User Manual

HOP-HL80
Thermal Barcode Printer
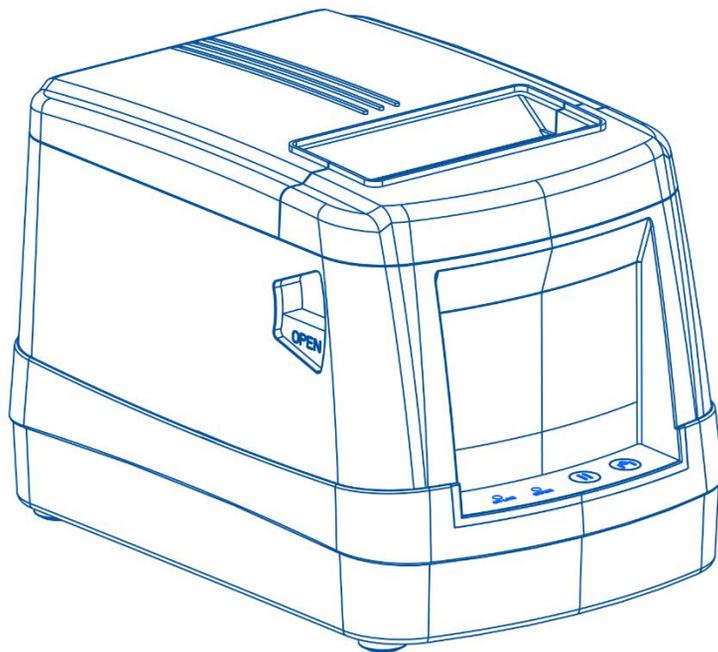
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1. Product Introduction

Thank you for your purchasing of the HOP-HL3200 series thermal bar code printer. This printer will provide you with safe, reliable and efficient printing quality. At the same time, this printer is in high quality and easy to operate, it is your best choice.

⚠ Warning

The printer instructions must be strictly followed to configure and use the printer, so as not to harm the human and damage the device.

⚠ Safety instructions

Before operating and using the printer, please read the following precautions carefully.

1.1 Safety warning

⚠ **Warning:** The printer head is a hot part. Do not touch the printer head and surrounding parts during the printing process or just after printing.

⚠ **Warning:** Do not touch the surface of the printer head and the connecting part to avoid damage to the print head due to static electricity.

⚠ **Warning:** Do not touch the tearing blade to avoid injury.

1.2 Notes

●The printer should be installed in a flat and stable place;

●Leave enough space around the printer for operation and maintenance;

●The printer should be far away from water source and avoid direct sunlight, strong light and heat source;

●Do not use and store the printer in places with high temperature, high humidity and serious pollution;

●Avoid placing the printer where there is vibration and shock;

●Avoid Moist air forming dew on the surface of the printer. If it has formed, do not turn on the power of the printer before the dew disappears;

●Connect the power adapter of the printer to an appropriate grounded socket, avoid using the same socket with a large motor or other equipment that can cause power supply voltage fluctuations;

●If the printer will not be used for a long time, please disconnect the power supply of the printer;

● Avoid water or conductive substances (such as metal) from entering the printer. Once it occurs, turn off the power immediately;

●The printer must not print without paper, otherwise it will seriously damage the printer rubber roller and print head;

●When connecting or disconnecting each interface, you must turn off the power to avoid damage to the printer control circuit;

●When the printing effect meets the usage requirements, it is recommended that the user set the low-level printing density as much as possible to avoid affecting the service life of the print head;

●Users are not allowed to dismantle the printer for maintenance.
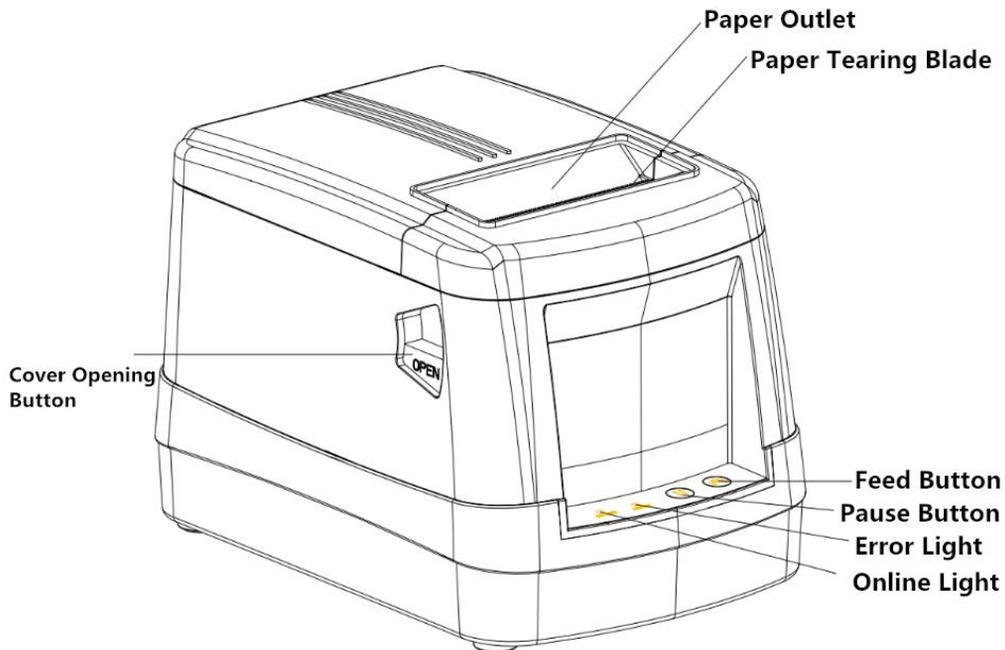
2. Overview

2.1 Introduction

This barcode printer can meet the needs of real-time, batch printing labels, and can be widely used in transportation, postal, commercial logistics and other fields. This barcode printer can be connected to related devices through a standard USB interface (Bluetooth optional). For thermal printing channel, a variety of printing papers can be used, including thermal paper rolls, thermal label paper, and self-adhesive thermal paper.

HOP-HL3200 printer provides thermal printing method. The printing speed can be adjusted to 2.0, 3.0, 4.0, 5.0 inches per second. Various printing materials can be used, including Thermal Label paper, Thermal adhesive paper, etc. In addition, the printer support 1D and 2D barcodes. Support 4 different label printing directions. Through the zoom function, the font can be enlarged 1-10 times. Therefore, you can greatly improve the efficiency of label printing in a short time.

2.2 Main features

- ●Maximum printing speed 5 inch/sec;
- ●Support TSPL, ZPL, EPL, DPL multiple command sets;
- ●Support different sizes of thermal label paper;
- ●At the same time meet the medium at different range 20mm -82mm, easy to operate;
- ●Automatic paper detection and positioning function;
- ●Temperature self-adaption control;

3. Appearance and components

Picture 1

Power Port

USB Port

Entry of outside paper

Picture 2

Label Sensor

Thermal Printer Head

Power Switch

Paper Width-Limit Board

Picture 3

Mechanism Gear

Platen Roller

Paper Holding Axis

Paper Roll Clapboard
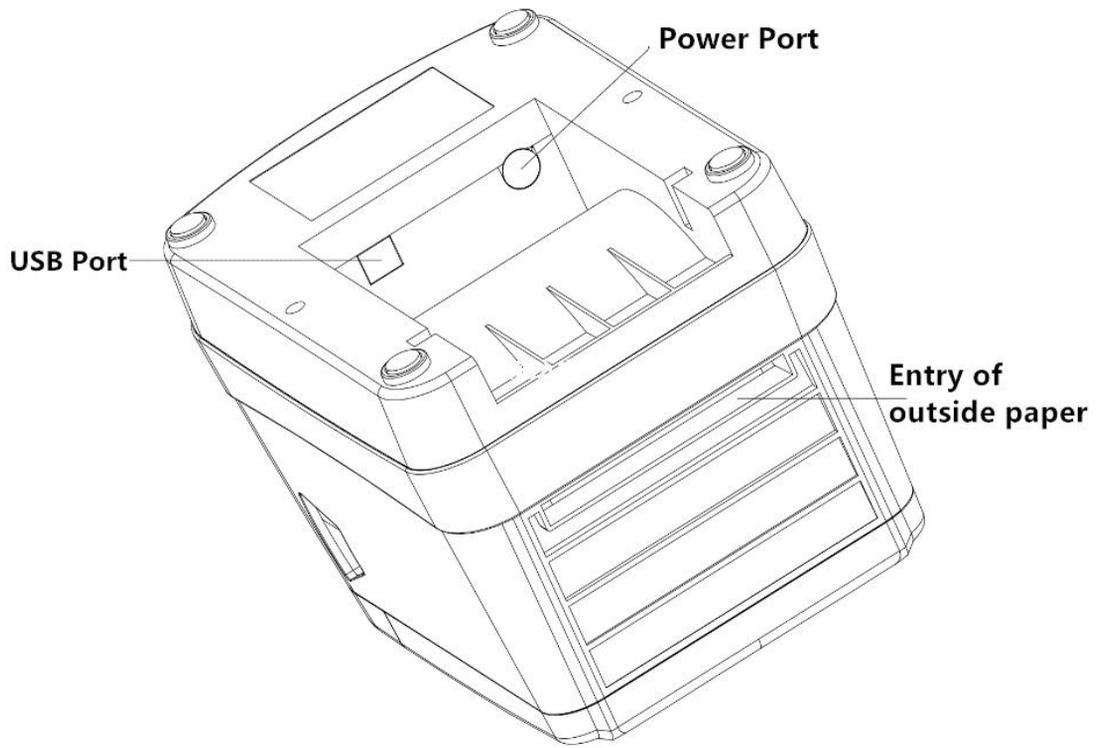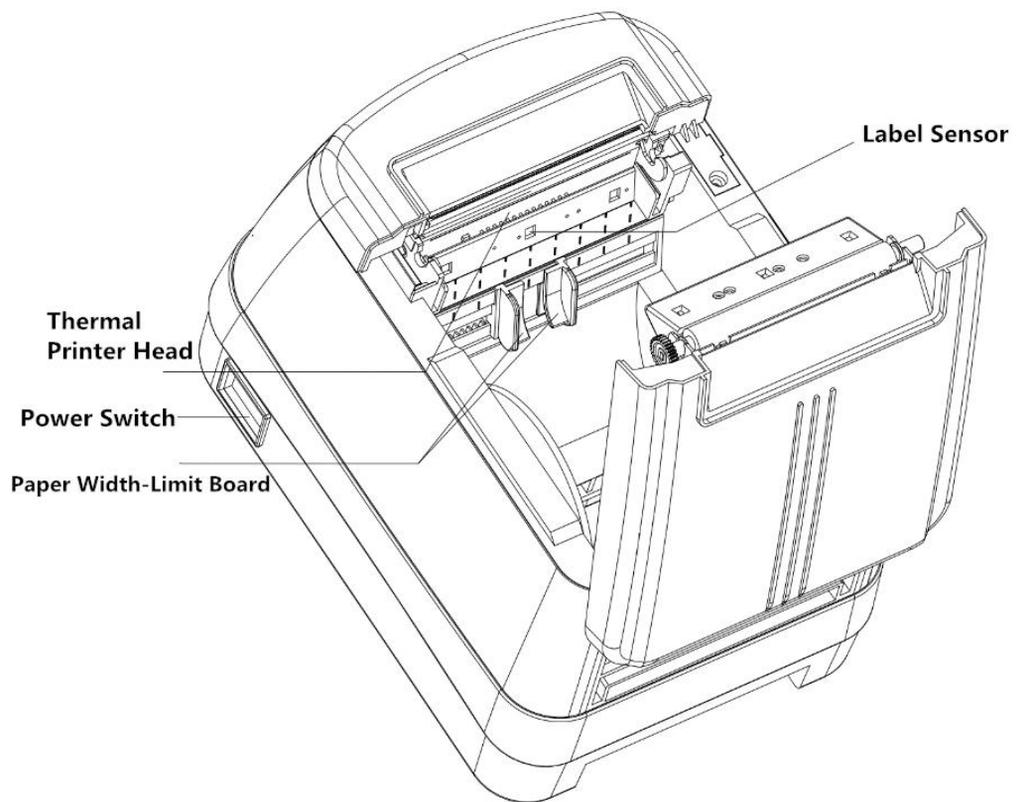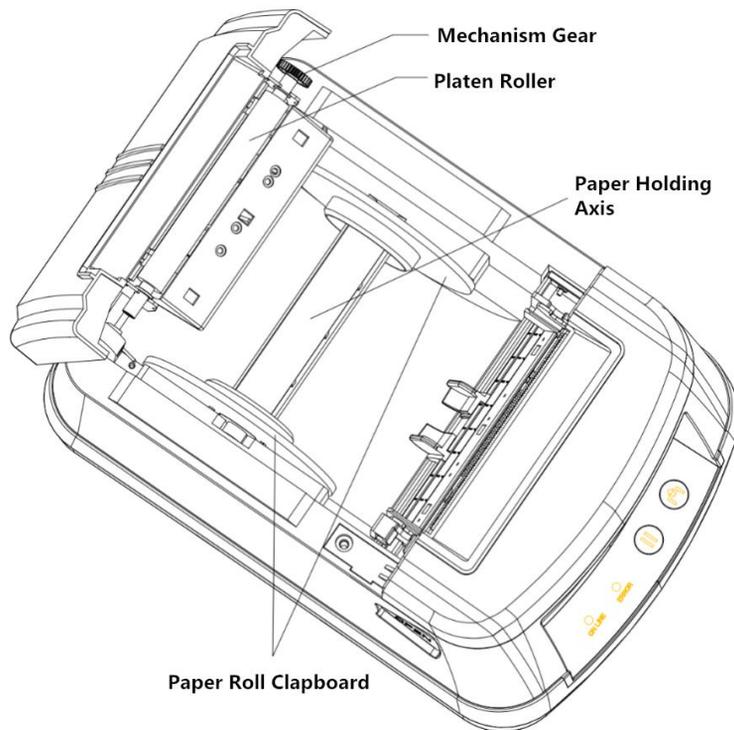
Picture 4

4. Paper roll installation

Put long plastic shaft into the paper roll, and then fix it with two side board . The protruding part of the shaft board needs to be inserted into the slot until the loading shaft board and the loading slot are well matched.

OPEN

Picture 5

①As shown in Picture 5 above, press down the opening button to open the top cover
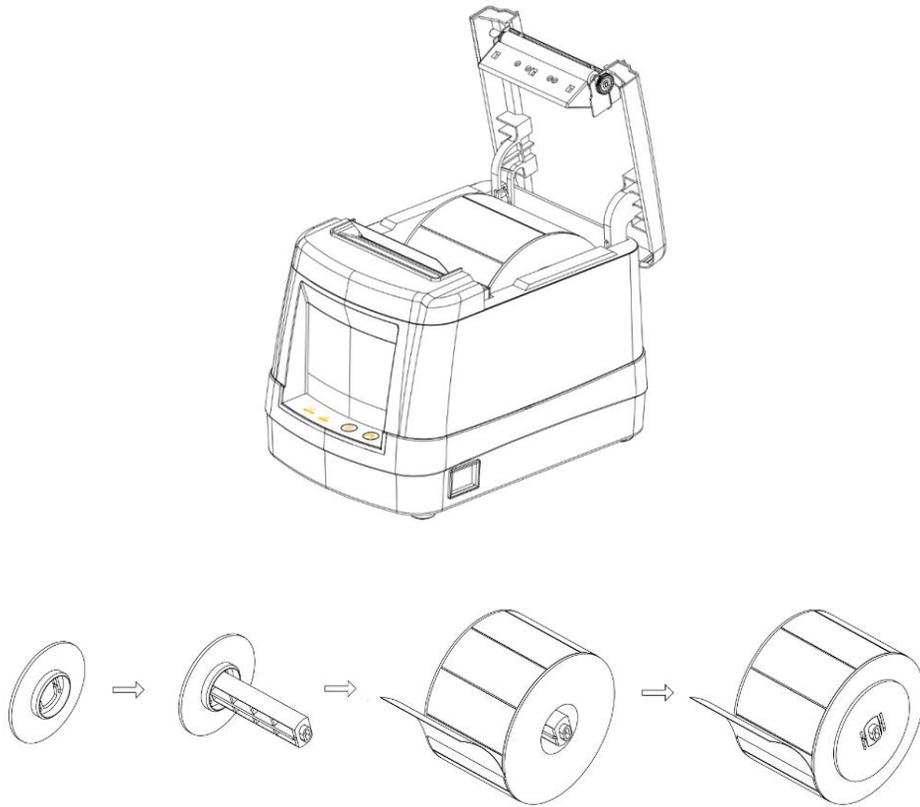
Picture 6

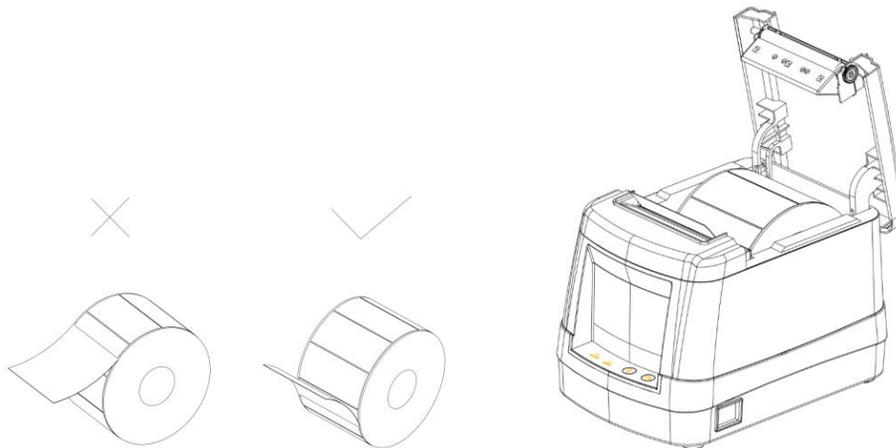②According to the sequence of Picture 6 above, Put long plastic shaft into the paper roll, and then fix it with two side boards

Picture 7

③Like picture 7 above, put the well matched paper roll and its loading sticker board into the printer slot, pls pay attention to the label paper direction.

5.Techinical datas

Resolution	203 DPI
Print Method	Thermal Print
Print Speed(Max)	127 mm (5") / s,
Print Width(Max)	80mm(3")
Print Length(Max)	1770 mm (70")
Printer Size	225 mm (D) x151 mm (W) x151 mm (H)
Printer Weight	1.08kg
Label Paper Roll Diameter	25-120mm
Paper Direction	Paper Up
Processor	32-bit CPU
Memory	8M Flash memory 8M SDAM
Interface	■ USB (Standard) ■ Bluetooth (Optional)
Power	Adaptor ■ Input: AC 100-240V ■ Output: DC 24V-2.5A
User Indicator	Standard Model ■ 2 Press Buttons ■ 1 LED Blue Light、1 LED Red Light
Sensor	■ Gap Sensor ■ Cover Opening Sensor ■ Printer Head Temperature Sensor
Paper Type	Thermal Label paper, Thermal adhesive paper, etc
Media Type	Continuous,Gap
Media Width	20 mm ~ 82 mm
Media Thickness	0.06 mm ~ 0.25 mm
Label Length	10 mm ~ 1770 mm
Paper off type	Tear off
Gap Height	Minimum 2 mm
Print out deviation	Vertical: 1 mm maximum. Horizontal: 1 mm maximum.
Internal font	1 set of alphanumeric fonts

Code Page	■ **Codepage 437 (English - US)**	
	■ Codepage 737 (Greek)	■ Codepage 850 (Latin-1)
	■ Codepage 852 (Latin-2)	■ Codepage 855 (Cyrillic)
	■ Codepage 857 (Turkish)	■ Codepage 860 (Portuguese)
	■ Codepage 861 (Icelandic)	
	■ Codepage 862 (Hebrew)	
	■ Codepage 863 (French Canadian)	
	■ Codepage 864 (Arabic)	
	■ Codepage 865 (Nordic)	
	■ Codepage 866 (Russian)	
	■ Codepage 869 (Greek 2)	
	■ Codepage 950 (Traditional Chinese)	
	■ Codepage 936 (Simplified Chinese)	
	■ Codepage 932 (Japanese)	■ Codepage 949 (Korean)
	■ Codepage 1250 (Latin-2)	■ Codepage 1251 (Cyrillic)
	■ Codepage 1252 (Latin-1)	■ Codepage 1253 (Greek)
	■ Codepage 1254 (Turkish)	■Codepage 1255 (Hebrew)
	■ Codepage 1256 (Arabic)	
	■ Codepage 1257 (Baltic)	
	■ Codepage 1258 (Vietnam)	
	■ ISO-8859-1: Latin-1 (Western European)	
	■ ISO-8859-2: Latin-2 (Central European)	
	■ ISO-8859-3: Latin-3 (South European)	
	■ ISO-8859-4: Latin-4 (North European)	
	■ ISO-8859-5: Cyrillic	
	■ ISO-8859-6: Arabic	
	■ ISO-8859-7: Greek	
	■ ISO-8859-7: Hebrew	
	■ ISO-8859-9: Turkish	
	■ ISO-8859-10: Nordic	
	■ ISO-8859-15: Latin-9	
	■ UTF-8	
Bar Code	**1D bar code** Code128 subsets A.B.C,Code128UCC, EAN128, Interleave 2 of 5,Code 39,Code 93, EAN-13, EAN-8, Codabar, POSTNET, UPC-A, UPC-E, EAN and UPC 2(5) digits, MSI, PLESSEY, China Post, ITF14, EAN14, Code 11, TELPEN, PLANET, Code 49, Deutsche Post Identcode, Deutsche Post Leitcode, LOGMARS **2D bar code** CODABLOCK F mode, DataMatrix, Maxicode, PDF-417, Aztec, MicroPDF417, QR code, RSS Barcode (GS1 Databar)	

Rotation on font,Bar code	0°, 90°, 180°, 270°
Command	TSPL-EZ,EPL,ZPL,DPL emulation
Environment	■ Operation Environment: -10 ~ 50 °C (14 ~ 122 °F), Humidity:10 ~ 90% No condensing ■ Storage Environment: -40 ~ 60 °C (-40 ~ 140 °F), Humidity:10 ~ 90% No condensing
Accessories	■ CD include lable editing software, Driver and User Manual ■ Fast installation guide ■ Power adaptor ■ Power cable ■ USB cable
Reliability	■ One year warranty ■ Printer head 50KM or One year warranty. Depends on which reach first. ■ Printer roller 50KM or One year warranty. Depends on which reach first.

This printer supports continuous paper and non-continuous paper.

●Continuous paper types include: Non-adhesive strip roll paper.

● Non-continuous paper types include:

   ■ Non-Adhesive label paper:

   ■ Stickers.

6. Open the printer

6.1 Open the printer package and check whether the items are missing or damaged. If the items are missing or damaged, please contact your agent or manufacturer.

6.2 Connect the power cable

   ■ Make sure the printer power switch is off;

   ■ Connect well the power adapter and the power cable,Then let one of its side match the printer port, and other side connect with the socket, and then turn on the power switch;

   ⚠ **note:**

   ■ When plugging and unplugging the power cord, you should hold the connector shell of the plug, do not pull the cable forcibly;

   ■ Avoid pulling the power cord, otherwise it will damage the cable, causing fire and electric shock;

   ■ Avoid placing the power cord around overheated equipment to prevent the cable surface from melting, causing fire and electric shock;

   ■ If the printer will not be used for a long time, disconnect the printer from the power source.

6.3 Connect USB cable

   ① Confirm that the printer's power switch is off;

   ② Connect the USB data cable into the related interface;

   ③ Connect the other side of the USB data cable to the host computer.

   ⚠ **note:** Do not plug or unplug the USB data cable when power on.

6.4 Media installation

Install self-adhesive thermal paper

For the installation of self-adhesive thermal paper, please refer to **4. Paper roll installation** of this manula

7. Power-on function

This printer has five power-on functions that can be used to set or test the printer hardware. These functions can be activated by pressing the paper feed button or the pause button when the computer is turned on. The five functions are as follows:

7.1. Power-on self-test

To perform the printer power-on self-test, follow these steps:

① Turn off the printer.

② Make sure the printer has loaded paper, and close the printer cover.

③ Press the FEED button, and turn on the printer, keep pressing the Feed button until you see the ONLINE and ERROR indicators both flash, ONLINE indicator flash alone, and ONLINE and ERROR indicators both flash again, then release the FEED button. At this time, the printer will first calibrate the paper by coming out some blank label and then print out the self-test page as shown.

The self-test page is shown below:

```
PRINTER INFO.
//////////////////////////////////////////
//////////////////////////////////////////
//////////////////////////////////////////
//////////////////////////////////////////
//////////////////////////////////////////
//////////////////////////////////////////
Printer Version: 1.006   EZ        Printer Details
SERIAL NO:
MILAGE(m):   24
CHECKSUN:EA2914C5
SERIAL PORT:9600,N,8,1
CODE PAGE:   850
COUNTRY CODE： 001
SPEED:    3 INCH
DENSITY:   8.0
SIZE:     3.15,    1.90
GAP:      0.14, 0.00
TRANSPARENCE:   13
BT:  YES
BT NAME:    Printer          Bluetooth Info.
BT PIN:     0000
BT MAC:     xx-xx-xx-xx-xx-xx
BT VERSION： xxxxxxx
*****************************************
FILE LIST:              Download Data Info.
DRAM FILE:           0 FILE(S)

PHYSICAL      DRAM:      2048 KBYTES
AVAILABLE     DRAM:      256 KBYTES FREE
PHYSICAL      FLASH:       0 KBYTES
AVAILABLE     FLASH:       0 KBYTES FREE

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7.2 Gap sensor calibration

This function is used to measure the sensitivity of the label gap sensor after the printer is turned on. When the user replaces paper rolls of different specifications or initializes the printer, just follow these steps, the printer will automatically check the paper positioning, and save the calibration values for subsequent printing tasks.

To calibrate the gap sensor, please follow the steps below:

① Install the driver: In the driver,we can adjust the specifications of the label paper and the gap

between the two label papers. After settings, print any one label. At this time, the printer will automatically calibrate the sensitivity of the gap sensor and write the parameters into the memory.

②Usage Command: send to printer the specifications of the paper roll label, the gap between the label and the label,then print a label. At this time, the printer will automatically calibrate the sensitivity of the gap sensor and write the parameters into the memory.

③Using the button: Under off status, press the FEED button, and turn on the printer, keep pressing the Feed button until you see the ONLINE(red light) and ERROR(bluet light) indicators both flash, and then blue light flashing only, then release the feed button, you will see the paper come out automatically for calibrating.

7.3 Enter debug mode

To enter the debug mode, follow the steps below:

① Turn off the printer.

② Make sure the printer has loaded paper, and closed the printer cover.

③ Press the PAUSE button, keep pressing the Feed button until you see the ONLINE and ERROR indicators both flash, ONLINE indicator flash alone, and ONLINE and ERROR indicators both flash again, then release the FEED button. At this time, the printer will first calibrate the paper by coming out some blank label and then print out the self-test page,then print out the content as shown and enter the debug mode.

****

* NOW IN DUMP MODE*

****

⚠ Note: If the printer data is not full of a label, a label will not be printed automatically. At this time, press the FEED button to print out these data.

7.4 Skip AUTO.BAS procedure

The user can download an automatically executed program (AUTO.BAS) to the internal Flash memory of the printer. When the printer is turned on, it will automatically execute according to the program downloaded by the user to the printer. When you want to skip AUTO.BAS boot after booting, you can use this boot function to ignore this automatic execution procedure.

Please follow the steps below to skip AUTO.BAS:

① Turn off the printer.

② Press the PAUSE button and the FEED button at the same time, and turn on the printer power. When the printer's online (blue) light is off and the error (red) light is on, release the PAUSE button and the FEED button, the printer will skip the AUTO.BAS program, and then the power light is on.

7.5 Printer initialization

The printer initialization function is to clear the download data in the internal memory (DRAM) and restore the printer parameters to the factory default settings. Please re calibrate the gap sensor after initialization.

Please follow the below steps to initialize the printer:

① Turn off the printer.

② Simultaneously press the PAUSE button and the FEED button. When the printer's online (blue) light is on and the error (red) light is off, release the PAUSE button and the FEED button. At this time, the printer clears the download data in the internal memory (DRAM) and The printer parameters are restored to the factory default settings.

8. Printer's Indicator Lights and buttons

There are two lights on the printer [a blue online light and a red error light], two buttons [a PAUSE button, and a FEED button].

8.1 Indicator Light：

No.	Indicator Light Status	Instructions
1	Online light on and error light off	Printer power Switch on and it is Normal Status.
2	Online light on and error light flash	Printer Pause
3	Online light flash and error light on	Detect Label gap errors
4	Online light flash and error light on	Printer lack of paper
5	Online light flash and error light on	Option1):Printer cover opening Option2):When the print head is overheated for continuous printing, the online light and the error light flash at the same time. After about 1 minute, the CPU will detect the temperature of the print head again. When the temperature returns to the normal temperature, the printer automatically returns to the normal printing state

8.2 Button：

No.	Function	Instructions
1	Feed	When the power indicator is on and the error indicator is off, Press feed key, the printer will feed the paper to the front of the next label
2	Pause	When the printer is printing, press the pause button, the printer work will stop
3	Self Test Page	①Turn off the printer. ②Make sure the printer has loaded paper, and close the printer cover. ③ Press the FEED button, and turn on the printer, keep pressing the Feed button until you see the ONLINE and ERROR indicators both flash, ONLINE indicator flash alone, and ONLINE and ERROR indicators both flash again, then release the FEED button. At this time, the printer will first calibrate the paper by coming out some blank label and then print out the self-test page as shown.
4	Gap sensor calibration	Adjust the paper specification parameters in the drive or directly send a command to set the specification parameters,then print a label. The

		printer will automatically calibrate the gap sensor and print the content.
5	Enter debug mode	Process same with self test page,at the end, you can see"NOW IN DUMP MODE" in page
6	Skip AUTO.BAS procedure	①Turn off the printer. ②Press the PAUSE button and the FEED button at the same time, and turn on the printer power. When the printer's online (blue) light is off and the error (red) light is on, release the PAUSE button and the FEED button, the printer will skip the AUTO.BAS program, and then the online light is on.
7	Printer initialization	① Turn off the printer. ②Simultaneously press the PAUSE button and the FEED button. When the printer's online (blue) light is on and the error (red) light is off, release the PAUSE button and the FEED button. At this time, the printer clears the download data in the internal memory (DRAM) and The printer parameters are restored to the factory default settings.

9. Maintenance

9.1 Cleaning

Take this simple printer maintenance procedure not only to ensure the printing quality,but also extend the life of the printer. The following are some of our recommended maintenance.
Please use the tools listed below to clean and maintain your printer:

- Cotton swab
- Cotton
- Air spray gun or vacuum tool
- 100% alcohol (industrial alcohol)

Pls follow the below cleaning steps :

Printer parts	method
Print head	①Please turn off the printer ②Let the print head cool for at least one minute ③Wipe the surface of the print head with cotton 100% alcohol
Rubber roller	①Please turn off the printer ②While turning the rubber roller, carefully wipe the rubber with 100% alcohol on cotton cloth or cotton
Outside	Wipe the outside with a damp cloth
Inside	Use an air gun or vacuum cleaner to remove dust from the machine

⚠ Attention:

- The daily maintenance of the printer must ensure that the power is turned off;
- It is not allowed to touch the surface of the print head with hands and metal objects, and do not use

tools such as tweezers to scratch the surface of the print head, printing roller and sensor

■ Do not use gasoline, acetone and other organic solvents to wipe the print head and rubber roller, medical alcohol may damage the print head;

■ After the gap sensor is cleaned, the paper gap check should be re-checked;

■ Wait for the alcohol to completely evaporate before turning on the power to continue printing.

10. Troubleshooting

The contents below are some common problems and their solutions for users. Usually it will be work, but if it still not work after the following suggestions, pls contact the customer service department of our dealer or manufacture to get more help.

Problems	Possible Reasons	Solutions
Online indicator is off	■ The cable connection is not well connected to printer port ■ Printer Power switch is not turned on	■ Check the socket, power cable, adaptor cable is well connected with printer. ■ Turn on power switch
	■ The printer cover is not closed well	■ Please close the cover well
	■ Run out of Label Paper ■ The label installation path is incorrect ■ Incorrect detection of gap sensor	■ Put new label paper inside ■ Please refer to label paper installation steps, re-install, re-adjust the specifications and print
	■ There may be label paper or debris stuck inside the printer	■ Clean the inside of the machine
The printer cannot print	■ Check if the transmission line has connected to the machine	■ Reconnect the transmission line ■ If you are using a USB cable, please confirm that the port in the computer drive is selected correctly ■ Replace new transmission line ■ Clean the print head ■ The printer density setting is incorrect
Storage is full (FLASH/DRAM)	■ FLASH/DRAM full of storage	■ Clear unnecessary files inside FLASH/DRAM ■ DRAM can store up to 256 files, the maximum capacity is 1024KB, the number of file is related to the content size of a single file ■ FLASH can store up to 256 files, The maximum capacity is 1024KB, the number of file is related to the content size of a single file
Poor print quality	■ Incorrect label paper installation	■ Re-install the paper roll

	■ Dust or adhesive accumulation on the print head ■ Improper setting of printing density ■ Printer head damaged	■ Clean the print head ■ Clean the rubber roller ■ Adjust the printing density and speed of the printer ■ Print out the self-test page, check and judge whether the print head is damaged. If the print head is damaged, please return to the factory to replace ■ Replace the appropriate label paper ■ If the thickness of the label exceeds 0.22 mm, the printing quality may be reduced ■ Close the printer cover in place
Paper skipping occurs when printing	■ Incorrect or incomplete label size setting ■ The label sensor is covered by obstacle, which results in incorrect detection	■ Re size and print ■ Moderately reduce the gap value and print it ■ Clean the obstacle on the sensors
Content on left and right sides to be printed are lost	■ Incorrect label size setting ■ Exceeded maximum print width	■ Set the correct label size ■ Change the paper roll within the maximum width
There are wrinkles in printing	■ uneven pressure on printer head ■ incorrect label paper installation ■ printing density setting is incorrect ■ incorrect label paper feed	■ Please select the appropriate label printing density ■ Please adjust the label width limiter to fit the current label
Gray lines appears on black label paper	■ Printer head is dirty ■ Rubber roller is dirty	■ Please clean the print head ■ please clean the rubber roller (Refer to the method recommended in Article 9 for specific operation methods and steps)
Unstable printing	■ Printer in hex dump mode	■ Turn the printer off and on again, and jump out of dump mode

⚠ Warning:

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right to change the product on technology, parts, software and hardware. If users need further information about the product, they can contact the dealer. Without permission, no section of this manual can be copied or transmitted in any form or by any means.