttons Operation

SP-EU1121 printer has one button and three 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 for PAPER OUT indicator is paper status indicator. When it is light, it means the printer is out of paper.

Red light for the ERROR is Error status indicator, When the print working with normally, the red Error light is off, the light is flashing as abnormal alarm status, if the indicator is long on, means the printing mechanism is opened in the process of printing.

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.

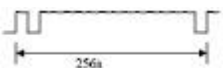

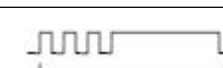

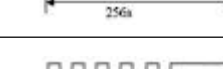
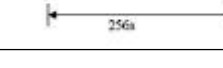

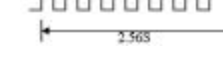
2, Recoverable errors, the times of lights flashing means the error type, then will light-off for a period.

3, Automatic recovery error, the lights will flash continuous.

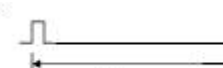
4, If out of paper, the indicator will light for a long time. When printer rubber roller opens, it will no longer test if printer out of paper, only check whether have paper.

Show as below:

A. Non-recoverable error, the lights will flash for many 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:Overvoltage	
	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 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, Status indicators and paper out indicator shine alternately twice and then off, 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 online after press the 【FEED】 button

once, totally three times, print out "**** Completed ****", quit HEX DUMP mode.

2.8 The printer parameters setting

This function is to set up some simple parameters for the printer.

Enter into parameter setting method:

In printer off mode, 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 alternant release the button of 【FEED. Press the button of 【FEED】 twice again, then close the 【printing rubber roller】 . The printer enter into parameter setting mode. And print out the first item of parameters and its current value which can be setted. The details for setting method reference appendix A.

The method to quit the parameter setting

Open the 【printing rubber roller】 first, press the button of 【FEED】 , then close the 【printing rubber roller】 and release the button of 【FEED】 , save the setting values of the parameters and exit. Enter into the normal working mode.

If the printer's power supply is closed directly, the setting parameters will lose.

2.9 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 alternantively, 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: In printer off mode, 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.

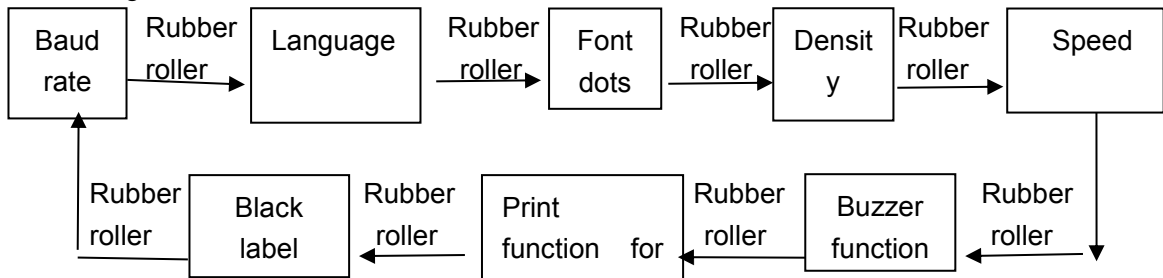
Attention: After entering into the program upgrade mode, if the paper out indicator lights, it means the program of this interface can not be upgraded. Serial port and USB port support upgrade online.

Appendix A: Parameters setting

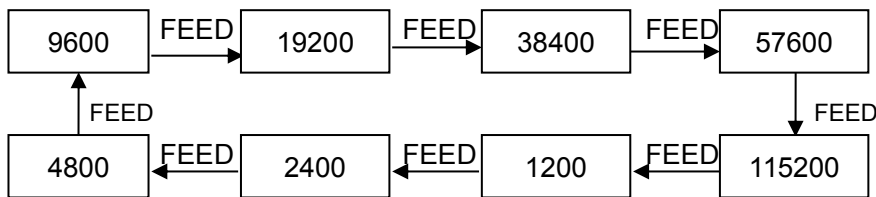
This appendix shows the way, through which printer's parameters are set through the button.

Setup instruction: use the button of **【printing rubber roller】** to choose the setting items, change the item by press the button **【printing rubber roller】**, and print out the current value. Use the button of **【FEED】** to set the parameter, the parameter will be changed by press the **【FEED】** button.

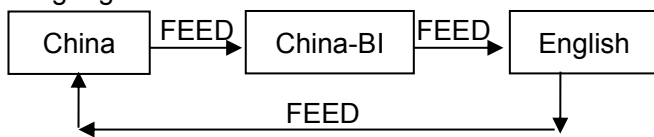
Full setting:



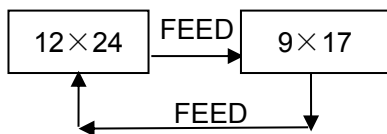
Baud rate:



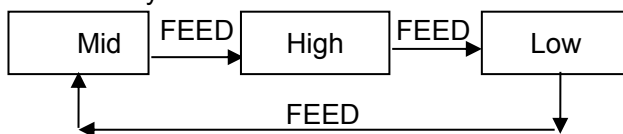
Language:



Font dots:

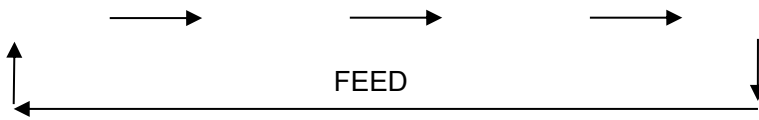


Print density:

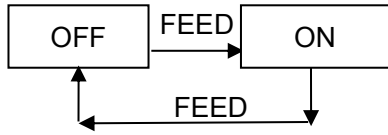


Print speed:





Re-printing lack of paper:



Black label mode:

