



LTT204

LTT214



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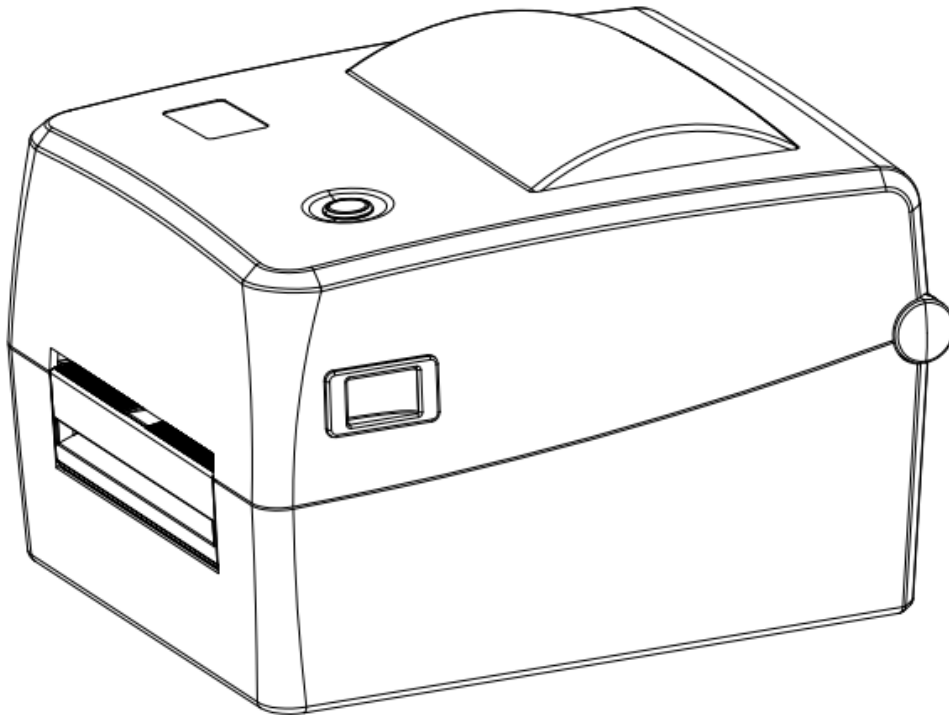
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1. Printer Overview

1.1 Introduction

Thank you for purchasing our thermal transfer/thermal barcode printer.

The slidable media sensor supports a wide range of paper types, including paper rolls, paper slicing and folding. In addition, other commonly used barcode papers can be used.

This model has a built-in high-quality font engine and font library. With a flexible firmware design, users can also download True Type Font fonts to the printer's memory. Besides scaled fonts, five different alphanumeric, OCR-A and OCR-B fonts are also available. Combining powerful functions, a competitive price and high printing quality, this printer is your best choice for thermal and thermal transfer printers.

When printing the label format, please refer to the information provided by your label editing software. If you need to write your own program, it is for your reference.

TSPL, ZPL, DPL, EPL Instruction Manual.

Applications:

- Manufacturing & warehousing industry
- Logistics industry
- Medical industry
- Retail industry

1.2 Product parameters

Product standard equipment	203 dpi LTT204								
Thermal transfer printing	○								
Thermal printing	○								
ABS plastic HOUSING	○								
Gap sensor / through-transmission	○								
Adjustable black mark sensor / reflection-TYPE	○								
Ribbon sensor	○								
Head open sensor	○								
USB 2.0 (full speed) Communication Interface	○								
8 MB SDRAM	○								
8 MB FLASH	○								
Feed button and LED indicator	○								
Supports (Eltron and Zebra) emulation	○								
Contains 8 kinds of dot matrix type fonts	○								
Fonts and bar codes can be rotated in four directions (0, 90,180, 270 degree)	○								
Included fonts	○								
Can download Windows fonts for use	○								
Can download firmware to update	○								
Supports text, barcodes, photos. (Refer to TSPL, ZPL, DPL, EPL programmer's manual for available codepage)	○								
<table><tr><th colspan="2">SUPPORT BARCODE</th><th>Support image format</th></tr><tr><th>1D barcode</th><th>2D barcode</th><td rowspan="2">BITMAP, BMP, PCX (Max. 256 color graphics)</td></tr><tr><td>Code 39, Code 93, Code128 UCC, Code128 subsets A,B,C, Codabar, Interleaved 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC2 (5) digits add-on, MSI, PLESSEY, POSTNET, China POST, GS1 DataBar, Code 11</td><td>PDF-417, Maxicode, DataMatrix, QR code, Aztec, GS1 DataBar Composite code</td></tr></table>		SUPPORT BARCODE		Support image format	1D barcode	2D barcode	BITMAP, BMP, PCX (Max. 256 color graphics)	Code 39, Code 93, Code128 UCC, Code128 subsets A,B,C, Codabar, Interleaved 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC2 (5) digits add-on, MSI, PLESSEY, POSTNET, China POST, GS1 DataBar, Code 11	PDF-417, Maxicode, DataMatrix, QR code, Aztec, GS1 DataBar Composite code
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1.3 General Specifications

General Specifications	
Printer measurement	246mm (D)*199mm (W)*168mm (H)
Printer weight	1.6 kg
Power	Input: AC 100-240V Output: DC 24V Output: 2.5A, 60W
Environmental conditions	Operating environment: temperature 5-40°C (41-104°F), Humidity (non-condensing) 25-85%, Storage environment: -40-60°C temperature: 10-90%

1.4 Ribbon Specifications

Ribbon external diameter	Max 35mm
Ribbon length	90 m
Ribbon internal core diameter	12.7 mm (0.5") (Ink outside Coating)
Ribbon width	Max. 110 mm
	Min. 25.4mm
Ribbon winding type	Outer roll type

1.5 Media Specifications

Printing resolution	203 DPI	300 DPI
Printing head resolution ratio	8 dots/mm (203 DPI)	11.8 dots/mm (300 DPI)
Print mode	Thermal transfer and direct thermal	
Dot size	0.125 x 0.125 mm	0.084 x 0.084 mm
(width x length)	(1mm= 8 dots)	(1mm= 8 dots)
Printing speed (IPS: inches per second)	127 mm (5") / s	101 mm (4") / s
Print width	25.4mm (1") ~108 mm (4.25")	104 mm (4.09")
Paper width (label + bottom paper)	Max 115 mm (4.5")	Max 115 mm (4.5")
	Min 25.4 mm (1.0")	Min 25.4 mm (1.0")
Paper thickness (label + bottom paper)	Max 0.25 mm	Max 0.25 mm
	Min 0.06 mm	Min 0.06 mm
Internal roll paper maximum capacity outside diameter	127 mm (5") OD	127 mm (5") OD
Paper type	Continuous paper, gap paper, black label paper, folding paper, perforated paper	
Paper winding type	External roll type/internal roll type	
Paper roller diameter	25.4 mm (1.0")	25.4 mm (1.0")
Label length	10mm ~1778mm (0.39"-70")	10mm ~889mm (0.39"-35")
Remarks: If you use a label length less than 25.4 mm (1"), we suggest you use a label which has a perforated line on the gap, so that it's easy to tear off.		

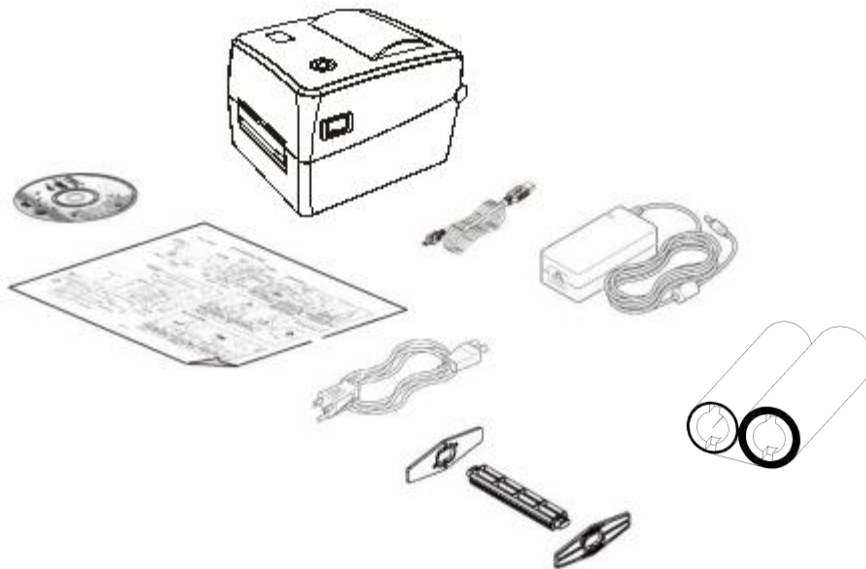
2.Product description

2.1 Unpack and inventory accessories

The printer is specially packed to resist the damage that may occur during transportation. However, in view of the fact that the printer may still be unexpectedly damaged while it is being transported, we suggest you check the packaging and printer setup carefully when receiving the printer. If there is any obvious damage, please contact the dealer directly to indicate the nature and extent of the damage; please keep the packing material so that the printer can be mailed.

Install the printer on a clean, stable table and open the printer carefully. Check whether the following items are included in the inventory:

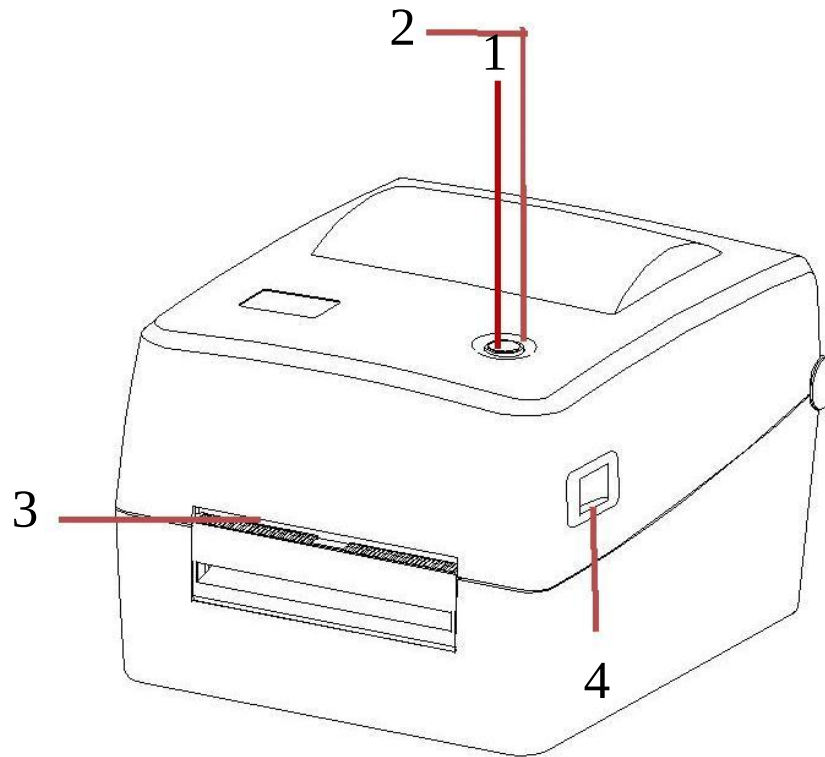
☐ Barcode printer	x1
☐ CD	x1
☐ Quick Start Guide	x1
☐ Power cable	x1
☐ Power supply kit	x1
☐ USB communication cable	x1
☐ Paper supply kit	x1
☐ Ribbon	x1
☐ Ribbon roller	x2



Please keep the printer's packaging and materials properly for future transportation. If any of the above items are missing, please contact the customer service department where you purchased the product.

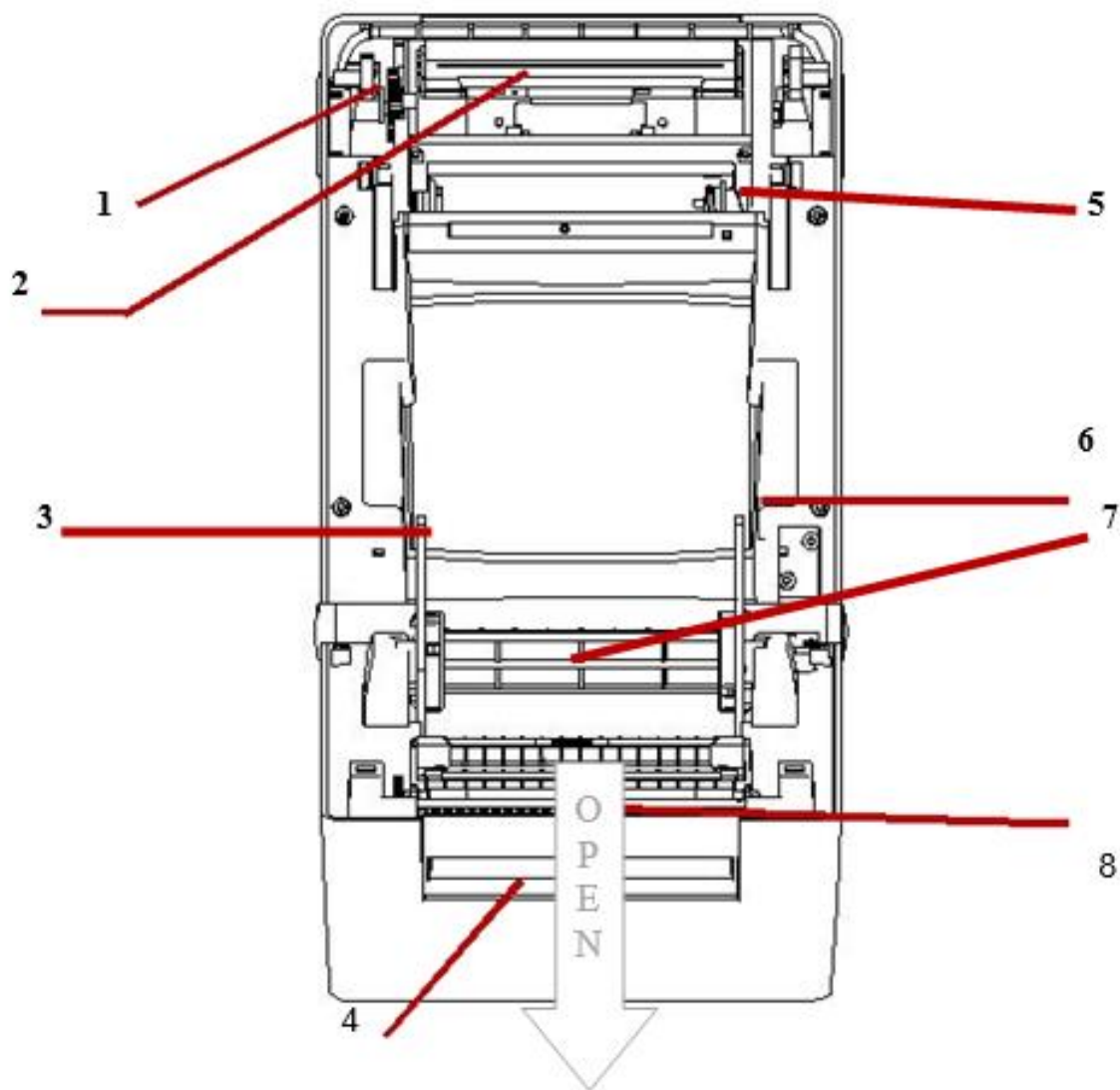
2.2 Printer components

Appearance

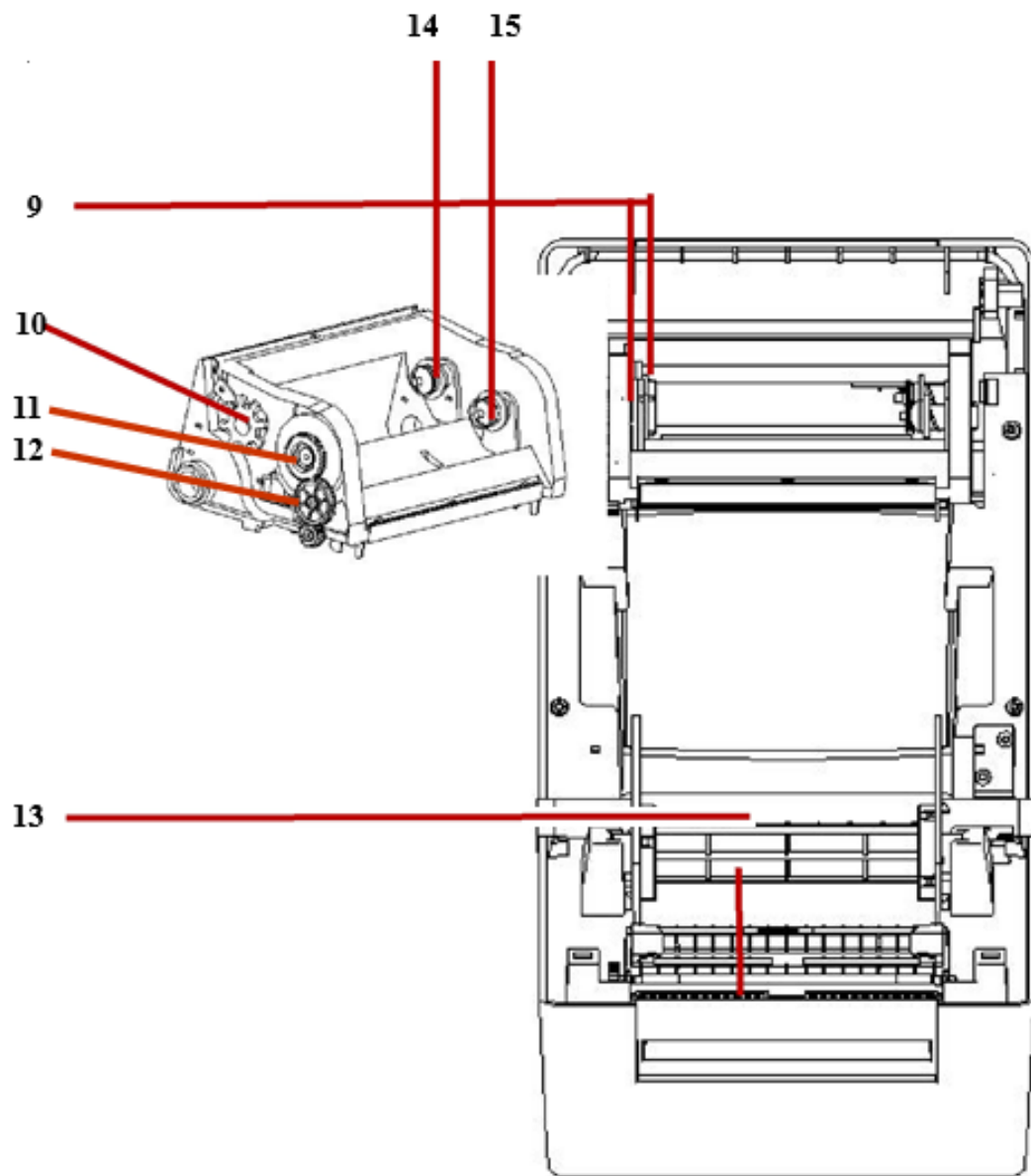


1. Feed Button
2. LED indicator light
3. Paper outlet
4. Cover open switch

Internal parts



- | | | | |
|----|-------------|----|-------------------|
| 1. | Ribbon gear | 5. | Bracket lock |
| 2. | Printhead | 6. | Cover support kit |
| 3. | Label guide | 7. | Black mark sensor |
| 4. | Front cover | 8. | Stripping sensor |



9. Ribbon fixed kit

10. Grating wheel

11. Ribbon gear 3

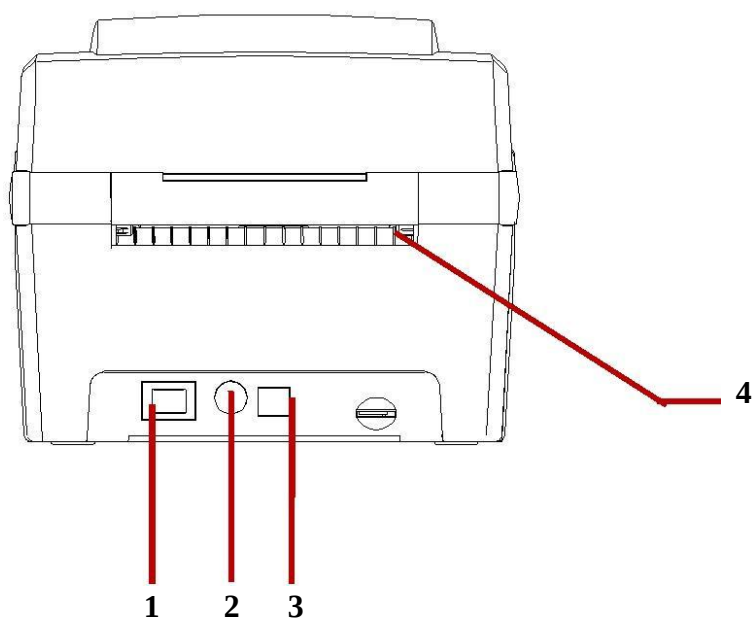
12. Ribbon gear 2

13. Platen roller

14. Ribbon fixed fastener

15. Used ribbon fixed fastener

Back view



1. Power switch
2. Power jack
3. USB (USB 2.0/ Full Speed mode)
4. Paper inlet

Attention: The transfer interface of the printer in the picture will difference according to the type of machine you are purchasing. actual transfer interface Please refer to the product specification.

3. Installation

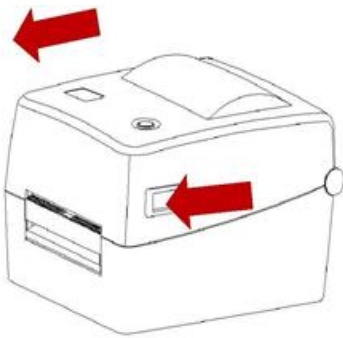
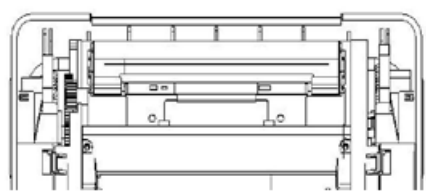
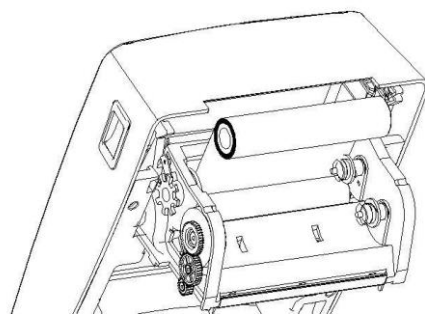
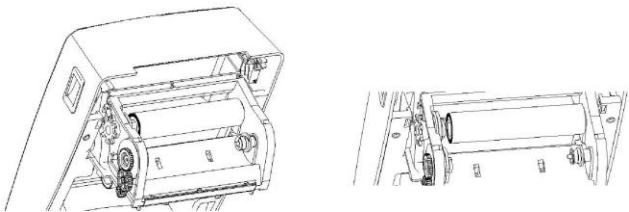
3.1 Install printer

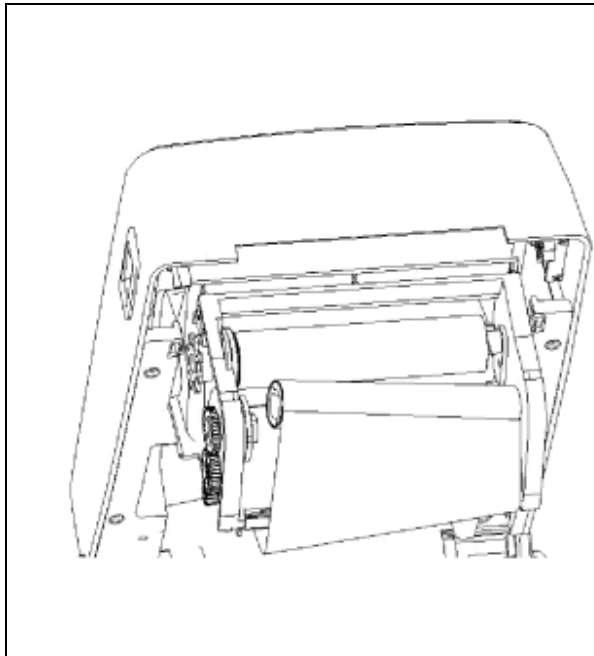
1. Install the printer on a stable, flat surface.
2. Make sure the power is turned off.
3. Insert one end of the USB cable into the slot on the back of the printer, and then connect the other end of the cable to the appropriate slot on the computer.
4. Insert the power cord into the power cord connection.
5. Plug the other end of the power cord into an AC outlet.

ATTENTION:

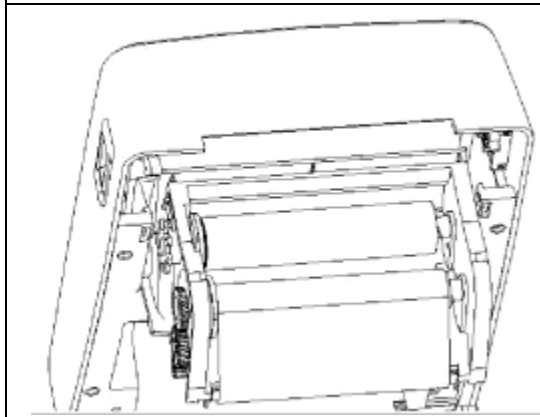
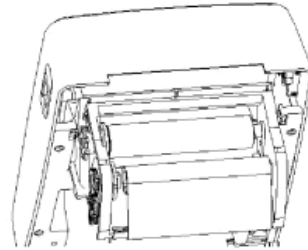
Turn off the printer's power switch and plug the power cord into the printer's power socket. The transfer interface of the printer in the picture will difference according to the type of machine you are purchasing. actual transfer interface, please refer to the product specification.

3.2 Install the ribbon

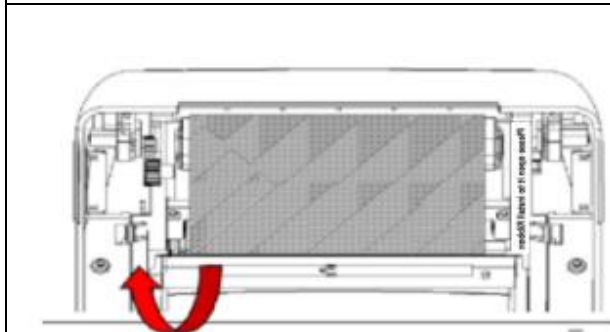
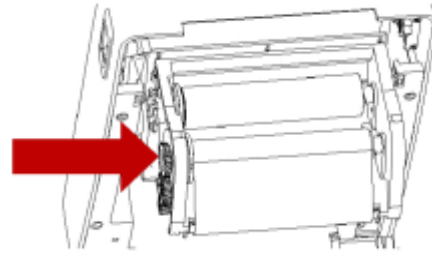
	1. Pull the switch forward on both left and right side to open the cover. Use the arrow direction in the picture for reference,
	2. Push the plastic hook to the side and pull down the printhead gently to access the ribbon installation area. Use the arrow direction in picture for reference,
	3. Insert the ribbon into the ribbon fixed fastener at the right side and adjust the wheel at the left side to fit. Pull the ribbon through the bottom.
	4. Install the used ribbon as the supply ribbon. See picture below for reference. Users can review the Quick installation guide as well.



5. Pass the ribbon around the print head, and then the right side of the ribbon recovery shaft on the ribbon recycling axis. The left ribbon wheel corresponds to the position of the ribbon to the concave surface of the ribbon recovery axis.

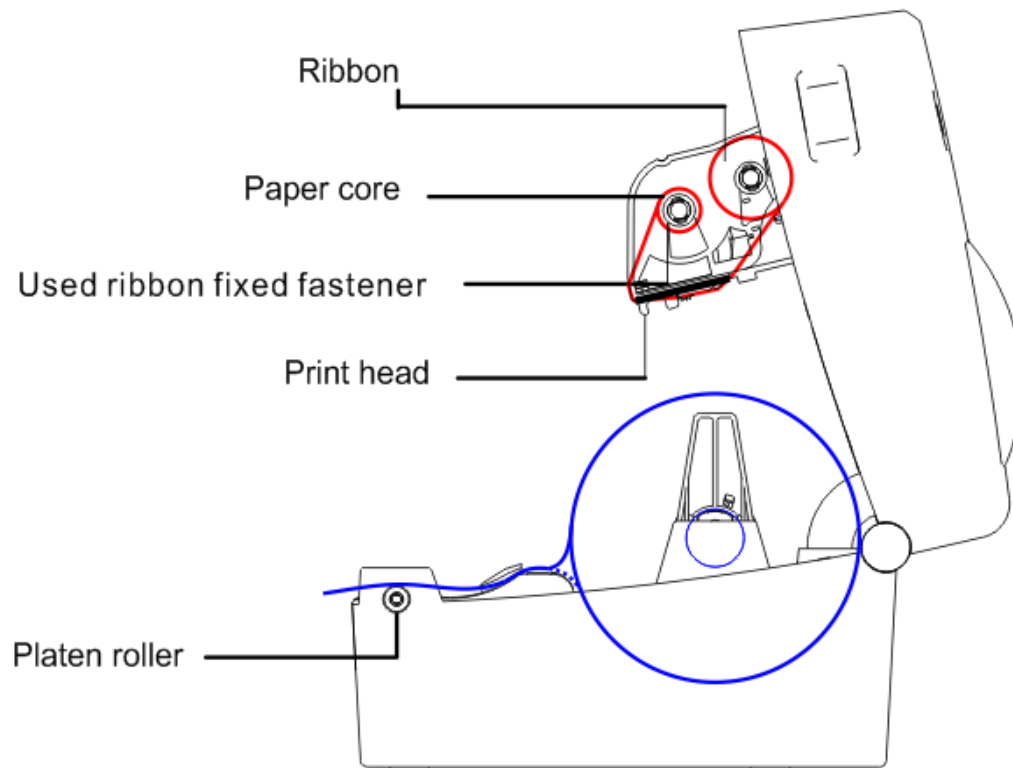


6. Turn the ribbon gear 2 to flatten the ribbon and take up the slack.



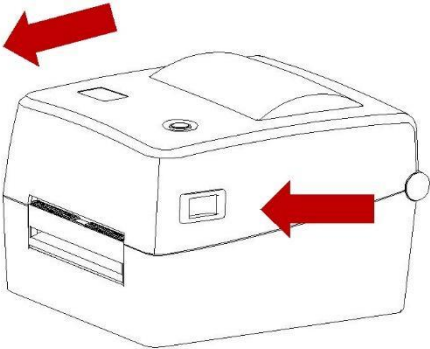
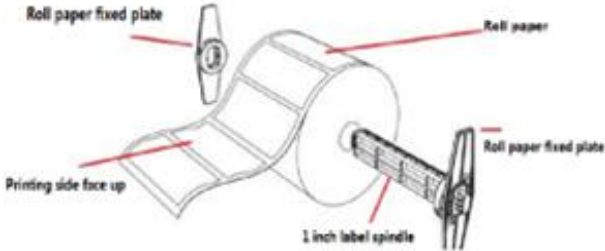
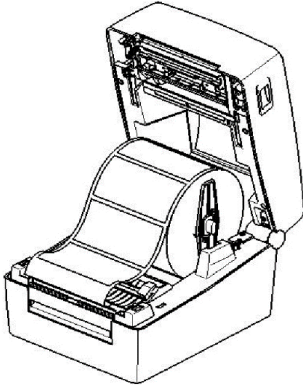
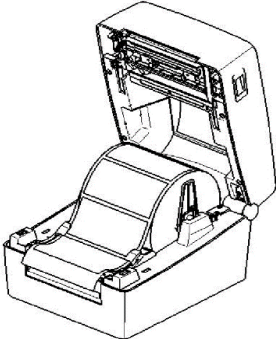
7. As shown in the picture to the left, press upward with both hands where the arrow indicates, then close the print head. Make sure the print head is closed completely.

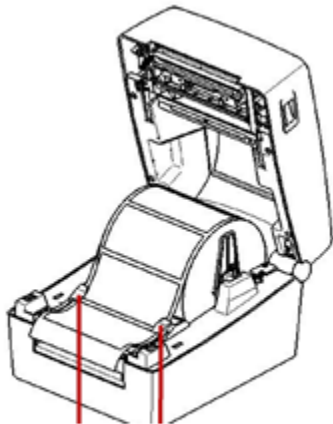
Ribbon installation path



3.3 Installation of paper

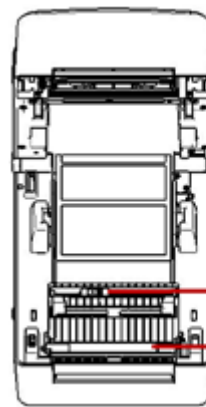
3.3.1 Installation of paper

	1. Pull the switches on the left and right sides of the cover in the direction indicated by the arrows and open the top cover of the printer.
	2. Put the paper on the label supply shaft and use the paper coil to fix the paper on the center of the supply shaft (if the paper is 4" wide, the fixed piece can be taken down with the paper scroll directly).
	3. Put the paper on the paper rack. 



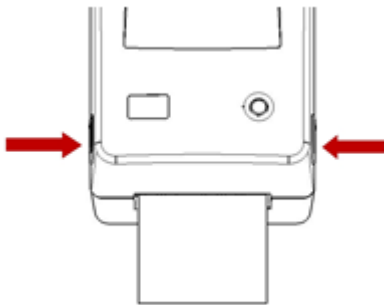
Label guide

4. Pull the front end of the paper out (print face up), guide the paper through the paper guide block and the black mark sensor. Pull the paper over the rubber roller. Adjust the paper guide and paper to the same width and having only slight contact with each other.



Black mark sensor

Platen roller



5. Push the upper cover back-up with your right hand and close the printer.

Calibrate Sensor

Auto Calibration

Paper Height

inch

Gap

inch

2

Calibrate

Manual Setup

Sensor Intensity

Threshold Value

Calibrate Set Cancel

Media Type

1

☒ Gap

☐ Blach Mark

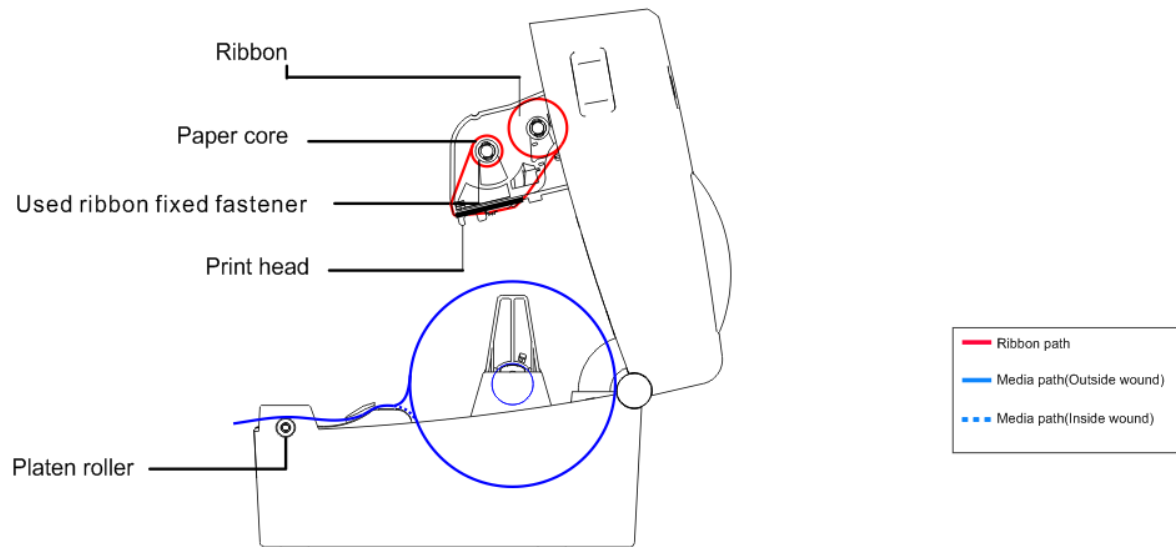
☐ Continuous

☐ Auto Selection

6. Use the "Diagnostic Tool" to set the appropriate sensor type according to the paper category and correct the label sensor (open "Diagnostic tool", select the "printer settings" page, press the "sensor correction" key), Refer to chapter 5.3.

Note: The label sensor of this series printer is removable. Please confirm that the gap (or black mark) of the paper is passed through the sensor. It is recommended that when you change the different types of label paper to redo the sensor calibration.

Media loading path



4. LED indicator and the function of button

The printer is designed with one set of gear motors, one Feed button and one LED indicator. According to the different LED display color, Users can tell the status of the printer.

4.1 LED indicator

LED indicator color	information
Blue (fixed)	Power on, printer standby
Blue (blinking)	Printer is downloading data or in pause status.
Purple	The printer is formatting the data
Red (fixed)	Printer is in head opened or cutter error status.
Red (blinking)	Printing errors, such as paper out, jam or memory errors, etc.

4.2 General button function

1. Paper feeding

When the printer is in standby mode (Blue LED is steady), the installed paper will move forward one unit if the feed button is pressed once.

2. Pause mode

When the printer is printing, press the feed button and the printing will pause. The Blue LED indicator will display in blinking status.

4.3 Boot functions

The printer has six boot functions to be used to set or test printer hardware. You can start these functions in the following method:

1. Turn off the power on the printer.
2. Hold the feed button, then turn on the printer.
3. Release the feed button according to the timing in the table below.

Boot functions	Light color cycle mode					
Light color	Purple	Blue	Red	Purple	Blue	Blue
Menu			Blink 5 times	Blink 5 times	Blink 5 times	Fixed blue
1. Gap/black mark sensor detection and calibrate paper.			Release the button			
2. Gap/black mark sensor detection, print self-test page and enter debug mode				Release the button		
3. Printer initialization (restore factory default)					Release the button	
4. Skip the AUTO. BAS procedure						Release the button

4.3.1 Gap/black label sensor detection

This detection is used to determine the sensitivity of the label paper sensor after the printer starts up. When you change specifications of the paper roll or initialize the printer to restore the factory default, you need the sensor to redetect the label paper clearance. Clearance detection or correction of black is set based on the value of reference for the last time it was set. The default value of the printer sensors is set to clearance adjustment.

Please follow the steps below to calibrate the ribbon and gap/black mark sensor.

1. Hold on the button then turn on the power switch
2. Release the button when the LED becomes red and blinking.
(Any red will do during the 5 blinks)
3. It will calibrate the ribbon sensor and gap/black mark sensor sensitivity. The LED color will be changed as following order
:

Purple □ red (5 blinks) □ purple (5 blinks) □ blue (5 blinks) □ blue/purple (5 blinks)
□ red/purple (5 blinks) □ solid blue

Note:

Please select a gap or black mark sensor by sending GAP or BLINE commands to the printer prior to calibrating the sensor. For more information about GAP and BLINE command, please refer to the TSPL2 programming manual.

4.3.2 Gap/Black Mark Calibration, Self-test and Dump Mode

While calibrating the gap/black mark sensor, the printer will measure the label length and print the internal configuration (self-test) on the label before entering the dump mode. The calibration of the gap or black mark sensor depends on the sensor setting last used.

Please follow the steps below to calibrate the sensor:

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when the LED becomes purple and blinks. (Any purple during the 5 blinks)

The LED color will be changed as following order.

Purple □ red (5 blinks) □ purple (5 blinks) □ blue (5 blinks) □ blue/purple (5 blinks) □ red/purple (5 blinks) □ solid blue

4. The printer calibrates the sensor and measures the label length, then prints the internal settings and enters the dump mode.

Note:

Please select a gap or black mark sensor by using the Diagnostic Tool or by GAP or BLINE command prior to calibrating the sensor.

For more information about GAP and BLINE command, please refer to TSPL2 programming manual.

Self-test page

The printer will print self-test values after the sensor calibration is completed. Before you connect the printer to the computer, you can verify the printer is printing properly by using the self-test function. The self-test values can be used to check the quality of the printing and show the settings of the printer's internal set up.

Self-test printout	
	
	Model & Firmware version
	Serial number
	Current printing time length
	Check sum
	Serial port information
	Current codepage
	Country code
	Head check pattern
	Printing speed
	Printing density
	Media size (unit: inch)
	Black mark or gap size (vertical gap, offset)
	Sensor sensitivity
	Sensor level
	Memory information

Debug mode

In debug mode, all volume labels are printed out as machine code. On the left side of the volume label is the ASCII string received data from the computer. And on the right are data printed out in the form of hexadecimal values according to the left ASCII string. This function provides the user or engineer a debug program. After debugging, users need to restart the printer to resume normal printing mode.

ASCII String



mm GAP 4 mm	8D 8D 0D 0A 47 41 56 26 34 26 6D 6D
0 mm SET	2C 20 30 20 6D 6D 0D 0A 53 45 54 20
RIBBON OFF	52 49 42 42 4F 4E 20 4F 4E 46 0D 0A
DIRECTION 0	44 49 52 45 43 54 49 4F 4E 20 30 2C
0 REFERENCE	30 0D 0A 52 45 46 45 52 45 4E 43 45
0.0 OFFSET	20 30 2C 30 0D 0A 4F 46 46 53 45 54
0 mm SET P	20 30 20 6D 6D 0D 0A 53 45 54 20 50
KEEL OFF SET	45 45 4C 20 4F 46 46 0D 0A 53 45 54
CUTTER OFF	20 43 55 54 54 45 52 20 4F 46 46 0D
SET TEAR ON	0A 53 45 54 20 54 45 41 52 20 4F 4E
CLS BAR 2	0D 0A 43 4C 53 0D 0A 42 41 52 20 32
02,810, 406,	30 32 2C 38 31 30 2C 20 34 30 36 2C
2 BAR 203,	20 32 0D 0A 42 41 52 20 32 30 33 2C
608, 2, 203	36 30 38 2C 20 32 2C 20 32 30 33 0D
BAR 202,609	0A 42 41 52 20 32 30 32 2C 36 30 39
406, 2 BA	2C 20 34 30 36 2C 20 32 0D 0A 42 41
R 607,608, 2	52 20 36 30 37 2C 36 30 38 2C 20 32
203 BAR 2	2C 20 32 30 33 0D 0A 42 41 52 20 32
08,804, 394,	30 38 2C 38 30 34 2C 20 33 39 34 2C
2 BAR 209,	20 32 0D 0A 42 41 52 20 32 30 39 2C
614, 2, 191	36 31 34 2C 20 32 2C 20 31 39 31 0D
BAR 208,615	0A 42 41 52 20 32 30 38 2C 36 31 35
394, 2 BA	2C 20 33 39 34 2C 20 32 0D 0A 42 41
R 601,614, 2	52 20 36 30 31 2C 36 31 34 2C 20 32
191 BAR 5	2C 20 31 39 31 0D 0A 42 41 52 20 35
06,761, 82,	30 36 2C 37 36 31 2C 20 38 32 2C 20
10 BAR 543,	31 30 0D 0A 42 41 52 20 35 34 33 2C
649, 10, 121	36 34 39 2C 20 31 30 2C 20 31 32 31
BAR 415,76	0D 0A 42 41 52 20 34 31 35 2C 37 36
1, 71, 10 B	31 2C 20 37 31 2C 20 31 30 0D 0A 42
AR 425,705,	41 52 20 34 32 35 2C 37 30 35 2C 20
61, 11 BAR	36 31 2C 20 31 31 0D 0A 42 41 52 20
415,650, 71,	34 31 35 2C 36 35 30 2C 20 37 31 2C
10 BAR 477	20 31 30 0D 0A 42 41 52 20 34 37 37
649, 10, 12	2C 36 34 39 2C 20 31 30 2C 20 31 32
1 BAR 324,7	31 0D 0A 42 41 52 20 33 32 34 2C 37
61, 71, 10	36 31 2C 20 37 31 2C 20 31 30 0D 0A
BAR 324,705,	42 41 52 20 33 32 34 2C 37 30 35 2C
71, 11 BAR	20 37 31 2C 20 31 31 0D 0A 42 41 52
324,650, 71	20 33 32 34 2C 36 35 30 2C 20 37 31
10 BAR 38	2C 20 31 30 0D 0A 42 41 52 20 33 38
6,704, 10, 6	36 2C 37 30 34 2C 20 31 30 2C 20 36
6 BAR 325,6	36 0D 0A 42 41 52 20 33 32 35 2C 36
49, 10, 66	34 39 2C 20 31 30 2C 20 36 36 0D 0A
BAR 222,761,	42 41 52 20 32 32 32 2C 37 36 31 2C
81, 10 BAR	20 38 31 2C 20 31 30 0D 0A 42 41 52
259,649, 10	20 32 35 39 2C 36 34 39 2C 20 31 30
121 PRINT	2C 20 31 32 31 0D 0A 50 52 49 4E 54
1,1	20 31 2C 31 0D 0A



ASCII Code

Note: Please use 4-inch label to get the complete debug information

4.3.3 Printer initialization

The printer initialization function is used to format DRAM memory and change the setting to factory default.

Printer initialization is activated by the following procedures.

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when the LED turns blue after 5 purple blinks. (Any blue during the 5 blinks).

The LED color will be changed as following:

Purple □ blue □ red (5 blinks) □ purple (5 blinks) □ blue (5 blinks) □ solid blue

Factory default values :

Parameter	The default value
Speed	127 mm/sec (5 ") (203DPI)
	101 mm/sec (4 ") (300DPI)
Density	8
Label width	4 " (100 mm)
Label height	2.5 " (63.5mm)
Sensor type	Gap sensor
Gap setting	0.08 " (2.0mm)
Direction	0
Reference point	0,0 (upper left corner)
Offset	0
Tearing mode	On
Peeling mode	Off
Serial port Settings	9600 bps, none parity, 8 data bits, 1 stop
Character set	850
Country code	1
Clearing Flash	No
IP address	DHCP

4.3.4 Skip the AUTO. BAS procedure

The TSPL2 programming manual command language allows users to load a document automatically (AUTO. BAS) into flash memory. The printer will automatically perform according to the boot files loaded by the user. When you want to skip the AUTO. BAS procedure, you can use this function to ignore these automatically executable files.

Please follow the procedures below to skip an AUTO.BAS program:

1. Turn off printer power.
2. Press the FEED button and then turn on power.
3. Release the FEED button when the LED becomes solid blue.

The LED color will be changed as following:

Purple→blue→ red (5 blinks) → purple (5 blinks) → blue (5 blinks) → solid blue

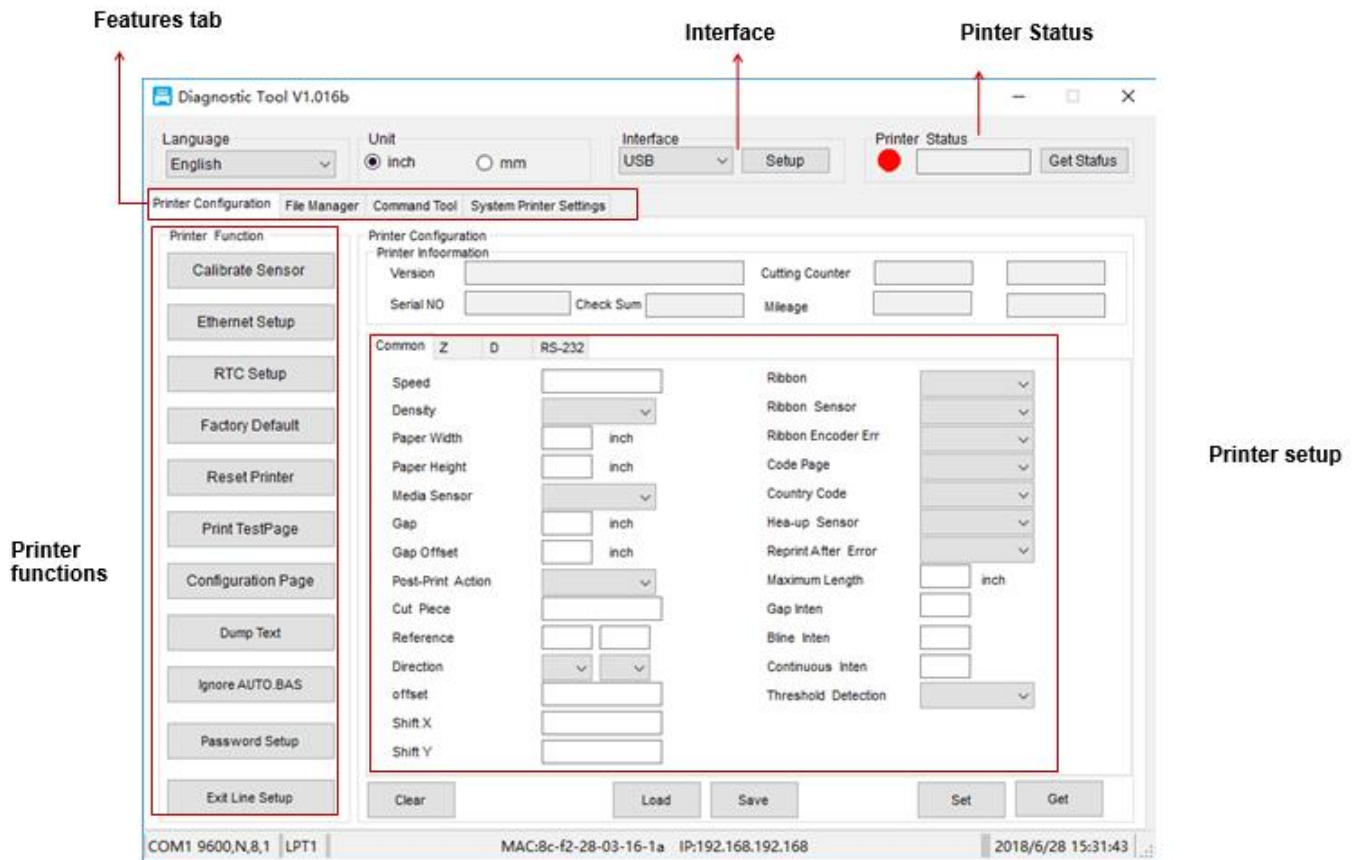
4. Printer will be interrupted to run the AUTO.BAS program.

5. Diagnostic Tool

Diagnostic Tool is a simple and easy to use tool, which can check the printer information, file download and send emulation commands.

5.1 Enable DiagnosticTool tool program

There are three administration pages (printer settings, file management, communication tools) in the main picture after the program starts. See the picture below.



5.2 Printer Setting

1. Choose a connection interface between the computer and printer.

Interface

USB

Setup

The default setting connection interface of the printer diagnostic tools program is USB. If the transmission is through the USB cable link, there is no need to set this part. Go to the next step.

Interface

USB

USB

COM

LPT

ETHERNET

Setup

2. Click the needed function in the function area.

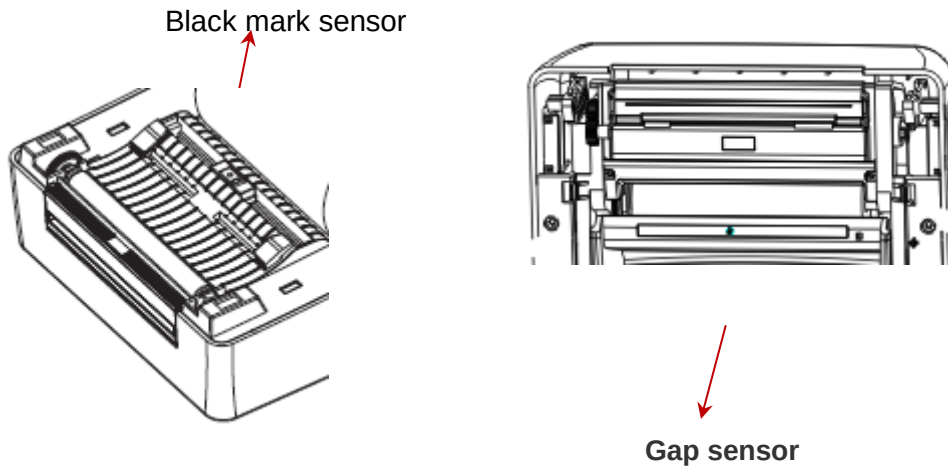
3.Printer function introduction in the administration page of Printer Setting is as follows.

Printer Function	Introduction
Calibrate Sensor	Sensor calibration
Ethernet Setup	Set the Ethernet
RTC Setup	Set printer RTC time parameters
Factory Default	restore factory default and restart
Reset Printer	Restart the printer
Print TestPage	Print the test page
Configuration Page	Print self-test page
Dump Text	Enter the printer error budgeting model
Ignore AUTO. BAS	Ignore AUTO. BAS files
Password Setup	Set the Diagnostic Tool passwords
Exit Line Setup	

5.3 Printer Diagnostic Tool Program on paper sensor correction

5.3.1 Automatic correction

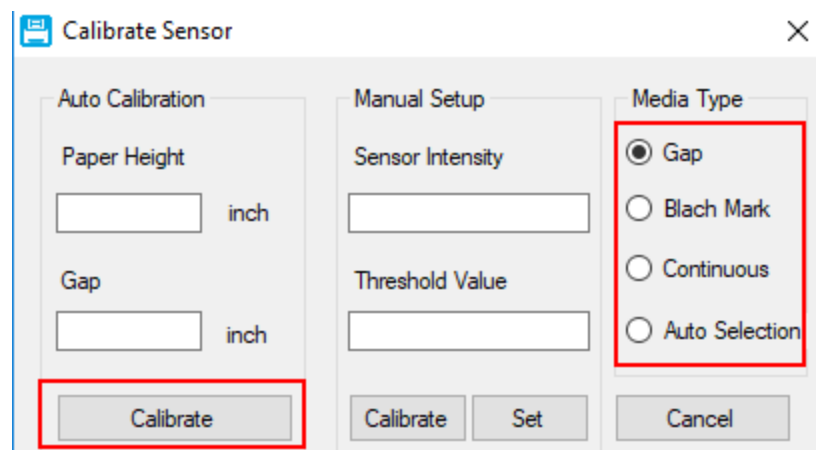
1. Please make sure the paper is correctly installed and close the printer head securely.



2. Turn on the printer.
3. Select the communication port according to the connected port.

Interface USB ▼ Setup The default setting connection interface of the printer diagnostic tools program is USB. If transmission is through the USB cable link, there is no need to set up this part. Go to the next step.	Interface USB ▼ Setup USB COM LPT ETHERNET
--	--

4. Press the "sensor calibration" button.
5. Choose the paper type and press the "Calibrate" button

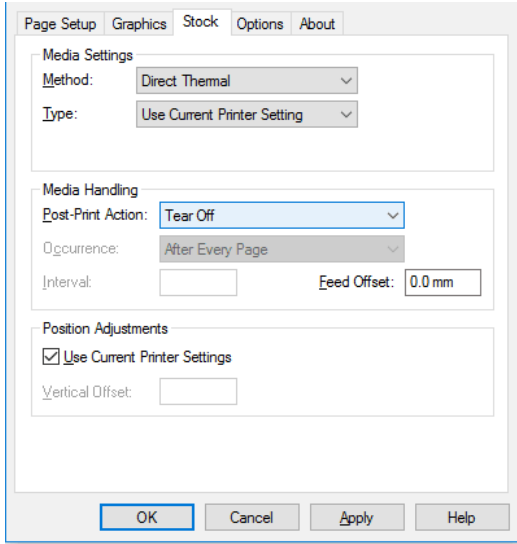


6. Troubleshooting

The contents of the table below are common problems and solutions. If you troubleshoot in the way we suggest, and the printer is still not functioning, then please get in touch with the service center to get more help.

Problem	possible factors	solution
-The power indicator light is not on - Printer Diagnostic tools (the Diagnostic Tool) show "head opened "	* The AC plug socket and the power supply plug socket are not properly connected with the socket of the printer. * The printer power switch is not on. * Cover doesn't close entirely	* Check that the AC plug socket and the power supply plug socket are correctly connected with the socket of the printer. * Turn on the power switch. * Reclose cover firmly.
-Printer Diagnostic tools (the Diagnostic Tool) show "Ribbon end" or "Ribbon speed error" -Printer Diagnostic tools (the Diagnostic Tool) shows "paper end" Printer Diagnostic tools (the Diagnostic Tool) shows " Paper Jam "	* Ribbon at the end * Ribbon installed incorrectly * Label paper at the end * Paper installed incorrectly * Gap/black mark sensors error * Clearance/black label sensors detect error * Volume label paper size is not correct * Volume label paper getting stuck in internal structure of printer	* Supply a new ribbon roll. * Please refer to the steps in section 3.2 to re-install the ribbon. * Install the new label paper * Correct the Sensor position * Recalibrate label sensor * Recalibrate volume label sensor * Set the correct label size * Clean the internal cabinet of printer

Problems	Possible factors	Solution
Not Printing	* Pin feet of Serial port line in the transmission line slot is not the type of 1 to 1	* Reconnect the transmission line.
		* Replace new transmission line.
		* Ribbon does not match the label.
		* Please Confirm whether the ink surface of Ribbon is installed correctly.
		* Reinstall the Ribbon.
		* Clean the print head.
		* Print density setting is not correct.
		* The connection line of the print head is not connected properly. Please turn off the printer's power supply and reconnect the connection line of the print head.
		* Please confirm that the connecting line of the stepping motor is connected correctly.
		* Please confirm that there is a PRINT instruction in the print program. In the end, and at the end of each line, there must be a CRLF.
The memory space is full (FLASH / DRAM)	*FLASH/DRAM memory space is full	* Remove unnecessary files inside FLASH / DRAM.
		* DRAM can store up to 256 files at most.
		* The maximum storage capacity of the DRAM is 256KB.
		* FLASH can store up to 256 files at most.
Poor print quality	* Ribbon and label paper are not installed Correctly * There is dust or glue stacking on the print head * Print density setting is not correct * Print head damage * Ribbon does not match label * The pressure setting of the print head is not appropriate	* 2560KBthe maximum storage capacity in FLASH is 2560KB.
		* Reinstall the consumables.
		* Clean print head.
		* Clean rubber roller.
		* Adjust the printer's printing density and printing speed.
		* Print out the self-test value to see if the printhead is damaged. If the printhead is damaged, replace the printhead.
		* Replace a suitable ribbon or label paper.
		* If the thickness of the label exceeds 0.22 mm, the printing quality may not be good enough. Please increase the print head pressure first.
Jumping paper when printing	* The size of the label is not set or incompletely set * Do not recalibrate the sensor after replacing tag * label sensor is covered by dust, causing incorrect detection	* Confirm that the print head frame has been completely closed.
		* Please confirm that the label size is set to be correct.
		* Please recalibrate the label sensor.
		* Clean the dust on the sensor with a gas brush.

problems	possible factors	solution
- Print position is incorrect when printing small volume label	* Label sensor setting is incorrect * label size setting is incorrect * The vertical displacement (vertical offset) in the printer driver's label style is not set correctly.	* Recalibrate label sensors * Set the correct size of the volume label and the clearance size of the volume label * If BarTender software is used, set the vertical offset (vertical offset) in the printer 
- Print content on the left and/or right sides is missing	* Incorrect label size setting	* Set the correct label size
- When the printer is restarted, the RTC time is incorrect	* Battery dead	* Please replace the battery on the motherboard
- Wrinkle problem	* Pressure of print head is uneven * Ribbon is not installed correctly * The label paper is not installed correctly * Incorrect print density * label paper feeds incorrectly	* Please go to the next chapter for the adjustment of uneven pressure on the print head. * Set the density to adjust print quality. * Adjust the label width adjuster to fit the label width.
- Black label paper with gray lines	* There is dirt on the print head * There is dirt on rubber roller	* Clean print head * Clean rubber roller
- Prints unsteadily	* The printer is in Hex Dump mode * Serial line (RS-232) setting is incorrect	* Turn the printer off again and exit out of the dump mode * Reset the RS-232

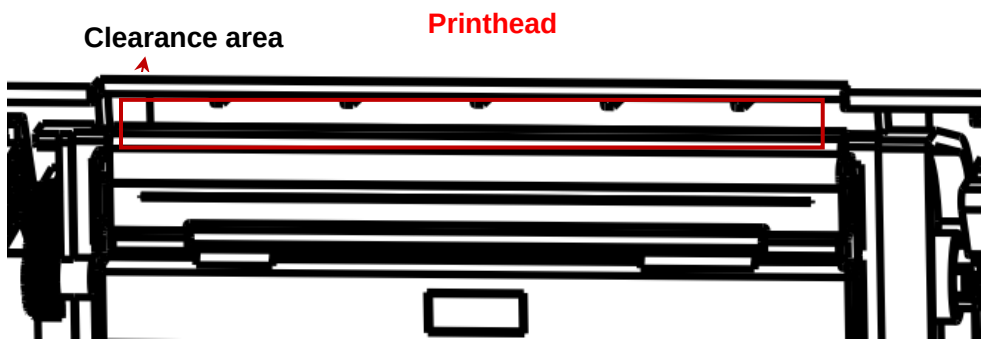
7. Printer Maintenance

Complete simple maintenance of the printer so it produces the best print quality and extends the printer's life. See recommended maintenance methods listed below.

1. Use the tools listed below to clean and maintain your printer:

- Cotton swab
- Cotton
- Air brush
- Medical alcohol

2. Cleaning and maintenance procedures

Cleaning part	Procedures	Recommended cleaning frequency
Printing head	1. Turn off the power 2. Let the print head cool for at least one minute. 3. Use a cotton swab dampened with alcohol and wipe the print head surface	Replacing a roll of new label paper
		
Rubber roller	1. Turn the power off. 2. Rotate the platen roller and wipe it thoroughly with Medical alcohol and a Cotton swab, or lint-free cloth.	Clean the platen roller when changing a new label roll
Strip paper flake	Use the lint-free cloth with Medical alcohol to wipe it.	As needed
transducer	Compressed air or vacuum	Monthly
Outside of machine	Wipe it with water-dampened cloth	As needed
inside of machine	Brush or vacuum	As needed

NOTE:

- Do not touch the print head directly. Clean with alcohol using a cotton swab to wipe the printing head.
- Please use medical alcohol. Do not use industrial alcohol. Industrial alcohol may damage the print head.
- If your printer has frequent error messages, clean your printer's transducer frequently□
- The printer is suitable for use in tropical climates.
- This is a Grade A level product. This product may cause radio interference in the living environment.

Update record

Date	Content	Editor
2018/07/01	Release	