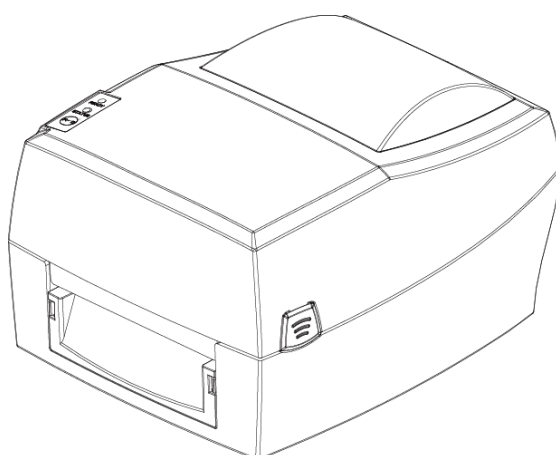

Label Printer

User Manual

HLP106D



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MANUAL INFORMATION

This user manual contains basic information for product usage as well as for emergency measures that may be required.

※ The following separate manuals provide more details on various technological issues and areas.

1.Windows Driver Manual

This manual provides information on the installation instructions and main functions of the Windows Driver.

2.Printer Utility Tool Manual

This manual provides information on the usage of software for function selection of this product, operating condition modification, etc.

3.Programming Manual

This manual provides information on label printer commands.

IMPORTANT SAFETY INSTRUCTIONS

Before using the appliance, please carefully read the following safety regulations in order to prevent any hazard or material damage.

1.Safety Precautions

- 1) Be sure to use the accompanying power charger, if not, it may cause fire, explosion or damage.
- 2) Please do not open the printer cover when it is printing or just when printing is over, do not touch the print head with hand or body, overheat may cause scald.

2. Operation Precautions

- 1) Water or other liquid should not be spilled into the printer, the printer also should not expose to the rain, or else may damage printer.
- 2) Please do not open the printer cover when it is printing, otherwise the printer may work improperly.
- 3) If printing with serial interface, do not unplug the interface cable, or else some printing data may lost.
- 4) Too high(40℃) or too low(0℃) temperature and too high(85%) or too low(20%) relative humidity both affect the print quality.
- 5) The print paper in poor quality or stored for too long time may also reduce the print quality, even damage the printer.

3. Storage Precautions

- 1) The printer should be placed in such an environment that the temperature ranges from -20℃ to 70℃, and the relative humidity is between 5% and 95%.
- 2) Normal thermal paper can't be kept for long, if you need to keep the receipt for a long period, please choose long term effective thermal paper.
- 3) The print paper should be keep away from high temperature environment and direct sunshine.

4. Other Precautions

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Due to continuous update of our product, the description of printer specification, accessories, design in this manual may slightly different, please in kind prevail.

5.WEEE (Waste Electrical and Electric Equipment)



This mark shown on the product or its literature indicates that the corresponding item should not be discarded at the end of its working life with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate marked items from other types of waste and recycle them responsibly to promote the sustained reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office for details of where and how they can conduct environmentally safe recycling of such items. Commercial users should contact their suppliers and check the terms and conditions of purchase contracts. This product should not be combined with other commercial waste for disposal.



Caution: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CHAPTER 1 INTRODUCTION

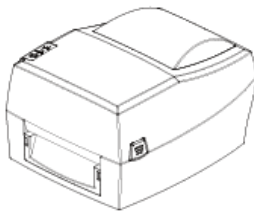
1.1 Packing List



Notes:

1. Unpack the printer and keep the packing material in case you need to ship the printer in the future.
2. Make sure you own all parts as follows, if not, do contact the local dealer.

■ Standard Accessories



Printer



AC Power Adapter



Power Cord



Quick Start Guide



Empty Ribbon Cord

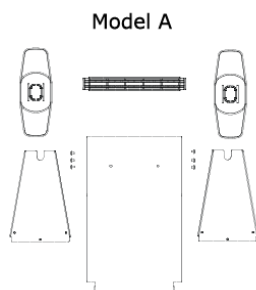


CD

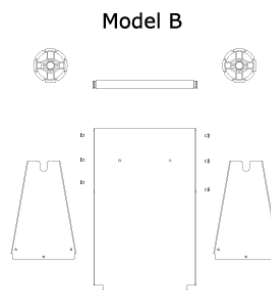


USB Cable

■ Optional Accessories(A or B)



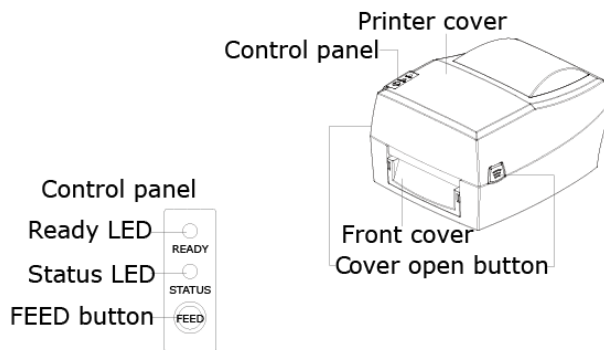
External Roll Mount



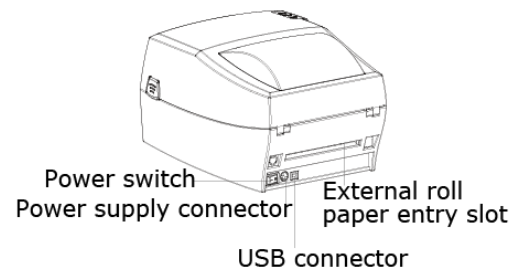
External Roll Mount

1.2 Appearance and Components

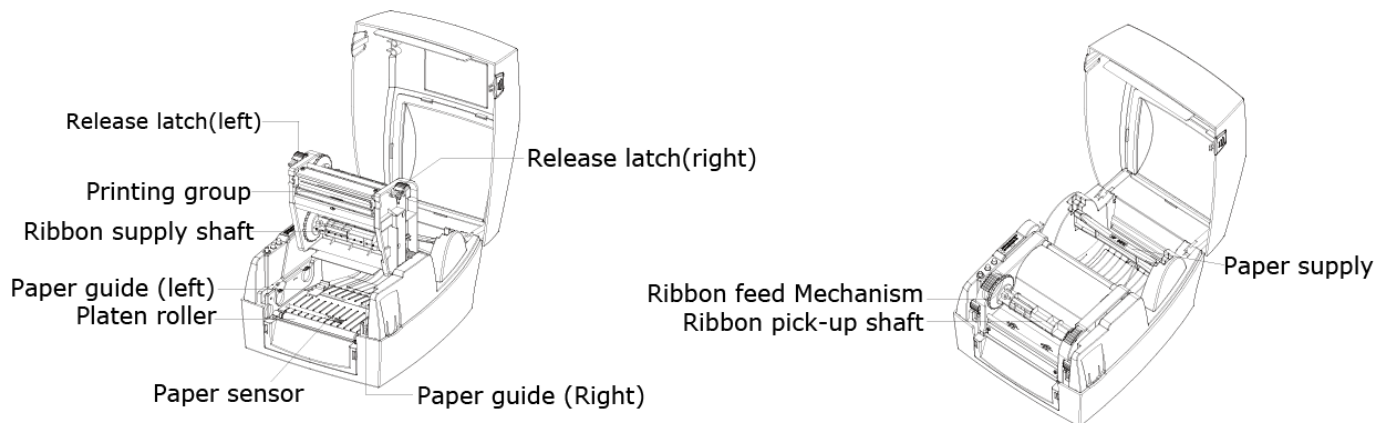
■ Front



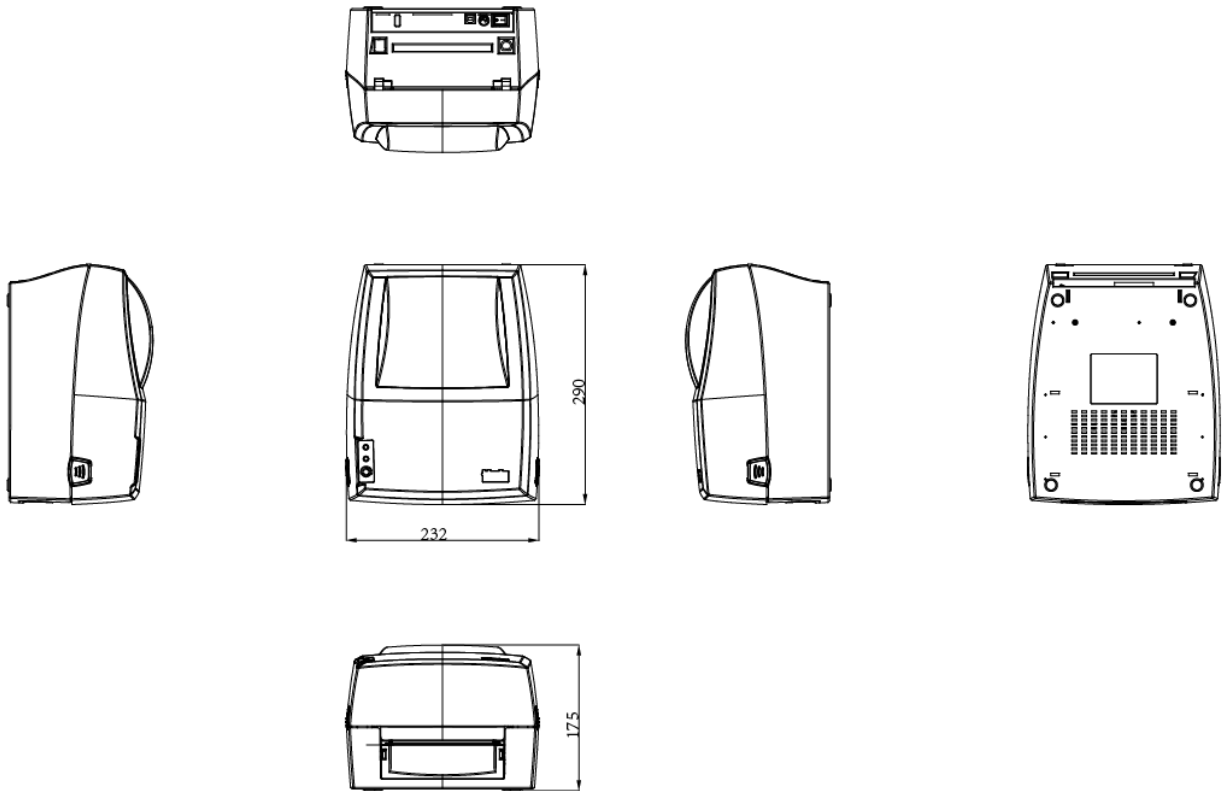
■ Rear



■ Inside



1.3Dimension



CHAPTER 2 SPECIFICATIONS

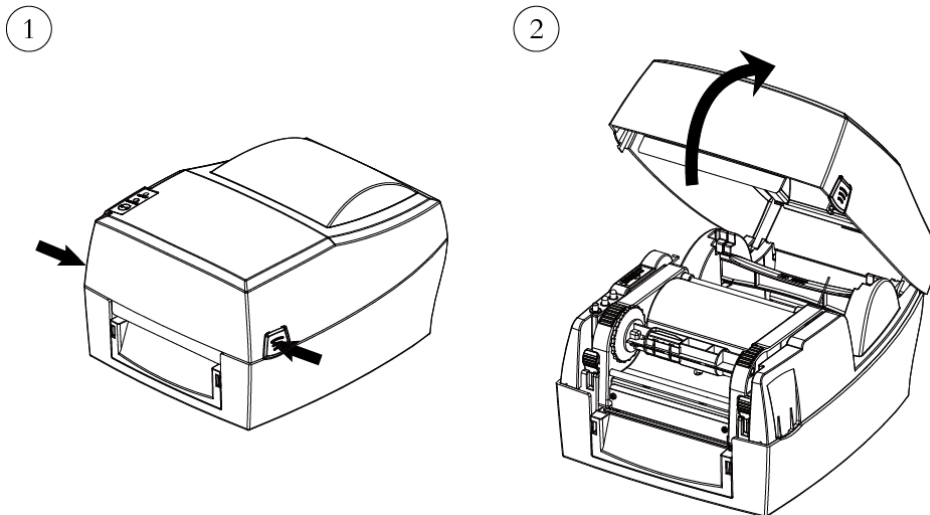
Items		Parameter
Printing	Printing Method	Thermal Transfer/Direct Thermal
	Resolution	203dpi(8dots/mm)
	Printing Speed	102mm/s Max.
	Printing Width	108mm Max.
	Printing Length	15mm - 300mm
Processor		32 bit RISC CPU
Memory	RAM	2MB
	Flash	2MB
Detection	Sensors	Adjustable reflective sensor, Fixed transmissive sensor(Central aligned), Head-up sensor, Ribbon end sensor
Media	Types	Roll-fed or Fan-fed, Die-cut or Continuous label, Tag stock, Continuous receipt paper
	Width	0.79"(20mm) – 4.65"(118mm)
	Thickness	0.003"(80um) – 0.007"(180um)
	Label Roll Diameter	5"(127mm)
	Core Diameter	1"(25.4mm),1.5"(38mm),3"(76.2mm)
Ribbon	Types	Wax, Wax/Resin, Resin
	Width	1.33"(33.8mm) – 4.33"(110mm)
	Length	984'(300m)
	Core Diameter	1"(25.4mm)
Programming Language		TSPL Simulation
Software	Label Design	Bartender UltraLite
	Driver	Windows 2000,XP,Vista7,8,10
Resident Fonts	Bitmap Fonts	8, 12, 16, 24, 32 and OCR A & B 90 ° , 180 ° , 270 ° rotatable. 10 times maximum expandable in horizontal and vertical directions.
	TTF Fonts	Monotype CG Triumvirate™ scalable true type font
Code Pages		DOS437,720,737,755,775,850,852,855,856,857,858,860,862,863,864,865,866, Windows 1250,1251,1252,1253,1254,1255,1256,1257,1258 ISO8859-1,-2,-3,-4,-5,-6,-8,-9,-15 DBCS 932 (JIS), 936(GBK), 949 (Koran), 950(BIG5)
Barcode	1D	Code 39, Code 93, Code 128UCC, Code 128 subset A, B, C, Codabar, Interleave 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC 2 (5) digits add-on, MSI, PLESSEY, POSTNET, RSS-Stacked, GS1 DataBar, Code 11
	2D	PDF417, Maxicode, DataMatrix, QR Code, Aztec
Interfaces		USB
Control Panel		Two bi-color status LEDs:Ready,Status Control key:Feed
Power		AC/DC switching power adapter I/P: AC100-240V, 50/60Hz, O/P: DC 24V/2A, peak 5A
Environment	Operation	41°F (5°C)-104°F (40°C), 30%-85%(non-condensing)
	Storage	-4°F (-20°C)-122°F (50°C), 10%-90%(non-condensing)
Physical Characteristics	Dimension(L*H*W)	285*171*226mm
	Weight	2.26kg(excluding consumables)
Options & Accessories		External Label Roll Holder for 8" (203mm) OD label rolls
Agency Approvals		FCC,CE

CHAPTER 3 INSTALLATION & USAGE

3.1 Media Loading

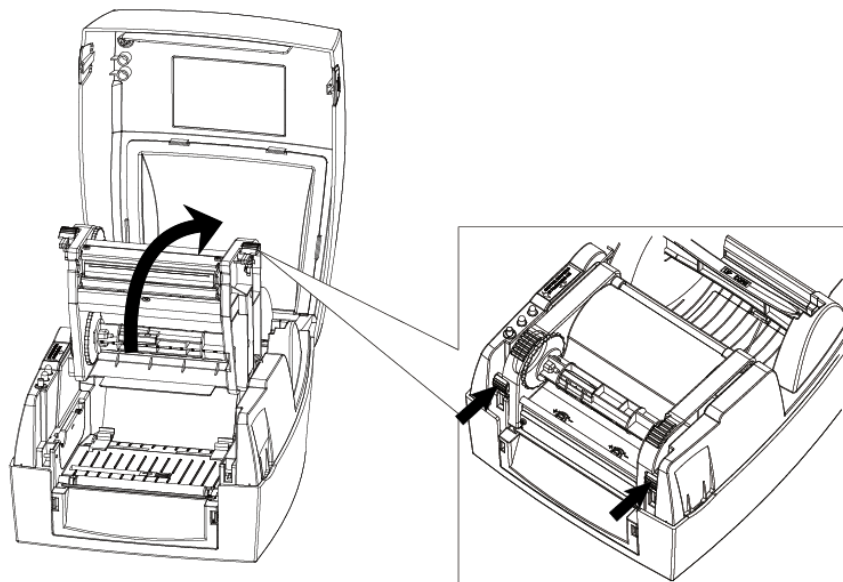
3.1.1 Open the Printer Cover

Push two cover open buttons simultaneously and then lift the cover.



3.1.2 Open The Printing Group

Press the two release latches simultaneously and lift the printing group.



3.1.3 Paper Roll Loading

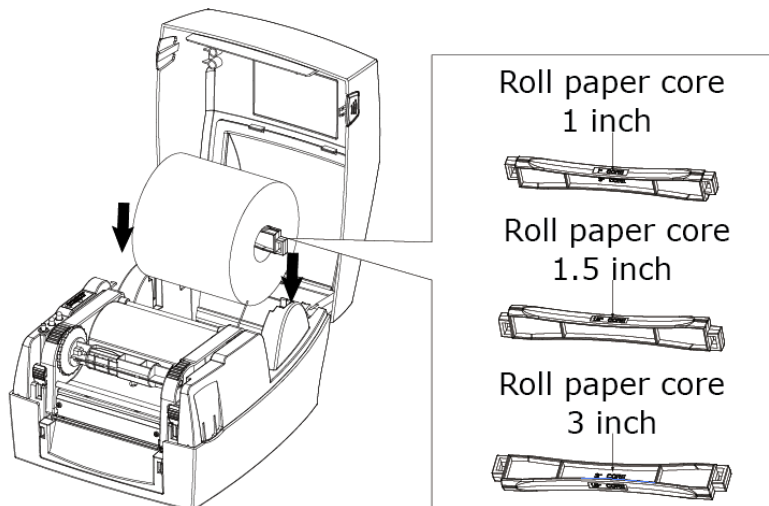
1. Open the printer cover.

2. According to the roll paper core size, adjust the direction of paper supply shaft.

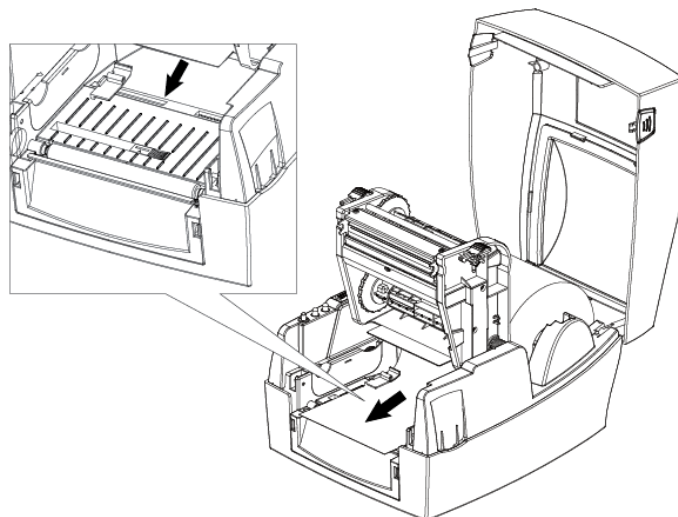
Put the roll paper into the paper supply shaft.

It can support three kinds of roll paper core, there are instruction on the paper supply shaft.

3. Install the roll paper into printer from the top down.



4. Press the two release latches simultaneously and lift the printing group. Pass the paper through paper guides and adjust paper guides according to the paper width.



3.1.4 Ribbon Loading

1. Put the new ribbon into the ribbon supply shaft, and put ribbon supply group into the printing group.

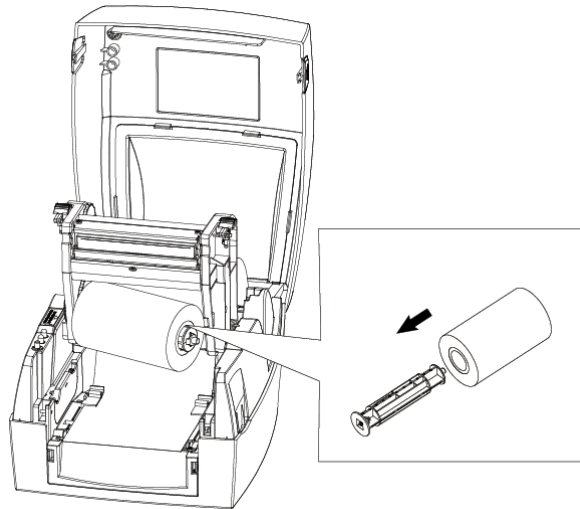


Figure 3-3

2. Put the empty ribbon core into ribbon pick-up shaft, and put ribbon pick-up group into the printing group.

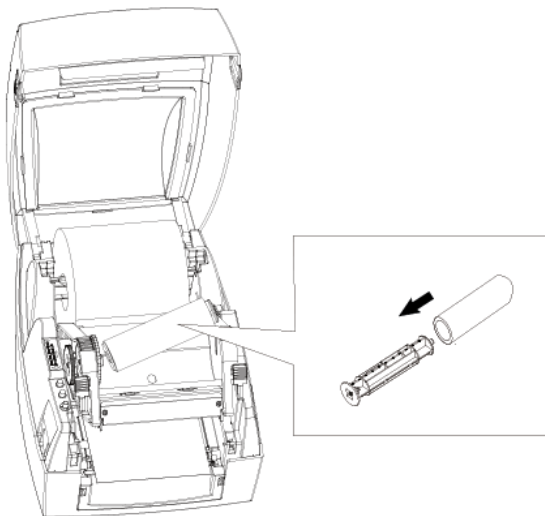
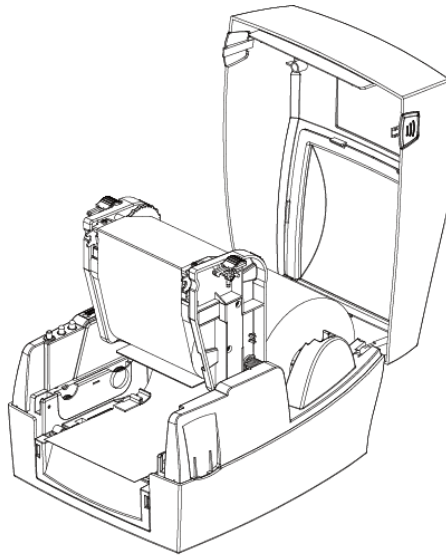


Figure 3-4

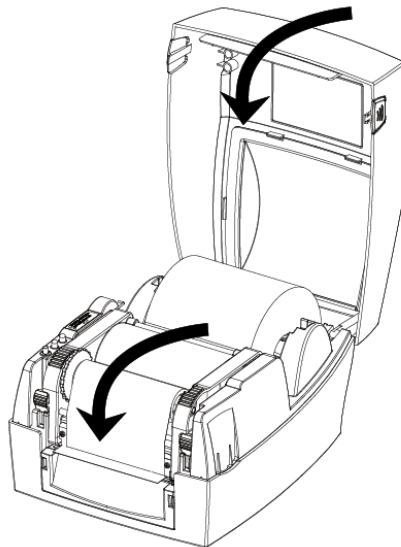
3. Pull some ribbon out, pass through print head.

Stick the front of ribbon to the empty ribbon core and wind the ribbon core 2~3 circles.

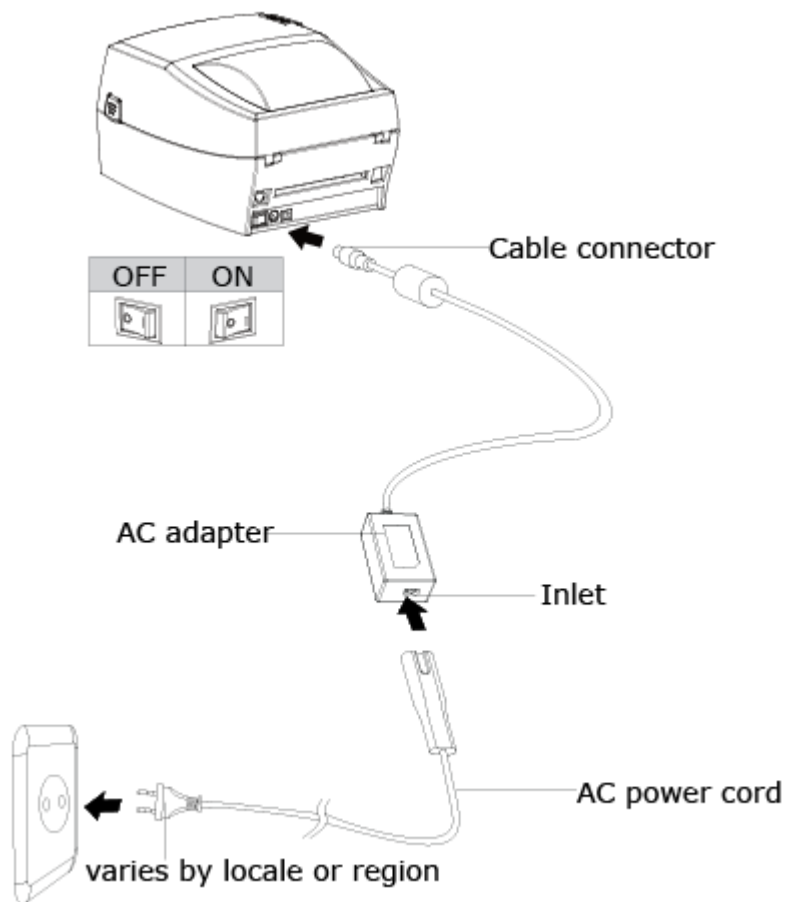
Turn around the ribbon feed mechanism to make it smooth.



4. Press down the printing group and fix it, then close the printer cover.



3.2 Power Connection



1. Make sure the printer is off.
2. Make sure that voltage of the power adapter conforms with voltage of power.
3. Connect the power adapter to the printer power supply connector.
4. Connect the power cord to the power adapter.
5. Connect the other end of power cord to the socket.

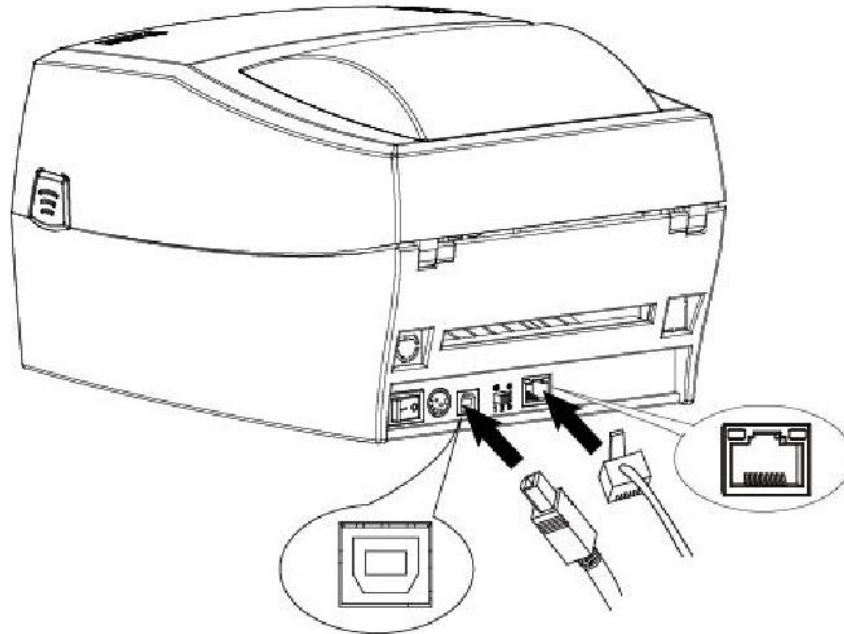
**Caution:**

- Pls. use the specified AC adapter just in case of printer damages and injury.
- Pls. unplug the power cord from the socket if the printer is not use for a long time.

3.3 Interface Cable Connection

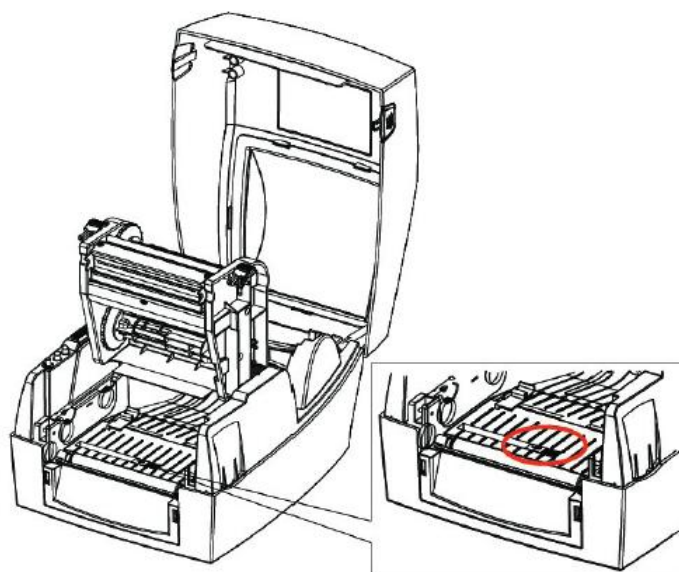
The standard for the printer's interface cable is below:

- USB B-Type cable
- Ethernet cable

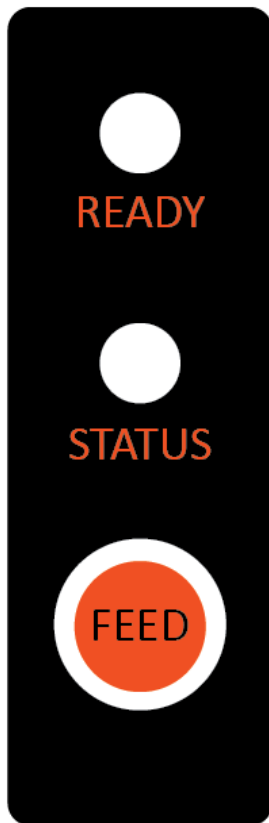


1. Make sure the printer is off.
2. Please plug in the cables
Insert the RJ-45 cable into Ethernet interface;
Insert the USB B-Type cable into the interface;

3.4 Label Detection



3.5 Control Panel



1. READY and STATUS indicators

Show the printer's information via different colors(red & kelly) and LED status(on and flash)

2. FEED button

① Feed paper

The printer will auto-feed the paper to the specified points according to the type of paper used. When use continuous paper, the printer will feed a fix distance, and while use label paper, the printer will feed the whole label.

②Pause

Press the [FEED] button when it is printing, the present printing pauses; repress the [FEED] button, the printer continue to print.

Caution: If the printer cannot locate the label, please refer to section 3.8 for label detection detail.

LED indicators

READY		STATUS		Description	Solution
RED	KELLY	RED	KELLY		
X	X	☀	X	Print head is not close or close properly	Open the print head and close again
☀	X	X	X	Print head is overheat	After it cool down, it continues printing
X	X	X	X	Paper detection fail	Print head is not close or close properly
X	X	●	X	Out of paper	Please change paper
●	X	●	X	Abnormal paper feed	Paper jam, label gap detection, paper drops in the roller etc.
X	X	X	☀	Do not pass RAM test	Contact the dealer
●	X	X	X	Ribbon use up	Change the new ribbon
X	●	X	X	Printer is ready	
X	X	X	●	Pause	

3.6 Basic Operation

3.6.1 Power On/Power Off

Press "O" to power off the printer. Press "I" to power on the printer.

3.6.2 Feed Paper

Pressing FEED button, printer will feed paper to the specified position according to the paper type. When using continuous paper, pressing FEED button once will feed a fixed distance. When using label paper, pressing FEED button once will feed a whole label paper.

3.6.3 Print Density Setting

The printer's density can be adjusted by two methods.

Software: Windows driver or printer utility tool .

Firmware: Adjust the density via the density control button at the back.

The print density is decided by software and firmware together.

There are 5 levels of software print density, from 0 to 4, and 3 level of firmware density button. They are low(1), medium(2) and high(3).



Software and firmware density can be check by the 'self-test page'.

3.7 Self-test Page

The self-test checks the printer's current settings, status and whether the printer has any problem. The users can print out the 'self-test page' through two methods.

1. Print out 'self-test page'

- Check whether the paper/ribbon has been installed on the printer, whether the power is connect.
- Make sure the printer is off.
- Pressing [FEED] button and power on, after the READY indicator is on with yellow, loosen [FEED] button and the printing process begins.

2. Printing of windows driver program

- Install the Windows Driver program. (Please refer to the Windows Driver Manual)
- Please set the "interface" as the type you use.
- Use the Windows Driver Program to print out the "Self-test page".

3.8 Label Learning(Calibration)



Note: *Users must carry out the calibration under those conditions below:*

- The first time to use the printer since installation;
- The first time to use the printer since sensor cleaning;
- Reuse the printer that has not been used for a long time;
- Change a new type of media;
- Printer cannot recognize the mark;
- Huge change of operating environment;

Label Learning Method:

- 1) Manual label learning
- 2) Auto label learning(See more information in<HPRT Utility Tool Manual>)

Manual Label Learning

■ The First Method

When printer is ready, hold down the **【FEED】** button until the Green Indicator flash twice and then release the button, printer start to do the calibration; When printer do the calibration under Continuous Media Mode, the calibration is invalidate.



NOTE: *In order to save paper, you can reload the blank label which is used after the label learning.*

Auto label learning

Carry out label learning by printer utility tool. See more information in<CST Utility Tool Manual>.

CHAPTER 4 INTERFACE

4.1 USB Interface

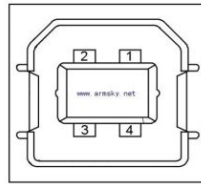
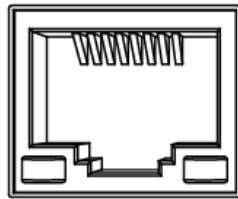


Figure 4-1

PIN	SIGNAL NAME
1	VBUS
2	D-
3	D+
4	GND

4.2 Other Optional Interface

■ Ethernet Port



PIN NO.	Signal Name
1	TX+
2	TX-
3	RX+
4	-
5	-
6	RX+
7	-
8	-

CHAPTER 5 PRINTER CLEANING

Adhesives and coatings of the media can transfer onto the printer parts over time along the media path including the thermal print head and media sensor. This build-up can accumulate dust and debris. Failure to clean the print head, media path, and media sensor could result in print quality, worst more of inadvertent loss off labels, label jams and possible damage to the printer.

※ CAUTION

- Make sure to turn the printer power off prior to cleaning.
- As the print head gets very hot during printing, if intending to clean the print head, turn the printer power off and wait approximately 2~3 minute before commencement.
- When cleaning the print head, take care not to touch the heated portion of the print head.
→ Printer Head is susceptible to damage from static electricity, etc.
- Take care not to allow the print head to become scratched and/or damaged in any way.

5.1 Cleaning Media Sensor

Debris or dirt on the paper sensor can cause a miss-read or unstable detection of the label gap. Clean with a cotton bud dampened with alcohol.

5.2 Cleaning Thermal Print Head

Thermal Paper stock on the print head, which degrades print quality. Clean the print head with methanol or isopropyl alcohol and a cotton bud. Do not touch the heating elements with your fingers.

- 1) Open the Printer Cover and then use the cleaning pen to clean the head in the direction from the center of the head to two sides.
- 2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min) and the printer has completely dried.
- 3) ※ Perform the cleaning process each time the paper roll is replaced to prevent print quality deterioration.

5.3 Cleaning Roller and/or Paper Path

- 1) Open the printer cover and then remove the paper.
- 2) Remove any dust or foreign substance using dry cloth or cotton swab.
- 3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.
- 4) After cleaning the parts, do not use the printer until the alcohol evaporates completely (1~2 min) and the printer has completely dried

※ Clean the parts whenever print quality or paper detection degraded.