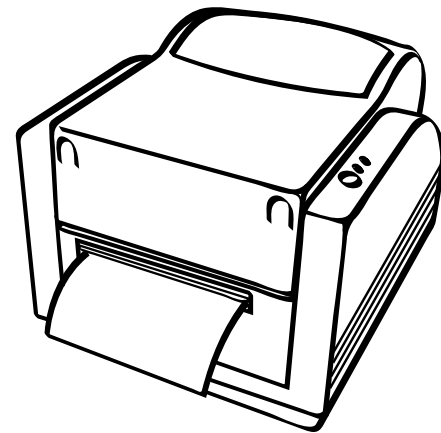




ITT4100 POSline®  
Thermal Transfer Printer  
User's Manual



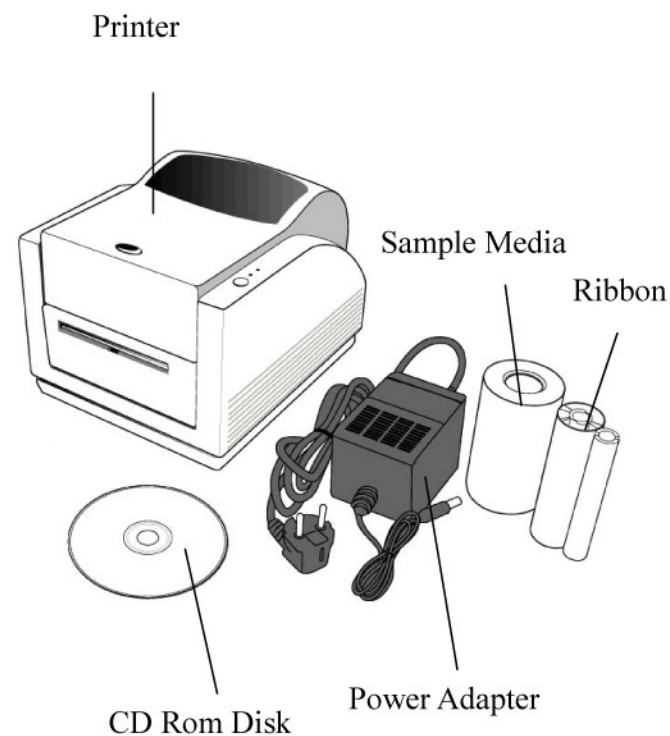
## 1. Checking Your Box

**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.

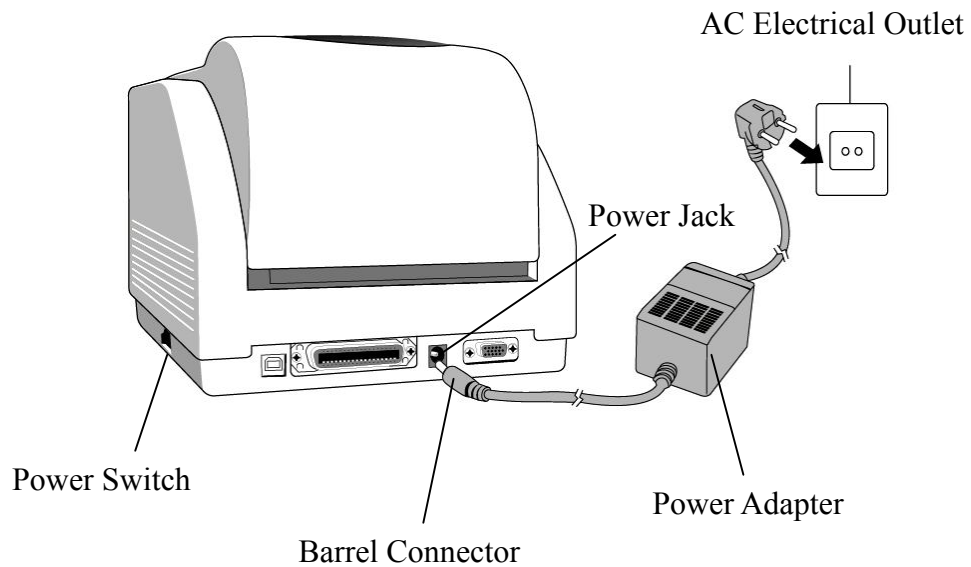


## 2. Power Supply

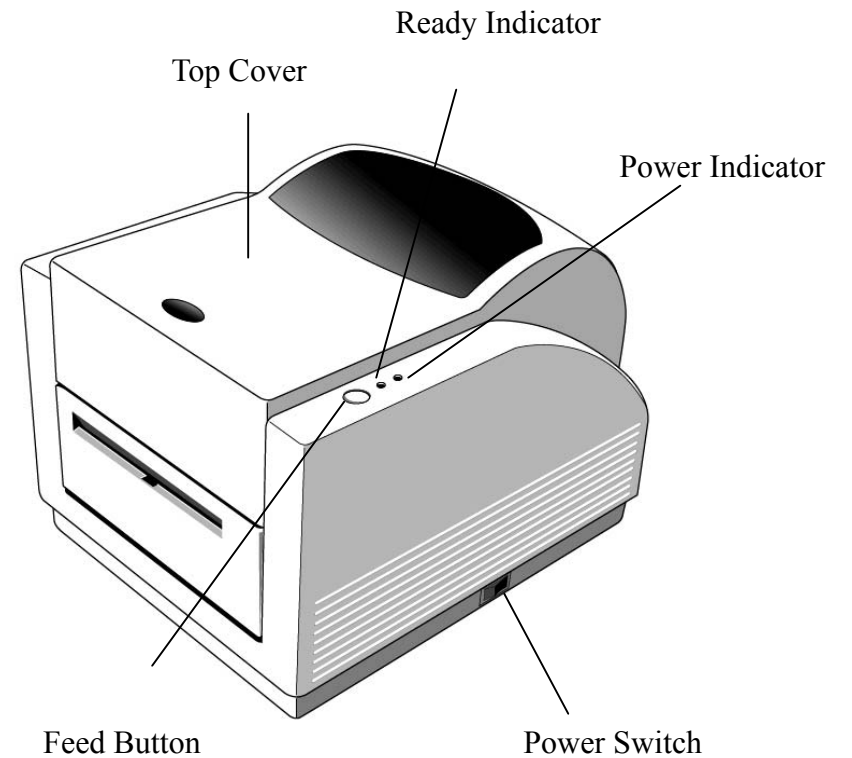
### WARNING:

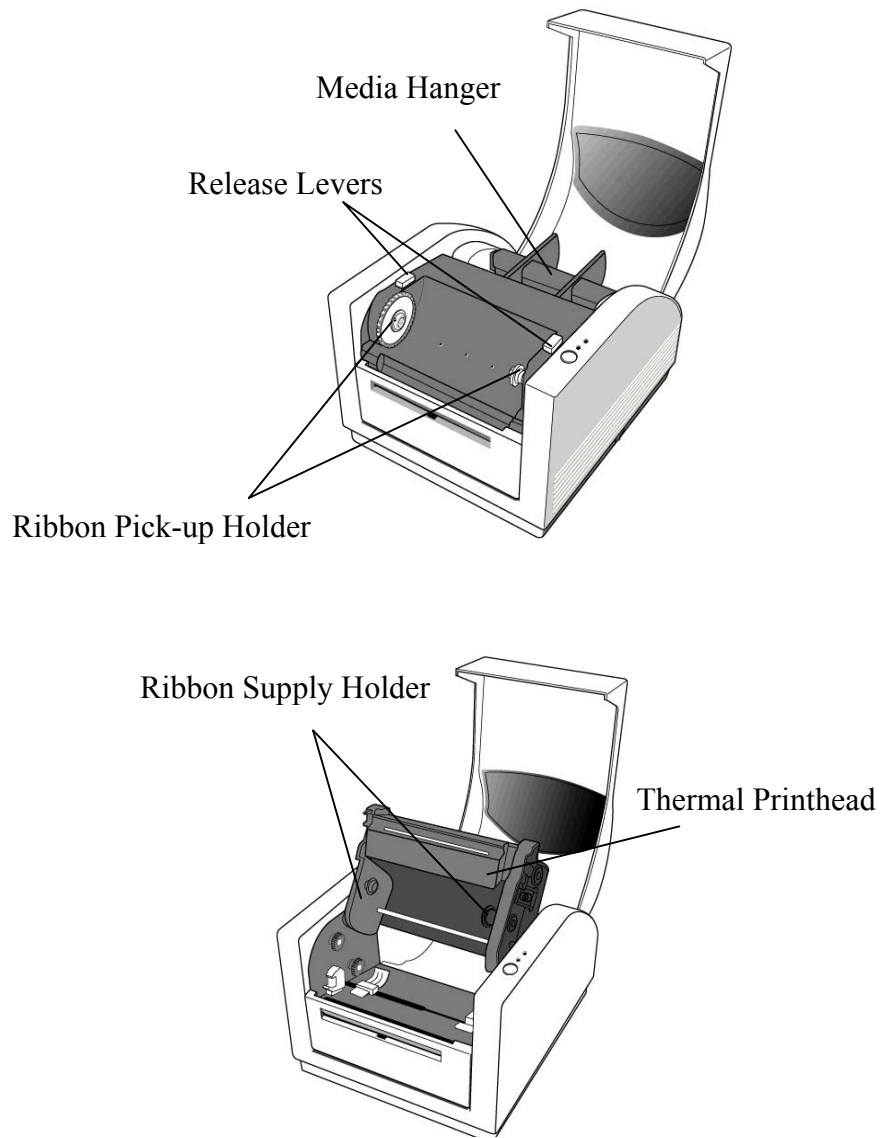
**NEVER OPERATE THE PRINTER AND POWER SUPPLY IN AN AREA WHERE THEY CAN GET WET.**

1. The Power Adapter has a barrel connector on one end that must be inserted into the power jack on the back of the printer.
2. Plug the other end of the cord into an appropriate AC electrical outlet.
3. When plugging the connector into power jack, please leave the power switch at "O" position and don't touch the 36 pin parallel connector.



## 3. Parts and Features



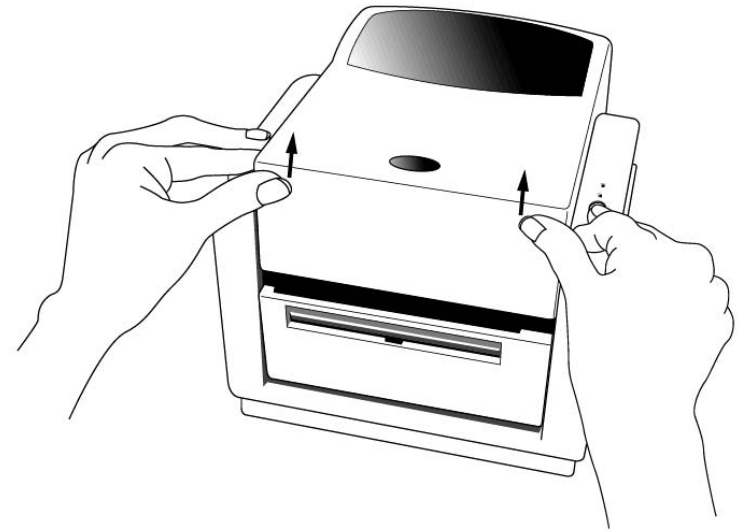


## 4. Loading the Ribbon

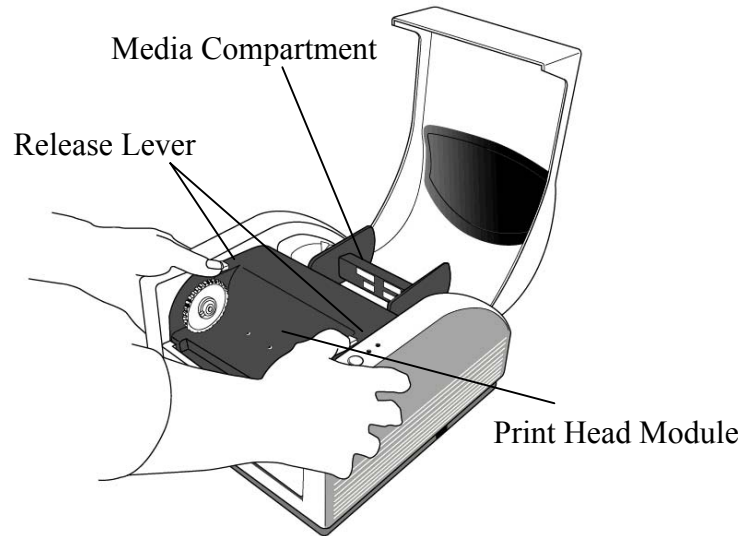
*Note:*

*This section is not applicable to the direct thermal printing.*

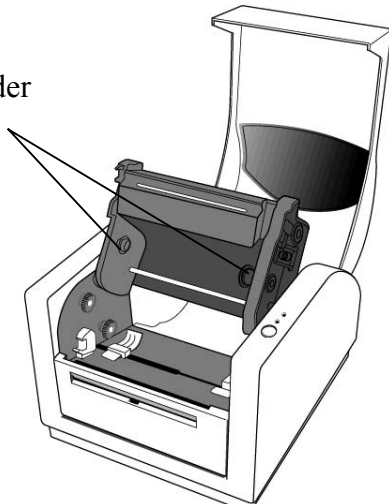
1. Lift the top cover to expose the media compartment.



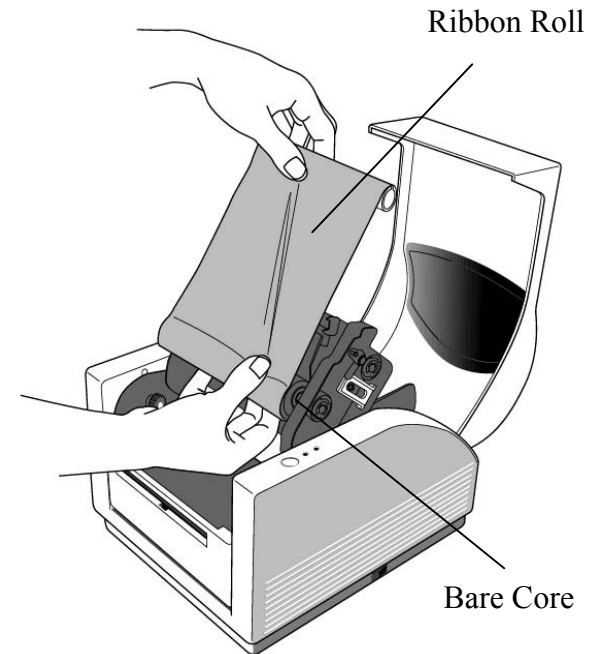
2. Unlatch the print head module by pushing the two white release levers on the sides toward the rear.
3. Turn over the print head module to expose the ribbon supply holder.



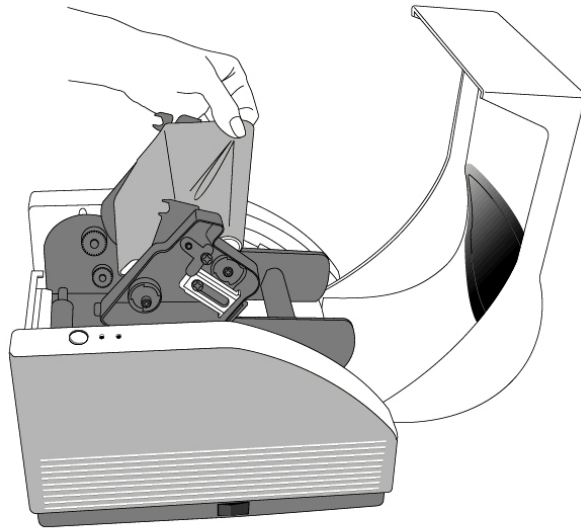
Ribbon Supply Holder



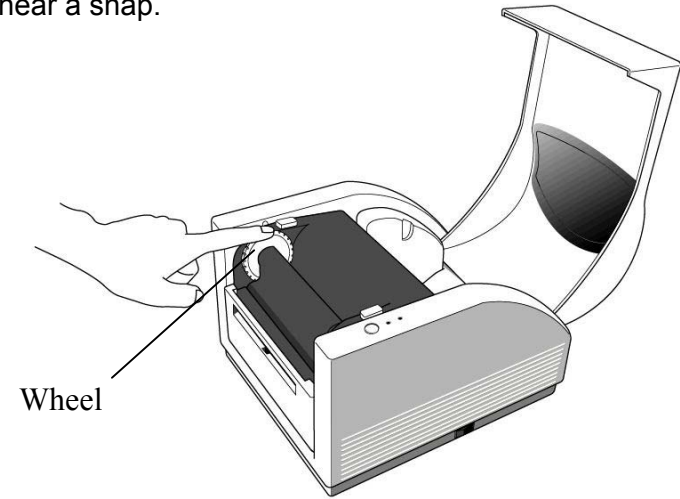
4. Unwrap the ribbon roll pack and separate the ribbon roll and the bare core.
5. Attach the edge of the ribbon on the bare core and wind it a little bit onto the core.
6. Insert the ribbon roll into the supply holder. (First snap in the left side and then the right side.)



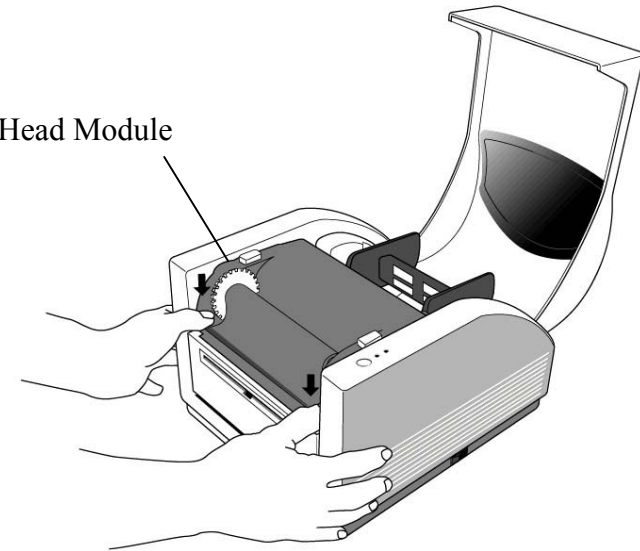
7. Turn back the print head module and then insert the bare core into the pick-up holder. (First snap in the left side, then the right side.)



8. Turn the wheel of the print head module to ensure the ribbon is tightly wound.
9. Press down the print head module on both sides firmly till you hear a snap.



Print Head Module



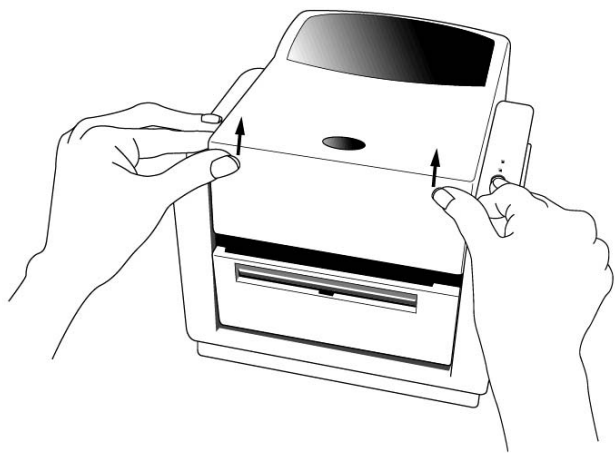
## 5. Loading the Media

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

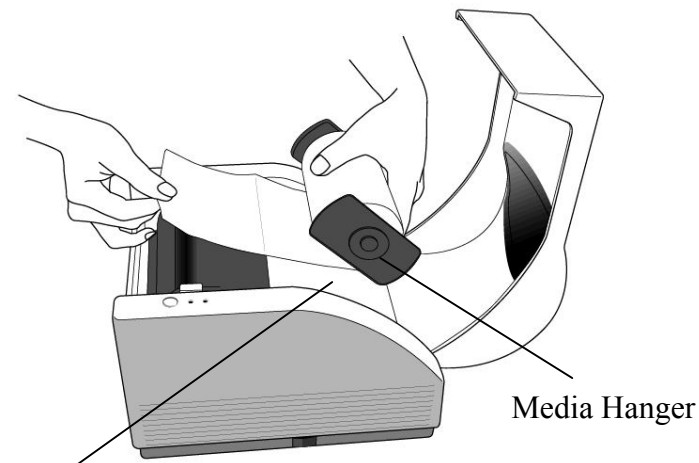
- Standard mode allows you to collect each label freely.
- In peel-off mode, the backing material is being peeled away from the label as it is printed. After the former label is removed, the next one will be printed.
- In cutter mode, the printer automatically cuts the label after it is printed.

### Standard Mode

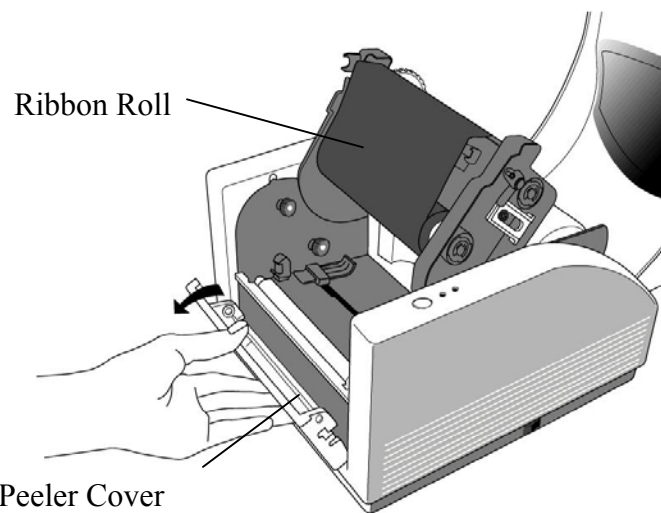
1. Lift the top cover to expose the media compartment.



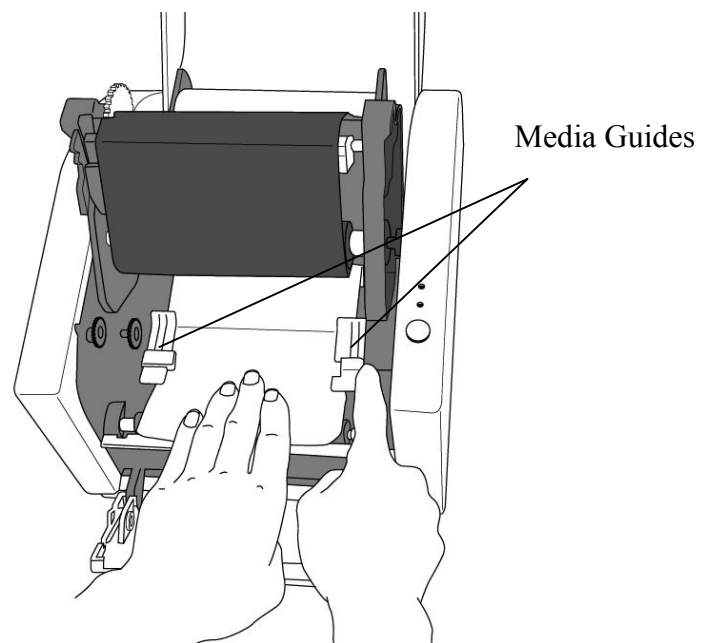
2. Remove the media hanger.
3. Load the media roll onto the hanger.
4. Unlatch the print head module.
5. Left the peeler cover easy for label easy into the slot.



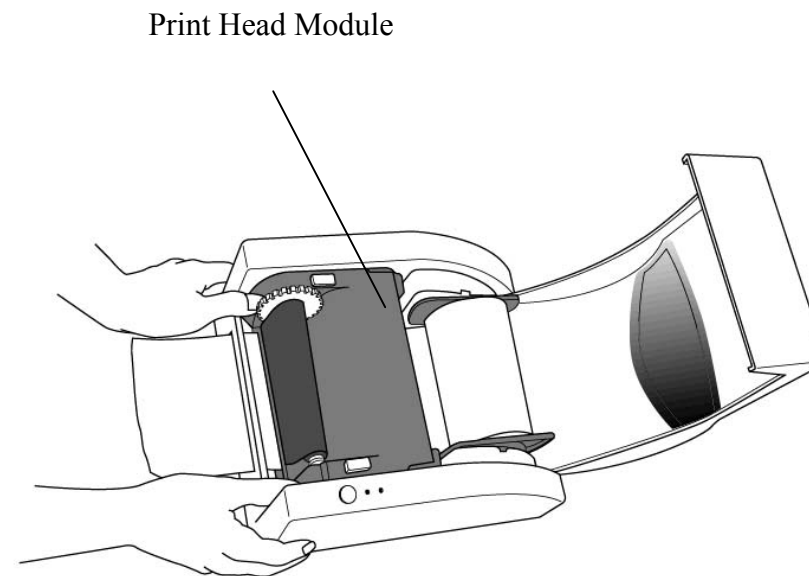
Media Compartment



6. Lead the label through the media guides with the other hand.  
The media guide can be adjusted centrally to well fit with different label width.

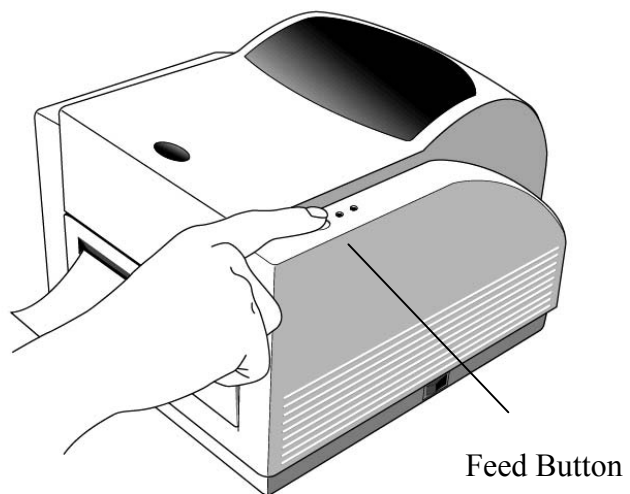


7. Press down the print head module firmly on both sides till you hear a snap.



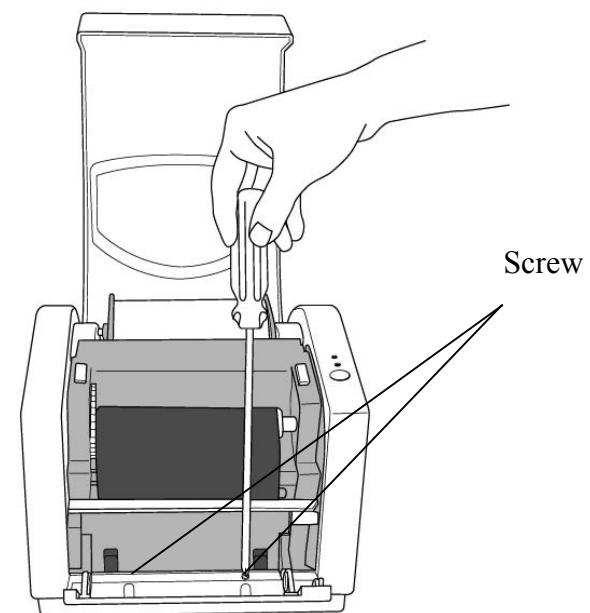


8. Close the top cover and turn on the printer or press the feed button if the printer is already on.



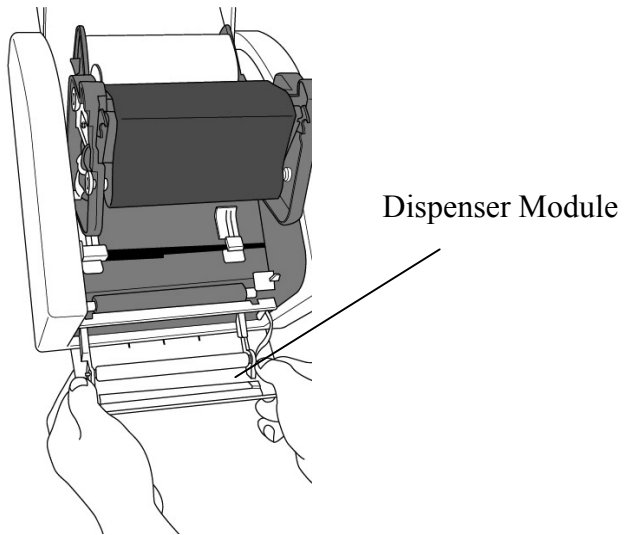
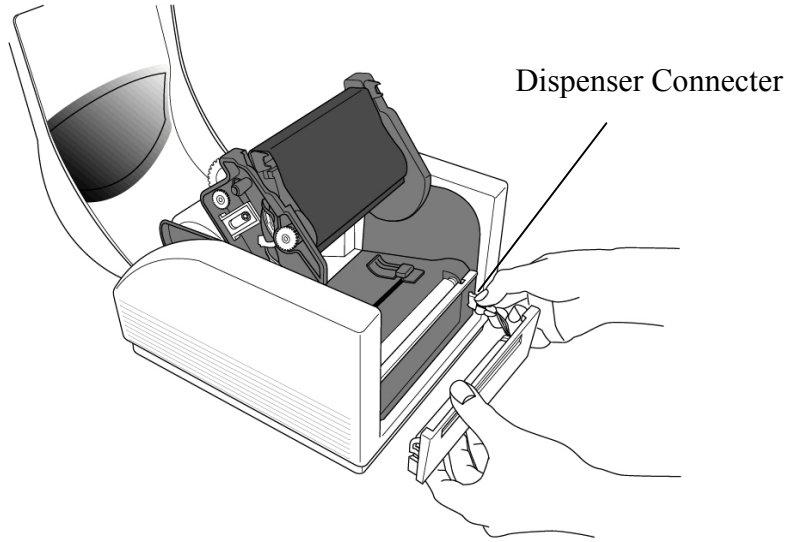
## Peel Off Mode

1. Loosen two attached screws on the back of peeler cover.
2. Remove the peeler cover.



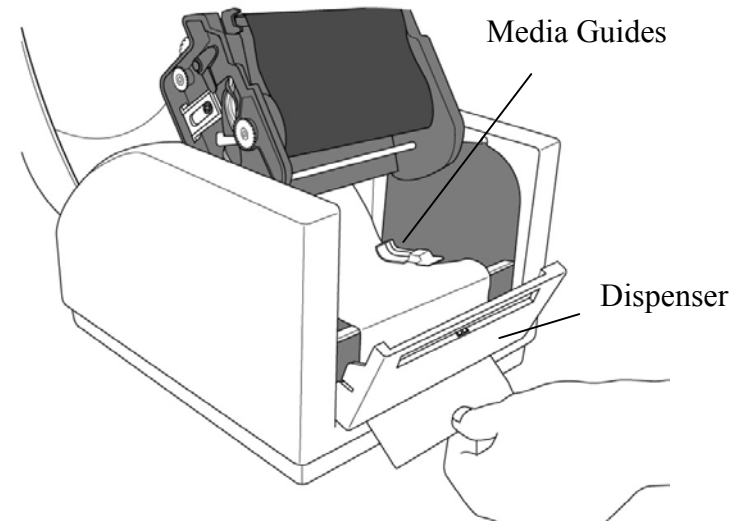
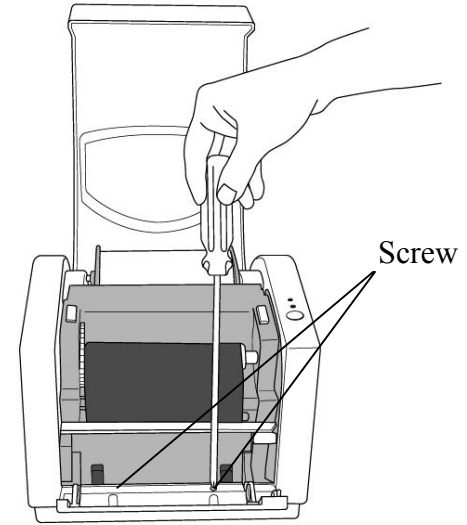
3. Plug in the dispenser connector.

4. Mount the dispenser module.

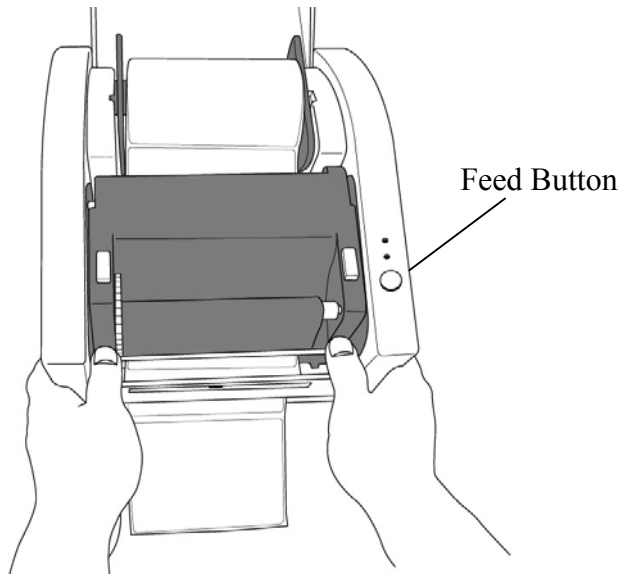


5. Secure two attached screws on the back of peeler cover.

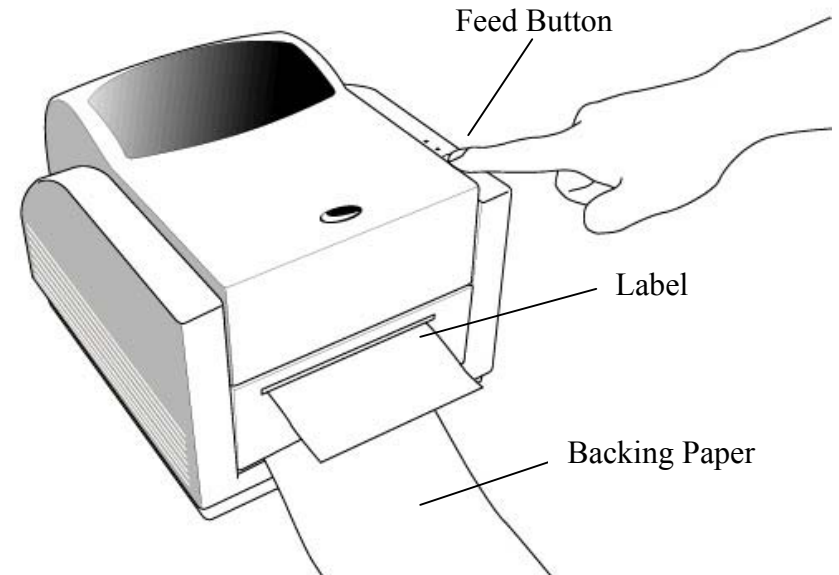
6. Lead the label through the media guides and dispenser.



7. Press down the print head module firmly till you hear a snap.
8. Close the top cover and turn on the printer or press the feed button if the printer is already on.



9. Press the feed button and the label backing paper will come out from the slot under dispenser.

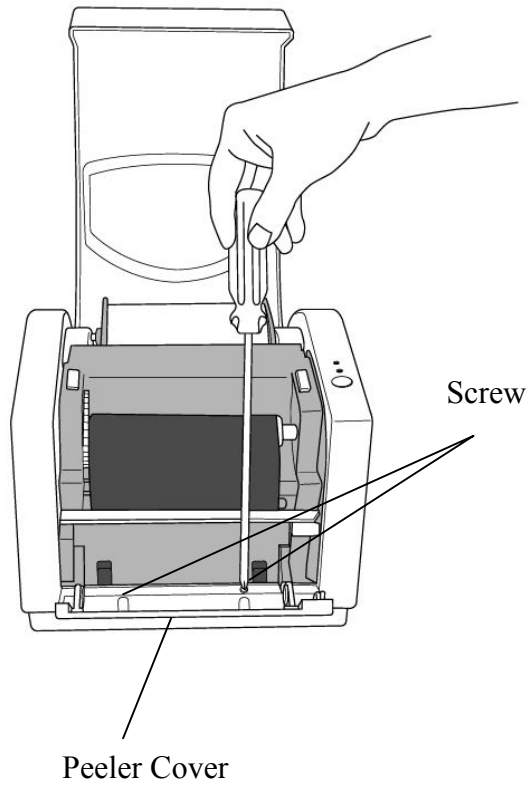


*Note :*

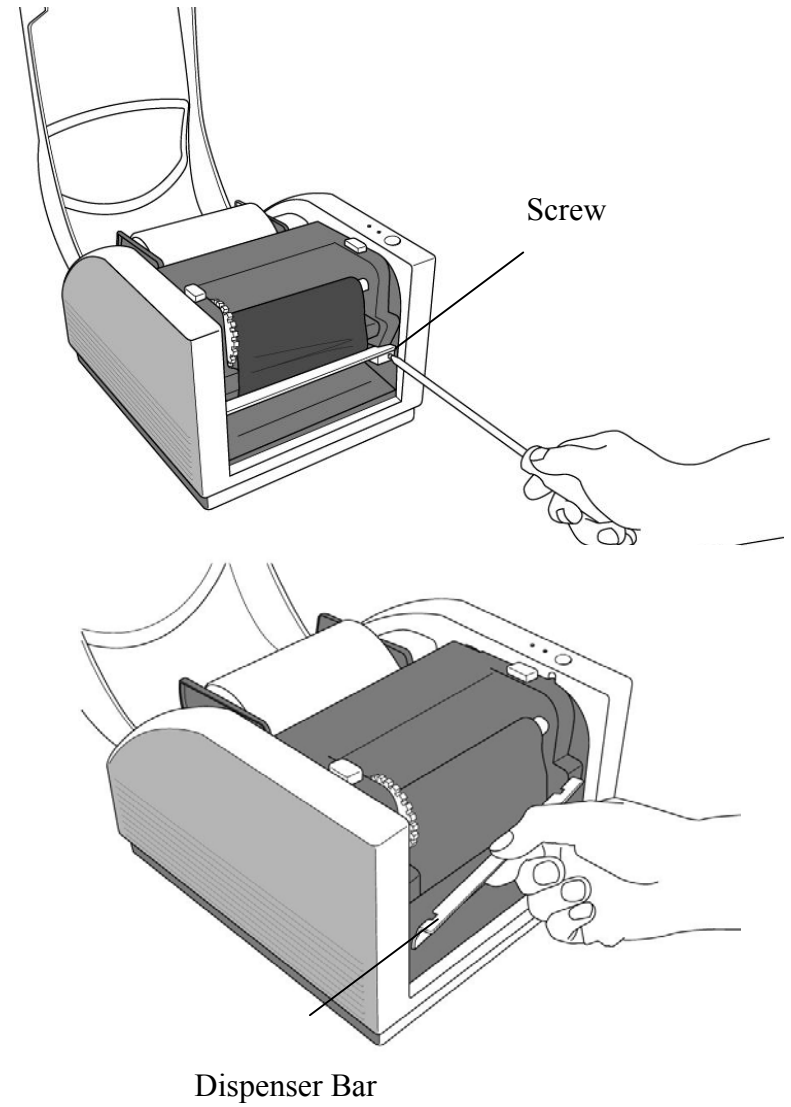
*The feed button will not drive the printer to peel. The peeling function can be executed only when the software setting is ready.*

## Cutter Mode

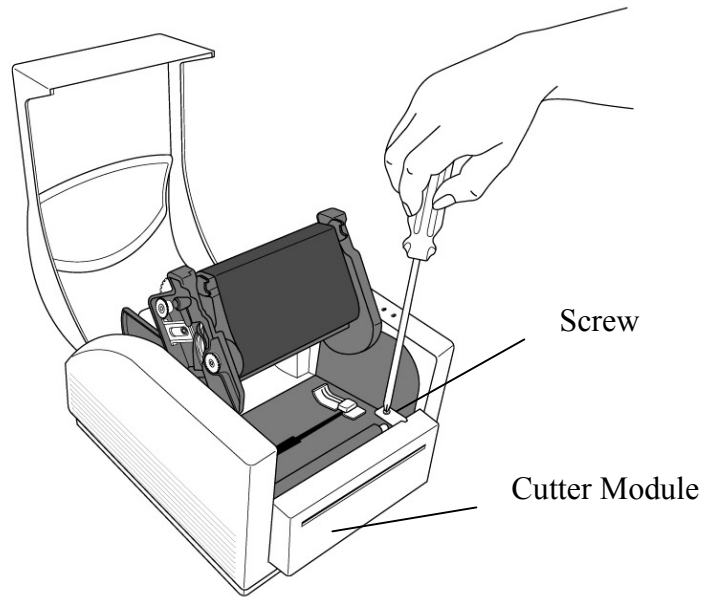
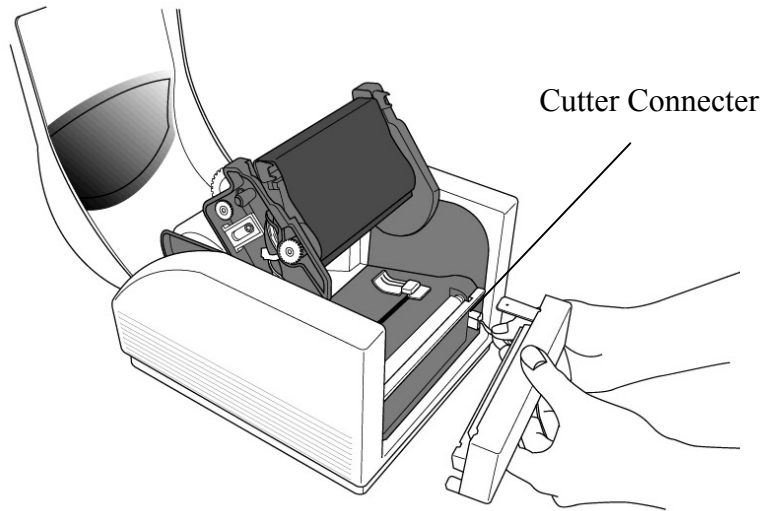
1. First plug cutter baby board in JP29 on the main board.
2. Loose two attached screws on the back of peeler cover.
3. Remove the peeler cover.



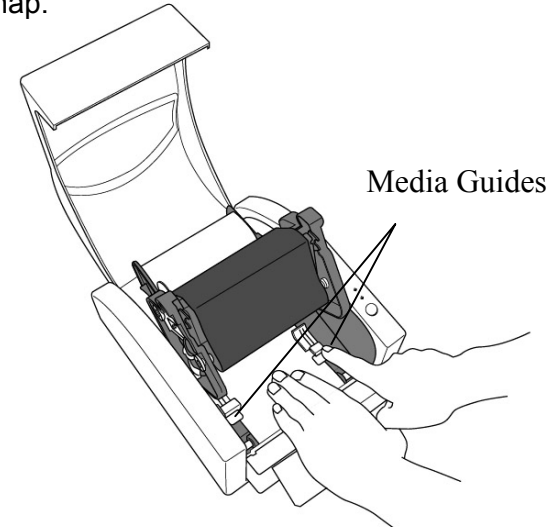
4. Loose the screw on the printer module.
5. Remove the dispenser bar.



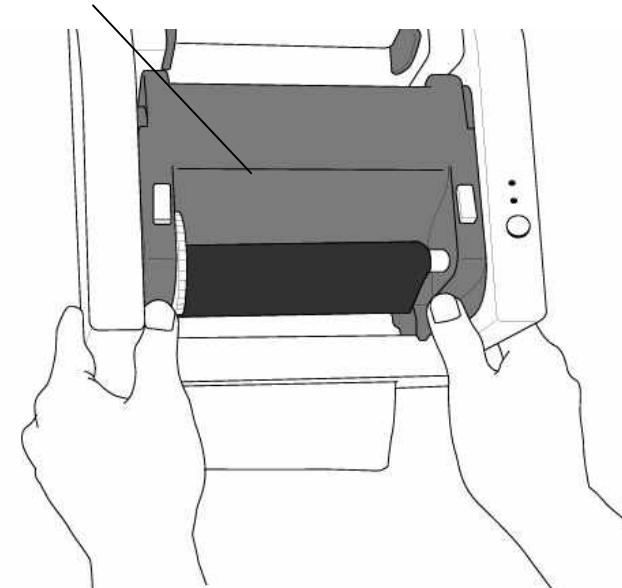
6. Plug in the cutter connector.
7. Secure the screw of cutter module.



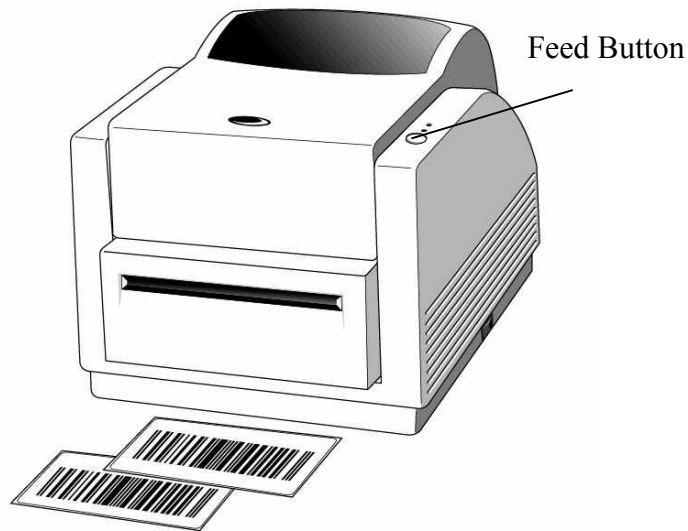
8. Lead the label through the media guides and the slot of cutter.
9. Press down the print head module firmly on both sides till you hear a snap.



Print Head Module



10. Close the top cover and turn on the printer or press the feed button if the printer is already on.



**Note:**

***The feed button will not drive the printer to cut. The cutting function can be executed only when the software setting is ready.***

## 6. Operator Controls

### Power Switch

Controls printer power

On-normal operation

Off-the power should be turned off before connect or disconnect the communication cables and power cables

### Feed Button

Advance the label media to first printing position

Press to advance a label

Press to take the printer out of a "pause" condition

Keep pressing while turning on the power to print out a configuration profile

### Ready Indicator

Show the printers status

Green : printer is ready to operate

Blinking : printer is paused

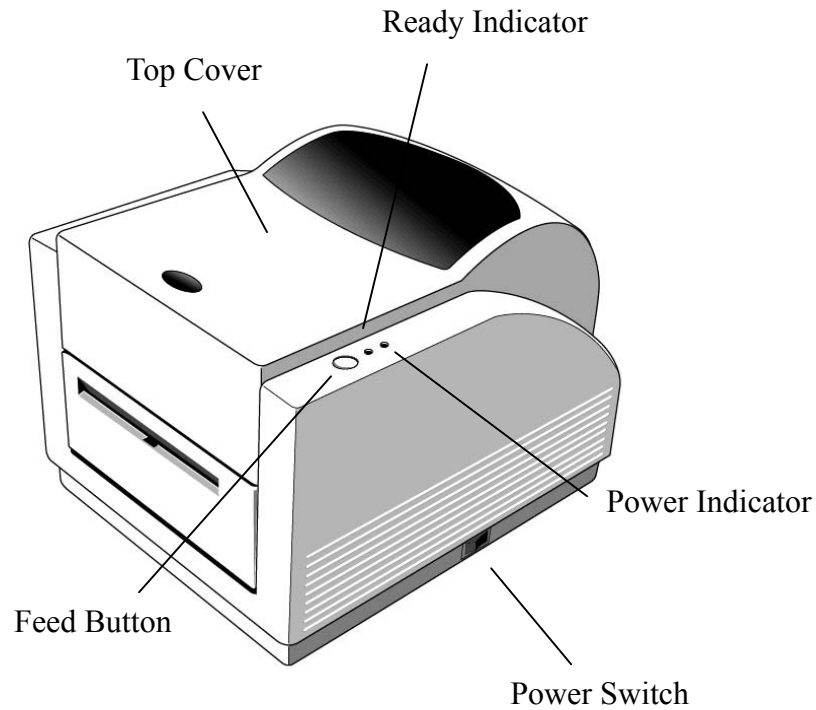
### Power indicator

Shows the power and error status

Off-printer power off

Green : printer power on

Blinking : error occurs



## 7. Performing Calibration

1. Keep pressing the feed button while turning on the power, until the printing motor becomes activated.
2. The calibration has been performed while the printer automatically feed label stock for certain length.

**Note:**

***This step is very important and must always be carried out whenever media is being changed. Failure to do so will result in miss-detection of the label sensor.***

## 8. Printing Configuration Report

1. Keep pressing the feed button while turning on the power, until the printing motor becomes activated.
2. After feeding 12-inch blank media, the printing motor will suspend for one second, then it will print out the configuration profile. This profile states the firmware version, ROM checksum, RS232, thermal transfer/direct thermal settings, hardware configuration and font types.
3. At PPLB emulation, the printer will enter character dump mode. To exit from dump mode, just re-start the printer again.

## 9. Resetting the Printer to Factory Default Settings

1. Turn on the printer and wait for 5 or more seconds.
2. Press the feed button for about 10 seconds, then the ready indicator and the power indicator will go off in order.
3. While two indicators become lit again, release the feed button.
4. At this moment, the printer will feed the label stock 12 inches in length, and come back to the factory default settings.

**Note :**

***All settings are stored in non-volatile E2PROM and cannot be destroyed even turn off the printer.***



## 10. Hooking up the Printer and Computer

**Note :**

**The power supply barrel connector must be inserted into the power jack on the back of the printer before connecting the communication cables.**

This printer comes with both a nine-pin Electronics Industries Association (EIA) RS-232 serial data interface, a standard Centronics parallel interface and USB interface. In either case, you must supply the required interface cable for your application.

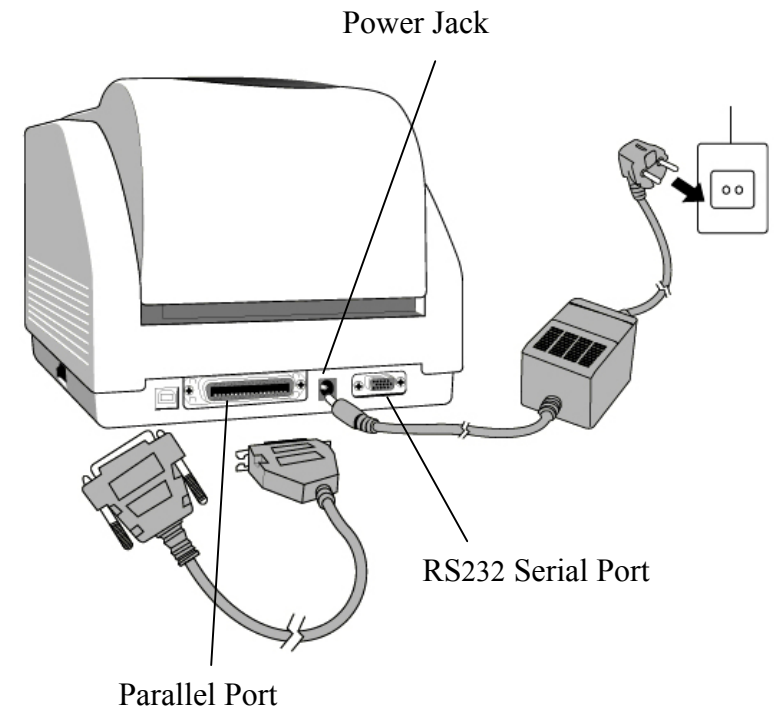
**Note :**

**This printer complies with FCC "Rules and Regulations" , Part 15, for Class A Equipment, using fully shielded six-foot data cables. Use of longer cables or unshielded cables may increase radiated emissions above the Class A limits.**

### Serial (RS-232) Interface Requirements

The required cable must have a nine-pin "D" type male connector on one end, which is plugged into the mating serial port located on the back of the printer. The other end of this signal interface cable connects to a serial port at the host computer.

For technical and pin-out information, please refer to the Reference Technical Information-Interface Specification on page 55 of this booklet.



## Parallel Interface Requirements

The required cable (IEEE 1284-compliant is recommended) must have a standard 36-pin parallel connector on one end, which is plugged into the parallel port located on the back of the printer. The other end of the parallel interface cable connects to the printer connector at the host computer. For pin-out information, refer to the Reference Technical Information- Interface Specification. Serial and Parallel Cabling Requirements.

Data cables must be of fully shielded construction and fitted with metal or metalized connector shells. Shielded cables and connectors are required to prevent radiation and reception of electrical noise.

To minimize electrical noise pickup in the cable:

- Keep data cables as short as possible (6 [1.83m] recommended).
- Do not tightly bundle the data cables with power cords.
- Do not tie the data cables to power wire conduits.

### **Notes :**

- 1. Using Centronics allows for a much higher speed communication than the use of a serial.**
- 2. It is not necessary to set the switch or send any command to select the parallel or serial port . The printer can automatically detect it.**
- 3. The default settings can be read from the configuration report.**

## 11. Communicating with the Printer

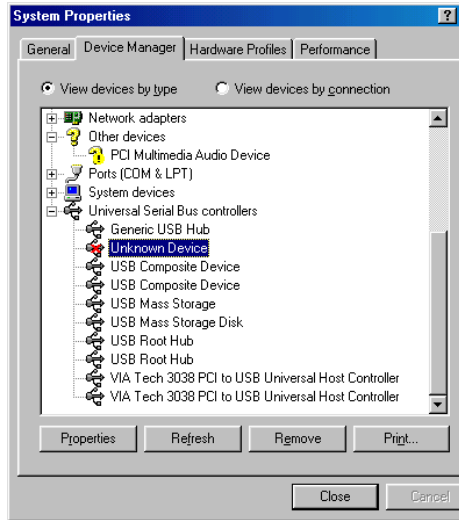
The bundled printer driver can be applied to all the applications under Windows 98/ME/2000/XP, and Windows NT. Through this driver you may run any popular software applications e.g. MS-Word and print out the contents by this label printer as long as they are for Windows.

### 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 read.txt file for installation guide and change notices.

## Installing USB Driver (Windows 98 only)

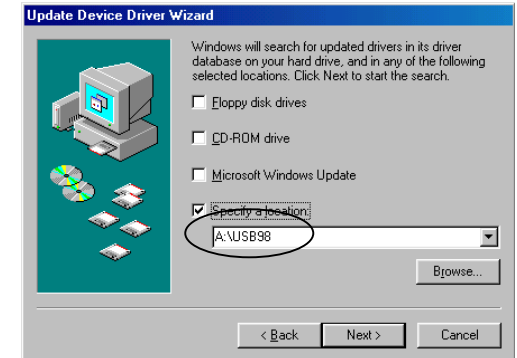
- ❑ Install USB driver Properties menu
  - Right click to get pop-up menu.



- Click "Next".
- Select "Specify a location".



- Click "Next".
- Select "Specify a location".



**Notes: Uninstall printer driver before installing USB driver.**

- Select "Driver".
- Click "Update Driver".



## Installing Printer Driver

1. Click the "Start" button.
2. Select "Settings", 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
  - WIN ME
  - WIN2000
  - NT4.0 (No support USB)
  - WIN XP
7. The driver name "Label Dr. 200" (or Label Dr.300) will appear in the "List of Printers", click "Next".
8. Select the communication port for the label printer. For parallel port, select "LPT1 :", "LPT2 :" or "LPT3 :", for serial port, select "COM1 :" or "COM2 :", for USB port, select "USB001", "USB002" .
9. After the related files have been copied to your system, the installation is complete.
10. 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. Uninstall printer driver before installing USB driver.**
- 3. 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), network port or file.

**Paper size** Select the proper size on the menu. If there is no desired size, select "Custom" to define the paper size.

**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.

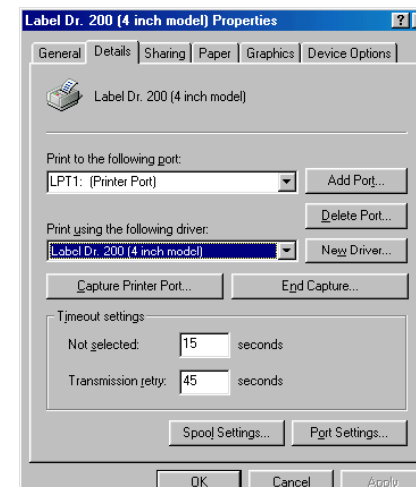
**Device options (Speed)** Set the print speed. For the ITT4100, the speed ranges from 1 to 4 IPS.

## For Win 98 / ME

### Ports

#### *Properties menu*

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



### Paper size

### Orientation

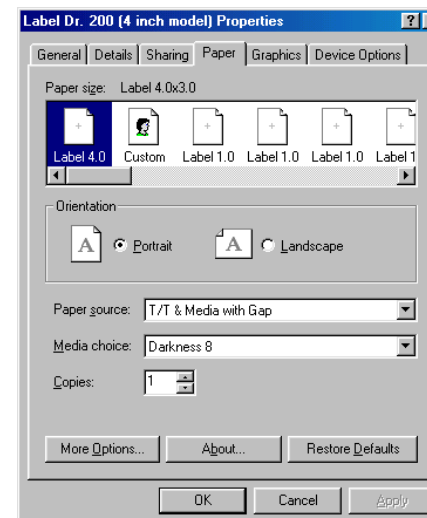
### Paper source (Media type)

### Media choice (Darkness)

### Copies

#### *Properties menu*

- Click "Paper".
- Click each item to select desired parameter.
- Click "OK".

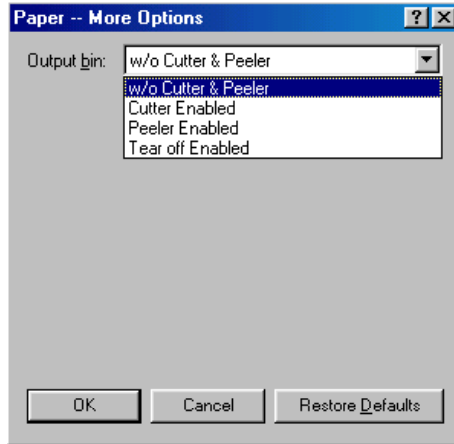


❑ Output bin

(Accessory setting)

Properties menu

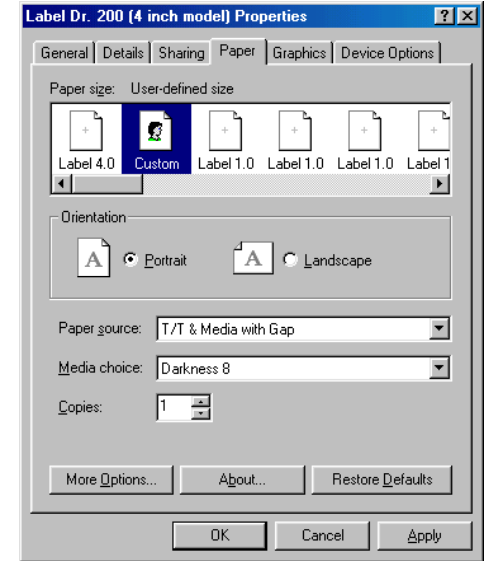
- Click "Paper".
- Click "more option".
- Select Enable/without cutter, peeler.
- Click "OK".



❑ Create a new size

Properties menu

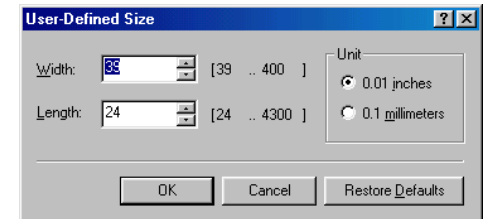
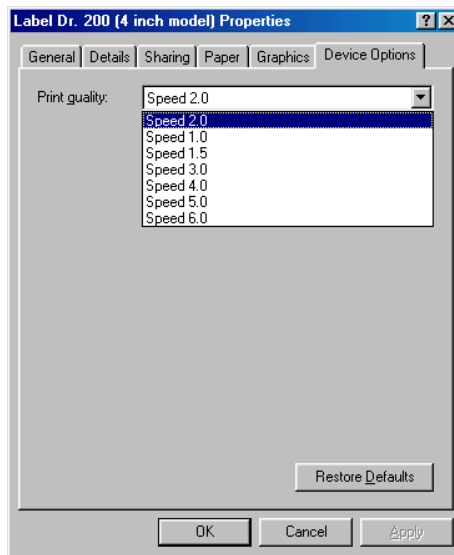
- Click "Paper".
- Select "Custom".
- User-Define size.
- Set up a new size.
- Click "OK".



❑ Print quality (Speed)

Properties menu

- Click "Device Options".
- Select parameters.
- Click "OK".

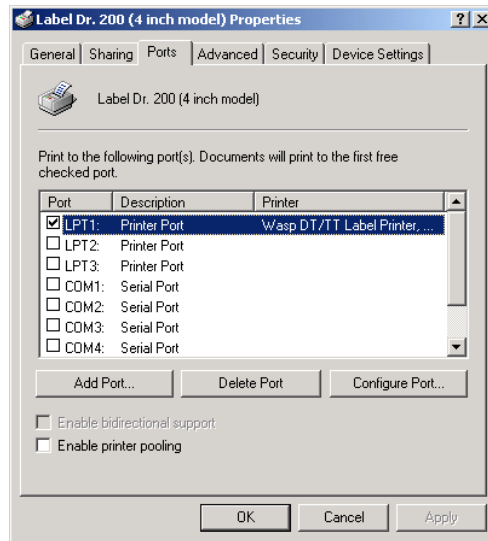


## For Win 2000

### Ports

#### Properties menu

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

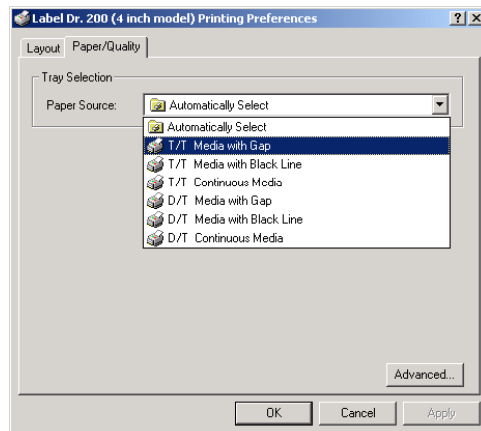


### Paper source

#### (Media type)

#### Back to Printers menu

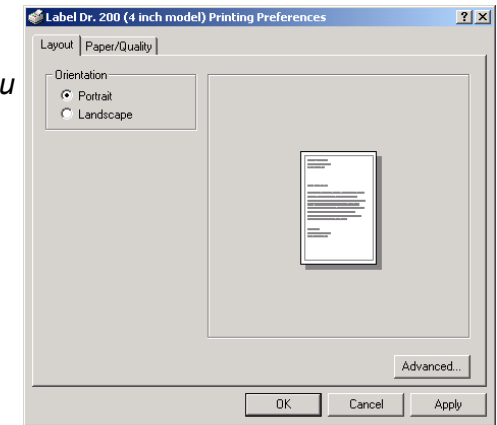
- Right click to get pop-up menu.
- Select "Printing Reference".
- Click "Paper Quality" select media type.
- Click "OK".



### Orientation

#### Printing Reference menu

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



### Paper size

### Copies

### Media choice

#### (Accessory setting)

### Paper/Output

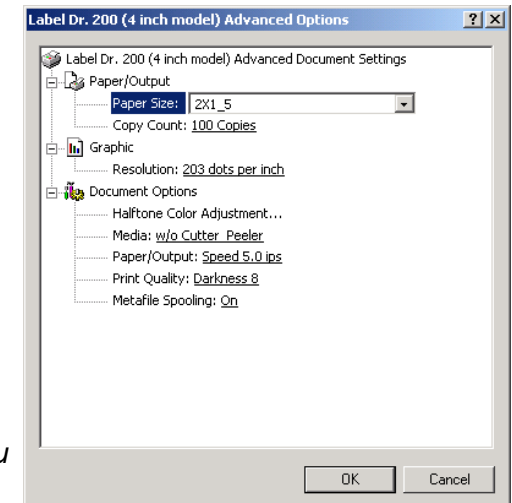
#### (Speed)

### Print quality

#### (Darkness)

#### Printing Reference menu

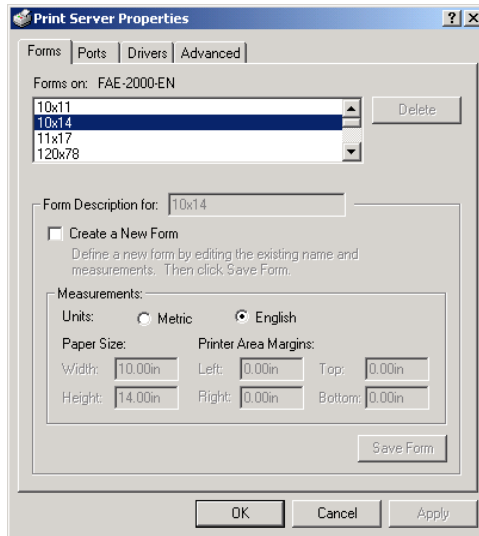
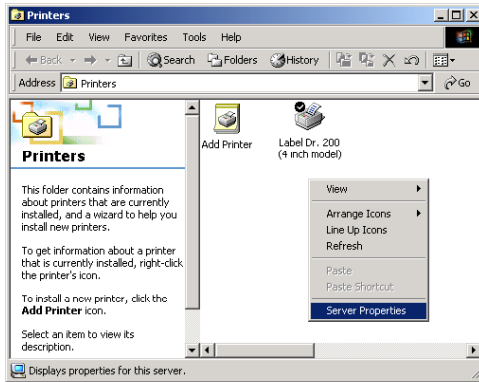
- Click "Layout".
- Click "Advanced" button.
- Click each item to select the parameters.
- Click "OK".



- ❑ Create a new size

*Printer menu*

- Right click to get pop-up menu on empty 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".

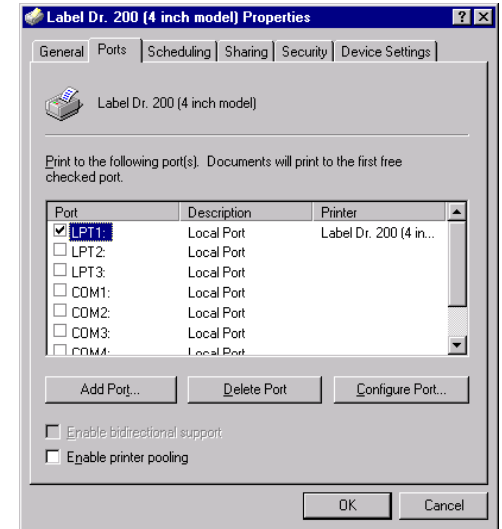


**For NT 4.0**

- ❑ Ports

*Properties menu*

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



- ❑ Paper size

- ❑ Orientation

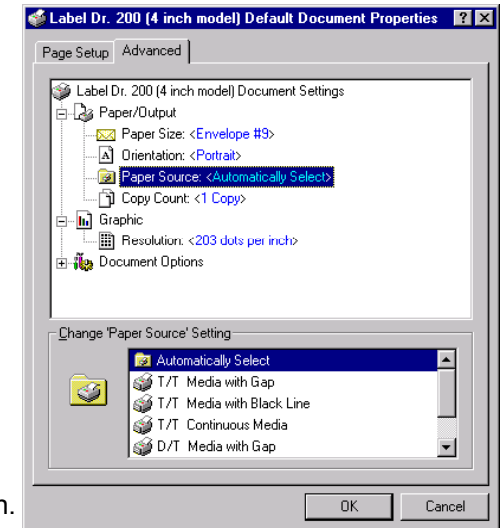
- ❑ Paper source  
*(Media type)*

- ❑ Copies

- ❑ Media choice

*Printer's menu*

- 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*

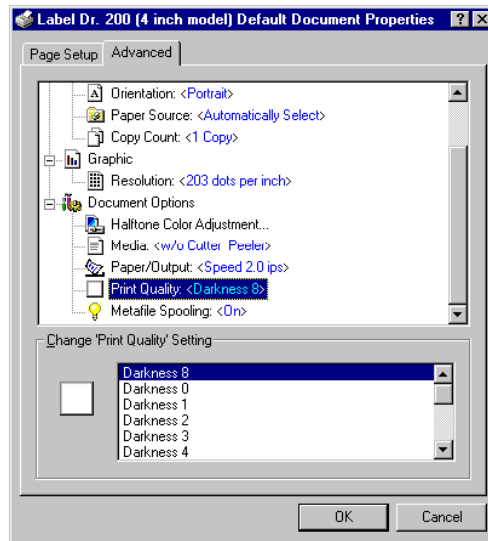
→ Click "Advanced".

→ 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

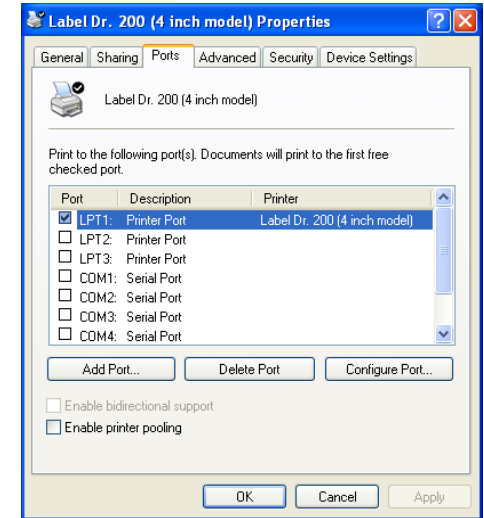
❑ Ports

*Properties menu*

→ Click "Ports".

→ Select the IO port.

→ Click "OK".



❑ Paper source (*Media type*)

*Back to Printers menu*

→ Label Dr.

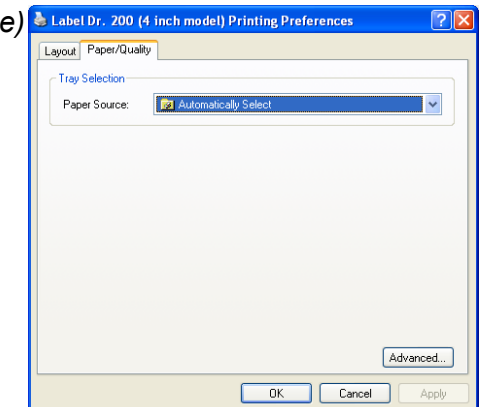
→ Right click to get pop-up menu.

→ Select "Printing Reference".

→ Click "Paper Quality".

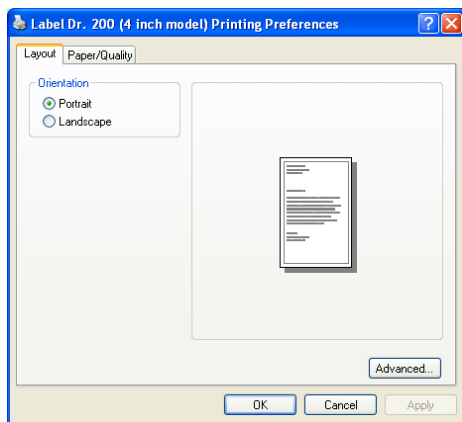
→ Select media type.

→ Click "OK".



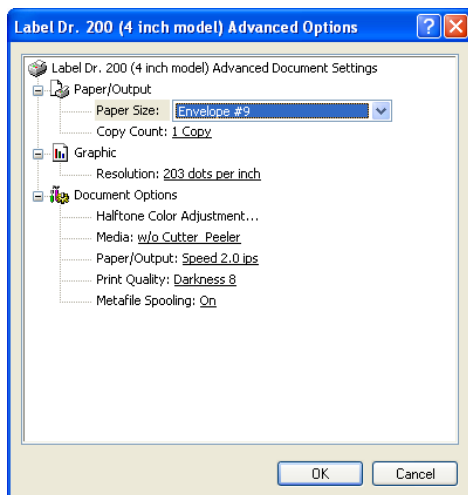
❑ Orientation  
*Printing Reference menu*

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



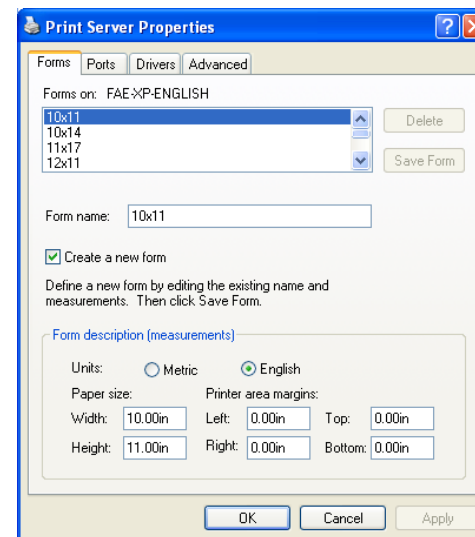
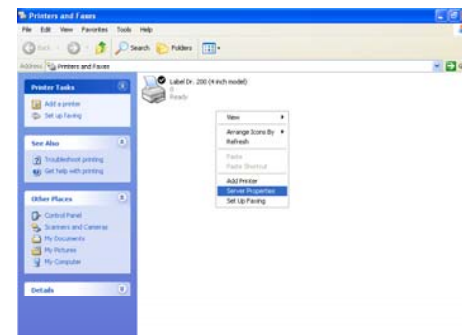
❑ Paper size  
 ❑ Copies  
 ❑ Media choice  
*(Accessory setting)*  
 ❑ Paper/Output (*Speed*)  
 ❑ Print quality (*Darkness*)  
*Printing Reference menu*

- 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".



## 12. Troubleshooting

Normally, when the printer is in abnormal condition, the power LED will keep blinking. The printing work and the communication between the host and printer will stop.

To understand the problem, please check both LEDs first:

### A. Power and Ready LEDs blink at the same tempo

Power LED	Ready LED
ON	ON
OFF	OFF

Possible Problems	Solutions	Remarks
Miss-detect the gap	. Check the label path . Check the label sensor	If you are using continuous label roll and run under Windows, you should select the continuous media.
Label stock out	. Supply the label roll out	
Label stock not installed	. Install the label roll	
Label jam	. Recover the jam	

### B. Power and Ready LEDs blink alternately

Power LED	Ready LED
ON	OFF
OFF	ON

Possible Problems	Solutions	Remarks
Ribbon out	Supply the ribbon roll	Not applicable to direct thermal type.
Ribbon jam	Recover the jam	
Ribbon sensor error	Replace the ribbon sensor	

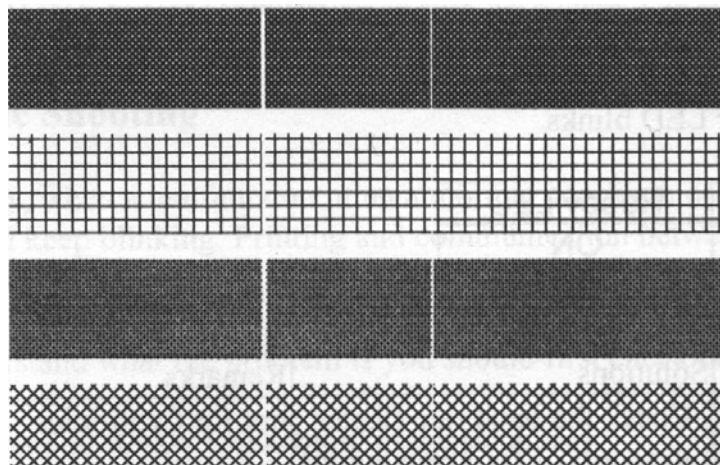
### C. Only the Power LED blinks

Power LED	Ready LED
ON	ON
OFF	ON

Possible Problems	Solutions	Remarks
Serial IO error	. Check the baud rate	Not for Centronics
Memory full	Add the extension RAM	
Cutter failed, or jam at cutter	. Check the cutter . Recover the jam	It occurred, only when cutter is installed, or the setting of the cutter
Hardware error	Call for service	

## D. Miscellaneous

- The host shows "Printer Time out"
  1. Check if the communication cable(parallel, serial or USB) is connected securely to your parallel or serial port on the PC and to the connector on the printer at the other end.
  2. Check if the printer power is turned on.
- If the power cord is connected, the power switch is at position "I" and the power LED has still not illuminated, check the fuse inside the power adapter case.
- The data has been sent, but there is no output from the printer. Check the active printer driver, if Label Dr. for your Windows system and the label printer has been selected.
- Vertical streaks in the printout usually indicate a dirty or faulty print head.(Refer to the following example)



Clean the print head first, if they still persist, replace the print head.

- Poor printout quality.
  - . The ribbon may not be qualified.
  - . The media may not be qualified.
  - . Adjust the Darkness(heat temperature).
  - . Slow down the print speed.
  - . Refer to the next chapter and clean the related spare parts.

## Recovery

To continue your print jobs after the abnormal conditions have been corrected, simply press the panel button or restart the printer. Make sure that the LED is not blinking and remember to resend your files.

## 13. Caring for Your Printer

Clean the following areas of the printer after 8 rolls of label stocks have been used. In each case, use a cotton bud dampened with alcohol. Do not soak the cotton bud excessively.

### **Note :**

***Always switch off the power before cleaning.***

### Cleaning

#### ■ Thermal Print Head

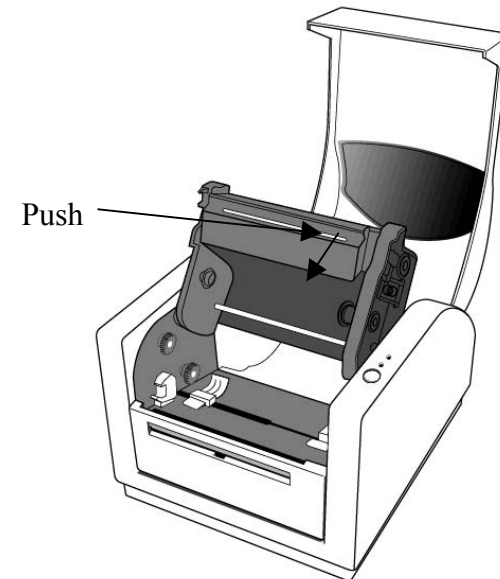
Thermal paper stock and ribbon will release debris on the print head and degrade printing quality. Clean the print head with methanol or isopropyl alcohol with a cotton bud. Do not touch the heater element with your fingers. Debris or dirt on the roller should be cleaned with alcohol.

#### ■ Paper Sensor

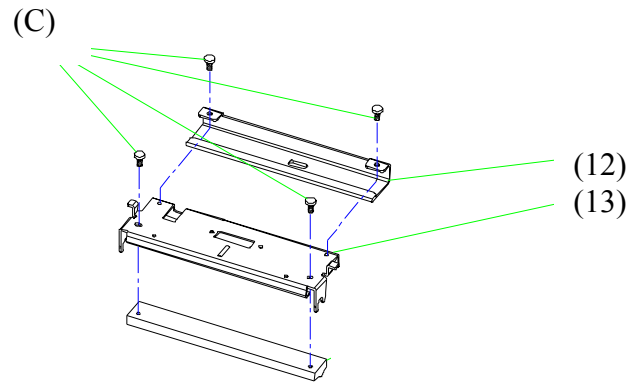
Debris or dirt on the paper sensor will cause a miss-read or unstable detection of the label gap. Clean with a cotton bud dampened with alcohol.

## Replacing Thermal Print Head

1. Switch off the power and wait for both LEDs to go off.
2. Push print head module and pull it down as the 2 arrows shown to release print head module from printer chassis.



3. Loosen the 4 screws (C) to take out the print head from the print head module (12, 13).
4. Unplug the 2 print head cables from the connectors on the print head to take off the old print head.
5. Plug the 2 print head cables to the new print head.
6. Screw the new print head on the print head module (12, 13).
7. Put back the new print head module on the printer chassis with the same way, which you released it from the printer chassis.



## 14. Reference Technical Information

### General Specifications

<b>Specifications</b>	<b>ITT4100A*</b>	<b>ITT4100B</b>	<b>ITT4100C*</b>
Printing method	Thermal Transfer		
Printing resolution	203 dpi (8dots/mm)	203 dpi (8dots/mm)	300 dpi (12dots/mm)
Printing speed	2~3 ips (51 ~ 75mm/s)	2 ~ 4 ips (51~ 102 mm/s)	2~3 ips (51 ~ 75 mm/s)
Printing length	1" ~ 8" (25mm ~ 203mm)	1" ~ 45" (25mm ~ 143mm)	1" ~ 8" (25mm ~203mm)
Printing width	Max 4.1" (104 mm)	Max 4.1" (104 mm)	Max 4.1" (104 mm)
Memory	512KB DRAM 2 MB Flash ROM	2 MB DRAM 2 MB Flash ROM	2 MB DRAM 2 MB Flash ROM
CPU type	16 bit CISC microprocessor	32 bit RISC microprocessor	32 bit RISC microprocessor
Media sensor	Reflective	Reflective See - through	Reflective See - through
Display	LED indicators x 2	LED indicators x 2	LED indicators x 2
Operation interface	Button x 1	Button x 1	Button x 1
Communication interface	Centronics RS-232 serial	Centronics RS-232 serial Bi-USB (Full Speed)	Centronics RS-232 serial Bi-USB (Full Speed)
Fonts	Int'l character sets standard 5 alpha-numeric fonts from .049"~ .23"H (1.25mm~6.0mm) All fonts are expandable up to 24x 24 4 direction 0°~270° rotation Soft fonts are downloadable		

Barcodes	Code 39, Extended Code 39, Code 93, Code 128 UCC Code 128(Subset A, B, C) Codabar, Interleave 2 of 5, EAN-8 2&5 add on, EAN-13, EAN-128, UPC, UPC-A, E 2&5 add on, POSTNET, German POST, Matrix 25
2D Barcodes	Maxicode, PDF-417,
Graphic	PCX bit map, GDI graphics
Software	PPLB Language Windows Driver (98/2000/NT/XP) Label editing software – ArgoBar Print Utility
Media	Roll-feed, die-cut, continuous, fan-fold, tags, ticket in thermal paper or plain paper and fabric label Max width 4.25" (108 mm) Min width 1.0" (25.4 mm) Thickness .0025"~. 01" (.0635mm ~. 254mm) Max roll capacity 5" (127 mm) OD Core size 1" (25mm) ID
Ribbon	Wax, Wax/Resin, Resin (Outside coating ribbon) Ribbon width – 2", 4" Ribbon roll – max OD 1.5" (38 mm) Ribbon length – max 1182' (100 M) Core size - ID 0.5" core (13 mm) with notch
Mechanism request	Build-in Tear off bar, front-open cover, clear window, fan fold paper back cover, same mechanism structure, face-out ribbon run way, face-in media run way, un-adjustable TPH carrier
Power source	110/220 VAC ± 10%, 50/60 Hz, external power adapter
Agency listing	CE, UL, CUL, FCC class A, CCC
Operation environment	40°F ~ 100°F (4°C~38°C) ; 10~90% non condensing
Optional items	Cutter, Dispenser kit, Real time clock card, ArgoNet print server, ArgoKee, 2MB Asian Font card (Traditional Chinese, Simplified Chinese, Korean and Japanese)

\*MODELOS NO DISPONIBLES.

## Fonts, Bar Codes and Graphics Specification

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

### Printer Programming Language B, PPLB

Specification	ITT4100A*	ITT4100B	ITT4100C*
General fonts	5 fonts with different point sizes		
Symbol sets (Code pages)	8 bits: code page 437, 850, 852, 860, 863,865,857,861,862,855,866,737,851,869 and Windows 1250,1251,1252,1253.1254,1255. 7 bits: USA, British, German, French, Danish, Italian, Spanish, Swedish and Swiss.		
Soft fonts	Downloadable soft fonts		
Font expandability	1x1 to 24x24		
Bar code types	Code 39(checksum), Code 93, Code 128/ subset A,B,C, Codabar, Interleave 2 of 5(checksum), Matrix 25, UPC A/E 2 and 5 add-on, EAN-8/13, Code 128UCC, UCC/EAN, Postnet, German Postcode. MaxiCode and PDF417 (2D symbologies)		
Graphics	PCX and binary raster		

\*MODELOS NO DISPONIBLES.

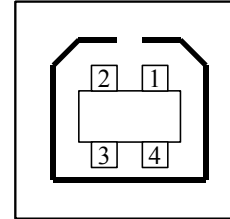
#### Notes :

- 1. The bare core for ribbon must be 11 cm in length. It should have two opposite slits at two ends. If the ribbon itself is less than 11 cm, it has to be aligned with the bare core at left end when you install it.***

2. Since this printer uses band buffer technology, if you just print texts or barcodes the maximum length can be more than 30 inches, whereas if you print many graphics the maximum length can only be few inches under standard onboard RAM.(The extension RAM, font board and flash modules use the same connector, they cannot function at the same time.)

## Interface Specifications

### USB Interface Requirement



USB series "B" Receptacle Interface

Pin	Signal Name
1	VBUS
2	D -
3	D+
4	GND

Connector Terminal Pin Assignment

### 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 are reserved for KDU(keyboard device unit), therefore do not connect these pins 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	<input type="text"/>	pin 4	<input type="text"/>
pin 5	<input type="text"/>	pin 6	<input type="text"/>
pin 6	<input type="text"/>	pin 7	<input type="text"/>
pin 20	<input type="text"/>	pin 8	<input type="text"/>

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 and you use Xon/Xoff as flow control, it will be problem free.

**Baud rate** : 2400, 4800, 9600, 19200 and 38400.  
(programmable by command)

**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	Data1	14,15		NC
3	In	Data 2	16	-	Ground
4	In	Data3	17	-	Ground
5	In	Data4	18NC		
6	In	Data5	19~30	-	Ground
7	In	Data6	31		NC
8	In	Data7	32	Out	/Fault
9	In	Data8	33~36	-	NC
10	Out	/ACK			
11	Out	BUSY			
12	Out	PE			

## Auto Polling

Both the serial port and parallel port of this printer can be activated at the same time, i.e the printer can simultaneously communicate with two PC via different port. However as no port contention is made for this printer, if both PC transmit data at the same time to this printer, the data may become damaged in the receiving buffer.

## ASCIITABLE

	0	1	2	3	4	5	6	7
0	NUL			0	@	P	'	P
1	SON	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