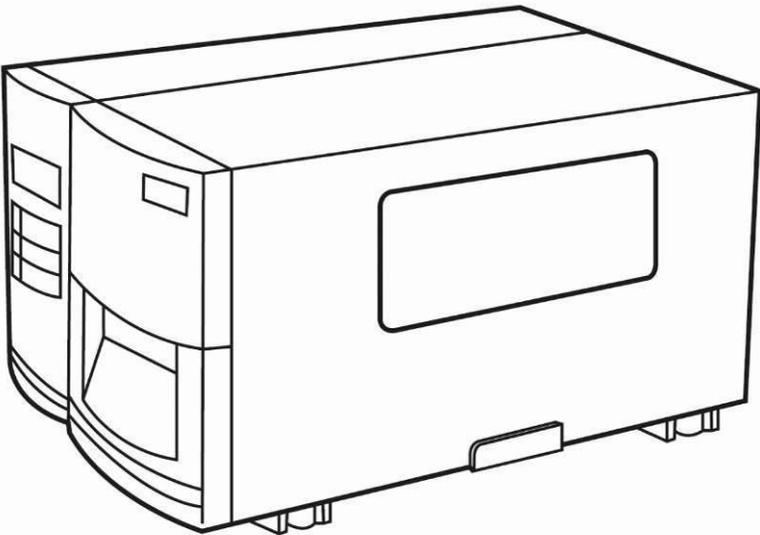


ARGOX

Empower the Barcode



G Series Industrial Barcode Printer User's Manual



V1.0-11-12-2017

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Proprietary Statement

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CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1. Checking Your Box

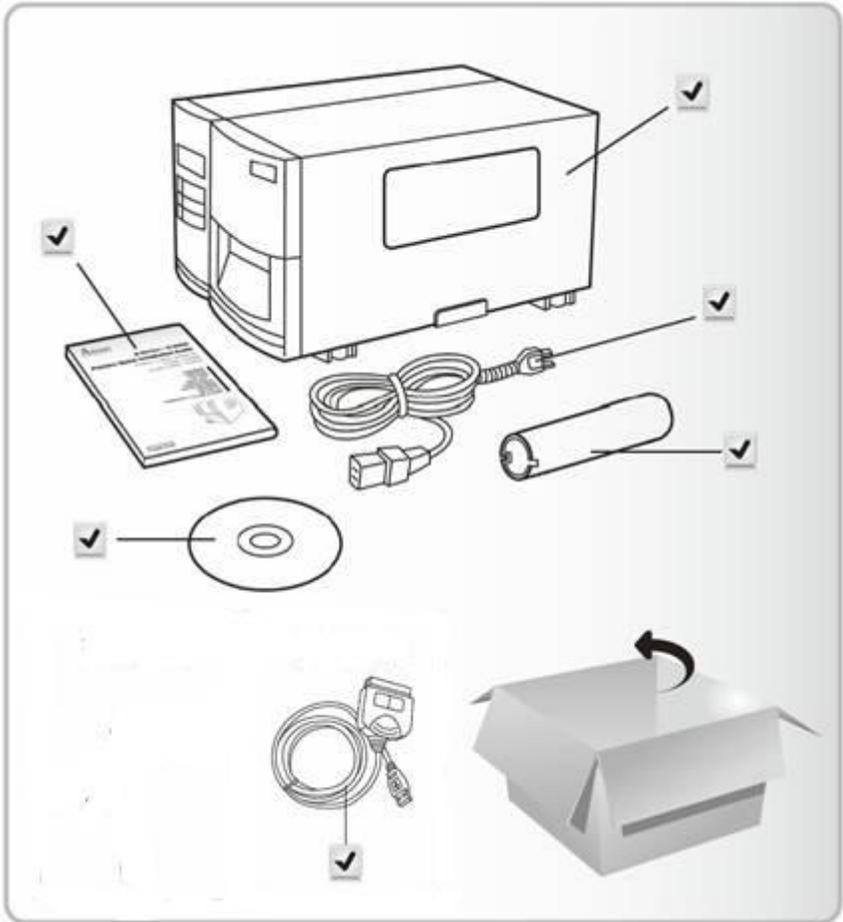
Unpacking

After receiving your printer, please check for possible shipping damage:

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

Note: If damage has occurred, contact your shipping company immediately to file a claim.

3. Check whether you have received the following accessories together with the printer. If there are any items missing, please contact your local dealer.



Package Contents

- Printer
- Quick Guide
- CD Rom (including software and user's manuals)
- Power Cord
- Core for Ribbon
- USB to Centronics Cable

Connecting the Power Cord

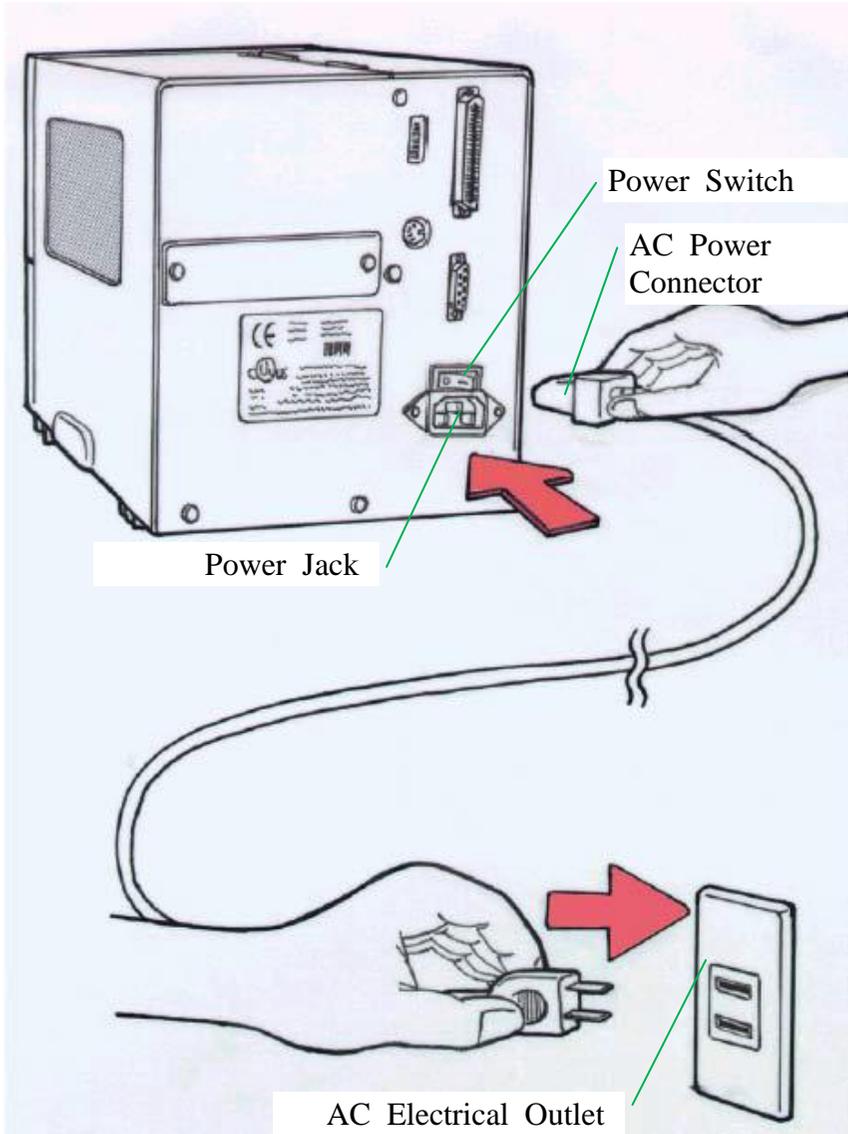
Before setting up and connecting the printer you should consider the following.

WARNING! Do not operate the printer in an area where it might get wet.

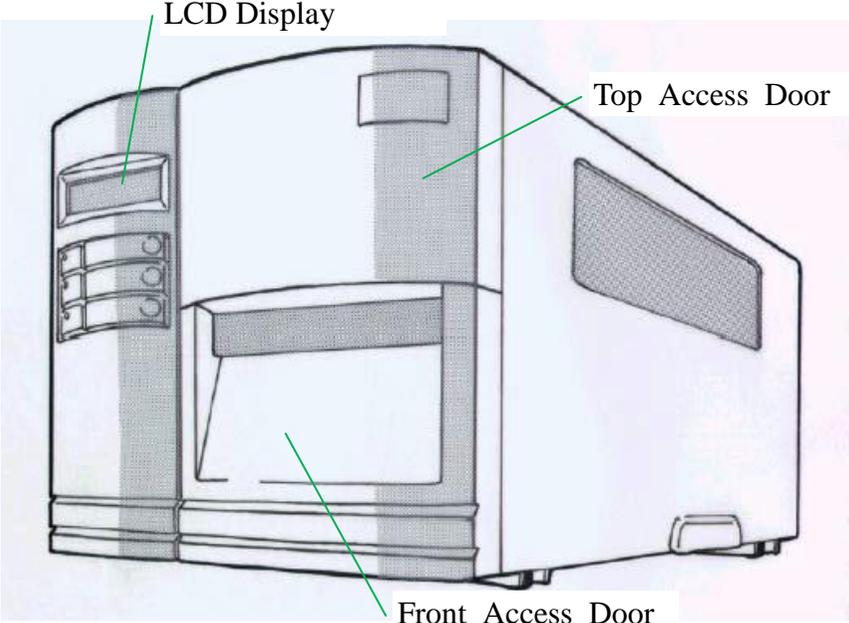
- Find a solid flat surface with adequate room for the printer and enough space above for media and ribbon access.
- Place the printer within cable distance of the host and printer (serial or parallel cable.)
- Isolate the power cord from other electrical cables.

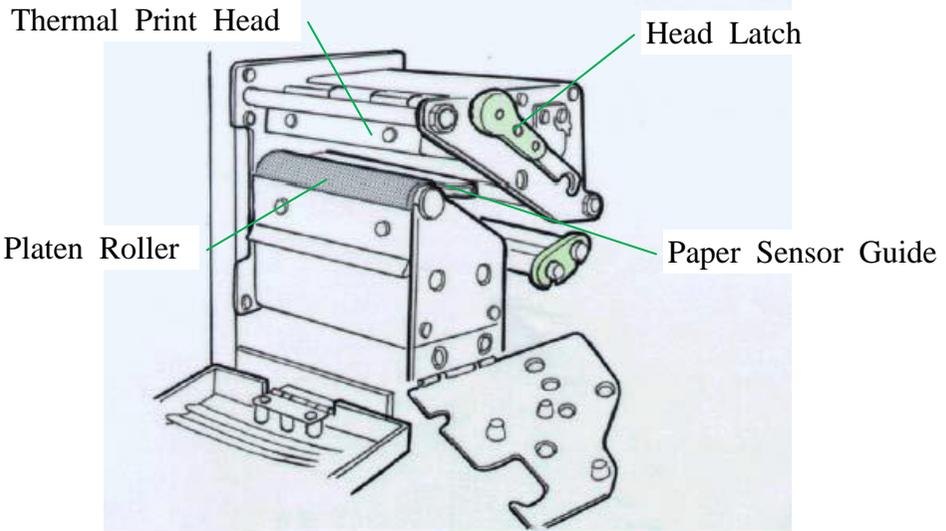
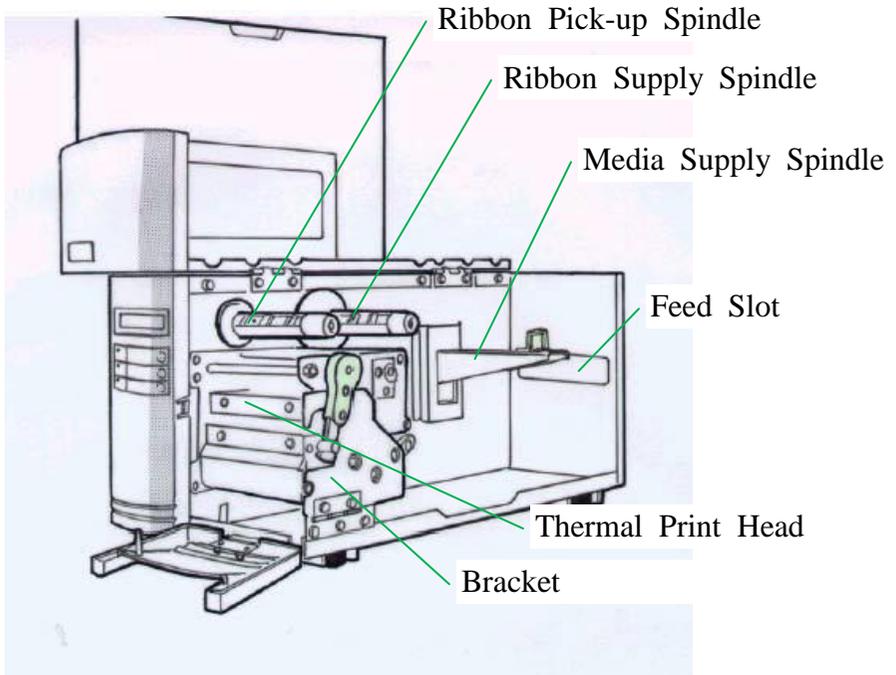
Connect the power cord as below.

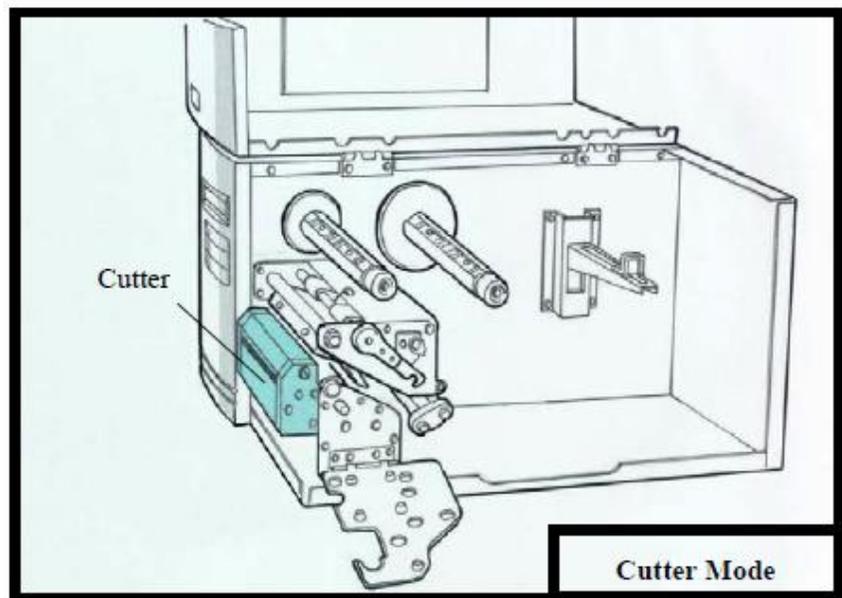
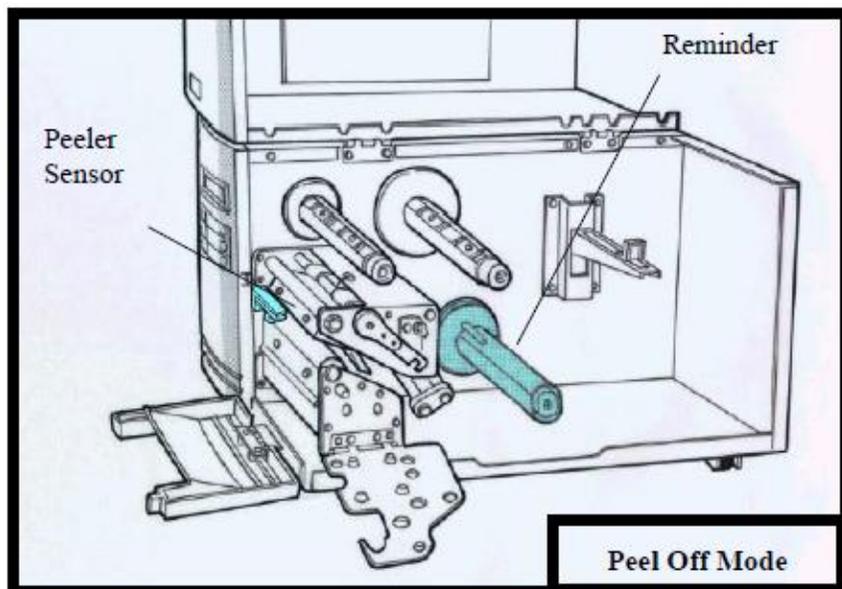
1. Leave the power switch at the "O" position.
2. Connect AC Power Connector to printer's power jack and the other end to AC Electrical Outlet.



Parts and Features







Loading Ribbon

Notes:

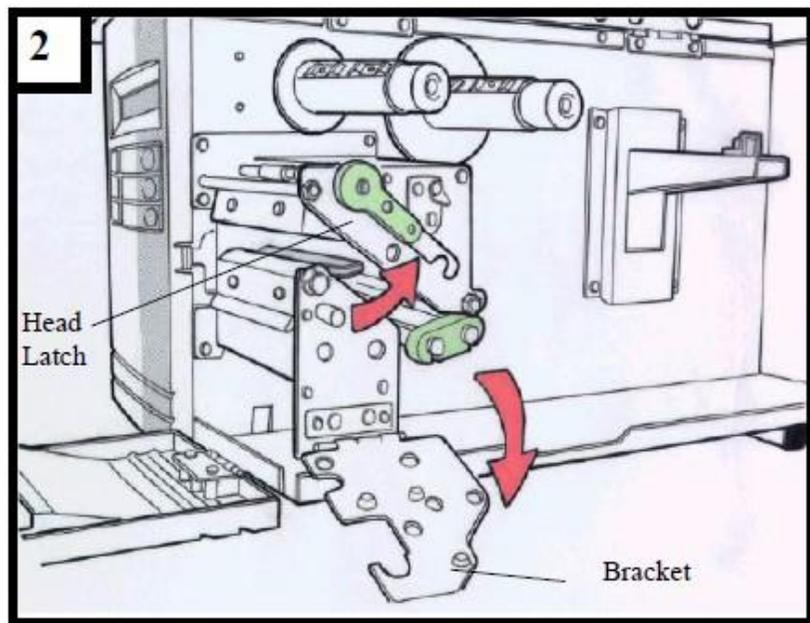
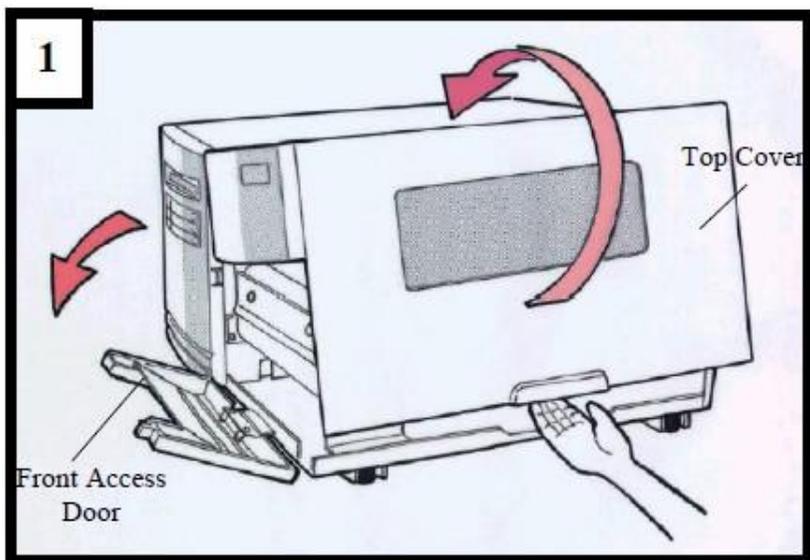
1. *This section is applicable to transfer thermal printing.*
2. *Attached ribbon is with coated side in.*

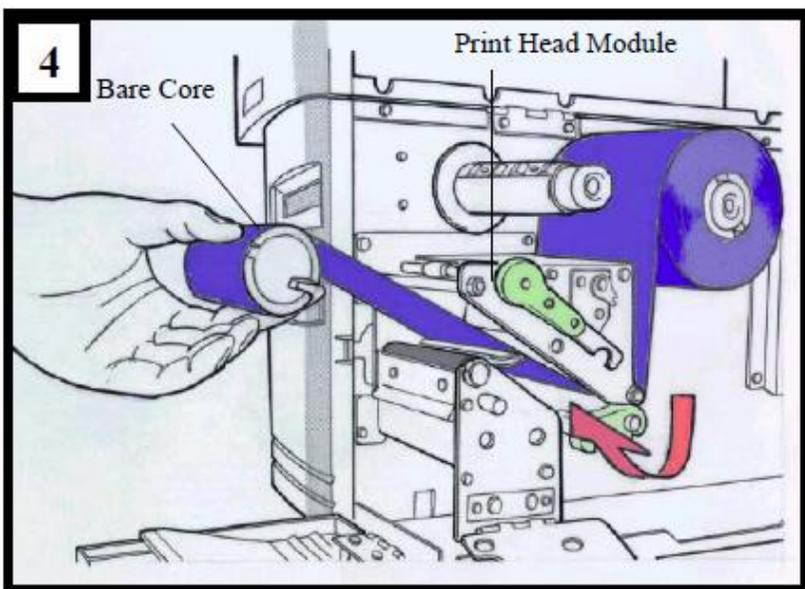
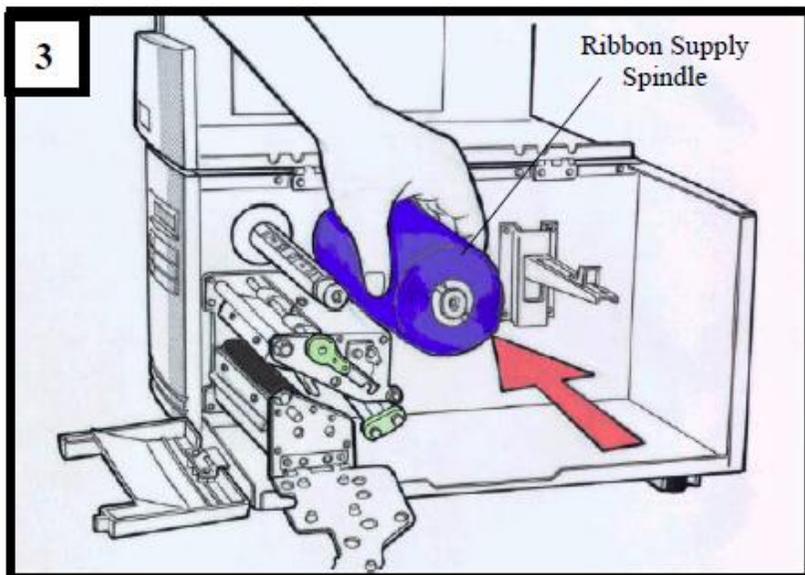
1. Lift the top access door and the front access door to expose the compartment. (Figure 1)
2. Push the head latch by anti-clockwise, and then fold the bracket. (Figure 2)
3. Unwrap the ribbon roll pack and separate the ribbon roll and the bare core.
4. Insert the ribbon roll into the ribbon supply spindle. (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 coated side of the ribbon should be faced down.

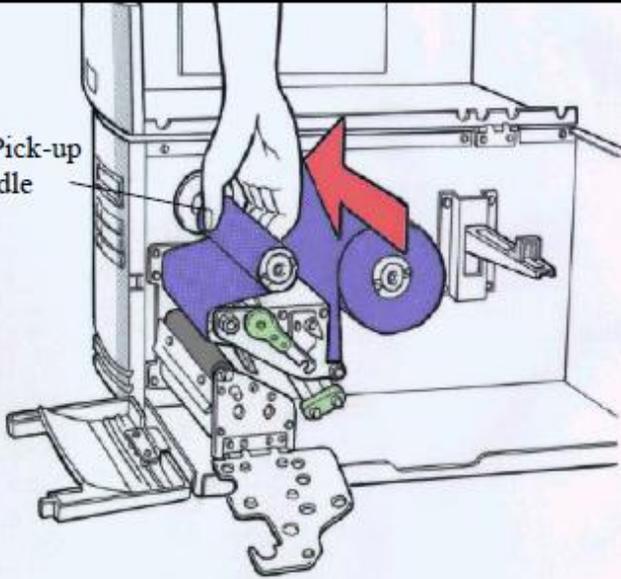
7. Insert the bare core into the ribbon pick-up spindle. (Figure 5)
8. Turn the pick-up spindle to ensure the ribbon is tightly wound.





5

Ribbon Pick-up
Spindle



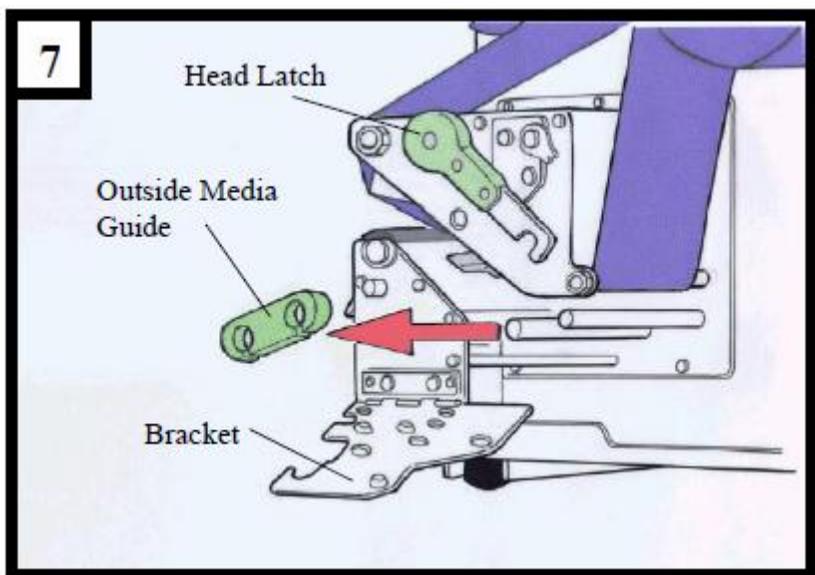
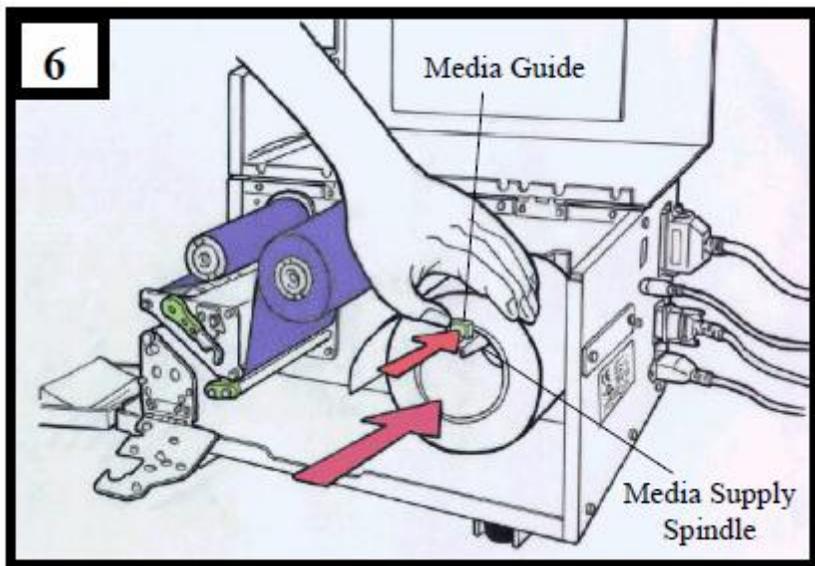
Loading Media

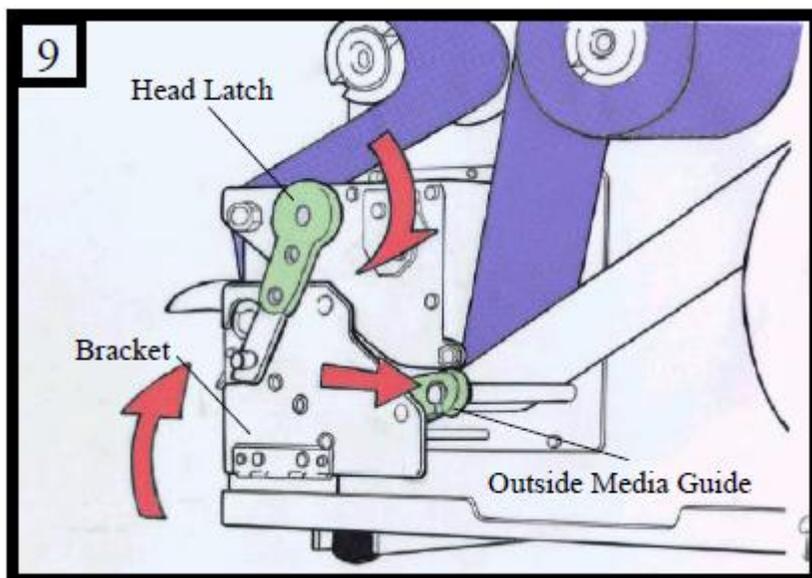
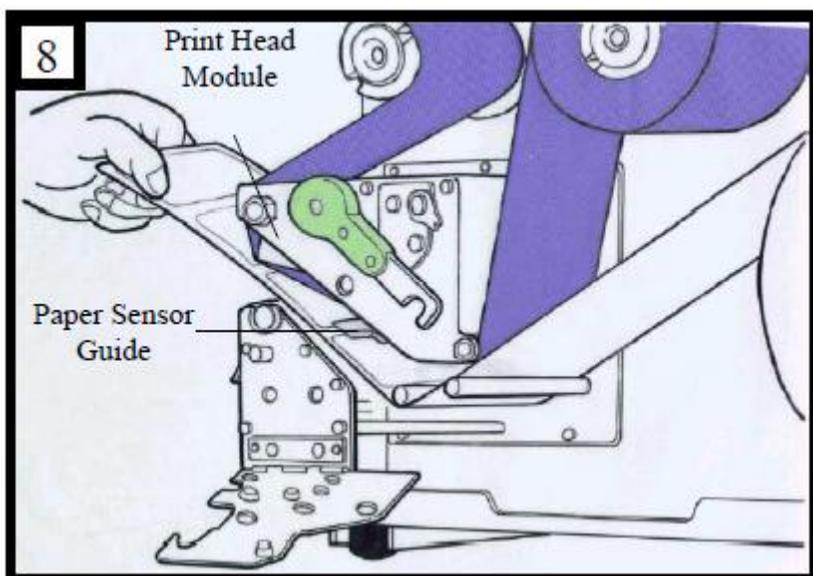
G-6000 printer can be operated in three different options: standard, peel-off, or with a cutter.

- 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.

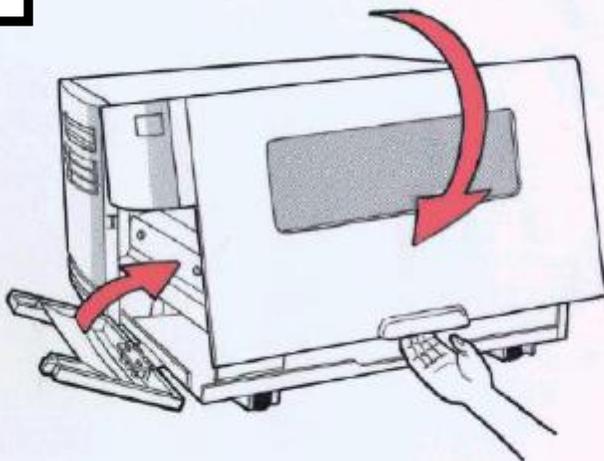
Standard Mode

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. (Figure 7)
3. Remove the outside media guide. (Figure 8)
4. Lead the Media through the print head module and under the paper sensor guide.
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)





10



Peel Off Mode

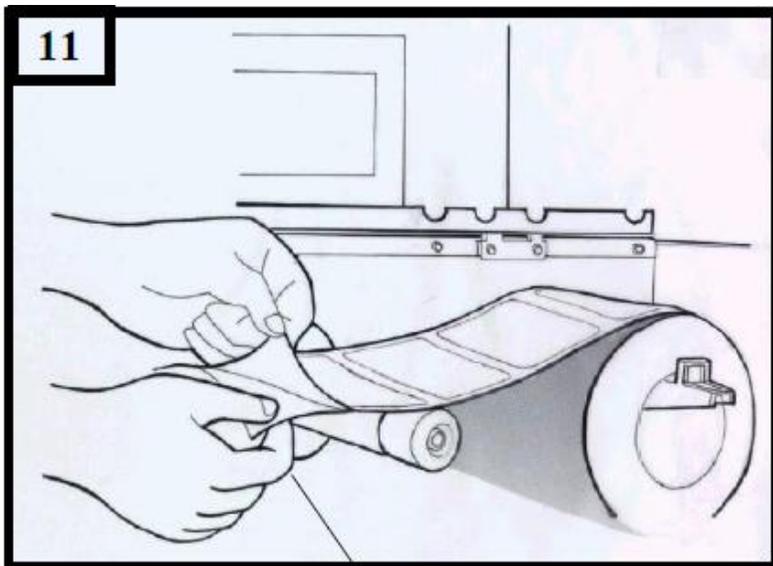
Follow the common procedure of “ Loading Media “ of Standard Mode from step 1 to 3.

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)

Note:

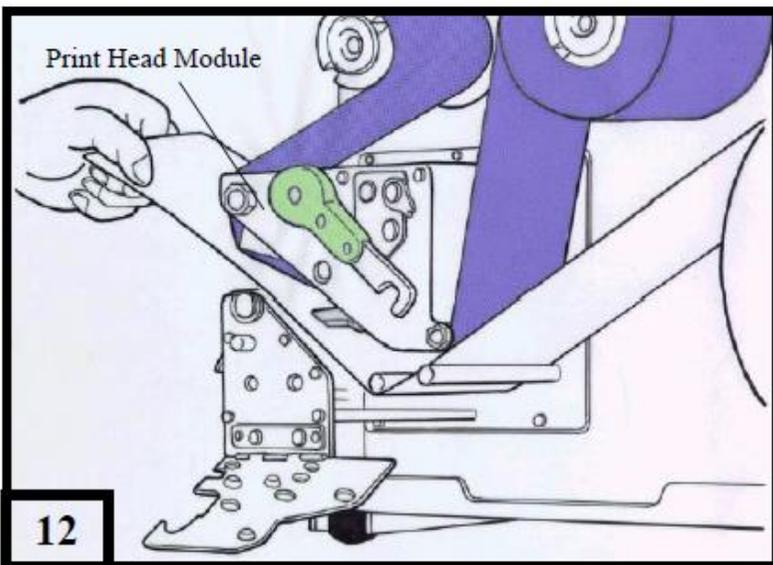
1. *The “ FEED “ button will not drive the printer to peel. The peeling work can be executed only when (1) the software setting is ready; (2) Bit 5 of DIP switch at real panel must be set to ON position.*
2. *Please sure the peeler sensor is out of ribbon path when it's installed.*

11



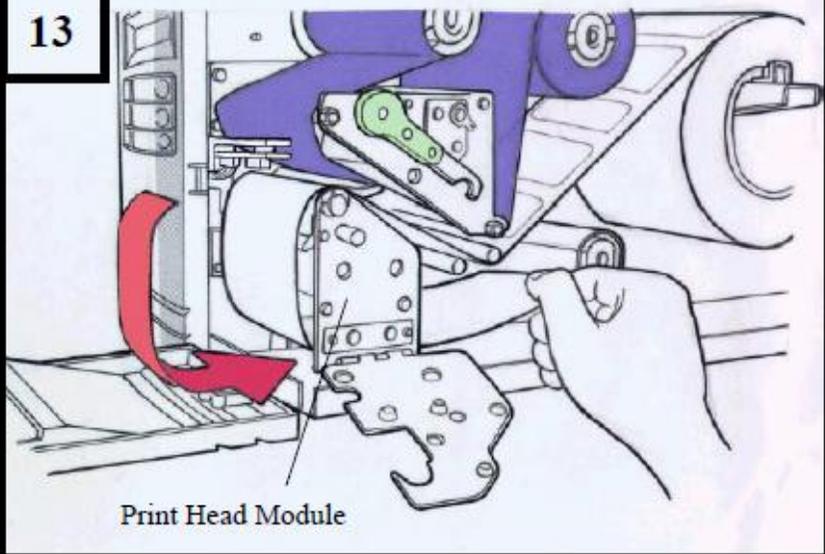
Backing Paper

Print Head Module

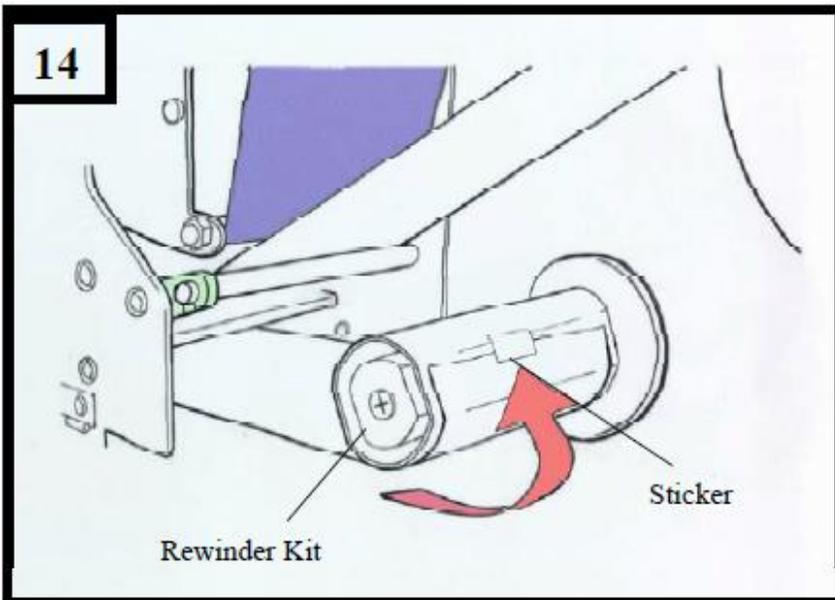


12

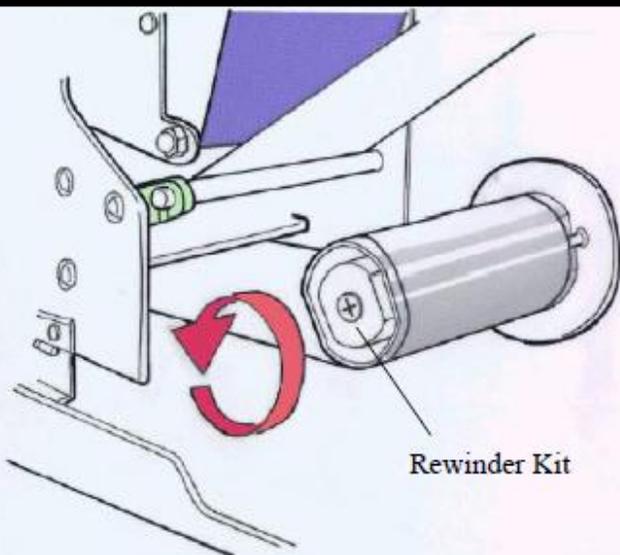
13



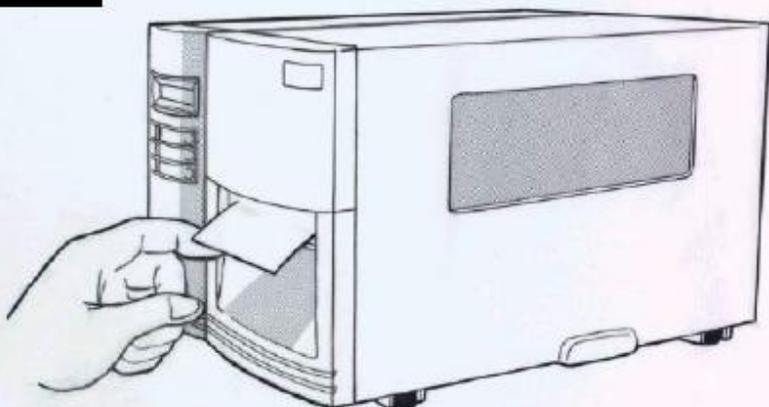
14



15



16



Cutter Mode

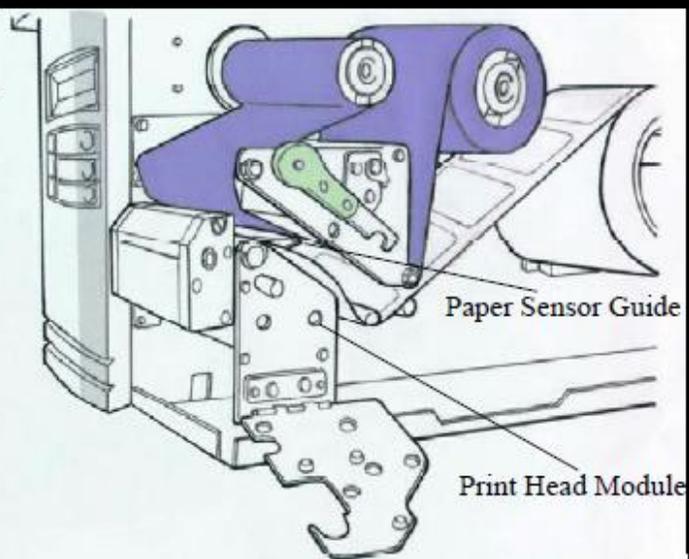
Follow the common procedure of “ Loading Media “ of Standard Mode from step 1 to 3.

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)

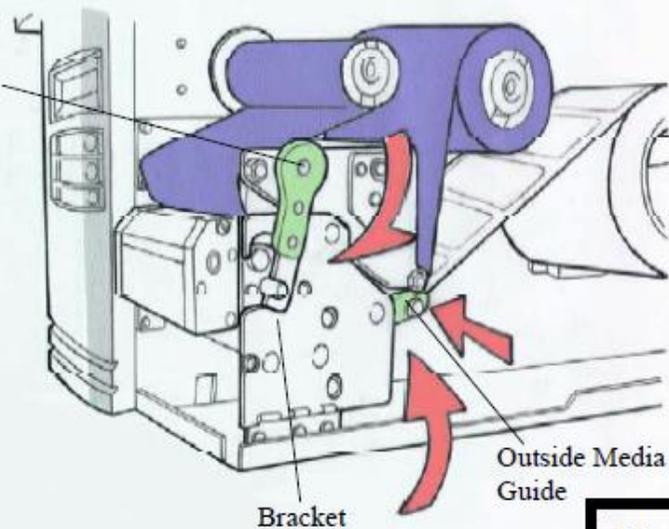
Note:

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.

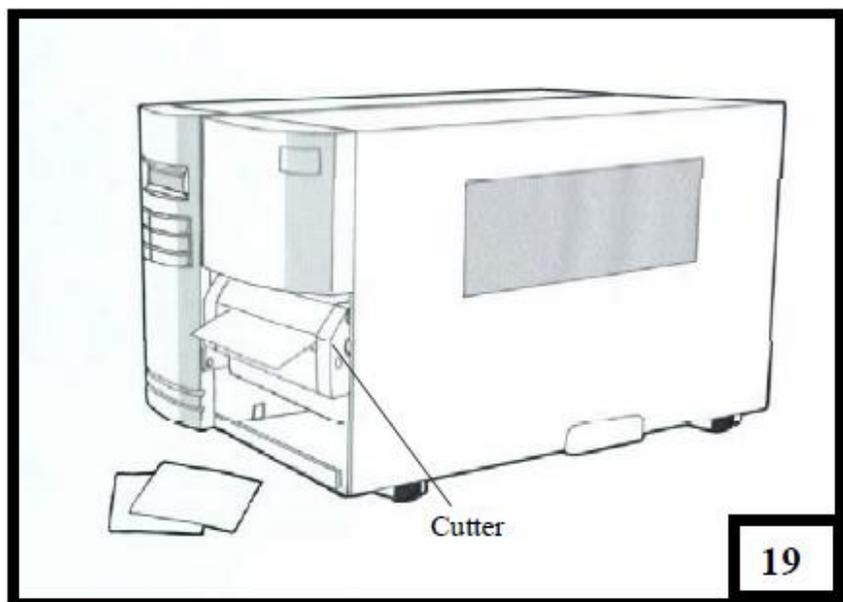
17



Head Latch



18

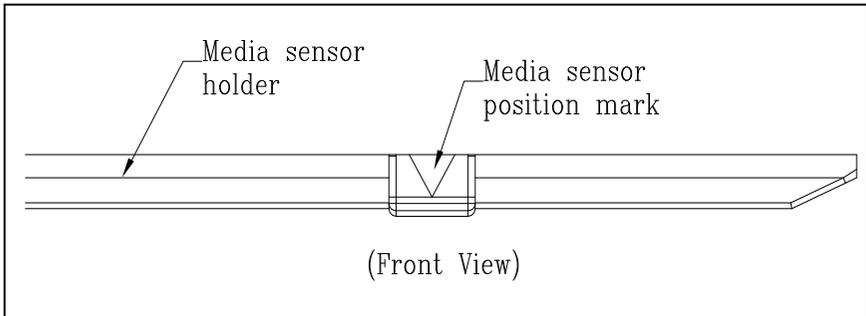


Adjust Position of Label Sensor

Function of the label sensor is to detect the gap, notch, or holes of labels, to help the printer for accurate print positions and label length. For labels with gaps, label sensor can be positioned wherever media locates. If labels with notches or holes are in use, follow the steps below to check position of the label sensor:

- Unlatch the Print head Latch. (as Figure 7 in Section – Standard Mode)
- Pull down Paper Sensor Position Lever to horizontally adjust position of label sensor. (as Figure below)
- Make sure the Media sensor position mark locates right on notch or hole of labels.

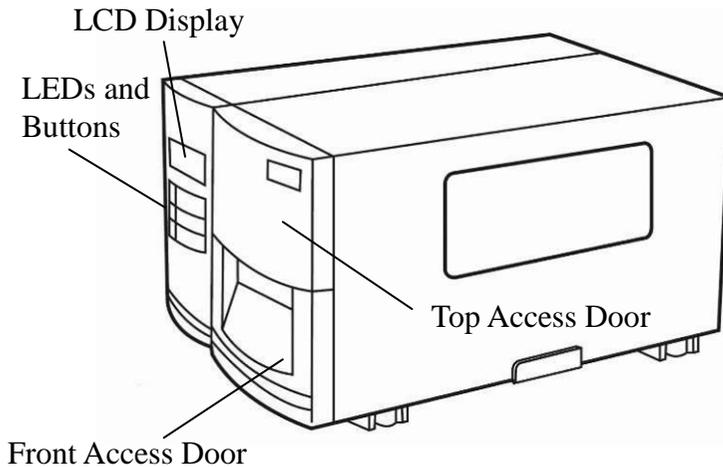
Check below.



2. Printer Operation

The illustrations below describe parts and features.

Front Panel



The front panel includes:

- 3 LED indicators (READY, MEDIA and RIBBON)
- 3 buttons (FEED, PAUSE and CANCEL)
- LCD display
- Top Access Door
- Front Access Door

LED Indicators

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

LED	Function
READY	The READY indicator will remain lighted except if any of the following conditions happens - The printer is at PAUSE status. - Error condition.
MEDIA	The MEDIA indicator will remain on for the normal operation of the printer. Blinking – Media is used out.
RIBBON	ON – under thermal transfer mode with ribbon installed. Bit 1 of DIP switch is at ON position. OFF – under direct thermal mode. (no ribbon installed) Bit 1 of DIP switch is at OFF position. Blinking – Ribbon is used out.

Buttons

There are three buttons, each with two basic functions.

Button	Function 1 (Press the button)	Function 2 (Press the button and power switch together)
FEED	Feed a label.	Perform self test & print configuration report.
PAUSE	<ul style="list-style-type: none">• Pause printing.• Press again to resume printing.	Perform a media calibration.
CANCEL	<ul style="list-style-type: none">• Interrupt and delete a print task.• Force printer to continue working after an error is solved.	Reset the settings in E ² PROM.

Notes:

- 1. It's suggested to perform a "media calibration"*
 - at the first time installation.
 - after changing to different types or sizes of media.
- 2. 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).*
- 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.*

LCD Display

The model G-6000 is equipped with a LCD that displays:

- printer status
- printer settings

- ◆ After power-on, the LCD displays the following message as examples:

READY (203,PPLA)

The first parameter, 203, which stands for the printer resolution. The second parameter indicates the emulation (printer language), PPLA.

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

RIBBON OUT

Changing Settings from the Panel

You may change settings, by using the buttons on the front panel, instead of changing settings via software or commands.

Buttons	Function
PAUSE+CANCEL	Press to enter setting mode. (Don't press over 1 second) Press again to exit setting mode and return to normal mode.
FEED	Press to show next parameter.
PAUSE	Press to show next setting item.
CANCEL	Select and save a parameter to permanent memory (E ² PROM). The parameter will be kept even if you restart the printer, until it's changed again by either panel or commands.

Note: Do not change settings during printing or sending printing data.

Procedure:

Turn on the printer first.

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.

Printer LCD function settings and parameters:

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.
WIN CON LEN (mm)	0 ~ 254 mm	0 mm	This takes effect only when you install under Windows with bundled printer driver and use continuous media.
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 (mm)	10~40 mm	0 mm	This item appears only when BACKFEED is

			enabled.
BASE DARKNESS		0 mm	

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 cannot 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.

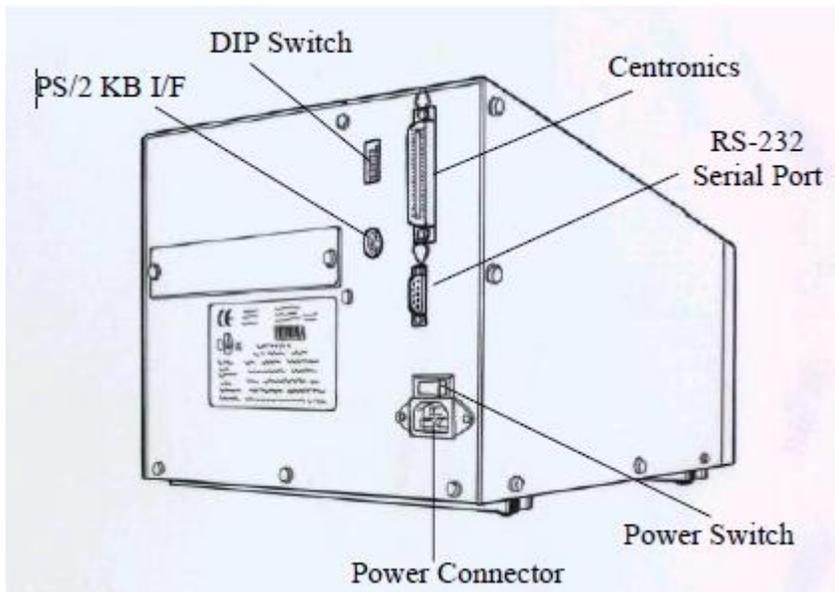
Pressing PAUSE or PAUSE+CANCEL buttons exits setting and enters normal mode.

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 Centronics parallel port
- A 9-pin RS-232 serial port
- A PS/2 keyboard interface
- A power switch and a power connector



DIP switch

You may configure the printer by setting DIP switches. Once the setting is changed, please restart the printer by turning the power OFF then turn ON again.

Switch No.	Position		Function
	ON	↔ OFF	
1	ON		Thermal transfer printing mode. Ribbon detection is enabled.
	OFF		Direct printing mode. Ribbon detection is disabled.
2	ON		Alternate (printable) control code set.
	OFF		Standard control code set.
3	ON		Cutter is installed.
	OFF		Cutter is not installed.
4	ON		The media gap height is more than 4mm.
	OFF		Media with normal gap or continuous paper
5	ON		Dispenser is installed.
	OFF		Dispenser is not installed.
6, 7, 8	OFF, OFF, OFF		Serial port speed = 9600 bps
	ON, OFF, OFF		Serial port speed = 2400 bps
	OFF, ON, OFF		Serial port speed = 4800 bps
	ON, ON, OFF		Serial port speed = 19200 bps
	OFF, OFF, ON		Serial port speed = 38400 bps
	ON, ON, ON		Serial port speed = 9600 bps and for bar code reader.

Media Calibration

After the first time of installation, the printer media is changed or the media sensor board is replaced, the media sensor calibration must be performed.

1. Load the media (and ribbon for thermal transfer printing) properly.
2. Shift the media sensor to proper position.
3. Press and hold **PAUSE/CALIBR.** button then turn on the power switch.
4. When “CALIBRATION...” is displayed on the LCD, release the FEED button.

During media calibration, a few inches of media will be fed out. The READY and MEDIA indicators will blink for few seconds during calibration is proceeding. Without the proper calibration, the gap detection will not stable especially for the small label (less than 2.0 inches in height).

After the calibration, all the related parameters will be stored in the EEPROM of main board.

Note:

After the first time of installing the media or the media type is changed, this procedure must be carried out. Failing to do it, the media-empty and media-gap detection might be incorrect.

Printing a Configuration Report

To perform a self-test and print a configuration report, helping to check printer's print quality and internal settings. Steps as below:

1. Turn off the printer.
2. Load media and ribbon.
3. Press and hold the FEED button while turning on the power.
4. When "SELF-TESTING ..." is displayed on the LCD, release the FEED button.
5. The printer now prints out a configuration report.
6. Finally the "READY" message is displayed and the READY indicator stops blinking and lights up.

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.

Resetting 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.
2. Press and hold the CANCEL button, and 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 cannot be reset.
3. It is necessary to perform label sensitivity calibration after resetting.
4. The printed label count cannot be reset.

3. Computer Connections

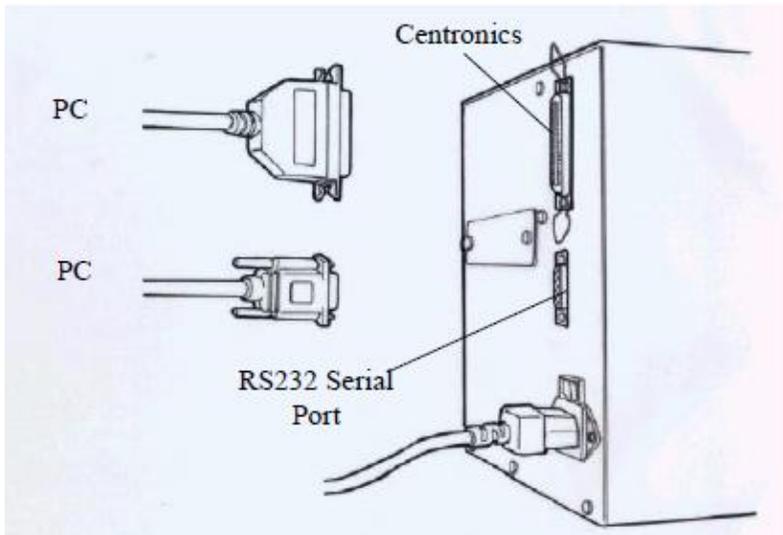
The printer comes with a standard Centronics parallel interface, and a nine-pin Electronics Industries Association (EIA) RS-232 serial data interface.

Connecting the Printer

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.



Communicating with the Printer

The bundled printer driver can be applied to all applications under Windows XP/ Vista/ Windows 7/ Windows 8, 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.

The following installation steps are based on **G-6000** 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.argo.com/content.php?sno=0000033>

Installing a Printer Driver

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":



- Choose Industrial Barcode Printers on the screen, go to G-6000 product page, click on version of Seagull driver and then start installation:

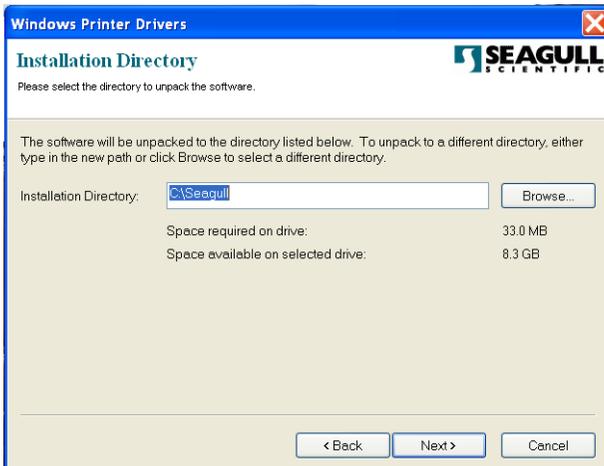


Instead of the flash prompt above, another way to install Seagull driver is to run the DriverWizard utility from the Installation Directory where the Seagull driver files locates.

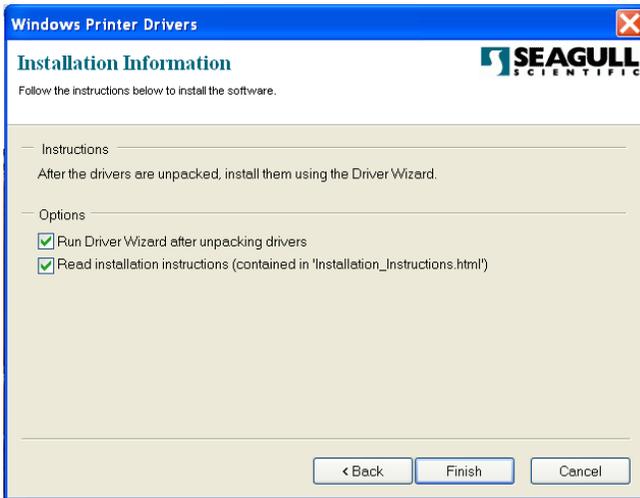
4. On the prompt, Windows Printer Driver, select "I accept..." and click "Next".



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



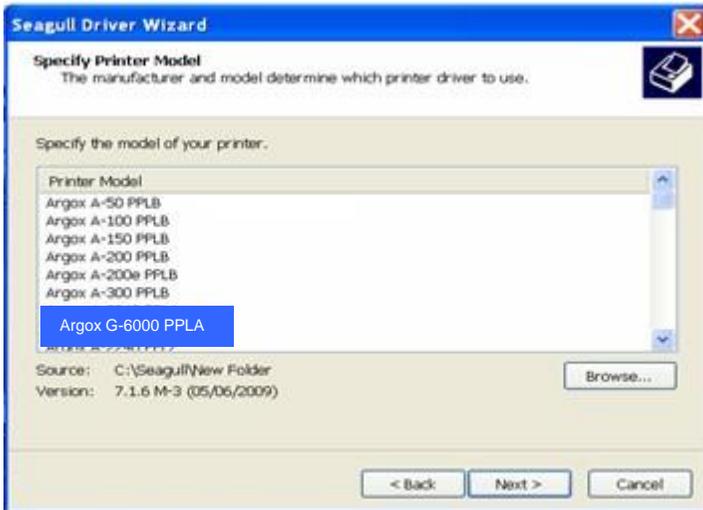
6. Click "Finish".



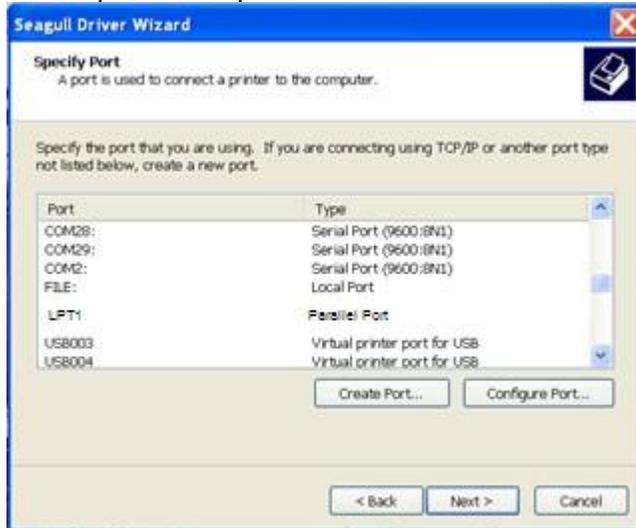
7. Select Install printer drivers and Click "Next"



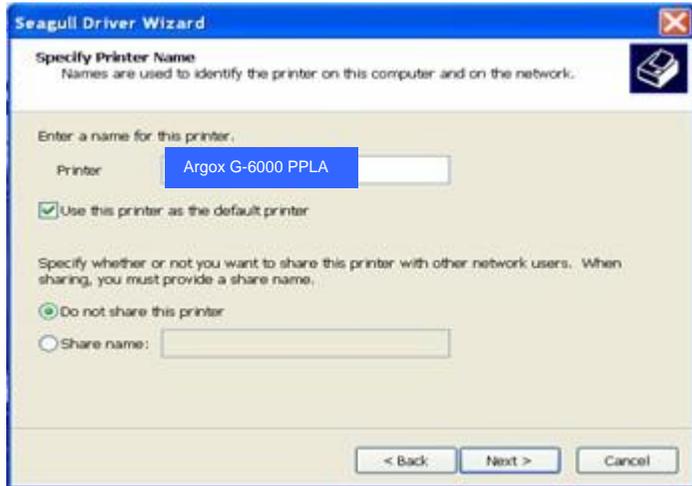
8. Select model & emulation – G-6000 PPLA:



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



10. Enter Printer name (i.e. Argox G-6000 PPLA) and select "do not share this printer", and click "Next".



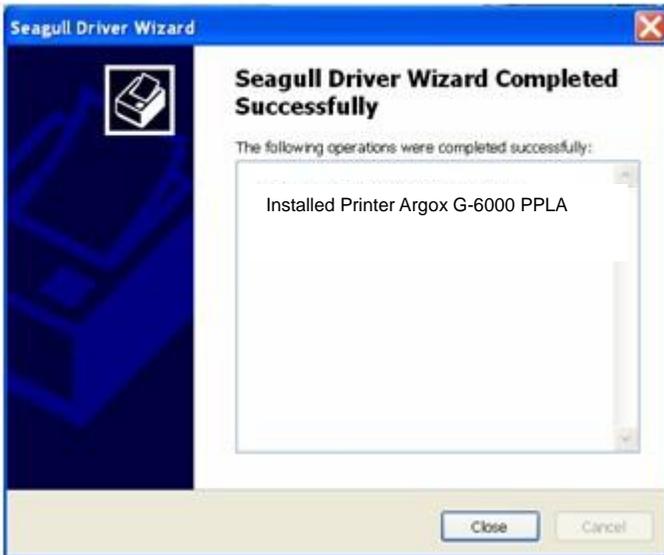
11. Check all the data on the showing screen, if it is correct, click "Finish".



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.



4. Troubleshooting

Normally, if the printer is not working properly, the "READY" LED blinks continuously, and printing and communication between the host and printer stops.

LED and LCD Diagnosis

Blinking LEDs indicate a problem. Check the LEDs and the LCD display and refer to the following solutions:

Media Problems

LED/LCD	Indication
READY and MEDIA LEDs	Blinking
LCD Display	MEDIA OUT

Possible Problems	Solutions	Remarks
Miss-detected gap	<ul style="list-style-type: none">• Check the media path.• Check the position of the label sensor.	For continuous media, check application and driver, and select continuous media.
Media out	Supply the media roll	
Media not installed	Install the media roll	
Media jam	Recover the jam	

Note: If problem continues perform a label sensor calibration.

Ribbon Problems

LED/LCD	Indication
READY and RIBBON LEDs	Blinking
LCD Display	RIBBON OUT

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

Note: If you use direct thermal, set bit 1 of DIP switch to OFF.

Other Problems

LED	Indication
READY LED	Blinking

Problems	Solutions	Remarks
Serial IO error	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> • 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. <p>(Refer to the Technical Manual for details).</p>	

Note: After problem is solved, press CANCEL button to continue printing.

Printer Status

LCD Display	Blinking LED	Description
PAUSE	READY	Printer is paused. Press PAUSE or CANCEL to return to normal operation mode.
MEDIA OUT	MEDIA READY	Media is uninstalled or used up. Load new media to the printer.
RIBBON OUT	RIBBON READY	Ribbon is uninstalled or end-of-ribbon occurred. Load new ribbon to the printer. If you print in direct thermal mode, printing without ribbon, set bit 1 of DIP Switch to "OFF" position.
SERIAL IO ERROR	READY	Format or baud rate of RS232 communication is inconsistent between printer and host.
CUTTER FAILED	READY	Cutter cannot cut off the media, check media and cutter.
MEMORY FULL	READY	Printer buffer full due to loaded soft fonts, graphics or forms. Check data format. Call for service.
HEAD OPEN	READY	Print head latch is not closed. To make printer print labels normally, the head latch must be closed.
P. SENSOR O.R.	READY	Media sensor is out of detection range during calibration. Make sure media is installed and the label sensor locates under media properly.

Transmission Problems

If the host shows "Printer Time out"

1. Check if the communication cable (parallel or serial) 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.

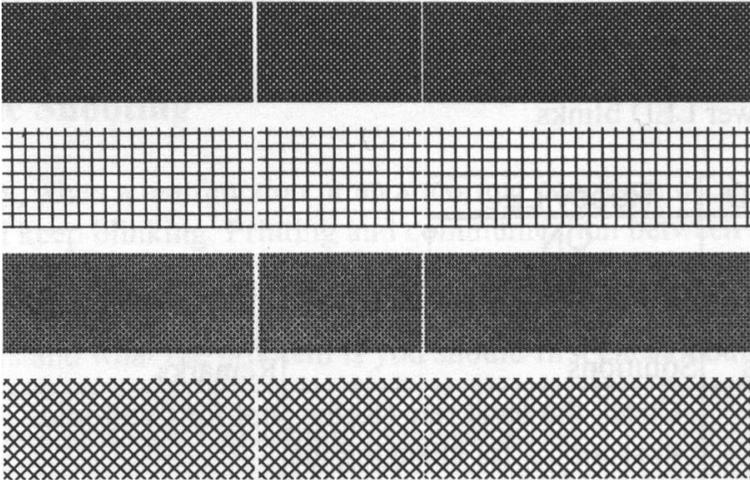
If the data has been sent, but there is no output from the printer. Check the active printer driver, and see if Seagull Driver for your Windows system and the label printer has been selected.

Recovery

After correcting problems, simply press the CANCEL button or restart the printer. Make sure the LEDs are not blinking and remember to resend your files.

Printer Maintenance

Vertical streaks in the printout usually indicate a dirty or faulty print head. (Refer to the following examples.) Clean the print head. If the problem persists, replace the print head.



For unstable ribbon roll rotation, check the label path and make sure the head latch is securely closed.

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 following and clean the related spare parts.

Cleaning the Print Head

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

Note: Turn off the printer before cleaning.

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.

Cleaning the Roller

Using a cotton bud moistened with alcohol, clean the roll and remove any attached glue.

Note: Clean the roller after it has been in contact with foreign materials such as dust or adhesives.

Cleaning the Media Compartment

Clean the media compartment with a cotton bud that has been moistened with a mild detergent. Every time a media roll is printed, you should clean this compartment to reduce the incidence dust.

5. Technical Reference

General Specifications

	G-6000
Printing Method	Direct Thermal / Thermal Transfer
Printing Resolution	203 dpi (8 dots/mm)
Printing Width	Max 6.6" (168mm)
Printing Length	Max. 30" (7620 mm)
Printing Speed	2 ~ 6 IPS (51~152 mm/s)
Memory	2MB DRAM, 1MB Flash ROM
CPU Type	32 bit RISC CPU
Sensors	Media gap & black line Reflective sensor x 1 (movable) & Transmissive sensor x 1 (movable), Head open switch, Ribbon end sensor
Display & Operation Interface	LED indicator x 3, Back-lit LCD Display 16 x 2-line (multilingual), Button x 3 (Feed(Config.)/Pause(Calibr.)/Cancel(Reset))
Communication interfaces	Centronics parallel, RS-232 serial

Media Type	Roll-feed, die-cut, continuous, fan-fold, tags, ticket in thermal paper or plain paper, fabric labels
Media	Max Width: 6.3”(160mm) Min Width:1”(25.4mm) Thickness: 0.0025”~0.01”(0.0635~0.254mm) Max roll capacity(OD): 8”(203mm) Core size: 1.5” ~ 3” (38~76mm) ID
Ribbon	Ribbon Width: 1”~6.1” Ribbon roll – max OD: 2.5”(63mm) Ribbon Length: max 360m Core size – ID: 1”(25.4mm) Wax, Wax/Resin, Resin (Ribbon Wound Ink-side in)
Dimension	W 310mm x L 445mm x H 260mm
Weight	32lbs(14.5kgs)
Power Source	Internal Universal Power Supply 100 ~ 240 VAC, 2.5A, 50/60 Hz
Operation Environment	Operating Temperature 40° F~100°F (4°C~38°C), 10% ~ 90% non-condensing, Storage Temperature -4°F~122°F (-20°C~50°C)
Driver Operating Systems	Win XP/ Vista/ Windows 7/ Windows 8
Printer Languages	PPLA

Options and Accessories	Cutter, Dispenser Kit, RTC Card, 2MB Asian Font Card(Traditional Chinese, Simplified Chinese, Korean and Japanese), ArgoKee
Agency Listing	CE, cULus, FCC class A, CCC, RoHS

Note:

Since Font Card and optional RTC Card share the same slot on G-6000 main board, they cannot be used at the same time.

Fonts, Bar Codes and Graphics Specification

The specifications of fonts, bar codes and graphics depends 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
Font Types	Courier (including PC Set, Legal, ECMA94 and Roman-8), 7 alpha-numeric fonts, OCR-A/B, ASD smooth font. Soft fonts are downloadable.
Font Expandability	1x1 to 24x24
Character Rotation	0, 90, 180, 270 degree, 4 direction rotation
1D Bar Code Types	Code 39, UPC-A, UPC-E, Code 128 subset A/B/C, EAN-13, EAN-8, HBIC, Codabar, Plessey, UPC2, UPC5, Code 93, Postnet, UCC/EAN-128, UCC/EAN-128 K-MART, UCC/EAN-128 Random Weight, Telepen, FIM, Interleave 2 of 5 (Standard/with modulo 10 checksum/with human readable check digit/with modulo 10 checksum & shipping bearer bars), GS1 Data bar (RSS)
2D Bar Code Types	MaxiCode, PDF417, Data Matrix (ECC 200 only), QR code, Composite Codes, Aztec Barcode, Micro PDF417
Graphics	PCX, BMP, IMG, GDI and HEX format files

Interface Specifications

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

Serial Interface

The RS-232 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.

Note: Pin 9 is reserved for a KDU (keyboard device unit). Do not connect this pin if you use a general host such as a PC.

Connection with Host

Host 25S	Printer 9P	Host 9S	Printer 9P
(PC or compatible)		(PC or compatible)	
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 connect the 3 wires as follows:

Host 25S	Printer 9P	Host 9S	Printer 9P
(PC or compatible)		(PC or compatible)	
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 simplest 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: 1200, 2400, 4800, 9600(default), 19200, 38400.
(Set from bit 6, 7, 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 connector. Pin assignments are as follows:

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	18		
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			
11t	Out	BUSY			
12	Out	PE			

Auto Polling

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

ASCII TABLE

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

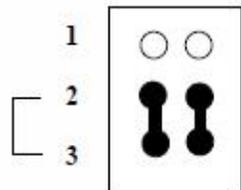
6. Accessory

Note:

The printer electronics are susceptible to static discharge.
Wear an anti-static wrist and attach it to the printer chassis.

Cutter Installation

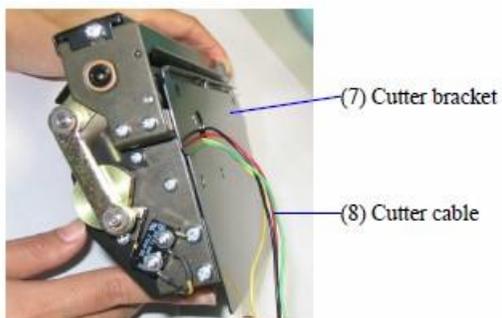
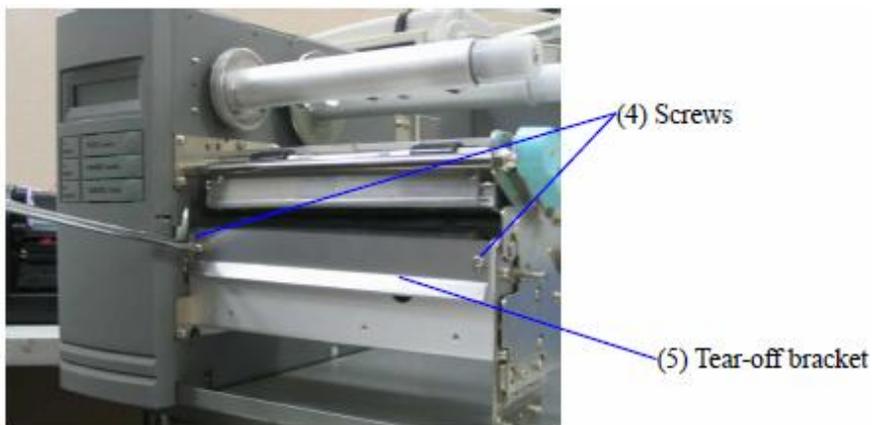
1. Turn off the printer power.
2. Remove the top covers on both left and right sides.
3. Please make sure the jumper's position is plugged-in at "2" and "3" as indicated below.



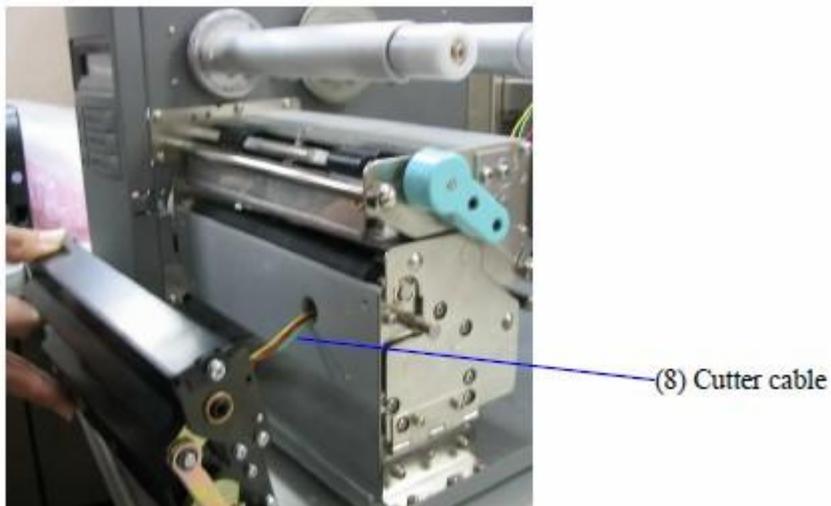
*2-3 Enabled

4. Set bit 3 of DIP switch to "ON" position.

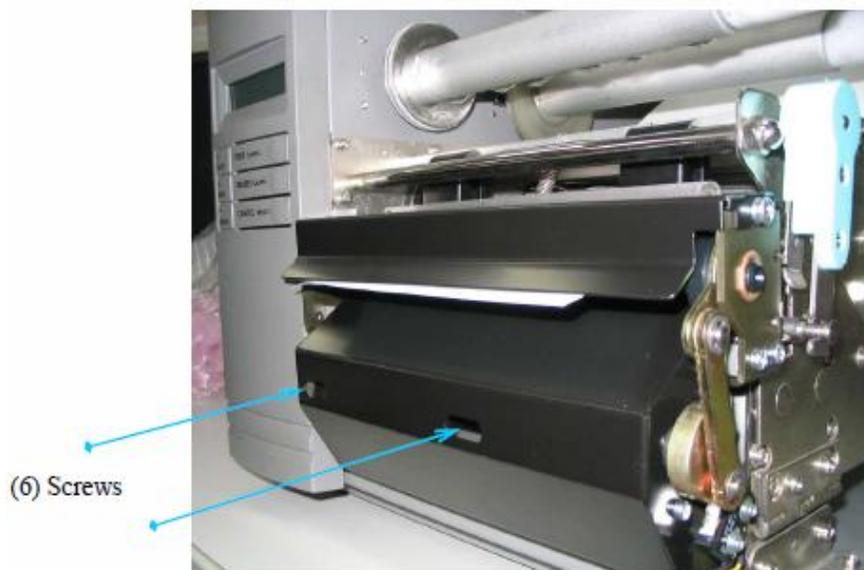
5. Remove the tear-off bracket (5) by releasing screws (4) shown in Figure below.



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



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



Load the media and the ribbon after the cutter is proper installed. The following procedure is taken at first time after installation or cutter jam.

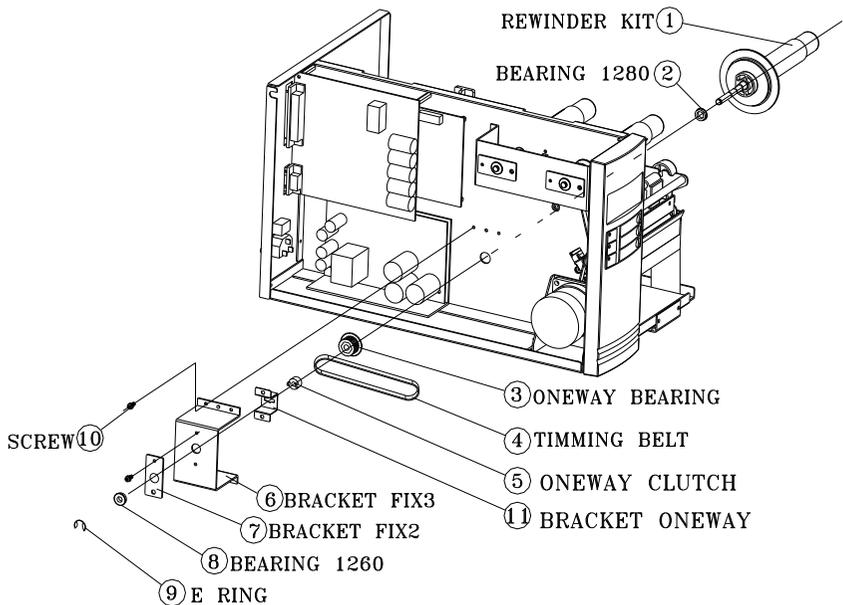
1. Put the media end on the roller.
2. Close the TPH latch.
3. Hold **PAUSE/CALIBR.** button then turn on power switch.
4. Release the button when cutter starts cutting once.
5. After cutting, the printer will feed a few inches of media.

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

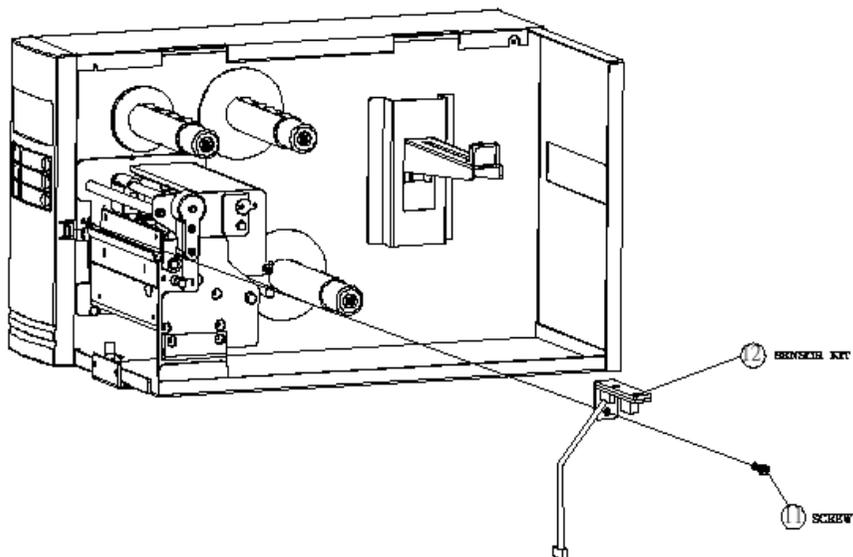
1. Put the media end on the roller.
2. Close the TPH latch.
3. Turn on the printer.
4. Press FEED button to let media end go through the cutter.

Dispenser & Rewinder Installation

1. Turn off the power switch.
2. Remove top covers on both left and right sides.
3. Set bit 5 of DIP switch to "ON" position.
4. Assemble the related components for both left and right sides.
Refer to the Figure below.



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



6. Install ribbon and media.

