

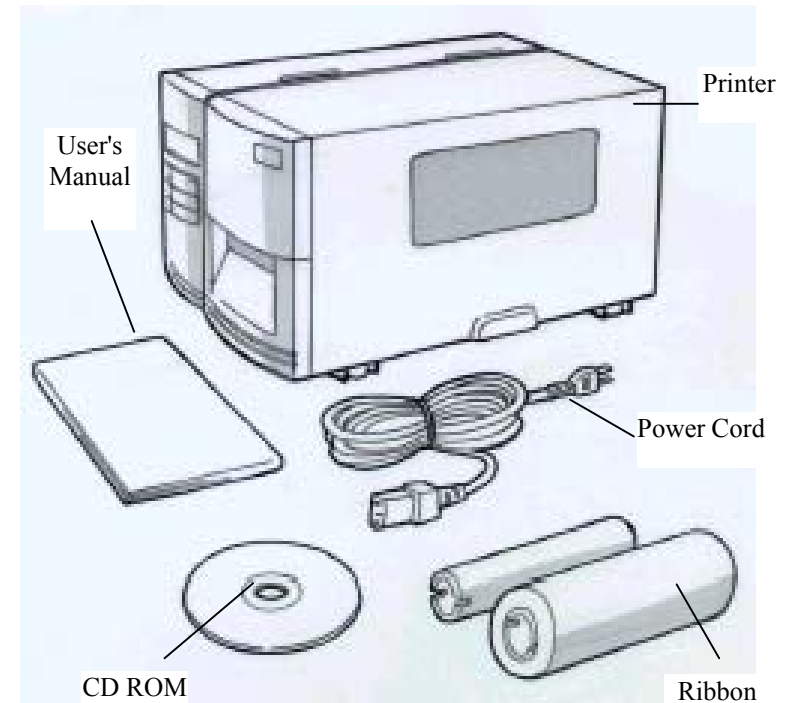
Checking Your Box

Receiving the box of your printer, you are advised to check first for the possible shipping damage. There are two ways you can do it:

1. Inspect the outer appearances of both the box and the printer for possible damage.
2. Raise the top cover of the printer to see if the media compartments are in order.

If damages did occur, immediately file the claim to the shipping company for settlement.

Having performed the primary inspections, next step, please check whether you have received the following accessories together with the printer. If there is any item missing, contact your local dealer to get it.



Power Supply

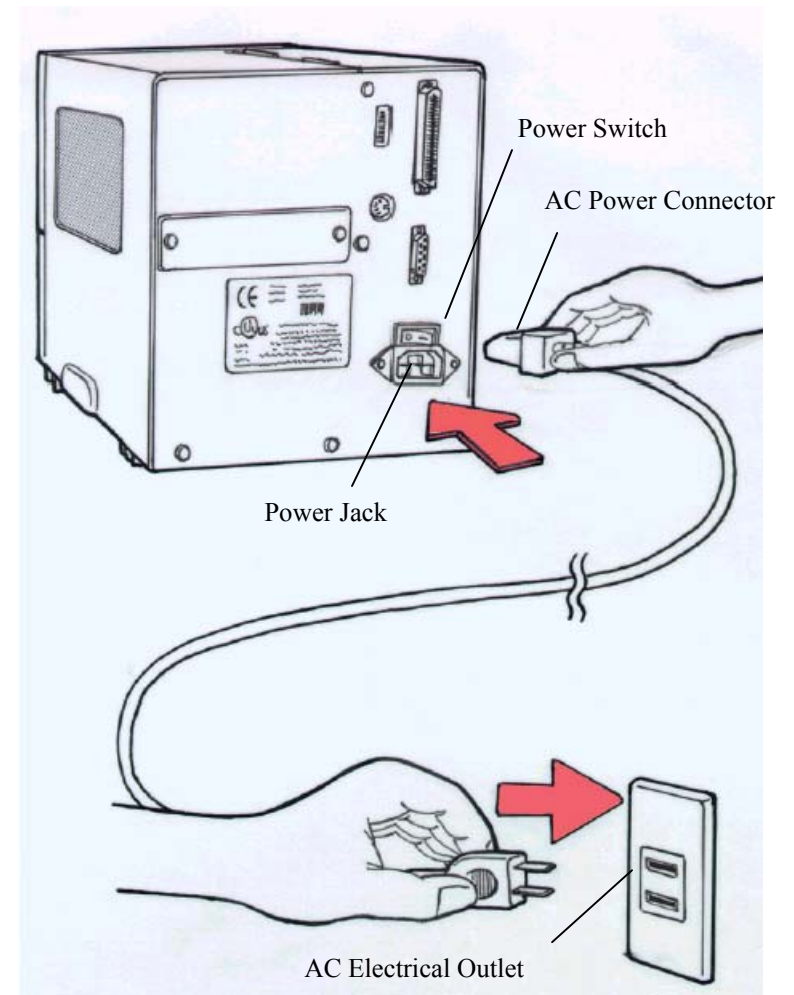
Setting up the Printer

Before setting up the printer you should first consider the following:

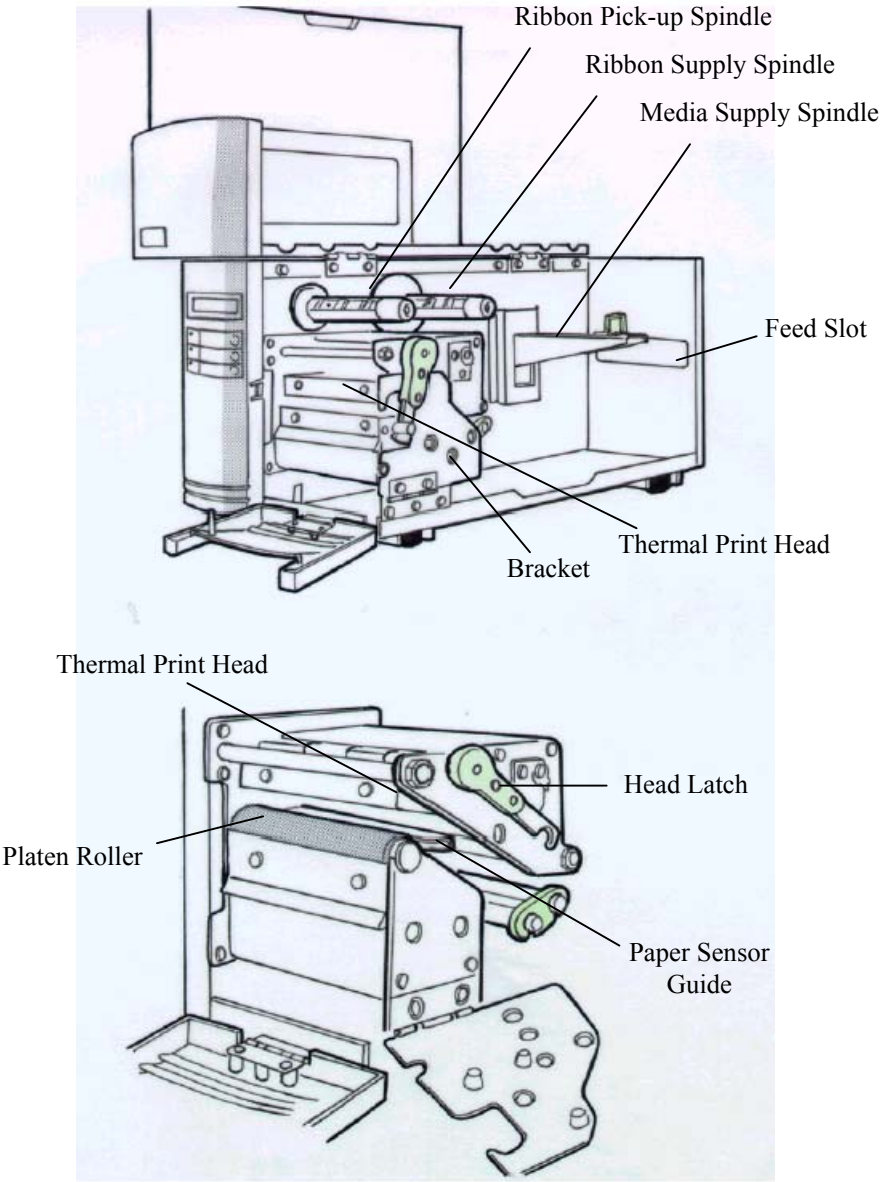
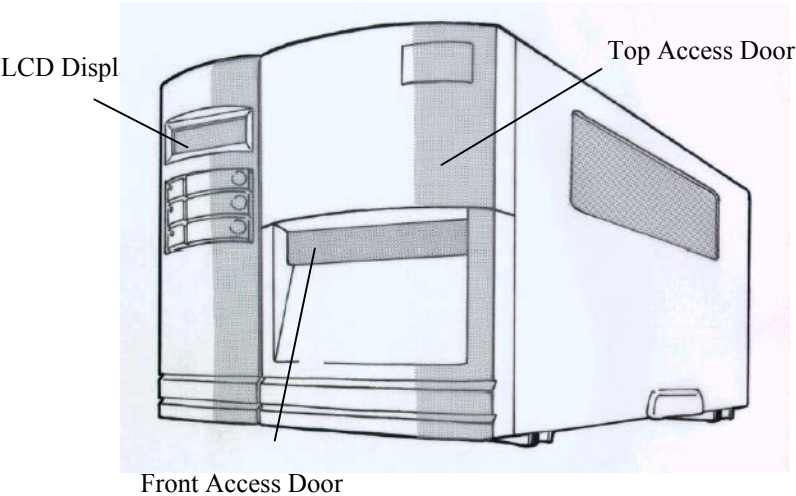
- ♦ Find a solid flat surface with adequate room for the printer. Make sure there is enough room on the top side for the media and ribbon access.
- ♦ The location should be near the host or terminal. Consider the distance between host and printer for the communication cable (serial or parallel cable)
- ♦ Clear the ground and isolate from other electrical cables for the power adapter.

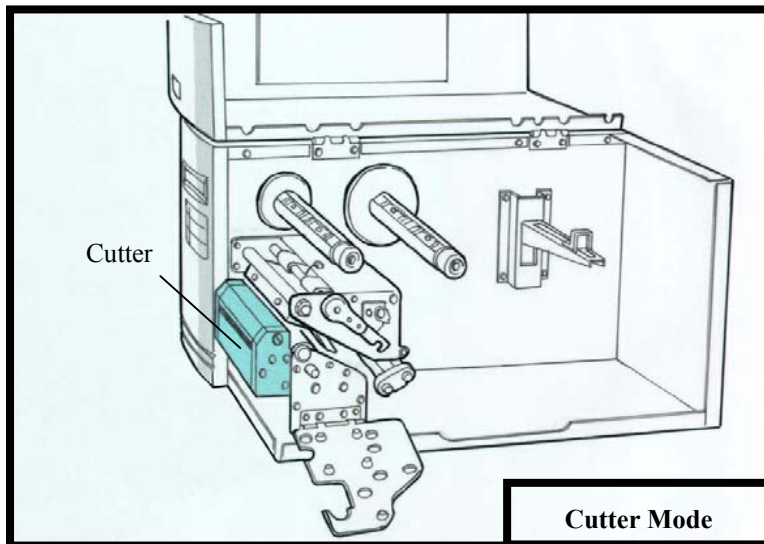
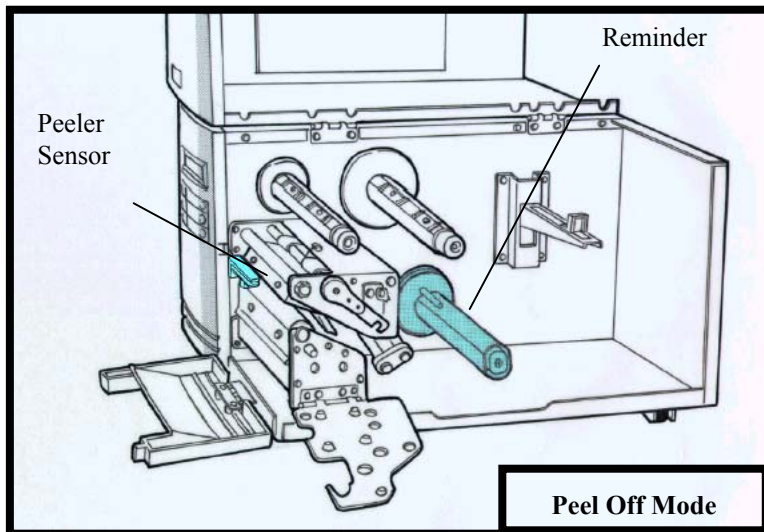
Connecting the Power Cord

1. Leave the power switch at the "O" position.
2. Connect the power supply plug to the power jack and the other end to your AC source.



Parts and Features





Loading the Ribbon

Notes:

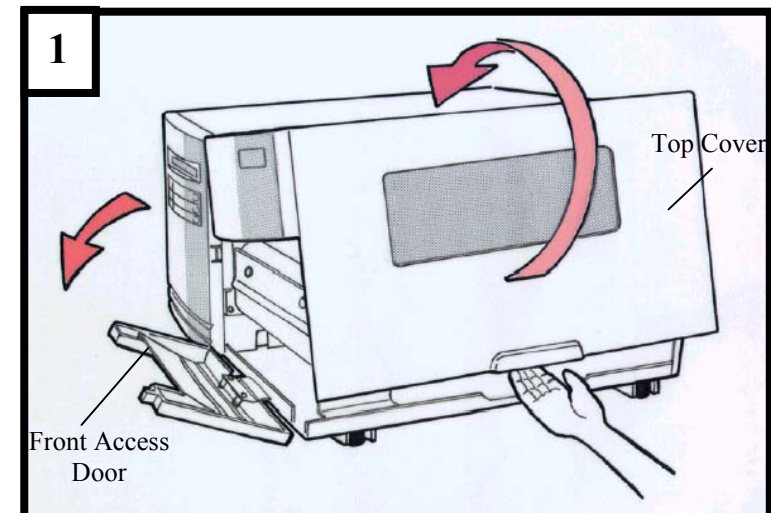
- 1. This section is applicable to the transfer thermal printing.**
- 2. Attached ribbon is coating inside.**

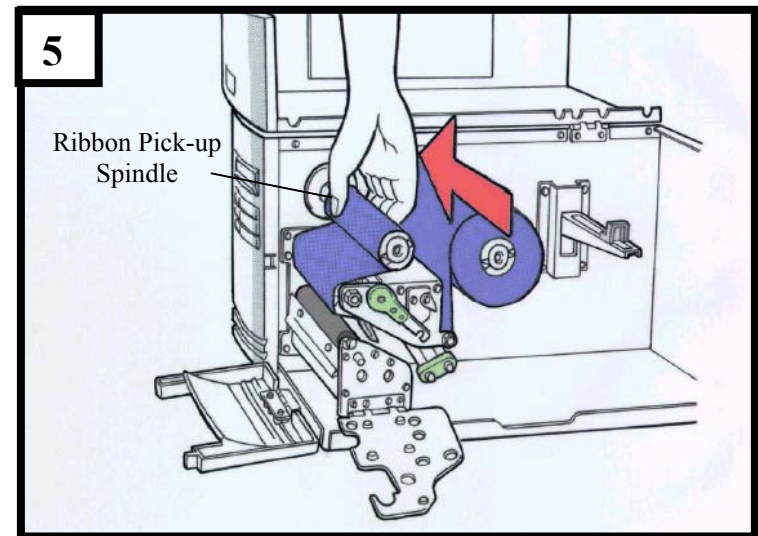
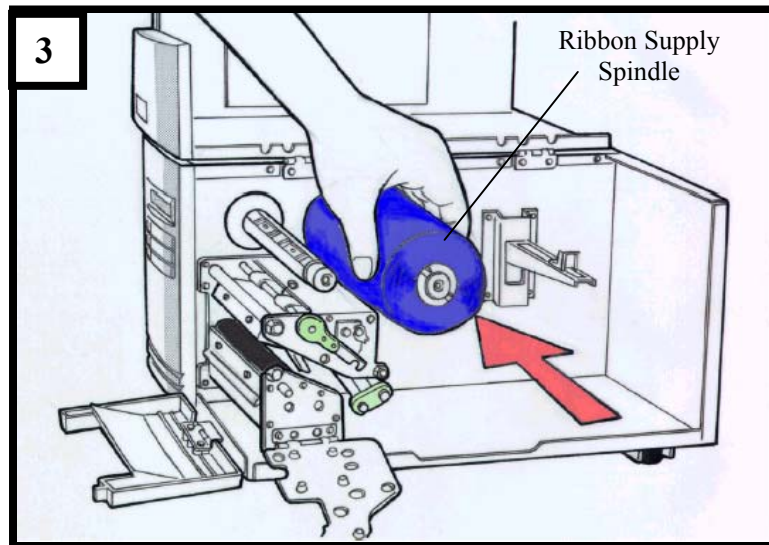
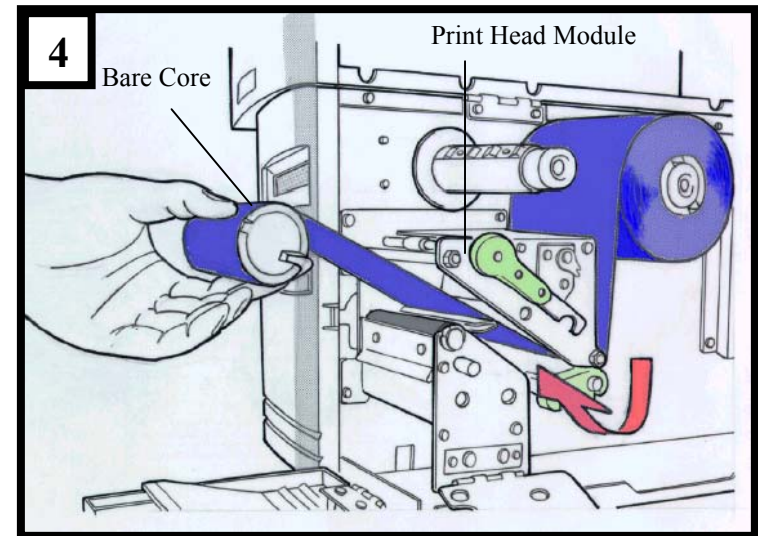
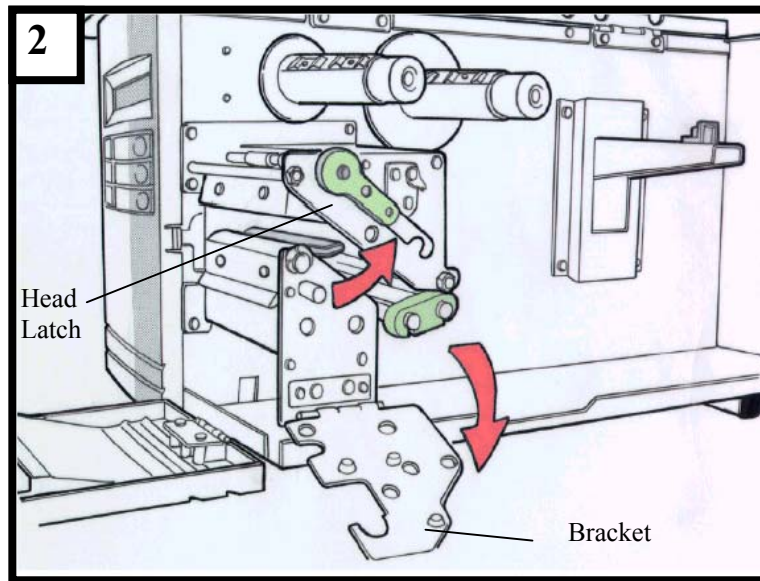
1. Lift the top access door and the front access door to expose the compartment. (Figure 1)
2. Push the head latch by anti-clockwise, and then fold the bracket. (Figure 2)
3. Unwrap the ribbon roll pack and separate the ribbon roll and the bare core.
4. Insert the ribbon roll into the ribbon supply spindle. (Figure 3)
5. Lead the bare core through the print head module. (Figure 4)
6. Attach the edge of the ribbon on the bare core and wind it a little bit onto the core.

Note:

The coating side of the ribbon should be faced down.

7. Insert the bare core into the ribbon pick-up spindle. (Figure 5)
8. Turn the pick-up spindle to ensure the ribbon is tightly wound.





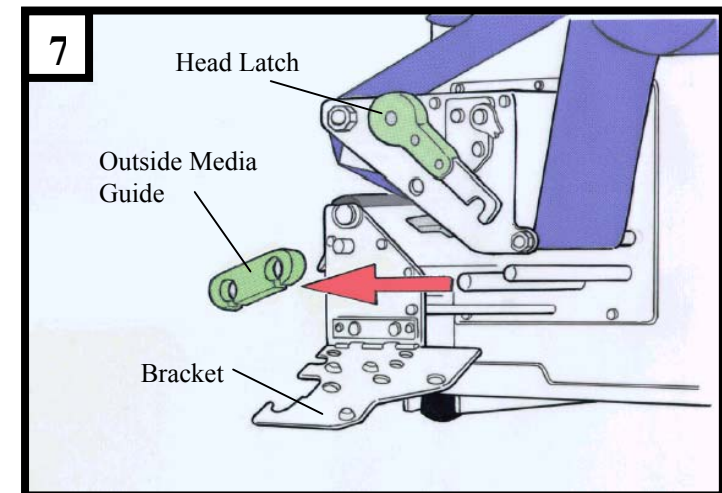
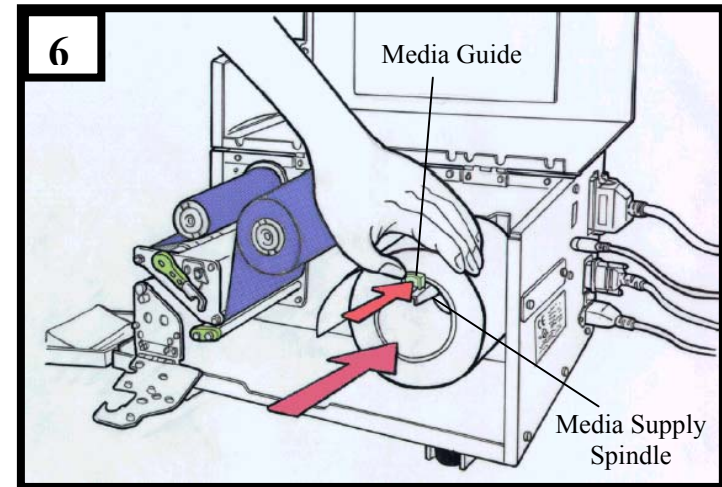
Loading the Media

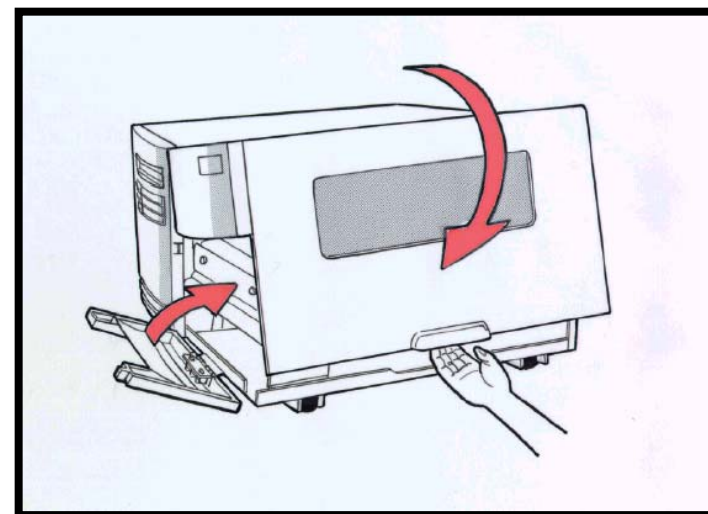
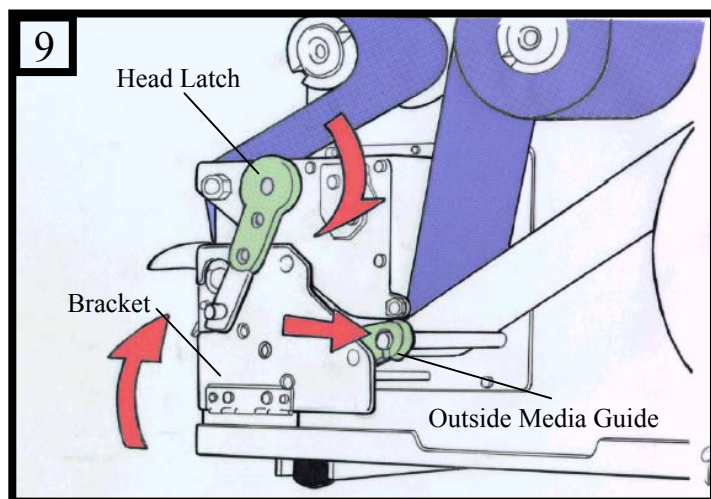
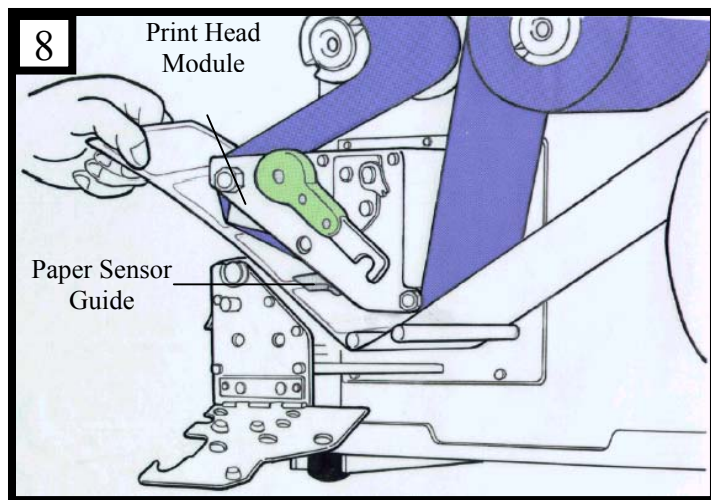
G-6000 printers can be operated in three different options: standard, peel-off, or with a cutter.

- Standard mode allows you to collect each label freely.
- In peel-off mode, the backing material is being peeled away from the label as it is printed. After the former label is removed, the next one will be printed.
- In cutter mode, the printer automatically cuts the label after it is printed.

Standard Mode

1. Insert the media roll into the media supply spindle and move the media guide to the inside. (Figure 6)
2. Push the head latch by anti-clockwise, and then fold the bracket.
3. Remove the outside media guide. (Figure 7)
1. Lead the Media through the print head module and under the paper sensor guide. (Figure 8)
5. Put back the outside media guide, close the bracket, and buckle the head latch. (Figure 9)
6. Close the top access door and the front access door and then turn on the printer or press the "FEED" button if the printer is already on (Figure 10)





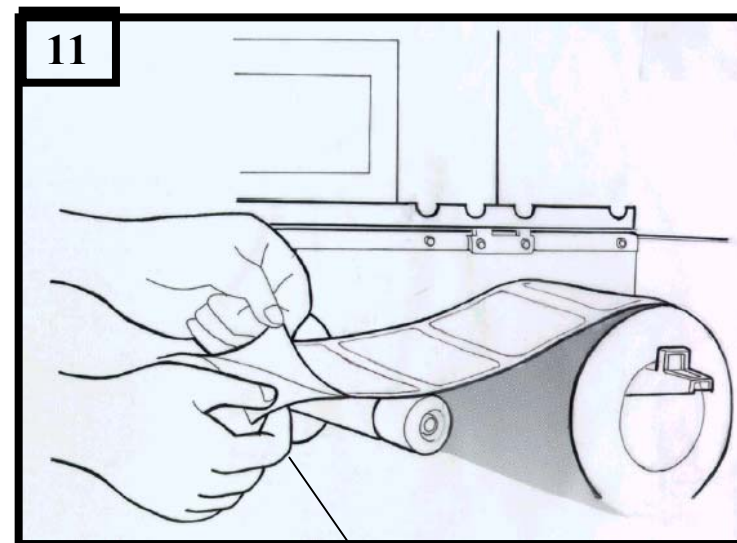
Peel Off Mode

Follow the common procedure of “ Loading the Media “ of Standard Mode from step 1 to 3.

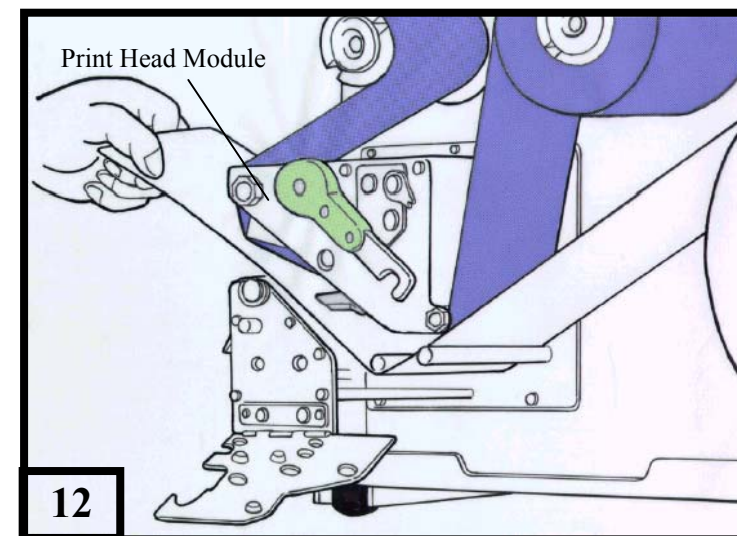
4. Remove approximately 6" long labels from the label backing paper (Figure 11)
5. Lead the backing paper through the print head module. (Figure 12)
6. Turn back under the print head module. (Figure 13)
7. Use a sticker to fix the media on the rewinder kit.(Figure 14)
8. Turn the rewinder kit twice to ensure the media is firmly fixed. (Figure 15)
9. Close the side access door and turn on the printer or press the FEED button if the printer is already on. (Figure 16)

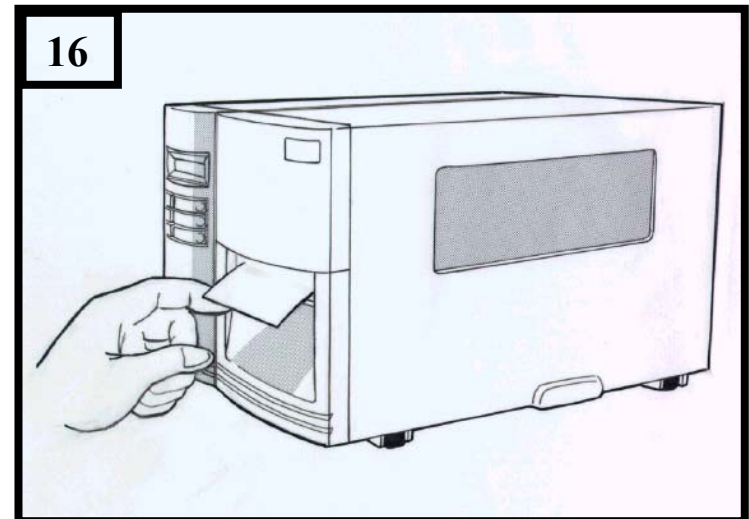
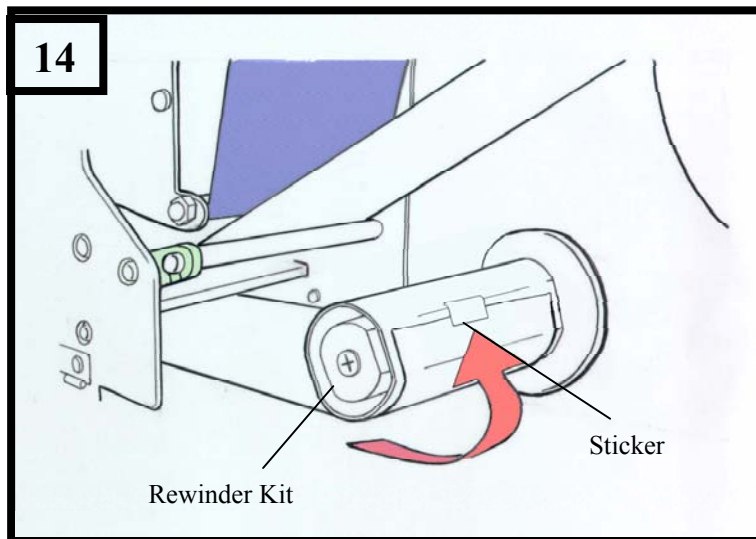
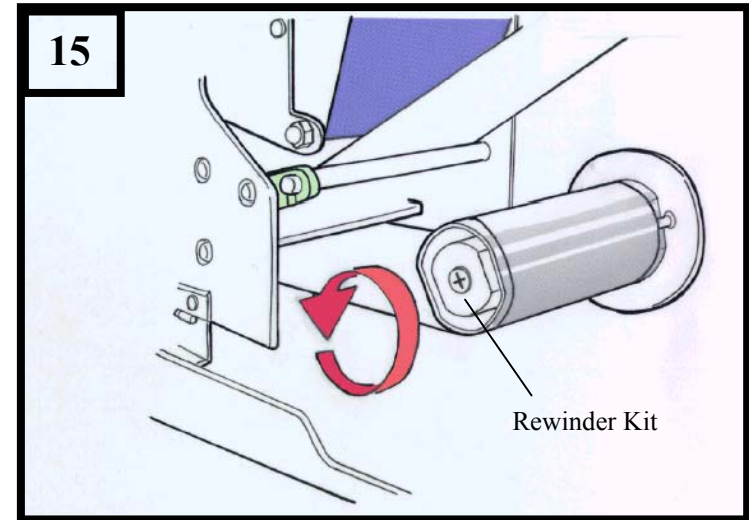
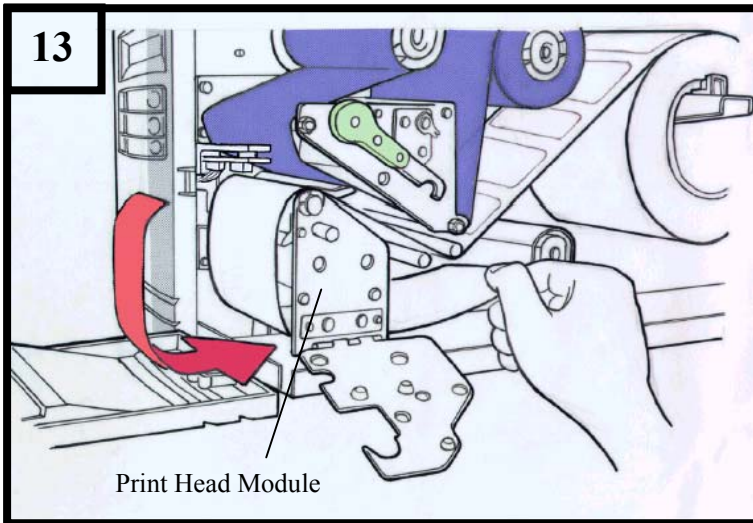
Notes:

1. **The “ FEED “ button will not drive the printer to peel. The peeling work can be executed only when (1) the software setting is ready; (2) Bit 5 of DIP switch at real panel must be set to ON position.**
2. **Please sure the peeler sensor is out of ribbon path when it's installed.**



Backing Paper





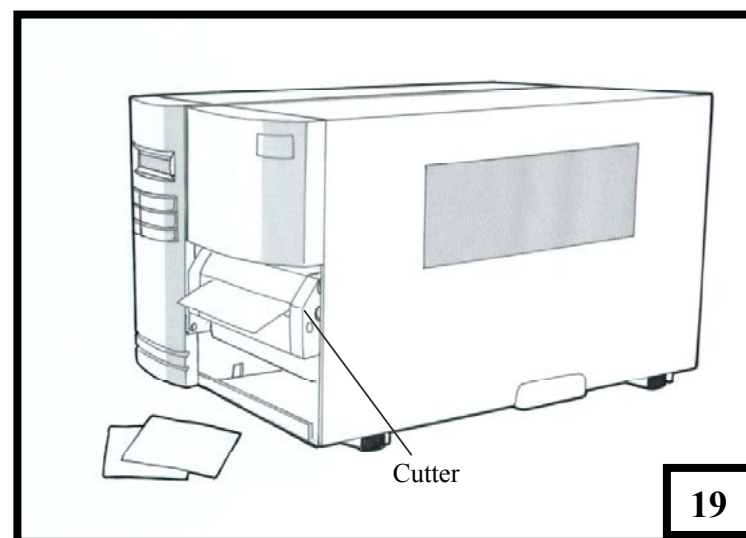
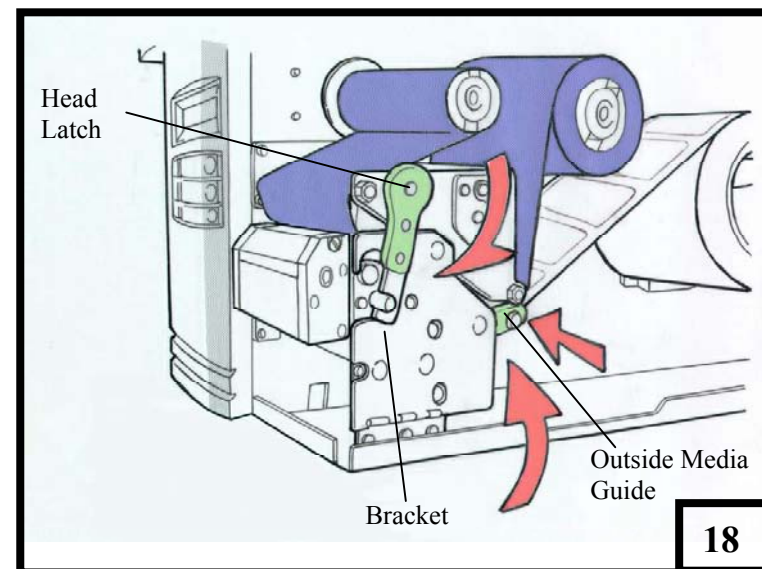
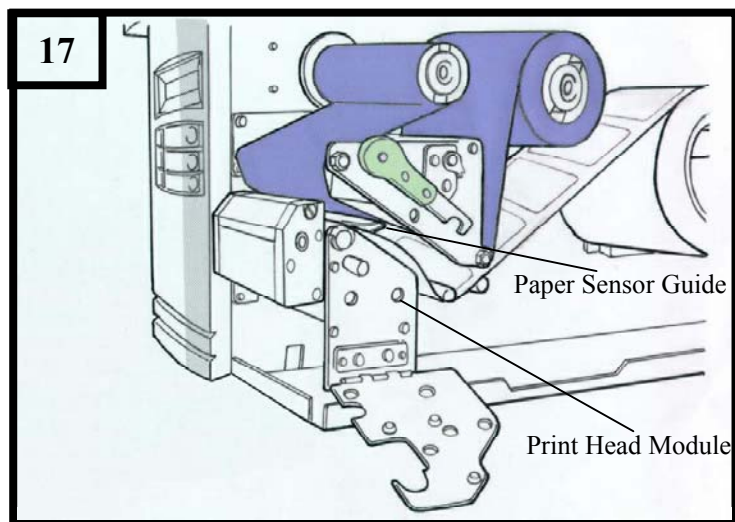
Cutter Mode

Follow the common procedure of "Loading the Media" of Standard Mode from step 1 to 3.

4. Insert the media into the print head module and under the paper sensor guide. (Figure 17)
5. Put back the outside media guide, close the bracket, and buckle the head latch. (Figure 18)
6. Close the top access door and turn on the printer or press the FEED button if the printer is already on, and then the label will be fed into the cutter mode automatically. (Figure 19)

Note:

The "FEED" button will not drive the printer to cut. The cutting work can be executed only when (1) the software setting is ready; (2) Bit 3 of DIP switch at rear panel must be set to the ON position.

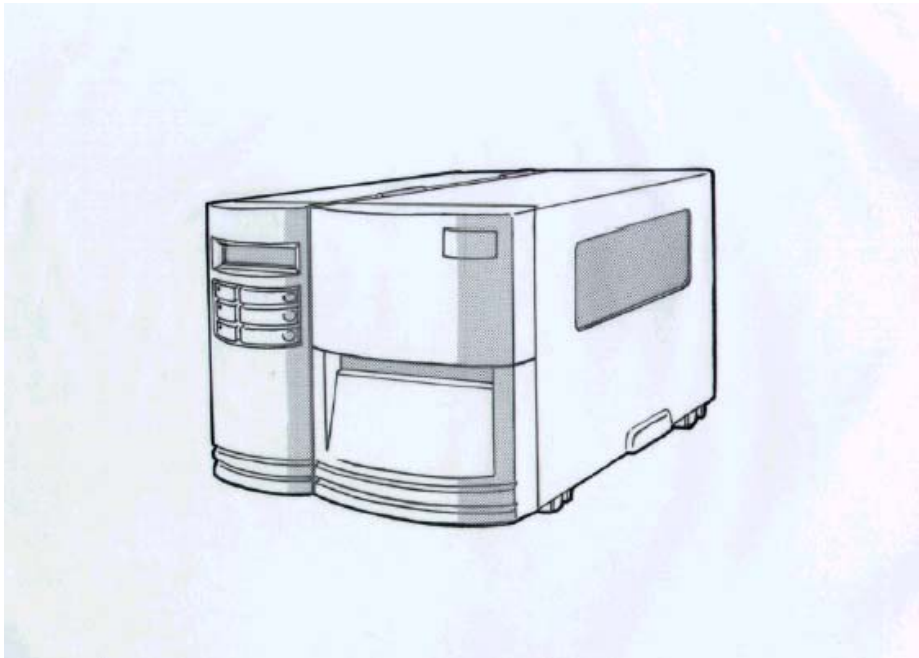


Operator Controls

Front Panel

The front panel includes

- 3 LED indicators (READY, MEDIA and RIBBON)
- 3 buttons (FEED, PAUSE and CANCEL)
- A LCD display



LED Indicators

There are three LED indicators on the front panel, "READY", "MEDIA" and "RIBBON". These indicators display the operation status of the printer.

*** READY** The READY indicator will remain lighted except if any of the following conditions prevail.

- The printer is at PAUSE state.
- A fault condition.

*** MEDIA** The MEDIA indicator will remain on for the normal operation of the printer.

Blinking – Media run out.

*** RIBBON** ON – under thermal transfer mode with ribbon installed.
OFF – under direct thermal mode. (no ribbon installed)

ON - Bit 1 of DIP switch is at ON position.
OFF - Bit 1 of DIP switch is at OFF position.

Blinking – Ribbon run out.

Buttons

There are three buttons, each having two basic functions.

Button	Under normal condition	Pressed the button and turn on the power simultaneously
FEED	Feeds a label.	Performs a self test and a configuration report will be printed.
PAUSE	<ul style="list-style-type: none"> Stops the printing process. Resume the printing after press it again. 	Perform the media calibration.
CANCEL	<ul style="list-style-type: none"> Interrupts and deletes the printing task. Forces the printer to continue working after an error had been solved. 	Resets the settings at E ² PROM.

Notes:

- We suggest you make “ media calibration “.**
 - after the first time installation
 - after change different type or size of media
- After calibration the printer will save the related parameters (reflection characteristics, label length, etc.) to E²PROM. Without correct calibration the gap detection is easily lost during printing especially for small labels (less than 1.5 inches in height).**
- Before calibration, the media and ribbon must be loaded properly and move the label sensor to correct position.**
- After self-test, the printer is at dump mode, If you need normal operation, you must press CANCEL to restart the printer.**

LCD Display

Basic Functions :

- to display the printer status
- to display the printer settings
- to display the input data from a keyboard or barcode reader.

- ◆ After power on the following message is displayed on the LCD.

READY (203,PPLA)

The first parameter is only 203 currently. It stands for the printer resolution. The second parameter indicates the emulation (printer language) PPLA .

- ◆ If a keyboard is plugged in, extra message will be shown at the second row.

READY (203,PPLA)
<ESC> FOR KEYBD

- ◆ If a barcode reader is connected and bits 6 ~ 8 are all at ON positions, extra message will be shown at the second row.

READY (203,PPLA)
WITH B.C. READER

- ◆ If any abnormal condition occurs the related message will be displayed. For example,

RIBBON OUT

Setting from Panel

You can change some settings from proper panel operation instead of sending commands.

Buttons	Function
PAUSE + CANCEL (Don't press over 1 second)	Enters setting mode. A second press will exit setting mode and return to normal mode.
FEED	Pressing this button will show next parameter.
PAUSE	Pressing this button will show next setting item.
CANCEL	Selects certain parameter and causes the parameter to be saved in the permanent memory (E ² PROM). Except you change it from either panel or command the parameter will be kept even you restart the printer.

Procedure

Turn on the printer.

1. Till "READY" message is displayed on the LCD, press [PAUSE]+[CANCEL] buttons simultaneously.
2. Press [PAUSE] button for several times to select the proper item that you want to change the parameter.
3. Press [FEED] button till the specified parameter appears.
4. Press [CANCEL] button to save it. A "*" mark will appear at the last column.
5. Press both [PAUSE] and [CANCEL] buttons at the same time, to return to normal mode.

Note:

Do not make this operation during printing or communication.

Selection Items

Item	Range	Factory Default	Remarks
CUT/PEEL POS (mm)	-15 ~ 15 mm	0 mm	Controls cut and peeling position.
PRINT OFFSET (mm)	-8 ~ 15 mm	0 mm	Controls vertical print position. Positive value only.
TPH VER OFFS (mm)	-3~3 mm	0 mm	Offset of vertical print position
RECOVERY PRINT	ENABLED, DISABLED	ENABLED	Contents reprint after media-out or ribbon-out
GAP HEIGHT	MORE THAN 10 mm, 5 ~ 7 mm, 8 ~ 9 mm.	MORE THAN 10 mm	This item appears only when DIP switch bit 4 is at ON position.
WIN CON LEN (mm)	0 ~ 254 mm	0 mm	This takes effect only when you run under Windows with bundled printer driver and use continuous media.
BASE SPEED (IPS)	0 ~ 4 IPS	0 IPS	This is for the PPLB emulation only. When you choose TLP2642/3642 driver the speed is limited under 2 ips. This makes printer to upgrade the speed.
COUNTER ON LCD	ENABLED, DISABLED	ENABLED	
MEDIA SENS. TYPE	REFLECTIVE SEE-THROUGH	REFLECTIVE	Select the proper type by the media

			characteristics. Once you change it make sure to make calibration before printing.
BACK FEED	DISABLED, ENABLED	DISABLED	
BACK DISTANCE	10~40 mm	0 mm	This item appears only when BACKFEED is enabled.

Notes:

1. **To make sure the settings take effect you had better restart the printer after changing them.**
2. **When you store graphics with compression in flash board, do not use them under non-compression mode. They must be consistent.**
3. **Before selecting the see-through sensor make sure the main board version is 5.0 or later, otherwise it can not work.**

Setting Display Language

The printer supports six languages, English, French, German, Italian, Spanish and Portuguese for LCD display.

To select the language

1. Press PAUSE and CANCEL buttons at the same time.
2. Hold both buttons for about 3 seconds.
3. Release buttons.
4. The language item will appear.

LANGUAGE	
ENGLISH	*

5. Press FEED button for next language.
6. Press CANCEL button to select or set the language for your need.

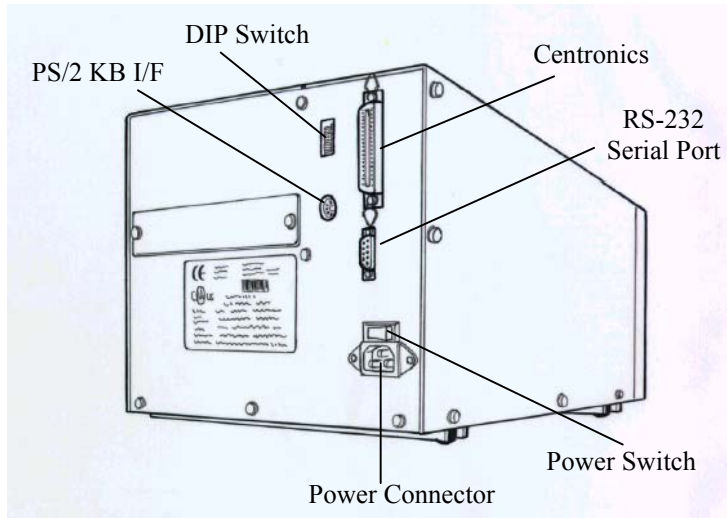
Pressing PAUSE or PAUSE+CANCEL buttons exits setting and enters normal mode.

Item	Range	Factory Default
LANGUAGE	ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, PORTUGUESE.	ENGLISH

Rear Panel

The rear panel includes

- An 8-bit DIP switch
- A 36-pin parallel port
- A 9-pin RS-232 serial port
- A PS/2 keyboard connector
- A power switch and power connector



Printing Configuration Report

Performing the Self Test

1. Turn off the printer. Press and hold the FEED button.
2. Turn on the power.
3. When the message "SELF TESTING ..." is displayed on the LCD and READY indicator blinks, release the button.
4. The printer will print out a configuration report.
5. Finally the "READY" message is displayed and the READY indicator stops blinking and lights up.
6. The following information will be printed on this report.

- Font list
- DIP switch settings
- Hardware configuration and status
- Label parameters
- Firmware version

Note:

After self test the printer will enter character dump mode. For normal operation press the CANCEL button to stop dump mode.

Printing Configuration Report

Performing the Self Test

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 - Font list
 - DIP switch settings
 - Hardware configuration and status
 - Label parameters
 - Firmware version

Note:

After self test the printer will enter character dump mode. For normal operation press the CANCEL button to stop dump mode.

Returning to Factory Default Settings

If you would like to reset the printer to its factory defaults after certain commands have been sent or settings changed:

1. Turn off the printer. Press and hold the CANCEL button.
2. Turn on the power.
3. When the message " E2PROM RESET ..." is displayed on the LCD and READY indicator blinks, release the button.
4. Finally the "READY" message is displayed and the READY indicator stops blinking and lights up.
5. The following parameters automatically reset.
 - Label parameters
 - Heat(Darkness)
 - Speed
 - Symbol set (language)
 - Others for specific emulation

Notes :

1. ***All settings stored in non-volatile E²PROM cannot be destroyed even by turning the printer off.***
2. ***The settings of DIP switch can not be reset.***
3. ***It is necessary to perform label sensitivity calibration after resetting.***
4. ***The printed label count can not be reset.***

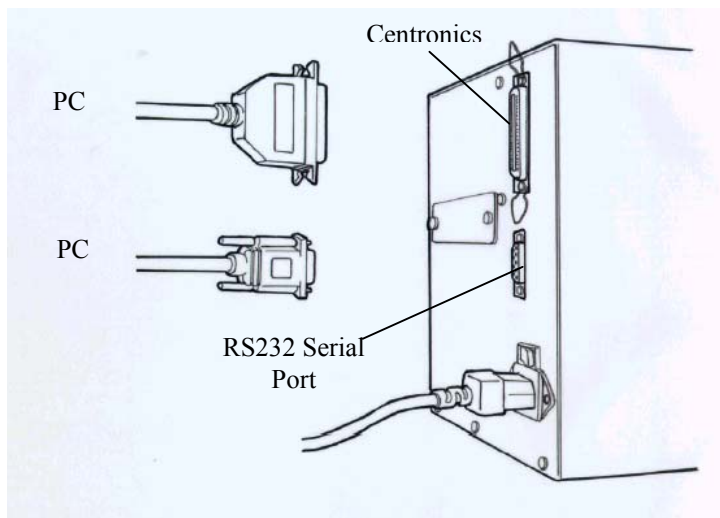
Hooking up the Printer & Computer

Connecting the Printer to Your Host

1. You can connect the printer with any standard Centronics cable to the parallel port of the host computer.
2. Alternatively you can connect the printer with a serial cable to the RS232C port of your computer or terminal. (for PC compatibles, the RS232C port is COM1, COM2 or COM3.)

Note :

Using Centronics allows for a much higher communication speed than the use of a serial.



Communicate with the Printer

Communicate with the Printer

The bundled printer driver can be applied to all the applications under Windows XP/2000/98, and Windows NT. Through this driver you may run any popular software applications e.g. MS-Word and print out the contents by this label printer as long as they are for Windows.

Before installation

1. Check the contents of the driver to ensure it is complete.
2. Make a backup copy of this driver.
3. Read the README.TXT file for installation guide and change notices.

Installing Driver

Note: Before installation, please make sure your “user’s right” is up to the level of ‘Administrator’.

1. Click the “Start” button.
2. Select “Setting”, then select “Printers” and double click the “Add Printer” icon. Click “Next”.
3. click the “Network” or “Local” button and click the “Next” button.
4. Click “Have Disk”, click the pull-down menu to select CD ROM driver path.
5. click “Browse” button.
6. Select the proper directory for installation:
 - WIN98
 - WIN2000
 - NT4.0
 - XP
 - .
 - .
 - .
7. The driver name “Label Dr. 200” (6 inch model) or “Label Dr.300” (6 inch model) will appear in the “List of Printers”, select and click “Next”.
8. Select “Replace Existing Driver”.
9. Select the communication port for the label printer. For parallel port, select “LPT1:”, “LPT2:” or “LPT3:”, for serial port select “COM1:” or “COM2:”.
10. After the related files have been copied to your system, the installation is complete.
11. If you need to print from the label printer, set “Label Dr. 200” (or Label Dr. 300) as the Default Printer.

Notes:

1. **If you are just updating your driver, make sure to delete the previous version first.**
2. **If you install a new bar code application software like ArgoBar, LabelView or CodeSoft, the Label Dr. 200 (or Label Dr. 300) driver should be activated and set as the current printer driver:**

ArgoBar

File → New → Select Printer → Label Dr. on LPT1: → OK

LabelView

File → Select Printer → Label Dr. on LPT1: → OK

CodeSoft

File → Printer → Windows → Label Dr. on LPT1: → OK

LabelMatrix

file → Printer Setup → Label Dr. on LPT1: → OK

Set the Parameters

After installing the driver, you can follow the path below to set parameters:

Start → Settings → Printers → Label Dr. → Properties

The parameters include:

Ports Select the IO port to link with the printer. The port may be one of parallel (LPT), serial (COM), net work port or file.

Paper size Select the proper size on the menu. If there is no desired size, select "Custom" (only in Win98/95/Me) to define the paper size.

Create a new size Define paper size in Win 2000/NT4.0.

Orientation Set portrait or landscape according to the print direction.

Paper source (Media type) T/T stands for thermal transfer (ribbon) mode and D/T for direct thermal mode (without ribbon).

Media choice (Darkness) Set the heat value or darkness from this field. The darkness value ranges from 0 to 15.

Copies This function designates the number of printed copies of each page.

More option (Accessory setting) To use the cutter and peeler function you still need to enter **More Options** and select one of the items. (Set DIP Switch also).

Device options (Speed) Set the printer speed. The speed ranges from 1 to 6 IPS.

For Win 98

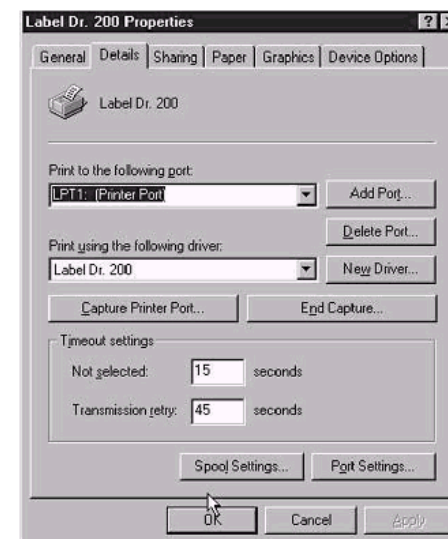
Ports

Properties menu

→ click "Details"

→ select the IO port

→ click "OK"



Paper size

Orientation

Paper source (Media type)

Media choice (Darkness)

Copies

Properties menu

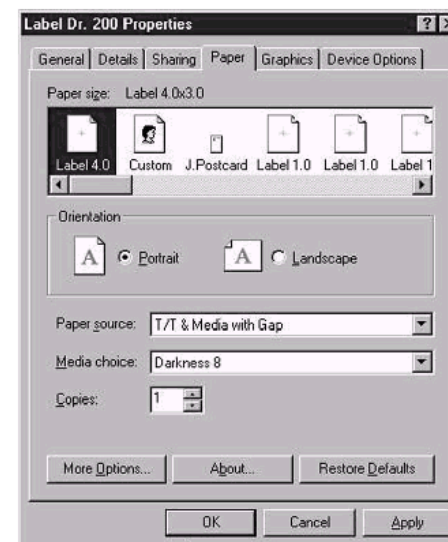
→ click "Paper"

→ click each item to

→ select desired

parameter

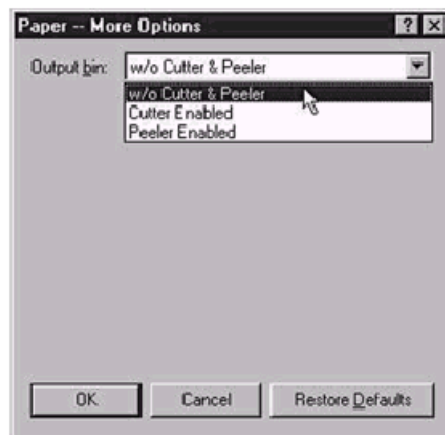
→ click "OK".



❑ Output bin

(Accessory setting)

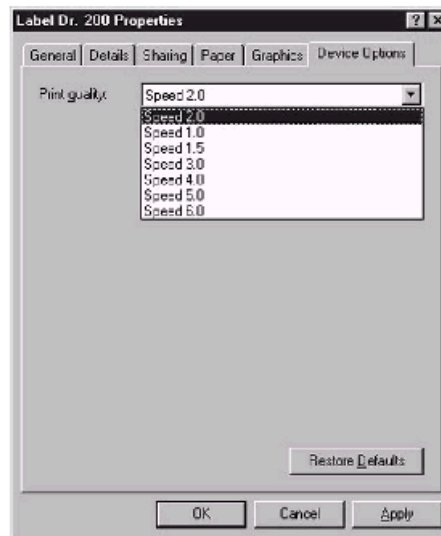
- Properties menu
- click "Paper"
- click "more option"
- select
 - Enable/without
 - cutter, peeler
- click "OK"



❑ Print quality

(Speed)

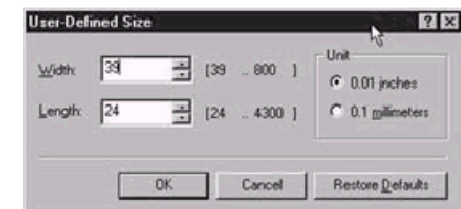
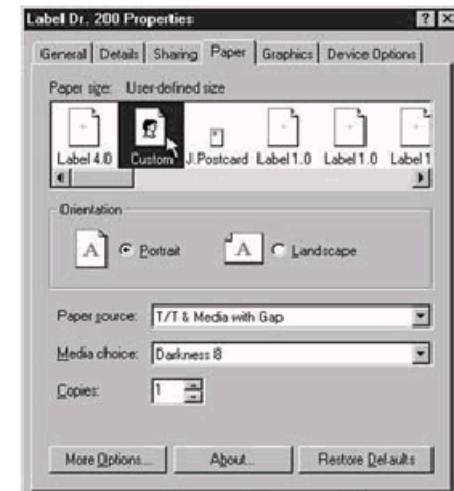
- Properties menu
- click "Device Options"
- select parameters
- click "OK"



❑ Create User-Define

Paper

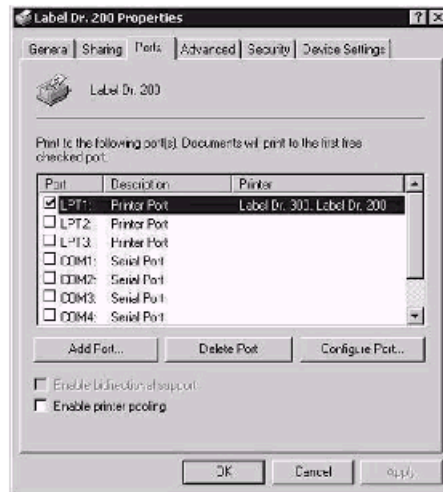
- Properties menu
- click "Paper"
- select "Custom"
- User-Define size
- set up a new size
- click "OK"



For Win 2000

Ports

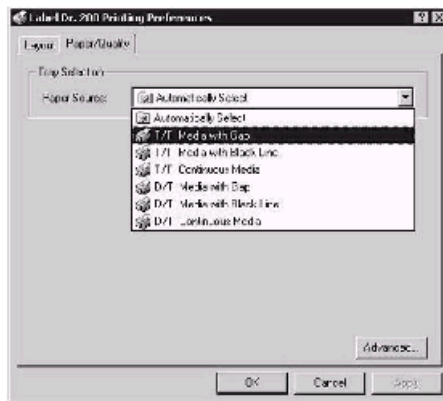
- Properties menu
- click "Ports"
- select the IO port
- click "OK"



Paper source

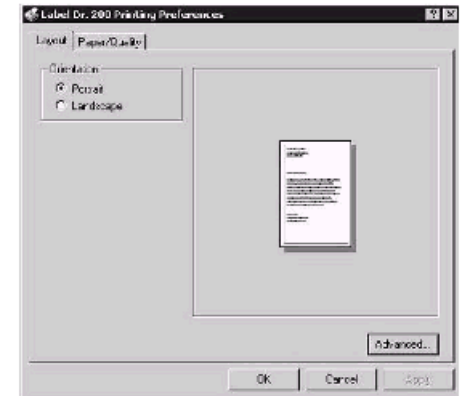
(Media type)

- Back to Printers menu
- Label Dr.
- right click to get pop-up menu
- select "Printing Reference"
- click "Paper Quality"
- select media type
- click "OK"



Orientation

- Printing Reference menu
- click "Layout"
- select "Portrait" or "Landscape"
- click "OK"



Paper size

Copies

Media choice

(Accessory setting)

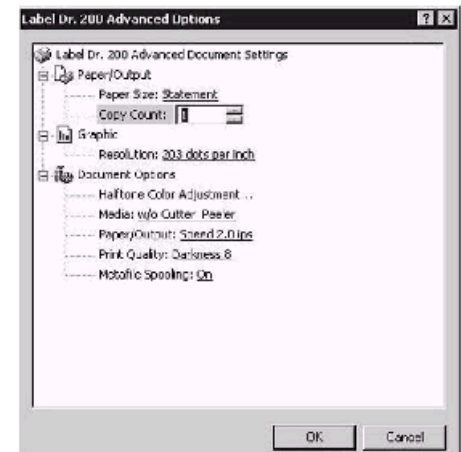
Paper/Output

(Speed)

Print quality

(Darkness)

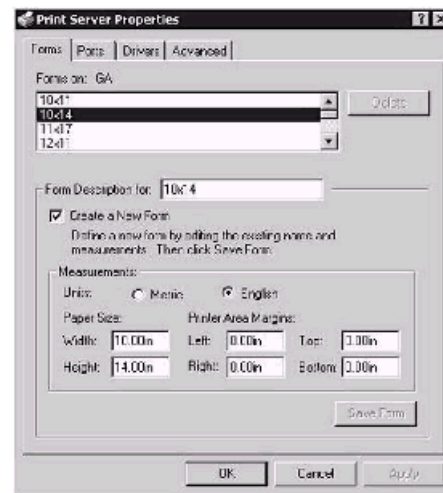
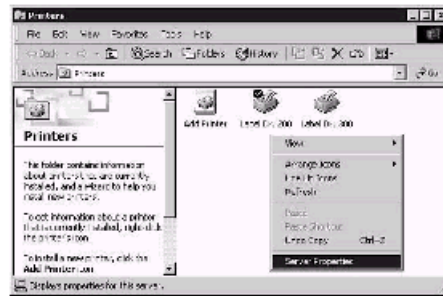
- Printing Reference menu
- click "Layout"
- click "Advanced" button
- click each item to select the parameters
- click "OK"



❑ Create a new size

Printer menu

- right click to get pop-up menu in blank space
- select "Server Properties"
- enter a form name for the new form in "Form description for"
- reset the paper size in the specific squares of the "Measurements"
- click "OK"

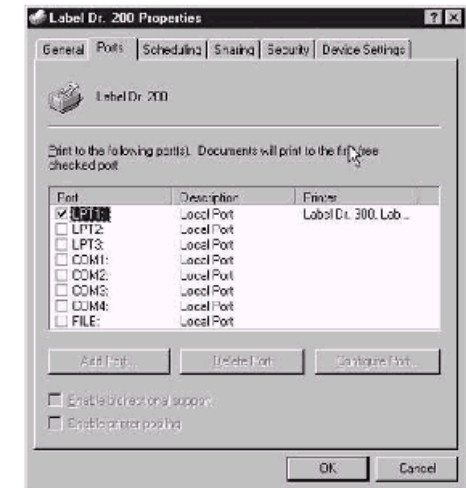


For NT 4.0

❑ Ports

Properties menu

- click "Ports"
- select the IO port
- click "OK"



❑ Paper size

❑ Orientation

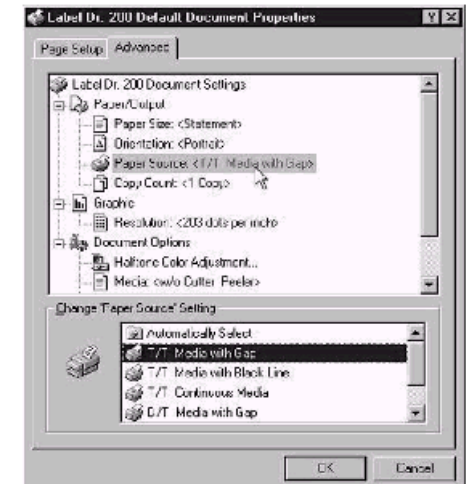
❑ Paper source (Media type)

❑ Copies

❑ Media choice (Accessory setting)

Printers menu

- Label Dr.
- right click to get pop-up menu
- select "Document Defaults"
- click "Advanced" button
- click each item to select desired parameter



❑ **Paper/Output (Speed)**

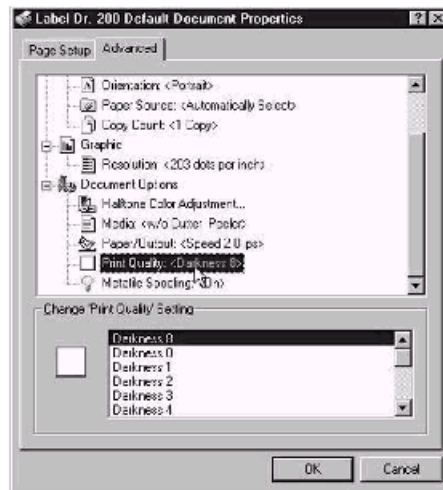
❑ **Print quality (Darkness)**

Default Document menu

- click "Advanced"
- click each item to select desired parameter
- click "OK"

❑ **Create a new size**

Please refer to the procedure of create a new size on Win 2000.

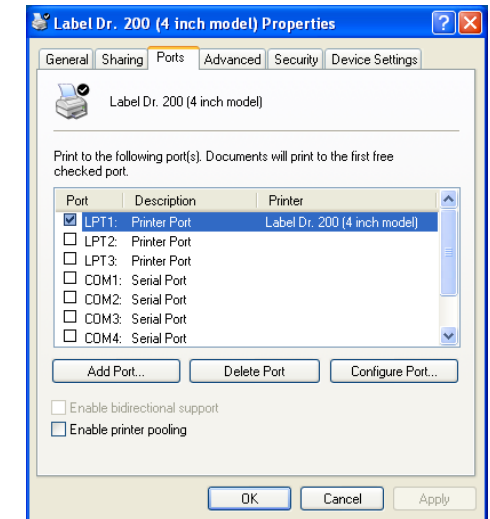


For Win XP

❑ **Ports**

Properties menu

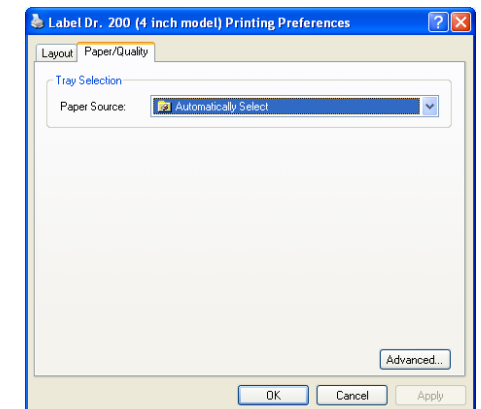
- Click "Ports".
- Select the IO port.
- Click "OK".



❑ **Paper source (Media type)**

Back to Printers menu

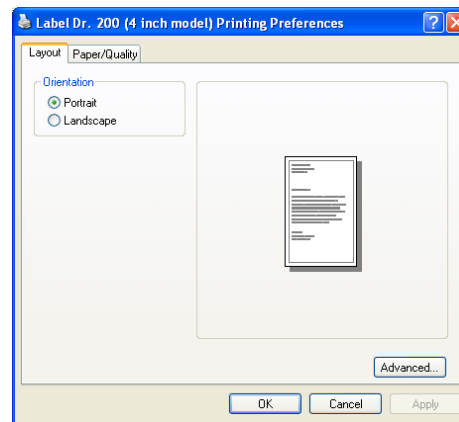
- Label Dr.
- Right click to get pop-up menu.
- Select "Printing Reference".
- Click "Paper Quality".
- Select media type.
- Click "OK".



❑ Orientation

Printing Reference menu

- Click "Layout".
- Select "Portrait" or "Landscape".
- Click "OK".



❑ Paper size

❑ Copies

❑ Media choice

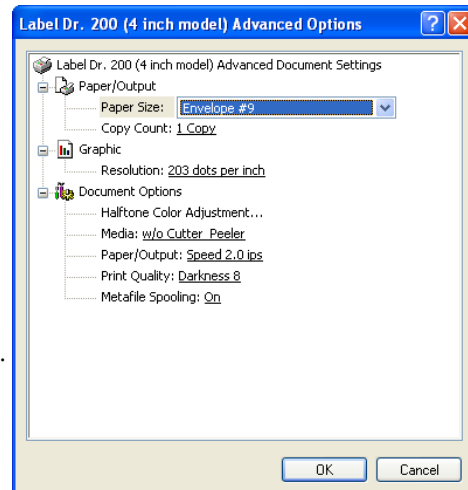
(Accessory setting)

❑ Paper/Output (Speed)

❑ Print quality (Darkness)

Printing Reference menu

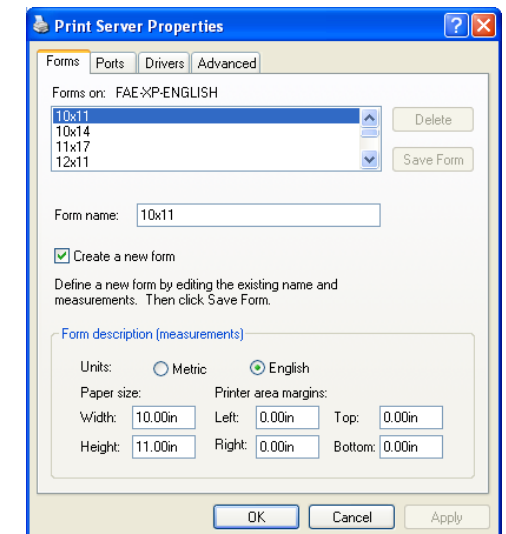
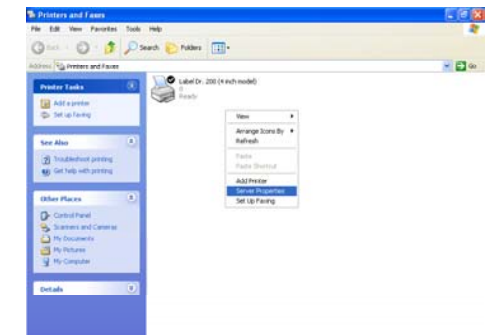
- Click "Layout".
- Click "Advanced" button.
- Click each item to select the parameters.
- Click "OK".



❑ Create a new size

Printer menu

- Right click to get pop-up menu in blank space.
- Select "Server Properties".
- Enter a form name for the new form in "Form name".
- Reset the paper size in the specific squares of the "Form description".
- Click "OK".



Troubleshooting

Generally, when a malfunction or an abnormal condition occurs, the "READY" LED will keep blinking and printing and communication between the host and printer will stop.

To understand what the problem, please check the LEDs and LCD display on the front panel first:

A. Problems on media

Blinking Indicators	READYand MEDIA
LCD display	MEDIA OUT

Possible Problems	Solutions	Remarks
Missing gap	. Check the media path . Check the position of label sensor.	If you use continuous media, check your application soft ware and driver. You should select continuous .
Media out	. Supply the media roll	
Media not installed	. Install the media roll	
Media jam	. Recover the jam	

If everything is OK try to make the label sensor calibration.(Refer to P31)

B. Problems on ribbon

Blinking Indicators	READY and RIBBON
LCD display	RIBBON OUT

Possible Problems	Solutions	Remarks
Ribbon has run out	Supply the ribbon roll	Does not apply to direct thermal. If you use direct thermal, set bit 1 of DIP switch to OFF.
Ribbon jam	Recover the jam	not for direct thermal.
Ribbon sensor error	Replace the ribbon sensor	not for direct thermal.

C. Other Problems

Blinking Indicators	READY
---------------------	-------

LCD display	Possible Problems and Solutions	Remarks
SERIAL IO ERROR	. Inconsistent baud rate, format or protocol between host and printer . Check bits 6 ~ 8 of DIP switch. Refer to section 2 for DIP switch.	not for Centronics
CUTTER FAILED	. Check the media . Check the connection between cutter and main board. . Call for service.	DIP switch bit 3 should be ON for cutter.

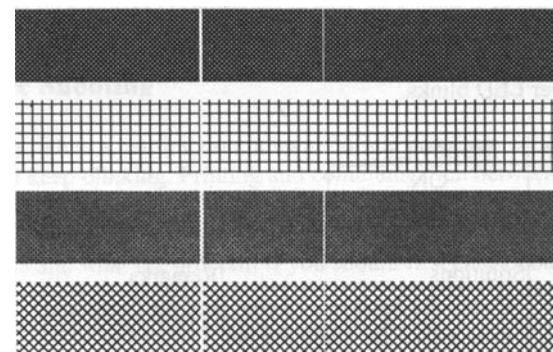
MEMORY FULL	<ul style="list-style-type: none"> . Check the graphics and soft fonts from host. . Make sure to delete the graphics and soft fonts if they are no longer used by the application software. (Refer to the Technical Reference Manual for details). 	
-------------	--	--

Note:

After the problems have been solved, press CANCEL to continue printing.

D. Miscellaneous

- ◆ The host shows "Printer Time out" .o.
 1. Is the communication cable (parallel or serial) connected securely to your parallel or serial port on the PC and to the connector on the printer ?
 2. Is the printer power turned on ?
If the power cord is connected, the power switch is at position '1' and the power LED is still not illuminated, call for service.
- ◆ The data has been sent, but there is no output from the printer.
Check the active printer driver, it should be Label Dr. for your Windows system and the label printer.
Check the emulation and the print (command) file.
- ◆ Vertical streaks in the printout usually indicate a dirty or faulty print head. Clean the print head first, if they still persist, replace the print head.



- ◆ Unstable ribbon roll rotation.
Check the label path and make sure the head latch is securely closed.
- ◆ Poor printout quality.
 - . The ribbon may be not qualified.
 - . The media may be not qualified.
 - . Adjust the Darkness (heat temperature).
 - . Slow down the print speed.
 - . Refer to the following paragraphs and clear the related modules.

Recovery

In order to continue your print jobs after any abnormal conditions have been recovered, simply press the CANCEL button or restart the printer. Make sure that the LED indicator is illuminated and not blinking and remember to resend your files.

Addendum

If you use small labels (label height is less than 30 mm) and the area near top is unprintable you can adjust the top margin slightly by the following procedure.

1. Hold FEED (or PAUSE) button and count the blink times for READY LED. Each blink stands for 1 pixel. For 0.5 mm you need 4 blinks.
2. Release the button.
3. Restart the printer.
4. Send data to printer to print again.
5. Check the print position.

If you make calibration again the slight adjustment will be reset.

Caring for your Printer

Before maintenance be sure to turn off the printer power.

1. Cleaning the print head (TPH)

Turn off the printer, open the cover, print head module and remove the ribbon. Rub the print head with a piece of cotton which has been moistened with alcohol. Check for any traces of black coloring or adhesive on the cotton after cleaning. Repeat if necessary until the cotton is clean after it is passed over the head.

Note :

The print head should be cleaned at least every time the ribbon is replaced and more often depending on actual usage and conditions.

2. Cleaning the roller

Using a cotton moistened with alcohol, clean the roll and rip off the attached glue.

Note :

The roller should be cleaned whenever it has been in contact with foreign materials such as dust or adhesives.

3. Cleaning the media compartment

Clean the media compartment with cotton which has been moistened with a mild detergent. Every time a media roll is printed this compartment should be cleaned to reduce the incidence dust.

Reference Technical Information

1. General Specification

Specification	Model G-6000
Print method	Direct thermal and thermal transfer
Resolution	203 DPI (8 dots/mm)
Printing width	Max 6.4" (164 mm), Max 6" (152mm) in cutter mode.
Printing length	1" ~ 30" (25mm ~ 762mm)
Printing speed	2~6 ips (51~152 mm/s)
Memory	2Mb DRAM, 1Mb Flash ROM
CPU type	32 bit RISC Microprocessor
Media sensor	Reflective and see-through Transmissive
Display	Back-lit LCD display, 2-line x 16, LED indicator x 3
Communication interface	Centronics parallel, RS-232 serial
Maximum label roll diameter	8 in.(203 mm) outside diameter 1.5 in. ~ 3.0 in.(38 mm ~ 76 mm) inside diameter
Media type	Roll-feed, die-cut, continuous, fan-fold, tags, ticket in thermal paper or plain paper.
Label indexing	Black stripe and gap
Ribbon types	Wax, Wax/resin and Resin ; Coating inside
Ribbon size	OD 2.5 in. (63mm) ID 1 in. (25 mm)
Compact size	W12.1" x H10.2" x L17.3" (W310x H260x L445 mm)
Weight	32lbs (14.5kg)
Power source	110/220 VAC \pm 10%, 50/60 Hz Internal Universal Power Supply
Agency listing	CE, UL, CUL, FCC class A
Operating temperature	40° ~ 100°F (4° ~ 38°C) 10~90% non condensing
Storage temperature	-40°F ~ 140°F (-40°C ~ 60°C)

Windows driver	for Win 98, 2000 ,NT and XP
Printer emulation	PPLA
Optional Accessories	<ul style="list-style-type: none"> ◆ Serial (RS232) cable ◆ Dispenser ◆ Cutter ◆ Flash memory ◆ Font board ◆ Standalone KDU – ArgoKee ◆ USB interface ◆ Printer server – ArgoNet (for Ethernet connection) <p>Note: <i>The font board and flash memory board cannot be installed simultaneously.</i></p>

2. Fonts, Bar Codes and Graphics Specification

The specifications of fonts, bar codes and graphics depend on the printer emulation. The emulation is a printer programming language, through which the host can communicate with your printer.

Printer Programming Language A, PPLA

Specification	G-6000
General fonts	7 alpha-numeric fonts, OCR A and OCR B
ASD smooth fonts	4, 6, 8, 10, 12, 14 and 18 points
Symbol sets for smooth fonts	USASCII, UK, German, French, Italian, Spanish, Swedish, and Danish/Norwegian
Courier fonts	8 symbol sets (PC, PC-A, PC-B, EAMA-94, Roman ,Legal, Greek and Russian)
Soft fonts	Downloadable PCL fonts
Font expandability	1x1 to 24x24
Bar code types	Code 39, Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5, UPC A/E/2 and 5 add-on, EAN-8/13, UCC/EAN-128, Postnet, Plessey, HBIC, Telepen and FIM. MaxiCode, PDF417 and DataMatrix (2D symbologies).
Graphics	PCX, BMP, IMG and HEX formats
Stand-alone operation without host	ArgoKee

3. Interface Specifications

Introduction

This appendix presents the interface specifications of IO ports for the printer. These specifications include pin assignments, protocols and detailed information about how to properly interface your printer with your host or terminal.

Serial

The RS232 connector on the printer side is a female, DB-9.

Pin	Direction	Definition
1	In	DSR
2	In	RxData
3	Out	TxData
5	-	Ground
6	Out	DTR
7	Out	RTS
8	In	CTS
9	Out	+5V









Note :

Pin 9 is reserved for KDU (keyboard device unit) only, therefore do not connect this pin if you are using a general host like a PC.

Connection with host:

Host 25S (PC or compatible)	Printer 9P	Host 9S (PC or compatible)	Printer 9P
DTR 20	1 DSR	DTR 4	1 DSR
DSR 6	6 DTR	DSR 6	6 DTR
TX 2	2 RX	TX 3	2 RX
RX 3	3 TX	RX 2	3 TX
CTS 5	7 RTS	CTS 8	7 RTS
RTS 4	8 CTR	RTS 7	8 CTS
GND 7	5 GND	GND 5	5 GND

Alternatively you can just connect the 3 wires in the following way.

Host 25S (PC or compatible)	Printer 9P	Host 9S (PC or compatible)	Printer 9P
TX 2	2 RX	TX 3	2 RX
RX 3	3 TX	RX 2	3 TX
GND 7	5 GND	GND 5	5 GND
pin 4		pin 4	
pin 5		pin 6	
pin 6		pin 7	
pin 20		pin 8	

The most simple way to connect to other hosts (not PC compatible) or terminals is:

Printer	Terminal/Host
Pin 2- RxData	TxDATA
Pin 3- TxData	RxDATA
Pin 5- Ground	Ground

In general as long as the data quantity is not too large or you use Xon/Xoff as flow control, there will be no problem at all.

Baud rate: 2400, 4800, 9600, 19200 and 38400.
(set from bits 6 ~ 8 of DIP switch)

Data format: always 8 data bits, 1 start bit and 1 stop bit.

Parity : always non parity

Handshaking : XON/XOFF as well as CTS/RTS (hardware flow control).

If you run an application with the bundled printer driver under Windows and use the serial port, you should check the above parameters and set the flow control to "Xon/Xoff" or "hardware".

Parallel (Centronics)

The parallel port is a standard 36-pin Centronics. Its pin assignments are listed as following.

Pin	Direction	Definition	Pin	Direction	Definition
1	In	/STROBE	13	Out	SELECT
2	In	Data 1	14,15		NC
3	In	Data 2	16	-	Ground
4	In	Data 3	17	-	Ground
5	In	Data 4	18		NC
6	In	Data 5	19~30	-	Ground
7	In	Data 6	31		NC
8	In	Data 7	32	Out	/Fault
9	In	Data 8	33~36	-	NC
10	Out	/ACK			
11	Out	BUSY			
12	Out	PE			

Auto Polling

Both the serial and parallel ports are active at the same time on this printer, i.e. data can be received on either one, however no provision is made for port contention. If data is transmitted to both ports simultaneously, it will cause the data in the received buffer to be corrupted.

4. ASCII TABLE

	0	1	2	3	4	5	6	7
0	NUL			0	@	P	`	p
1	SOH	XON	!	1	A	Q	a	q
2	STX		"	2	B	R	b	r
3		XOFF	#	3	C	S	c	s
4			\$	4	D	T	d	t
5		NAK	%	5	E	U	e	u
6	ACK		&	6	F	V	f	v
7	BEL		'	7	G	W	g	w
8	BS		(	8	H	X	h	x
9			)	9	I	Y	i	y
A	LF		*	:	J	Z	j	z
B		ESC	+	;	K	[	k	{
C	FF		,	<	L	\	l	|
D	CR		-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	DEL

Appendix A: Printer Status

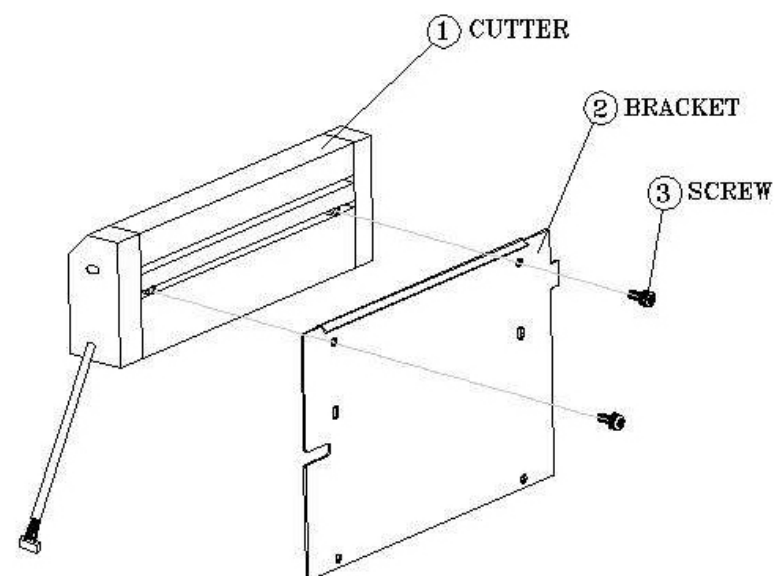
LCD display	Blinking LED	Description
PAUSE	READY	The printer is at pause state. Press PAUSE or CANCEL to return to normal state.
MEDIA OUT	MEDIA READY	The media is uninstalled or used up. Load new media to the printer.
RIBBON OUT	RIBBON READY	The ribbon is uninstalled or end-of-ribbon occurred. Load new ribbon to the printer. If you just use thermal media set bit 1 of DIP switch to OFF position.
SERIAL IO ERROR	READY	The format or baud rate of the RS232 communication is inconsistent between the printer and host.
CUTTER FAILED	READY	The cutter can not cut off the media, check the media and cutter.
MEMORY FULL	READY	The printer buffer is full caused by the loaded soft fonts, graphics or forms. Check the format of these data. Call for service.
HEAD OPEN	READY	The print head latch is not closed. To print the label the head latch must be closed.
P. SENSOR O.R.	READY	The media sensor is out of range during calibration. Make sure the media is installed and the label sensor is put under the media.

Appendix B: Installation for Cutter

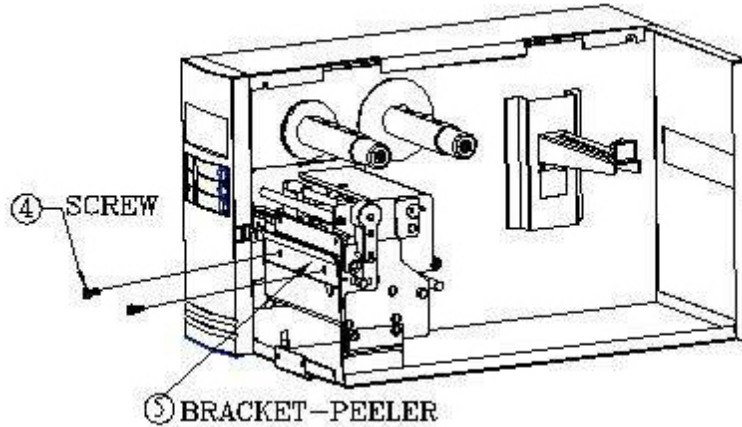
1. Turn off the printer
2. Remove the top covers on both left and right sides.
3. Mount the cutter IC to U22 on main board; Take care of the location and direction, the IC hole is at lower Position.
4. Set bit 3 of DIP switch (1~8) to ON position.
5. Secure two screws for cutter (1) and bracket (2).

Note:

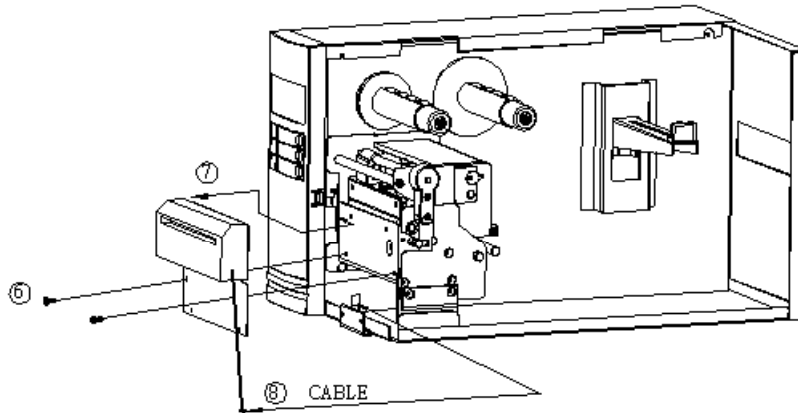
The drive IC for cutter is 3770.



6. Loosen two screws (4) from bracket (5).



7. Insert the left side of cutter bracket (7) and secure two screws (6) to the TPH module.



8. Thread the cutter cable through a hole (8) and route it to JP13 connector (CUTTER) on the main board.

After the cutter is installed, install media and ribbon.

1. Put the media end on the roller.
2. Close the TPH latch.
3. Hold the PAUSE/CALIBR button and turn on the Printer.
4. Release the button when the cutter starts cutting.
5. After cutting the Printer will feed the label for 12 inches.

Notes:

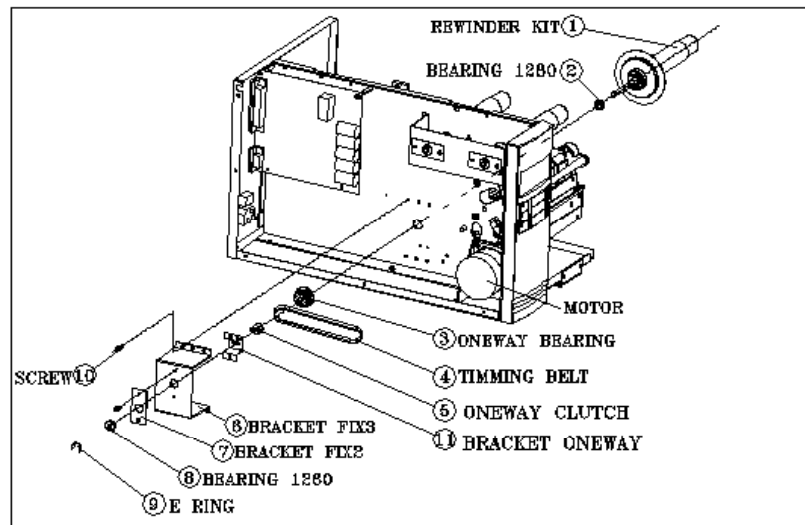
The above procedure is taken at first time after installation or cutter jam.
Normally the Procedure is

1. Put the media end on the roller.
2. Close the TPH latch.
3. Turn on the printer.
4. Press the FEED button to let the media end go through the cutter.

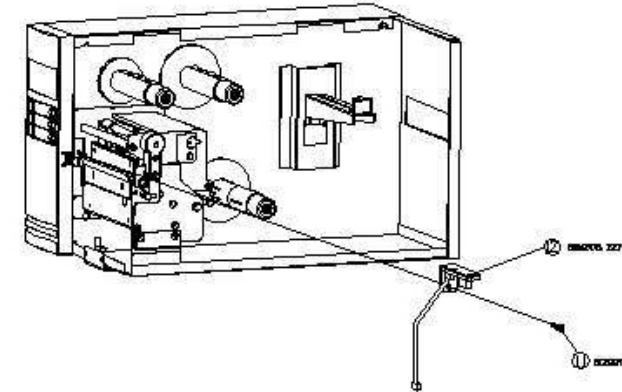
Appendix C:

Installation for Dispenser and Rewinder

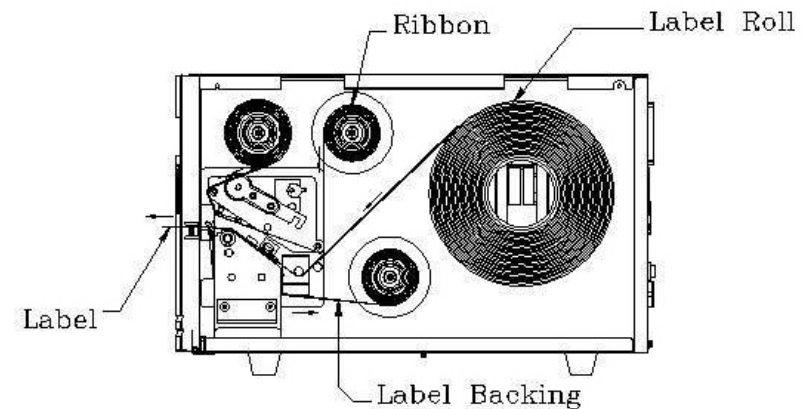
1. Turn off the printer.
2. Remove the top covers on both left and right sides.
3. Set bit 5 of DIP switch (1~8) to ON position.
4. Refer to the diagram. Assemble the related components for both left and right sides.



5. Connect the dispenser sensor to JP12 (LABEL) of main board and secure the dispenser board in front of TPH module.



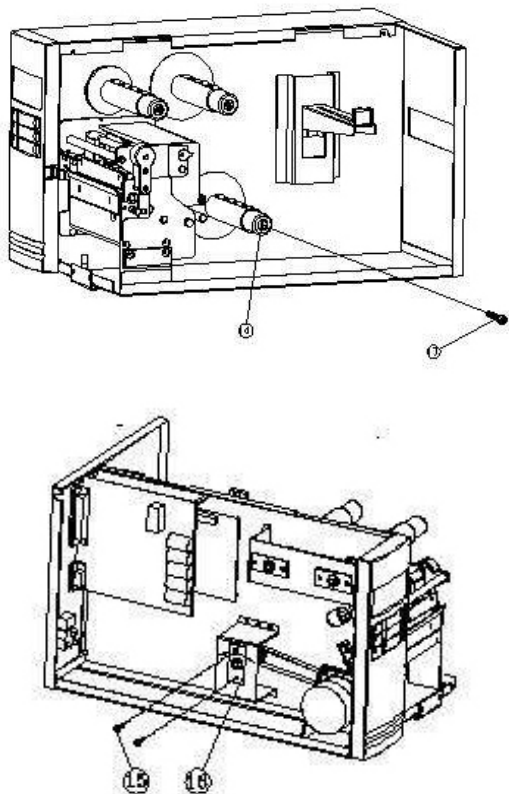
6. Install ribbon and media.



Adjustment

The plastic core (13,14) of the rewinder kit must be parallel with the exit media or label. To adjust the position you may

- remove the screw (13), tune the position of component (14), or
- loosen the two screws (15 and 16), shift the position of metal bar and secure the screws.



Calibration for Dispenser Sensor

If you find the sensor is not so sensitive or mis –detection you can send two commands to calibrate it.

Command	ASCII	Binary	Remark
Set sensor without label	<ESC>\$R0	1BH 24H 52H 30H	Command 0
Set sensor with label	<ESC>\$R1	1BH 24H 52H 31H	Command 1

- Step 1. Put the label away from the sensor, send command 0 and wait for 2 more seconds.
- Step 2. Put a label under the sensor (10 mm below), hold it, send command 1 and wait for 2 more seconds.

Important Safety Information

SAFETY INSTRUCTIONS

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or clothe for cleaning.
4. For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
7. Do not leave this equipment in an environment unconditioned, storage temperature above 40°C, it may damage the equipment.
8. The openings on the enclosure are for air convection hence protect the equipment from overheating. DO NOT COVER THE OPENINGS.
9. Make sure the voltage of the power source when connect the equipment to the power outlet.
10. Place the power cord such a way that people can not step on it. Do not place anything over the power cord. The power cord must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not use for long time, disconnect the equipment from

mains to avoid being damaged by transient over-voltage.

13. Never pour any liquid into ventilation openings, this could cause fire or electrical shock.
14. Never open the equipment. For safety reason, qualified service personnel should only open the equipment.
15. If one of the following situations arises, get the equipment checked by service personnel:
 - a. The Power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.
 - d. The equipment has not work well or you can not get it work according to user's manual.
 - e. The equipment has dropped and damaged.
 - f. If the equipment has obvious sign of breakage
16. Never open the equipment. For safety reason, qualified service personnel should only open the equipment.