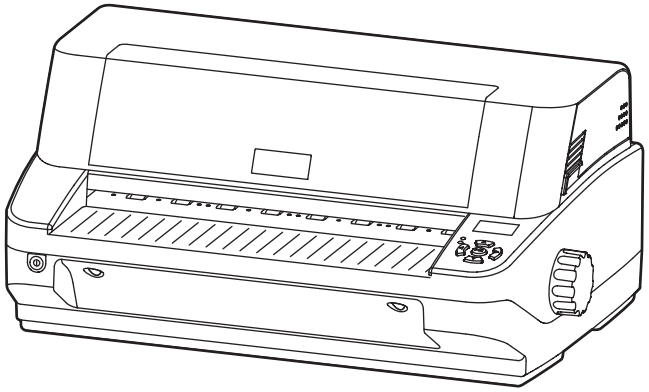
Jolimark

User's Manual

BP-1000K (Model B)



Important Safety Instructions

1. Read all of these instructions carefully and thoroughly and save them for later reference.
2. Follow all warnings and instructions in the manual as well as marked on the product.
3. If the printer has been used just now, please not touch the print head for overheating.
4. Do not put your fingers under the tractor cover of the left and right tractor (optional) when install the tractor paper.
5. Unplug this product from the power outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
6. Do not use this product near water.
7. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to you or the product.
8. Slots and openings on the cabinet and the back or bottom are provided for air ventilation. To ensure reliable operation of the product and to protect it from overheating, do not block or cover these openings. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heater. This product should not be placed in a built-in installation or kiosk stand unless proper ventilation is provided.
9. This product should be operated from the type of power source indicated on the rating label. If you are not sure of the type of power available, consult your local dealer or an electrician.
10. This product should never be placed near or over a radiator or heat origin, and should avoid of direct sunshine.
11. Do not allow anything to rest on the power cord. Do not locate this product in a location so that the power cord will be walked or driven over or on.
12. Do not locate this product where the cord will be walked on. When the cord or the plug is mangled, please stop using and get a new one replaced. Make sure the old one is far away from the printer, so it can avoid someone who does not know the inside story getting damage.
13. Be sure to use the specified power source. Connection to an improper power source may cause fire or shock.
14. Do not use in locations subject to high humidity or dust levels. Excessive humidity and dust may cause equipment damage or fire.
15. Never push objects of any kind into this product though cabinet slots as they may touch dangerous voltage dots or short out parts.
16. Don't remove the printer's out-cover and repair the printer. When needed, call or take it to the professional.
17. To ensure safety, please unplug this product prior to leaving it unused for an extended period. The wall outlet you plan to connect to should be nearby and unobstructed.
18. Unplug this product from the power outlet and leave servicing to qualified service personnel under the following conditions:
    A. When the power cord or plug is damaged or frayed.
    B. If liquid has been spilled into the product.
    C. If the product has been exposed to rain or water.
    D. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since importer adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    E. If the product has been dropped or the cabinet has been damaged.
    F. If the product exhibits a distinct change in performance, indicating a need for service.

Note: The contents of this manual may be changed without prior notice.

★ **All parts of the printer can be recycled. When it is abandoned, Please contact us when you abandon it.**

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Chapter 1 Product Features

Thank you for choosing Jolimark passbook printer. The printer is a product of 24 pin high quality 110 column multifunction passbook/certificate/report printer, it can fulfill your printing requirement.

The printer has the specialties as follows:

- **Auto fit paper thickness function**

  Use floating flat platen, have the function of Auto fit paper thickness which makes the printing quality better. Its maximum thickness can reach 3mm.

- **Have the function of auto Load/Eject and auto skew adjustment**

  Cut sheet can feeding the paper in the front of the printer and auto load to the printing position. Also it has the function of Auto Skew Adjustment. If the paper is in less than 20 ° skews, it will auto adjust. The tractor paper is installed on the tractor (optional). You can control it by pressing button **Load/Eject** or **LF/FF**, so that the paper can auto feeding to the printing position. After printing, the paper would eject from the front of printer which make it easy to tear.

- **Auto detecting paper margin function**

  It can base on the position of the paper to adjust the printing position, which avoids it printing out of the paper.

- **Any position to feed paper and printing function**

  Adopt professional design of auto fit paper insert. The printer can fulfill any position to feed paper and printing function in the printable area.

- **One button to control the switch in paper modes**

  You only need to press"the paper switchover" button which make it switch in 4 paper modes. It is more intelligence, convenience and simple.

- **Paper tear function**

  This function can make the tractor paper auto feed to the paper tear position, so that it can tear paper accurately after printing.

- **Function of paper eject**

  With this function the user can easy operate it by the control panel to eject the cut sheet and tractor paper from the printer.

- **Flat push paper feed mechanism which solve the problem of paper jam**

  Innovative flat push paper feed mechanism which can make paper not skew and deforming, so that when it printing some special files (such as passbook, certificate, 1+n invoice, envelope, post card and labels) will not jam paper.

- **Control panel with high definition LCD display**

  You can know the current printing state of the printer through the LCD display, and you can also finish all the function setting through the LCD display.

- **Holistic engineering design by the printer combine the user**

  With the design of making the power switch, the operation button and the LCD display in the front of the printer. The knob is designed to at the right side of the printer, which make sure the user feel much comfortable and convenience.

- **Safety design of humanization**

  The printer installing a sensor of cover open which make the printer stop printing whenever the upper

cover does not be covered and make the print head move to the middle position. If you close the cover it will continue printing again.

- **Function of auto select the data transmission interface**

  The printer fittings the parallel interface or USB interface. (According to specific interface standard) So it can receive the date of parallel interface (Centronics) and USB interface. Once the computer send out the date, the printer can detecting the type of the data and auto switch to the right interface to receive it.

- **High speed and super high speed printing with high quality**

  The printer can be print the high quality by 10 CPI at normal mode with the speed of 100CPS. At high speed mode, the printer can be printing with the gap of 10 CPI at the speed of 300CPS. At super high speed mode, the printer can be printing with the gap of 10CPI at the speed of 360CPS.

- **High resolution of image printing**

  Max resolution of 360DPI (horizon) × 360DPI (perpendicularity) and the image is most definitely.

- **Compatibility**

  The command compatible the OKI 5530SC, Epson ESC/P-K2, Olivetti PR2 and IBM which are popular control command in the printer market.

- **Letter quality font**

  There are Roman, Sans Serif, Courier, Prestige, Script, OCR-A&B etc. characters which can compare with other band of printer.

- **Bar code memorizer**

  There are standard bar code types show as follow: EAN-13, EAN-8, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Code 39, Code 128 B, Code 128 C, NW-7.

- **Electronic menu**

  The printer can setting the parameter by itself and saving into the memorizer of the printer.

- **Enhance Chinese character set**

  This printer contains GB18030 Chinese character set and also supports 4 bytes Chinese printing.

- **Contain Bank system used character set**

  It supports bank system used character set print out.

- **Contain any position paper feed function**

  It supports to feed paper in any position on the paper path.

- **Contain break pin compensation function**

  User can set the printer to print using the pin which is in good condition to compensate the break pin.

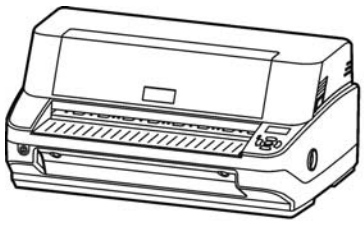
- **Pin switch printing mode**

  User can set pins to switch while printing form transverse line in order to improve print head life.

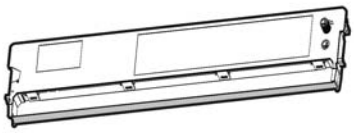
Chapter 2 Checking and Installing

2.1 Unpacking and Checking

Check the following items in the package, if any of these items is missing, please contact your dealer. (1) Printer; (2) Ribbon cartridge (JMR115); (3) Power cord; (4) Driver CD; (5) Paper feed knob; (6) Packing list; (7) Facility user's guide (as Figure 2-1 show).

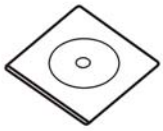


Printer



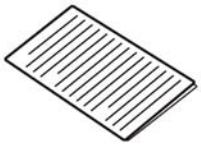
Ribbon cartridge (JMR115)

Power cord

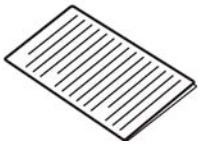


Driver CD
(Including *User's Manual* and Driver)

Paper feed knob



Packing list



Facility user's guide

Figure 2-1 Items in the packing list

Caution: The fittings please refer the packing list. The packing style above is subject to change without notice.

2.2 Unpacking the Protective Materials

1. Open the packing box, lift up the printer, open the upper cover of the printer, remove the protective materials of the upper printer frame.
2. Save all the original packing materials, so that it can use when transporting the printer (show as figure 2-2).

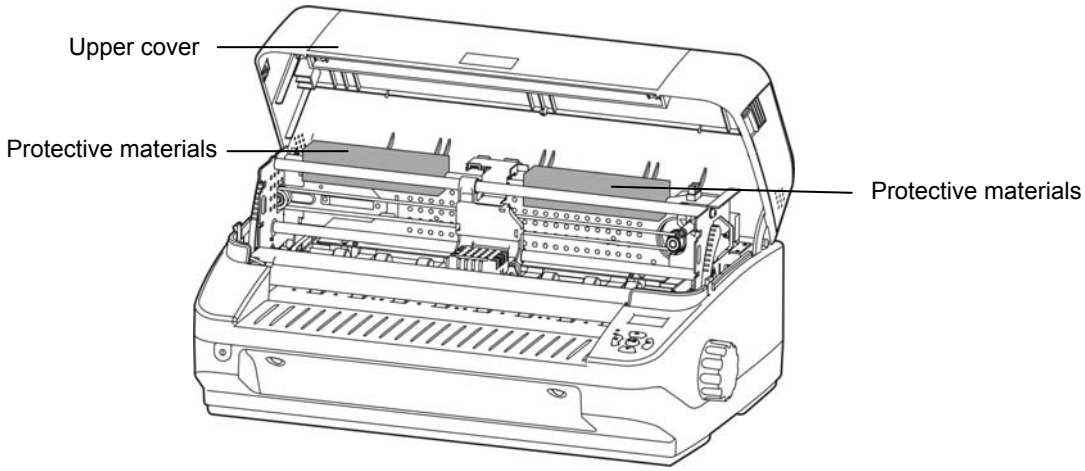


Figure 2-2 Unpacking protective materials

2.3 Main Parts of the Printer

Figure 2-3and Figure 2-4 mark the names of main parts.

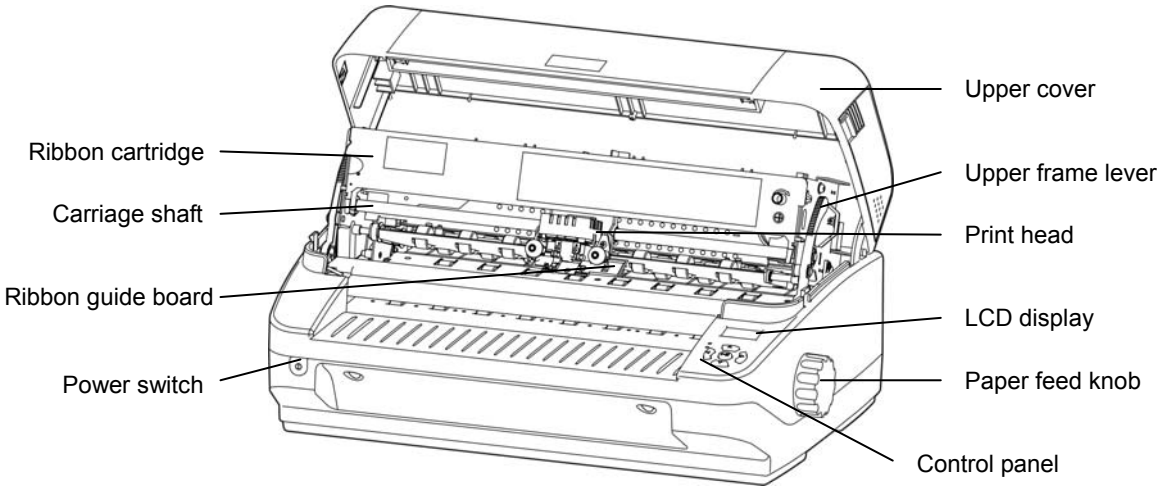


Figure 2-3 Main parts of the printer (Front view)

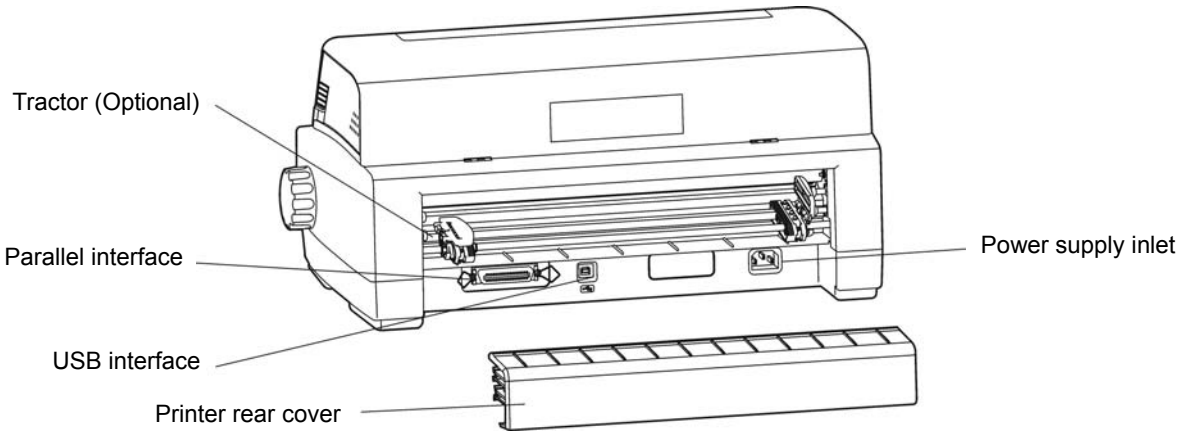


Figure 2-4 Main parts of the printer (back view)

★ **According to specific interface standards**

2.4 Installing the Printer

2.4.1 Choose Proper Installing Place

When choosing the installing place please consider following problems:

1. The laying place must be plane and fixing.
2. When printing tractor papers, the paper must be fed through the rear of the printer. So you should leave enough space for safety printing. If you put the tractor paper on the floor, the horizon minimum range between the printer and the paper should over 30mm. The printer should be place where backside of the printer is away the wall over 60cm, which avoid the paper break off from the tractor (optional).
3. Easy for operation, the table board should not be too high, it can be suitable about 60cm.

2.4.2 Installing the Paper Feed Knob

1. Insert the paper feed knob into the fixing hold on the right on the printer (Show as figure 2-5).

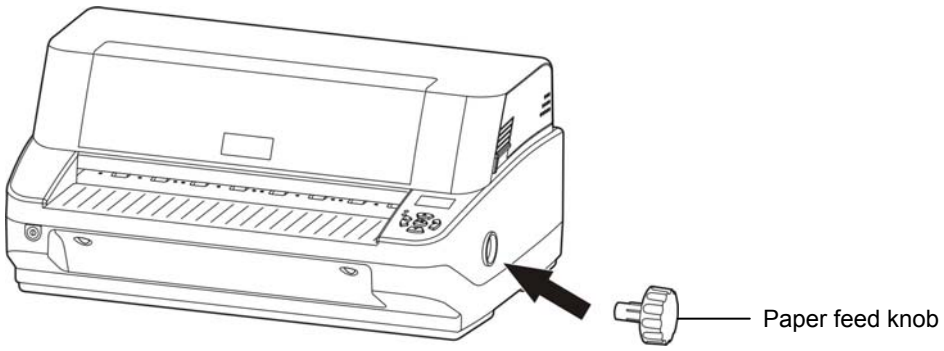


Figure 2-5 Installing the Paper feed knob

Note：The D shape placket of the knob should match the D shape shaft inside the printer cover.

2. Press the paper feed knob till it very close up the cover of the printer.

2.4.3 Installing the Ribbon Cartridge

1. Switch on the Power and open the upper cover of the printer. The print head will move to the middle position automatically.

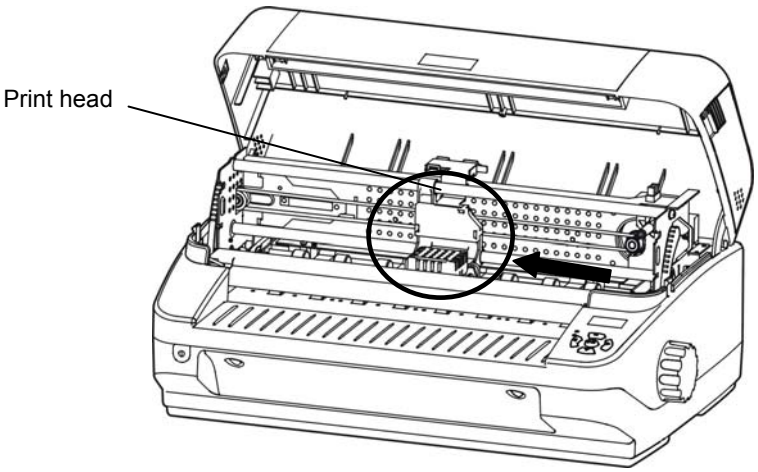


Figure 2-6 Move the print head to the middle position

2. Untie the upper frame lever of both sides, pull the upper frame up, and switch off the power.

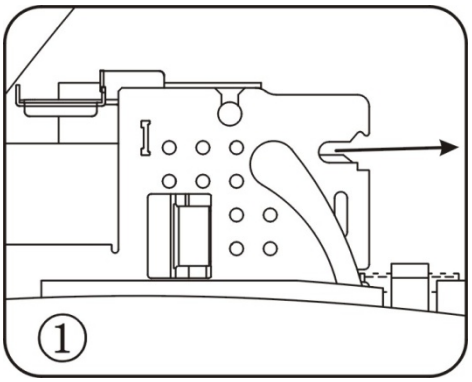


Figure 2-7 Pull up the upper frame

3. Hold the edge of the paper guide slice of both sides, and turn over it downwards.

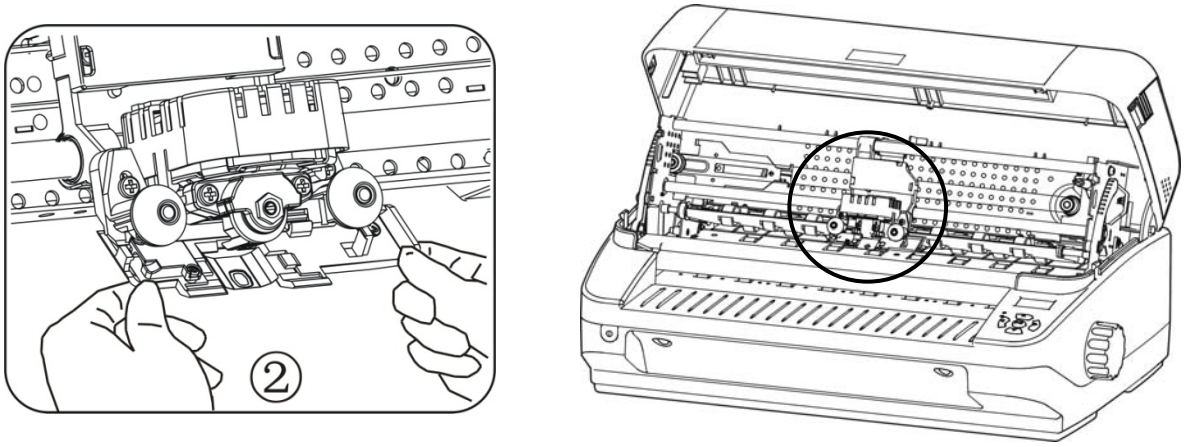


Figure 2-8 Turn over the guide of the carriage

4. Buckle the bottom and upper button of the ribbon frame in turn into the slot of the printer frame.

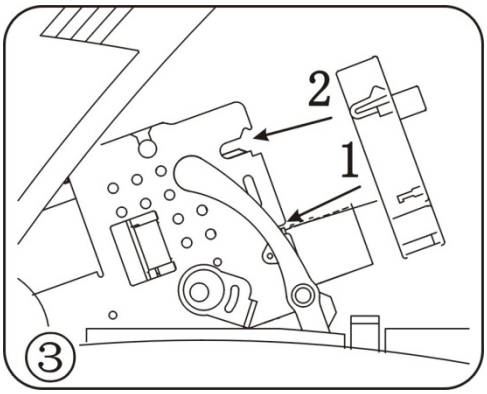


Figure 2-9 Installing the ribbon cartridge

5. Fix the ribbon core into the ribbon path.

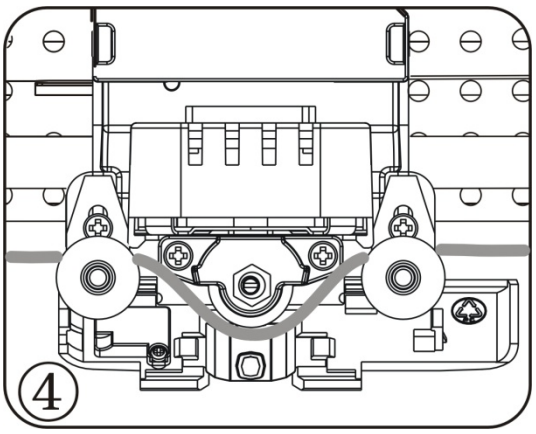


Figure 2-10 Installing the ribbon core

6. Turn the ribbon knob in the direction of the arrow to remove any slack from the ribbon. Then close the ribbon guide board.

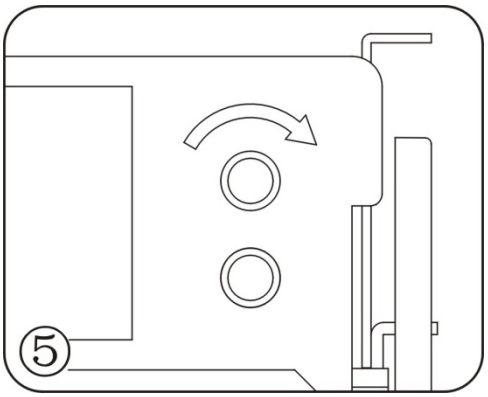


Figure 2-11 Tighten up the ribbon core

7. Press down the upper frame and pull the upper frame lever to the front, lock the upper frame lever by pulling it backwards after the upper frame is in correct position. At last, close the upper cover.

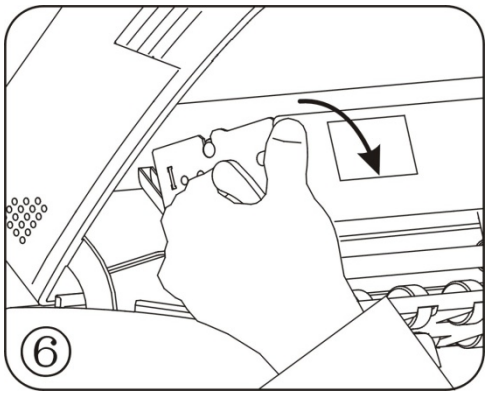


Figure 2-12 Lock the upper frame

Note: 1. When you remove the ribbon cartridge, please refer to the description on the right and follow the steps.

2. When the print out becomes faint, you need to replace the ribbon cartridge. Use of worn out ribbon will damage the print head.

3. Never move the print head when the printer is ON condition or else the printer may be damaged. Don't touch the print head as it will be hot during printing.

4. Use genuine Jolimark JMR115 consumables or else warranty will be void.

2.5 Connecting to Your Computer

The printer can configured with a parallel interface or USB interface. (According to specific interface standards) Connect your computer to the desired interface as your requirement. (Show as picture 2-13, and 2-14)

Note: Before connecting the parallel interface, please make sure the power of the printer is shut down. Must after tighten the cable you may turn on the power, or it will damage the printer.

2.5.1 Connecting the Parallel Interface

1. Turn off both the computer and the printer. Plug the parallel cable connector securely into the printer's parallel interface. Squeeze the wire clips together until they lock in place on either side of the connector.

2. Plug the other end of the cable into the computer's parallel interface; then tighten the screws on either side of the connector.

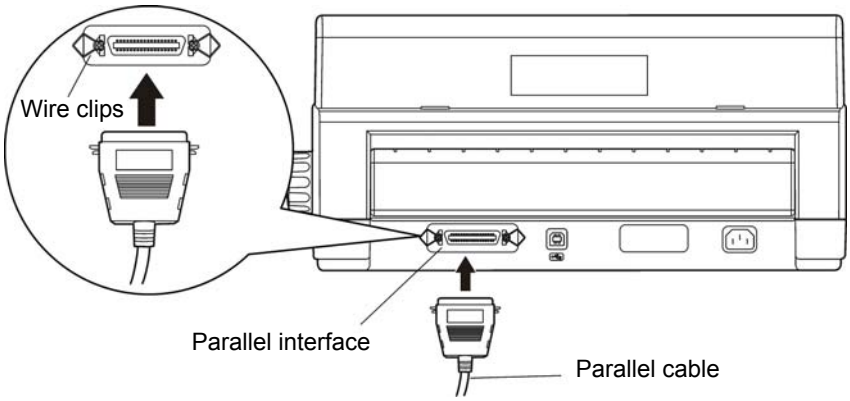


Figure 2-13 Connecting the parallel interface

2.5.2 Connecting the USB Interface

1. Plug the USB cable A end (flat shape) into the computer's USB interface.
2. Plug the USB cable B end (square shape) into the printer's USB interface.

Caution: Don't impact the plug after connecting to the USB interface.

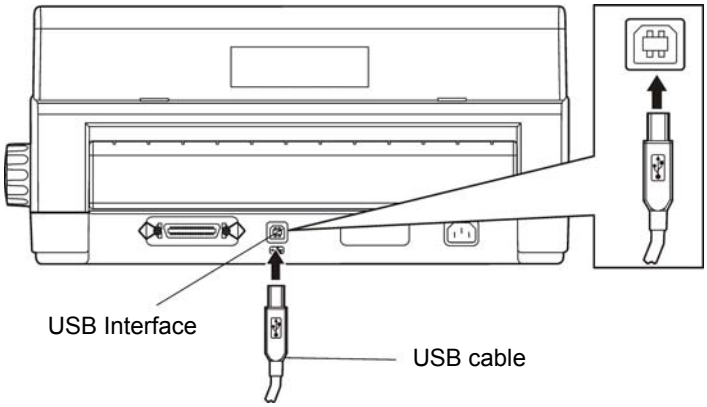


Figure 2-14 Connecting the USB interface

2.6 Connect the Power Core

1. Make sure the power switch on the printer is turned off.
2. Make sure the voltage required by the printer matches that of your electrical outlet.
3. If the power cord is not attached to the printer, connect it to the power supply inlet on the printer.
4. Plug the power cord into a properly grounded electrical outlet. (show as figure 2-15)

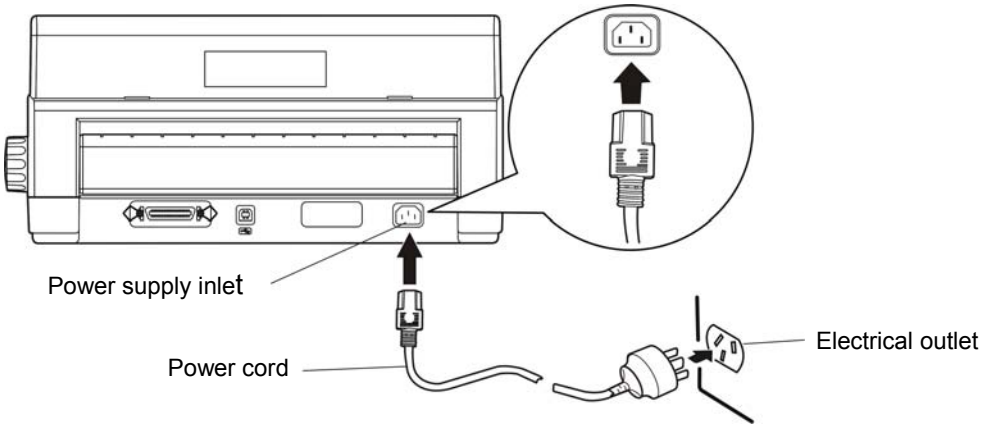


Figure 2-15 Connecting the power cord to the printer

Note：1. If the rated voltage and your outlet voltage do not match, contact your dealer for assistance. Do not plug in the power cord.

2. You should use the properly grounded electrical outlet

2.7 Installing the Driver

After connecting the printer and the computer, turn it online and put the driver CD into the CD-ROM, setting up the driver follow the way below:

Auto-install way

Double click the file "Setup.exe" in the driver disc, install driver by the following direction.

Note: Auto-install way just work in operating system of Windows2000 or above.

Hand-operated install way

The parallel cable installing steps for Windows 2000/XP/Vista are as follows

1. Click "Start" → "Settings", select "Printers".
2. Click "Add Printer", then it will show a window of "Add Printer Wizard", click "Next", then please read the select direct carefully, Such as, select "Local printer" in the "Local or Network Printer" window, then click "next".
3. Come out a window of "Select the Printer Port", select a usable port. Such as, select "LPT1: printer port", click "Next".
4. Come out a window of "Manufacturers/Printers", click "Have Disk...".
5. Come out a window of "Install From Disk". Please according to the operating system environment, you should select the path as follow: CD-ROM-"Driver"-"WIN2000 (XP-Vista-Win7)", that you can find a file named: BP1000K.inf, click "Open", then click "OK", click "Next".
6. Follow the direct click "Next" gradually till the installation is finished.

The parallel cable installing steps for Windows 7 are as follows：

1. Click "Start" → "Devices and Printers".
2. Click "Add a printer", then it will show a window of "Add Printer", click "Add a local printer", and then click "Next".
3. Come out a window of "Choose a printer port", select "Use an existing port", Such as, select "LPT1: Printer Port", click "Next".
4. Come out a window of "Manufacturers/Printers", click "Have Disk...".
5. Come out a window of "Install From Disk". Please according to the operating system environment, you should select the path as follow: CD-ROM-"Driver"-"WIN2000 (XP-Vista-Win7)", where you can find a file named: BP1000K.inf, click "Open", then click "OK" to return to the window of "Manufacturers/Printers", click "Next".
6. Follow the direct click "Next" gradually till the installation is finished.

The USB interface installing steps for Windows 2000/XP/Vista/Win7 are as follows:

The following steps are used Windows XP as example. There are slight differences among different operating systems.

1. Connect an USB cable and turn on the printer.
2. After the computer find out new hardware and finish searching, come out a window of "Add New Hardware Wizard", click "Next".
3. Come out a window of "Add New Hardware Wizard" -"Windows operation", choose "Not Search, I want to Choose the Setup Driver (D)", click "Next".
4. Come out a window of "Manufacturers/Printers", click "Have Disk...".

5. Come out a window of "Install From Disk". Please according to the operating system environment, you should select the path as follow: CD-ROM-"Driver"-"WIN2000 (XP-Vista-Win7)", where you can find a file named: BP1000K.inf, click "Open", then click "OK" to return to the window of "Manufacturers/Printers", click "Next".
6. Follow the direct click "Next" gradually till the installation is finished.

The installing steps for Windows 98 are as follows:

(1) The installing steps with a parallel cable:

1. Click "Start" → "Settings" → "Printers".
2. Click "Add Printer", then it will show a window of "Add Printer Wizard", click "Next", then please read the select direct carefully, Such as, select "Local printer" in the "Local or Network Printer" window, then click "Next".
3. Come out a window of "Click the manufacturer and model of your printer", click "Have Disk...", please click "Browse", select the path as follow: CD-ROM-"Driver"-"WIN98 (WINME)", where you can find a file named: BP1000K.inf, click "Open", then click "OK".
4. Come out a window of "Install From Disk", click "OK", return to a window of "Add Printer", then click "Next".
5. Come out a window of "Printer port", select "Available ports", Such as, select "LPT1: Printer Port", click "Next", and then show the printer's name. If the system is not installed by other printer driver process, the printer is treated as default printer by the application process of Window98 environment, click "Next". Otherwise according to prompt, choose the printer is default: "Yes", click "Next", choose "Yes-(recommended)", click "Finish". Come out a window of "Printer test page completed!", click "Yes".
6. The printer driver process is installed successfully.

(2) The installing steps with an USB cable:

Note: 1. As the system of Windows 98/ME doesn't have integrated USB driver control, please install USB driver before using USB interface printing. Then install USB printer driver.

2. If it has installed the USB driver, please install the USB printer driver directly as the following steps.

USB driver installing steps:

1. Connect an USB cable and turn on the printer.
2. After the computer find out new hardware and finish searching, come out a window of "Add New Hardware Wizard", click "Next".
3. Come out a window of "Add New Hardware Wizard" -"Windows operation", choose "Search the best driver for the device (recommended)", click "Next".
4. Come out a window of "Search for new drivers", check "Specify a location", click "Browse", select the path as follows: CD-ROM-"Driver"-"【WIN98(WINME)\USB driver】", then click "OK".
5. Return to a window of "Search for new drivers", click "Next"; Come out a window of "Windows driver file search for the device", click "Next".
6. After the system finishing installing the file automatically, come out a window of "USB print supported, click "Finish".
7. The printer USB driver process is installed successfully.

USB printer driver installing steps:

1. Click "Start" → "Settings" → "Printers"
2. Click "Add Printer", then it will show a window of "Add Printer Wizard", click "Next".
3. Come out a window of "Click the manufacturer and model of your printer", click "Have Disk...", please click "Browse", select the path as follow: CD-ROM-"Driver"-"WIN98 (WINME) ", where you

can find a file named: BP1000K.inf "Open", and then click "OK".

4. Come out a window of “Install From Disk”, click "OK", return to a window of "Add Printer", then click "Next".
5. Come out a window of "Printer port", select "Available ports", select "JMUSB", click "Next", and then show the printer's name. If the system is not installed by other printer driver process，the printer is treated as default printer by the application process of Window98 environment, click "Next". Otherwise according to prompt, choose the printer is default: "Yes", click "Next" choose "Yes-(recommended)", click "Finish". Come out a window of "Printer test page completed!", click "Yes".
6. The printer driver process is installed successfully.

Chapter 3 Paper Process

3.1 Paper Switch

When Jolimark leave factory it was setting four paper process modes, that is cut sheet mode, passbook mode, thick paper mode and tractor paper mode (tractor is optional).

1) Cut sheet mode (Front feed): It is fit for the medium of A4 and thin paper, passbook and the certificate which thickness less than 2mm.

2) Passbook mode (Front feed): It is fit for the medium of vertical passbook which thickness less than 2mm.

3) Thick paper mode (Front feed): It is fit for the medium or the passbook which the thickness over 2mm.

4) Tractor paper mode (Rear feed): It is fit for the tractor paper printing.

You can base on the print medium as your actually need to choose the right mode of paper process (Cut sheet, passbook, thick paper or tractor paper).

Please check the detail way of switch in chapter 4 control panel.

3.2 Feeding the Cut Sheet

You can feed a cut sheet and a single copy paper (Max 1+6 copy). Follow the steps as below to feed cut sheet:

1. Turn on the printer and setting the paper process of cut sheet mode.
2. Place the cut sheet on the front platform and feeding the paper into the printer within the scale scope of which sign on the paper entrance of the printer. After the printer auto skew adjustment the paper would be sent to the printing home position, then it is ready to be printing.
3. When feeding copy note, you should read the reference of the copy mode setting. Also when using the tractor copy paper, you should read the reference either.

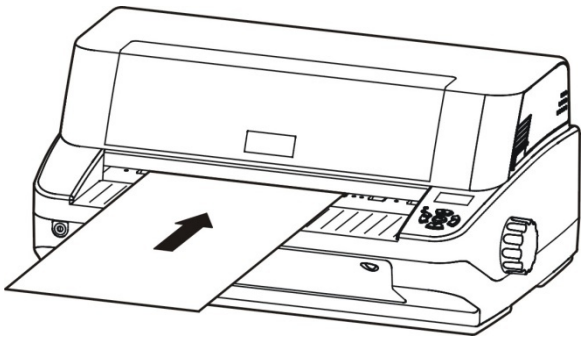


Figure 3-1 Feeding cut sheet

Table 3-1: Copy mode setting reference

Copy paper (Incl original pattern)	Paper thicknes (mm)	Copy mode setting on the control panel
1 or 2	0.08～0.12	Normal
3 or 4	0.18～0.24	1+ 3 copy mode
5	0.30	1+ 3 copy mode
6	0.36	1+6 copy mode
7	0.45	1+6 copy mode

Note：1. Copy mode setting way refers to the chapter 4 control panel.

2. Normal mode fit for the thin paper, cut sheet, 1+1copy and cards.

3. 1+3 copy mode fit for the 1+2～4 copy, passbook, registered permanent residence book, driving license and various license.

4. 1+6 copy mode fit for 1+5 or 1+6 copy paper.

3.3 Feeding the Passbook

Follow the steps as below to feed passbook:

1. Turn the printer and setting the paper process of cut sheet mode.
2. Open the passbook, turn to the page which should be printed and make it flat.
3. Place the passbook on the front platform and feeding the passbook into the printer within the scale scope of which sign on the paper entrance of the printer. After the printer auto skew adjustment the passbook would be sent to the printing home position, then it is ready to be printing.

Note：1. Don't feed a passbook with creases or rip.
2. Close the upper cover before printing or it will not working.

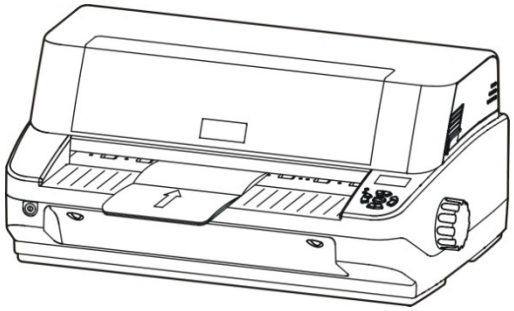


Figure 3-2 Feeding the passbook

3.4 Feeding the Vertical Passbook

Follow the steps as below to feed vertical passbook:

1. Turn the printer on and setting the paper process of passbook mode.
2. Open the passbook, turn to the page which should be printed and make it flat.
3. Place the passbook on the front platform and feeding the passbook into the printer within the scale scope of which sign on the paper entrance of the printer. After the printer auto skew adjustment the passbook would be sent to the printing home position, then it is ready to be printing.

Note: 1. Don't feed a passbook with creases or rip.
2. Close the upper cover before printing or it will not working.
3. The thickness difference of right pages and left pages should not over 1.2mm.

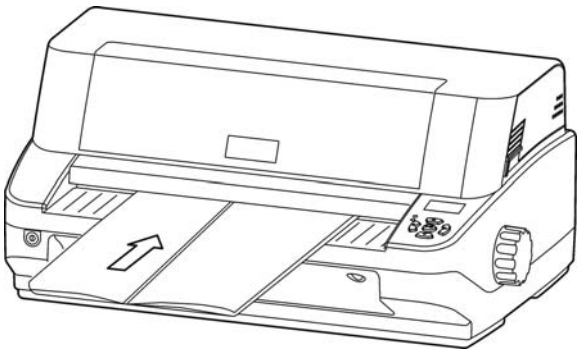


Figure 3-3 Feeding the Vertical passbook

3.5 Feeding the Passbook

Follow the step as below to feed the book which the thickness is over 2MM:

1. Turn on the printer and setting the paper process of thick paper mode.
2. Open the passbook, turn to the page which should be printed and make it flat.
3. Place the passbook on the front platform and feeding the passbook into the printer within the scale scope of which sign on the paper entrance of the printer. After the printer auto skew adjustment the book would be sent to the printing home position, then it is ready to be printing.

Note：1. Don't feed a book with creases or rip.

2. Close the upper cover before printing or it will not working.

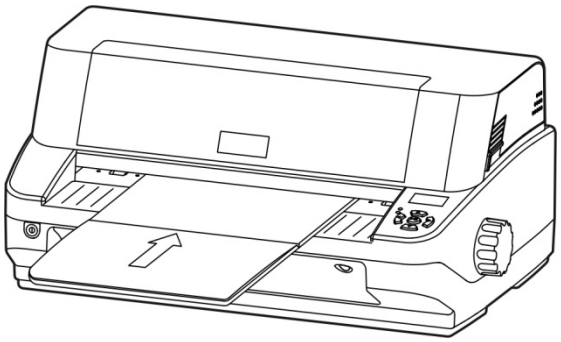


Figure 3-4 Feeding the passbook

3.5 Installing Continuous Paper (Applicable only for specific versions)

1. Remove the rear cover of the printer.

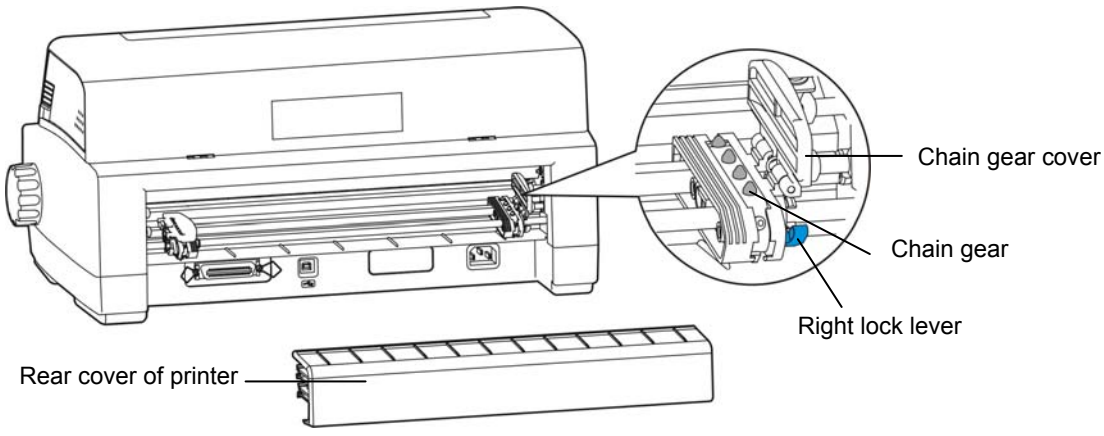


Figure 3-5 Remove the rear cover of printer

2. Connect the printer and the power, and switch the paper process mode of tractor paper printing. (Please see the control panel operation way in chapter 4).

3. Loosen the chain gear locking staff of the tractor (optional), then move the left chain gear to the fitting position, and press the lock lever to lock the left chain gear.

4. Open the cover of the chain gear, then installing the tractor paper onto the chain gears and close the cover of it (Show as figure 3-6).

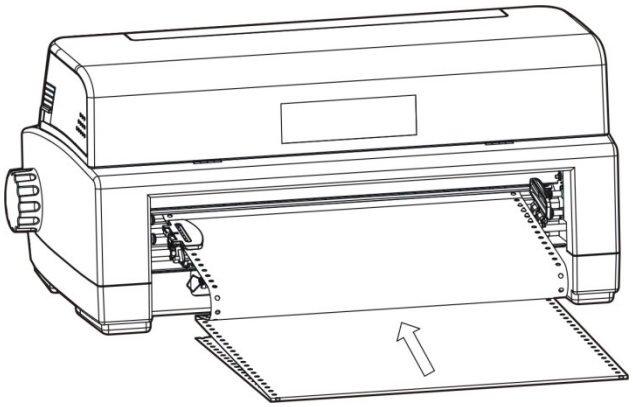


Figure 3-6 Installing the tractor paper onto the chain gear of the tractor (optional)

Remark
Please remember to place the top of paper in level position (Show as figure 3-7).

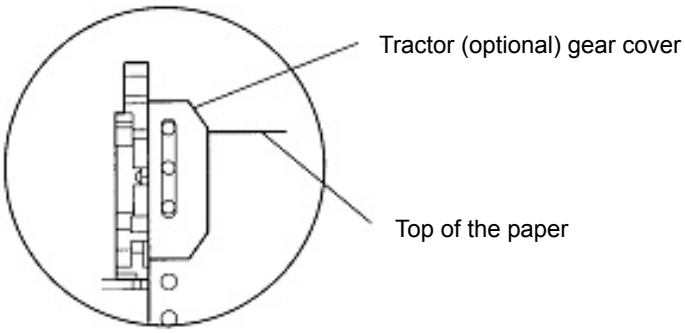


Figure 3-7 Installing the tractor paper on the tractor (optional) gear

5. Adjust the position of right chain gear to fit the paper width, and then lock it.

6. If the paper is crinkle, please adjust the right lock lever to the suited position. (Show as figure 3-5)

7. Adjust the paper to the printable position. Please check if the tractor paper fit for the printer printing requirement. If the paper is crinkle, please adjust the right chain gear to the suited position.

8. Refer to table 3-1, according to the copy paper to select the right copy mode which would make the printing more legible.

3.6 Tearing the Tractor Paper

In the default setting of the printer, feeding paper to tear off position has been opened. After printing, the printer will feed the tractor paper to tear off position automatically. You can tear the paper along the edge of the printer cover. (Show as figure 3-8) If you have changed the default setting and have closed the auto-feed paper to tear off function, press the button of **Load/Eject** after printing. The printer will feed the tractor paper to tear off position. If the paper's connecting slot does not reach the edge of the cover, please adjust the tearing position. (Refer to Chapter 4 control panel)

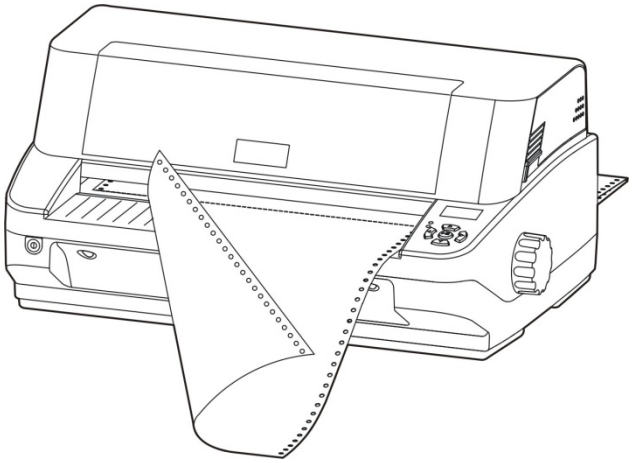


Figure 3-8 Tearing the tractor paper

Chapter 4 Control Panel

4.1 Key, Indicator Light and LCD Display on the Control Panel

There are five keys, two LED indicator lights and a LCD display. (Show as figure 4-1)

The LCD display is dot matrix display module (106×56 dots), the display size is 32.6mm*17.6mm.

◆ The control panel as follow figure show:

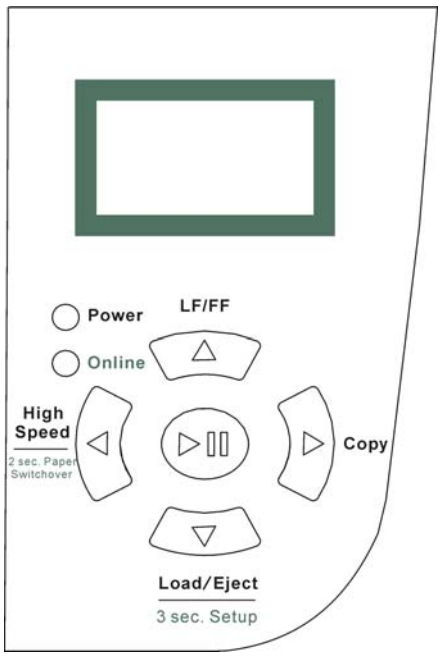


Figure 4-1 Control panel

◆ The meaning of indicator show as follow table:

Table 3-1: The meaning of indicator light on the control panel

Indicator light	Off	On	Blink
Power (red)	The Power is off	The power is on	Paper lack/fail to function
Online (green)	Offline	The Printer is in online	——

4.2 Basic Operation of the Control Panel

There are five keys on the control panel can use to operation.

►II Online	Press **Online** key, switch between **Online** and **Offline** mode.
▼Load/Eject	When the printer is offline, in cut sheet mode, press this key can eject cut sheet. In tractor paper mode, press this key when offline can switch the tractor paper among fixing position, printing home position and tear off position. (Tractor is optional) When the printer is online, hold on pressing this key for about 3 seconds, the printer will enter Menu setting mode.
▲ LF/FF	In the offline mode, press the **LF/FF** key to feed the paper line by line. Alternatively, hold the **LF/FF** key down, the printer will eject the cut sheet, or feed the tractor paper one page.

◄ **High Speed**	In the offline mode, press **High Speed** key can switch the speed mode of "Normal Speed", "High Speed" or "Super High Speed". At the same time, the LCD display will show you the current printing speed. In the online mode, press the key about 2 seconds, the printer switch four paper modes of "cut sheet", "vertical passbook", "thick paper" or "tractor paper". At the same time, the LCD display will show you the current paper mode.
► **Copy**	In offline mode, press the key **Copy** can switch three copy modes of "Normal", "1+3 copy" or "1+6 copy". At the same time, the LCD display will show you the current copy mode.

4.3 The information on the LCD Display When at Stand by State

In the state of stand by (not error state), the printer BP-1000K would display some common state information of the printer on the LCD. The information would towards left cycle roll display as follow format:

Paper information＋speed information＋copy information＋[Self test printing information]

Paper information: 1) Cut sheet (thin paper, passbook) 2) Vertical Passbook 3) Thick paper (passbook over 2MM thickness) 4) Tractor paper

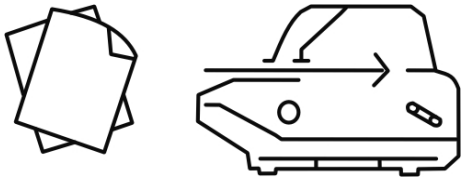
Speed information: 1) Normal 2) High Speed 3) Super high speed

Copy information: 1) Normal 2) 1+3 copy 3) 1+6 Copy

Self test printing information: 1) Chinese self test 2) English self test 3) H printing test 4) Aging test

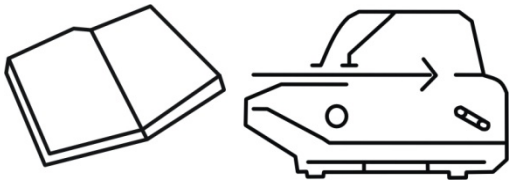
Hereinto, the paper information would display with an icon, show as follow. While the arrow on the icon is show the way of paper feeding.

1) Cut sheet (thin paper, horizontal passbook) show as follow:



Paper: Cut sheet _ _ _

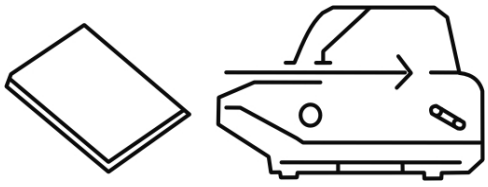
2) Vertical Passbook, shown as follow:



Paper: Vertical Passbook _ _ _

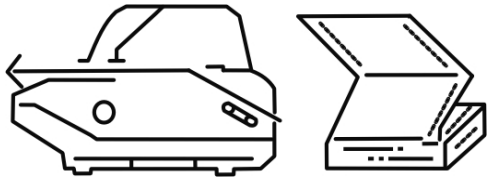
Note: In this paper mode, LCD display information in not cycle roll.

3) Thick paper (Passbook over 2MM thickness), show as follow:



Paper: Thick paper _ _ _

4) Tractor paper, show as follow:



Paper: Tractor paper _ _ _

4.4 Use of the Menu Setting System

4.4.1 Change the Current Setting in the Menu of the Printer

The menu of BP-1000K is containing main menu and sub menu, and displays it on the LCD display. The users can easy setting all the basic function of the printer.

In online mode, press the button "**Load/Eject**" for 3 seconds, get into the menu setting.

Press button "▲" and "▼" you can select the options in same sub menu. Press for a long time of "▲" and "▼" you can quick select.

Press "◄" you can go back to main menu or exit the menu setting. If current menu is in main menu then would exit the menu setting and make the option you just change take effect at the same time

Press "►" you can entre the sub menu setting.

Press "►**II**" you can save the change of the option, and it would mark a "√" on it.

Detailed direction for use show as follow:

1) After entering the menu setting, the LCD display initial data as follow picture show:

Menu setting	
1. PRT-SPEED	►
2. Copy	►

2) Press"▲"，"▼" to choose the option of the menu (show as follow picture).

Menu setting	
2. Copy	►
3. Emulation	►

There are 35 options in the main menu of BP-1000K:

1.PRT-SPEED; 2.COPY; 3.EMULATION; 4.CHAR MODE; 5.FONT; 6.COMPRESS;
7. AUTO-COMP; 8.PITCH; 9.CHIN.PITCH; 10.LINE SPACE; 11.FORM; 12.PAGE SKIP; 13. TEXT DIR;
14.GRAPH DIR; 15.LEFT EDGE; 16.SLASH ZERO; 17.CHAR SET; 18.INTL CHAR; 19. CODE PAGE;
20.LANGUAGE; 21.QUIET MODE; 22.AUTO LF; 23.AUTO CR; 24.TEAR OFF; 25.LOAD PAPER;
26.SKEW; 27.COVER OPEN; 28.EJECT; 29.BAUD RATE; 30.PARITY; 31.DATA BIT; 32.STOP BIT;
33.PROTOCOL; 34.BREAK PIN; 35. PIN SWITCH

3) Press "►" to enter the sub menu

For example, after choose "PRT-SPEED", press "►" to enter the detailed option about printing speed. (Show as follow picture)

Menu setting	
1. PRT-SPEED	►
2. Copy	►

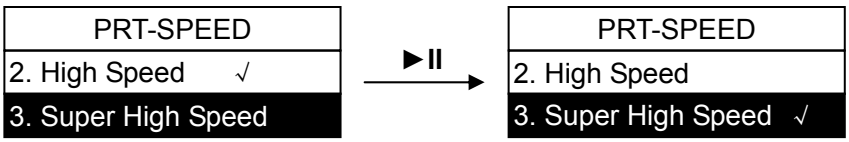
→ ►

PRT-SPEED	
1. NORMAL	
2. High Speed	√

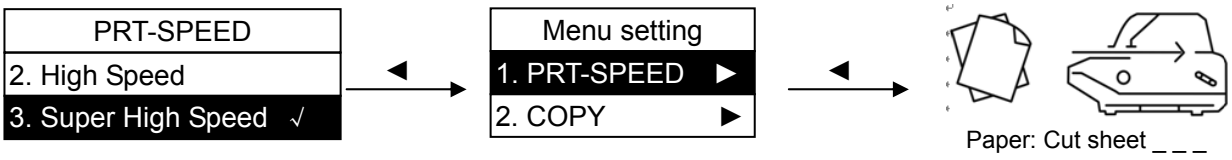
As the right picture show, the PRT-SPEED setting option which mark a "√" is the current default setting.

4) Press "▲", "▼" for selection.

For example, if you need to change the speed to "super high speed", you can press "▲" and "▼" to choose that, then press "►II" to save your selection. At the end of the option would mark a "√" after saving. (Show as follow picture)



5) Press "◄" back to main menu, then press "◄" again exit the menu setting and the new setting will take effect at the same time. (Show as follow picture)



4.4.2 Printing the Current Setting Report

If you need to know current setting, you can print the current setting report follow the steps:

1. Turn off the printer.
2. If use tractor paper, you should feed the paper on the tractor (optional) (the paper width must over 240mm).
3. Press both **Load/Eject** and **LF/FF** keys then turn on the printer, the printer will print out the current setting report. (Show as figure 4-2)

Jolimark BP-1000K

Current Setting Report

Version: 1000K vx.x xxx/xx/xx

PRINT SETUP							
PRT-SPEED	NORMAL	HIGH	HIGH 2				
COPY	NORMAL	ORIG+3P	ORIG+6P				
EMULATION	EPSON	OKI	OLIVETTI	IBM			
CHAR MODE	ASCII	CHINA					
FONT	ROMAN	SANS SER	COURIER	PRESTIGE	SCRIPT	OCR-B	OCR-A
COMPRESS	100%	75%	66%	50%			
AUTO_COMP	OFF	ON					
PITCH	10 CPI	12 CPI	15 CPI	PROPORTIO			
CHIN. PITCH	6.7 CP	7.5 CPI					
LINE SPACE	6 LPI	8 LPI					
FORM	3 INCH	3.5 INCH	11/3 INCH	4 INCH	5 INCH	5.5 INCH	6 INCH
	7 INCH	LETTER	A4	12 INCH	14 INCH		
PAGE SKIP	OFF	ON					
TEXT DIR	BI-DIR	UNI-DIR					
GRAPH DIR	BI-DIR	UNI-DIR					
LEFT EDGE	0/10 INCH	1/10 INCH	2/10 INCH	3/10 INCH	4/10 INCH	5/10 INCH	
CHARACTER							
SLASH ZERO	OFF	ON					
CHAR SET	ITALICS	GRAPHICS					
INTL CHAR	U.S.A.	FRANCE	GERMANY	U.K.	DENMARK1	SWEDEN	ITALY
	SPAIN 1	JAPAN	NORWAY	DENMARK2	SPAN 2	LATIN AM	KOREA
	LEGAL						
CODE PAGE	U.S.A.	MULTI	PORTUGAL	CANADA	NORWAY	EAST EURO	CYRILLIC
	RUSSIAN	HUNGARY	KAMENICKY	TURKEY	ICELAND	BULGARIA	MAZOVIA
	GRK 437	GRK 851	GRK8859-7	GRK 1253	ARAB NLS	ARAB EXT	WIN LATI
	WIN LAT2	ISO LTN1	ISO LTN2	TUR8859-9	ISO LTN9	KBL	LATIN 7
SYSTEM SETUP							
LANGUAGE	ENGLISH	CHINESE					
QUIET MODE	OFF	ON					
AUTO LF	OFF	ON					
AUTO CR	OFF	ON					
TEAR OFF	OFF	0.3 SEC.	0.5 SEC	1.0 SEC.			
LOAD PAPER	PUSH KEY	0.1 SEC	0.5 SEC.	1.0 SEC.			
SKEW	OFF	ON					
COVER OPEN	OFF	ON					
EJECT	FRONT	REAR					
SERIAL I/F							
BAUD RATE	19200 BPS	9600 BPS	4800 BPS				
PARITY	NONE	ODD	EVEN				
DATA BIT	8 BIT	7 BIT					
STOP BIT	1 BIT	2 BIT					
PROTOCOL	XON/XOFF	DTR					
BREAK PIN							
HEAD PIN	LIVE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6
	PIN 7	PIN 8	PIN 8	PIN 10	PIN 11	PIN 12	PIN 13
	PIN 14	PIN 15	PIN 16	PIN 17	PIN 18	PIN 19	PIN 20
	PIN 21	PIN 22	PIN 23	PIN 24			
PIN SWITCH	OFF	ON					

Picture 4-2 Printing current setting report

4.4.3 Menu Item Description

Table 4-2: Menu item description as follow:

No.	Item	Description
1	PRT-SPEED	Select the print speed mode among Normal speed, High speed and Super high speed. Correspond with High Speed key on control panel.
2	COPY	Select the print copy mode among Normal, "1+3 copy" and "1+6 copy". Correspond with **Copy** key on control panel.
3	EMULATION	Select emulation of EPSON ESC/PK2, OKI5530SC or Olivetti PR2 or IBM. Select the printer emulation to match the printer driver that installed on PC.
4	CHAR MODE	Select the ASCII or China character mode.
5	FONT	Set the font for the printer to use in the absence of any font control instructions from your software.
6	COMPRESS	Transverse compress printing is according to corresponding compress proportion.
7	AUTO-COMP	Select auto-compressed print mode. Select 50% or 75% compression ratio automatically according to the width of print media.
8	PITCH	Set the pitch to determine the horizontal spacing of the printed ASCII characters.
9	CHIN. PITCH	Set the pitch to determine the horizontal spacing of the printed Chinese.
10	LINE SPACE	Set the vertical spacing of the printed characters. Set it to either 6 LPI (the default setting) or 8 LPI.
11	FORM	Set the length of paper, for both cut sheets and tractor paper.
12	PAGE SKIP	Select (ON) or cancel (OFF, the default) a bottom margin of one inch.
13	TEXT DIR	Set unidirectional or bi-directional printing for text. Bi-directional (the default) is faster because the printer prints in both directions. Unidirectional is slower but produces better printing quality.
14	GRAPH DIR	Set unidirectional or bi-directional printing for graphics. It is set to UNI-DIR by default for better quality. (only compatible with EPSON)
15	LEFT EDGE	Select the left margin of paper.
16	SLASH ZERO	Select or cancel the printing of a slash (/) through zero to distinguish them from the letter O.
17	CHAR SET	Select character set into Italic Character Table or Graphic Character Table.
18	INTL CHAR	Select among international character sets. (only compatible with EPSON)
19	CODE PAGE	Select a code page
20	LANGUAGE	Select the menu language. It prints according to the menu settings.
21	QUIET MODE	Select the printer into quiet mode.
22	AUTO LF	Select (ON) or cancel (OFF) the automatic advance of the paper by one line after every carriage return command.
23	AUTO CR	Select (ON) or cancel (OFF) the automatic return of the print head to the left margin after every line-feed command.
24	TEAR OFF	Enable (0.3 sec, 0.5 sec or 1.0 sec) or disable tear off function. In enable state, when the printer receives paper feed command and print out no data, paper will be feed to tear off position after the set waiting time passed.
25	LOAD PAPER	This determines the action of the printer while the cut sheets in front feeding. PUSH KEY disables automatic loading allowing only by pressing the LF/FF key. The other options allow automatic feeding after the stated delay time of 0.1sec, 0.5sec, or 1.0sec.
26	SKEW	Enable or disable the skew detection for front feeding.
27	COVER OPEN	Enable or disable the cover open detection.
29	EJECT	Select the cut sheets eject direction.

29	BAUD RATE	Set the printer RS-232C interface speed.
30	PARITY	Set the printer RS-232C interface parity error checking type.
31	DATA BIT	Set the printers RS-232C data width either 8 bits or 7 bits.
32	STOP BIT	Set the printers RS-232C transmission stop bits.
33	PROTOCOL	Set the printers RS-232C interface protocol is software (XON/XOFF) or hardware (DTR).
34	BREAK PIN	Select broken-pin mode.
35	PIN SWITCH	Select pin switch mode. The printer auto-switch the different pin to print table Line.

4.4.4 Online Aptitude Parameter Setting

This printer supports online aptitude parameter setting, you can set the printer parameter in PC through using the Driver of this printer.

Setting method as follow:

1. Ensure the printer and the computer are connecting with interface cable. Turn on both the printer and the computer, and the printer is in online state.
2. Click "Start" → "Setting" → "Printers and Faxes", open a window of "Printers and Faxes".
3. In the window of "Printers and Faxes", select the Driver of this printer, right click it and click "Property" in the choose column.
4. Then it show a window of "Property", click "Printer setting".
5. Corresponding with the third submenu setting methods of printer menu system, in the window of "Printer setting", select main menu in the "Setting type", select second submenu in "Setting option", at last, select setting parameter in current parameter item.
6. Click the button of "Reset all the items as default settings" to resume all the parameter to driver default setting and not change the printer parameter.
7. During setting parameter: You can click "Setting current item" to save the current item after setting parameter each time. Also you can click" Setting all items" to save all the items after setting all parameters. Click both "Setting current item" and "Setting all items", the program will send the parameter command to the printer.
8. The printer will change the parameter setting right after it receives the setting parameter command. It doesn't need to restart the printer.
9. After finish setting, click "OK" to exit "Property".

4.4.5 Restoring Factory Printer Settings

You can restore to the factory printer settings without having to work through the Setup Menu System to reset the menus.

To restore to the factory settings:

1. Make sure that the printer is **Online**.
2. Press and hold down the **Online** and **Copy** keys on the control panel for 3 seconds.

   The LEDs of the **Power** and **Online** on the control panel blink 3 times at the same time and the printer makes 2 times of "beep" to confirm that the printer's factory settings have been restored.

4.4.6 Head Pin Test

Press **High speed** then turn on the power of the printer. The printer would print out a piece of "Head pin test" pattern. Each pin prints a line. If certain pin cannot print its line, select broken-pin mode from LCD menu.

4.5 TOF Adjustment

TOF is mean top of form position. When paper is loaded, the printer detects the end of the paper and determines the printing start position based on the detected paper end. That position is the top of the form. When the printer online, press ▲ **LF/FF** for 3 seconds, and the printer LEDs of the power and online on the control panel blink by turns. The LCD display as right figure show. That is mean the printer is in the mode of TOF adjustment.

Top of Form adjusting…
(default)

Press "▲", "▼" can change the setting of TOF (the max dimension of the changing of TOF is measure by the default setting under zero position):

"▲" Press one time go forward 1/60 inch, max is 60/60 inch.

"▼" Press one time go backward 1/60 inch, max is 30/60 inch.

After adjustment, press "►**II**", the power light and the online light blink 3 times, and make out 2 times of "beep". Now the setting of TOF has been saved and exit.

4.6 Tear Position Adjustment

"Tear position adjustment" mainly use to adjust the distance between the connect slot and the upper cover which make you more easily to tear the continuous paper. In the state of online, press ▲ **Load/Eject** and ▼ **LF/FF** at the same time for 3 seconds, then can enter the mode of tear position adjustment. Here, the online light and the power light blink by turns, the LCD display as right picture show.

Tear-off pos. adjusting…
(default)

You can adjust the tear position by pressing "▲"and"▼", (the max dimension of the changing of tear position is measure by the default setting under zero position):

"▲" Press one time go forward 1/60 inch, max is 15/60 inch.

"▼" Press one time go backward 1/60 inch, max is 15/60 inch.

After adjustment, press "►**II**", the power light and the online light blink 3 times at the same time, and make out 2 times of "beep". Now the setting of tear position adjustment has been saved and exit.

4.7 The Self Test Functions

4.7.1 ASCII Self-Test

Press **Online** then turn on the power of the printer. The printer would print out a piece of ASCII pattern and then exit ASCII self test mode. Now you can start printing.

If you press **Online** and **Load** /**Eject** at the same time then turn on the printer, it will print out the ASCII pattern continuously. Press **Online** can pause it. If you want to exit now, you can turn off the power then turn on again.

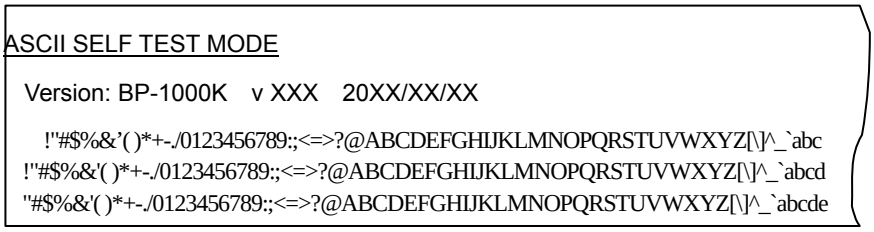


Figure 4-3 ASCII self test mode

4.7.2 Chinese Self Test Mode

Press **LF**/**FF** then turn on the power of the printer. The printer would print out Chinese pattern. Press **Online** can pause it. If you want to exit now, you can turn off the power then turn on again.

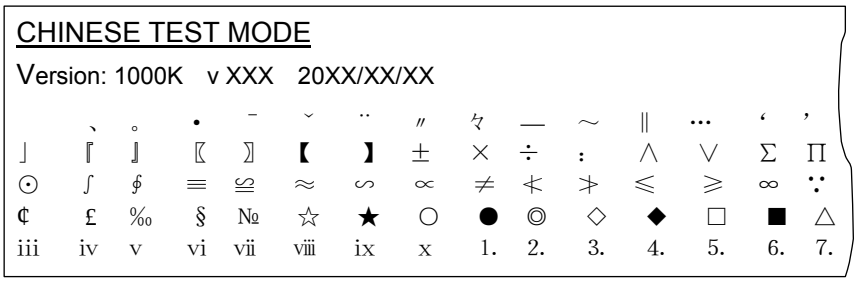


Figure 4-4 Chinese self test mode

4.7.3 Maintenance Printing Test (H pattern)

Press **Online** and **LF**/**FF** together then turn on the power, the printer would print out one page of H pattern then exit the self test mode. Now you can start printing.

If you press **Copy** now, then turn on the power, the printer would print H pattern continuously. Press **Online** can pause it. If you want to exit now, you can turn off the power then turn on again.

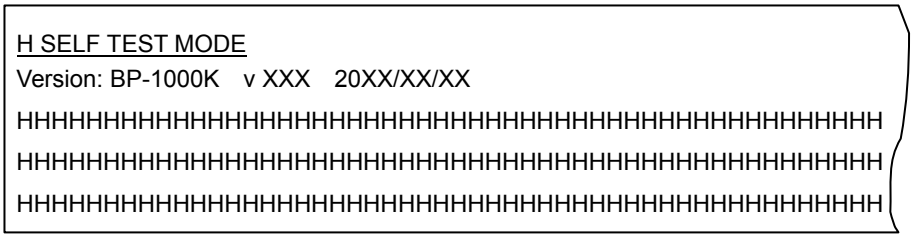


Figure 4-5 H Self test mode

4.7.4 Hex Mode

Press **Load** /**Eject** then turn on the power, the printer enter the Hex printing mode. After enter the Hex printing mode, the printer would print out the Hex data which send from the computer. Use the Hex printing mode we can check the trouble of interface. If you run follow program, you can get the printing result relatively.

```
10  LPRINT  CHR$(27); “4”;
20  LPRINT  “ABCDEFGHIJKLMNOPQRSTUVWXYZ”
30  LPRINT  CHR$(27); “5”;
40  LPRINT  “ABCDEFGHIJKLMNOPQRSTUVWXYZ”
```

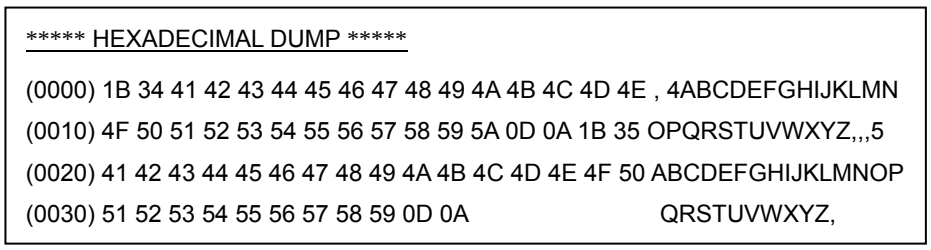


Figure 4-6 Hexadecimal mode

The following is the printing result of normal mode:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

4.7.5 Dot Alignment Mode

(1) Character mode alignment Mode

To adjust character more accurate, press the **LF/FF** and **Copy** keys about 3 seconds.

When the printer enters dot Alignment Mode, online LED blinks.

In Dot Alignment mode, press the **Load/Eject** or **LF/FF** keys for adjusting dot alignment.

Load/Eject: Press to move the odd line to the right (original parameter values increase)

LF/FF: Press to move the odd line to the left (original parameter values decrease)

High Speed: Press for next type of DPI character adjustment.

Online: Press to save the setting to the EEPROM.

To exit from this mode, turn the printer off.

(2) Graphic mode alignment Mode

To adjust graphic more accurate, press the **LF/FF** and **Online** keys about 3 seconds.

When the printer enters dot Alignment Mode, online LED blinks.

In Dot Alignment mode, press the **Load/Eject** or **LF/FF** keys for adjusting dot alignment.

Load/Eject: Press to move the odd line to the right (original parameter values increase).

LF/FF: Press to move the odd line to the left (original parameter values decrease).

High Speed: Press for next type of DPI graphic adjustment.

Copy: Press to enter the graphic copy mode of dot alignment printing.

Online: Press to save the setting to the EEPROM.

To exit from this mode, turn the printer off.

Note: Alignment adjust mode will affect the printing quality, think over before adjust it and strict to the instructions while adjusting.

Chapter 5 Maintenance and Troubleshooting

5.1 Cleaning the Printer

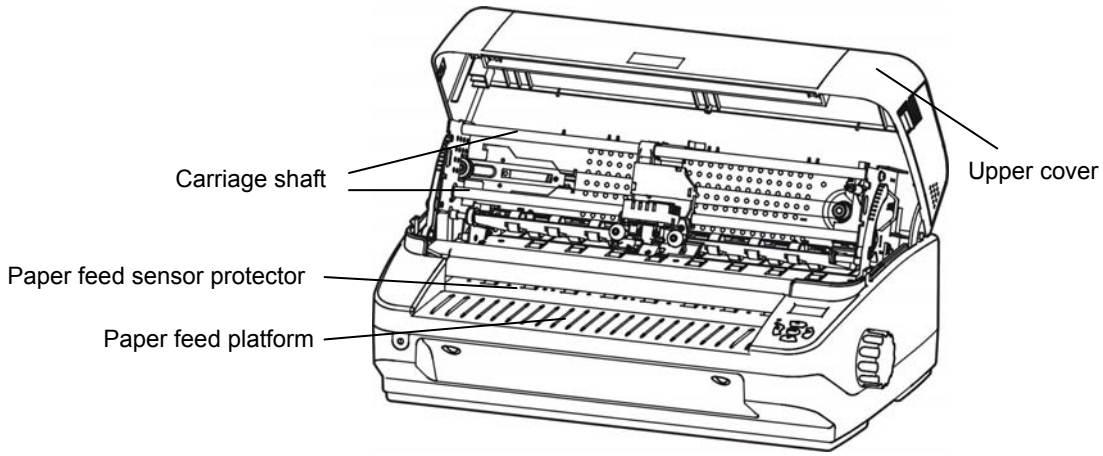


Figure 5-1 Clean the printer

- **Cleaning periodically and the cleaning tool**

  Periodical cleaning: every six months or every 300 working hours once.

  Cleaning tool: dry cloth (please use soft cloth to clean metal parts.)

- **Clean the paper feed platform**

  Wipe off the wasted paper and clean the dirt and dust.

- **Clean the carriage shaft**

  There is a layer of oil cover on the carriage shaft which guarantees the carriage can run smoothly. But the oil is easy to absorb dust, please clean it with soft cloth first, and then add proper lube, move print head back and forth to make lube scattered.

- **Clean the protect cover of photoelectric sensor.**

  As the paper feed sensor use a correlation photoelectric sensor. You should clean the parts periodically.

  Clean the surface of the photoelectric sensor's protect cover every three months.

  When the paper feed sensor can not detect the paper which make the paper can not be fed you may clean the dust which on the protect cover of photoelectric sensor.

Note: 1. Turn off printer and pull out the power cord before cleaning.

2. Being used under dust circumstance, the carriage shaft may stack much dust and affect the print quality.

3. If you have just finished using the printer let the print head cool for a few minutes before you touch it.

4. Don't use hard cloth or flammable solvent to clean the printer.

5.2 Problems and Solutions

When using the printer you may meet some problems as follow, please try the following solution to settle it.

Paper jam

The flat and straight paper path is specially design for your large quantities of document no trouble

printing.

When paper jam, please do as following steps:

1. Shut down the power and open the upper cover of the printer.
2. Open the upper frame; pull the upper frame lever in the front of the printer, then the upper frame move up.

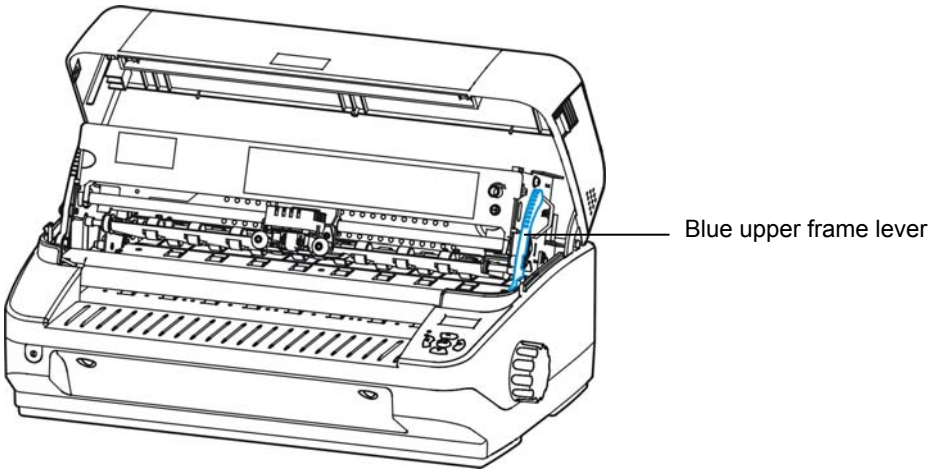


Figure 5-2 Lift up the upper frame

3. Pull out the jamming paper towards the front of the printer.

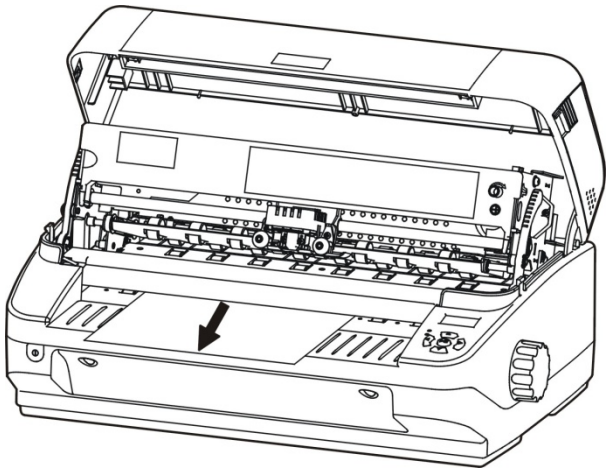


Figure 5-3 Pull out the jamming paper

4. If you can not touch the jamming paper or the paper had get into the printer can not take out, you can turn the knob at the right side of the printer, then take out the paper.

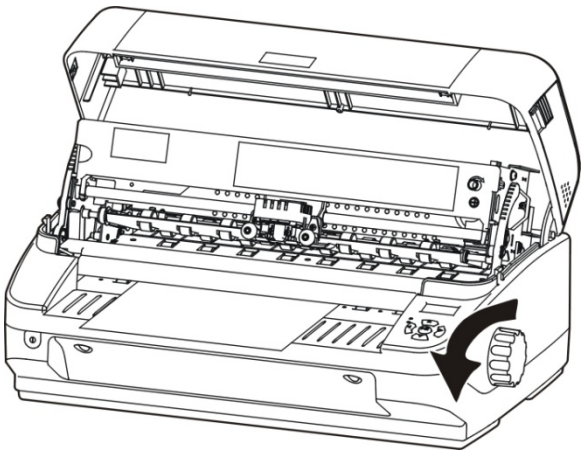


Figure 5-4 Turn the knob to take out the jamming paper

5. Press down the upper frame and pull the upper frame lever ahead till it locks in the correct position. Then pull backwards the upper frame lever and lock the upper frame.

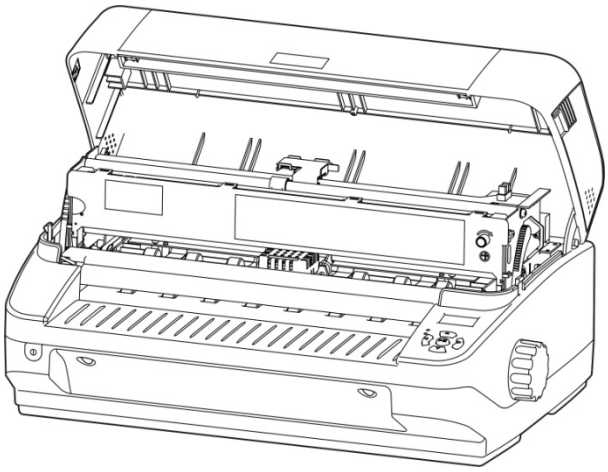


Figure 5-5 Press down the upper frame

6. Close the upper cover.

Turn on the printer normally, but can not online printing.

1. Please ensure the printer is connected with the computer, and check the paper had been feed or not, and the online LED is on.
2. If still can not be connected to printing please change your printer cable.

The printout is faint

1. If the printing is faint please replace the ribbon.
2. Make sure that the ribbon cartridge is installed correctly, and the ribbon is fixed correctly between the print head and the ribbon guide slice.

The printing paper is dirty by the printing ink

The ribbon get away of the correct position, please reinstall ribbon core.

5.3 Error Indication on the Display of Control Panel

When the printer in trouble, it would in offline state, and alarm by the LED blinking also with the error indications on the display as follow:

Light	LED	Error	Reason	Solution
Power light blinks online light off	Paper out, please load paper	Paper out	Paper out	Please reload paper correctly
Power light and online light blink quickly simultaneous		Paper skew	The loaded paper is skew	
Power light and online light blink quickly alternately	Print head home position (HP) error, please restart the printer	Print head home position is incorrect	Print head didn't move back to the home position	Shut down the power, then switch on again, if the problem still exist, please clean the carriage guide shaft and add some lube.

Power light and online light blink slowly alternately	Please eject the loaded paper, for fear affect the paper switch	paper switch mode error	Paper switch mode error	Eject the paper first, then switch to the correct paper mode.
	Upper cover sensor error, please check if the upper cover had been close.	Upper cover sensor error	The upper cover not close or not close completely	Please check if the upper cover had been close correctly
Power light on, online light off, at the same time the print head move but noting printed.	The print head is in overheating protection, a moment later will auto printing again.	Print head is overheating	Because the printer has working for a long time which made the print head is overheating.	The print head's temperature will drop by move to and fro, till it is cool, it will continue printing.

Chapter 6 Paper Specification

The printing paper should be up to follow demand:

- Use the paper that request in our manual
- It should be finer of the paper around edge, and the printing area should finer too, it can not has any perforation or cranny.
- The paper can not have any metal, hard plastic buckle and staple which would damage the printer.
- Only can use the passbook of thread binding
- For better printing result, you should print on the white or light colored paper, and you can reprint in the paper of low contrast.
- The transparence of the paper should less than 20％, the transparent medium or high transparence paper may cause the error of paper load.
- When printing multilayer text, the glue on the top of the paper should cause the paper can not be conglutinated with the paper feeding platform.

Note: 1. To guarantee the quality of printing, please ensure the content should be in the printable area.

2. If the content go beyond of the printable area, it would cause the pin breaking of the print head.

6.1 Cut Sheet Printable Area

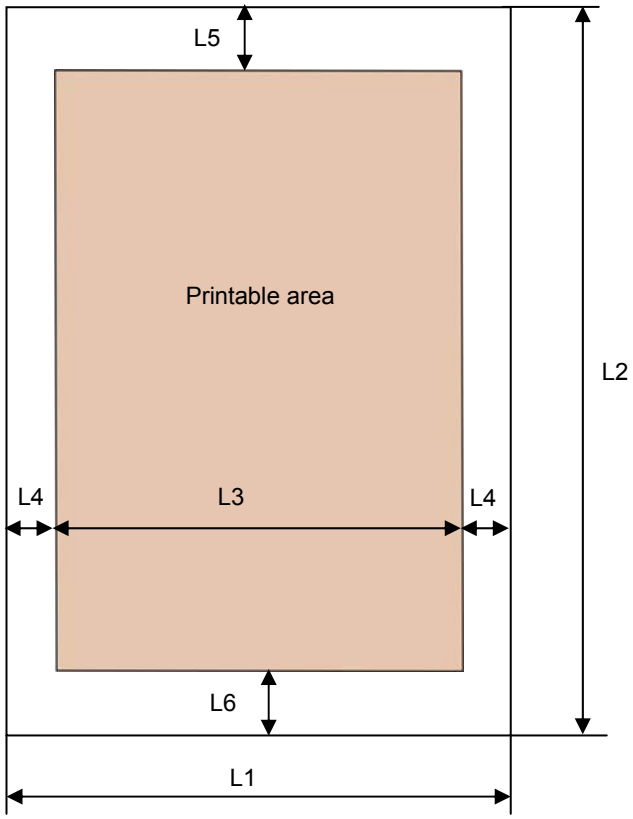


Figure 6-1 Cut sheet printable area

Dimension		Min	Max
L1	paper width	65 mm	330 mm
L2	paper length	66 mm	/

L3	printable scope width	/	279.4 mm
L4	left, right margin width	2 mm	/
L5	top margin	4 mm	/
L6	bottom margin	6 mm	/
weight		55 g/m^2	180 g/m^2

6.2 Tractor Papers Printable Area

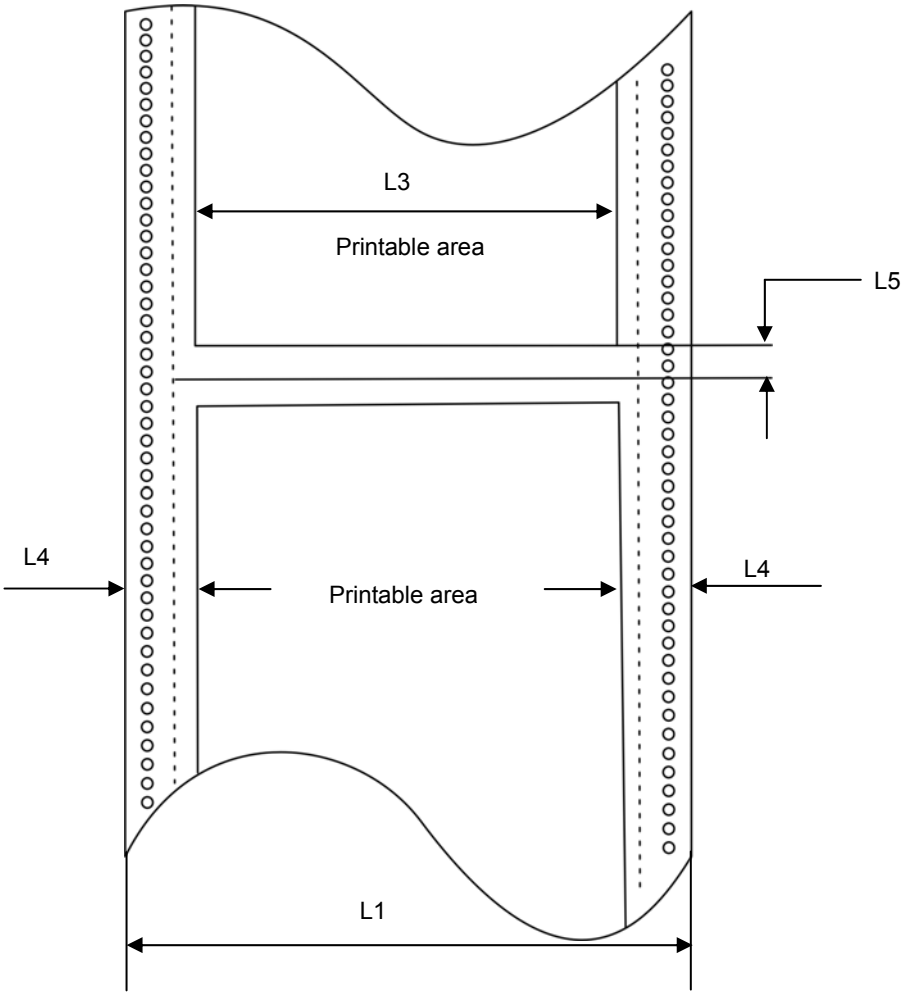


Figure 6-2 tractor papers printable area

Dimension		Min	Max
L1	paper width	65 mm	317.5 mm
L2	paper length	76.2 mm	/
L3	printable scope width	/	279.4 mm
L4	left, right margin width	13 mm	/
L5	top margin, bottom margin	4.2 mm	/
Paper weight		55 g/m^2	180 g/m^2
multi-part paper weight (single)		30 g/m^2	40 g/m^2
1+3 paper weight		/	160 g/m^2
1+6 paper weight		/	280 g/m^2

6.3 Passbook Printable Area

6.3.1 Size Specifications of Horizontal Passbook

- The cover and the inner paper of the passbook should not has any crease, twist and breakage.
- The cover should be same thickness.
- Before printing, open the passbook, and turn down by the bind line which makes it more flat to load into the printer.
- The protuberance at the passbook's back where there is the bind line should not over 0.5mm, or it would cause the printing is not clear.

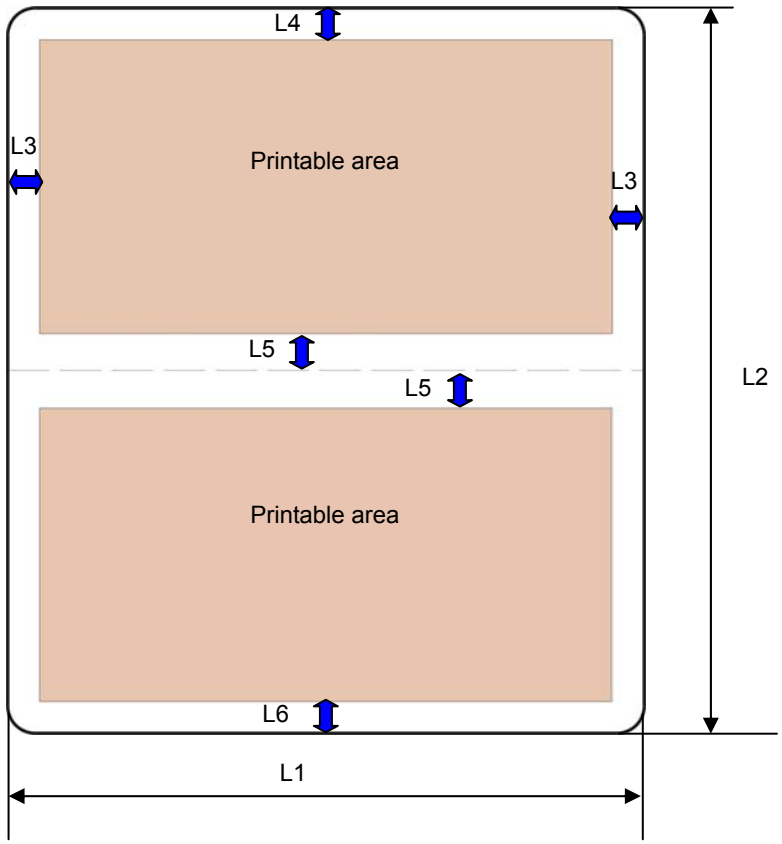


Figure 6-3 Passbook printable area

Dimension		Min	Max
L1	passbook width	66 mm	280 mm
L2	passbook length	105 mm	220 mm
L3	left, right margin width	2 mm	/
L4	top margin Bottom margin	4 mm	/
L5	passbook centre joint margin width	5.1 mm	/
L6	bottom margin	6 mm	/
Paper weight		90 g/m^2	100 g/m^2
Paper thickness	multi-page passbook	/	3.0 mm
	passbook open thickness differences	/	1.52 mm
	single page passbook or ledger card	0.18 mm	0.28 mm
	passbook cover	0.18 mm	0.46 mm

6.3.2 Size Specifications of Vertical Passbook

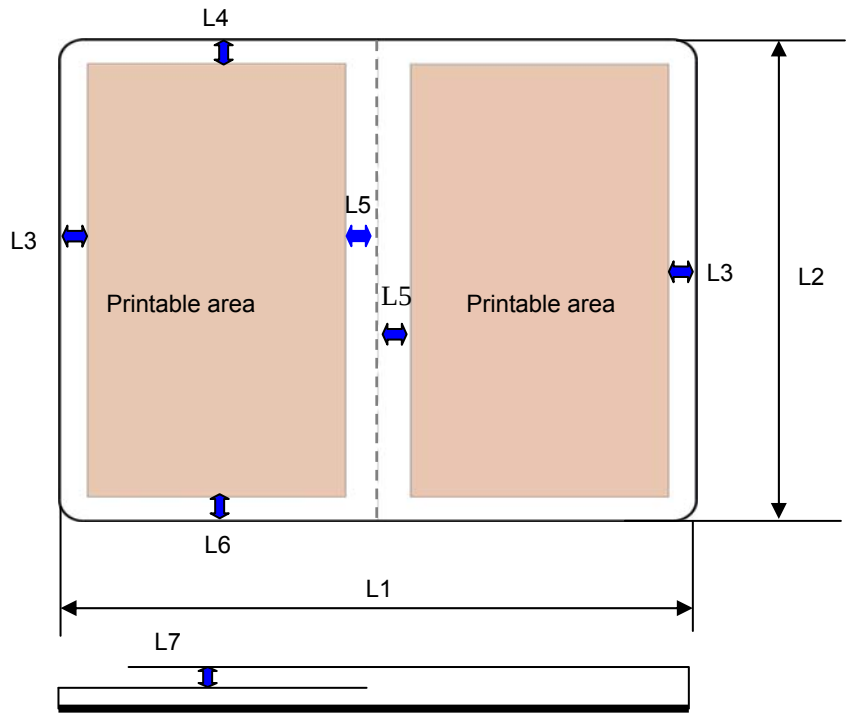


Figure 6-4 Vertical passbook printable area

Dimension		Min	Max
L1	passbook width	65 mm	280 mm
L2	passbook length	85 mm	220 mm
L3	left, right margin width	2 mm	/
L4	top margin bottom margin	4 mm	/
L5	passbook centre joint margin width	7 mm	/
L6	bottom margin	6 mm	/
L7	The thickness difference of the right and the left sheets	/	1.2 mm
Paper weight		90 g/m^2	100 g/m^2
Paper thickness	multi-page passbook	/	3.0 mm
	single page passbook or ledger card	0.18 mm	0.28 mm
	passbook cover	0.18 mm	0.45 mm

Appendix A Technical Specification

A.1 Technical data

Item	Description					
Type	24-Pin Flatbed Dot Matrix Impact Printer					
Print direction	Bi-directional logic seeking					
Number of columns	110 column (10cpi)/279.4mm					
Print speed	**ASCII**			**Chinese**		
	speed	**10 CPI**	**12 CPI**	**speed**	**6.7 CPI**	**7.5 CPI**
	Super high speed	360 CPS	432 CPS	Super high speed	200 CPS	225 CPS
	High speed	300 CPS	360 CPS	High speed	133 CPS	150 CPS
	Normal speed	100 CPS	120 CPS	Normal speed	66 CPS	75 CPS
Print head	Diameter of wire: 0.22 mm					
	Life: 500 million dots/wire					
Resolution	360 x 360 dpi (Max.)					
Character set	ASCII: 15 international character sets (U.S.A, FRANCE, GERMANY, U.K、DENMARK1, SWEDEN, I TALY, SPAIN1, JAPAN, NORWAY, DEMARK2, SPAIN2, L ATIN AM, KOREA, LEGAL)					
	Chinese: GB 18030					
Code Page	28 types: U.S.A, MULTI, PORTUGAL, CANADA, NORWAY, EAST EURO, CYRILLIC, RUSSIAN, HUNGARY, KAMENICKY,,TURKEY, ICELAND, BULGARIA, MAZOVIA, GRK 437, GRK 851, GRK8859-7, GRK 1253, ARAB NLS, ARAB EXT, WIN LAT1, WIN LAT2, ISL LTN1, ISO LTN2, TUR8859-9, ISO LTN9, KBL, LATIN 7					
Fonts set	ASCII: Draft, Roman, Sans Serif, Courier, Prestige, Script, OCR-A, OCR-B					
Bar code	EAN-13, EAN-8, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5, Code 39, Code 128 B, Code 128 C, NW-7					
Character pitch	ASCII: 10 CPI,12 CPI,15 CPI, proportional					
	Chinese: 6.7 CPI, 7.5 CPI					
Line space	1/6 inch, 1/8 inch, programmable in 1/360 inch increments					
Paper feeding speed (max)	Cut sheet / Thick paper mode			330.2mm/s 13inch/s		
	Tractor paper mode (Tractor is optional)			254mm/s 10inch/s		
Emulation	EPSON ESC/P-K2, OKI 5530SC, Olivetti PR2, IBM					
Interface	Parallel interface: Centronics (IEEE1284 NIBBLE Mode) USB interface: USB 2.0 Full-Speed ★ **According to the specific interface standards**					
Input Buffer	64 KB					
Ribbon	Model: JMR115					
	Life: 10 million characters (draft mode)					
Noise	＜55 dB (A) (ISO7779 standard)					
Control panel	5 keys and 2 indicator lights and a LCD display					
Paper feed type	Cut sheet: Load/eject from the front / Load from front and eject from rear					
	Tractor paper (Tractor is optional) : Load front the rear , eject from the front					
Thickness adjust	Auto fit the thickness of the paper					
Paper specification	Cut sheet		Width: 65 ～ 330 mm			
			Thickness: 0.08 ～ 0. 5 mm			
			Weight: 55 ～ 180 g/m^2			
	Tractor paper		Width: 65 ～ 317.5 mm			

		Total Thickness: 0.08 ～ 0.5 mm
		Weight (Single paper): 55 ～ 180 g/m^2
		Multiple paper (Every page): 30 ～ 40 g/m^2
	Passbook and certificate	Width: 65 ～ 280 mm
		Length: 105 ～ 220 mm
		Total Thickness: Max 3.0 mm
		Weight (inner page): 90 ～ 100 g/m^2
Max paper thickness	3.0 mm	
Copy	Original + 6 copies Normal: original + 3 copies (0.065mm/page) — print once "1 + 3 copies": original + 5 copies (0.065mm/page) — print once "1 + 6 copies": original + 6copies (0.065mm/page) — print twice	
Rectify angle	±20°(Max)	
Automatic function	Document Skew detection, Automatic document border detection，Automatic paper thickness detection	
Compress set	Support graph and character printing. compression ratio are 50%, 66%, 75% , 100%	
Especial function	Pin Break Compensation, Pin Rotation Replacement, Automatic Emulation Match, Online Parameter Setting, Full slot position paper loading and printing Chinese LCD display	
Physical dimensions	470 (Width) × 340 (Depth) × 215 (Height) mm	
Weight	Approx. 12Kg	
Environmental conditions	Operating environment	Temperature: 5 ～ 40℃
		Humidity: 40%RH ～ 90%RH (No condensation)
	Storage environment	Temperature: -40 ～ 55℃
		Humidity: ≤93%RH (40°, No condensation)
Power requirements	Rated voltage range: 198 ～ 242 V	
	Rated frequency range: 50 ～ 60 Hz	
Power	①working power: 80W; ②Largest power: 180W; ③Waiting power: 9W **Caution: Only when the product is unconnected with outer power supply, it can achieve zero energy consumption state.**	
Reliability	MTBF≥20,000 hours (IEC 605.7standard)	
Wireless disturbance	Grade B	

A.2 Parallel Interface

Signal level

Input High level: 2 to 5V, Low level: 0 to 0.8V

Output High level: 2.4 to 5V, Low level: 0 to 0.4V

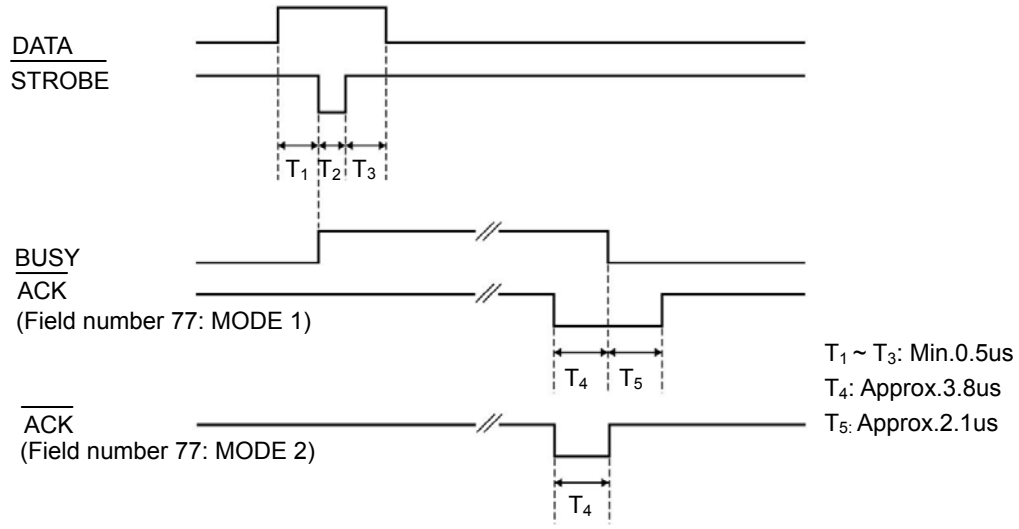


Figure A-1 Timing figure

Connector Pin Assignments

Signal Pin No.	Return Line Pin No.	Signal Name	Signal Direction
1	19	$\overline{\text{STROBE}}$	Printer ← Host
2 ～ 9	20 ～ 27	DATA	Printer ← Host
10	28	$\overline{\text{ACK}}$	Printer → Host
11	29	BUSY	Printer → Host
12	30	PE	Printer → Host
13	—	SELECT	Printer → Host
14	—	$\overline{\text{AUTO FEED}}$	Printer ← Host
15	—	NC	NC
16	—	SIGNAL GND	Printer ↔ Host
17	—	CHASSIS GND	Printer ↔ Host
18	—	+5V	Printer → Host
31	—	$\overline{\text{PRIME}}$	Printer ← Host
32	—	$\overline{\text{ERROR}}$	Printer → Host
33	—	SIGNAL GND	Printer ↔ Host
34	—	NC	Printer → Host
35	—	PULLED UP 5V	Printer → Host
36	—	$\overline{\text{SELECTIN}}$	Printer ← Host

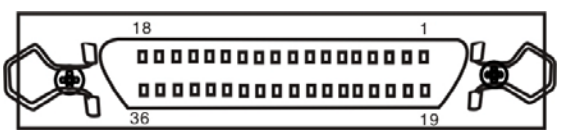


Figure A-2 Parallel interface connector pin number

A.3 USB Interface

USB interface is 2.0 (Full Speed), the interface connector A and B signal assignments are shown below:

NO.	Name	Color
1	VBUS	red
2	D-	white
3	D+	green
4	GND	black

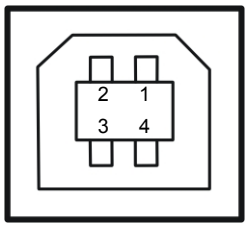


Figure A-3 USB-B type connector

A.4 Cautions of Printing

- The paper which inserted should not be collapsed, tore or carry any staple, clip or pin and so on. (As shown in A-5) Or else, it will damage the printer seriously.
- Do not use the print paper which edges fall into disrepair.
- Do not use the single sheet tractor paper can single sheet fanfold paper in the cut sheet mode, because the holds on the both sides of the tractor paper or the folds on the fanfold paper edges will lead to paper jamming. (As shown in A-6)

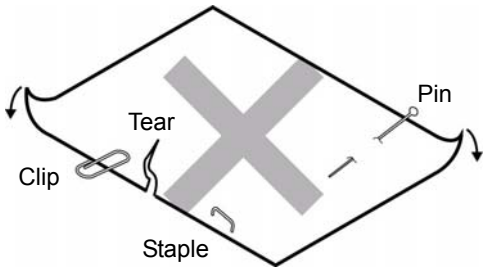
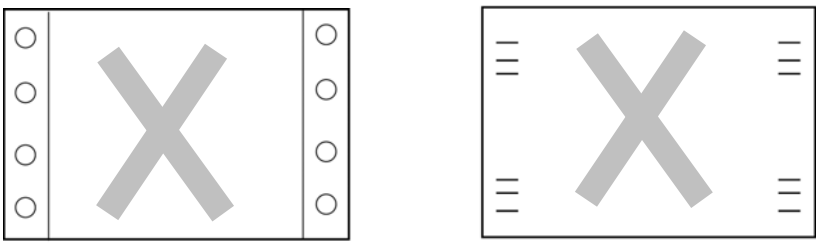


Figure A-5



Single sheet tractor paper　　Single sheet copy paper

Figure A-6

- Printer safety working environment:

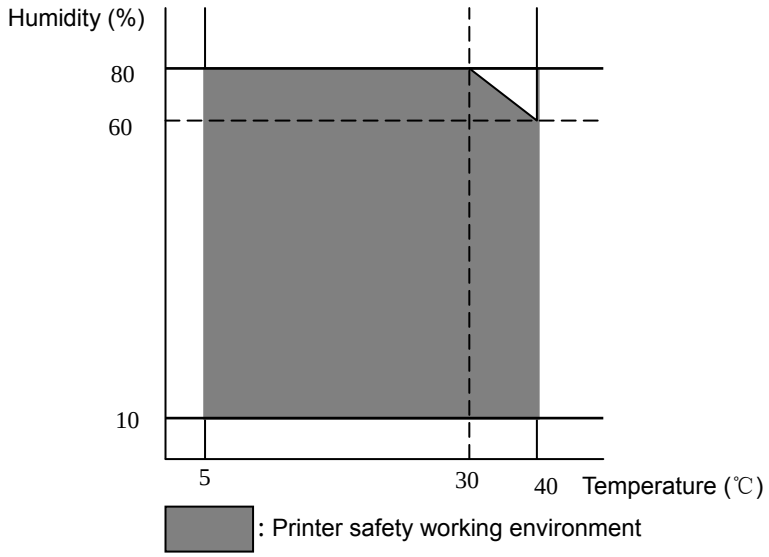


Figure A-7

Jolimark