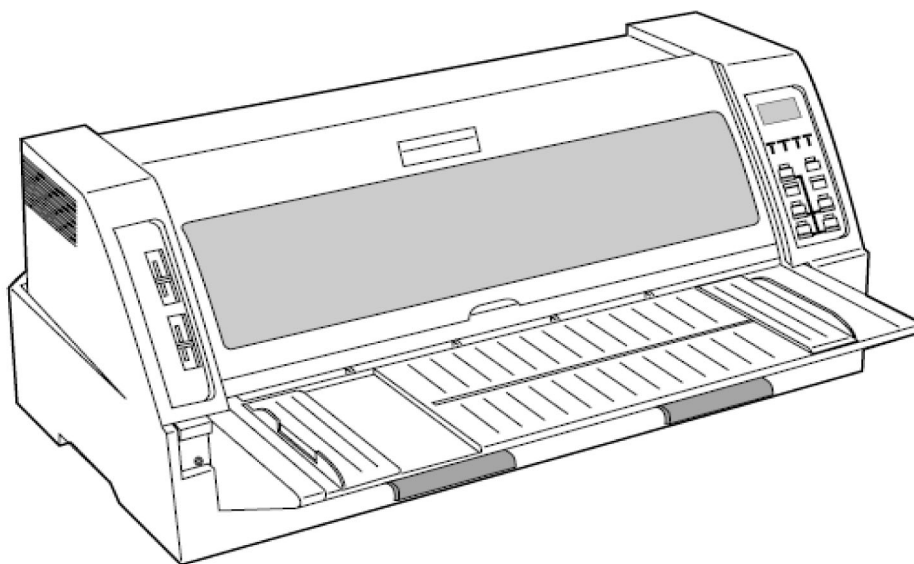


FB-600E

OWNER'S MANUAL



AUI Co., Ltd.

Declare

About Trademark

Corporation names and product names are the registered trademarks or commodity names of the corporation.

- * EPSON and ESC/PK2 are registered trademarks of Seiko Epson Corporation.
- * IBM and IBM 2391 are registered trademarks of International Business Machines Corporation.
- * OKI and OKI 5530SC are registered trademarks of OKI Data Corporation.
- * Windows is a registered trademark of Microsoft Corporation.

Important Safety Instructions

Read all of these instructions carefully and thoroughly and save them for later reference. The unauthorized operation would lead to malfunction or accident. Manufacturers have no responsibilities for the problems which are led by misoperations.

1. Follow all warnings and instructions in the manual as well as marked on the product.
2. Do not touch the print head if the printer has just been recently used as the print head may be hot.
3. Do not put your fingers under the left and right tractor sprocket covers of the tractor when installing the tractor paper.
4. Unplug this product from the power outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use this product near water.
6. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to you or the product.
7. 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.
8. This product should never be placed near or over a radiator or heat origin, and should avoid of direct sunshine.
9. Do not locate this product where the cord would 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.
10. Do not use in locations subject to high humidity or dust levels. Excessive humidity and dust may cause equipment damage or fire.
11. Never push objects of any kind into this product though cabinet slots as they may touch dangerous voltage dots or short out parts.
12. Don't remove the printer's out-cover and repair the printer. When needed, call or take it to the professional.
13. 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.
14. 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.
 - E. If the product has been dropped or the cabinet has been damaged.
 - F. If the product exhibits a distinct change in performance, it indicates a need for service.

Note: The contents of this manual are subject to change without notice.

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

Table of Contents

Declare.....	i
Important Safety Instructions	ii
Chapter 1 Function Chracteristic	1
Chapter 2 Preparation	2
2.1 Unpacking & Checking	2
2.2 Removing Protective Materials.....	2
2.3 Parts Identification.....	2
2.4 Installing the Printer	3
2.5 Installing the Ribbon Cassette.....	3
2.6 Installing and Dismantling the Paper Rack Holders	5
2.6.1 Installing the Paper Rack Holders.....	5
2.6.2 Removing the Paper Rack Holders	5
2.7 Installing and Removing the Paper Rack	6
2.7.1 Installing the Paper Rack.....	6
2.7.2 Removing the Paper Rack.....	6
2.8 Installing the Tractor.....	6
2.8.1 Installing the Back Tractor	6
2.8.2 Installing the Front Tractor	7
2.9 Connecting to the Printer	7
2.9.1 Connecting to the Parallel Interface.....	8
2.9.2 Connecting to the USB Interface	8
2.9.3 Connecting to the Ethernet Interface	8
2.9.4 Connecting to the Serial Interface	9
2.10 Connecting to the Power Cord	9
2.11 Installing Driver.....	10
2.11.1 Auto-installing Way	10
2.11.2 Hand Operated Installing Way	10
2.12 Network Settings	12
2.12.1 Connecting Printer.....	12
2.12.2 Setting IP Address	12
2.12.3 Installing Printer Network Driver	15
Chapter 3 Control Panel.....	22
3.1 Control Panel	22
3.1.1 Control Panel View	22
3.1.2 Function Keys.....	22
3.1.3 LCD	24
3.1.4 Paper Path Lever.....	24
3.1.5 Head Adjustment Lever	25
3.1.6 Indicator Lights	25
3.1.7 Shortcut Key Function	26
3.2 How to Use the Functional Setup.....	26
3.2.1 Menu Setup Functional Key.....	26
3.2.2 Setting Examples.....	27

Chapter 4 Printer Setting	29
4.1 Setting up the Manual Mode	29
4.2 Setting up the Tractor Mode	30
Chapter 5 Menu Function Description	32
5.1 MULTIPART	32
5.2 TOF ADJ.MANL.....	32
5.3 TOF ADJ.R.TR	32
5.4 TOF ADJ.F.TR.....	32
5.5 MANL PG LGTH.....	33
5.6 R.TR PG LGTH.....	33
5.7 F.TR PG LGTH.....	33
5.8 RGHT PG WIDTH	34
5.9 LEFT PG WIDTH	34
5.10 TOP MRG.....	34
5.11 BOTTOM MRG.....	35
5.12 LEFT MRG	35
5.13 FONT SELECT	35
5.14 CHR PITCH.....	35
5.15 CHN PITCH.....	36
5.16 LF PITCH	36
5.17 ENULATION	36
5.18 CHR TBL EPSON	36
5.19 CHR TBL IBM.....	36
5.20 INTL FONT.....	37
5.21 CODE PAGE	37
5.22 AGM IBM.....	37
5.23 LF SETTING	38
5.24 CR SETTING	38
5.25 ZERO STYLE.....	38
5.26 MANUAL EJECT	38
5.27 SKEW DETECT	38
5.28 JAM DETECT.....	39
5.29 PAGE LOCK.....	39
5.30 FF SETTING	39
5.31 ERROR STATUS.....	39
5.32 LANGUAGE	39
5.33 PRINT MODE.....	40
5.34 COMPRESS PRN	40
5.35 PARITY BIT	40
5.36 DATA LENGTH.....	40
5.37 STOP BIT	40
5.38 PROTOCOL	41
5.39 BAUD RATE	41
5.40 PRINT DIRECT	41

5.41 COVER DETECT	41
5.42 LOAD DELAY	42
5.43 QUIET MODE	42
5.44 TEAR OFF	42
5.45 HEAD PIN	42
5.46 PIN SWITCH	42
5.47 DHCP	43
5.48 IP ADDRESS.....	43
5.49 SUBNET MASK	43
5.50 GATEWAY	43
5.51 MENU LISTING.....	43
Chapter 6 Troubleshooting	45
6.1 How to Solve the Problem.....	45
6.2 How to Solve the Error Message.....	46
Chapter 7 Printer Specification	48
7.1 General	48
7.2 Interface Specification	50
7.2.1 Parallel Interface.....	50
7.2.2 USB Interface	51
7.2.3 Ethernet Interface	51
7.2.4 Serial Interface	51
7.3 Printable Area.....	54
7.4 Cautions of Printing.....	55
Appendix A Self-test and Adjustment	56
A.1 Self-test Function	56
A.1.1 ASCII Test Mode	56
A.1.2 Maintenance Printing Test (H pattern)	56
A.1.3 Hex Dump Mode	56
A.1.4 Pin test	57
A.2 Adjust Function	57
A.2.1 Alignment Adjust Mode.....	57

Chapter 1 Function Chracteristic

- Flatbed Paper-feed Mechanism.
- Paper type and paper thickness are selectable: It can print with cut sheet and tractor paper (1~7 copies) of different thicknesses.
- Paper feed way is adjustable: Manual feeding way can be chose when using cut sheet to print; Tractor feeding way can be chose when using tractor paper to print.
- Automatic functions of paper thickness detection, paper skew detection, paper edge detection and paper out detection.
- The printer supports the EPSON, OKI and IBM emulation as standard.
- The printer can be configured with parallel interface, USB interface, Ethernet interface or serial interface.
- Contain the following standard bar codes: 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.

Chapter 2 Preparation

2.1 Unpacking & Checking

Check the following items in the package, if any of these items is missing, please contact your dealer.

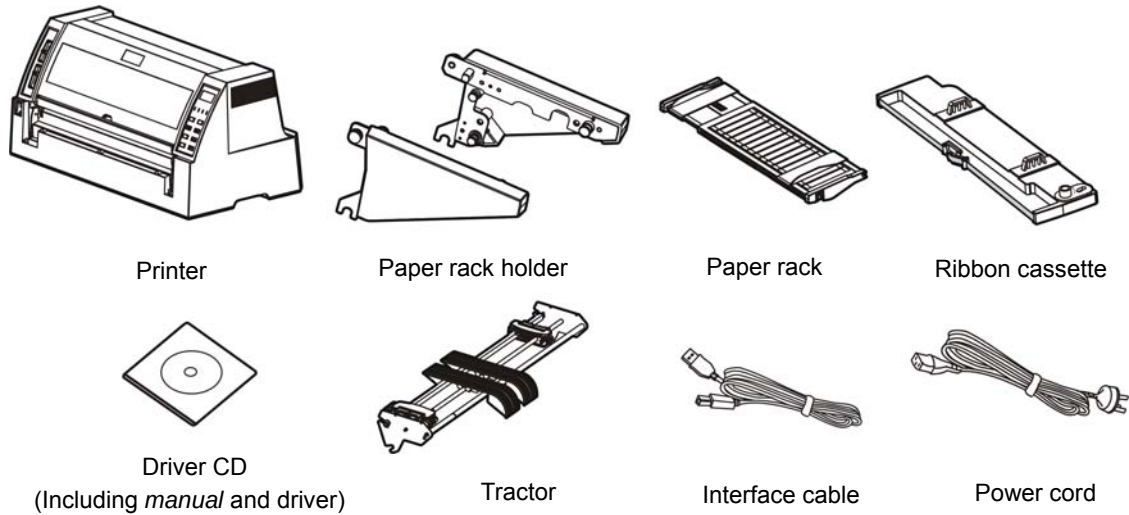


Figure 2-1 Packing list in the printer box

2.2 Removing Protective Materials

1. Open the packing box, take out the printer, and remove the packing materials.
2. Save all the original packing materials, so that they can be used when take out the printer.

2.3 Parts Identification

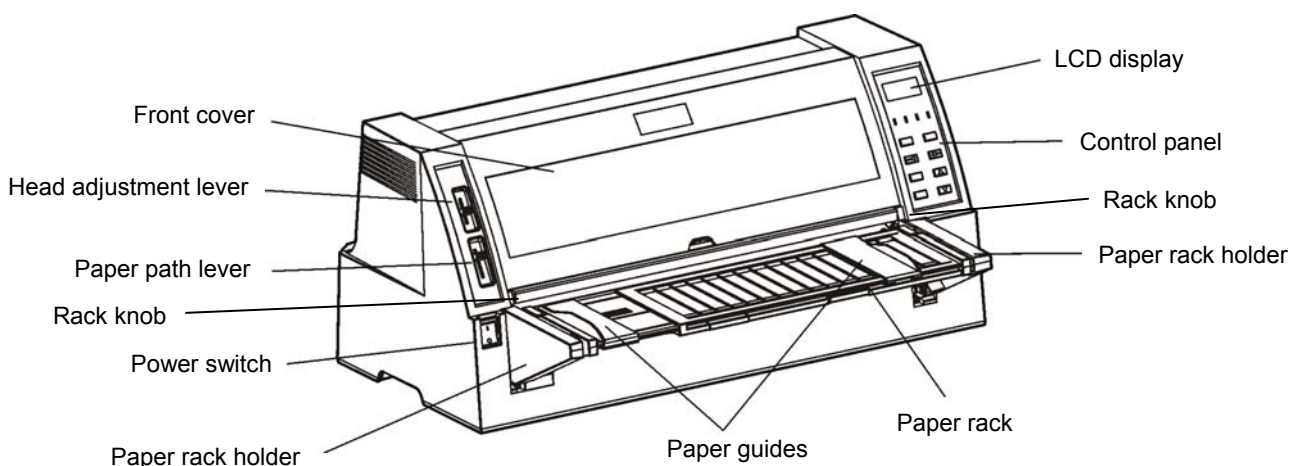


Figure 2-2 Main parts of printer (front view)

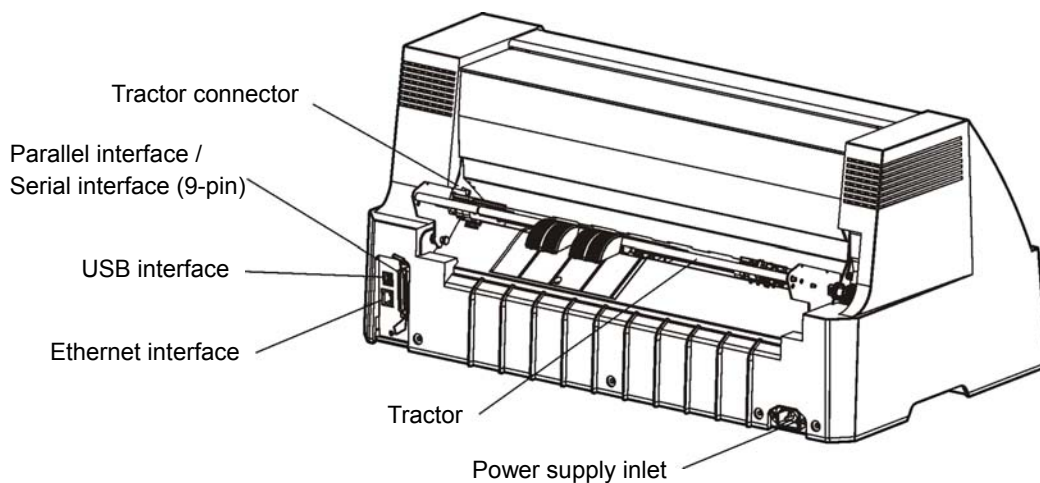


Figure 2-3 Main parts of printer (rear view)

Note: 1. According to the specific interface standards.

2. This product supports the configuration way of parallel interface + serial interface.

2.4 Installing the Printer

Before placing the printer in your chosen location, consider the following guidelines:

- This printer should be placed on a normal table, printer stand or desk. Be sure that the surface is level, to avoid an uneven load on the carriage as it operates.
- Do not place the printer where belong to the following conditions:
 - The place is overheating or humidity.
 - The place is shaking.
- Do not install the printer where it may be subjected to unsuitable conditions such as:
 - Where there is excessive dust.
 - Where it may be splattered with oil or metallic dust.
 - Where it may be exposed to direct sunlight.
 - Where it may be accidentally splashed with water.

2.5 Installing the Ribbon Cassette

1. Make sure the printer is turned off.
2. Open the front cover, move the print head to the left of the printer. (As shown in the following figure)

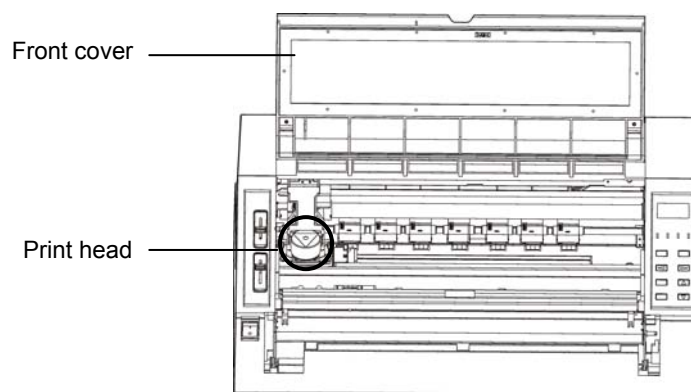


Figure 2-4 Move the print haed to the left

3. Turn the ribbon feed knob in the direction of the arrow to remove any slack from the ribbon so it is easier to install. (As shown below)

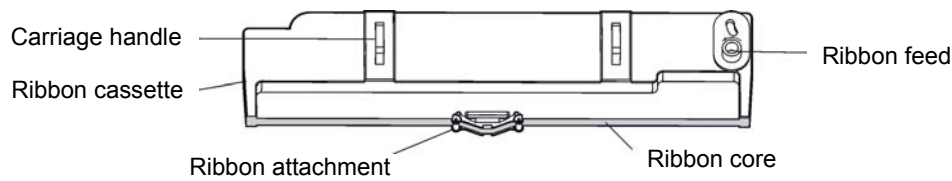


Figure 2-5 Ribbon cassette

4. Hold the carriage handle and fit the ribbon cassette into the ribbon cassette position, then push it into place. (As shown below)

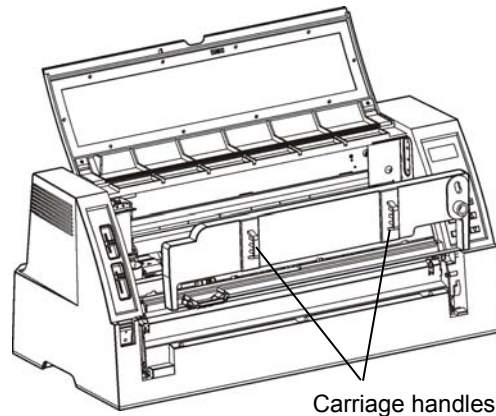


Figure 2-6 Installing the ribbon cassette

5. Aim the two round holes on the ribbon attachment at the two projections of the carriage, then press them into place. (As shown below)

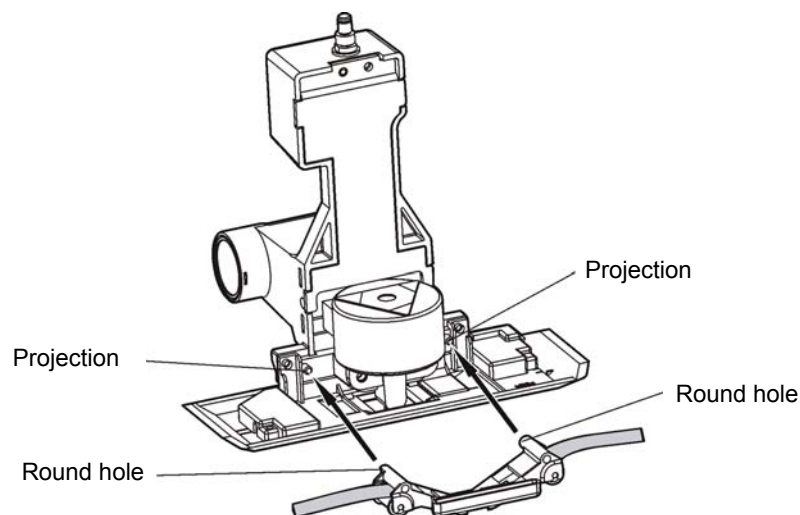


Figure 2-7 Install the ribbon attachment to the carriage

6. Turn the ribbon feed knob in the direction of the arrow to remove any slack from the ribbon again, ensure that there is no crease in the ribbon core.
7. After installing the ribbon cassette (as shown below), please close the front cover.

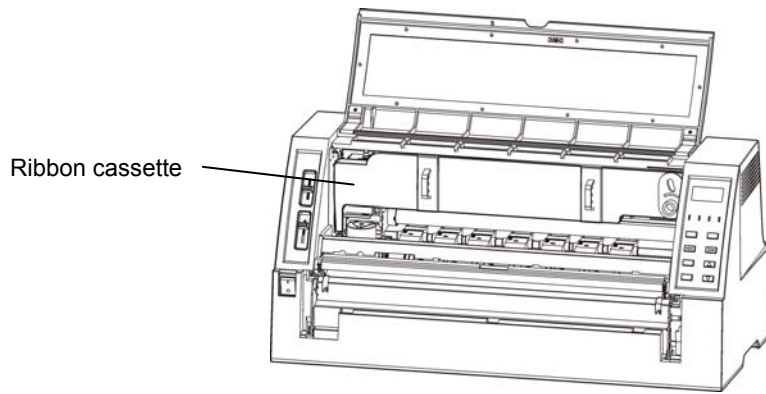


Figure 2-8 Install the ribbon cassette

- Note:** 1. When your print becomes faint, you need to replace the ribbon cassette. Otherwise, the print quality will be affected and the print head may be damage.
2. To remove the old ribbon cassette, first make sure the power is turned off, move the print head to the left of the printer. Then pull out the ribbon attachment, hold the ribbon cassette handle on both sides and lift it out of the printer forwards. Install a new one as the above steps.
3. Never remove the print head when printer is on, or else the printer may get damaged. Besides, do not touch the print head at the time finishes using the printer for overheating.
4. Please use the original AUI ribbon cassette only. Manufacturer will not honor warranty when using unauthorized ribbon cassette.

2.6 Installing and Dismantling the Paper Rack Holders

2.6.1 Installing the Paper Rack Holders

When installing the holder, firstly, aim the down install groove of the holder at the corresponding positioning shaft on the printer, then rotate it upwards and make the upper install groove install into place. (As shown below)

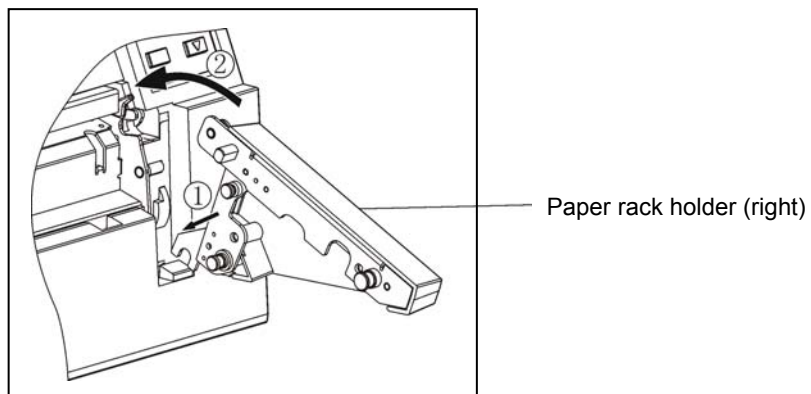


Figure 2-9 Install the paper rack holder

2.6.2 Removing the Paper Rack Holders

When removing the holder, firstly, pull the draw knob upwards then press the holder downwards, the holder will be removed. (As shown below)

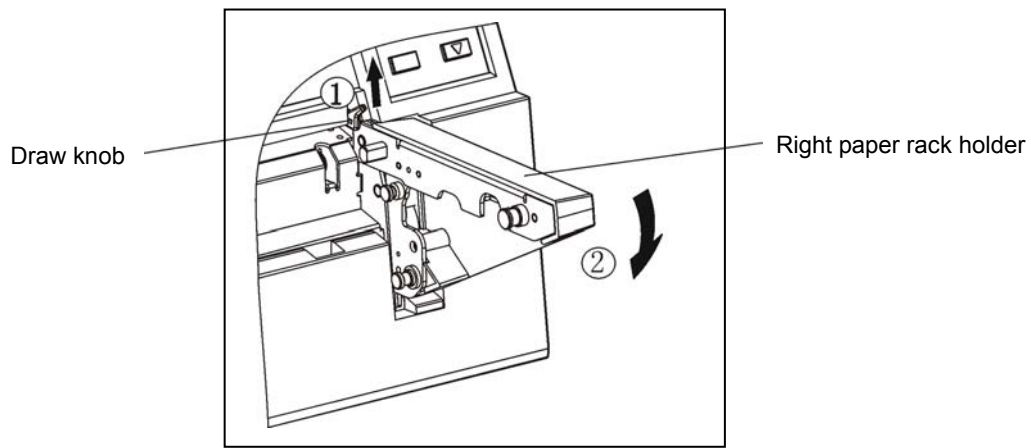


Figure 2-10 Remove the right paper rack holder

2.7 Installing and Removing the Paper Rack

2.7.1 Installing the Paper Rack

Firstly, hold the front of the paper rack vertically down, aim the right and left install grooves at the positioning shafts on the right and left holders, then press them down and fit them into place, at last, rotate the paper rack outwards and press it into place.

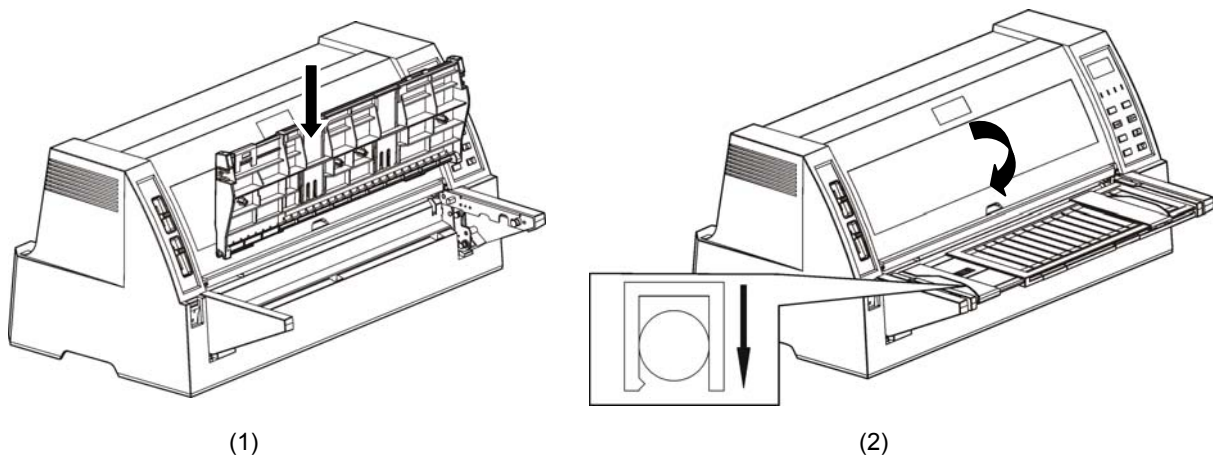


Figure 2-11 Install the paper rack

2.7.2 Removing the Paper Rack

Hold the right and left holders with your hands, pull it up with your thumbs on both sides of the paper rack, then rotate it upwards until it becomes vertically, at last lift it up.

2.8 Installing the Tractor

2.8.1 Installing the Back Tractor

Note: If only use the cut sheet, you don't need to install the tractor.

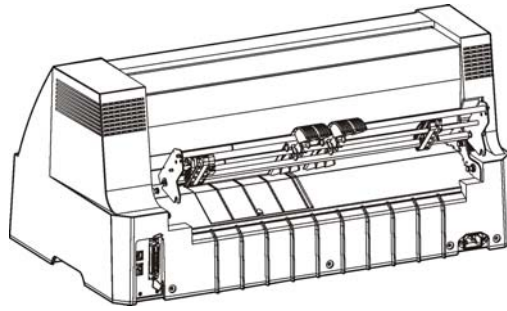


Figure 2-12 Start to install tractor

1. Insert the connect cable of the tractor into the connector on the printer.
2. Aim the install grooves on both sides of the tractor at the positioning shaft on right and left wallboards of the printer, then push them into place and low them backwards.

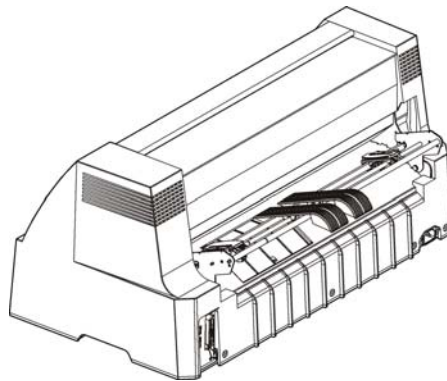


Figure 2-13 Installing the back tractor

2.8.2 Installing the Front Tractor

Plug the connector on the left side of the tractor into the corresponding socket of the printer. And then install the tractor on the left and right tractor supports. (As Figure 2-14 shown)

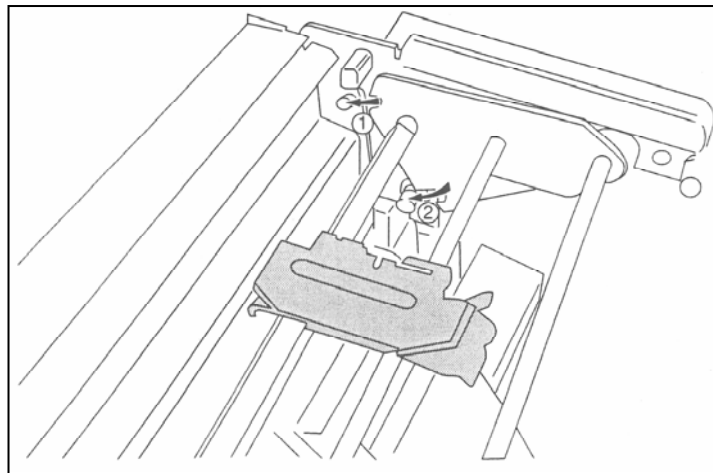


Figure 2-14 Installing the front tractor

2.9 Connecting to the Printer

Your printer can be configured with parallel interface, USB interface, serial interface or Ethernet interface, (according to the specific interface standards). Connect the printer to your computer as described below. As Figure2-15, 2-16, 2-17 and 2-18 show.

Note: Before connecting the parallel interface or the serial 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.

2.9.1 Connecting to 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 both sides of the connector. As shown in Figure 2-15.
2. Plug the other end of the cable into the computer's parallel interface; then tighten the screws on both sides of the connector, make sure it is tight to the interface.

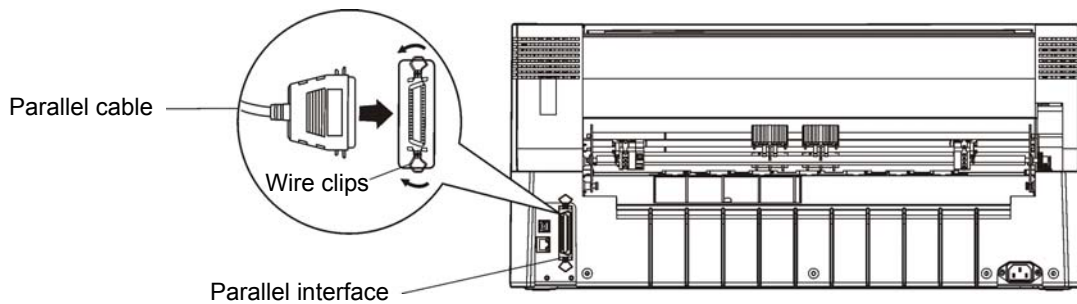


Figure 2-15 Connect to the parallel interface

2.9.2 Connecting to the USB Interface

1. Plug the USB cable A end (flat shape) into the computer's USB interface. As shown in Figure 2-16.
2. Plug the USB cable B end (square shape) into the printer's USB interface.

Note: Don't impact the plug after connecting to the USB cable.

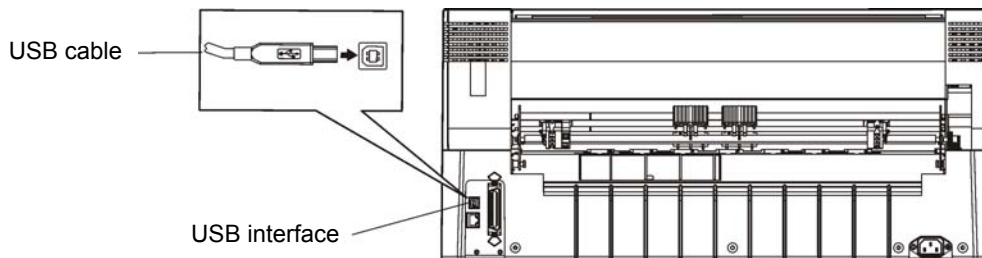


Figure 2-16 Connect to the USB interface

2.9.3 Connecting to the Ethernet Interface

Plug the RJ-45 crystal plug of the Ethernet cable into the printer, and plug the other plug into the LAN. As shown in Figure 2-17.

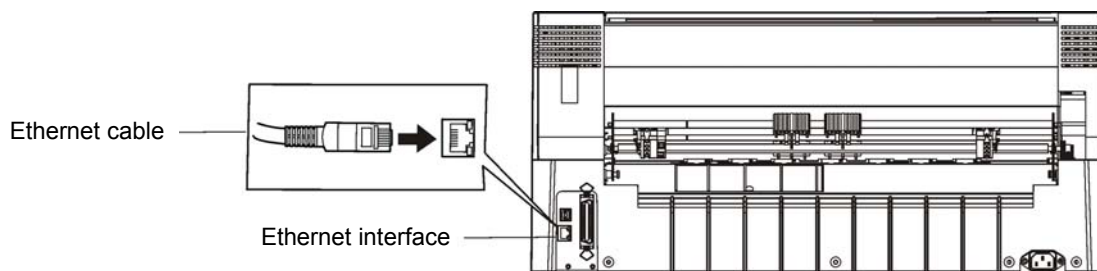


Figure 2-17 Connect to Ethernet interface

Note: The details of Ethernet interface printer's net setting please refer to the *User's Manual*.

2.9.4 Connecting to the Serial Interface

1. Turn off both the computer and the printer. Plug the serial cable connector securely into the printer's serial interface. Then tighten the screws on both sides of the connector. As shown in Figure 2-18 or Figure 2-19.
2. Plug the other end of the cable into the computer's serial interface; then tighten the screws on both sides of the connector, and make sure it is tight to the interface.

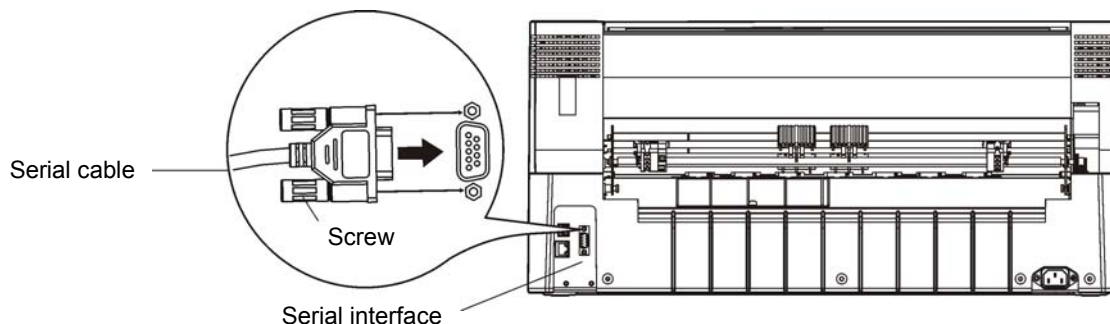


Figure 2-18 Connect to the serial interface (9-pin)

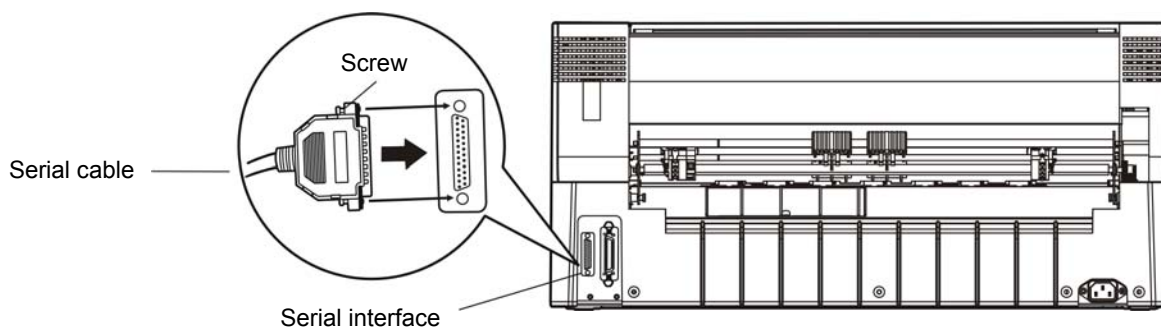


Figure 2-19 Connect to the serial interface (25 -pin)

2.10 Connecting to the Power Cord

1. As shown in Figure 2-20. Make sure the printer is turned off. (The pressed down side of the power switch with "O" marks denotes the printer is off.)
2. Make sure the voltage required by the printer matches that of your electrical outlet.
3. If the power cord is attached to the printer, connect it to the AC inlet on the printer.
4. Plug the power cord into a properly grounded electrical outlet.

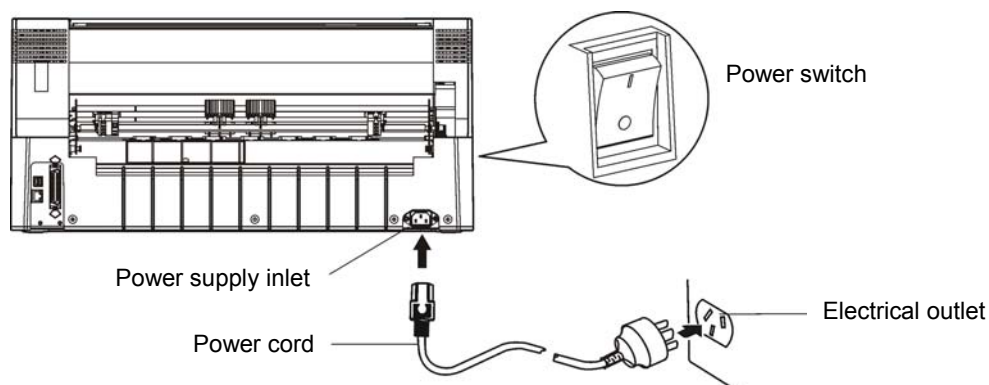


Figure 2-20 Connect the power cord to the printer

- To turn the printer ON, press the **I** mark at the side of the power switch.
- To turn the printer OFF, press the **O** mark at the side of the power switch.

Caution: 1. If the rated voltage doesn't match the outlet voltage, contact your dealer for assistance. Do not plug in the power cord.

2. Use the electrical outlet connecting the ground properly.

Note: After turn off the printer, you should wait more than 3 seconds before you restart the printer. Or it may lead to initialization error.

2.11 Installing Driver

Please use the cable to connect computer with printer, then turn on the computer and the printer, put the driver CD into the CD-ROM. Install driver by the following way:

2.11.1 Auto-installing Way

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

Note: The auto-install way just runs in the operation system of Windows 2000 or above.

2.11.2 Hand Operated Installing Way

Note: The hand-operated installing ways of serial interface and parallel interface are the same.

1) The installing steps of parallel interface for Windows 2000/XP/Vista are as follows:

- 1 Click "Start" → "Settings" → "Select Printers".
2. Click "Add Printer", then it pops up a window of "Add Printer Wizard", click "Next", then please read the select guide carefully, such as, select "Local printer" in the "Local or Network Printer" window, then click "next".
3. A window of "Select a Printer Port" pops up, select a usable port. Such as, select "LPT1: (Recommended Printer Port)", click "Next".
4. A window of "Install Printer Software" pops up, click "Have Disk...", click "Next".
5. A window of "Install From Disk" pops up. Please according to the operating system environment, you should select the path as follow: CD-ROM → "Driver" → "WIN2000 (XP-Vista-Win7)", click "Open", then click "OK" to return to the window of "Install Printer Software", select the respective model, click "Next".
6. Follow the guide click "Next" gradually till the installation is finished.

2) The installing steps of parallel interface for Windows 7 are as follows:

1. Click "Start" → "Device and Printers".
2. Click "Add Printer", then it pops up a window of "Add Printer Wizard", click "Next", then please read the select guide carefully, such as, select "Local printer" in the "Local or Network Printer" window, then click "next".
3. A window of "Select a Printer Port" pops up, select a usable port. Such as, select "LPT1: (Recommended Printer Port)", click "Next".
4. A window of "Install Printer Software" pops up, click "Have Disk...", click "Next".
5. A window of "Install From Disk" pops up. Please according to the operating system environment, such as Windows XP operating system, you should select the path as follow: CD-ROM → "Driver" → "WIN2000 (XP-Vista-Win7)", click "Open", then click "OK" to return to the window of "Install Printer Software", select the respective model, click "Next".
6. Follow the guide 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 the printer to computer with an USB cable and turn on the printer.
2. After the computer find out new hardware and finish searching, pop up a window of "Found New Hardware Wizard", choose "Install from a list or specific location (Advanced)", click "Next".
3. A window of "Found New Hardware Wizard" — "Please choose your search and installation options" pops up, choose "Don't search, I will choose the driver to install", click "Next".
4. A window of "Add Printer Wizard" pops up, click "Have Disk...", click "Browse".
5. A window of "Install From Disk" pops up. Please according to the operating system environment, you should select the path as follow: CD-ROM → "Driver" → "WIN2000 (XP-Vista-Win7)", click "Open", then click "OK" to return to the window of "Add Printer Wizard", select the respective model, click "Next".
6. Follow the guide 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 or a serial cable:

1. Click "Start" → "Settings" → "Printers".
2. Click "Add Printer", then a window of "Add Printer Wizard" pops up, click "Next", then please read the select guide carefully, such as, select "Local printer" in the "Local or Network Printer" window, then click "Next".
3. A window of "Click the manufacturer and model of your printer" pops up, click "Have Disk...", please click "Browse", select the path as follow: CD-ROM → "Driver" → "WIN98 (WINME)", then click "OK".
4. A window of "Install From Disk" pops up, click "OK", return to a window of "Add Printer", select the respective model, and then click "Next".
5. A window of "Printer port" pops up, 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". A window of "Printer test page completed" pops up, 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, a window of "Add New Hardware Wizard" pops up, click "Next".
3. A window of "Add New Hardware Wizard" — "Windows operation" pops up, choose "Search the best driver for the device (recommended)", and click "Next".
4. A window of "Search for new drivers" pops up, check "Specify a location", click "Browse", select the path as follows: CD → ROM → "Driver"-"[WIN98 (WINME) \ USBdriver]", then click "OK".
5. Return to a window of "Search for new drivers", click "Next"; a window of "Windows driver file search for the device" pops up, click "Next".
6. After the system finishing installing the file automatically, a window of "USB Print Supported" pops up, 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 a window of "Add Printer Wizard" pops up, click "Next".
 3. A window of "Click the manufacturer and model of your printer" pops up, click "Have Disk...", please click "Browse", select the path as follow: CD-ROM → "Driver" → "WIN98 (WINME)", and then click "OK".
 4. A window of "Install From Disk" pops up, click "OK", return to a window of "Add Printer", then click "Next".
 5. A window of "Printer port" pops up, 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". A window of "Printer test page completed" pops up, click "Yes".
6. The printer driver process is installed successfully.

2.12 Network Settings

Caution: The network printing function needs the operation system of Windows2000 or above.

2.12.1 Connecting Printer

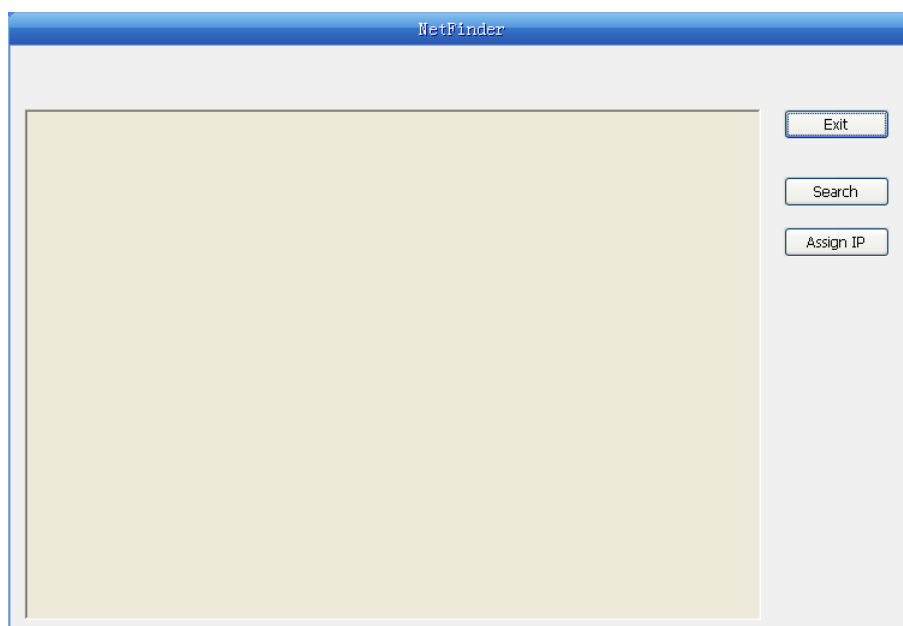
Power on the printer, connect with the Ethernet cable which has been connected to LAN, and look into the information of Ethernet LED indicator to ensure the printer has entered into the normal connection.

Yellow LED	Green LED	Description
ON	BLINK	Normal
OFF	OFF	Not connect to network

2.12.2 Setting IP Address

1. Run NetFinder Software

Double click NetFinder.exe in the PC which connects the printer in the same LAN. The figure of the software is shown as follows:



Button description:

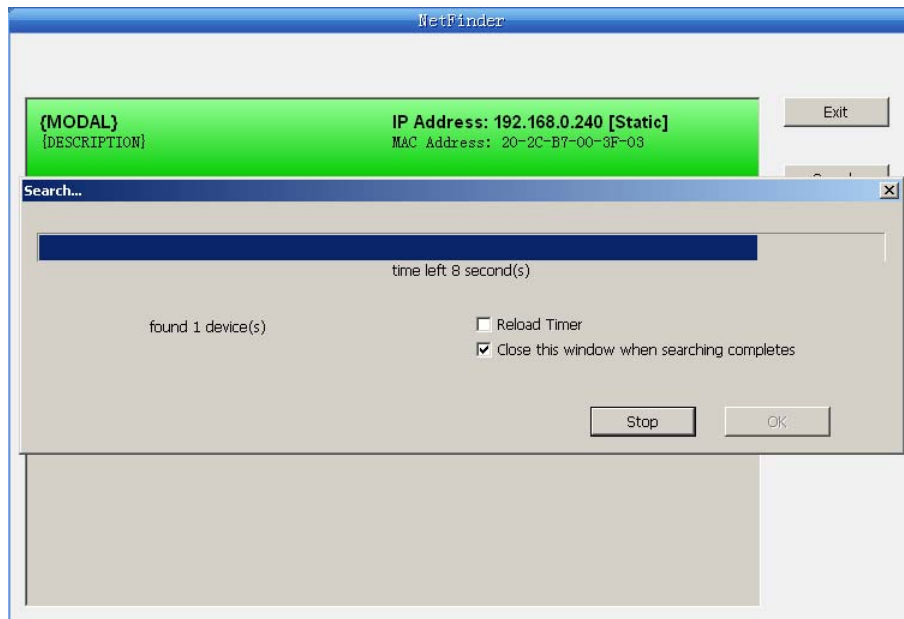
Exit — Exit from the software

Search — Search printers in the same LAN

Assign IP — Modify the IP address and other settings for the specified printer.

2. Search printer

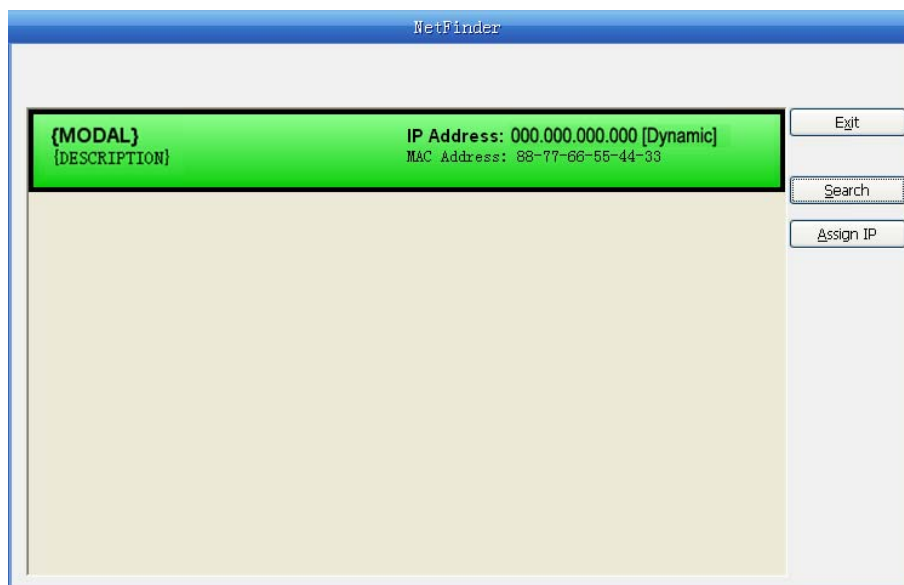
Click “Search” button in the main interface, the dialog box appearing will begin searching automatically and show appearance, listing a printer in the main interface if found. The time is counting down in the progress bar (10s in total) and the search will finish as soon as the time is over. When going on searching, press “search” button again.



If the printer still can not be found out when the network connection is correct and in the same network, Please check whether the network fire wall on the PC open or not. If there is a fire wall, please close it temporarily, open it again after finishing searching and setting a printer completely.

3. Setting printer's IP address

The printer's information is listed in the main interface, the left side of which is the model and description and the right is the IP and MAC address. What's more, the assign mode (dynamic/static) is noted behind the IP address.



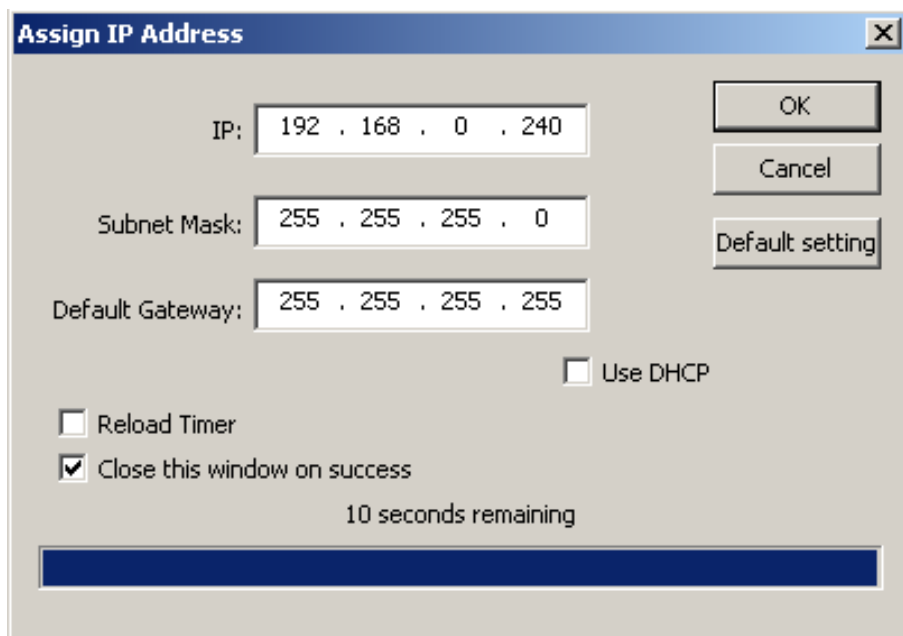
1) Correlative description for IP address settings

In order to search and set printer's IP address conveniently for the first time, the factory default setting is DHCP mode which assigns IP address dynamically. If there is no DHCP server in the connected LAN and printer is set to DHCP mode as well, then it will use the internal pre-set address (IP: 10.0.0.1, Subnet Mask: 255.255.255.0) automatically.

It is suggested that printer's IP set to static in actual usage, which can cut down the time when initializing the Ethernet interface as the printer is turned on and prevent IP conflicts (The dynamic address used in printer may conflict with another one). The network segment part of the IP address and Subnet Mask must be the same as those of PC connecting with a printer. For example, the address of working PC is 192.168.0.1/255.255.255.0 (IP/Subnet Mask), then which of printer should be set to 192.168.0.x/255.255.255.0 (x=2~254 and should avoid the IP in used. It is not restricted for NetFinder to search printers in the same network but different segment parts (can not stride gateway). Relative glossary of IP address may refer to corresponding information.

2) Setting printer's IP address

Select the printer information to be modified (black frame appears), click "Assign IP" button. Set the IP in the dialog box appearing.

The image shows a Windows-style dialog box titled "Assign IP Address". It contains three text input fields: "IP:" with the value "192 . 168 . 0 . 240", "Subnet Mask:" with "255 . 255 . 255 . 0", and "Default Gateway:" with "255 . 255 . 255 . 255". To the right of these fields are three buttons: "OK", "Cancel", and "Default setting". Below the input fields, there is a checkbox labeled "Use DHCP" which is currently unchecked. Underneath that are two more checkboxes: "Reload Timer" (unchecked) and "Close this window on success" (checked). At the bottom of the dialog, it says "10 seconds remaining" above a blue progress bar.

Check the "Use DHCP" if need to assign dynamic address, the settings above will be disabled automatically. Please make sure there is a DHCP server in the network, or the printer can not receive an effective IP address.

When to specify static address, uncheck "Use DHCP" and fill in "IP address", "Subnet Mask" and "Default Gateway". If there is no gateway in the network, fill 255.255.255.255 in the "Default gateway". "IP address" and "Subnet Mask" should obey the assigning rules of local LAN (Ethernet), please enquire the administrator of networks which the printer connects to for more details.

Click "OK" to send address setting information to the specified printer. The printer takes response after "Close this window on success" is checked, and then this dialog is closed automatically. Select "Reload Timer" then the software will wait for the printer's response. Generally, printer will take response in a circle time if network connection is correct.

Click "Cancel" if you abandon the modification.

Click "Search" in the main interface again to update printer information after modifying the printer's IP address.

3) Report printer's IP address

Report the printer's IP address, which will be used in the section "Newly-install printer network driver" or "Upgrade-install printer network driver (setting driver's network port)".

2.12.3 Installing Printer Network Driver

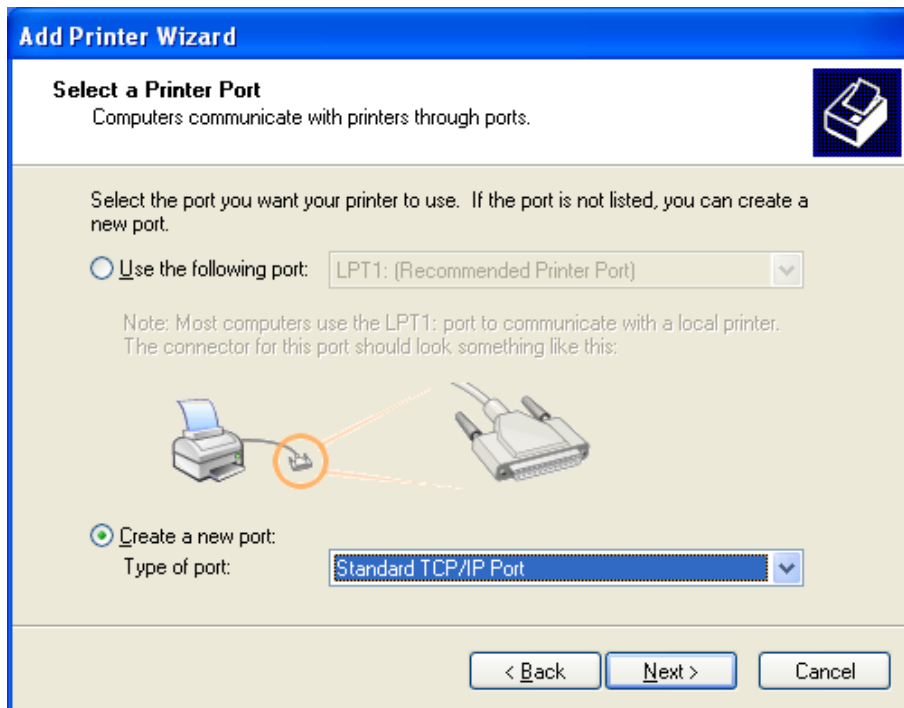
The ways of installing network driver are divided into Newly-install way and Upgrade-install way according to whether the PC installs the printer driver or not.

If the printer driver hasn't been installed on the PC, adopt newly-install way whose steps are shown in "Newly-install printer network driver".

If the printer driver has been installed on the PC, adopt Upgrade-install way whose steps are shown in "Upgrade-install printer network driver".

1. Newly-install printer network driver

- 1) Click "Start" → "Settings", select "Printers".
- 2) Click "Add printer", then a window of "Add Printer Wizard" pops up, click "next", then please read the select guide carefully. Such as, select "Local or Network Printer", then click "next".
- 3) A window of "Select the Printer port" pops up, select a port you want your printer to use. For example, select "Create a new port", select "Standard TCP/IP Port" in the port, click "next".



- 4) A window of "Add standard TCP/IP Printer Port Wizard", click "Next".
- 5) A window of "Add Port" pops up, enter the IP address reported by the "Setting printer's IP address" in the "Printer Name or IP Address" column. Take IP address "192.168.0.240" for example. "Port Name" is created automatically after finishing filling in IP address.

Add Standard TCP/IP Printer Port Wizard

Add Port
For which device do you want to add a port?

Enter the Printer Name or IP address, and a port name for the desired device.

Printer Name or IP Address: 192.168.0.240

Port Name: IP_192.168.0.240

< Back Next > Cancel

- 6) A window of “Additional Port Information Required” pops up, select “Custom” in the “Device Type”, then click “Settings”.

Add Standard TCP/IP Printer Port Wizard

Additional Port Information Required
The device could not be identified.

The device is not found on the network. Be sure that:

1. The device is turned on.
2. The network is connected.
3. The device is properly configured.
4. The address on the previous page is correct.

If you think the address is not correct, click Back to return to the previous page. Then correct the address and perform another search on the network. If you are sure the address is correct, select the device type below.

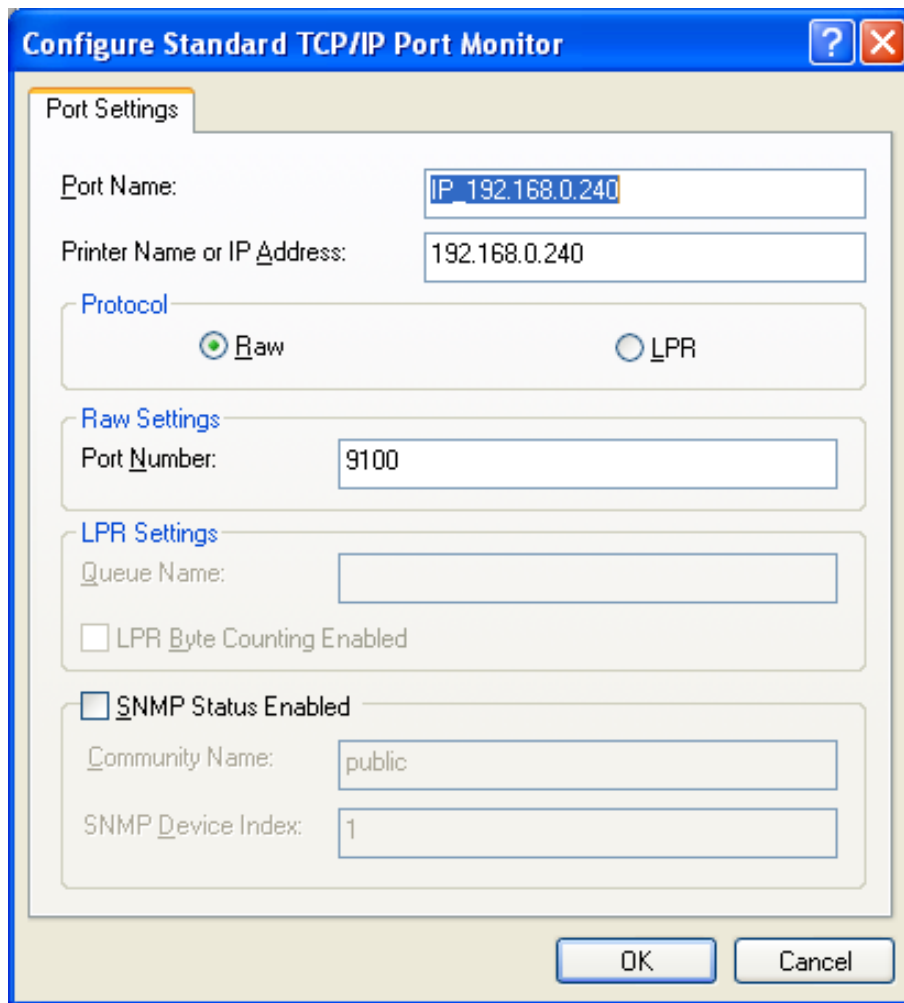
Device Type

☐ Standard Generic Network Card

☒ Custom Settings...

< Back Next > Cancel

- 7) A window of “Port Settings” pops up. Affirm that “Port name” and “Printer name or IP address” are correct, “Protocol” is “RAW” and “Port Number” is “9100”, click “OK”.

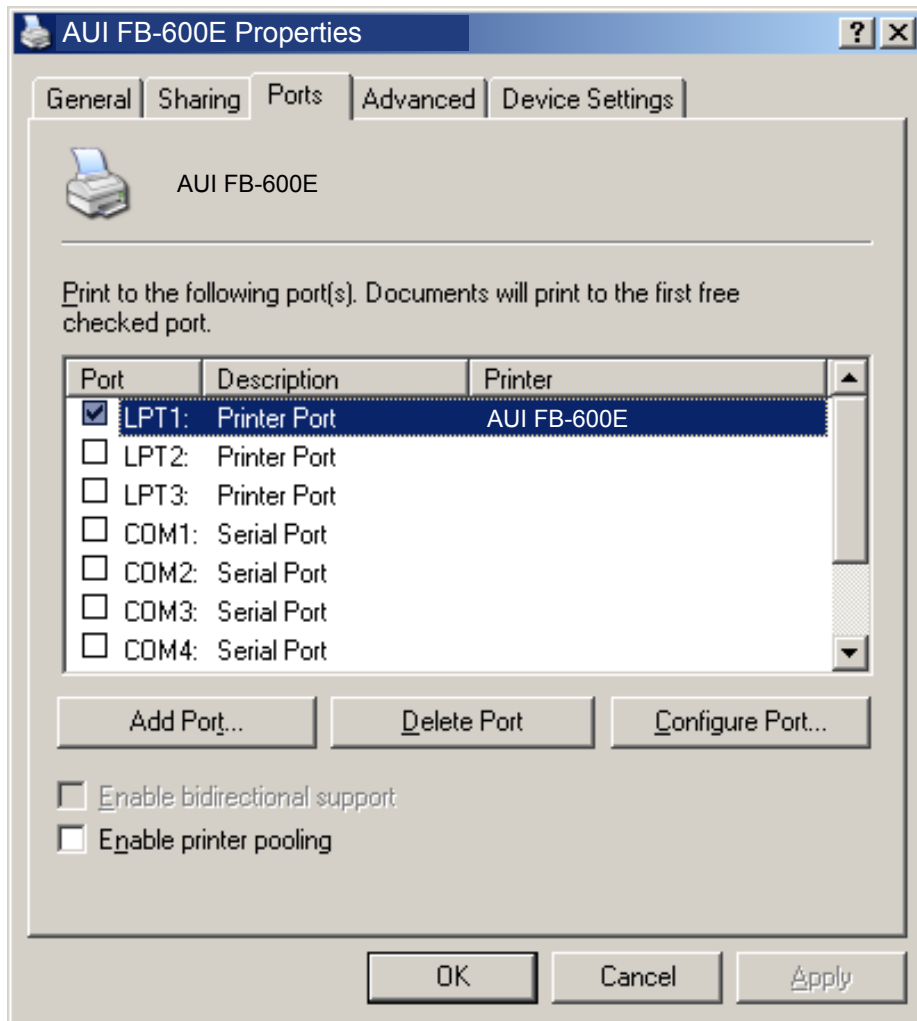


- 8) Return to “Additional Port Information Required”, click “Next”.
- 9) A window of “Completing the Add Standard TCP/IP Printer Port Wizard” pops up, click “Finish”.
- 10) In the selection of “Manufacturers/Printers”, click “Have Disk”, and then click “Next”.
- 11) A window of “Install From Disk” pops up. Please according to the operating system environment, such as Windows 2000/XP/Vista/Win7 operating system you should select the path as follows: CD-ROM → “Driver” → “WIN2000 (XP-Vista-Win7)”, click “open”, then click “OK”, then return to the window “install printer software”, select the respective model, click “next”.
- 12) Follow the direct click “next” gradually till the installation is finish. At this time, printer network driver is installed completely.

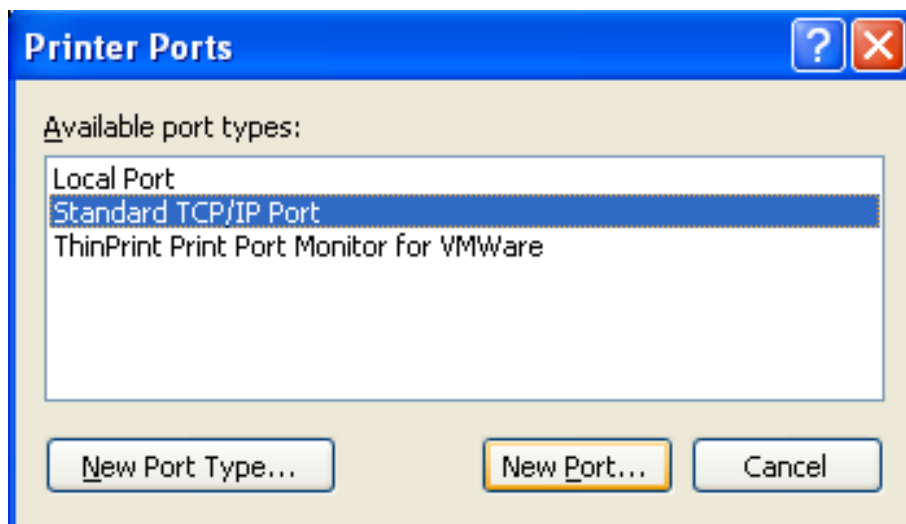
2. Upgrade-install printer network driver (setting driver’s network port)

If PC has installed the printer’s driver, set driver’s network port to carry out network printing. The concrete steps are shown below:

- 1) Click “Start” → “Settings”, select “Printers”.
- 2) Right click FB-600E driver, click “Properties” on the window coming out.
- 3) A window of “Properties” pops up, click “Ports” and “Add Ports”.



4) A window of "Printer port" pops up, select "Standard TCP/IP Port", click "New port".



5) A window of "Add Standard TCP/IP Printer Port Wizard" pops up, click "Next".

6) A window of "Add a port" pops up, import the IP address reported by the "Setting printer's IP address" in the "Printer name or IP address" column. Take IP address "192.168.0.240" for example. "Port name" is created automatically after finishing filling in IP address. Click "Next".

Add Standard TCP/IP Printer Port Wizard

Add Port
For which device do you want to add a port?

Enter the Printer Name or IP address, and a port name for the desired device.

Printer Name or IP Address: 192.168.0.240

Port Name: IP_192.168.0.240

< Back Next > Cancel

- 7) A window of “Additional Port Information Required” pops up, select “Custom” in the “Device Type”, then click “settings”.

Add Standard TCP/IP Printer Port Wizard

Additional Port Information Required
The device could not be identified.

The device is not found on the network. Be sure that:

1. The device is turned on.
2. The network is connected.
3. The device is properly configured.
4. The address on the previous page is correct.

If you think the address is not correct, click Back to return to the previous page. Then correct the address and perform another search on the network. If you are sure the address is correct, select the device type below.

Device Type

☐ Standard Generic Network Card

☒ Custom Settings...

< Back Next > Cancel

- 8) A window of “Port Settings” pops up. Affirm that “Port name” and “Printer name or IP address” are correct, “Protocol” is “RAW” and “Port Number” is “9100”, click “OK”.

Configure Standard TCP/IP Port Monitor

Port Settings

Port Name: IP_192.168.0.240

Printer Name or IP Address: 192.168.0.240

Protocol

☒ Raw ☐ LPR

Raw Settings

Port Number: 9100

LPR Settings

Queue Name:

☐ LPR Byte Counting Enabled

☐ SNMP Status Enabled

Community Name: public

SNMP Device Index: 1

OK Cancel

9) Return to “Additional Port Information Required”, click “Next”.

10) A window of “Completing the Add Standard TCP/IP Printer Port Wizard” pops up, click “Finish”.

11) Return to “Printer Ports”, click “Close”.

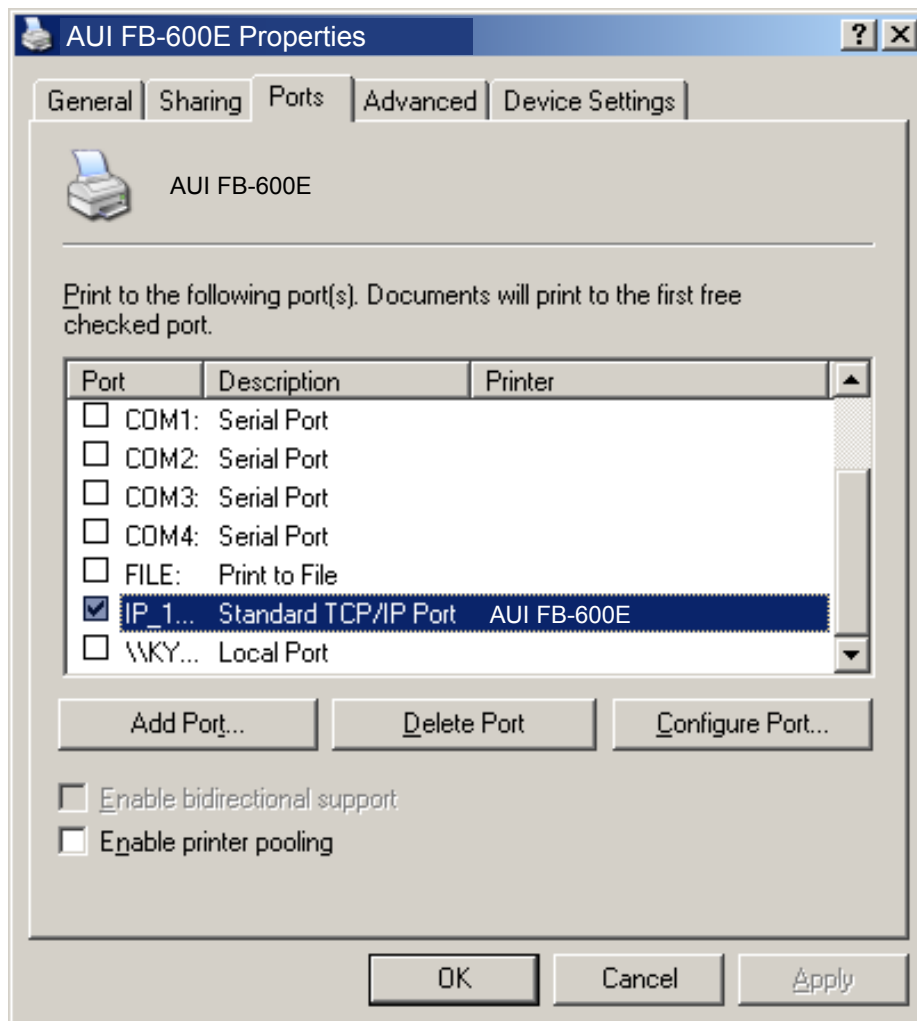
Printer Ports

Available port types:

- Local Port
- Standard TCP/IP Port
- ThinPrint Print Port Monitor for VMWare

New Port Type... New Port... Close

12) Return to “Properties”, make sure the network port is selected, click “Apply”, and then click “Close”. Thus, printer’s network port setting is finished.

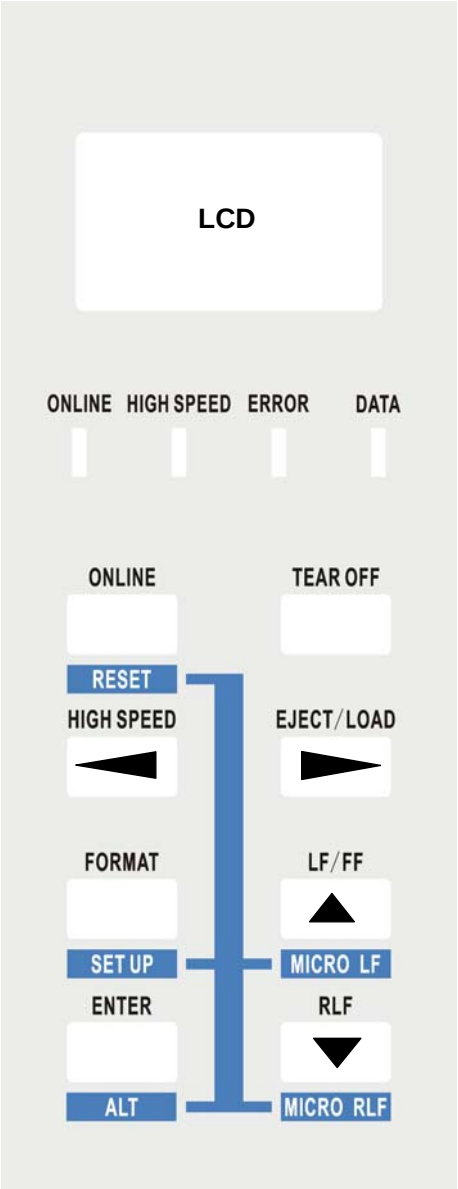


Chapter 3 Control Panel

3.1 Control Panel

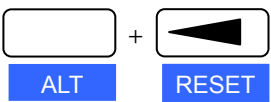
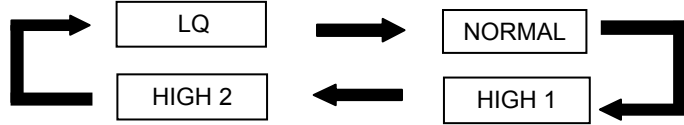
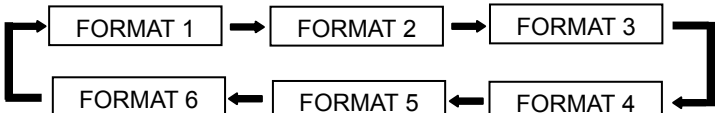
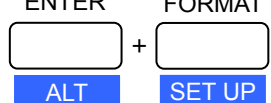
The liquid crystal display (LCD) on the control panel displays the processing conditions of the printer and the setting of the functions. The keys on the control panel provide various functions.

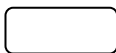
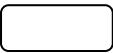
3.1.1 Control Panel View



3.1.2 Function Keys

No.	Function key	Function description
1	ONLINE ONLINE RESET	Press ONLINE key to switch between ONLINE mode and OFFLINE mode.

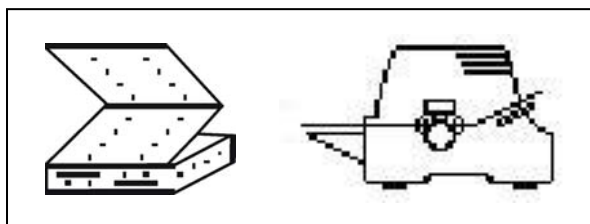
2	RESET ENTER ONLIN 	Long press the ALT + ONLIN key, then “INITIALIZING...” is displayed on the LCD, and then the printer restarts and initializes which will clean the printing buffer. (Each time 132K) Note: Both Online and Offline are OK.
3	HIGH SPEED SPEED 	1. Press HIGH SPEED key once can display the current speed on the LCD, press this key one more time will change the speed in turn, lossen the key to choose the shown print speed. As shown below.  2. In the Menu Setup Mode, press HIGH SPEED to exit the submenu.
4	FORMAT FORMAT 	1. Press FORMAT key once can display the current FORMAT state on the LCD, press this key one more time can modify the FORMAT states in turn. The display is as follows:  2. In the Menu Setup Mode, press this key to exit Menu Setup Mode.
5	SET UP ENTER FORMAT 	Press ALT and FORMAT keys at the same time to enter Menu Setup Mode. Note: Both Online and Offline are OK.
6	ENTER ENTER 	In the Menu Setup Mode, press ENTER key to confirm and save the settings.
7	ALT ENTER 	The following functions are executed by pressing the corresponding key while you press the ALT key. ALT + MICRO LF → MICRO LF ALT + MICRO RLF → MICRO RLF ALT + SET UP → MENU SETUP ALT + ONLINE → RESET (Initialize the printer, clean the printing buffer. Note: It should be long pressed.)
8	EJECT/LOAD EJECT/LOAD 	1. In tractor paper mode, if there is no paper in the printing home position, press this EJECT/LOAD key to feed paper; If there is paper in the printing home position, press this key can eject the paper to parking position. 2. In manual paper feed mode, if there is no paper in the printing home position, press this EJECT/LOAD key, the printer would make out an alarm of paper out; If there is paper in the printing home position, press this key can eject the paper. 3. In the Menu Setup Mode, press TEAR OFF key to enter submenu.

9	TEAR OFF TEAR OFF 	When the paper is in the printing home position, press TEAR OFF key, the printer will feed paper to tear off position automatically (Only for tractor paper), press this key once more, the printer will feed the paper back to the printing home position.
10	LF/FF LF/FF  MICRO LF	1. According to the LF pitch of the menu setting, press LF/FF key once will feed paper in forward direction according to the LF pitch. Hold on pressing this key can continuously feed paper in forward direction according to the LF pitch. 2. In the Menu Setup Mode, press LF/FF key to the former page in the menu. Note: Long press this key to form feed.
11	MICRO LF ENTER LF/FF  +  ALT MICRO LF	Press these keys can feed the paper in forward direction at a pitch of 1/90 inch. Hold on pressing these keys can feed the paper continuously in forward direction at the pitch of 1/90 inch.
12	RLF RLF  MICRO RLF	1. According to the LF pitch of the menu setting, press RLF key once will feed paper in reverse direction according to the LF pitch. Hold on pressing this key can continuously feed paper in reverse direction according to the LF pitch. 2. In the Menu Setup Mode, press RLF key to the next page in the menu.
13	MICRO RLF ENTER RLF  +  ALT MICRO RLF	Press these keys can feed the paper in reverse direction at a pitch of 1/90 inch. Hold on pressing these keys can feed the paper continuously in reverse direction at the pitch of 1/90 inch.

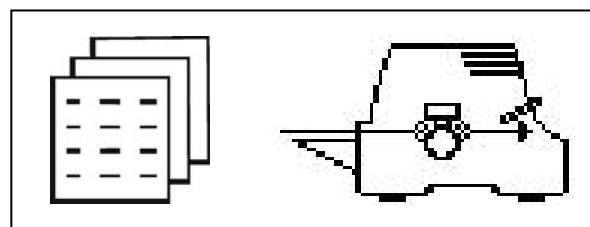
3.1.3 LCD

In standby state, the LCD display shows the current paper feed way and the selected setting mode.

·Tractor feeding mode
(For tractor paper)

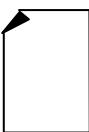
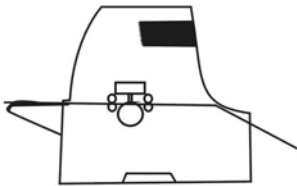
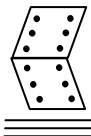
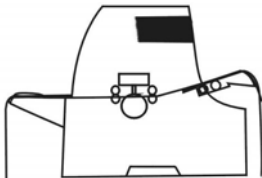


·Manual feeding mode
(For cut sheet)



3.1.4 Paper Path Lever

1. Select the paper feed way by setting the paper path lever.
2. Before change the paper feed way, please eject the paper in the printer (press **EJECT/LOAD** key to eject the paper).

	Position	Paper feeding way
Manual		
Tractor		

3.1.5 Head Adjustment Lever

This lever is for adjusting the gap between the print head and the paper.



1. When the lever is in AUTO position, the printer will measure the paper thickness before printing and then automatically adjust the gap between the print head and the paper.
2. If the lever is in the fixed gap between graduations 1-7, the gap between the print head and the paper is fixed.
3. Best position can be selected manually to meet the paper thickness as follows.
Graduation 1 is for cut sheet.
Graduation 7 is for 7-ply fanfold paper.

3.1.6 Indicator Lights

Indicator light	State Description
ONLINE (Green)	OFF: Printer is in OFFLINE mode. ON: Printer is in ONLINE mode. BLINK SLOWLY: Front cover is open or the print head overheating.
HIGH SPEED (Green)	OFF: High Density printing mode ON: Normal speed printing mode BLINK SLOWLY: High (High 1) speed printing mode FAST BLINK: Super high (High 2) speed printing mode

ERROR (Amber)	ON: Printer is paper out or malfunction occurs. OFF: No error is detected. BLINK SLOWLY: Functional error has occurred. FAST BLINK: Functional error has occurred.
DATA (Green)	OFF: There is no printing data. ON: There is printing data.

3.1.7 Shortcut Key Function

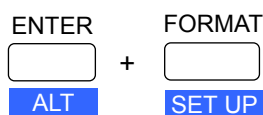
Function	Key
Resume default setting (Initialization 1)	FORMAT + LF/FF + POWER
Chinese self-test	LF/FF + ONLINE + POWER
ASCII self-test	LF/FF + POWER
H-Dump	HIGH SPEED + POWER
Character H printing mode	① EJECT/LOAD + POWER Note: Print out one page cut sheet (according to the set page length), or continuous printing with tractor paper. ② EJECT/LOAD + TEAR OFF + POWER Note: Continuously print out test paper by manual or tractor.
Pin testing	FORMAT + POWER
Adjust the tear off position (For tractor paper state)	In Online mode, long press TEAR OFF keys. LF/FF key: Advance RLF key: Backwards ENTER key: Confirm and save FORMAT key: Give up the setting, just press this key to exit and the printer will restart.

3.2 How to Use the Functional Setup

Function setup mode is only for this kind of printer. The setup modes enable various printer functions to be set up with the function keys on the operation panel. This section provides the outline of the setup modes and the details of the setup functions.

3.2.1 Menu Setup Functional Key

1) Enter the Menu Setup Mode



Press Keys to enter the Menu Setup Mode.

2) Mainmenu select key

These keys usually use as changing the shown manu list but not the function setting. In Menu Setup Mode, press ▼ or ▲ keys can skim over the mainmenu (long press can quickly skim over it).

3) Submain select key (item select key)

Press  key to enter submain, press  or  key can skim over the submain (long press can quickly skim over it).

Before pressing **ENTER** key, you just adjust the shown content not the functional setting.

4) Enter key

To select the shown menu item, please press **ENTER** key. After press the **ENTER** key, the select item is confirmed and sign with “※” in the back.

5) Exit the submain

Press  key to exit the submain and return to the mainmenu.

6) Exit the Menu Setup Mode

In the mainmenu or submenu setting mode, press  key to exit the Menu Setup Mode.


3.2.2 Setting Examples

1) Press  +  key to enter Menu Setup Mode, the LCD shows as below
 

MENU SETUP	
1. MULTIPART	▶
2. TOF ADJ.MANL	▶

2) Press  or  key to select the menu item (as shown below).

MENU SETUP	
2. TOF ADJ.MANL	▶
3. TOF ADJ.R.TR	▶

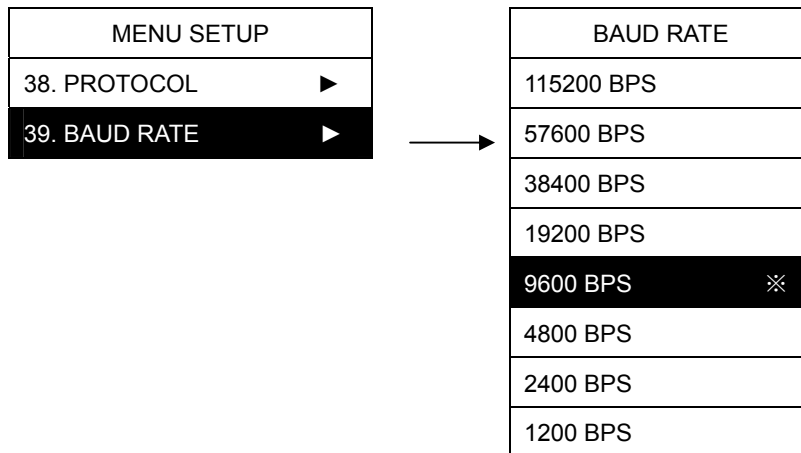
FB-600E printer now totally contains 51 menu items (mainmenu):

1	MULTIPART	2	TOF ADJ.MANL	3	TOF ADJ.R.TR	4	TOF ADJ.F.TR
5	MANL PG LGTH	6	R.TR PG LGTH	7	F.TR PG LGTH	8	RGHT PG WDTN
9	LEFT PG WDTN	10	TOP MRG	11	BOTTOM MRG	12	LEFT MRG
13	FONT SELECH	14	CHR PITCH	15	CHN PITCH	16	LF PITCH
17	EMULATION	18	CHR TBL EPSON	19	CHR TBL IBM	20	INTL FONT
21	CODE PAGE	22	AGM IBM	23	LF SETTING	24	CR SETTING
25	ZERO STYLE	26	MANUAL EJECT	27	SKEW DETECT	28	JAM DETECT
29	PAGE LOCK	30	FF SETTING	31	ERROR STATUS	32	LANGUAGE
33	PRINT MODE	34	COMPRESS PRN	35	PARITY BIT	36	DATA LENGTH
37	STOP BIT	38	PROTOCOL	39	BAUD RATE	40	PRINT DIRECT
41	COVER DETECT	42	LOAD DELAY	43	QUIET MODE	44	TEAR OFF

45	HEAD PIN	46	PIN SWITCH	47	DHCP	48	IP ADDRESS
49	SUBNET MASK	50	GATEWAY	51	MENU LISTING		

3) Press  key to enter into submemu.

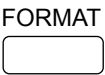
Such as, select BAUD RATE, press  key to enter BAUD RATE and the particular items are shown (as shown below):



The right side of the figure shows the items belong to BAUD RATE, item with “※” sign is the current setting.

4) Press  or  key can select in the submenu.

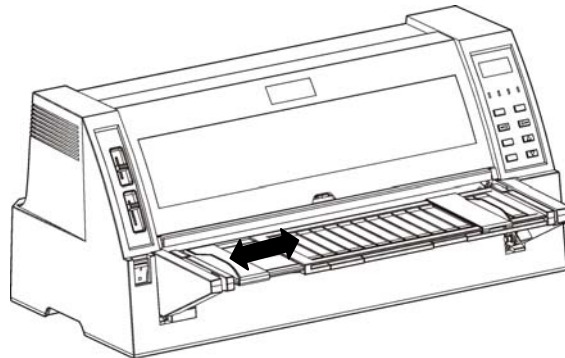
Such as, If need to change the baud rate to “19200 BPS”, press  or  key to select the item of “19200 BPS”, and then press **ENTER** key to save the setting. The newly select item will mark with “※” in the back.

5) Press  key to exit the MENU SETUP MODE.


Chapter 4 Printer Setting

4.1 Setting up the Manual Mode

1. Adjust the positions of the right and left paper guides.



Caution: Check whether need to adjust the right paper guide when using wider paper.

2. Pull the paper path lever to the position of “”.



3. Set the paper length.

Menu setup mode

MENU SETUP	
5. MANL PG LGTH ▶	
6. R.TR PG LGTH ▶	

MANL PG LGTH
AUTO ※
B5 P
B5 L
A4 P
A4 L
A3 P
A3 L

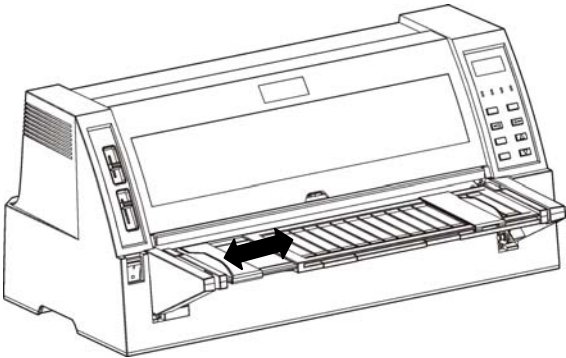
4. After connect the printer with the computer, and then print out the test page.

Caution: As the paper sensor is near to the left of the paper in position, so the paper should be fed in along the left side (the “0” position of ruler) could it be detected.

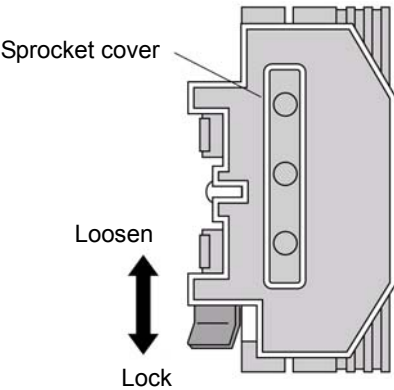
If the paper is skew when feeding paper, the paper skew sensor detects it and puts it right automatically (The Paper skew function in the Menu should be on).

4.2 Setting up the Tractor Mode

1. Firstly, please ensure the tractor has been installed at the back of the printer, and then adjust the right and left paper guides on the paper rack to the proper positions.

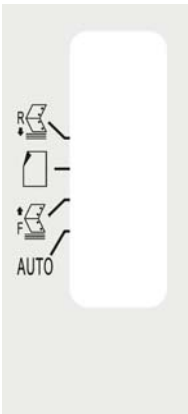


2. Adjust the positions of the tractor right and left sprockets to fulfill the requirement of the paper width. Please lock the tractor after adjustment.



3. Open the sprocket cover, aim the tractor paper holes at the sprockets and install it correctly, and then close the sprocket cover.

4. Pull the paper path lever to the position of “ R ”.



5. Setting page length.

MENU SETUP		PG LGTH TRAC	
6. R.TR PG LGTH	▶	3 INCH	9.5 INCH
7. F.TR PG LGTH	▶	3.5 INCH	10 INCH
		11/3 INCH	10.5 INCH

4 INCH	11 INCH ※
4.5 INCH	11.5 INCH
5 INCH	12 INCH
5.5 INCH	12.5 INCH
6 INCH	13 INCH
6.5 INCH	13.5 INCH
7 INCH	14 INCH
7.5 INCH	14.5 INCH
8 INCH	15 INCH
8.5 INCH	15.5 INCH
9 INCH	16 INCH

6. Connect the printer and the computer and then print out test page.

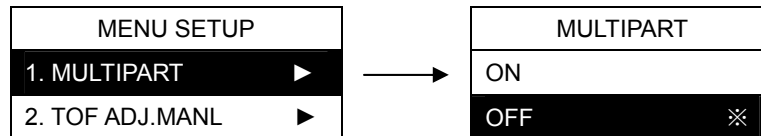
Chapter 5 Menu Function Description

This section is mainly introducing the item functions in the Menu Setup Mode.

5.1 MULTIPART

According to customer's printing requirement, select the printing capability.

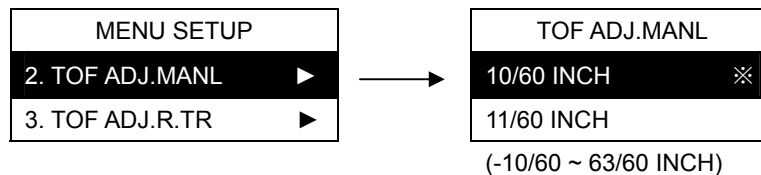
Setting process:



5.2 TOF ADJ.MANL

The top of form function is used to set the printing home position. When feeding paper, the printer detects the top edge of the paper and determines the printing home position according to the top of form value.

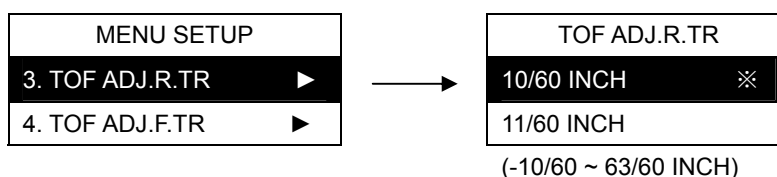
Setting process:



5.3 TOF ADJ.R.TR

The top of form function is used to set the printing home position. In Rear Tractor mode, when feeding paper, the printer detects the top edge of the paper and determines the printing home position according to the top of form value.

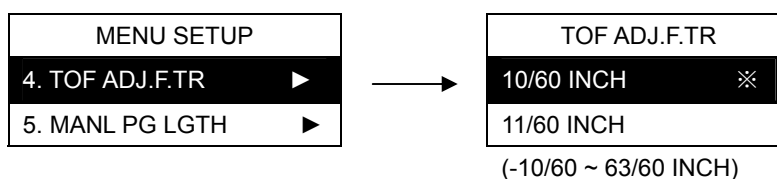
Setting process:



5.4 TOF ADJ.F.TR

The top of form function is used to set the printing home position. In Front Tractor mode, when feeding paper, the printer detects the top edge of the paper and determines the printing home position according to the top of form value.

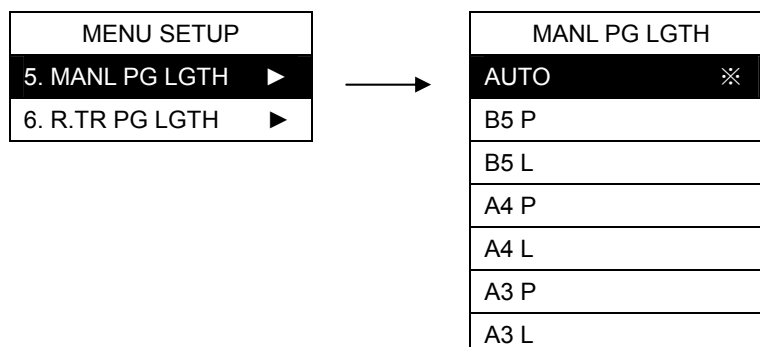
Setting process:



5.5 MANL PG LGTH

Specify the page length of cut sheet. Printer feeds to next page according to the specified page length. If the print data with page length instruction, printer would give priority to print data instruction.

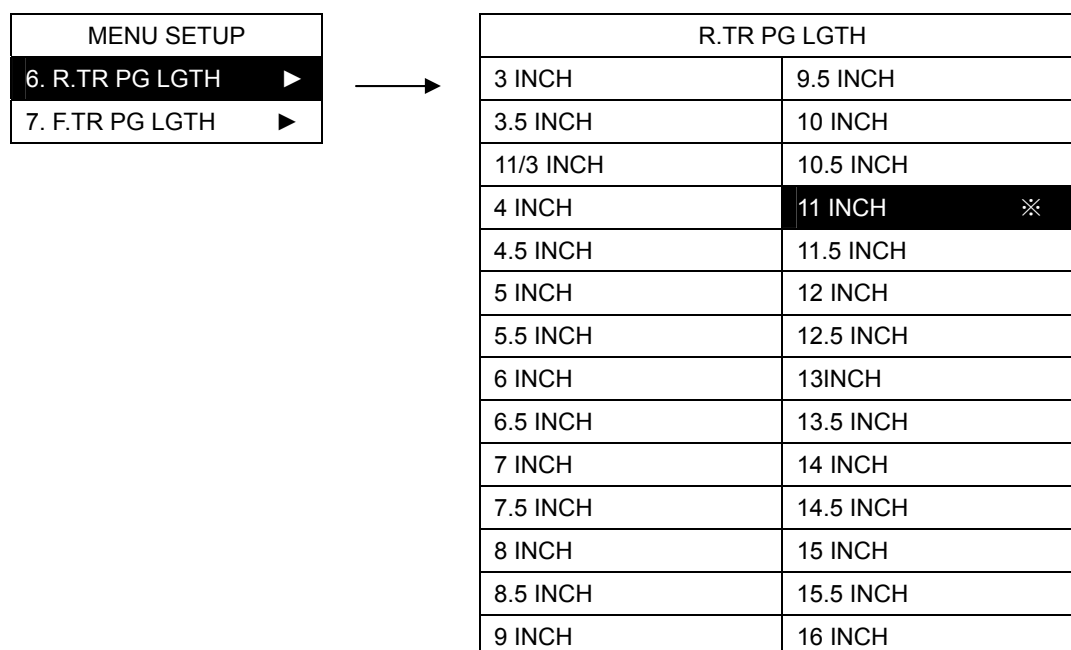
Setting process:



5.6 R.TR PG LGTH

Specify the page length of rear tractor paper. Printer feeds to next page according to the specified page length. If the print data with page length instruction, printer would give priority to print data instruction.

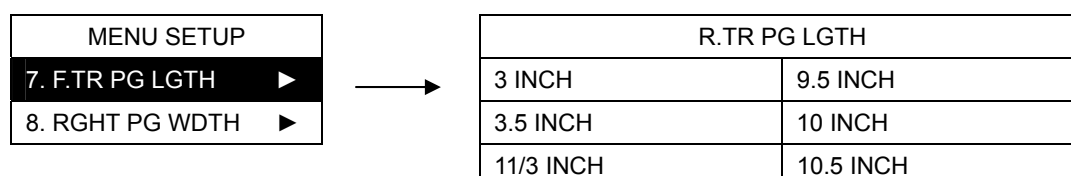
Setting process:



5.7 F.TR PG LGTH

Specify the page length of front tractor paper. Printer feeds to next page according to the specified page length. If the print data with page length instruction, printer would give priority to print data instruction.

Setting process:

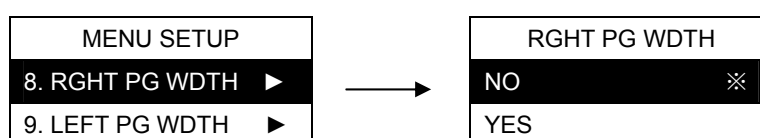


4 INCH	11 INCH ※
4.5 INCH	11.5 INCH
5 INCH	12 INCH
5.5 INCH	12.5 INCH
6 INCH	13 INCH
6.5 INCH	13.5 INCH
7 INCH	14 INCH
7.5 INCH	14.5 INCH
8 INCH	15 INCH
8.5 INCH	15.5 INCH
9 INCH	16 INCH

5.8 RGHT PG WDTN

This function is the set the detection of the paper right edge ON or OFF. (Manual Feeding Mode)

Setting process:



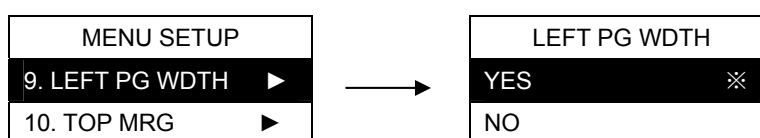
Caution: If this function is OFF, the printer does not detect the right edge of the paper and print one line with 136 characters automatically. Also it may lead to the print contents go beyond the printable area.

If this function is ON, the printer detects the right edge of the paper and prints the characters which go beyond the edge in the next line automatically.

5.9 LEFT PG WDTN

This function is the set the detection of the paper left edge ON or OFF. (Manual Feeding Mode)

Setting process:



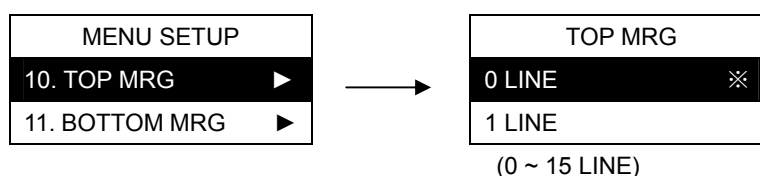
Caution: If this function is OFF, the printer does not detect the left edge of the paper, and it prints from the “0” mark on the ruler.

If this function is ON, the printer detects the left edge of the paper.

5.10 TOP MRG

Set the printing start position (use “line feed pitch” as unit).

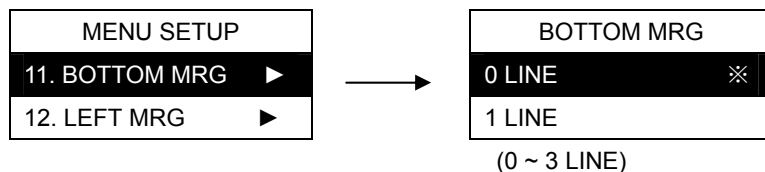
Setting process:



5.11 BOTTOM MRG

Set the distance between the bottom of the paper printable area and the printing home position of the next page (use “line feed pitch” as unit).

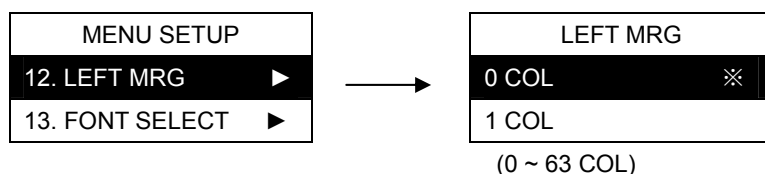
Setting process:



5.12 LEFT MRG

This function is to set the non-printable are in the left side, that is to say the margin from the left paper edge to the leftmost of the printable area.

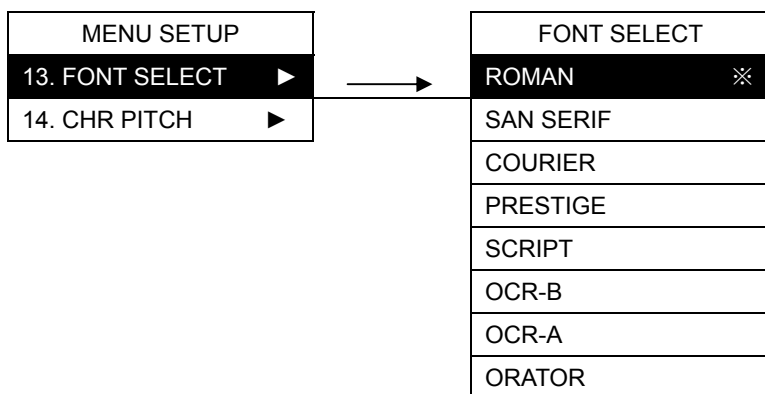
Setting process:



5.13 FONT SELECT

Specify a kind of ASCII fonts to print when printer receives character printing task. If the print data with font instruction, printer gives priority to print data instruction. (Only valid when CHARACTER MODE is choosing ASCII).

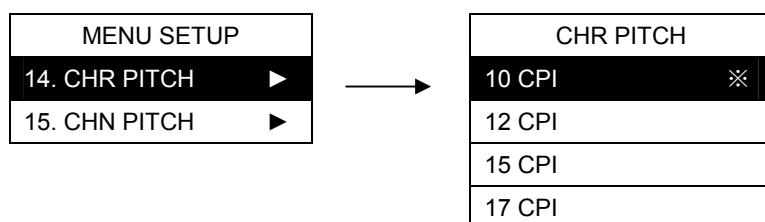
Setting process:



5.14 CHR PITCH

Select the ASCII characters horizontal pitch.

Setting process:

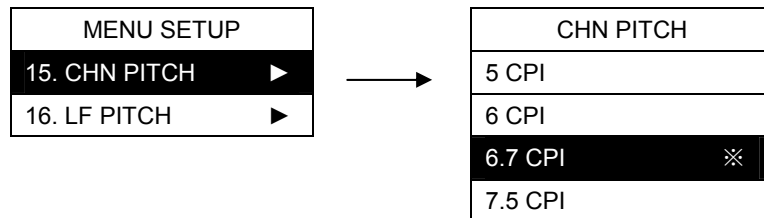


20 CPI
PROPORTION

5.15 CHN PITCH

Select the Chinese character horizontal pitch.

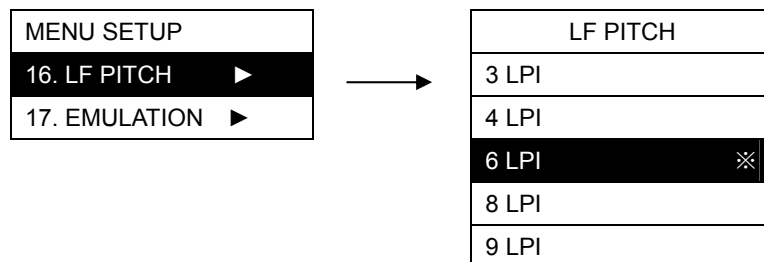
Setting process:



5.16 LF PITCH

Set the printing characters' line feed pitch which can be 1/3 inch, 1/4 inch, 1/6 inch (initialized value), 1/8 inch or 1/9 inch.

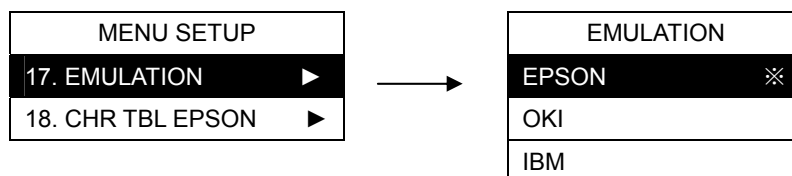
Setting process:



5.17 ENULATION

Specify printer's control commands.

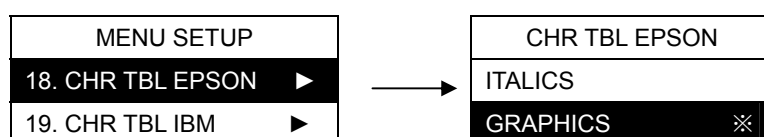
Setting process:



5.18 CHR TBL EPSON

Set the common used character table when using EPSON emulation, italics and graphics are optional.

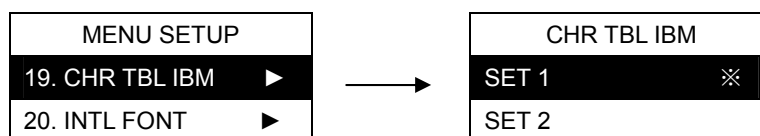
Setting process:



5.19 CHR TBL IBM

Select IBM character table 1 or 2, the position from 80H to 90H of character table are control codes.

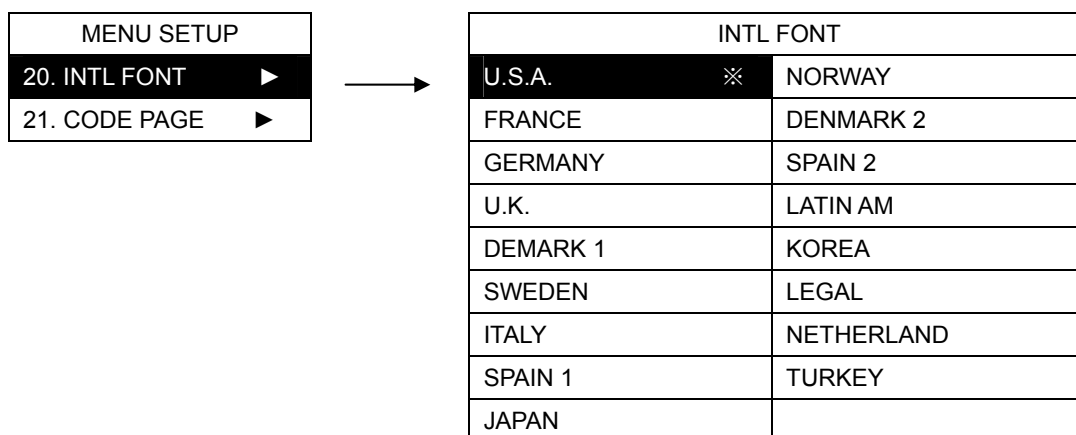
Setting process:



5.20 INTL FONT

Specify the printer internal character set according to different using circumstances of international characters.

Setting process:



5.21 CODE PAGE

Select the code page according to different national characters use circumstances.

Setting process:



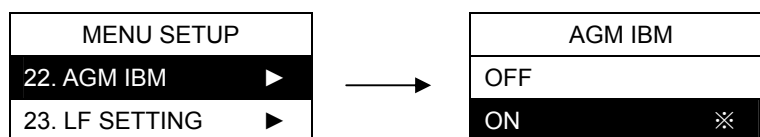
5.22 AGM IBM

When printing high-density graph in IBM emulation, some of its command are similar to the EPSON emulation's. The relative commands are as follow:

	AGM: OFF	AGM: ON
ESC 3 n	Select n/216 inch line space	Select n/180 inch line space
ESC J n	Select n/216 inch line space	Select n/180 inch line space
ESC A n	Select n/72 inch line space	Select n/60 inch line space

ESC * m n1 n2	Not support	May select different graph modes
---------------	-------------	----------------------------------

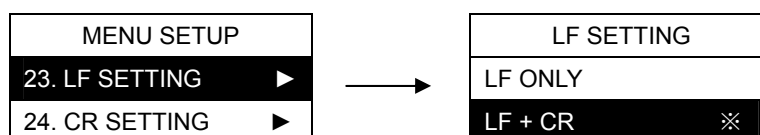
Setting process:



5.23 LF SETTING

Set whether the printer automatically carriage returns when receives LF command.

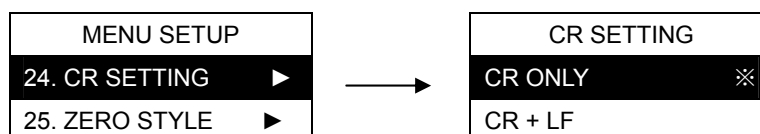
Setting process:



5.24 CR SETTING

Set whether the printer line feed automatically when receives CR command.

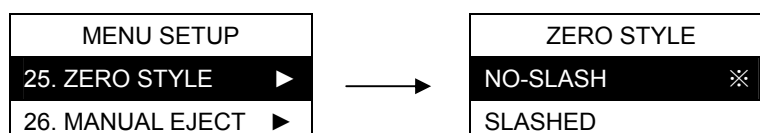
Setting process:



5.25 ZERO STYLE

Select the printing character for zero with a slash (/) or without, to distinguish it from the letter O.

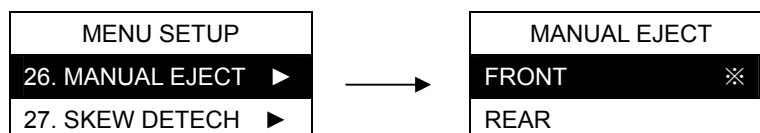
Setting process:



5.26 MANUAL EJECT

Set the paper eject from front or rear when in the manual paper feed mode.

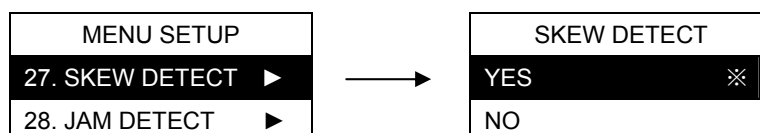
Setting process:



5.27 SKEW DETECT

After selecting this function on, printer would auto detect paper skew when feeding cut sheets. If the slant degree is beyond the set parameter, printer would eject paper automatically.

Setting process:

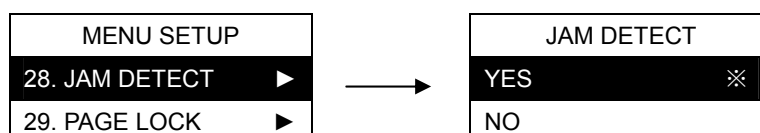


5.28 JAM DETECT

This function is to set the paper jam detect function ON or OFF (In tractor paper mode).

If this function is ON, the printer will stop printing when paper jam, and the LCD display will shows "Paper Jam".

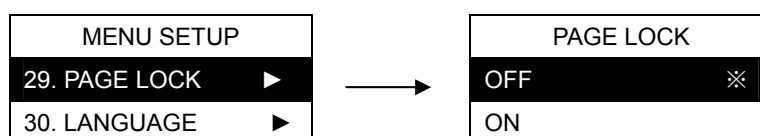
Setting process:



5.29 PAGE LOCK

After selecting this function on, printer would lock the page length setting. Printer feeds to next page according to the current setting parameter and would not affected by the page length instruction of the print data.

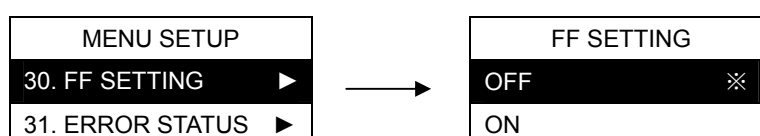
Setting process:



5.30 FF SETTING

Control the the operation of FF command when it is sent to the printer as well as the current printing position is on the top of the paper.

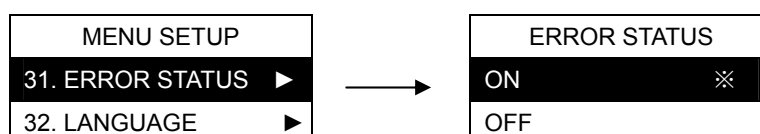
Setting process:



5.31 ERROR STATUS

Setting the output of the printer error signal pin when the printer is connected with parallel interface.

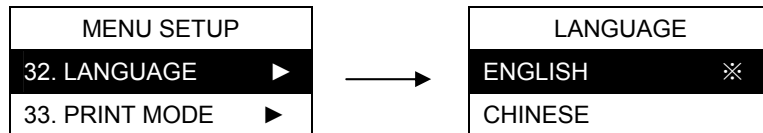
Setting process:



5.32 LANGUAGE

Set the current menu language.

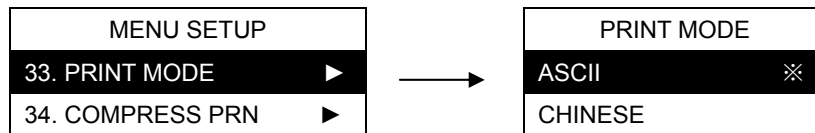
Setting process:



5.33 PRINT MODE

Select ASCII or Chinese printing mode.

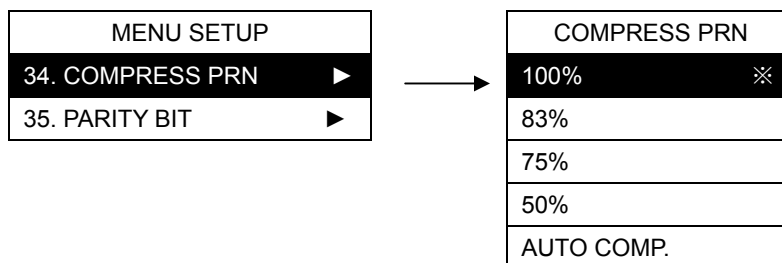
Setting process:



5.34 COMPRESS PRN

Select the transverse compress printing function (100%, 83%, 75%, 50% or auto-compress) on or off. When the function is on, normal speed, high 1 speed and high 2 speed setting is invalid.

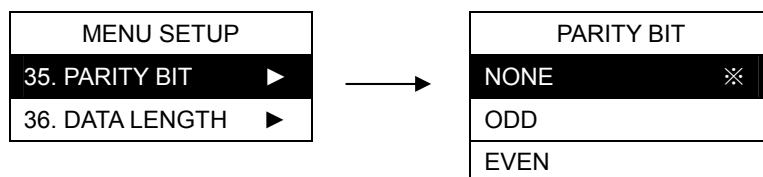
Setting process:



5.35 PARITY BIT

Specify the parity bit for serial data transfer.

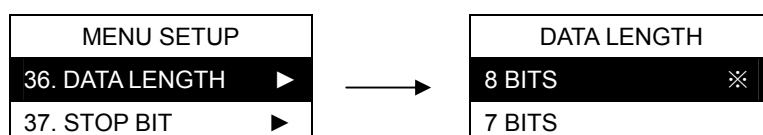
Setting process:



5.36 DATA LENGTH

Specify the serial data bits.

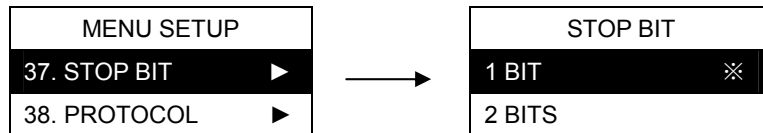
Setting process:



5.37 STOP BIT

Specify the serial data transfer stop bit.

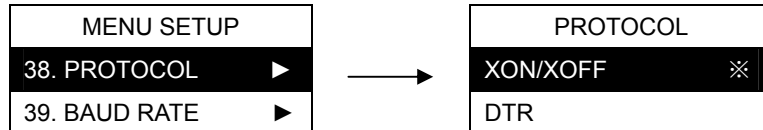
Setting process:



5.38 PROTOCOL

Specify the protocol of printer serial data transfer as software control (XON/XOFF) or hardware control (DTR).

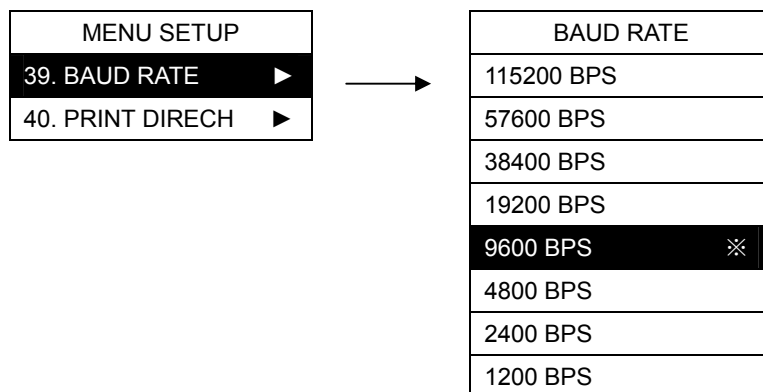
Setting process:



5.39 BAUD RATE

Specify the printer serial data transfer rate.

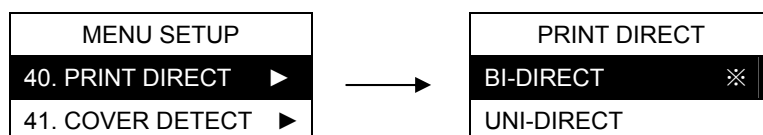
Setting process:



5.40 PRINT DIRECT

Select the printing direction of the print head: unidirectional, bidirectional or selected via software.

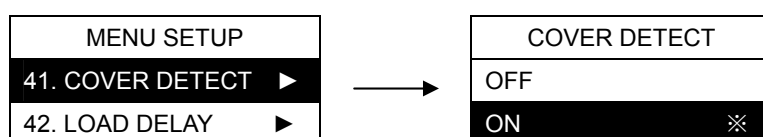
Setting process:



5.41 COVER DETECT

Select the function of cover-open detection ON or OFF.

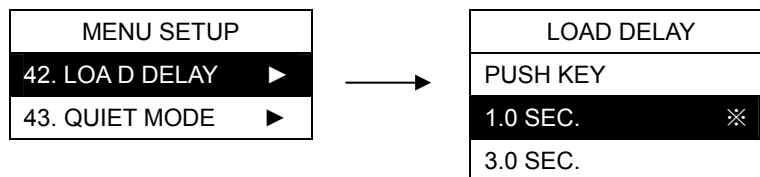
Setting process:



5.42 LOAD DELAY

Specify the wait time between cut sheet is put into the paper guide and it is fed into the printer. Choose to wait specify time or press LF/FF key to feed paper.

Setting process:



5.43 QUIET MODE

Disable or enable the low noise function, when this function is on, print speed would be reduced.

Setting process:

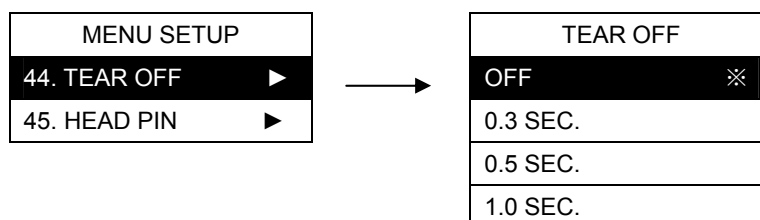


5.44 TEAR OFF

When the buffer area has no data, also the printer does not receive new data within the set time, the printer will feed the paper to tear off position automatically.

After the printer receives new data, it will automatically feed paper to the printing home position of the next page.

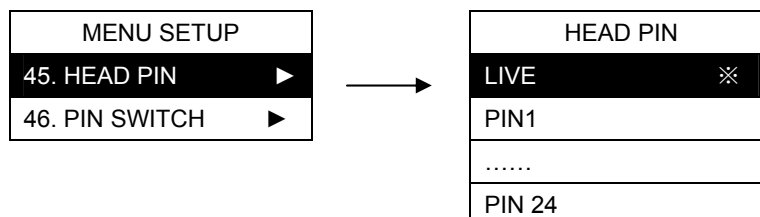
Setting process:



5.45 HEAD PIN

Select the broken pin. Printer would automatically replace it with other pin to print.

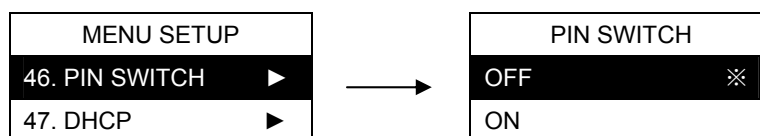
Setting process:



5.46 PIN SWITCH

After selecting this function on, printer would switch different pins to print table line automatically.

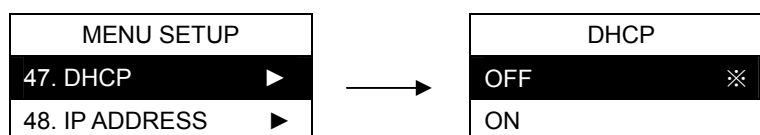
Setting process:



5.47 DHCP

Select whether to use dynamic IP.

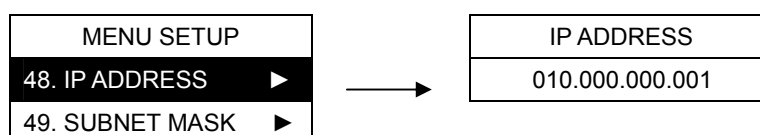
Setting process:



5.48 IP ADDRESS

It is the IP address of printer Ethernet.

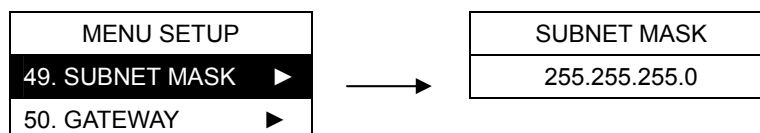
Setting process:



5.49 SUBNET MASK

It is the subnet mask of the printer Ethernet.

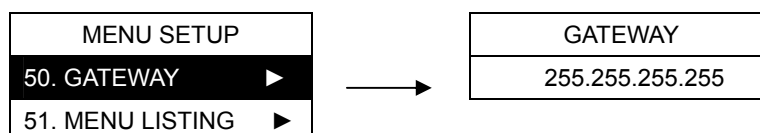
Setting process:



5.50 GATEWAY

It is the gateway of the printer Ethernet.

Setting process:



5.51 MENU LISTING

It is the menu list of the printer.

Setting process:



51. MENU LISTING ▶

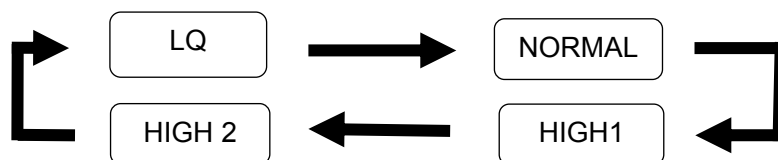
FORMAT 2
FORMAT 3
FORMAT 4
FORMAT 5
FORMAT 6
PIRNT ALL

Chapter 6 Troubleshooting

6.1 How to Solve the Problem

1. Printing speed is slow.

Press **HIGH SPEED** key and select Speed Mode.



LQ speed is slowest while the print quality is the best; HIGH 2 (Super high speed) is fastest while the print quality is the worst. The printing speed and the print quality are related in inverse ratio.

2. Printing is light.

Check the condition of ribbon cassette.

—— If the surface of ribbon becomes whitish, replace the cassette with a new one.

The head adjustment lever may be in the improper position.

—— The head adjustment lever may be in the incorrect position. Please adjust the head adjustment lever.

When using multiply paper.

—— Select copy printing mode: press **HIGH IMPACT** key on the control panel, select the copy item is on.

3. Paper jam.

The head adjustment lever may be in improper position.

—— The head adjustment lever may be in the incorrect position. Please adjust the head adjustment lever.

—— Check whether there is paper or dust on the paper jam sensor which is on the tractor. If there is, please clean it out.

4. Paper skew occurs thought paper is right install when loading.

Check if there is any black dirty thing on the paper.

—— Turn the Paper Skew function off in the Menu Setup Mode.

5. The paper feed sensor can not detect the improper position of the paper or the printing home position.

The paper feed sensor or the paper edge detector is not set properly.

—— Please contact your dealer for assistance.

6. The printer can not detect paper out.

The printer continuous printing even thought paper out, it may be caused by the improper set of other menu items.

—— In the Menu Setup Mode, modify the page size then save the setting.

7. The printed vertical or transverse line has clearance.

—— Modify the corresponding print direction in Menu Setup Mode.

—— Adjust the printer's alignment (see detailed in Appendix A2).

8. Print the wrong characters.

The communicate transportation of the printer may be incorrect.

—— Check if the connection of the cable is correct or damaged.

Check if the control system of the computer and the data code are consistent with the printer setting.

—— In the Menu Setup Mode, set the correct emulation according to the requirement.

The printing driver may be incorrect.

—— Please reinstall the printer driver correctly.

9. The printed result is not aligned.

The top of form margin and the bottom margin are not the same.

—— In the Menu Setup Mode, modify the parameter of the TOF ADJUST.

The left margin is not consistent with the right margin.

—— Adjust the paper guide position of the tractor.

—— In the Menu Setup Mode, modify the left and right margins' parameters.

The tractor paper appears unaligned printing from the second page.

—— Page length setting may be incorrect, modify R.TR PG LGTH in Menu Setup Mode. Reset the page length and make sure the page length setting in the computer too.

10. Restore all the settings in the Menu Setup Mode to the factory default settings.

EEPROM Initialization 1 —— Restore the settings to the factory default settings.

[Procedure]:

Press the **FORMAT** and **LF/FF** keys and turn on the printer.

The LCD displays as follow, it back to normal display state after initialization.

EEPROM INITIAL 1

6.2 How to Solve the Error Message

Error Message	Function Description
HEAD PROTECTION	The print head is being cooled to prevent it from overheating. The ONLINE light blinks. The print head has become too hot during high-density printing. When this message is displayed, the printing speed is reduced (from bidirectional printing to unidirectional printing) or printing stops (the print head move transversely but print nothing). When the print head temperature drops, the printer restarts printing.
PAPER OUT	Install tractor paper on the tractor and press the EJECT/LOAD key. Put a cut sheet on the paper rack and load it into the printer.

HOME SENSOR ERROR	The printer detects the home sensor error automatically. 1. Remove the paper and restart the printer. 2. If the malfunction can not be solved, please contact your dealer for assistance.
FRONT COVER IS OPEN	Power on the printer, open the front cover, the LCD display will display this information, then the printer will enter into stop state which the ONLINE key blinks at the same time. Please close the front cover and the printer will recover to normal state.

Chapter 7 Printer Specification

7.1 General

Item	Description		
Printing method	24-Pin Dot Matrix Impact Printer		
Printing direction	Bidirectional logic seeking		
Number of columns	136 columns (10 CPI)/ 345.44 mm		
Printing speed	ASCII		
	Speed	10 CPI	12 CPI
	High density	150 CPS	180 CPS
	Normal speed	205 CPS	246 CPS
	High 1	310 CPS	372 CPS
	High 2	410 CPS	492 CPS
Print head	Diameter of wire: 0.22 mm		
Resolution	360×360DPI (Max.)		
Character set	ASCII: 17 international character sets (U.S.A., France, Germany, Britain, Denmark 1, Sweden, Italy, Spain 1, Japan, Norway, Denmark 2, Spain 2, Latin Am, Korea, LEGAL, Netherland, Turkey)		
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 LAT1, WIN LAT2, ISL LTN1, ISO LTN2, TUR8859-9, ISO LTN9, KBL, LATIN 7		
Fonts	ASCII: Draft, Roman, Sans Serif, Courier, Prestige, Script, OCR-B, OCR-A, Orator Note: In high speed mode or super high mode, printer would automatically change the ASCII font to Draft when printing ASCII characters.		
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, 17 CPI, 20 CPI, proportional		
Line space	1/3 inch, 1/4 inch, 1/6 inch, 1/8 inch, 1/9 inch and n/360 inch		
Paper feed speed (Max.)	152.4 mm per second / 6 inches per second (continuous feed)		
Emulation	EPSON ESC/PK2, OKI5530SC, IBM 2391		
Interface	USB interface: USB 2.0 Full-Speed Parallel interface: Centronics (IEEE1284 NIBBLE Mode) Serial interface: RS-232C (DB 9-PIN or DB 25-PIN) Ethernet interface: 10/100 Base-T Ethernet Interface Note: According to the specific interface standards		
Input Buffer	132 KB		
Ribbon	Model: JMR106		
	Life: 20 million characters (draft mode)		
Noise	<58 dB (A) (ISO7779 standard)		
Control Panel	8 Keys + 4 indicator lights + Chinese LCD display.		
Paper feed type	Cut sheet: Load/eject from front; Load from front and eject from rear		
	Tractor paper: Load front rear, eject from front		

Thickness adjust	Automatically detects the paper thickness and adjust the gap, or adjust through head adjustment lever.	
Paper specification	Tractor paper	Width: 127 ~ 406 mm
		Thickness: 0.08 ~ 0.12 mm
		Weight: 60 ~ 105 g/m ²
	Tractor multi-ply paper	Width: 127 ~ 406 mm
		Ply: ≤7
		Thickness: 0.12 ~ 0.52 mm
		Weight: 40 g/m ² (1+6)
	Cut sheet	Width: 127 ~ 430 mm
		Length: 127 ~ 430 mm
		Thickness: 0.08 ~ 0.12 mm
		Weight: 60 ~ 105 g/m ²
	Cut sheet multi-ply paper	Width: 127 ~ 430 mm
		Length: 127 ~ 430 mm
		Ply: ≤7
		Thickness: 0.12 ~ 0.52 mm
		Weight: 40 g/m ² (1+6)
	Card	Width: 127 ~ 430 mm
		Length: 127 ~ 430 mm
		Thickness: 0.08 ~ 2 mm
Max printing thickness	2.0 mm	
Copy	Original + 6 copies Standard mode: Original + 4 copies Copy mode: Original + 6 copies	
Automatic function	Automatic thickness detection, Automatic skew detection, Paper edge detection	
Especial functions	Chinese LCD display, Break pin compensation, Pin switch, Automatic Emulation Match	
Physical dimensions	635 mm (width) × 335 mm (depth) × 294 mm (height) (no paper rack)	
	635 mm (width) × 465 mm (depth) × 294 mm (height) (with paper rack)	
Weight	Approx. 22 Kg	
Environmental conditions	Operating environment	Temperature: 5 ~ 40℃
		Humidity: 25%RH ~ 80%RH (No condensation)
	Storage environment	Temperature: -40 ~ 55℃
		Humidity: ≤93%RH (40°, No condensation)
Power requirements	Rated voltage range: 176 ~ 242 V(AC)	
	Rated frequency range: 50/60 Hz	
Power	①Operation: 110 W; ②Maximum: 260 W; ③Sleep mode: 16.5 W. Caution: Only when the product is unconnected with outer power supply, it can achieve zero energy consumption state.	
EMI	Grade B	

7.2 Interface Specification

This printer can be configured with 2.0 Full-Speed USB interface, Centronics (IEEE1284 NIBBLE) parallel interface, RS-232 serial interface or 10/100Base-T Ethernet interface (according to specific interface standards). You can connect the printer to computer according to your requirement.

7.2.1 Parallel Interface

Standard Centronics (IEEE1284 NIBBLE) parallel interface connector is DB-36 pin type connector. Its pin numbers are as Figure 7-1 shown.

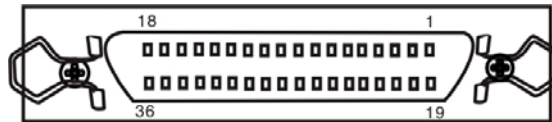


Figure 7-1 Parallel interface connector pin number

Sequence and signal level

Sequence Diagram as 7-2

Signal level

Input High level: 2 ~ 5 V Low level: 0 ~ 0.8 V

Output High level: 2.4 ~ 5 V Low level: 0 ~ 0.4 V

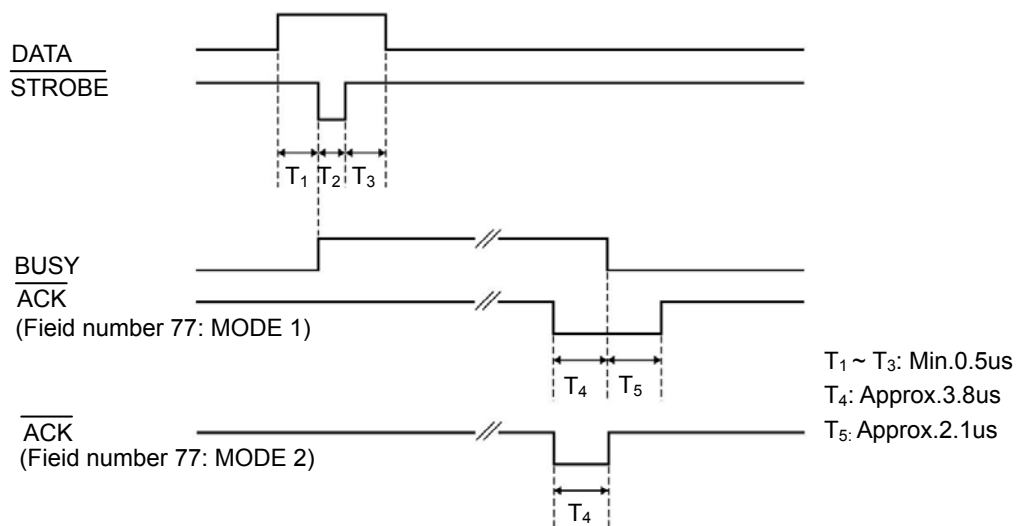


Figure 7-2 Sequence diagram

Connector Pin Assignments

Signal Pin No.	Return Line Pin No.	Signal Name	Signal Direction
1	19	STROBE	Printer ← Host
2 ~ 9	20 ~ 27	DATA	Printer ← Host
10	28	ACK	Printer → Host
11	29	BUSY	Printer → Host
12	30	PE	Printer → Host
13	—	SELECT	Printer → Host
14	—	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

7.2.2 USB Interface

USB 2.0 Full-Speed

The following table provides the standardized contact terminating assignments by number and electrical value for Series “A” and Series “B” connectors.

Contact Number	Signal Name	Colour
1	VBUS	Red
2	D-	White
3	D+	Green
4	GND	Black

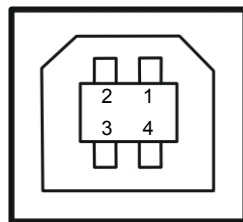


Figure7-3 USB-B Type connector

7.2.3 Ethernet Interface

10/100Base-T Ethernet interface, it can connect to 10/100M Ethernet.

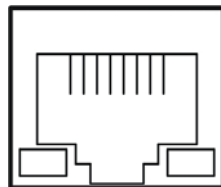


Figure 7-4 Ethernet Interface

7.2.4 Serial Interface

FB-600E printer serial interface can be compatible with RS-232C, and supports RTS/CTS and X-ON/X-OFF handshaking. Its interface connectors are DB-9 type connector and DB-25 type connector.

7.2.4.1 Serial Interface (DB-9)

DB-9 serial interface connector's pin number is shown as Figure 7-5:

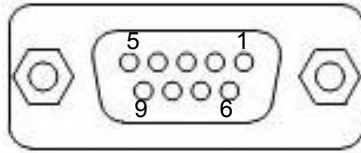


Figure 7-5 DB-9 Serial interface connector pin number

Connector Pin Assignments:

PIN	SIGNAL NAME	SIGNAL HEAD	EXPLANATION
2	RXD	HOST	The printer receives data from HOST.
3	TXD	PRINTER	The printer send X-ON/X-OFF and data to the HOST.
7	RTS	PRINTER	When the signal is MARK, it denotes the printer is BUSY and can not receive data. When the signal is SPACE, it denotes the printer is READY and can receive data.
8	CTS	HOST	When the signal is MARK, it denotes the printer is BUSY and can not receive data. When the signal is SPACE, it denotes the printer is READY and can receive data.
5	GND	—	Ground
4	DTR	PRINTER	Data Terminal Ready

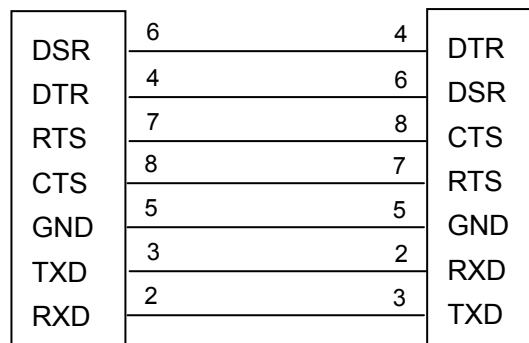
Table 7-5 Connector Pin Assignments

Note: Signal logic lever is EIA lever.

Connect with the serial interface, the baud rate and data frame has been set to 9600 bps, 8 data bits, no check and 1 bit stop bit.

Refer to Figure 7-6 when connect to the computer.

Serial interface connect relations are as follow:



Printer 9 PIN connector

HOST 9 PIN connector

Figure 7-6 The connection of printer and HOST

7.2.4.2 Serial interface (DB-25)

DB-25 serial interface connector's pin number is shown as Figure 7-7:

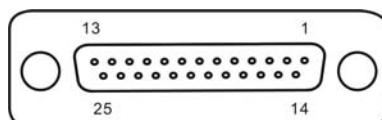


Figure 7-7 DB-25 serial interface connector pin number

Data input/output mode: 7-bit or 8-bit serial interface

Data input code: ASCII, JIS 7-bit or 8-bit, International character code, CG, Dot matrix graphic code based on graphic symbol code (8-bit)

Data buffer: 132K bytes most

Signal level: RS-232C: $\pm 12V$

Data transit speed (baud rate) RS-232C: 1200bps, 2400bps, 4800bps, 9600bps, 19200bps

Data transmission protocol RS-232C: READY/BUSY (DTR) or X-ON/X-OFF

Synchronous system: Original bit: 1 bit Stop bit: 1~2 bit

Character length: 7 ~ 8 bits

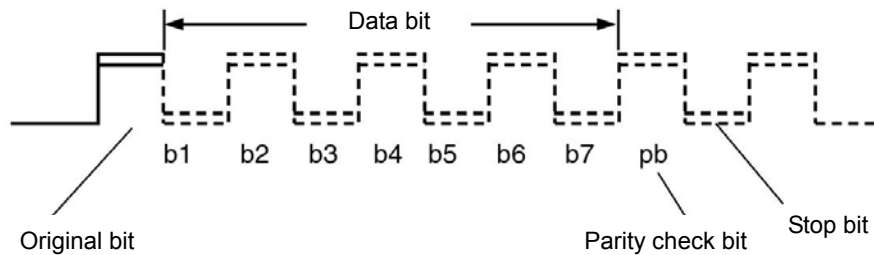


Figure 7-8 Serial data format

Connector Pin Assignments

RS-232C default settings

PIN	ABBREVIATION	NAME	DIRECTION	RDY/BSY	X-ON/X-OFF
1	FG	Frame Ground	—	O	O
2	SD	Transmitted Data	OUT	X	O
3	RD	Received Data	IN	O	O
4	RTS	Request to Send	OUT	*	*
7	SG	Signal Ground	—	O	O
20	DTR	Data Terminal Ready	OUT	O	O

O: USE X: NOT USE *: HIGH LEVEL

Signal description:

Prescription of signal level on RS-232C

1=Low (Mark): -25 ~ -3 V

0=High (Space): +3 ~ +25V

RDY/BSY protocol (RS-232C)

PIN 1 FG (Frame Ground — connect to the printer rack
Connect to the circuit frame ground

PIN 3 RD (Received Data)
Receive serial data from the computer through this pin. This pin is low level when it receives no data.

PIN 7 SG (Signal Ground)
Connect to the signal ground

PIN 20 DTR (Data Terminal Ready)

This pin is high level when the printer is ready to receive data. It is low level when not ready to receive data.

X-ON/X-OFF Protocol (RS-232C)

PIN 1	FG (Frame Ground---connect to the printer rack) Connect to the circuit frame ground.
PIN 2	SD (Transmitted Data) Send serial data to the printer through this pin. This pin is low level when it receives no data.
PIN 3	RD (Received Data) Receive serial data from the printer through this pin. This pin is low level when it receives no data.
PIN 4	RTS (Request to Send) Send Request to send signal from the printer. This pin is high level when the printer is turned on.
PIN 7	SG (Signal Ground) Connect to the signal ground.
PIN 20	DTR (Data Terminal Ready) Output the signal from the printer. This pin is high level when the printer is turned on.

7.3 Printable Area

Caution: 1. To guarantee the print quality, please ensure the contents are all within printable area.

2. If the print contents are out of the printable area, it may cause the print head to break pins.

Cut Sheet Printable Area:

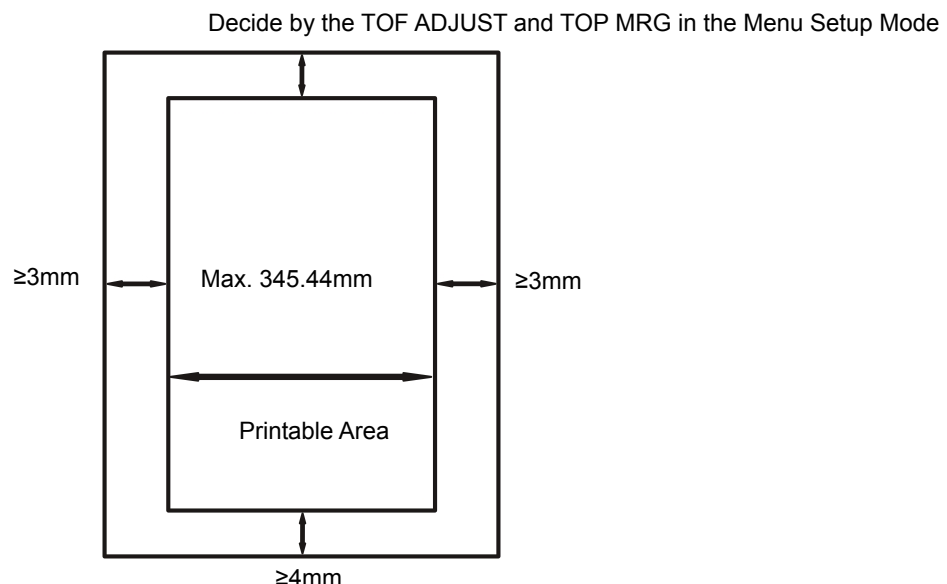


Figure 7-9 The printable area of cut sheet

Tractor Paper Printable Area:

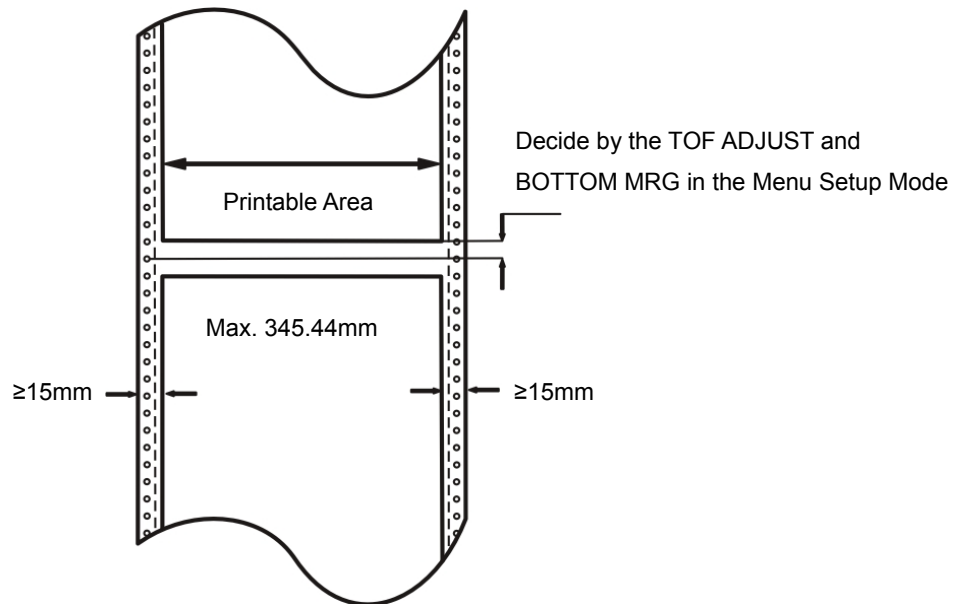


Figure 7-10 The printable area of tractor paper

7.4 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 7-11) Or else, it will damage the printer seriously.
- Do not use the print paper which edges fall into disrepair.
- In manual paper feed mode, do not use the single ply tractor paper or the single ply fanfold paper. Because the hole on the tractor paper edge and the impress on the copy paper edge will cause printing jam. (As shown in 7-12)

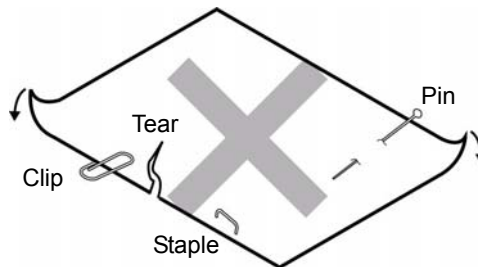
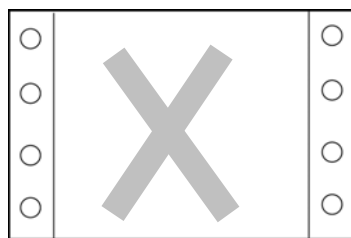
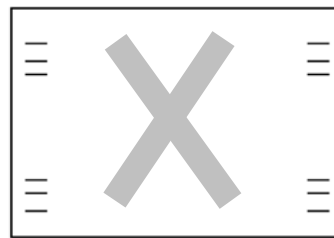


Figure 7-11



Single ply tractor paper



Single ply fanfold paper

Figure 7-12

Appendix A Self-test and Adjustment

A.1 Self-test Function

FB-600E printer supplies several print-test functions which make you run the self-test of the printer in different states.

A.1.1 ASCII Test Mode

After install the paper (tractor paper: 136 lines, manual paper feed: A4 paper), then use the following way to run the ASCII self-test.

- Turn on the printer, firstly, press **ALT + ONLINE** keys to initialize the printer, during the initialization, press **LF/FF** key.
- Turn off the printer, press down **LF/FF** key and turn on the printer.

The printer will continuously print out ASCII characters.

```
ASCII TEST MODE
Version: FB-600E      VX.X XXX      XXXX-XX-XX
SN: 00000000000000000000    MAC Address: XX-XX-XX-XX-XX-XX
DHCP: YES   IP: 10.0.0.1   Subnet mask: 255.255.255.0   gateway: 255.255.25
!"#$%&'()*+,-./0123456789;:<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
!"#$%&'()*+,-./0123456789;:<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
!"#$%&'()*+,-./0123456789;:<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
!"#$%&'()*+,-./0123456789;:<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
```

A.1.2 Maintenance Printing Test (H pattern)

One page printing of H pattern is performed by turning power on, while pressing the **EJECT/LOAD** key. After printing the printer will exit this test automatically. So you can send the printing command to the printer to print.

Continuous printing of H pattern is performed by turning power on, while pressing the **TEAR OFF** key and **EJECT/LOAD** key.

Pressing the **ONLINE** key can stop printing, and turn off the printer to exit H pattern mode.

[illegible]

A.1.3 Hex Dump Mode

Hex Dump mode can analyse if there is any malfunction in the interfaces of the printer and the computer.

- Turn on the printer, firstly, press **ALT + ONLINE** keys to initialize the printer, during the initialization, press **HIGH SPEED** key to enter Hex Dump printing.
- Turn off the printer, press down **HIGH SPEED** key and turn on the printer.

The printer will print out the data from the computer in Hex Dump mode.

***** HEXADECIMAL DUMP *****																
(0000)	1B	40	A9	A6	29	29	A9	A6	2A	2A	A9	A6	2B	2B	A9	A6
(0010)	2C	2C	A9	A6	2D	2D	A9	A6	2E	2E	A9	A6	2F	2F	A9	A6
(0020)	30	30	A9	A6	31	31	A9	A6	32	32	A9	A6	33	33	A9	A6
(0030)	34	34	A9	A6	35	35	A9	A6	36	36	A9	A6	37	37	A9	A6

Caution: Load the paper along the left side (the “0” mark on the ruler).

A.1.4 Pin test

Power off the printer, press down **FORMAT** key and turn on the printer, then the printer will print out a line for you to check whether there is pin broken.

A.2 Adjust Function

A.2.1 Alignment Adjust Mode

Enter the alignment adjust mode to improve the print quality when the printer is used for a long time.

Enter method: Press down **ENTER+RLF** key and turn on the printer.

EJECT/LOAD: Select to adjust the next DPI alignment.

HIGH SPEED: Each press this key, the second line will move left with one step (Value decreased)

TEAR OFF: Each press this key, the second line will move right with one step (Value increased)

ENTER: Save and print.

FORMAT: Press this key to exit the adjust mode, and then the printer will run the initialization.

Note: There are totally 5 adjustments modes (MODE 0~4).

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



AUI Co., Ltd.

16-19, NIHOMBASHI KODEMMA-CHO, CHUO-KU, TOKYO 103-0001 JAPAN