Proprietary Statement

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Product Improvements

Continuous improvement of products is a policy of Argox Information Co., Ltd. All specifications and signs are subject to change without notice.

FCC Compliance Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different than that to which the receiver is connected.
- Consult the dealer or an experience Radio/TV technician for help.

NOTE: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to insure compliance. The user is cautioned that any changes or modifications not expressly approved by Argox Information Co., Ltd. could void the user's authority to operate the equipment.

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A Letter to Our Customers

Dear Customers,

Congratulation on selecting an Argox Refine series printer! We believe soon you will find that you have made a cleverest choice!

This booklet is a small gift from us. It is intended for helping you to know your printer better, then further to optimize it. Basically, this booklet contains two parts: operation guidance and related valuable information.

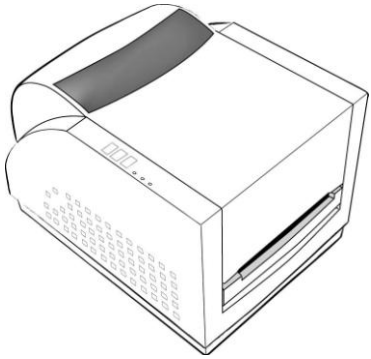
In the part of the operation guidance, we will furnish you with a lot of complementary illustrations, so you may pick up those operation guides more quickly.

In the latter chapters of Trouble Shooting, Maintenance as well as Reference Technical information, which we think, you may need them just in case. Therefore, for your quick reference, we try to table them as much as possible.

Enjoy your reading and have a good time with your printer!

Best wishes,
Argox Information Co., Ltd.

CONTENTS



1. Checking Your Box

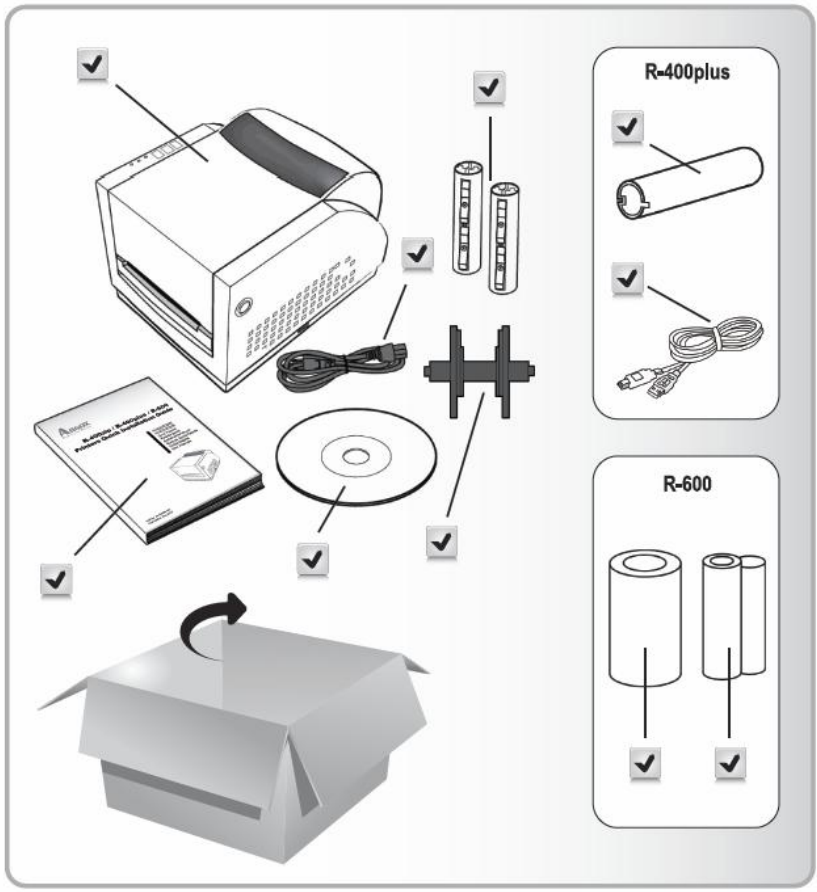
Receiving the box of your printer, you are advised to check first for the possible shipping damage. There are two ways you can do it:

1.1 Inspect the outer appearances of both the box and the printer for possible damage.
1.2 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.

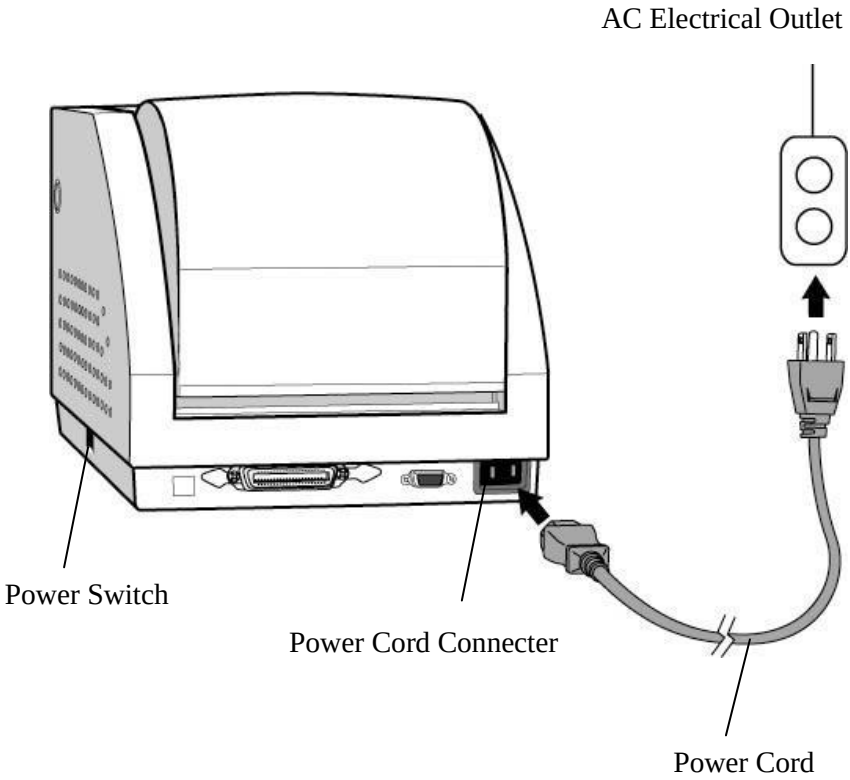
- Printer
- Power cord
- An extra ribbon core (R-400plus / R-400K plus)
- Ribbon core adaptor
- Media hanger
- USB cable (R-400plus / R-400K plus)
- CD-ROM
- Quick Installation Guide
- Sample Media and Ribbon (R-600)


R-400plus
R-600

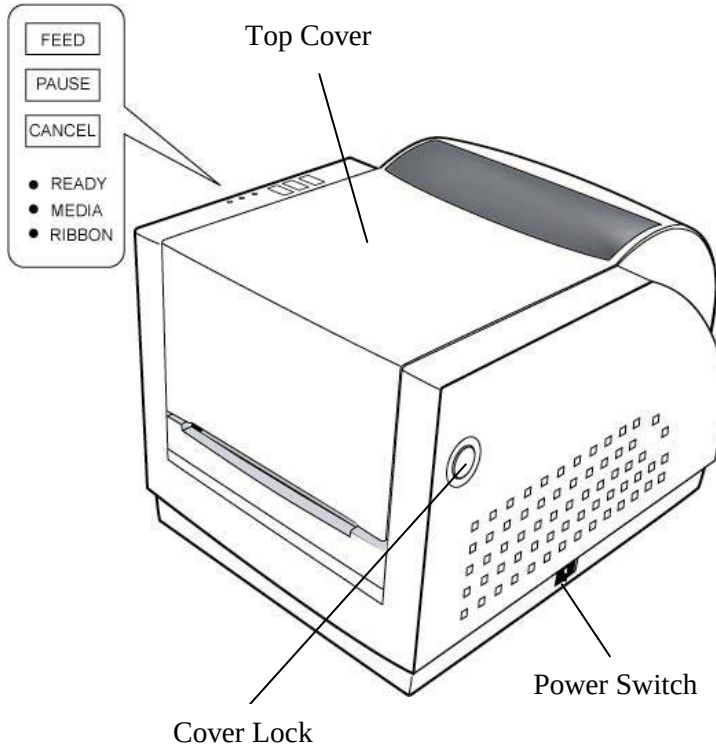
2. Power Supply

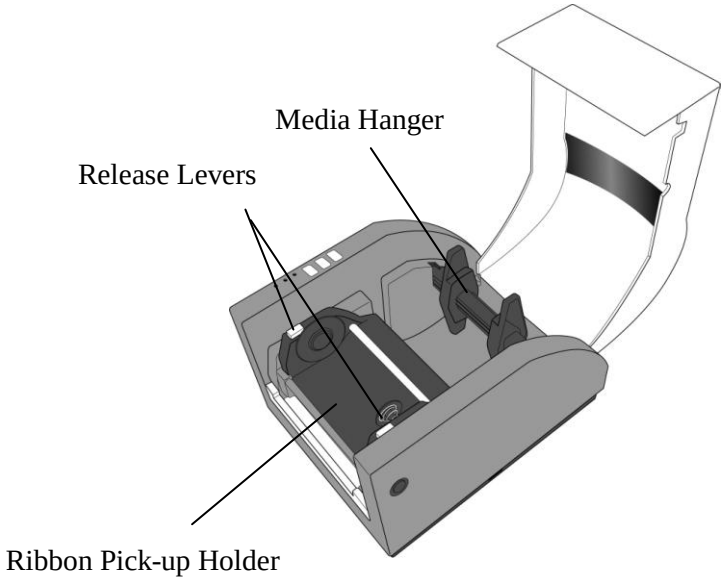
WARNING:
NEVER OPERATE THE PRINTER AND POWER SUPPLY IN AN AREA WHERE THEY CAN GET WET.

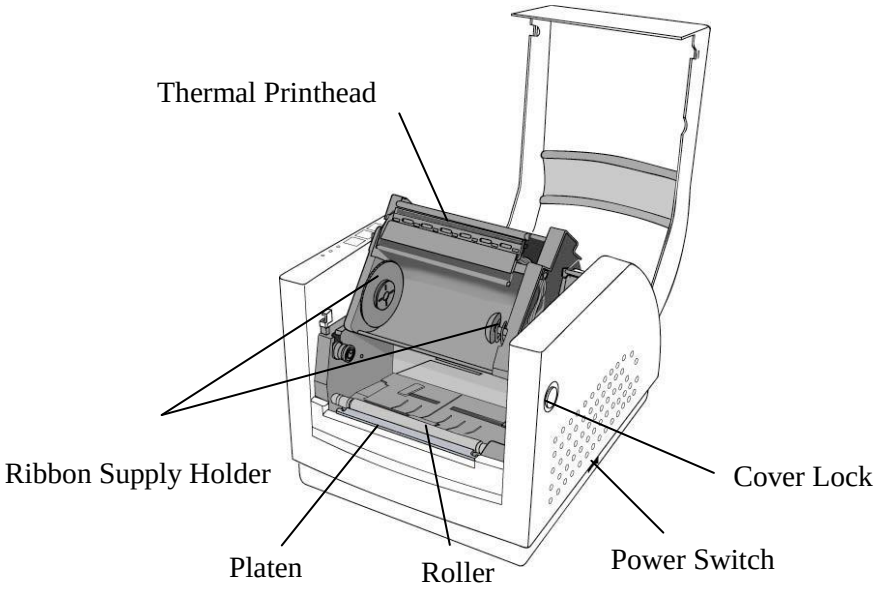
2.1 Leave the power switch at the " O " Position.
2.2 Connect the power supply plug to the power cord connecter and the other end to your AC source.



3. Parts and Features



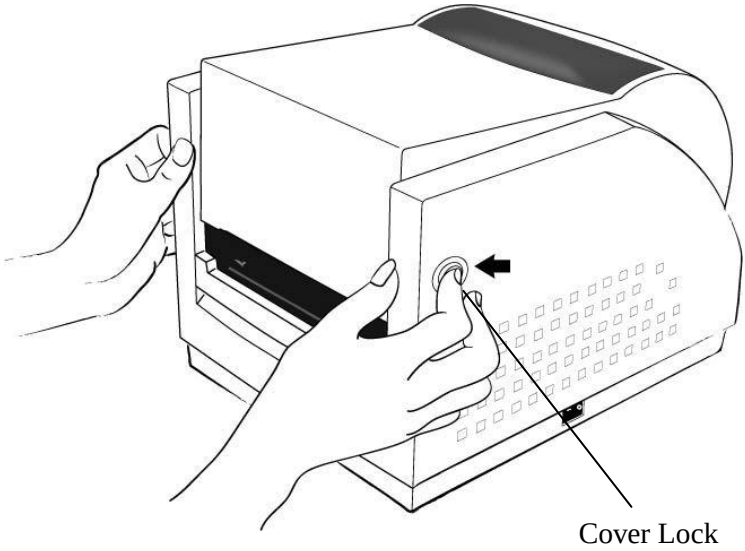

Media Hanger
Release Levers
Ribbon Pick-up Holder


Thermal Printhead
Ribbon Supply Holder
Cover Lock
Platen
Roller
Power Switch

4. Loading the Ribbon

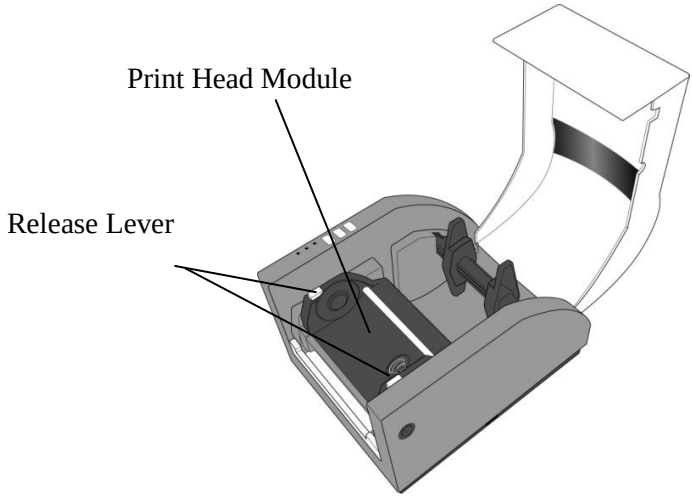
Note:
This section is not applicable to the direct thermal printing.

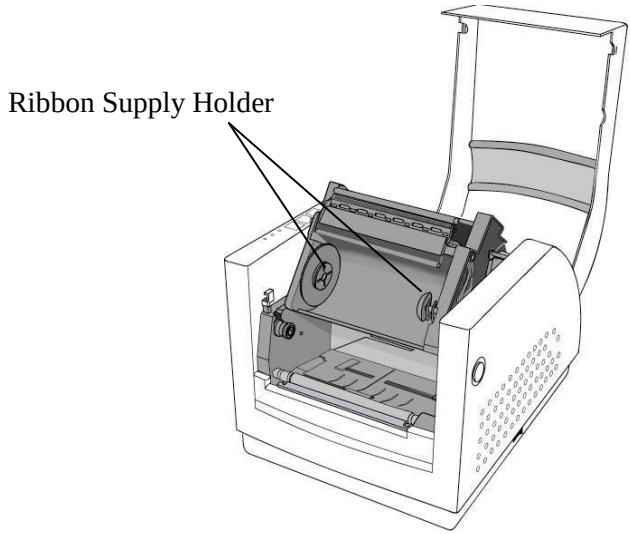
4.1 Press the cover locks on both sides to open the top cover



4.2 Unlatch the print head module by pushing the two green release levers on the sides toward the rear.

4.3 This allows print head module to rotate upward automatically and expose the ribbon supply holder.

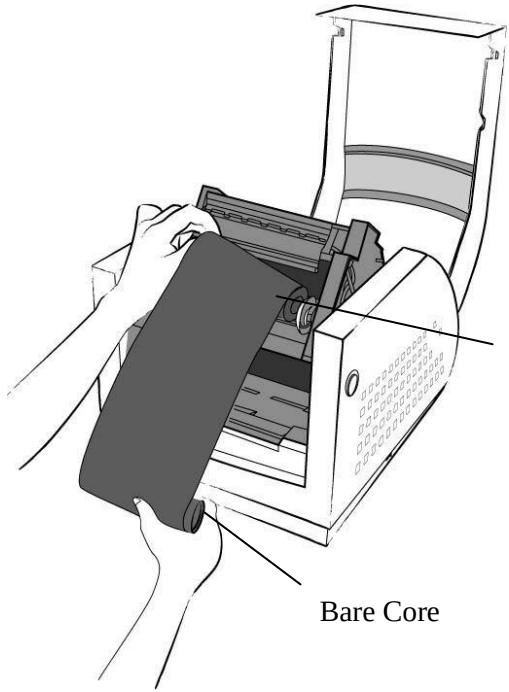




4.4 Unwrap the ribbon roll pack and separate the ribbon roll and the bare core.

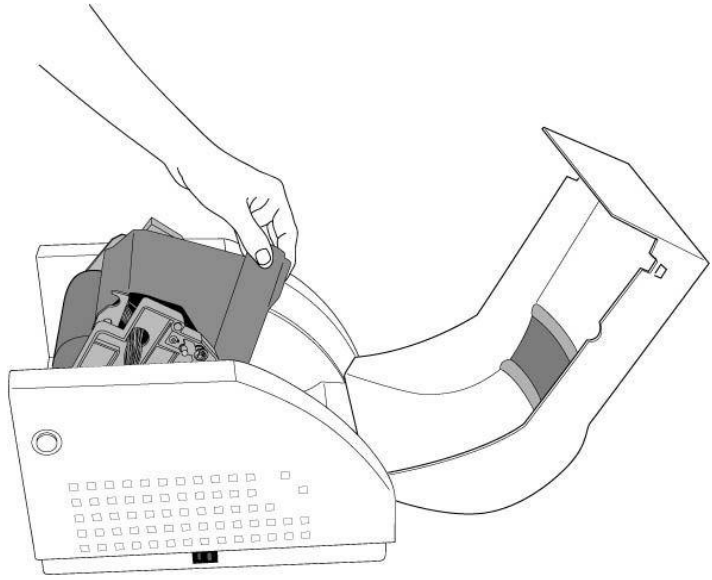
4.5 Attach the edge of the ribbon on the bare core and wind it a little bit onto the core.

4.6 Insert the ribbon roll into the supply holder. (First snap in the right side and then the left side.)



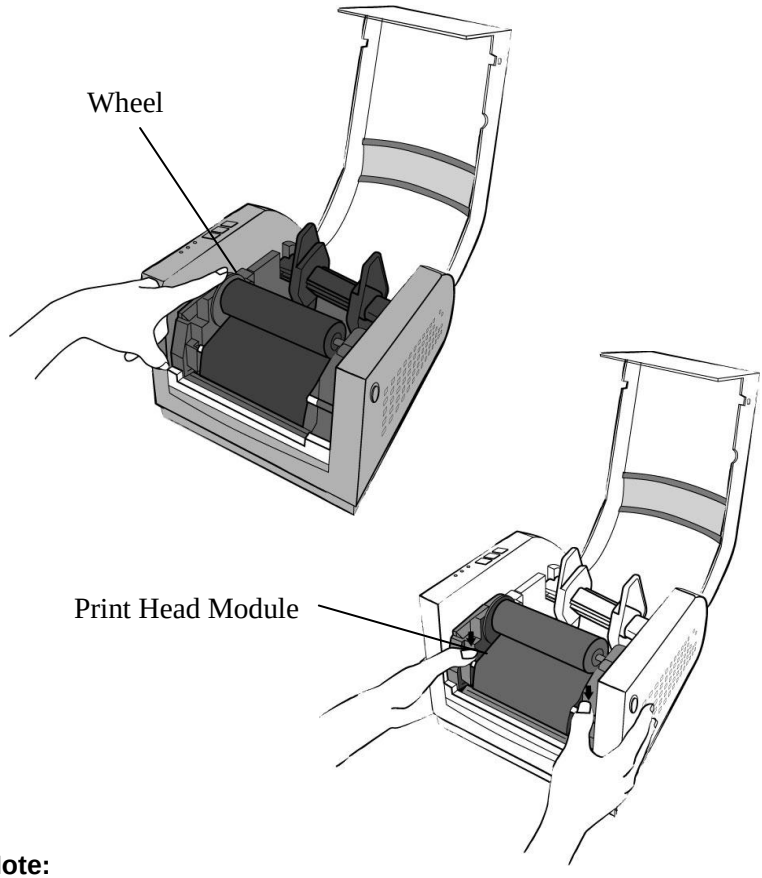
Noted:
It is the figure illustrating ribbon wound ink-side in for R-400plus/R-600. For R-400K plus model, please use ribbon wound coated side out.

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



4.8 Turn the wheel of the print head module to ensure the ribbon is tightly wound.

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



Note:

1. **R-400plus / R-600 use ribbon wound coated side in. R-400K plus use ribbon wound coated side out.**
2. **Optional ribbon core adapter is available once ribbon width is less than 4'' width.**

5. Loading the Media

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

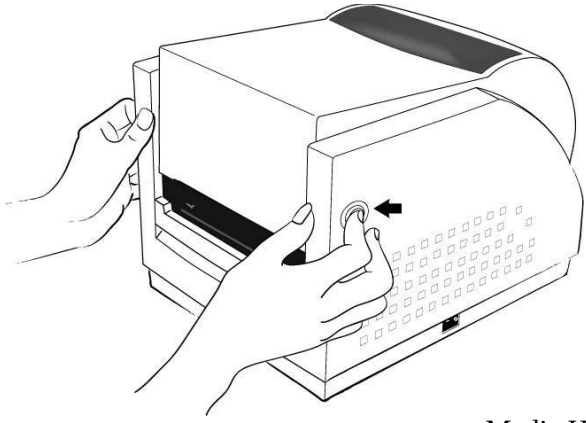
- Standard mode allows you to collect each label freely.
- In peel-off mode, the backing material is being peeled away from the label as it is printed. After the former label is removed, the next one will be printed.
- In cutter mode, the printer automatically cuts the label after it is printed.

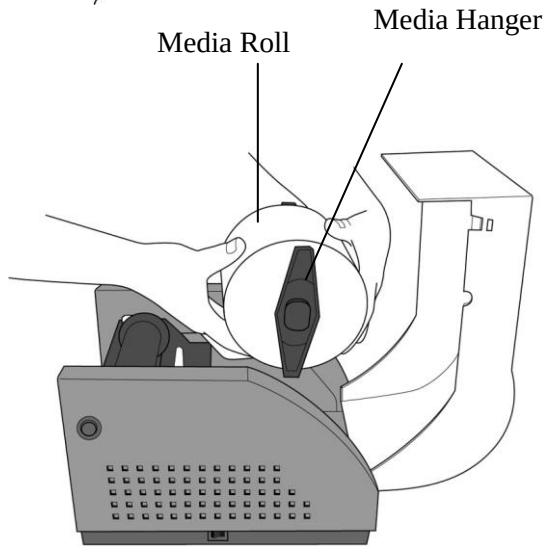
5.1 Standard Mode

5.1.1 Press the cover locks on both sides to swing the top cover toward the rear and expose the media compartment.

5.1.2 Load the media roll onto the media hanger.

5.1.3 Put the media roll on the hanger holder.



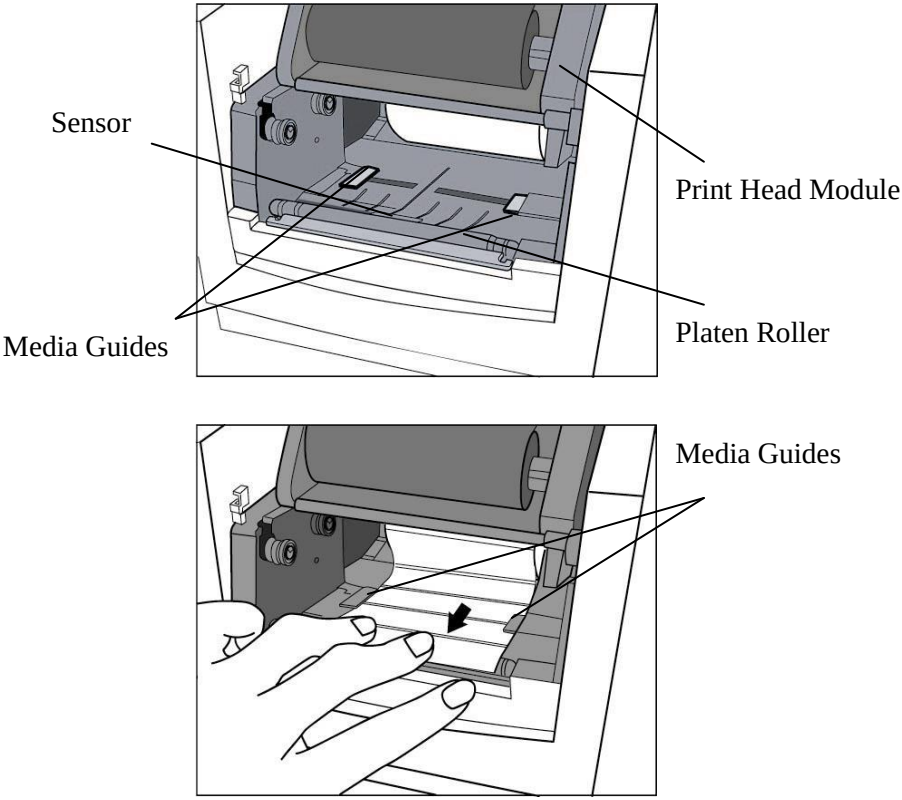


5.1.4 Unlatch the print head module.

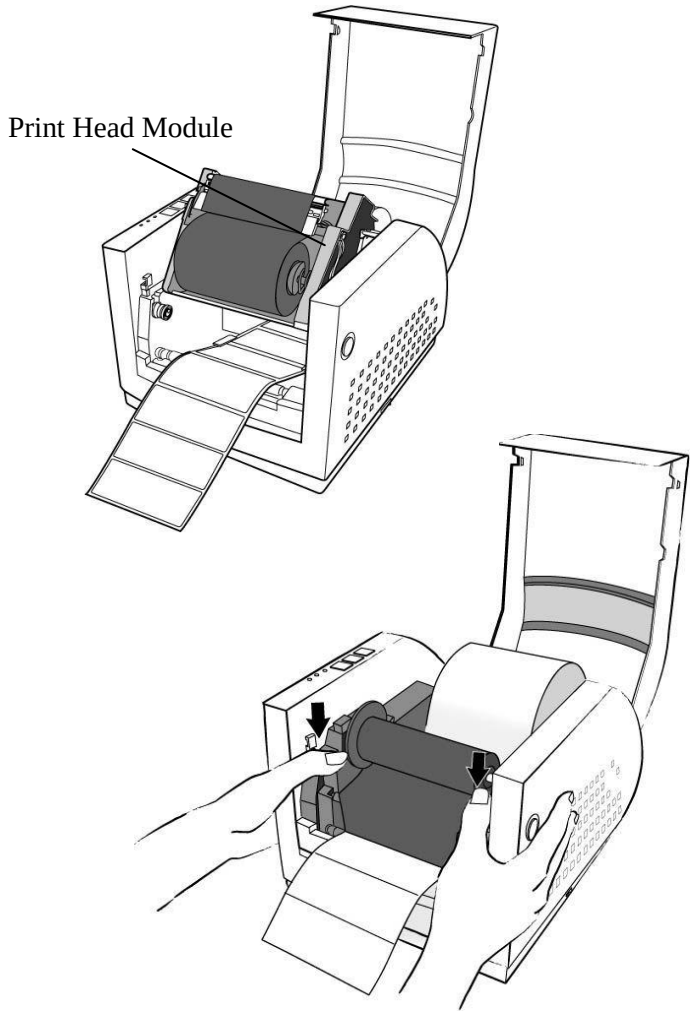
5.1.5 Hold the print head module upright with one hand to allow the media pass under it. Lead the media through the media guides with the other hand. The media guides can be adjusted centrality to well fit with different label width.

5.1.6 Route the media through the media sensor for media detection.

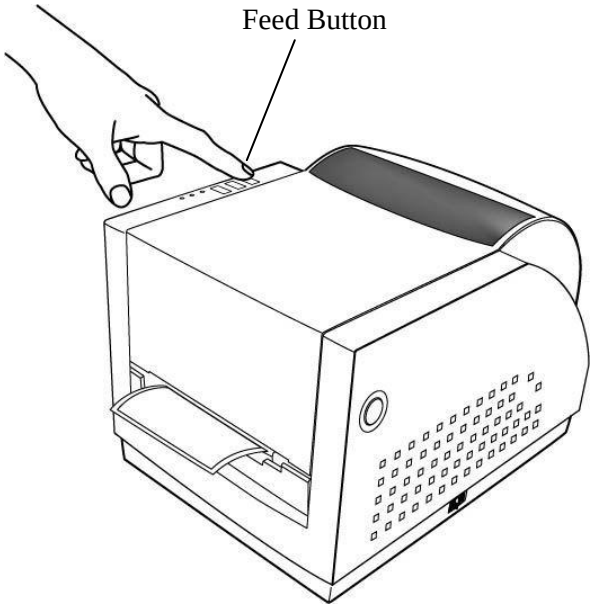
5.1.7 Lead the media over the platen roller.



5.1.8 Turn back the print head module and then press it down firmly on both sides till you hear a snap.



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

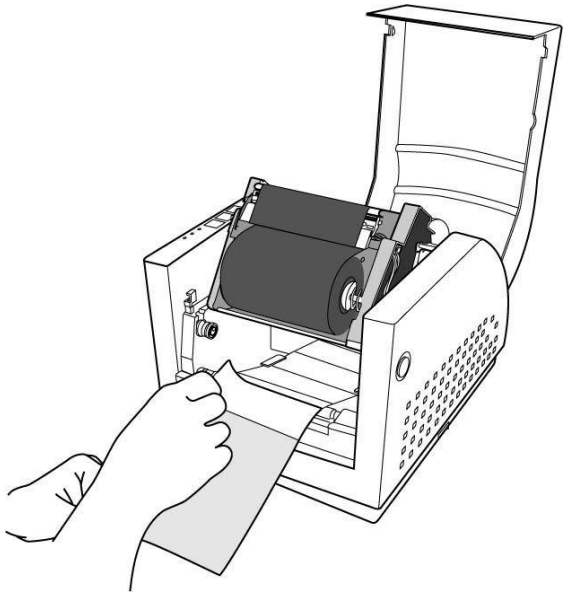


Note:
3” holder paper is available for 3” ID media roll.

5.2 Peel Off Mode

(Installing the dispenser kit, please refer to the Appendix C.)
Follow the common procedure of "Loading the Media "of Standard Mode from step 5.1.1 to step 5.1.9.

5.2.1 Remove approximate 6" long labels from the backing paper.

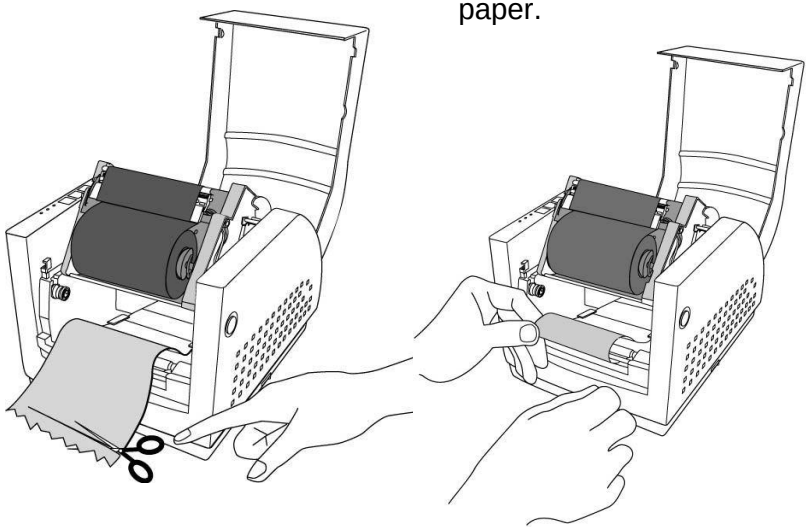


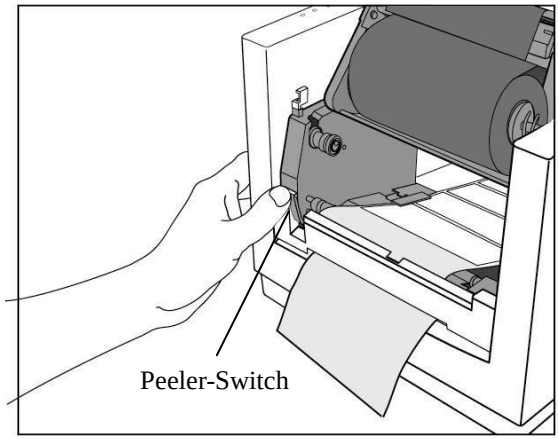
5.2.2 Trim the edge of label backing paper with scissors or knife.

5.2.3 Push down peeler-switch to ease the access packing paper.

5.2.4 Lead the backing paper over the plate, then thread it back into the slot, ensuring that it is inserted between white plastic roller and plate.

5.2.5 Pull back the peeler-switch to secure backing paper.



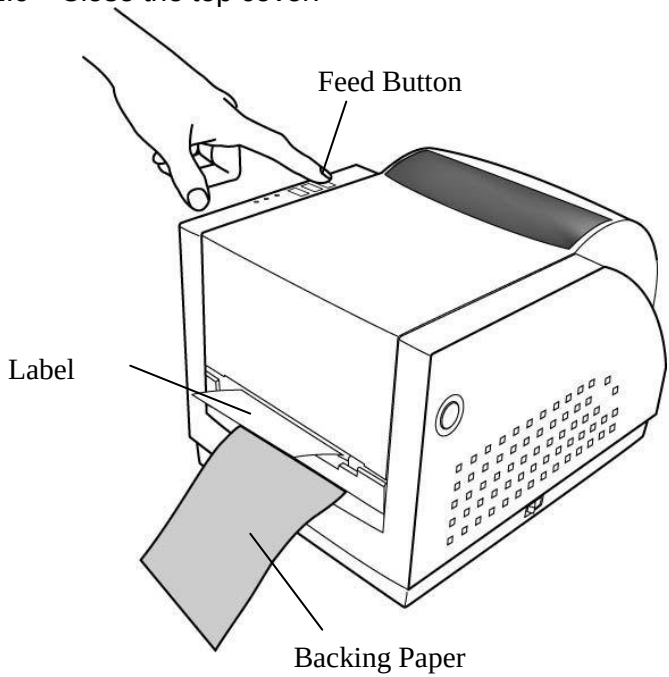


5.2.6 Latch print head module.

5.2.7 Turn on the printer and press feed button.

5.2.8 Labels will be separated from backing paper and fed out on H cover, while backing paper will come out from the slot under the H cover, and label will be fed out.

5.2.9 Close the top cover.



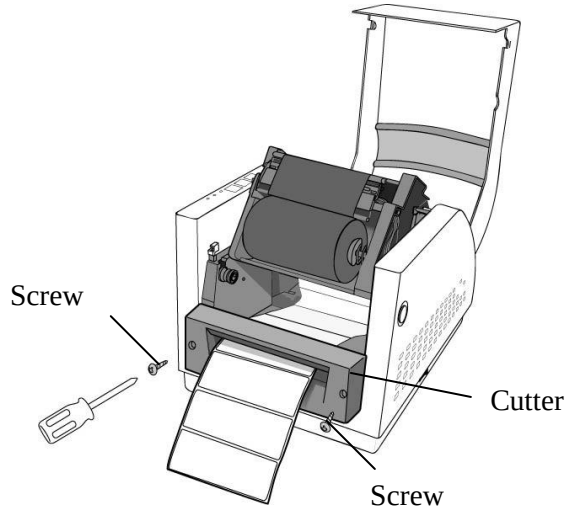
Note:
The "FEED" button will not drive the printer to peel. The peeling work can be executed only when the software setting is ready.

5.3 Cutter Mode

(Installing the cutter, please refer to Appendix D)
Follow the same procedure as "Loading the Media" from step 5.1.1 to step 5.1.9.

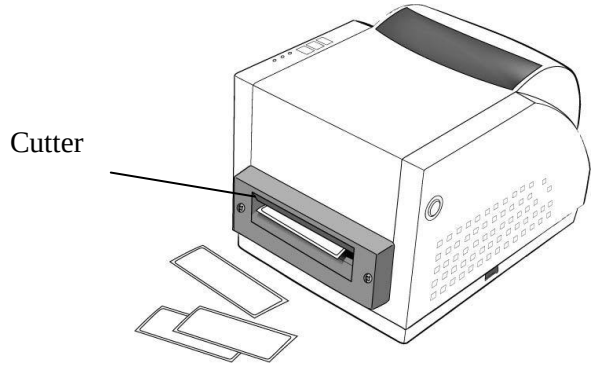
5.3.1 Mount cutter on print head module by fastening with two screws.

5.3.2 Thread the media over the platen roller, and then route the media through the slot of the cutter module.



Note:
Cutter baby board must be installed prior to cutter installation.

5.3.3 Press down the print head module firmly.



Note:
The "Feed" button will not drive the printer to cut.
The cutting work can be executed only when the software setting is ready.

6. Operator Controls

6.1 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

6.2 Buttons

There are three buttons, each has two basic functions.

BUTTON	Pressed at normal status	Pressed during power-on
FEED	Feed a label.	Perform a self-test for configuration report.
PAUSE	■ Stop the printing process. ■ Resume the printing job after press it again.	Perform the media calibration.
CANCEL	■ Interrupt and delete the printing job. ■ Force the printer to continue working after an error had been recovered.	Reset the settings at E^2PROM.

6.3 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. - Receiving data from host. - A fault condition.
MEDIA	The MEDIA indicator will remain on for the normal operation of the printer. - The printer is at PAUSE state. - Blinking – Media run out. (READY will be also blinking.)
RIBBON	ON – under thermal transfer mode with ribbon installed. OFF – under direct thermal mode. (No ribbon installed.) Set by Windows driver or command. Blinking – Ribbon run out. (READY will be also blinking.)

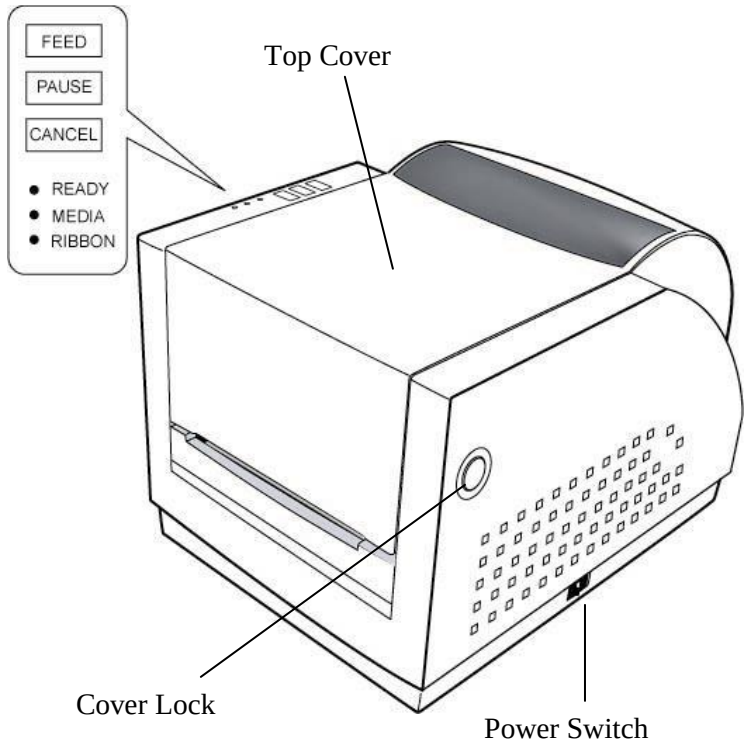
Notes:

1. **We suggest you perform “ media calibration “.**
   - for the first time media installation
   - after change different type or size of media

2. **After calibration, the printer will save the related parameters (reflection characteristics, label length, etc.) to E^2PROM. Without calibration, the incorrect media/Gap detection may occur, especially for small-size labels (less than 20mm in**

height).

3. **Before calibration, the media and ribbon must be loaded properly and move the label sensor to correct position.**
4. **After self-test, the printer is at dump mode, If you need normal operation, you must press CANCEL to restart the printer.**



7. Performing Calibration

After the media loaded, it is necessary to do the calibration for the label size detection.

7.1 Press and hold the pause button.
7.2 Turn on the power.
7.3 Media indicators will blink, at this point release PAUSE button.
7.4 The printer will feed the labels for 6 inches.
7.5 Media indicators stop blinking and remain illuminated.

Note:
This procedure is very important and must always be carried out after installation and every time the media type is changed. Failure to do so will result in the gap and label-empty detection being incorrect.

8. Printing Configuration Report

8.1 Performing the Self Test

8.1.1 Turn off the printer. Press and hold the feed button.

8.1.2 Turn on the power.

8.1.3 Ready indicator blinks, release feed button.

8.1.4 The printer will print out a configuration report.

8.1.5 Ready indicator stops blinking and lights up.

8.1.6 The following information will be printed on this report.

Note:
1. After self-test the printer will enter character dump mode. For normal operation press the cancel button to exit from dump mode.

2. On the report:
PPLA – Present emulation type
R2A0-1.00 – Firmware version
052302 – Date code
Please provide the above information to Argox support team in case your printer has a printing problem.

9. Resetting the Printer 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:

9.1 Turn off the printer. Press and hold the CANCEL button.
9.2 Turn on the power.
9.3 Ribbon indicator blinks, release the button.
9.4 Ribbon indicator stops blinking and lights up.
9.5 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 E^2PROM cannot be destroyed even by turning the printer off.
2. It is necessary to perform label sensitivity calibration after resetting.
3. The printed label count can not be reset**.**

10. Hooking up the Printer & Computer

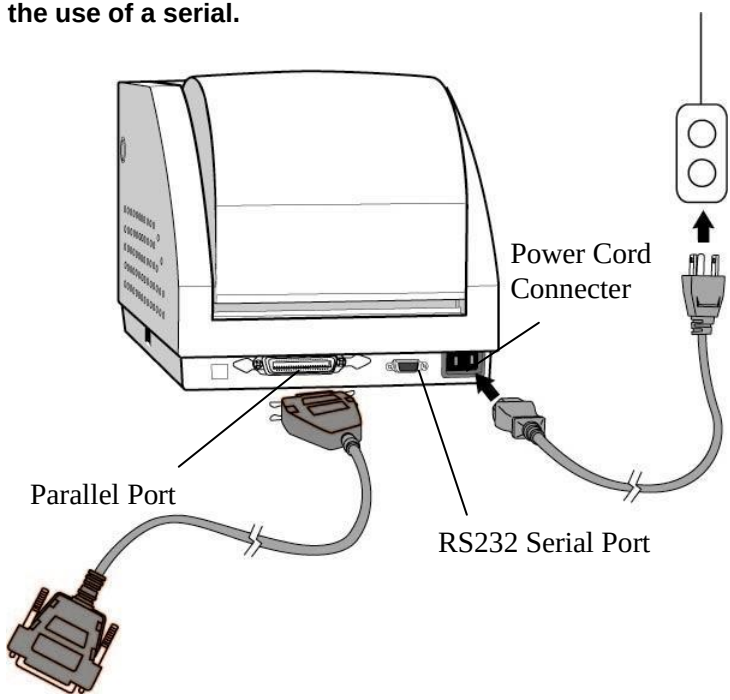
10.1 Connecting the Printer to Your Host

10.1 You can connect the printer with any standard Centronics cable to the parallel port of the host computer.

10.2 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.



11. Communicate with the Printer

The bundled printer driver can be applied to all applications under Windows XP/ Vista/ Windows 7, supporting 32-bit/ 64-bit operation systems. With this driver you can operate any popular Windows software applications including Argox Bartender UL label editing software or MS Word, etc., to print to this printer.

11.1 Before installation

The following installation steps are based on **R-400plus** as an example. The screens included for these steps are taken from Windows XP; steps in other versions of operation systems are similar. Drivers can be installed via the CD-Rom included in printer package; or it can be downloaded from Argox website >> Technical Support >> Download Center >> select product model to access: http://www.argox.com/content.php?sno=0000033

11.2 Installing a Plug and Play printer driver (for USB only)

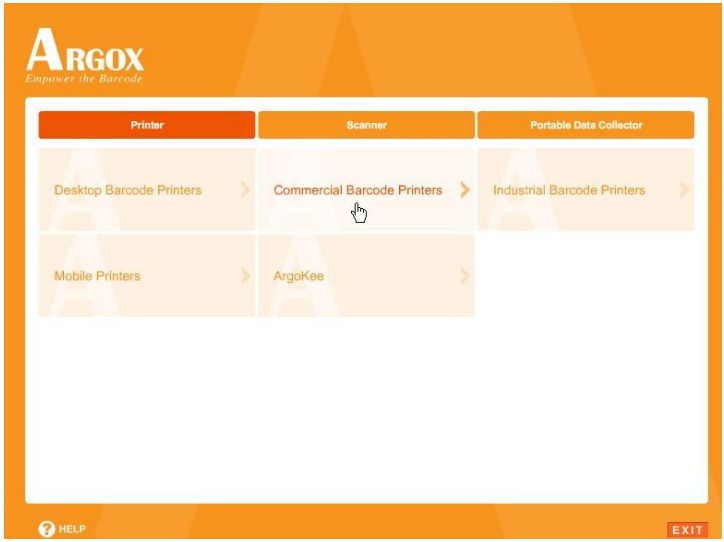
Note:
We strongly recommend that you use the Seagull Driver Wizard instead of the Microsoft Windows Add Printer Wizard when installing and updating your Drivers by Seagull.
(Even though the "Add Printer Wizard" is from Microsoft, it too easily performs a number of tasks incorrectly when updating existing drivers. It also badly handles the situation where a printer driver is already in use by a Windows application.)

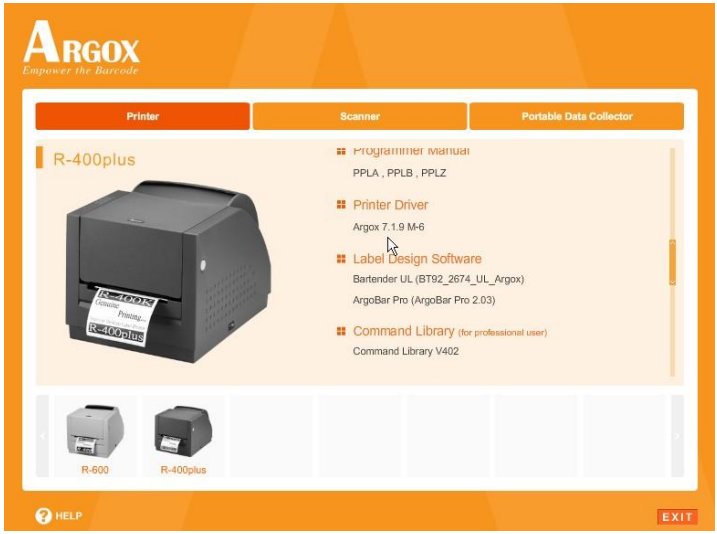
1. Turn off the printer. Plug the power cable into the power socket on the wall, and then connect the other end of the cable to printer's power socket. Connect the USB cable to the USB port on the printer and on the PC.

2. Turn on the printer. If the printer supports Plug-and-Play, and you have successfully connected it using a USB cable, then the Windows Add Hardware Wizard will automatically detect the printer and display a dialog that allows you to install a driver. Click Cancel and do not install the driver using this wizard.

3. Prepare the documentation and software CD-Rom from printer package and then install to CD-Rom drive of your computer. The CD-Rom will bring out the following prompt. Click “Go”:

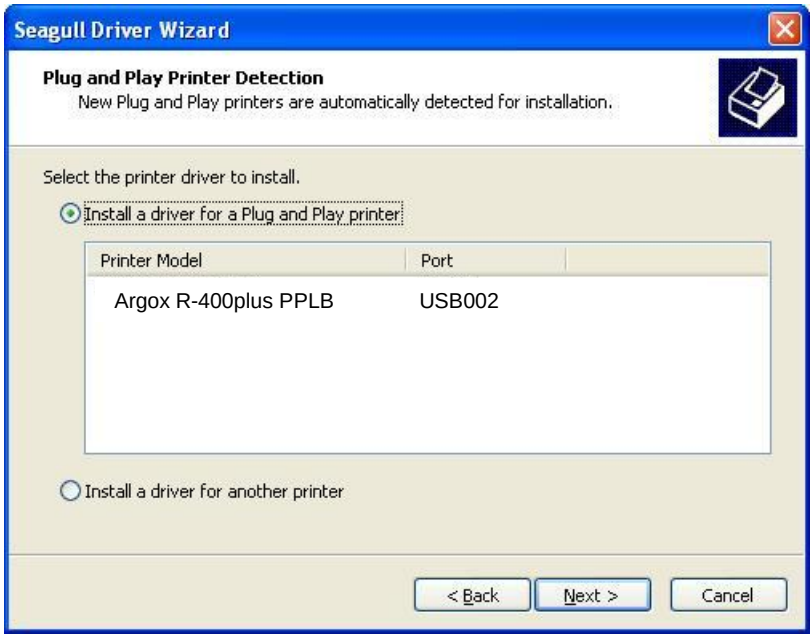
4. Choose Commercial Barcode Printers on the screen, go to R-400plus product page, click on version of Seagull driver and then start installation:





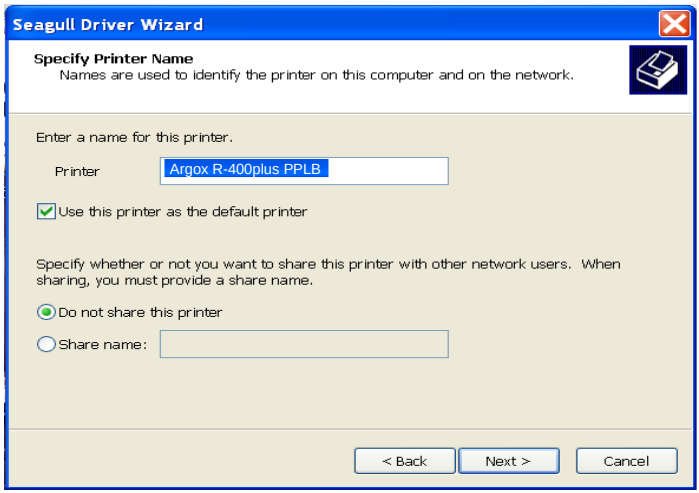
Instead of the flash prompt above, another way to install Seagull driver is to run the DriverWizard utility from the Installation Directory where the Seagull driver files locates.

5. On the Seagull Driver Wizard prompt, select the first radio button to “Install a driver for a Plug and Play printer”:



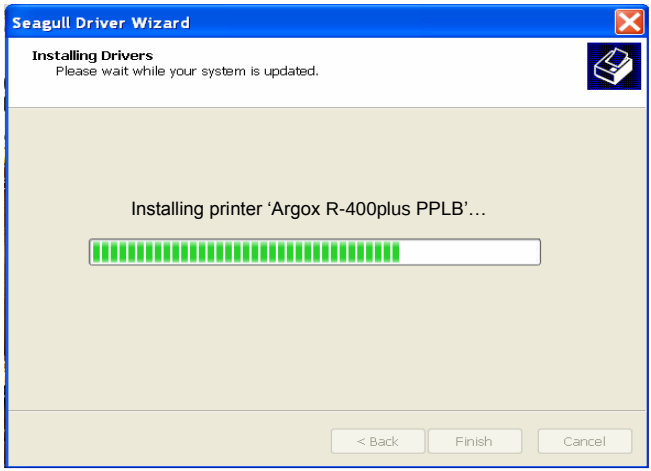
Then click “Next.”

6. Enter Printer name (i.e. Argox R-400plus PPLB) and select "do not share this printer", and click "Next"

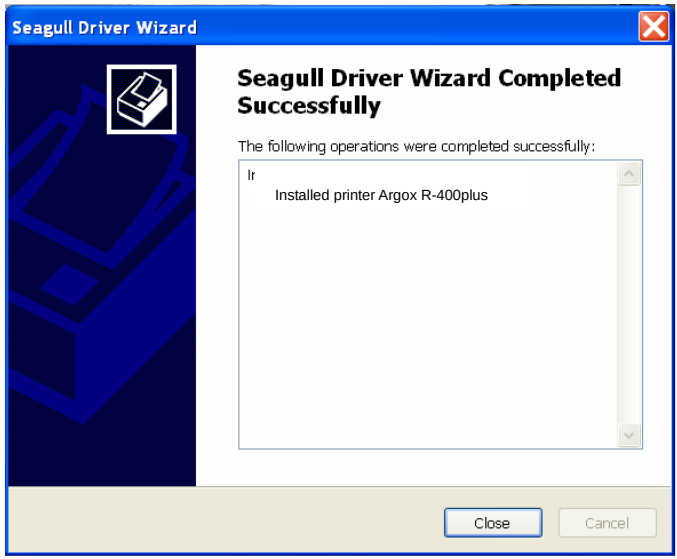


7. Check all the data on the showing screen, if it is correct, click "Finish".

8. After the related files have been copied to your system, click "Finish".



9. After driver installation is complete, click "Close". The driver should now be installed.

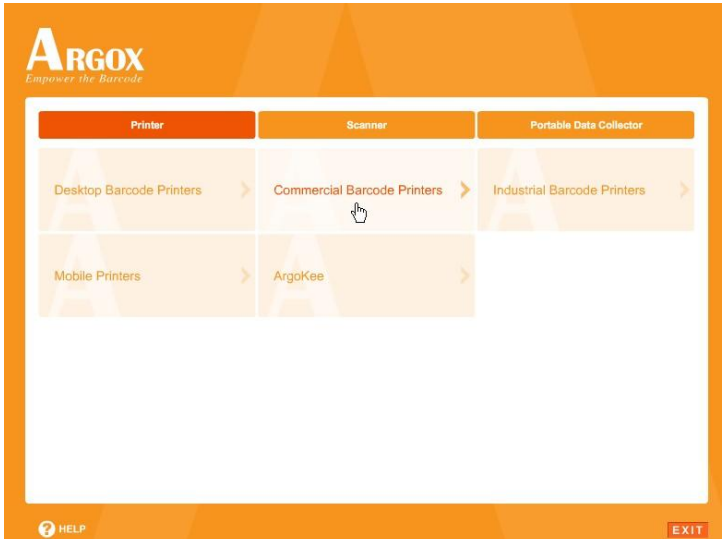


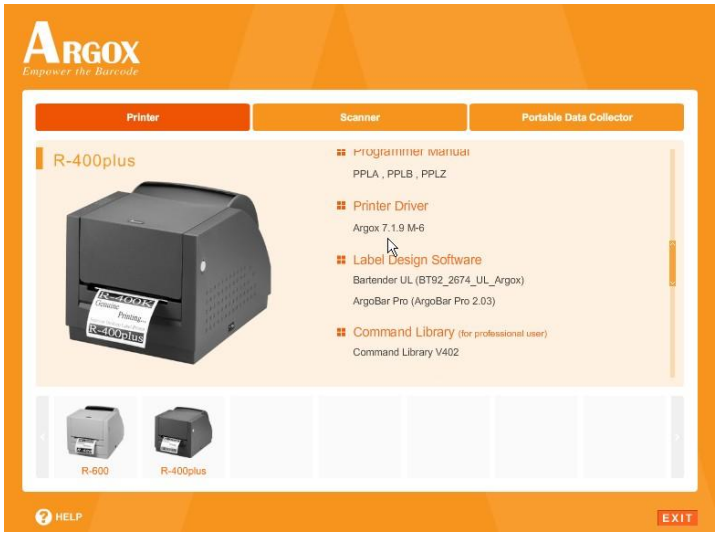
11.3 Installing a Printer Driver (for other interfaces except USB)

1. Turn off the printer. Plug the power cable into the power socket on the wall, and then connect the other end of the cable to printer's power socket. Connect the Parallel cable, Serial cable, or Ethernet cable to the proper port on the printer and on your computer.

2. Prepare the documentation and software CD-Rom from printer package and then install to CD-Rom drive of your computer. The CD-Rom will bring out the following prompt. Click “Go”:

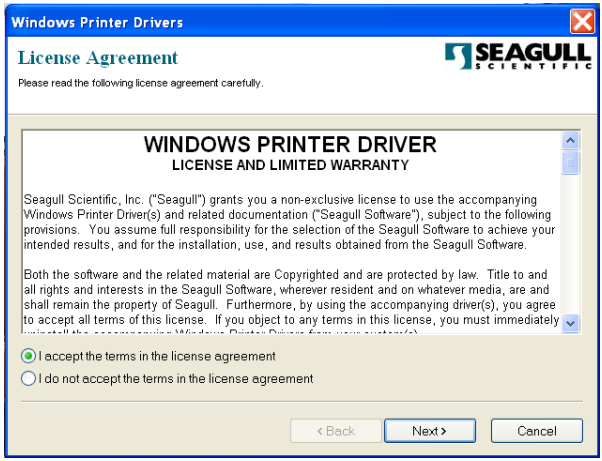
3. Choose Commercial Barcode Printers on the screen, go to R-400plus product page, click on version of Seagull driver and then start installation:



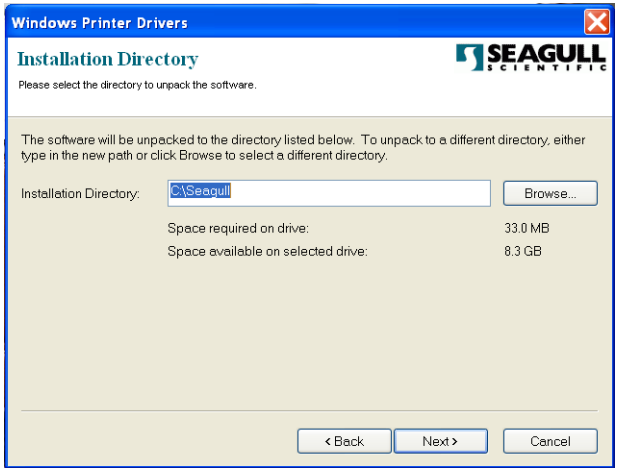


Instead of the flash prompt above, another way to install Seagull driver is to run the DriverWizard utility from the Installation Directory where the Seagull driver files locates.

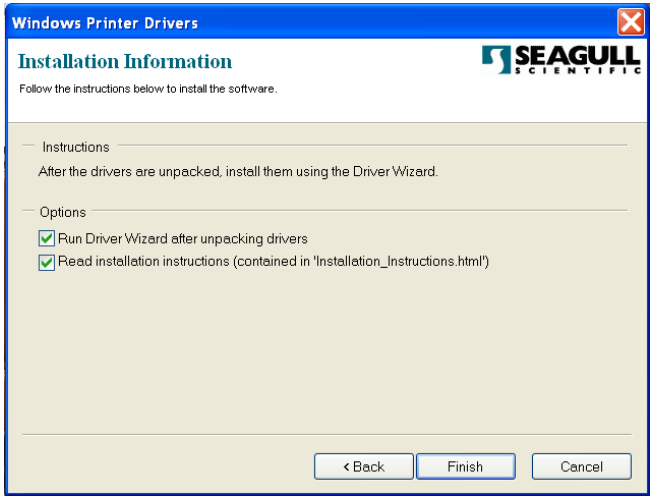
4. On the prompt, Windows Printer Driver, select “I accept…” and click "Next".



5. Assign the directory to keep Seagull driver, (for example: C:\Seagull) and click "Next".

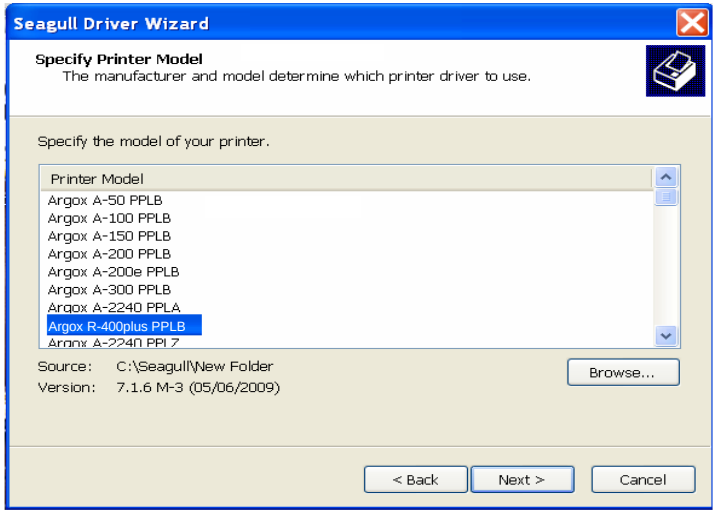


6. Click "Finish".

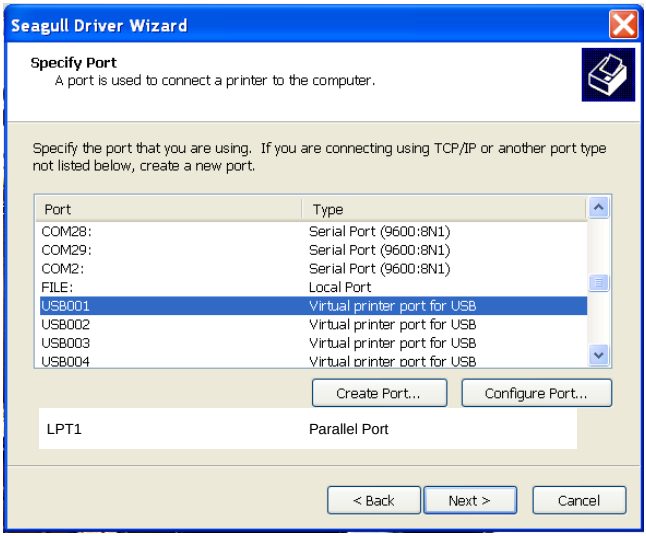


7. Select Install printer drivers and Click "Next"

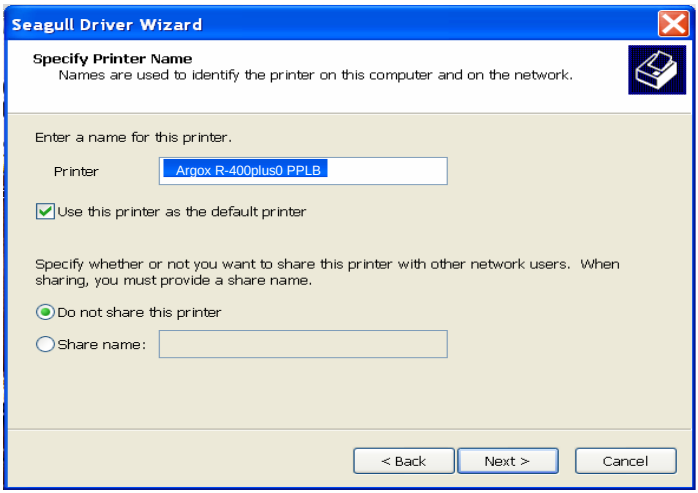
8. Sele
bas



9. Select the port of the printer and click "Next".



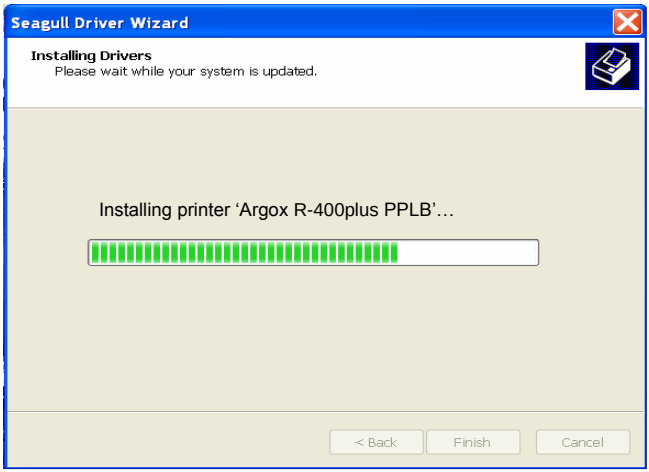
10. Enter Printer name (i.e. Argox R-400plus PPLB) and select "do not share this printer", and click "Next".



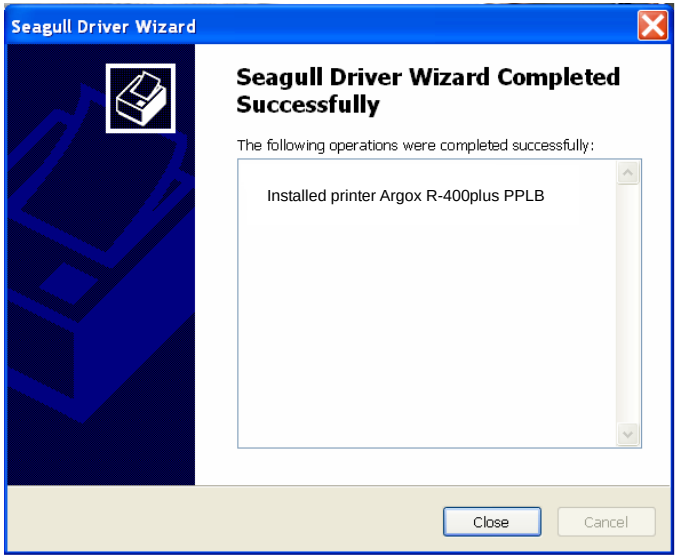
11. Check all the data on the showing screen, if it is correct, click "Finish".

12. After the related files have been copied to your system, click

"Finish".



13. After driver installation is complete, click "Close".
The driver should now be installed.



12. 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.

12.1 Problems on media

Possible Problems	Solutions	Remarks
Missing gap	. Check the media path. . Check the position of label sensor.	If you use continuous media, check your application software 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 Okay try to mark the label sensor calibration (please see page 25)

12.2 Problems on ribbon

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.

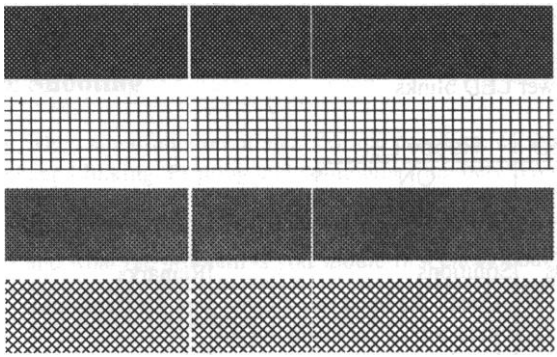
12.3 Miscellaneous

12.3.1 The host shows “Printer Time out”.

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 ‘I’ and the power LED is still not illuminated, call for service.

12.3.2 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.

12.3.3 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.



12.3.4 Unstable ribbon roll rotation.
Check the label path and make sure the head latch is securely closed.

12.3.5 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.

12.4 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.

13. Caring for your Printer

Before maintenance be sure to turn off the printer power.

13.1 Cleaning the print head (TPH)

To keep the Print Head remain in the best conditions and efficiency and to extend duration for use, regular cleaning action is needed.

Clean the print head as follows:

1. Turn off the printer.
2. Open the top cover to access the print head module
3. Remove the ribbon.
4. Rub the print head with a cotton bud moistened with "Ethanol" or "IPA".
5. Check for any traces of black coloring or adhesive on the cotton after cleaning.
6. Repeat if necessary until the cotton is clean after it is passed over the head.

Cleaning Interval

It's strongly recommended to regularly clean print heads at least when changing every one label roll (in direct thermal printing mode) or every one ribbon roll (in thermal transfer printing mode). In addition, if printers are operated under critical applications and environments, or if it's found that print quality is degraded, please clean print heads more frequently.

Cleaning Material

Surface of print head's heating element is very fragile. To prevent from any possible damage, please use soft cloth/ cotton buds with "Ethanol" or "IPA" to clean print head surface.

It's strongly recommended to wear hand gloves during cleaning progress.

Do not touch print head surface by bare hands or with any hard equipment.

Water or spit should be kept away in case of corrosion on heating elements.

Cleaning Direction

When cleaning the print head, always wipe in One-Way Direction - from Left to Right only, or, from Right to Left only, to clean "Heating Line" of print head gently without excessive stress.

Do not wipe back and forth, to avoid dust or dirt on cleaning cotton would be attached onto print head again.

Special Caution:

Warranty of print heads will be void if print head serial number is removed, altered, defected, or made illegible, under every circumstance.

13.2 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.

13.3 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.

14. Reference Technical Information

14.1 General Specifications

Specifications	R-400plus	R-600
Printing method	Direct thermal & Thermal Transfer	
Printing resolution	203 dpi	300 dpi
Printing speed (ips)	2 ~ 6	2 ~ 4
Printing length (in.)	0.4 ~ 43	0.4 ~ 30
Printing width (inch)	Max 4.25	Max 4.16
Memory (DRAM/FROM)	2MB/ 2MB	2MB/ 1MB
CPU type	32 bit RISC microprocessor	
Media sensor	Reflective (Movable)	
Display	LED indicators x 3	
Operation interface	Button x 3	
Communication interface	Parallel, RS-232, USB	Parallel, RS-232
Software	PPLA/B/Z	PPLA/B
	Windows Driver Label editing software – ArgoBar, Printer Utility	
Media	Roll-feed, die-cut, continuous, fan-fold, tags, ticket in thermal paper or plain paper and fabric label Max width 4.6” (118 mm) Min width 1” (25.4 mm) Thickness .0025”~. 01” (0.0635mm ~0.254mm) Max roll capacity 6” (OD 152 mm) Core size 1”~1.5” (25mm ~ 37mm) (Core sized 3” ID can by applied by installing with extra media core adapter)	

Ribbon	Wax, Wax/Resin, Resin Ribbon width – 1”~4” Ribbon roll – max 2.67” (OD 68 mm) Ribbon length – max 360m wax, 300m resin Core size - ID 1” core (25.4 mm) Ribbon wound ink-side in: R-400plus/ R-600; Ribbon wound ink-side out: R-400K plus
Mechanism request	Built-in Tear off bar, front-open cover, clear window, fan fold paper back cover, face-in ribbon run way, un-adjustable TPH carrier.
Dimension	W 314 x H 231 x L 218 mm
Weight	9.3 lbs/ 4.2 kgs
Power source	Internal Universal Power Supply 100~240VAC, 50/60Hz
Operation environment	40ºF ~ 100ºF (4ºC~38ºC) 10~90% non condensing Storage Temperature: -4ºF ~ 122ºF (-20ºC~50ºC)
Optional items	Cutter, Dispenser Kit, Stacker, RTC Card, 2MB Asian Font Card (Traditional Chinese, Simplified Chinese Korean and Japanese), Argokee
Agency listing	CE, UL, CUL, FCC class A, CCC

14.2 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. There are printer PPLA / PPLB programming languages for R-series.

14.2.1 Printer Programming Language A, PPLA

Specification	R-400plus	R-600
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 (ECC-200 only).	
Graphics	PCX, BMP, IMG and HEX formats	

Stand-alone operation	ArgoKee

14.2.2 Printer Programming Language B, PPLB

Specification	R-400plus / R-600
General fonts	5 fonts with different point sizes
Symbol sets (Code pages)	8 bits: code page 437, 850, 852, 860, 863 and 865. 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
Stand-alone operation	ArgoKee or Argox scanners

14.2.3 Printer Programming Language Z, PPLZ

Specification	R-400plus
General fonts	9 alpha-numeric bitmapped fonts and 1 scaleable font (CG Triumvirate Bold Condensed)
Symbol sets	Scaleable font: PC 850 Bitmapped font: USA, UK, Holland, Germany, France, Denmark/Norway, Italy, Span, Sweden/Finland, Japan and miscellaneous
Soft fonts	Downloadable soft fonts
Font expandability	2 to 10 times
Bar code types	Code 39 (checksum), Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5 (checksum), Industrial 2 of 5, Standard 2 of 5, UPC A/E 2 and 5 add-on, EAN-8/13, Postnet, Code 11, logmars, MSI code MaxiCode and PDF417, QR code (2D symbologies).
Graphics	GRF, Hex, GDI
Stand-alone operation	ArgoKee (Quick Basic mode only)

Notes:
As the font board and flash modules use the same connector, only one of them can be installed onto printers each time.

14.3 Interface Specifications

14.3.1 Introduction

This appendix presents the interface specifications of I/O 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.

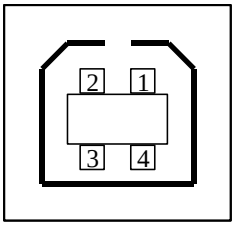
14.3.2 Serial

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

Pin	Signal	Description
1	No function	Shorted to Pin - 6
2	Received Data, RxD	Input. Serial “Received Data”
3	Transmitted Data, TxD	Output. Serial “Transmitted Data”.
4	No function	No connection
5	GND	Signal Ground
6	No function	Shorted to Pin - 1
7	Request to Send, RTS	Output. Used as the control signal for “H/W Flow Control “
8	Clear to Send, CTS	Input. Used as the control signal for “H/W Flow Control”
9	+5V	Output. Pin 9 is reserved for KDU (keyboard device unit)

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.

14.3.3 USB



USB series “B” Receptacle Interface

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

Connector Terminal Pin Assignment

14.3.4 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: 600, 1200, 2400, 4800, 9600, 19200 and 38400.

Data format: always 7 or 8 data bits; 1,2 stop bit.

Parity : note, even, odd 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”.

14.3.5 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			

14.3.6 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.

14.4 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

15. Appendix

15.1 Appendix A: Printer Status

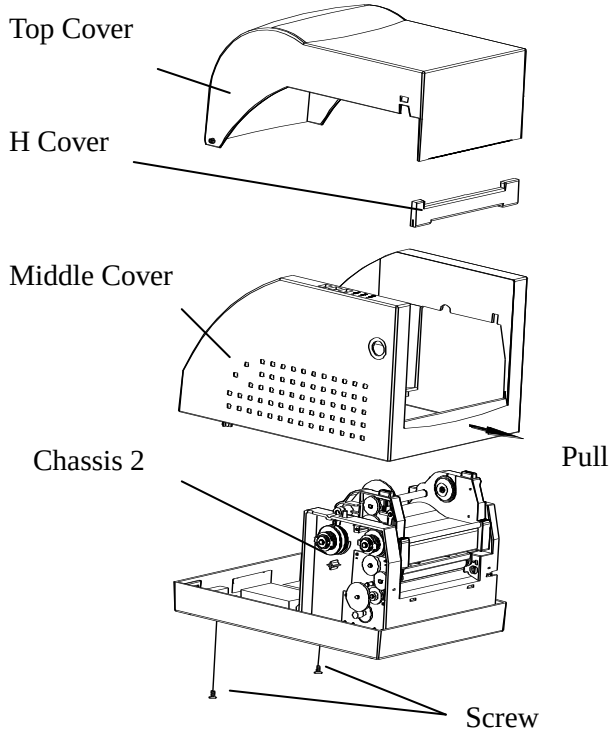
Blinking LED	Description
MEDIA	The printer is at pause state. Press PAUSE or CANCEL to return to normal state.
MEDIA READY	The media is uninstalled or used up. Load new media to the printer.
RIBBON READY	The ribbon is uninstalled or end-of-ribbon occurred. Load new ribbon to the printer. If you just use thermal media set bit 1 of DIP switch to OFF position.
READY	The format or baud rate of the RS232 communication is inconsistent between the printer and host.
	The cutter can not cut off the media, check the media and cutter.
	The printer buffer is full caused by the loaded soft fonts, graphics or forms. Check the format of these data. Call for service.

15.2 Appendix B: Stand-Alone Operation

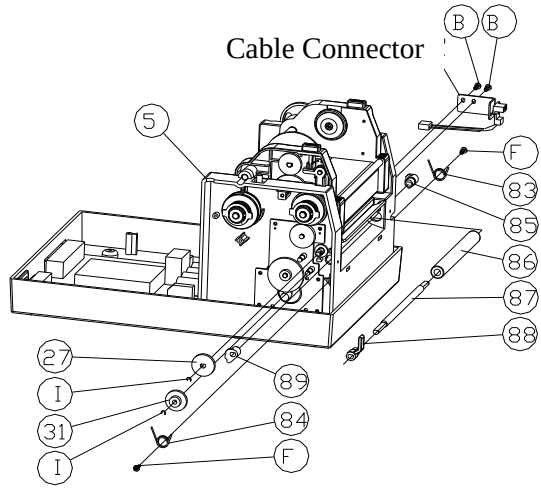
Stand-Alone operation for keyboard and barcode reader Apart from related hardware devices and PPLB emulation, in order to use keyboards and barcode readers (scanner) you should follow apply with ArgoKee.

15.3 Appendix C: Dispenser Kit installation

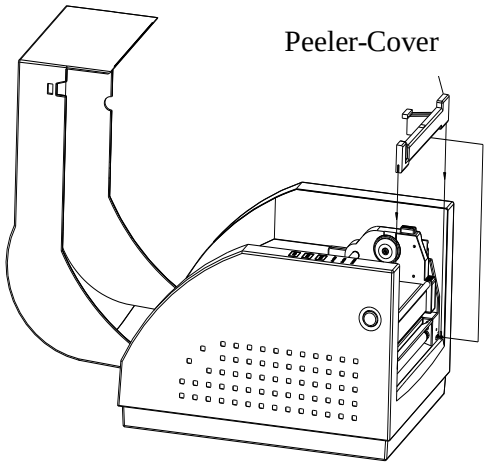
1. Turn off the power switch.
2. Remove the top cover and middle cover.



3. Remove gear (27) and (31).
4. Plug spring–peeler (83) into the right hole on chassis 2 and lock screw (F) up.
5. Put shaft-peeler (86) and peeler-switch (88) into shaft-peeler (87) and then insert it in hole on right side.
6. Guide peeler-switch (85) go through shaft-peeler (87).
7. Hook spring-peeler (83) on the circle notch of shaft-peeler (87).
8. Put spring-peeler (84) into the left hole of chassis 2 and lock screw (F) up.
9. Put peeler-switch (89) into shaft-peeler (87).
10. Hook spring-peeler (84) on the circle notch of shaft-peeler (87).

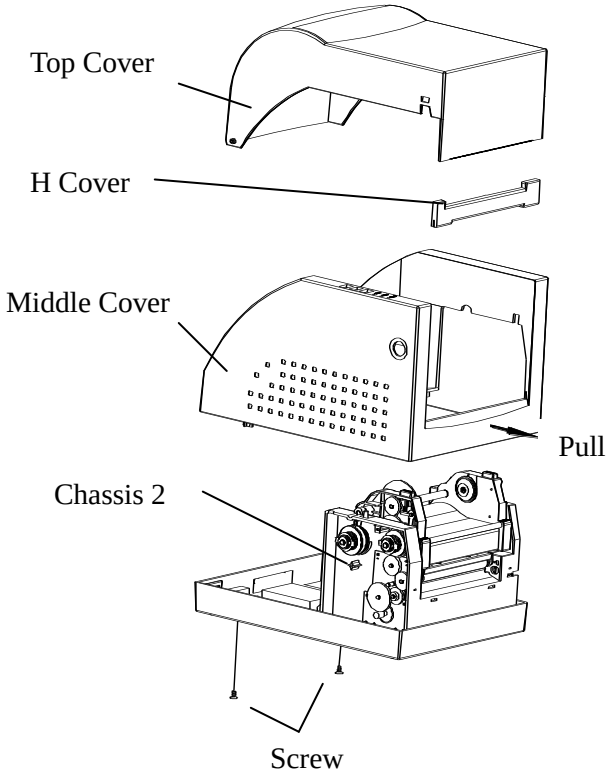


11. Put back gear (27) and gear (31).
12. Mount the cable into chassis 2 and plug the other side into the label on the main board.
13. Close the middle cover.

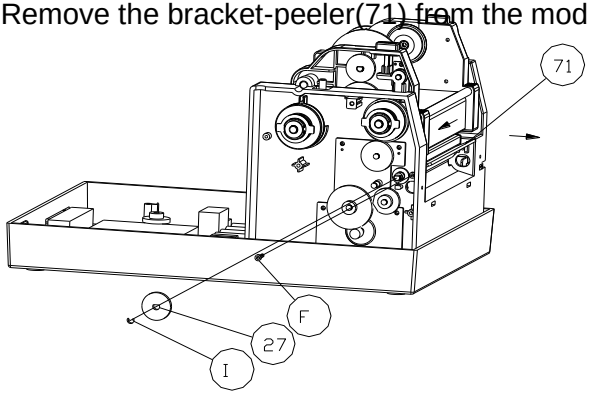


15.4 Appendix D : Cutter Installation

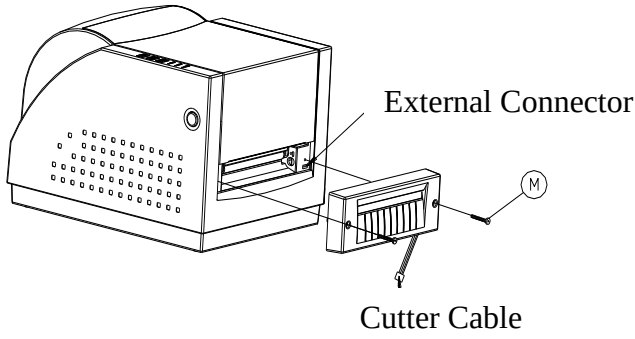
1. Turn off the power switch.
2. Remove the top cover and middle cover.

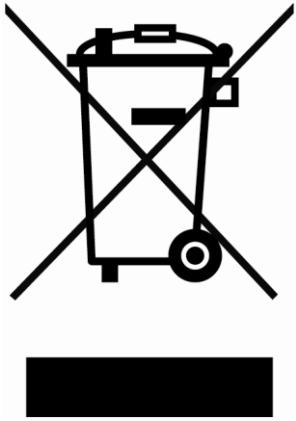


1. Remove the E- ring(I), gear(27) and release the screw(F).
2. Remove the bracket-peeler(71) from the module.



3. Secure two attached screws (B) for the cable connector.
4. Add a baby board to JP29 on the main board.
5. Plug the cable connector into JP13, and make sure Jumper (J1) position is “2-3”
6. Click back the middle cover.
7. Click back the top cover.
8. Secure two attached screws (M) for the cutter.
9. Plug cutter cable into “ External Connector”.





Environmentally sensible disposal of electrical and electronic equipment

Electrical and electronic equipment contains valuable materials that should be supplied to recycling or recovery. Please dispose of electrical and electronic equipment at qualified collecting points separate from municipal waste.