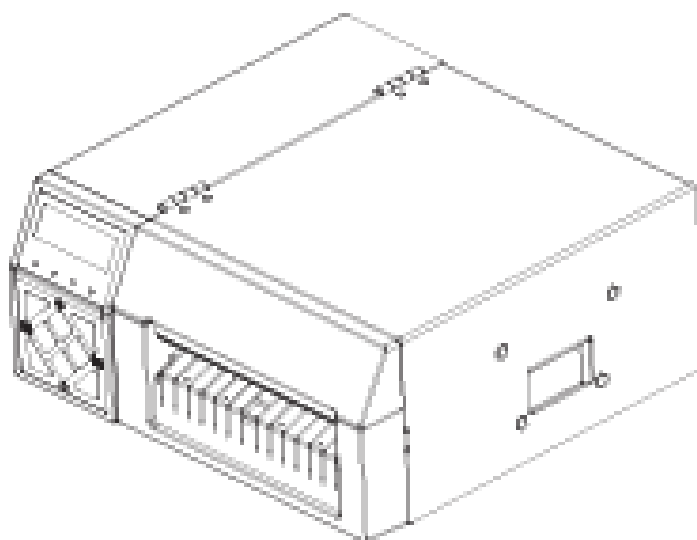


Label Printer

User Manual

HD2000



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REVISION RECORDS

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■ Statement

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Printed in China

1.0 Version

■ Warnings



This must be complied with in order to avoid any damage to the human body and the equipment.



This is showing the important information and tips for the printer operation.

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) Wipe your hand if it is wet before you insert into or remove from the socket.
- 3) Do not drag the connecting cable for unplugging from the socket, it may damage the cable or printer may out of order.

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(41℃) or too low(5℃) temperature and too high(90%) or too low(10%) 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 -40℃ to 60℃, 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

This manual has been prepared with utmost care and attention to detail but may contain certain errors and/or omissions. Our company is not legally liable for any damages resulting from the use of this manual information. Our company and its affiliates are not legally liable (United States excluded) for any damages, loss, costs, and/or expenses that result from the breakdown, malfunction, and/or misuse of the product due to violation or neglect of the operation and maintenance information and instructions provided by the our company, as well as from the unauthorized alteration, repair, and/or modification of the product by the user and/or third party. Our company is not legally liable for any damages and/or issues resulting from the use of options and/or parts that are not our authentic or authorized products.

Note: Due to the continuous update of product specification, accessories and program, 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.

CHAPTER 1 INTRODUCTION

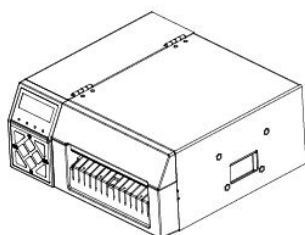
1.1 Packing List



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.

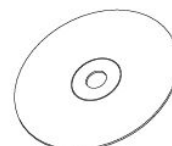
■ Standard accessories



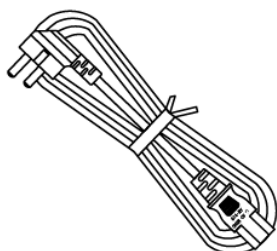
Printer



Quick Start Guide

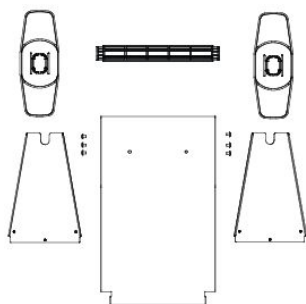


CD

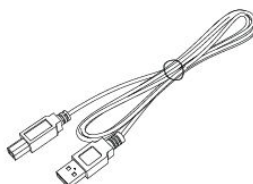


Power Cord
(Varies by local or region)

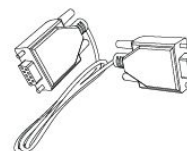
Optional accessories.



External Roll Mount

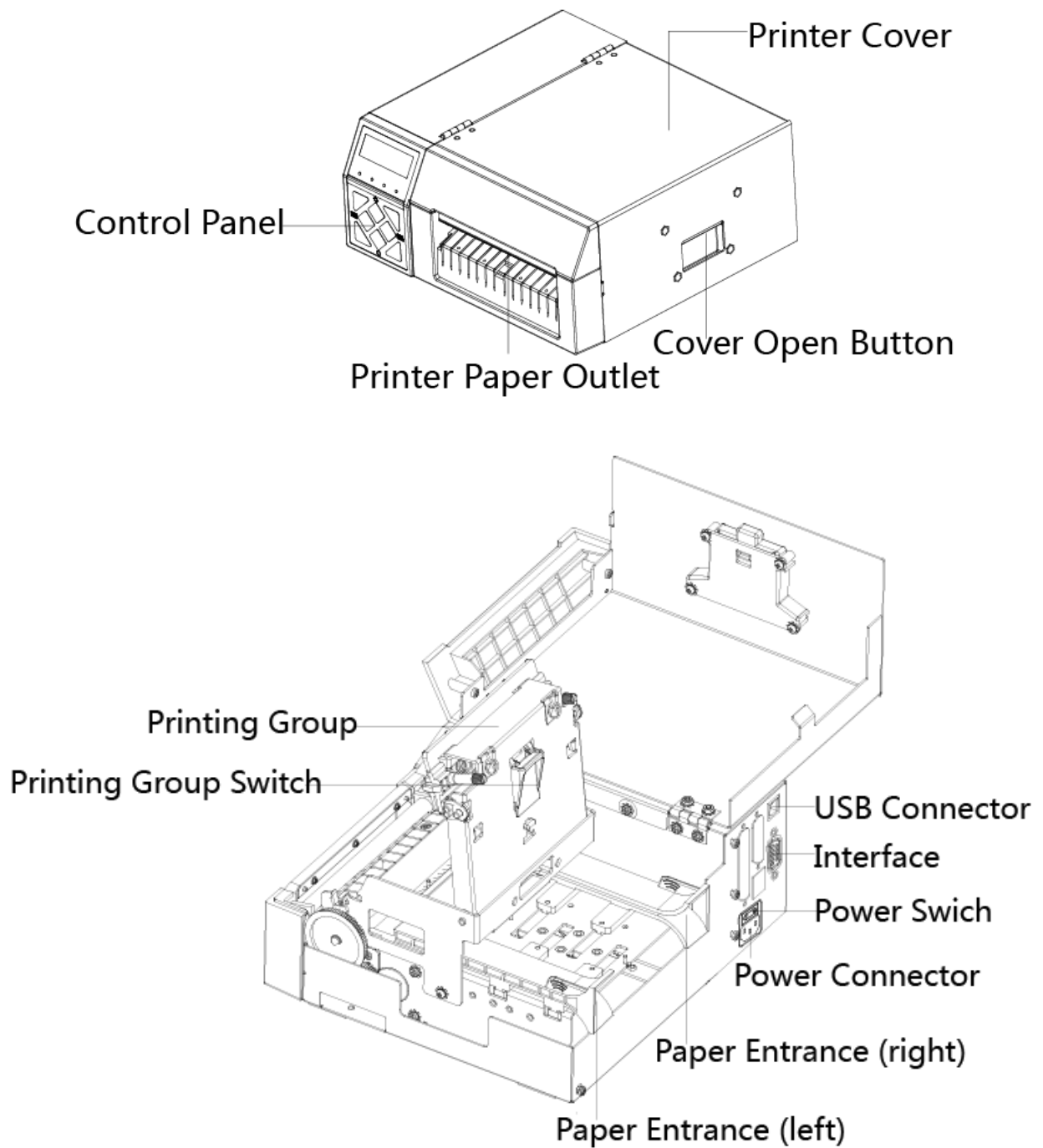


USB Cable



Interface Cable

1.2 Appearance and Components



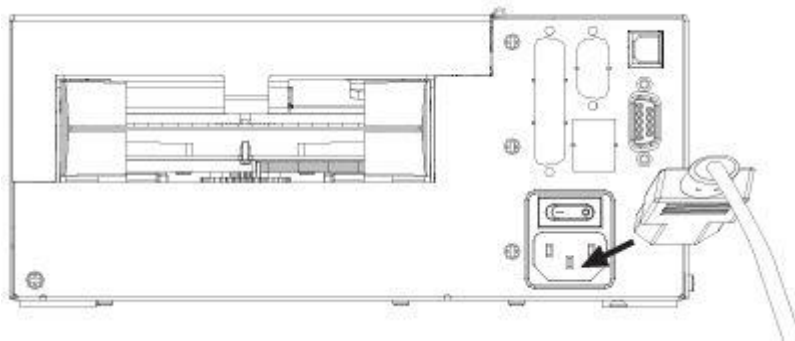
CHAPTER 2 SPECIFICATIONS

Items		Parameter
Printing	Printing Method	Thermal Line Printing
	Resolution	203dpi(8dots/mm)
	Printing Speed	180mm/s Max.
	Printing Width	104mm Max.
	Printing Length	300mm
Processor		32 bit RISC CPU
Memory	RAM	2MB
	Flash	2MB
Detection	Sensors	Out of paper detection, Gap detection, Notch detection, Black mark detection, TPH temperature detection
Media	Types	Fan-fed or Roll-fed, Die-cut or continuous label
	Width	1.5"(38mm) – 4.64"(118mm)
	Thickness	0.003"(60um) – 0.01"(250um)
	External Label roll diameter	8"(200mm) Max.
	Core diameter	0.5"(12.7mm) Min.
Programming Language		TSPL
Software	Label Design	Bartender Ultralite
	Driver	Windows 2000,XP,Vista,8,10
Resident Fonts	Bitmap Fonts	6, 8, 12, 16, 32, OCR A & B. 90°, 180°, 270° rotatable and 10 times expandable in horizontal and vertical directions
Barcode	1D	Code 39, Code 93, EAN 8/13 (add on 2 & 5), UPC A/E (add on 2 & 5), I 2 of 5 & I 2 of 5 with Shipping Bearer Bars, Codabar, Code 128 (subset A, B, C), EAN 128, RPS 128, UCC 128, UCC/EAN-128 K-Mart, Random Weight, Post NET, ITF 14, China Postal Code, HIBC, MSI, Plessey, Telepen, FIM, GS1 DataBar, German Post Code, Planet 11 & 13 digit, Japanese Postnet, I 2 of 5 with human readable check digit, Standard 2 of 5, Industrial 2 of 5, Logmars, Code 11, Code 49, Cadablock
	2D	PDF417, Data matrix code, Maxi Code, QR code, Micro PDF417, Micro QR code, Aztec code
Code Pages		DOS437,720,737,755,775,850,852,855,856,857,858, 860,862,863,864,865,866, Windows1250,1251,1252,1253,1254,1255,1256,1257,1258 ISO8859-1,-2,-3,-4,-5,-6,-8,-9,-15 DBCS 932 (JIS), 936(GBK), 949 (Koran), 950(BIG5)
Interfaces		USB & RS232C
Control Panel	Display	OLED
	Status LED	Standby, Paper-out, Error, Power
	Button	Up, Down, Return, Enter, Menu, Pause, Feed and Backfeed
Power	Power Input	AC 100-240V ~ 50/60Hz
Environment	Operation	41°F - 104°F (5°C-40°C),30% -85% (no condensing)
	Storage	-4°F - 122°F (-20°C-50°C),10% -90% (no condensing)
Physical Characteristics	Dimension(L*H*W)	227mm*211.6mm*99.7mm
	Weight	3.54kg(exclude consumables)
Options & Accessories		External label roll holder for 8" OD label rolls
Agency Approvals		CCC,FCC,CE

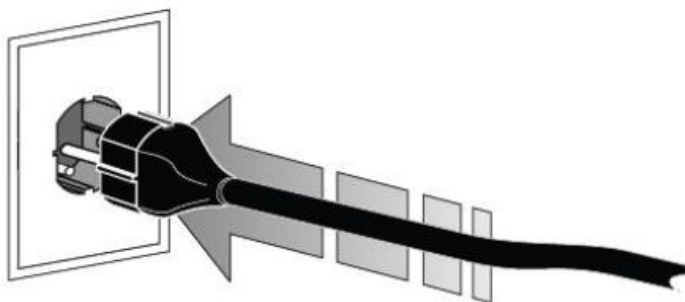
CHAPTER 3 INSTALLATION & USAGE

3.1 Power Connection

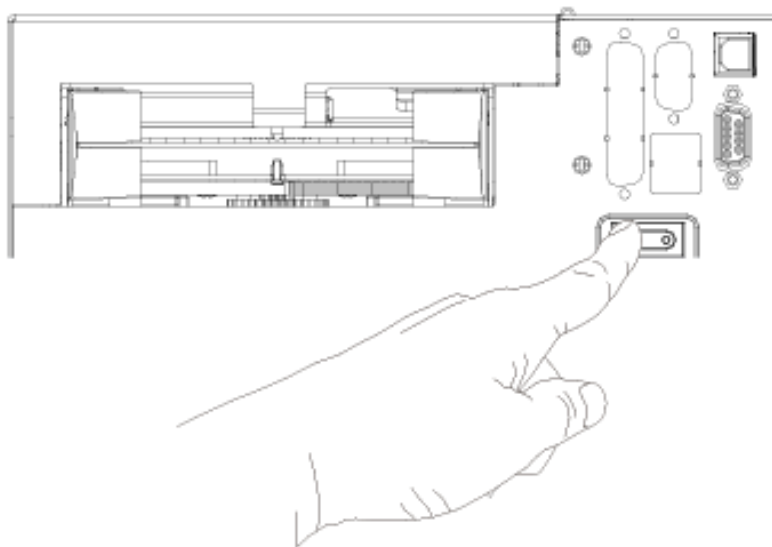
1. Plug the female end of the A/C power cord into the A/C power connector on the back of the printer.



2. Plug the male end of the A/C power cord into an appropriate power outlet.



3. Turn on the printer.



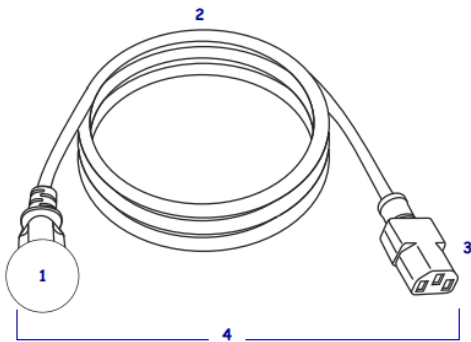
When the printer is on, the printer shows its status through the control panel's indicators. (Refer to "3.7 LED Indicators")

Caution For personnel and equipment safety, always use an approved three-conductor power cord specific to the region or country intended for installation. This cord must use an IEC320 female connector and the appropriate region-specific, three-conductor grounded plug configuration.

Depending on how your printer was ordered, a power cord may or may not be included. If one is not included or if the one included is not suitable for your requirement, see figure 3-1 and refer to the following guidelines.

- The cord must be rated for a minimum of 10A, 250V.
- The chasis ground(earth) must be connected to ensure safety and reduce electronic magnetic interference.

Figure 3-1: Power cord specification



1	AC power plug your country—This should bear the certification mark of at least one of the known international safety organizations. (Figure 3-2)
2	3-conductor HAT cable or other cable approved for your country.
3	IEC320 connector—This should bear the certification mark of at least one of the known international safety organizations. (Figure 3-2)
4	Rating 10 Amp minimum, 250VAC.

Figure 3-2: International Safety Organization Certification Symbols

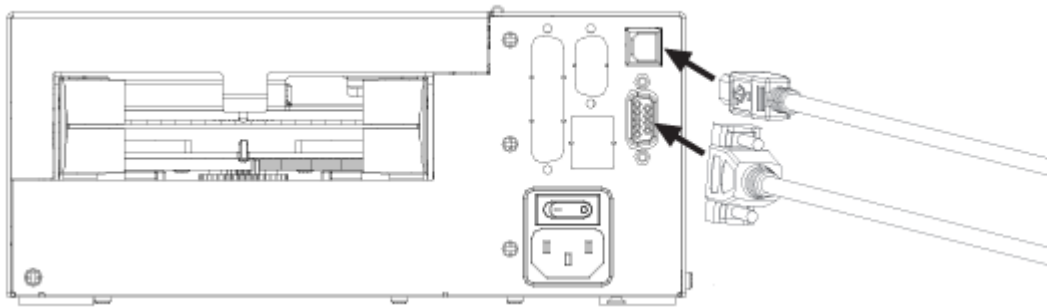


3.2 Interface Cable Connection

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

- USB B-Type cable
- RS-232C cable

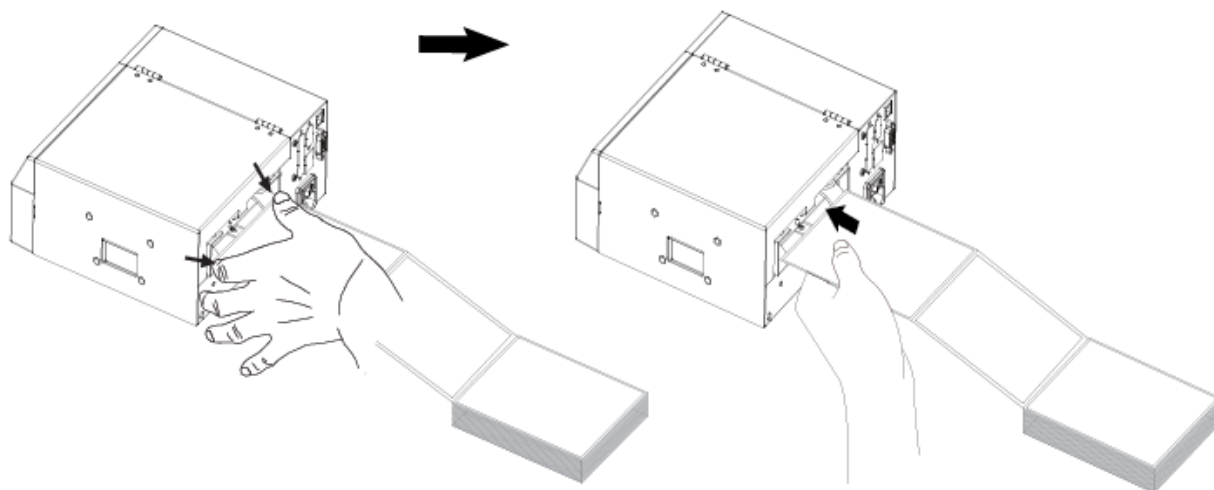
Please follow the graph instruction to connect the cable.



1. Make sure the printer is off.
2. Please plug in the cables
Insert the RS232 serial cable into interface
Insert the USB B-Type cable into the interface

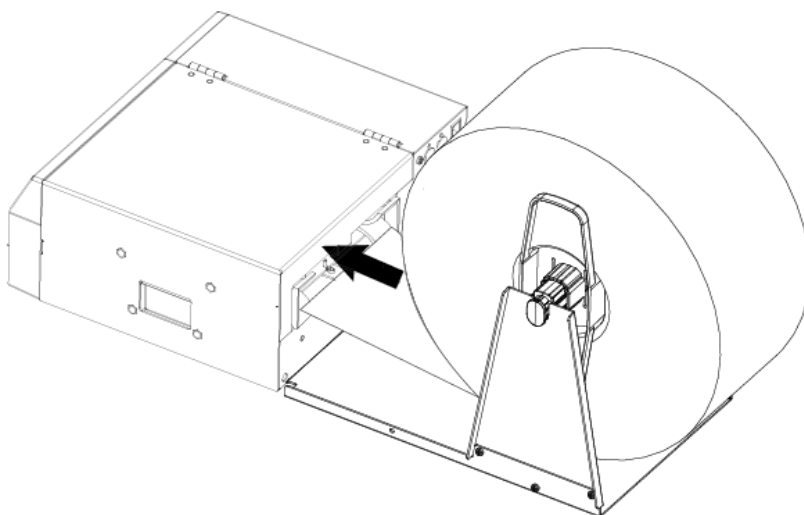
3.3 Media Loading

1. Put the fan-fold media into the entry slot, adjust the label holder to fix the media.



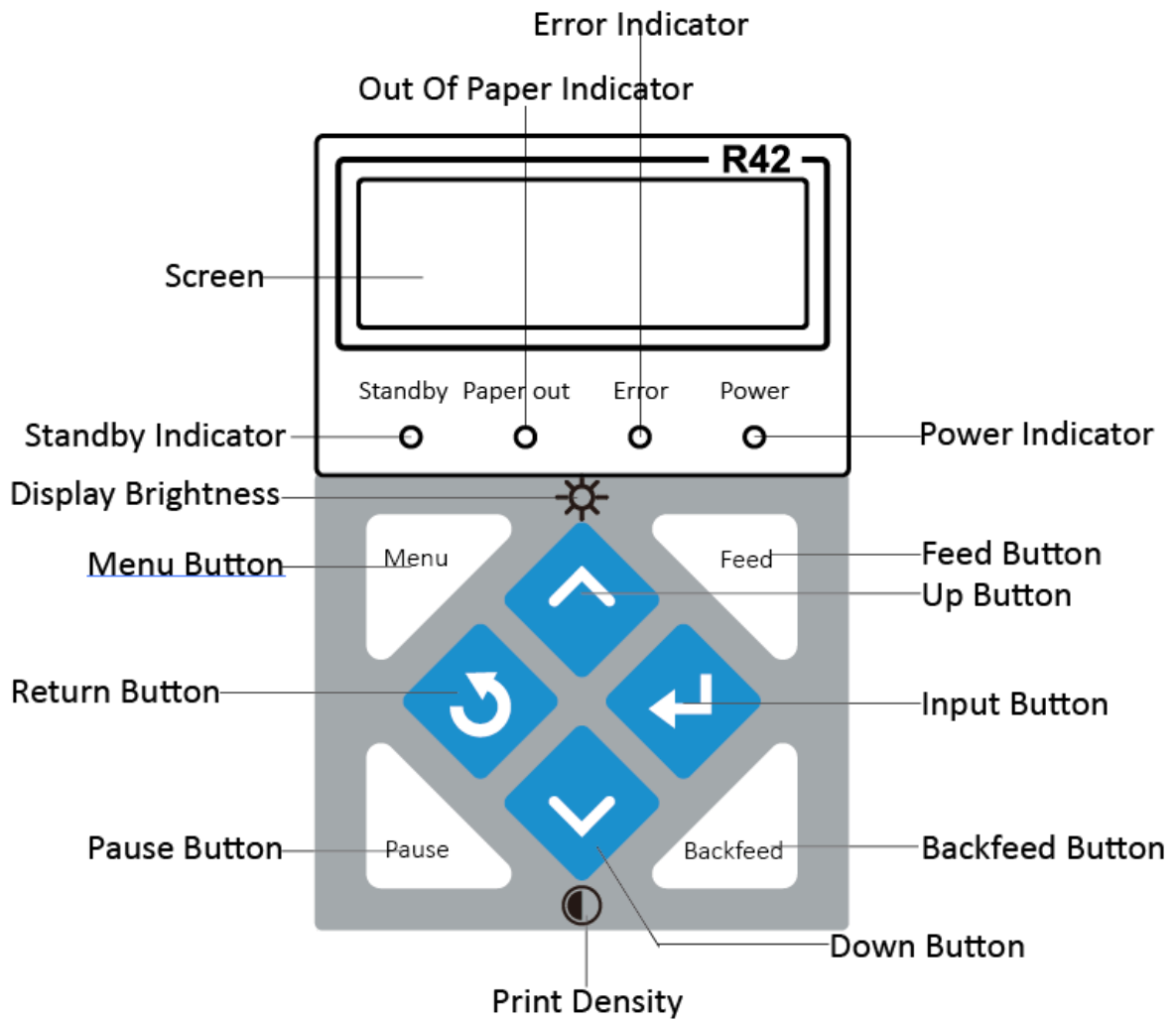
Caution: The media should be put in position, so that the paper could automatically feed.

2. Or you can set up an external roll mount for media loading.
Depending on how your printer is ordered, your printer may or may not include an external roll mount. Please refer to External Paper Roll Stand Manual if needed.



Note: this printer does not need to open the paper cover for loading media. However when paper jams you can open the cover and pull out the media and repeat the step 1 when the cover closes.

3.4 Control Panel



3.4.1 Button Function

Menu	Enter the menu when standing by.
Feed	① When use continuous label media, printer will automatically feed a standard distance; ③ Hold down Feed Button when power on, release the button after hearing the a buzzer sound, printer configuration is printed out
Pause	Press this button when printer is working, the printing job stops and stands by(flash); repeat this button, the printing continues.
Backfeed	Backfeed current label
Up Button	① Hold down this button when standing by to enter the Brightness Sub-menu, the screen brightness can be set up; ② Choosing items when in “Menu”. ③ Choosing items when in “Parameter Setting”.
Down Button	① Hold down this button when standing by to enter the Darkness Sub-menu,, the darkness can be set up;The print darkness turns down with pressing this button. When the density reaches the lowest you hear a long buzzer. ② Choosing items when in “Menu”. ③ Choosing items when in “Parameter Setting”.
Enter	① Confirm current setting/choice. ② Move the cursor under “Parameter Setting”
Return	Return to last menu.

3.4.2 LED Indicators

LED	Status LED	Status
Standby	On	The printer stands by and ready to print
Out Of Paper	Flash	The printer is out of paper.
Error	Flash	An error occurs, the speed/times of flash indicates different error status.
Power	ON	The power is normal
	Flash/off	The power is abnormal or there is a problem of circuit

3.5 Parameter Setting

Users are able to set up parameters via two methods below ,such as baud rate, paper type, print density, print width etc.

3.5.1 Utility Tool

There is a utility tool software that allows users to set up basic parameters, such as codepage, self-test print, please refer to Utility Tool Manual.

3.5.2 Setting Manually

■ Menu Structure

Main Menu	Sub-menu	Description
1. Print Parameter	1.1 Print Speed	Set up printing speed
	1.2 Darkness	Set up printing density
	1.3 Gap Sensor	Set up transmissive sensor's location
	1.4 Print X Offs	Adjust the start point horizontally
	1.5 Print Y Offs	Adjust start point vertically
	1.6 Back Y Offs	Locate regular tear and cut position
2. User Setup	2.1 Language	Change system language
	2.2 Brightness	Change brightness of back-light
	2.3 Buzzer	Change the tone of buzzer
	2.4 Default	Recover to default factory setting
	2.5 Password	Set the password of Menu Setting
	2.6 Update Firmware	Upgrade the version of firmware
3. Calibration	3.1 Label Learning	Label learning
4. Test	4.1 Print configuration	Print the printer configuration
	4.2 Print test	Print the self-test page
	4.3 Debug Mode	Print the original font of printer in order to look into the error.
5. Interface	5.1 RS-232	Serial interface setting
6. Information	6.1 Serial NO.	Printer's serial number
	6.2 Model Name	The model name of printer
	6.3 Firmware	The firmware version of printer
	6.4 TPH Printed Length	The already printed length of printer
	6.5 Date	The produce date of printer

■ Parameter Settings

1. Print Parameter

Parameter	Description	Default
1.1 Print Speed	Adjust the printing speed Options: (2-8)ips	5ips
1.2 Darkness	Adjust print density Change print quality through change of printer heat. Options:(1-7) level	2
1.3 Gap Sensor	Adjust the photo interrupter's location Options:Side Gap, Central Gap	None
1.4 Print X Offs	Adjust the start point horizontally Options: (+00~ +89) dots	00
1.5 Print Y Offs	Adjust the start point vertically Options: (+00~ +89) dots	00
1.6 Back Y Offs	Set stop position of label Options: -89~+89dots	00

2. User Setup

Parameter	Description	Default
2.1 Language	Change menu language (Language: English, Chinese Simplified)	English
2.2 Brightness	Adjust the brightness of back-light Options: 0~3("0"means close)	1
2.3 Buzzer	Adjust the buzzer volume Value: 0~3	1
2.4 Default	Set the parameters to factory default	None
2.5 Password	Set the password to protect the parameters Password value range: 0000~9999	1001
2.6 Update Firmware	Upgrade the version of firmware	None

3. Calibration

Parameter	Description
3.1 Label learning	Label calibration

4. Test

Parameter	Description
4.1 Print configuration	Print the printer configuration
4.2 Print test	Print out the pre-download test page to check whether the printer can work normally.
4.3 Debug Mode	Print the original font of printer in order to look into the error.

5. Interface

Parameter	Description	Default
5.1 Serial Interface	Baud Rate Options: 9600~115200	9600
	Parity Options: None, Odd, Even	None
	Data bits Option: 8,9 bits	8 bits
	Stop bits Options: 1,2	1

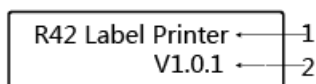
6. Information

Parameter	Description
6.1 Serial NO.	14 Serial number
6.2 Model Name	R42
6.3 Firmware	V1.0.8(Depends on the printer you buy)
6.4 TPH Printed Length	The printed length of printer
6.5 Date	The produce date

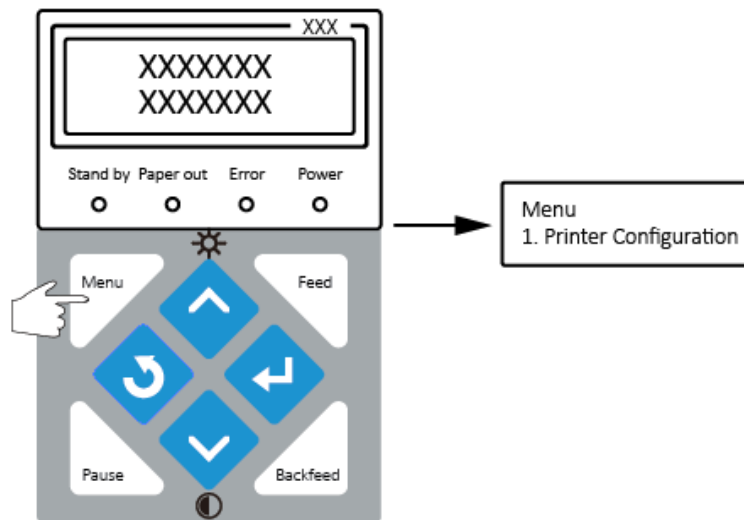
■ Screen

There is a screen within the control panel, you can view the printer status or change its printing parameter. In follow, you will have a quick study of menu browsing and how to change the single parameter.

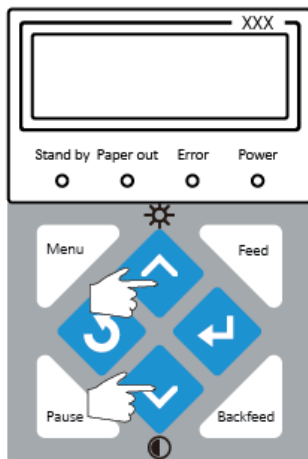
Standby Display



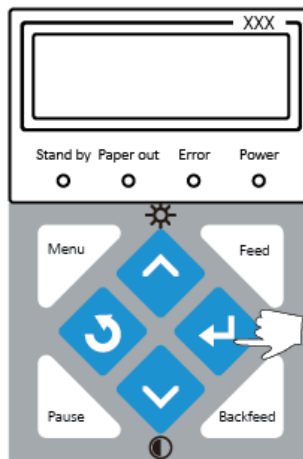
1	Printer Information
2	Software Version(depends on the printer you buy)

Main Menu Printer handling and parameter setting

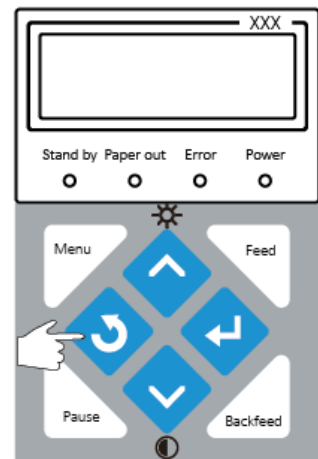
Enter the main menu when standing by



Press Up/Down button to change selection



Enter the sub-menu when press 'Enter'



Back to last menu with once; two times to back standby display.

3.6 Self-Test

3.6.1 Print Self-Test

The self-test checks the printer's current settings, status and whether the printer has any problem.

1. Make sure the power is connecting and paper is loading properly.
2. Make sure the printer is off and top cover close properly. .
3. Pressing the paper feed button and power button simultaneously turns the printer on. The printer is ready to receive data as soon as it completes the self-test.

3.6.2 Printing Of Windows Driver Program

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

3.7 LED Display

Standby	Paper out	Error	Power	Description
On	-	-	On	The printer is ready to print
-	Flash	-	On	Out of paper
-	-	-	On	Power is normal
-	-	Flash	On	Print head opens

3.8 Buzzer

Buzzer	Status
Once	Print self-test page
Three times	Out of paper
Three times	Printer cover is close improperly
Three times	Gap sensor abnormal

3.9 Label Learning



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;

When printer is ready, hold down  'Enter Button' for about 2s and then release the button, printer starts to do the calibration and feeding 3 labels which means 2gaps; Users could also do the calibration via menu operation.



Note: After the calibration, users could open the printer cover to pull back the learned paper in avoid of paper wasting.

CHAPTER 4 INTERFACE

4.1 USB Interface

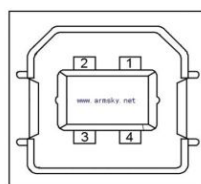


Figure 4-1

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

4.2 Serial Interface

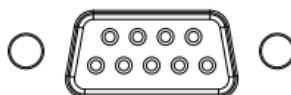


Figure 4-2

PIN	SIGNAL NAME
1	-
2	TXD
3	RXD
4	-
5	GND
6	RTS
7	CTS
8	RTS
9	-

CHAPTER 5 PRINTER CLEANING

Print quality might be degraded by dust, foreign substance, adhesive substance, or other pollution materials stuck in the printer head or inside the printer.

When dirty, clean the print head as follows:

※ CAUTION

- Make sure to turn off the printer prior to cleaning.
- As the print head gets hot during printing, intending to clean the print head, turn the printer 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.
→ Print Head is susceptible to damage from static electricity, etc.
- Take care not to allow the print head become scratched and/or damaged in any way.

5.1 Cleaning Head

- 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.

5.2 Cleaning Sensors, 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.