BIXOLON®

User's Manual
XT2-40 Series

Industrial Label Printer
Ver. 1.02

http://www.bixolon.com

Introduction

XT2-40 series printers have been designed to be connected to various types of electronic devices such as computer peripheral devices.

※ The main features of the printer are as follows

1. Industrial Label Printer
2. Thermal Transfer / Direct Thermal Printing
3. XT2-40: Max 152mm/s(6ips) printing speed
   XT2-43: Max 100mm/s(4ips) printing speed
4. Print Width/Length: 108mm/3,999mm(XT2-40), 105.7mm/2,1859mm(XT2-43),
5. Media Width/Outer Diameter/Inner Diameter/Thickness: 25.4~118mm/203mm / 1~3inch /0.076~0.25mm
6. Ribbon Width/Length/Type: Max 110mm/450m/Wax, Wax Resin, Resin, Outside, Inside
7. Movable Transmissive Sensor, Movable Reflective Sensor
8. 128MByte Flash/32MByte SDRAM
9. Color TFT LCD
10. Option: Auto Cutter, Peeler
11. Support Interface: USB, Serial, Ethernet

It is advisable to read the contents of this manual carefully before using the printer for the first time.

※ Use only authorized supplies that can be trusted!

- We are not responsible for quality and service for damage caused by the use of unauthorized products (or recycled ones).

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Manual Information

This user's guide contains basic information for product usage as well as for emergency measures that may be required.

Safety Information

⚠ *Warning*: Warnings must be heeded carefully in order to prevent serious physical harm.

⚠ *Caution*: Cautions must be heeded in order to prevent minor injuries, equipment damage, or data loss.

Symbol Information

∿	AC (Alternating current)
▬▬	DC (Direct current)
⚠	Note, Caution, Warning
⟜•⟝→	USB

Safety Precautions

In using the present appliance, please keep the following safety regulations in order to prevent any hazard or material damage.

⚠ **WARNING**

Warnings must be heeded carefully in order to prevent serious physical harm.

Do not plug several products in one multi-outlet.

• This can provoke over-heating and a fire.
• If the plug is wet or dirty, dry or wipe it before usage.
• If the plug does not fit perfectly with the outlet, do not plug in.
• Be sure to use only standardized multi-outlets.

PROHIBIT
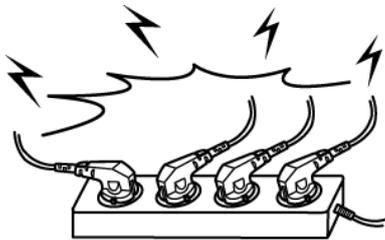
Use only the supplied parts for AC/DC power enclosed.

• Do not use any other AC/DC enclosed as it may incur danger.

PROHIBIT

ONLY SUPPLIED ADAPTER

Do not pull the cable to unplug.

• This can damage the cable, which is the origin of a fire or a breakdown of the printer.

PROHIBIT
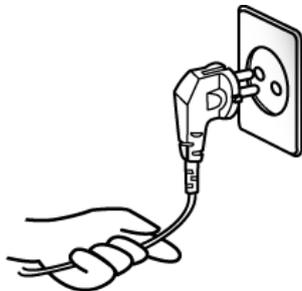
Keep the plastic bag out of children's reach.

• If not, a child may put the bag on his head.

PROHIBIT

Do not plug in or unplug with your hands wet.

• You can be electrocuted.

PROHIBIT
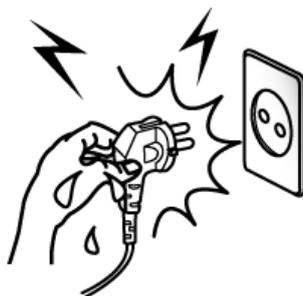
Do not bend the cable by force or leave it under any heavy object.

• A damaged cable can cause a fire.
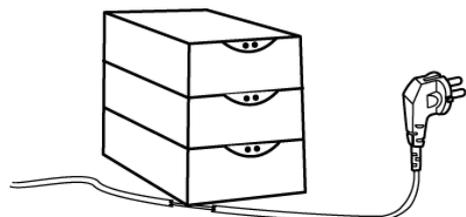
PROHIBIT

⚠ CAUTION

Cautions must be heeded in order to prevent minor injuries, equipment damage, or data loss.

If you observe a strange smoke, odor or noise from the printer, unplug it before taking following measures.

• Switch off the printer and unplug the set from the mains.
• After the disappearance of the smoke, call your dealer to repair it.

TO UNPLUG

PRINTER

Keep the desiccant out of children's reach.

• If not, they may eat it.

PROHIBIT

Install the printer on the stable surface.

• If the printer falls down, it can be broken and you can hurt yourself.

PRINTER
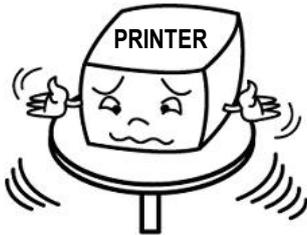
PROHIBIT

Use only approved accessories and do not try to disassemble, repair or remodel it for yourself.

• Call your dealer when you need these services.
• Do not touch the blade of auto cutter.

DISASSEMBLING PROHIBITED
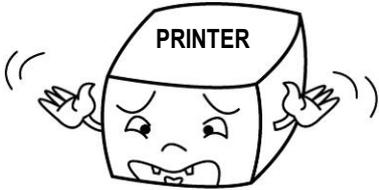
PRINTER

Do not let water or other foreign objects in the printer.

• If this happened, switch off and unplug the printer before calling your dealer.

PROHIBIT

PRINTER

Do not use the printer when it is out of order. This can cause a fire or an electrocution.

• Switch off and unplug the printer before calling your dealer.

TO UNPLUG

PRINTER DEALER

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1. Content Confirmation

The following items should all be contained in the printer package.
Contact the dealer from which the purchase was made if any item is damaged and/or missing.

- Product

XT2-40 Series

Power Cord   **USB Cable**
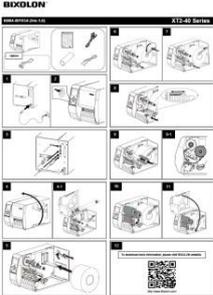
Ribbon Core   **Quick Manual**

− Optional

Serial(RS-232C) Cable

2. Product Part Names

2-1 Printer Part Names

- Front

1	Display Panel	3	Feed Button
2	Power Button	4	Media Cover

- Back

1	Ethernet Port	5	Externel Paper Insert
2	Serial(RS-232C) Port	6	Auto Sensing Button
3	USB Port	7	Power Jack
4	USB Host Port		

- Internal
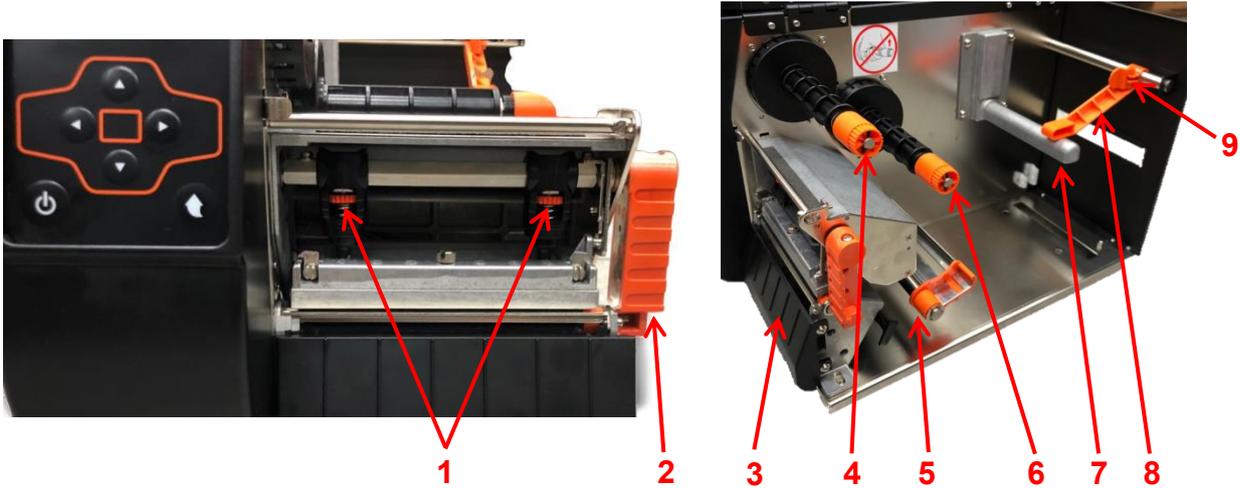
1	Print Head Pressure knob	6	Ribbon Supply Hub
2	Print Head Lever	7	Label Supply Hub
3	Front Lower Panel	8	Label Roll Guide
4	Ribbon Return Hub	9	Label Roll Guide Fixing Knob
5	Label Guide		
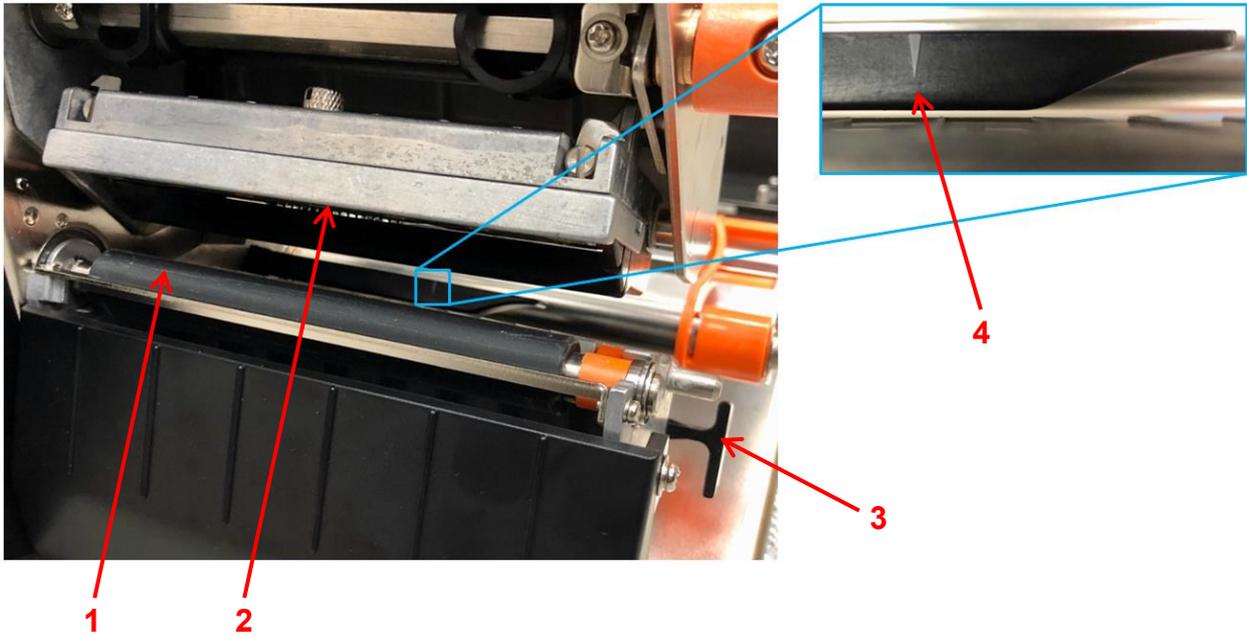
1	Platen Roller	3	Label Sensor Guide
2	Print Head	4	Black Mark & Notch Sensor

- Printer Option

Auto Cutter

Peeler

2-2 Major Control Part Names

2-2-1 Control Panel

Number	Explanation
1	Model Name & Firmware version
2	Printer status
3	Direction button
4	Power button
5	Select & Feed button

2-2-2 Detailed Descriptions

2-2-2-1 Model Name & Firmware version

List	Explanation
XT2-40 V2.RB0	Model Name & Firmware version

2-2-2-2 Printer Status

List	Explanation
Ready	Ready for print
Pause	Printing pause
Check Ribbon	Ribbon is not installed correctly
Check Media	Media is not installed correctly
Printhead Open	Print head is open
File System Full	The memory is full.
Duplicated Name	A file of the same name already exists
File Not Found	Unable to find file
TPH Over Heat	Print head has reached the maximum temperature
Check Cutter	Media is stuck in the auto cutter blade
TPH Error	TPH cable is disconnected or TPH is damaged.

2-2-2-3 Main Icons

List	Explanation
	Printer settings
	Label settings
	Device settings
	Printer Control
	Exit
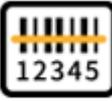
2-2-2-4 Direction Button

List	Explanation
	Used for menu selection

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2-2-2-5 Printer Operation Button

| List	Explanation
	FEED Turn on the printer and press the FEED button. When you press the FEED button, the printer will advance media until the FEED button is released. If you are using continuous labels, pressing the FEED button will advance a length of media until the button is released. If you are using media with gaps, pressing the FEED button once will advance only one label. If the label does not stop at the correct position, you need to run the auto-detection function for your media, please see Section 4-7 Label size calibration and Self-Test. **Pause printing_FEED** Pressing the FEED button while the printer is in standby mode will set the printer to pause mode. In this mode, the printer can receive commands, but it will only process them when it is reset to standby mode. Pressing the FEED button again will reset the printer to standby mode. Pressing the FEED button during printing will interrupt printing. When the FEED button is pressed again, the printer resumes printing. Example: While a 10-label print job is running, you press the FEED button to pause the printer. Two of the labels have been printed. To resume printing and print the remaining eight labels, you will need to press the FEED button again. **Cancel printing_FEED** Press and hold the FEED button for 3 seconds during printing cancels a print job. The current print job is cancelled. Example: While a 10-label print job is running, you press the FEED button. Two of the labels have been printed. The print job is cancelled and the remaining eight labels will not be printed **Used for menu selection** On the Menu page and the Value Settings page, used for selecting a menu or setting a value.
	POWER Button Press the POWER button to turn on the printer, and the start up screen appears. The printer is on "ready to print" status. When printer is turned on, hold and press down the POWER button for 3 second will turn the printer off.

3. Installation & Usage

3-1 Printer Installation Placings

• Install the printer in a location that meets the following conditions.

- Allow sufficient space around the printer for proper ventilation.

- Do not place objects close to the back or bottom of the printer, which may hinder the air circulation.

- Install the printer on a flat and level surface.

- Avoid humid environment.

3-2 Power Connection

• Connect power to the printer as shown below.

Power Button
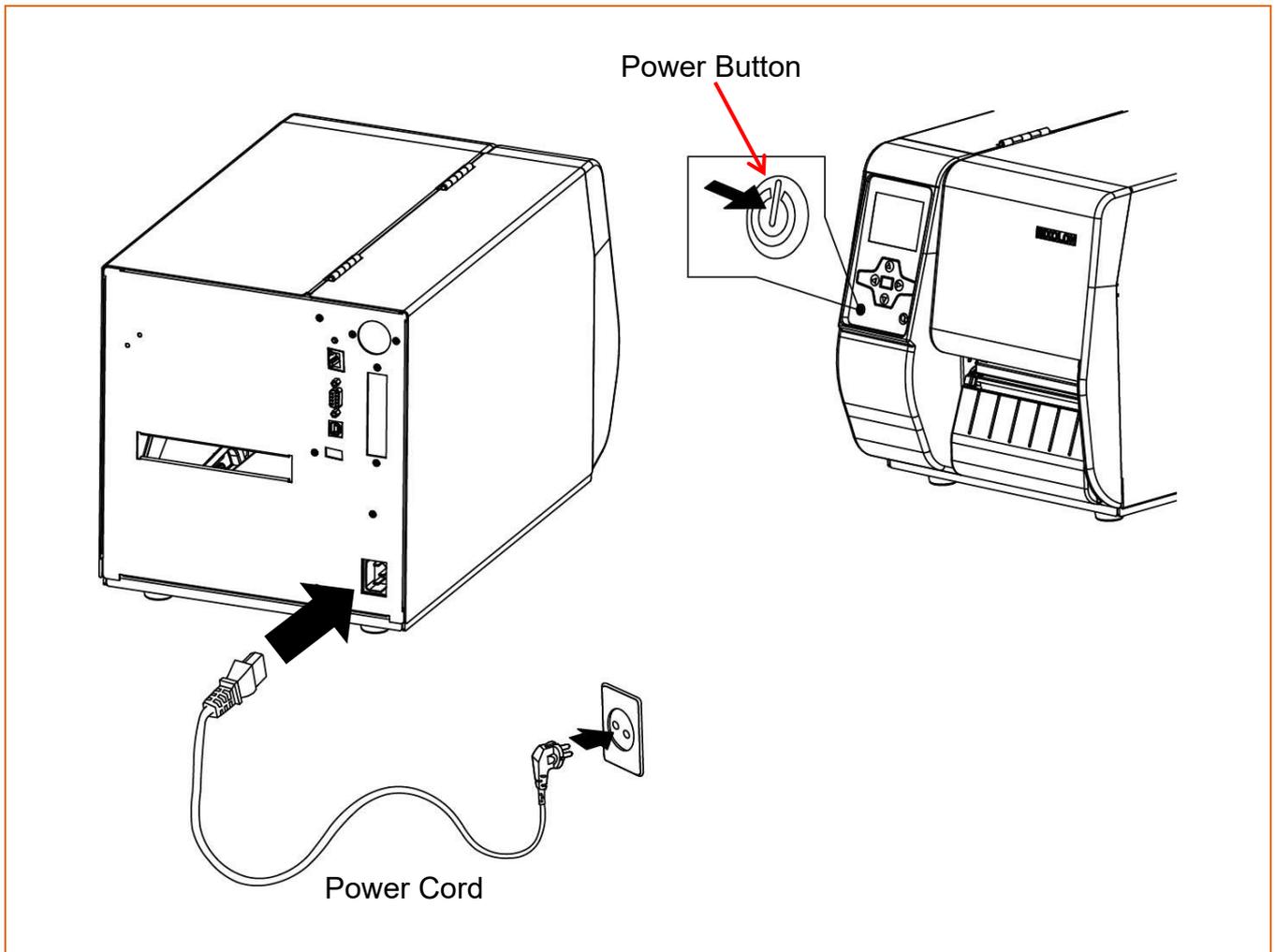
Power Cord

1) Connect the power cord to the power port on the printer.

2) Connect the power cord to a power source/outlet.

3) Press the printer power button.

⚠ *Caution*	For the safety of people and equipment, please use the appropriate power cord for your country or region.
⚠ *Warning*	- **Be sure to turn off the printer before connecting the power cord to the printer. This can cause serious electrical damage and bodily injury.** - **Do not operate the printer and power supply in a humid environment. This can cause serious electrical damage and bodily injury.** - **Do not connect an input voltage beyond the specifications of the power supply. This may result in product damage and fire.**

3-3 Interface

📖 *Note*	Shielded cables must be used to prevent radiation and reception of electrical noise. Use the shortest possible communication cable to minimize the detection of electrical noise in the cable.
	  - Serial(RS-232C) Cable (1.8m or less recommended)
	  - USB B-Type Cable (1.8m or less recommended)
	  - LAN(Ethernet) Cable (3m or less, CAT-5 or higher UTP Cable)

⚠ *Caution*	- Connecting unshielded communication cables is in violation of EMC standards. Use the cable approved by us. - Do not bundle the communication cable with objects that may cause electrical noise and interference. The printer may be damaged. - Be aware that the product's electronic components may be damaged due to discharging of electrostatic energy that accumulates on the surface of the body or other objects.
⚠ *Warning*	**After turning off the power switch of printer, connect and disconnect the communication cable.** **This can cause serious electrical damage and bodily injury.**

3-3-1 Standard Interface

This printer can use the following types of communication.
- LAN (Ethernet) Cable / Serial (RS-232C) Cable / USB B-Type Cable /
  USB A-Type (Storage)

LAN (Ethernet) Cable

Serial (RS-232C) Cable

USB B-Type Cable

USB A-Type (Storage)
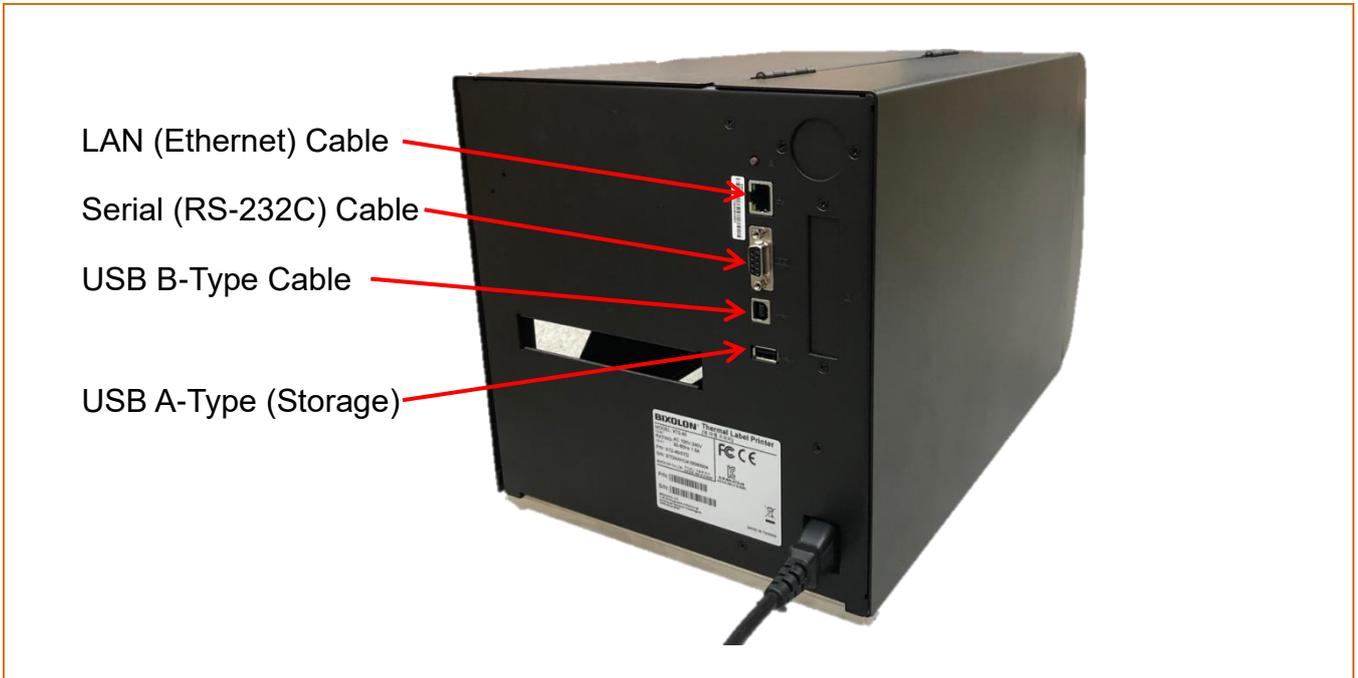
1) Turn off the power button.

2) Connect the communication cable to the printer communication port to be used.
- Connect the LAN(Ethernet) cable to the Ethernet port.
- Connect Serial(RS-232C) cable to the serial port and tighten both screws.
- Connect USB B-Type cable to the USB port.

⚠ *Caution*	Be aware that the product's electronic components may be damaged due to discharging of electrostatic energy that accumulates on the surface of the body or other objects.

3-4 Media Installation

3-4-1 Media Installation Method of Standard Model

For standard models, install media in the following ways:

1) Open the media cover.

2) Open the print head lever. Release Label roll guide fixing knob to the right, and rotate the Label Roll Guide to upward as in the below.

Label Roll Guide

Label Roll Guide Fixing Knob

Print Head Lever
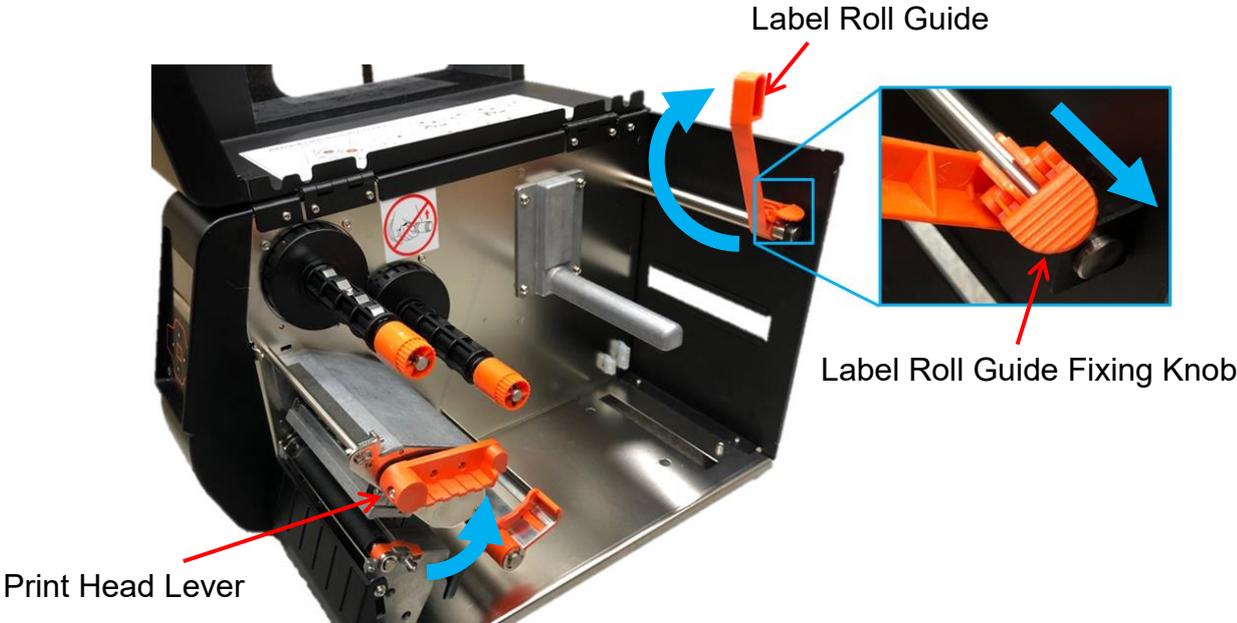
3) Insert the media into the printer, printing side must be faced up. And rotate down the label roll guide and push until it touches the edge of the media. Lock the Label roll guide fixing knob.

Label Roll Guide Fixing Knob

Label Roll Guide
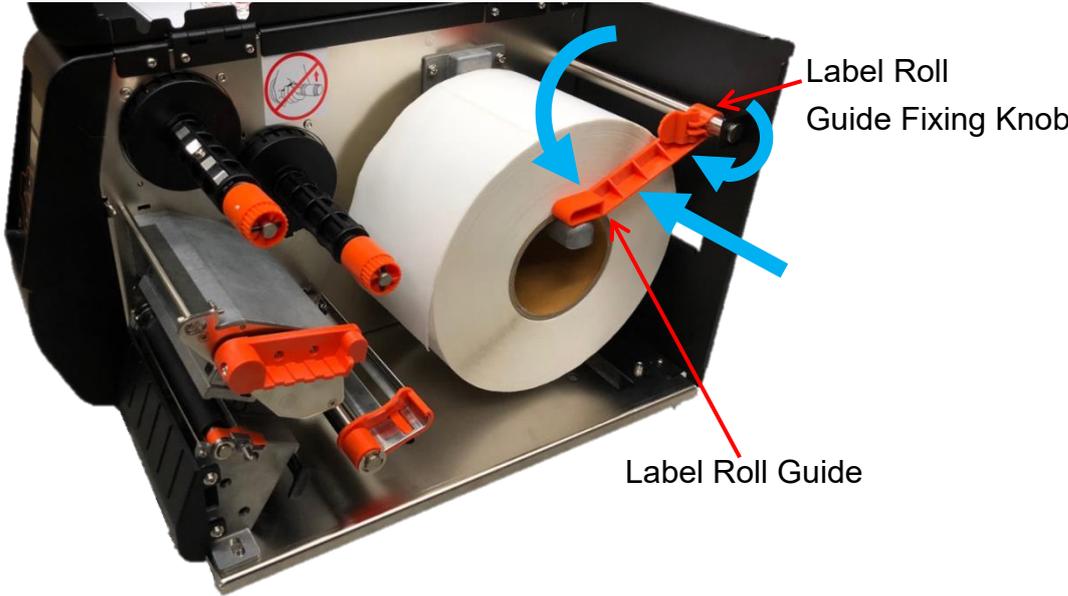
4) Feed the media through the media guide and adjust the guide until it touches the media.

Fixing Guide

Label Guide
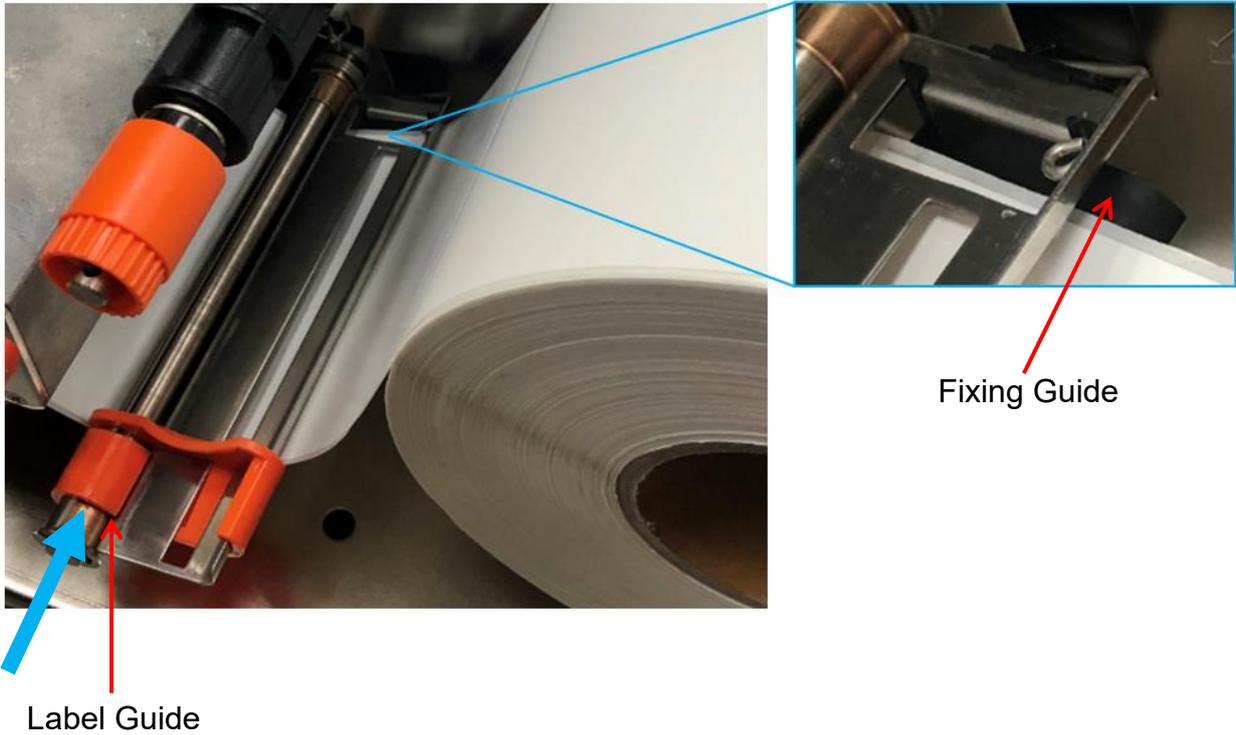
5) Please make sure the sensor position where media gap/black mark will pass through for sensing. The position of sensor can be adjust by Label Sensor guide, and the position of the sensor is marked in white.

Black Mark & Notch Sensor

Label Sensor Guide
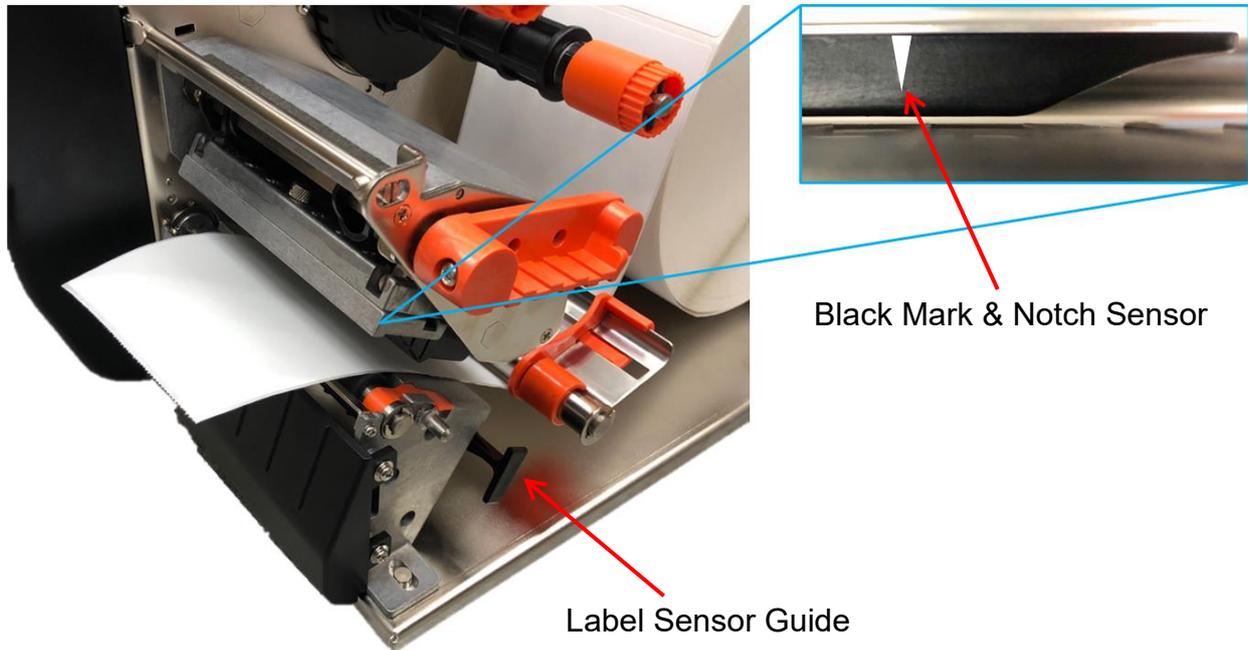
6) Close the print head lever and media cover.

|	
⚠ *Caution*	- When opening or closing the cover, be careful not to pinch your fingers. - Do not open the print head levers while the printer is printing. The printer may be damaged. - Change the media when the printer is not receiving data, or data may be lost.
⚠ *Warning*	**The print head gets extremly hot while printing or after the printing, this can cause serious burns.** **Do not touch the print head.**

3-4-2 Media Installation Method for Auto Cutter (optional) Model

Use the autocutter to cut the printed media.
For Auto Cutter Model, install media in the following ways:

1) Refer to '3-4-1 Media Installation Method of Standard Model' to install media, adjust media guide and sensor position.

2) Install the media through the auto cutter as shown in the figure.

Auto Cutter
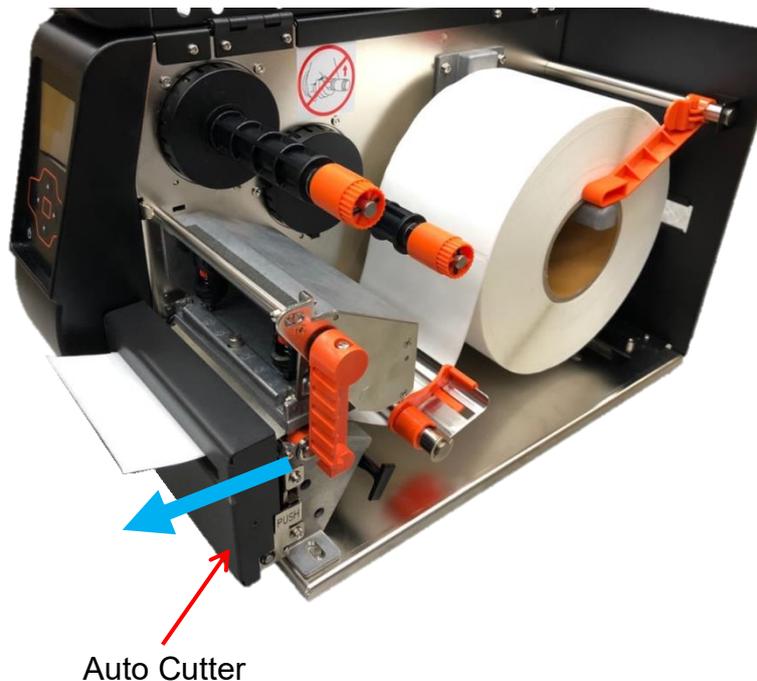
3) Close the print head lever and media cover.

|	
⚠ *Caution*	- When opening or closing the cover, be careful not to pinch your fingers. - Do not open the print head levers while the printer is printing. The printer may be damaged. - Change the media when the printer is not receiving data, or data may be lost.
⚠ *Warning*	- **Never insert objects or fingers while performing the cutting function. This can cause serious bodily injury.** - **Be careful not to touch the cutter blade with your hand. There may be a risk of personal injury.** - **The print head gets extremly hot while printing or after the printing, this can cause serious burns. Do not touch the print head.**

3-4-3 Media Installation Method for Peeler (optional) Model

Use a peeler to automatically separate the printed media from the liner.
For Peeler Model, install media in the following ways:

1) Refer to '3-4-1 Media Installation Method of Standard Model' to install media, adjust media guide and sensor position.

2) Open the peeler cover.
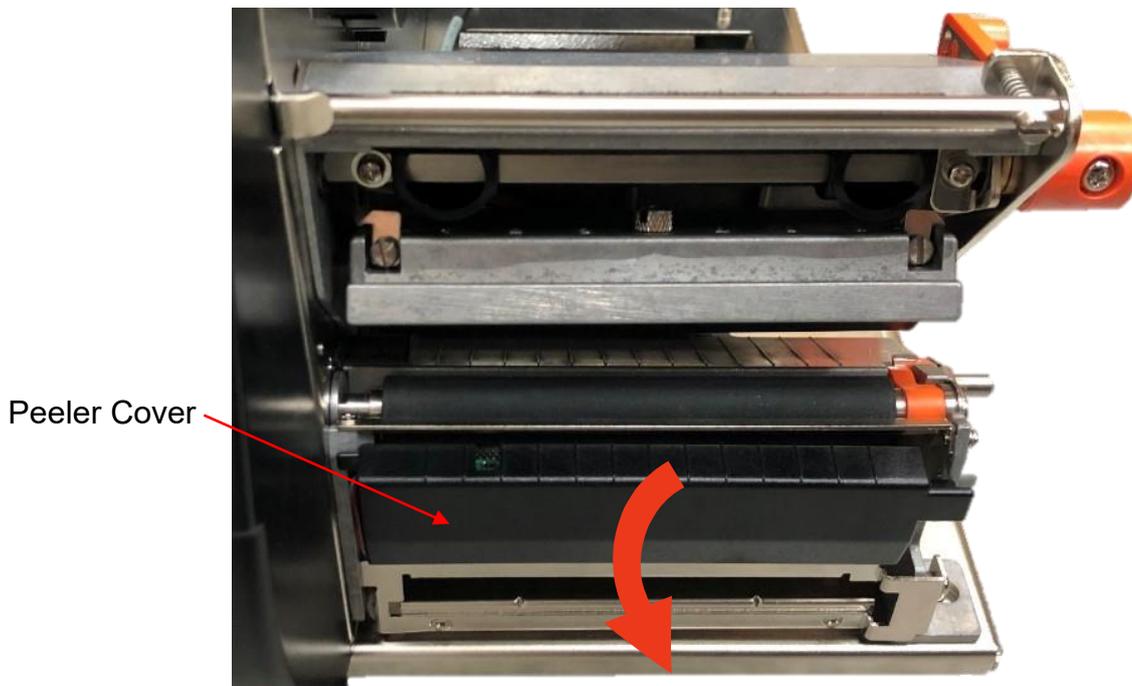
Peeler Cover

3) Peel a label from media and insert liner as in the below.
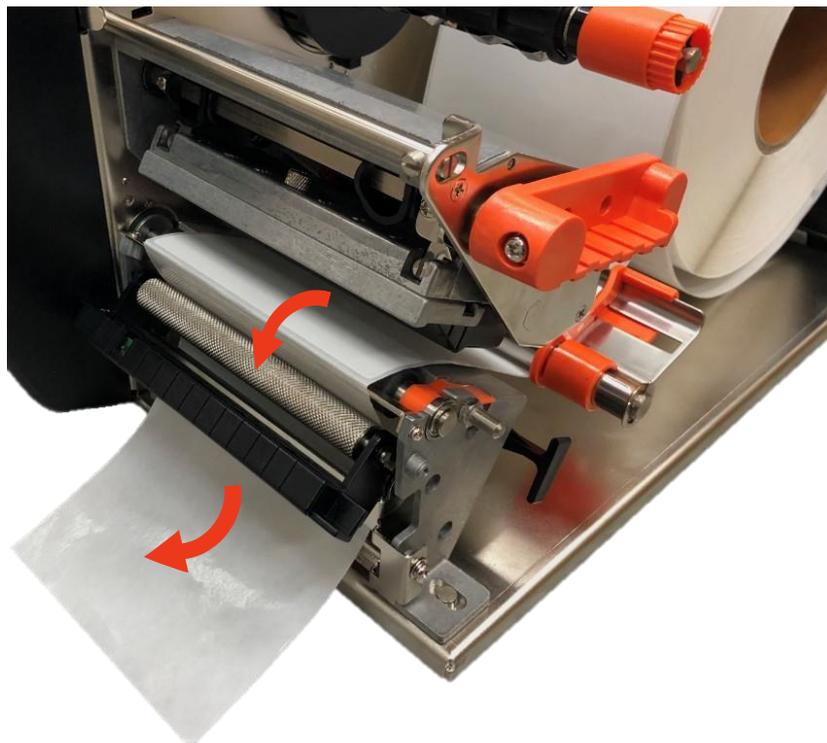
4) Close the peeler cover.

<div align="center">

(O)   **(X)**

</div>
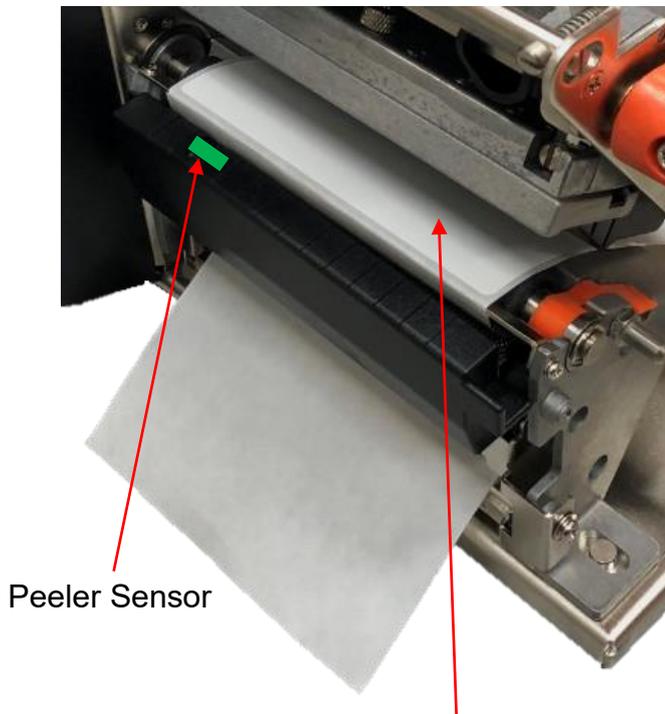
Peeler Sensor
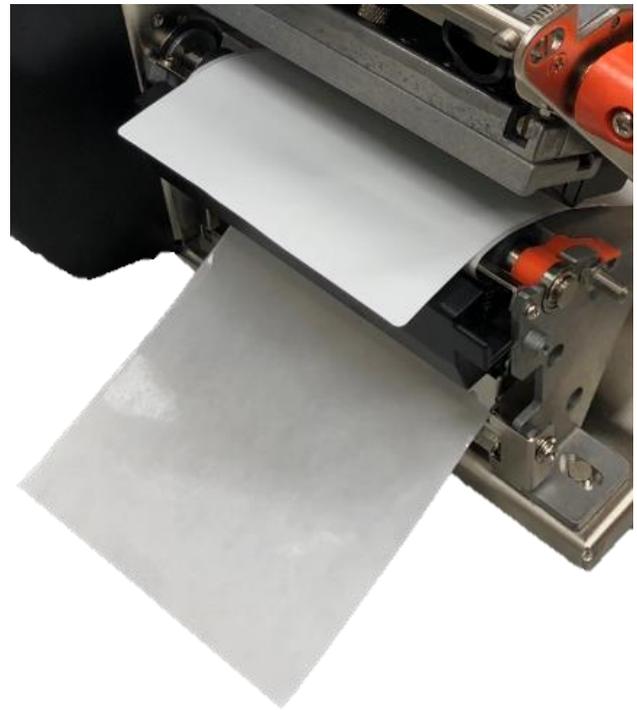
Be careful that the media does not cover the peeler sensor

5) Close the print head lever and media cover.

|	
⚠ *Caution*	- When opening or closing the cover, be careful not to pinch your fingers. - Do not open the print head levers while the printer is printing. The printer may be damaged. - Change the media when the printer is not receiving data, or data may be lost. - The peeler function is only available for label media. - The next label will not be printed unless the printed label is removed from the peeler. - When the peeler is switched off, the peeler does not work.
⚠ *Warning*	**The print head gets extremely hot while printing or after the printing, this can cause serious burns.** **Do not touch the print head.**

3-5 Ribbon Installation

3-5-1 Ribbon Type

1) Type by film coating position
   - This printer can be used with both Outside and Inside Ribbon.

Coated side
(print side)

Coated side
(print side)

Outside Ribbon   Inside Ribbon

⚠ *Note*	Perform an adhesion test to determine which side of the ribbon is coated. Follow these steps to check the coated side of the ribbon. 1) Remove the label from the liner. 2) Press one corner of the adhesive side of the label against the outside/inside of the surface of the ribbon. 3) Remove the label from the ribbon. 4) Check whether the black ink ribbon appears on the adhesive side of the label.
⚠ *Caution*	Do not dispose of the ribbon core of spent ribbon because it will be reused.

2) Type by Ribbon core
   - This printer can be used only with the ribbon of 1 inch ribbon core.

3-5-2 Ribbon Installation Method

Install ribbon as follows.

1) Insert the ribbon core into the ribbon return hub and insert the ribbon into the ribbon supply hub.
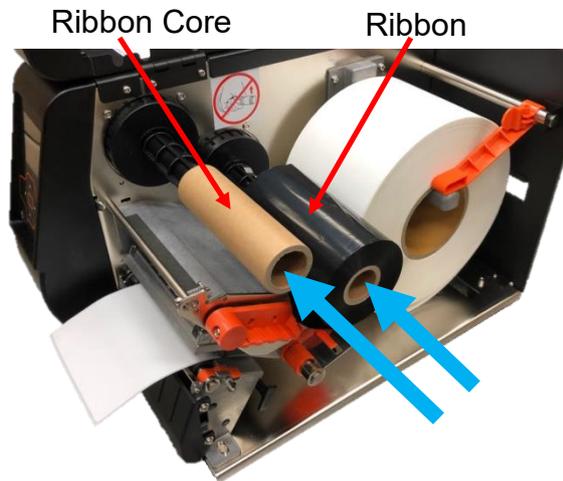
Ribbon Core   Ribbon

2) Open the print head lever and install the ribbon as shown below.

Outside Ribbon   Inside Ribbon
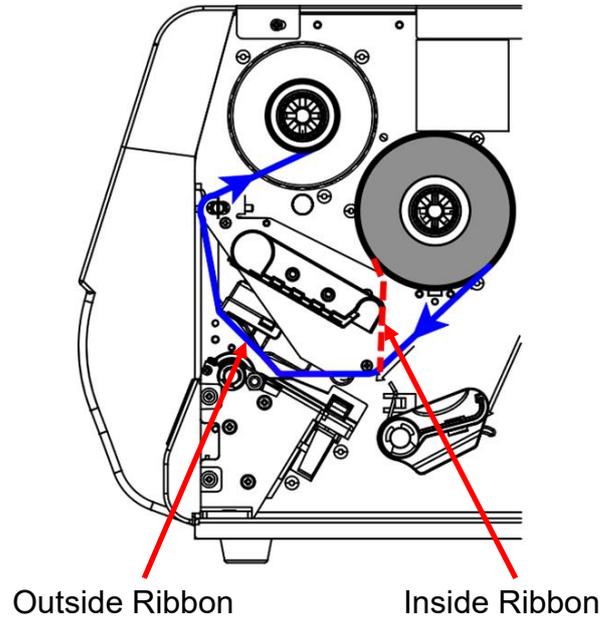
3) Attach the ribbon to the ribbon core using tape.

Tape
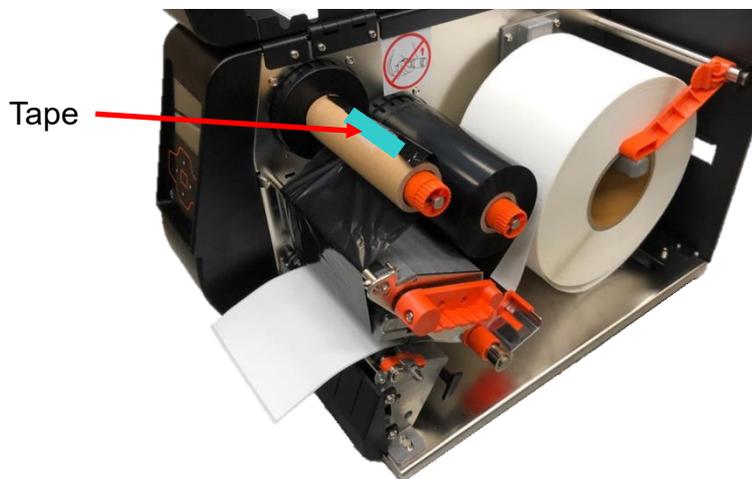
4) Close the print head lever and the media cover.

|	
⚠ *Caution*	- When opening or closing the cover, be careful not to pinch your fingers. - Do not open the print head levers while the printer is printing. The printer may be damaged. - Change the ribbon when the printer is not receiving data, or data may be lost.
⚠ *Warning*	**The print head gets extremly hot while printing or after the printing, this can cause serious burns.** **Do not touch the print head.**

3-5-3 Ribbon Remove Method

Remove the ribbon as follows.

1) Cut the ribbon.
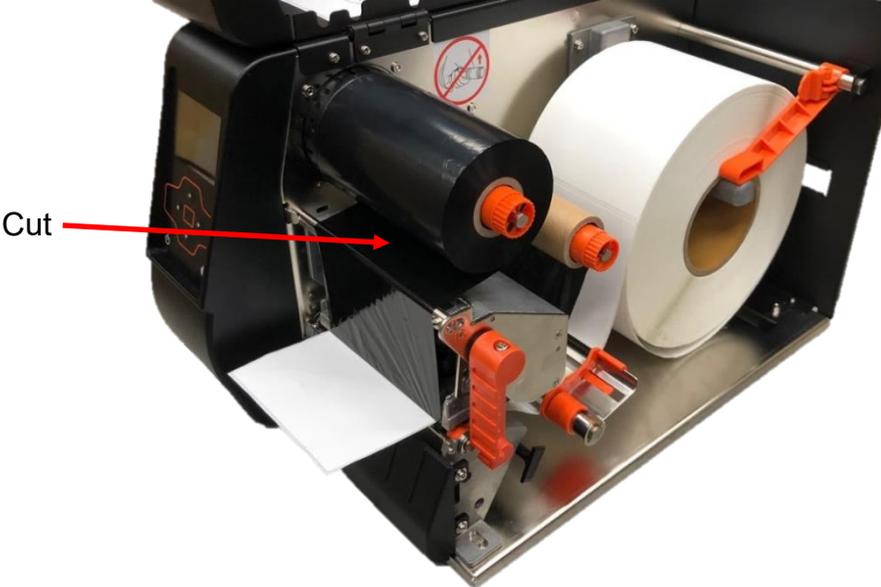
2) Open the print head levers and remove the ribbon and ribbon core from left to right.
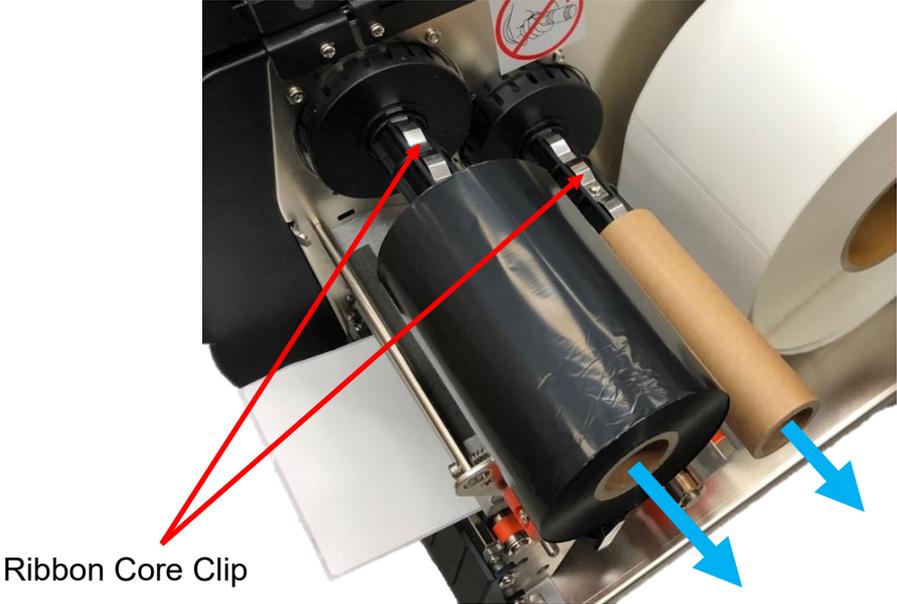
⚠ *Caution*	Don't remove the ribbon and ribbon core while the printer is printing. The printer may be damaged.
⚠ *Warning*	**When removing ribbon and ribbon core, be careful of the sharp end of the ribbon core clip. This can cause serious bodily injury.**

3-5-4 Adjusting ribbon tension Method

You can adjust the ribbon tension by turning the ribbon shaft knob clockwise or counterclockwise.

As factory default, the ribbon return hub is set to level 3, ribbon supply hub is set to level 2.

There are 4 possible settings, which is marked on the ribbon shaft knob.
1: Tension is the highest
4: Tension is the lowest
If the tension is so low that the ribbon does not move forward, you need to reduce the tension of the ribbon return hub. To set the tension, press in the knob and turn it clockwise or counterclockwise as required.

Increasing the tension of the ribbon supply hub will remove any wrinkling of the ribbon during printing, which results from the use of different ribbon materials.
(For details about the wrinkling/creasing of ribbons, see Section 3-7)

If you are using a very narrow ribbon, the printer may not move the media forward (particularly with a ribbon that is less than 2" wide). In that case, reduce the tension by turning the knob of the ribbon supply hub counterclockwise.
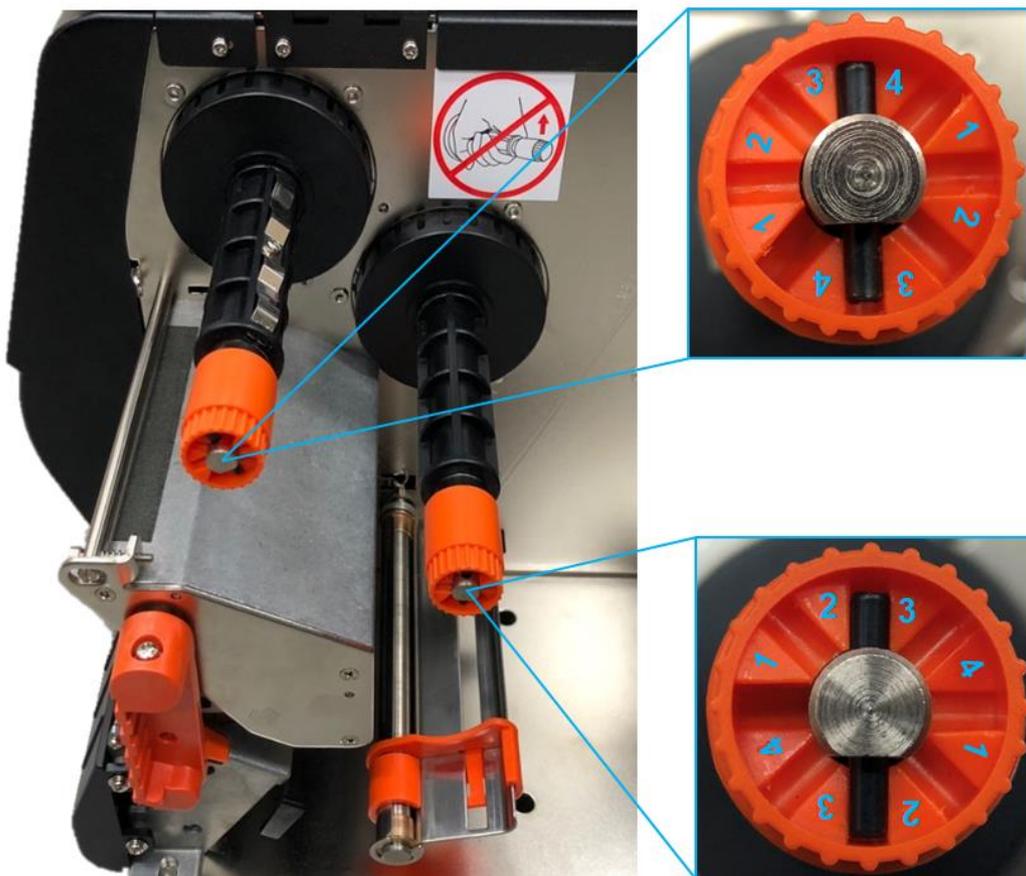
⚠ Caution	Do not adjust knobs while the printer is printing. The printer may be damaged.

3-6 Print Head Load Control Method

• You may need to adjust printhead pressure if printing is too light on one side or if there are winkle, if you use thick media, or if the media drifts from side to side during printing. Adjusting the print head load can improve the print quality.

※ The printhead pressure adjustment is available with 2 knobs on the printer head.
- Turning the knob left increases the pressure, while turning it right reduces the pressure.
- Be sure not to turn the knob so that it goes below "A".

If you are using wide media, please extend print head pressure adjustment knob as much as possible.
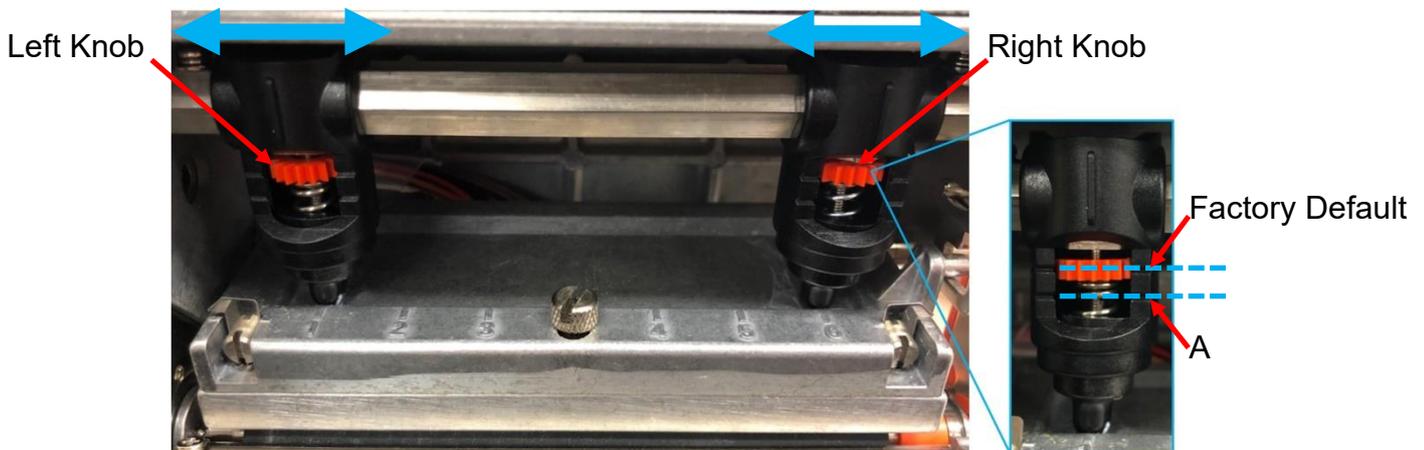
⚠ *Caution*	Do not adjust knobs while the printer is printing. The printer may be damaged.

3-7 Ribbon Guide Control Method

• Wrinkles can be improved by adjusting on the ribbon guide.

※ If your print result looks like the example in (a), you need to turn screw clockwise.
If your print result looks like the example in (b), you need to turn screw counterclockwise.
To keep track of the change in print quality, you should adjust the screws by half a turn at a time.

Do not turn the adjustment screw more than two full turns.
- If you adjust the screw by more than two full turns, the media feed may no longer function correctly. In that case, unscrew the ribbon shield screws to align the factoty default and restart the adjustment process.

(a)   (b)

Screw   Factory Default
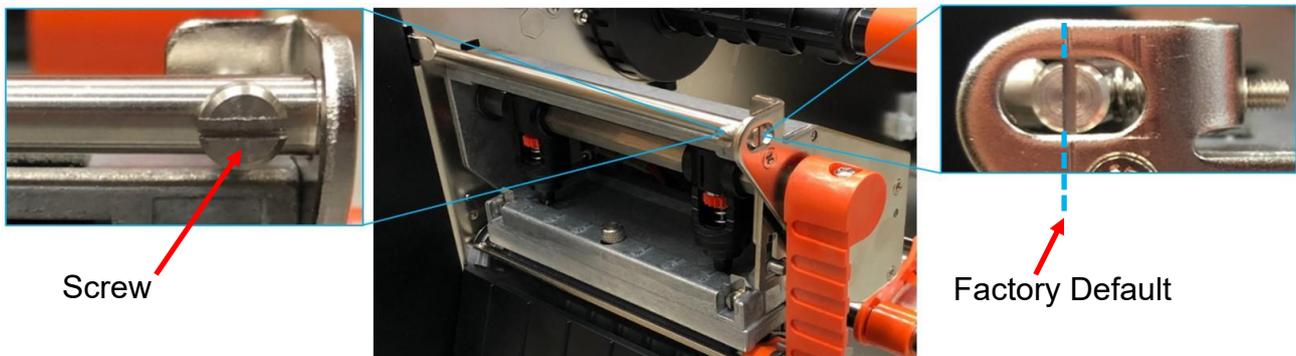
⚠ *Caution*	Do not adjust ribbon guide while the printer is printing. The printer may be damaged.

3-8 How to Fine Tune Print Head Position

• By fine tuning the print head position, you can improve the printing quality.

1) Turn off the printer.

2) Unplug the power cord from the printer.

3) Open the media cover.

4) Using with (-) screw driver or coin, loosen the Screw(A) counterclockwise once.

5) Open the print head lever.

6) Fine-tune Screw(B) Until you gets improved print result.

Screw(A)

Factory Default
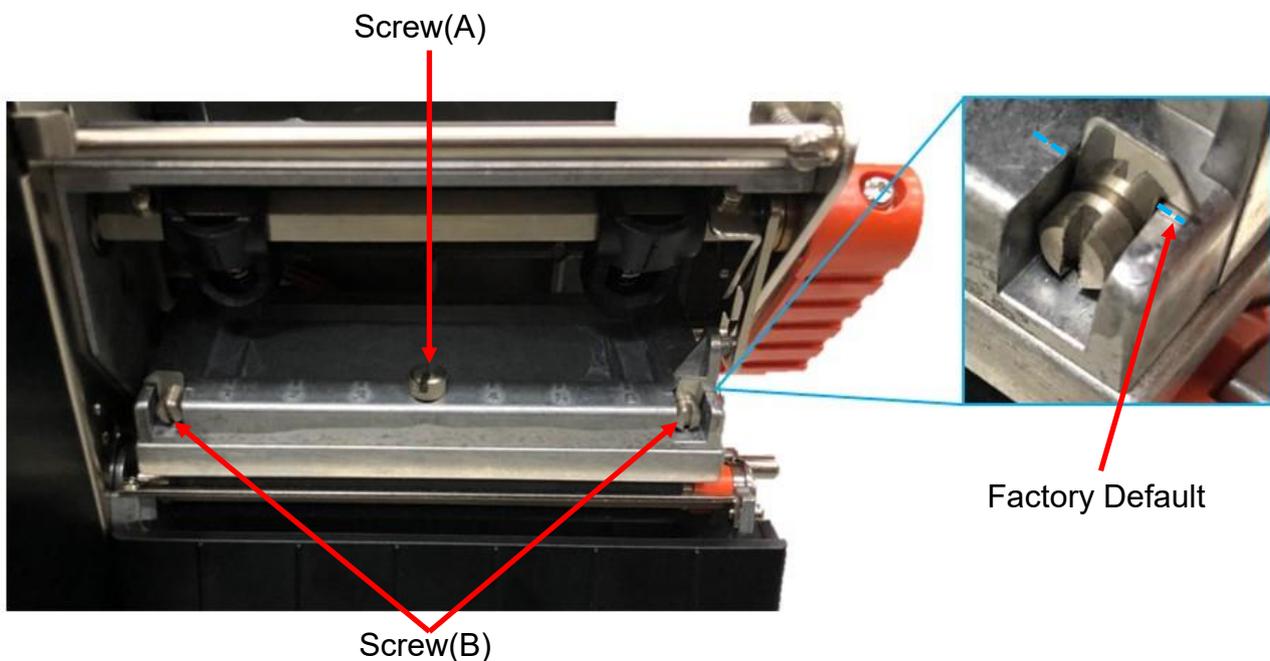
Screw(B)

7) Once the Fine-tune is done, Tighten the Screw(A) clockwise once.

⚠ *Caution*	- Do not adjust the print head position while the printer is in operation as it may cause damage. - Fine tuning the print head position significantly affects the printing quality. Perform this process only when necessary.

3-9 Auto Cutter Module Installation Method for Standard Model

• To install Auto Cutter module on Standard model, complete these steps:

1) Turn off the printer.

2) Unplug the power cord from the printer.

3) Open the media cover.

4) Using (+) Screw Driver, remove 2 Screws and remove the front lower panel to the right.

Front Lower Panel   Screw

5) Attach Cable fixing hub as in the picture below.

Hub

6) Assemble "A" parts to the "B" in Skyblue.

B

Cable Path

A
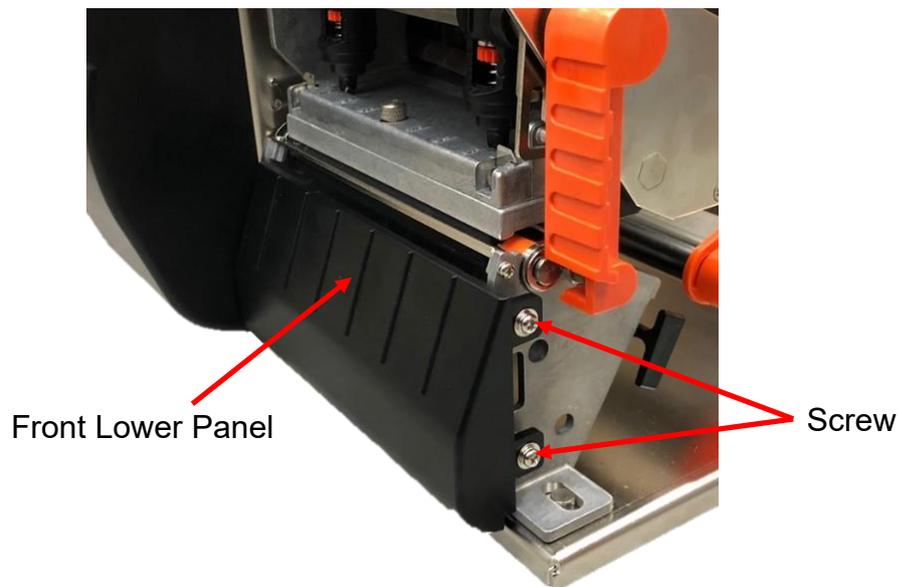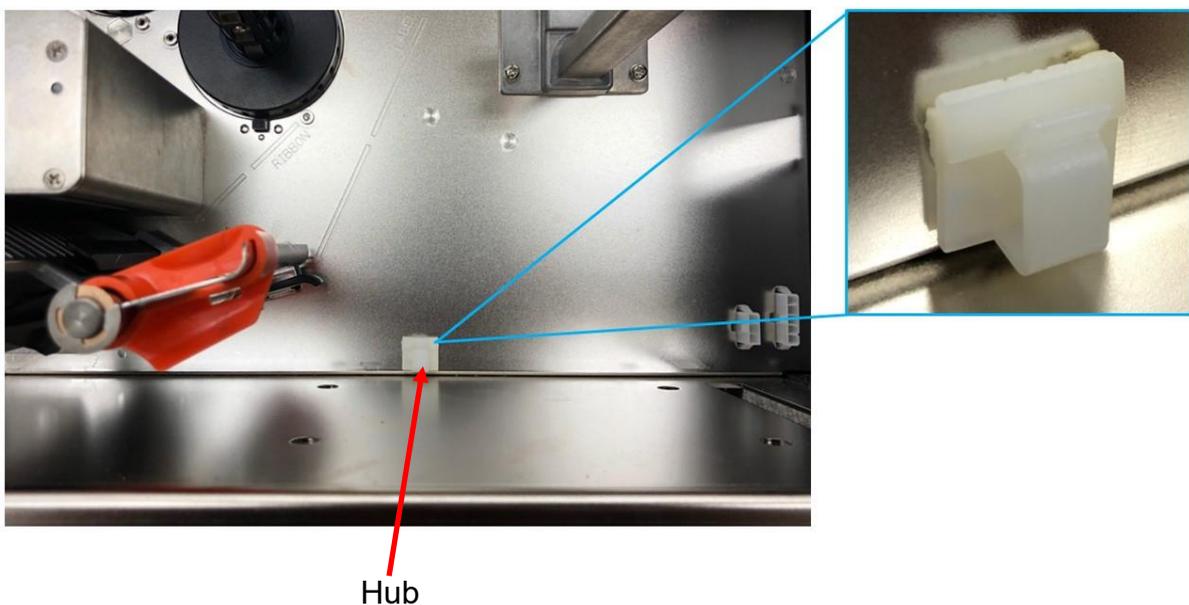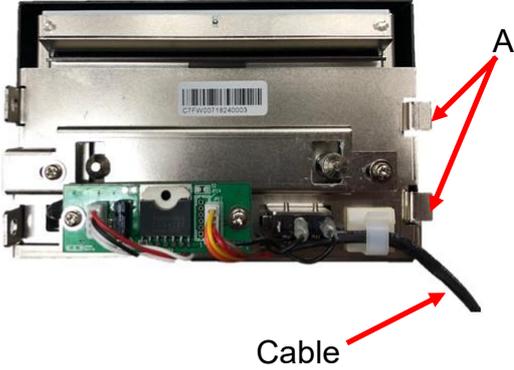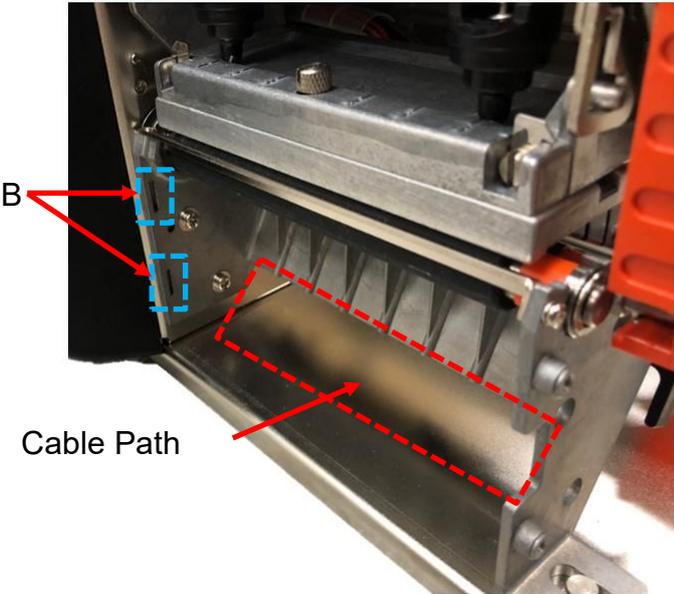
Cable

7) Using (+) Screw Driver, lock the 2 Screws`

PUSH

Screw
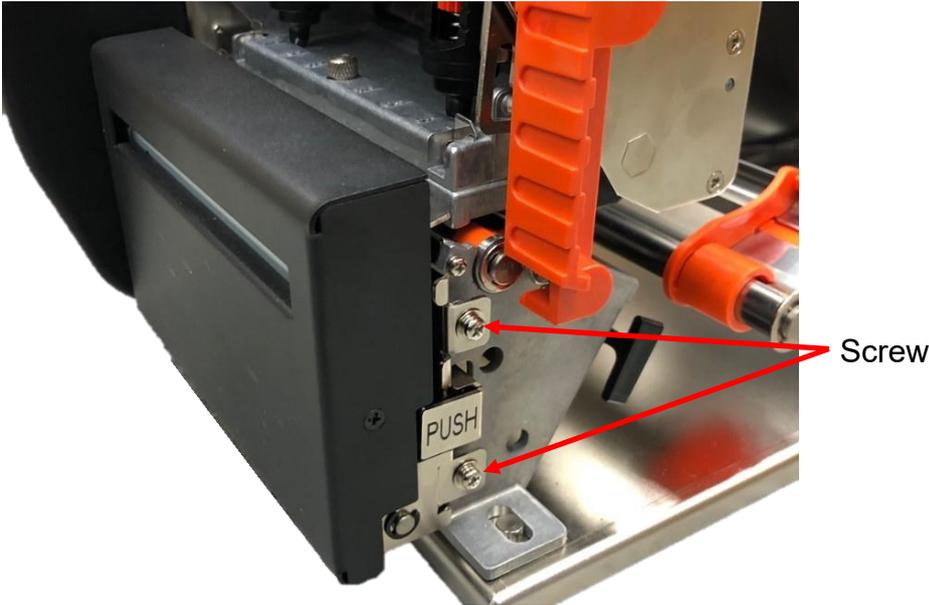
8) Connect the auto cutter module connector as in the picture, and secure the cable with the cable hub.
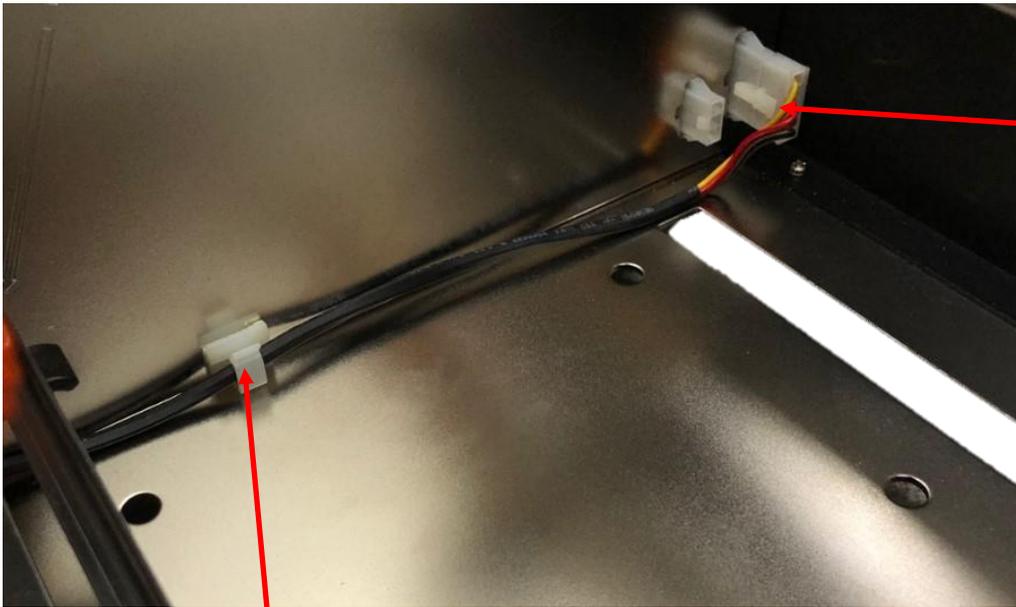
Auto Cutter Module Connector

Hub

10) Close the media cover.

⚠ *Caution*	For personnel safety, always power off and unplug the printer before performing this procedure.

3-10 Peeler Module Installation Method for Standard Model

• To install Peeler module on Standard model, complete these steps:

1) Turn off the printer.

2) Unplug the power cord from the printer.

3) Open the media cover.

4) Using (+) Screw Driver, remove 2 Screws and remove the front lower panel to the right.

Front Lower Panel   Screw

5) Attach Cable fixing hub as in the picture below.

Hub

6) Assemble "A" parts to the "B" in Skyblue.

B

Cable Path

A
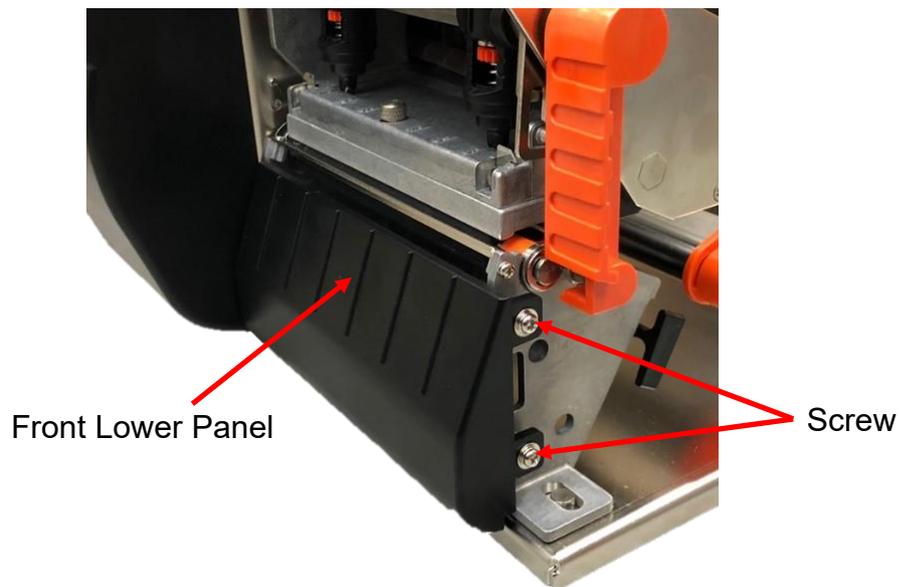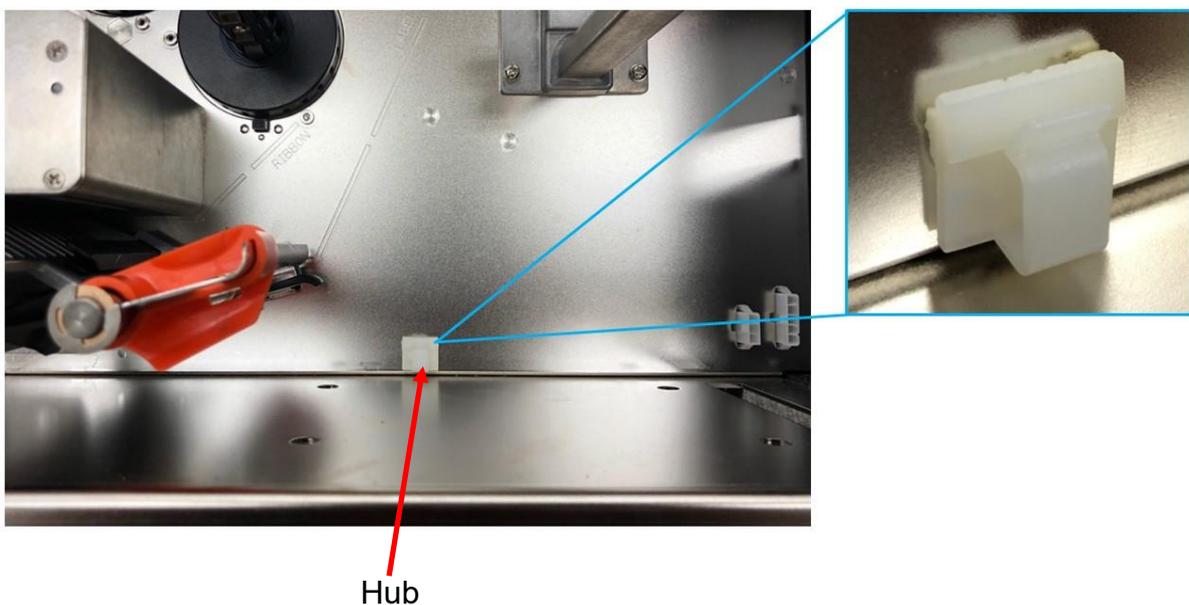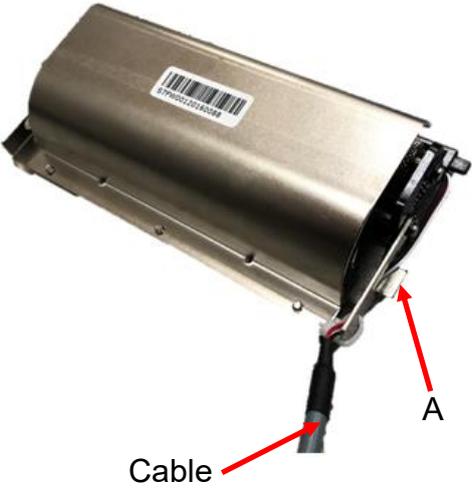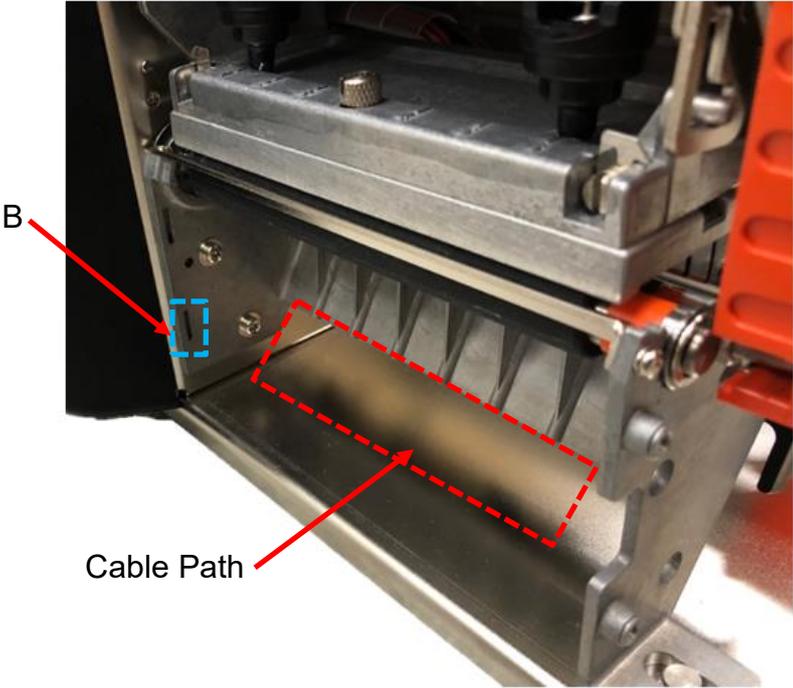
Cable

7) Using (+) Screw Driver, lock the Screw.

Screw
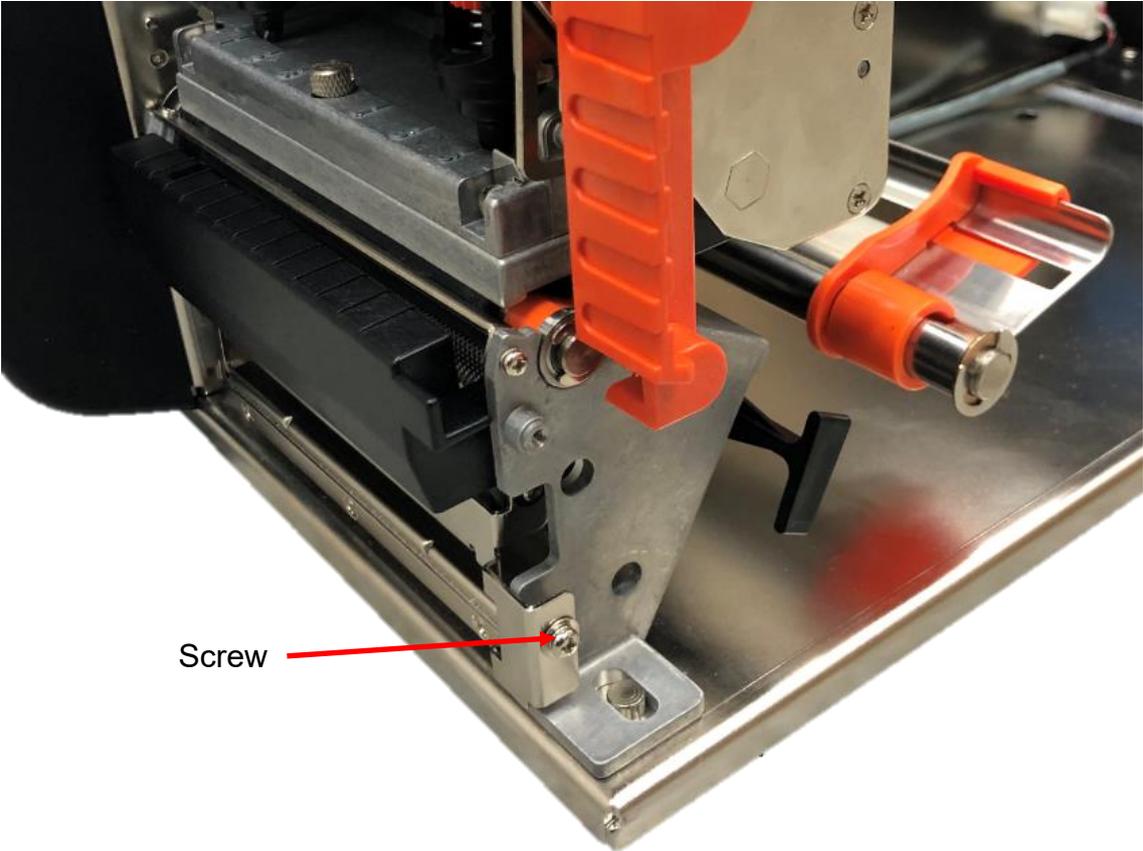
8) Connect the peeler module connector as in the picture, and secure the cable with the cable hub.

Peeler Module Connector

Hub
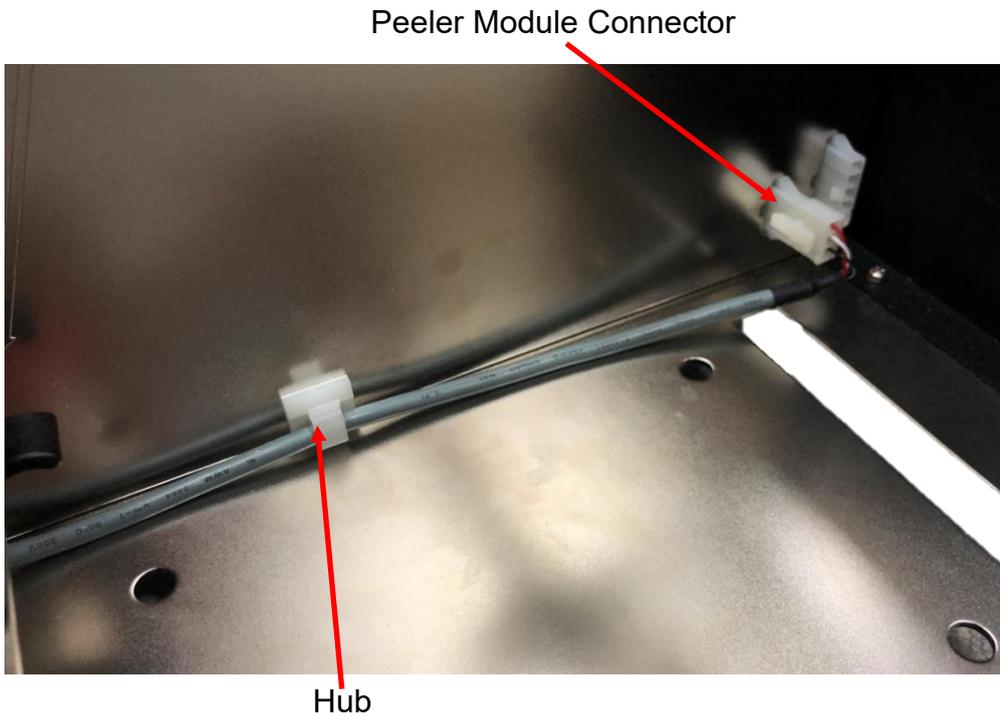
9) Close the media cover.

⚠ *Caution*	For personnel safety, always power off and unplug the printer before performing this procedure.

4. Printer Setting

4-1 Menu Composition

Printer settings	Explanation			
	LCD Language			
	Wizard	Speed		
		Darkness		
		Media Type		
		Printer Mode		
		Tear-off Position		
	Setting	Darkness		
		Speed		
		Sensor	Media Detection	
			Media Type	
		Print Mode		
		Tear-off Position		
		Top of Form		
		CodePage		

Label Settings	Explanation
	Rotation
	Horizontal Offset
	Vertical Offset
	Start Offset
	Recall Label

Devices	Explanation	
	Buzzer	
	Optional Setting	Option
		Smart Backfeed
	LAN Setting	Port
		DHCP
		Default Gateway
		Dynamic IP
		Subnet Mask
	LCD Password	
	Serial Port Setting	Baud Rate
		Parity
		Data bits
		Stop bits
	RTC(Real time clock) Setting	Clock Display
		RTC Setting
	Programming Language	

Printer Control	Explanation	
	Calibration	
	Self-test	
	Clear Memory	Label Format
		Graphic
		Bitmap Fonts
		True Type Fonts
		Asian Fonts
		ALL
	TPH Test	
	Restore Defaults	

Exit	Explanation
	Back to the main display

4-2 Menu Select Method

1) This is a normal LCD output screen.

2) Please keep pressing ▶ button and wait for the timer to be filled, then the LCD interface will enter into the main page for setting mode. You can make various setting functions in setting

Enter Main

Printer Settings
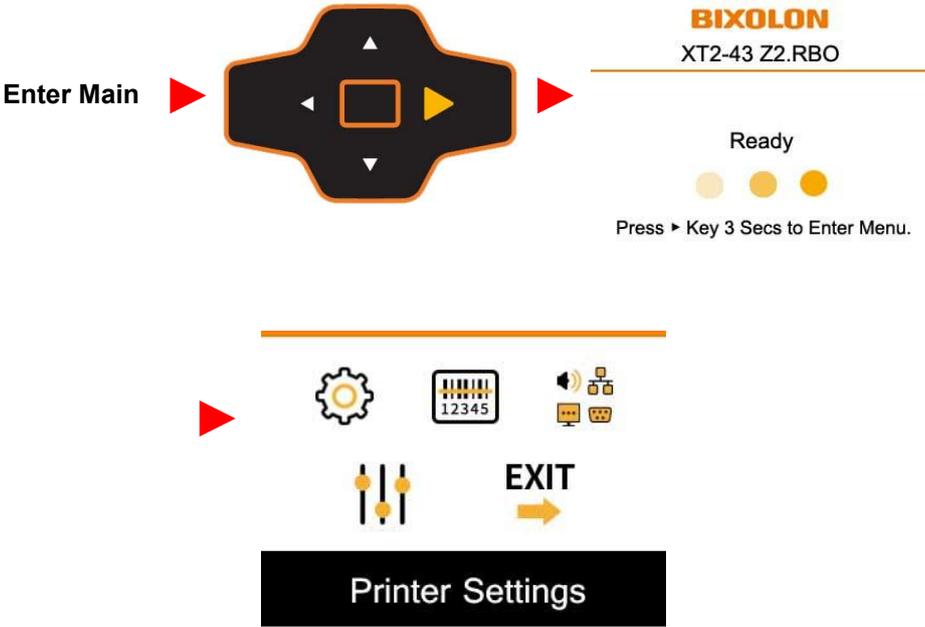
3) Use direction buttons to move to the desired menu.

Or

Label Settings
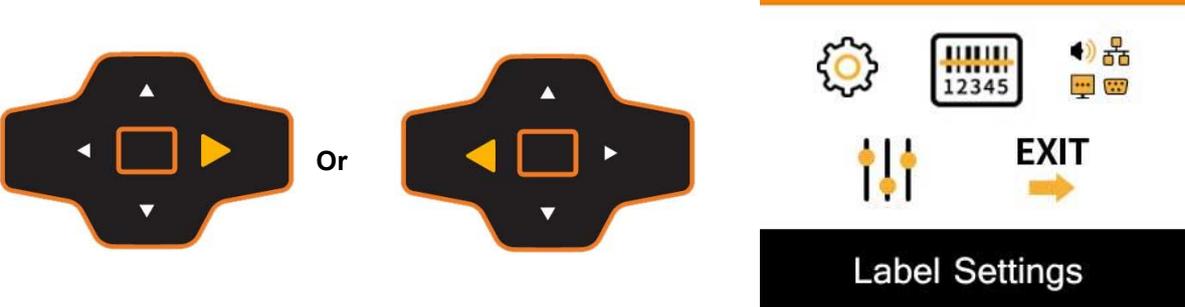
4) Press Feed button to enter the submenu.

Rotation
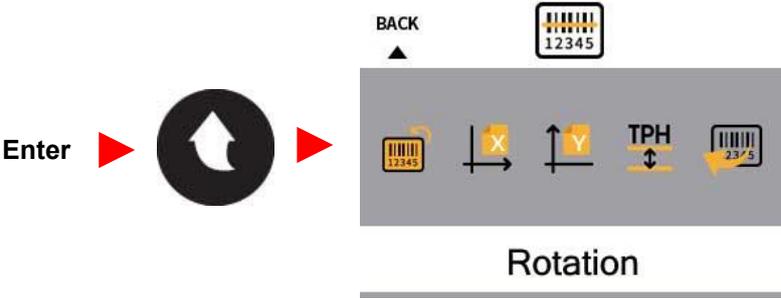
4-3 Setting Confirm Method

1) On setting pages, press ▶ or ◀ button to select the setting items.
   Select a designated function and press FEED button, you will enter the setting value page for the function.
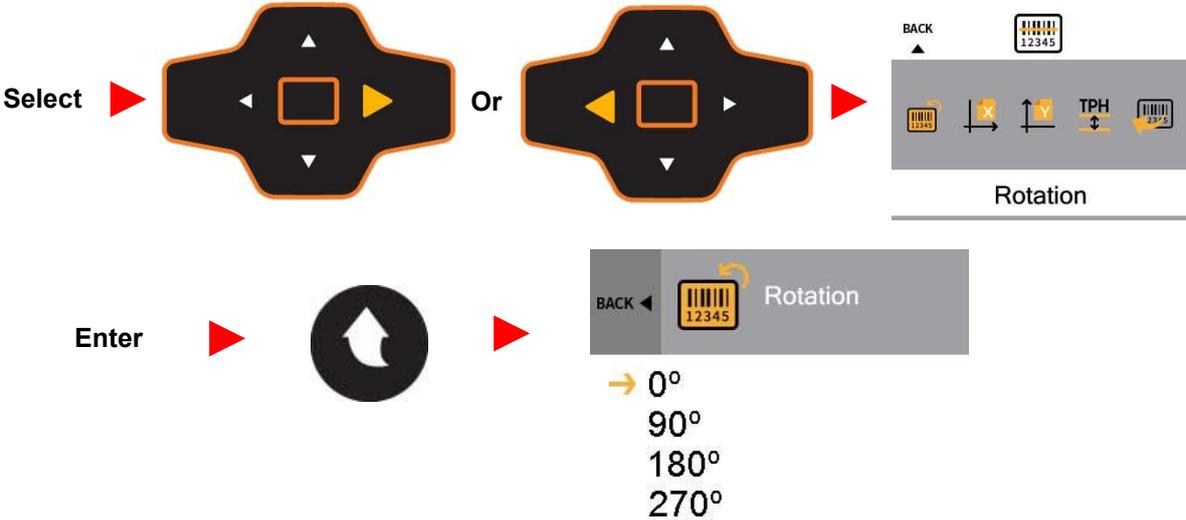
2) On setting value pages, press ▲ or ▼ button to change the setting values.
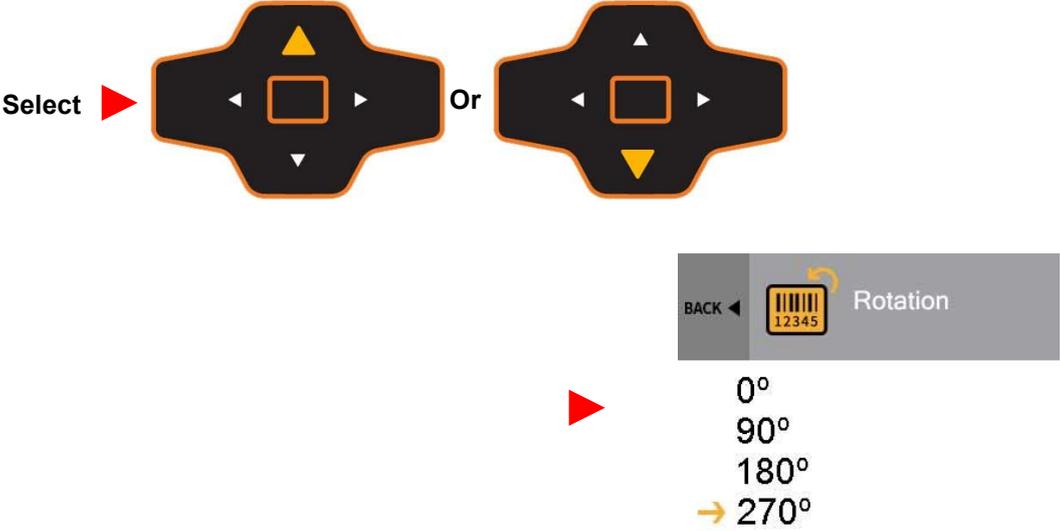
3) Press FEED button will apply the setting value you just selected, and the yellow tick will appear to mark the value.

Apply ▶ ⬆ ▶

BACK ◀ | 12345 | Rotation

0°
90°
180°
✓ 270°
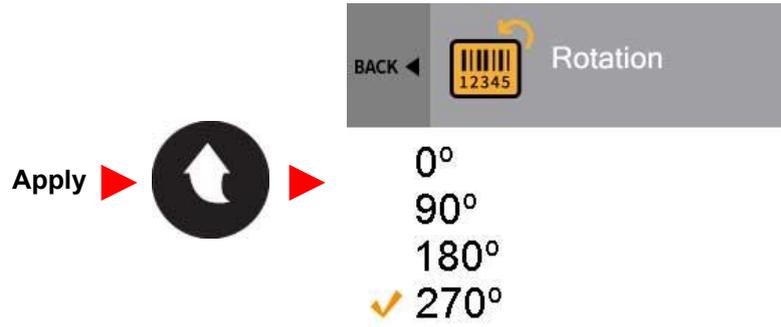
4-4 Exit from current page to ready status

• The icon on top-left corner guides you back to upper level with left or up arrow.

NAVIGATION ICON
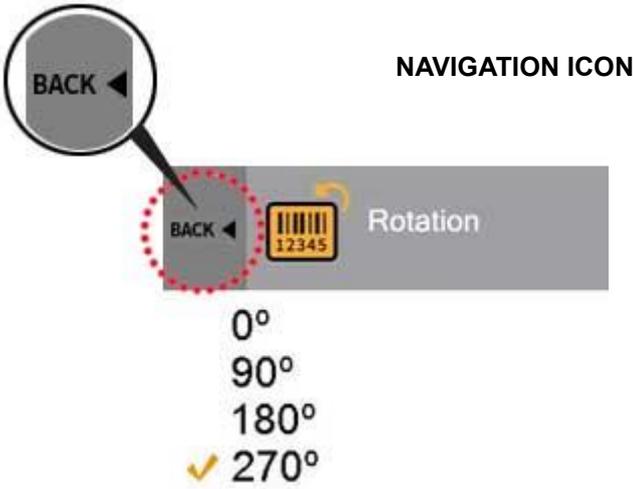
1) On setting value pages, press ◀ button will go back to the upper level screen.
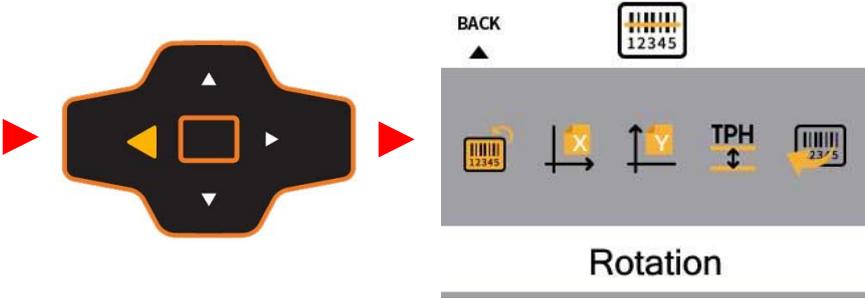
2) On setting pages, press ▲ button will go back to the main page
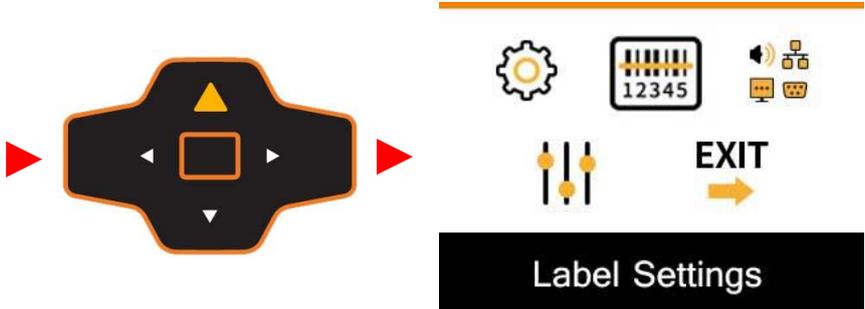
3) On main page, select the "EXIT" icon and press the FEED button to exit from setting mode and the printer goes back to ready status.

EXIT from setting mode ▶

▶

Exit

BIXOLON
XT2-40 Z2.RBO

Back to the ready status ▶ ▶

Ready

Press ▶ Key 3 Secs to Enter Menu.
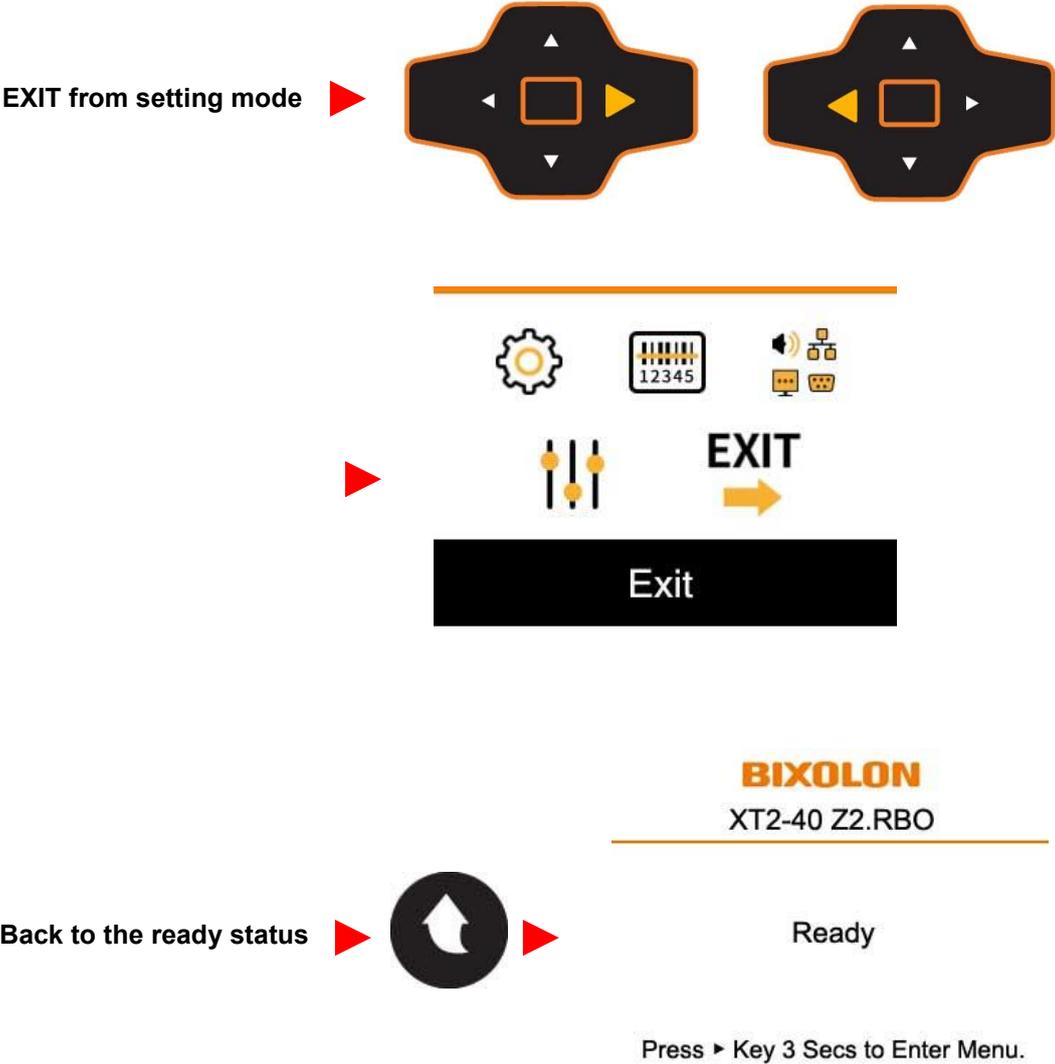
4-5 Icon Definition

Icon	Definition	
	Function	Explanation
◀	To upper level	Appears on the navigation icon of setting pages. It guides you back to upper level by pressing "LEFT" key.
▲	To upper level	Appears on the navigation icon of setting value pages. It guides you back to upper level by pressing "UP" key.
🔒	Lock	On setting value pages, press "RIGHT" key to lock the value for preventing unexpected change.
🔓	Unlock	For locked value, press "RIGHT" key again to unlock the value.
▲▼	Scroll the value	On setting value pages, press "UP" or "DOWN" key to scroll the values for your selection.

4-6 Setting Menu Explanation

4-6-1 Printer Setting

List		Explanation
LCD Language		**Explanation** Setting language to be displayed on the LCD **Default Value** English **Variable Value** English, Deutsch, 繁體中文, 简体中文, Français, 'Espaňol 한국어, Italiano, Pусский, Türkçe
Wizard		**Explanation** Printer Setting with Wizard
Darkness		**Explanation** Setting print density **Default Value** 15 **Variable Value** 0 ~ 19
Speed		**Explanation** Setting print speed[ips] **Default Value** 203dpi: 6ips 300dpi: 4ips **Variable Value** 203dpi: 2 ~ 6ips 300dpi: 2 ~ 4ips
Sensor	**Media Detection**	**Explanation** Setting media detection **Default Value** Auto Select **Variable Value** Auto Select, See-Through, Reflective
	Media Type	**Explanation** Setting media type **Default Value** Label with Gaps **Variable Value** Label with Gaps, Label with Marks, Continuous

Print Mode	**Explanation** Setting printing mode **Default Value** Thermal Transfer **Variable Value** Direct Thermal, Thermal Transfer
Tear-off Position	**Explanation** Setting media location after printing or feed **Default Value** 12 **Variable Value** 0 ~ 40
Top of Form	**Explanation** Setting Top of Form Enable/Disable. **Default Value** 0 **Variable Value** 0 ~ 3
Codepage	**Explanation** Setting print codepage **Default Value** 437 **Variable Value** 850 , 852 , 437 , 860 , 863 , 865 , 857 , 861 , 862 , 855 , 866 , 737 , 851 , 869 , Win 1252 , Win 1250 , Win 1251 , Win 1253 , Win 1254 , Win 1255 , Win 1257

4-6-2 Label Setting

List	Explanation
Rotation	**Explanation** Setting printing rotation **Default Value** 0° **Variable Value** 0°, 90°, 180°, 270°
Horizontal Offset	**Explanation** Setting horizontal offset **Default Value** 0 **Variable Value** -100 ~ +100
Vertical Offset	**Explanation** Setting vertical offset **Default Value** 0 **Variable Value** -100 ~ +100
Start Offset	**Explanation** Setting start offset **Default Value** 0 **Variable Value** -100 ~ +100
Recall Label	Recall saved label

4-6-3 Devices

List		Explanation
Buzzer		**Explanation** Setting beep on / off **Default Value** Apply **Variable Value** Apply, Cancel
Optional Setting	**Option**	**Explanation** Setting print mode suitable to the printer option **Default Value** None **Variable Value** None, Cutter, Label Dispenser(Peeler), Applicator
	Smart Backfeed	**Explanation** The printer could pre-print the initial content of next label **Default Value** Cancel **Variable Value** Apply, Cancel
LAN Settings	**Port**	**Explanation** Setting Port number **Default Value** 09100 **Variable Value** 0 ~ 59999
	DHCP	**Explanation** Setting IP assignment method **Default Value** DHCP **Variable Value** Disable, Enable
	Default Gateway	**Explanation** Setting gateway **Default Value** 192.168.000.254 **Variable Value** 0 ~ 255

	Dynamic IP	**Explanation** Setting IP Address	
		Default Value 000.000.000.000	
		Variable Value 0 ~ 255	
	Subnet Mask	**Explanation** Setting subnet mask	
		Default Value 255.255.255.0	
		Variable Value 0 ~ 255	
LCD Password		**Explanation** Setting a password to restrict printer settings	
		Default Value Disable	
		Variable Value Disable, Enable	
Serial Port Settings	**Baud Rate**	**Explanation** Setting the printer's baud rate	
		Default Value 9600bps	
		Variable Value 4800bps, 9600bps, 19200bps, 38400bps, 57600bps, 115200bps	
	Parity	**Explanation** Setting the printer's parity	
		Default Value None	
		Variable Value None, Odd, Even	
	Data Bits	**Explanation** Setting the printer's data bit	
		Default Value 8	
		Variable Value 7 , 8	
	Stop Bits	**Explanation** Setting the printer's stop bit	
		Default Value 1	
		Variable Value 1 , 2	

RTC (Real time clock) Settings	Clock Display	**Explanation** Set whether time is displayed **Default Value** Cancel **Variable Value** Apply, Cancel
	RTC (Real time clock) Settings	**Explanation** Setting RTC date and time **Date and time format** YYYY-MM-DD HH:MM:SS
Programming Language		**Explanation** Setting printer emulation **Default Value** Auto **Variable Value** Auto, BEPL, BZPL

4-6-4 Printer Control

List	Explanation
Calibration	Automatically corrects the sensitivity of the sensor and detect media type.
Self-Test	Prints for self-test
Clear Memory	Clear Memory of Label format, Graphics, Bitmap Fonts, True Type Fonts, Asian Fonts.
TPH Test	Check the bad dots of TPH
Restore Defaults	Initializes the printer settings to factory default

4-7 Label size calibration and Self Test Page

The printer can automatically detect and store label height.

That means the host computer does not need to transmit the label height to the printer.

And the self-test function lets you check whether the printer is functioning normally.

Here is how you run the label size calibration and self test.

Step.01 ➡ Check that the media is loaded correctly.

Step.02 ➡ Switch off the printer.

Step.03 ➡ Switch the printer on again, keeping the FEED button pressed.
When the ready status screen appear, release the FEED button.
The printer will now measure the media and store the label length

Step.04 ➡ Once the printer has successfully measured the media, it will print a self-test label.

5. Maintenance

5-1 Cleaning Printer

• Due to dust, foreign substances, adhesives, and other contaminants on or inside print head, print quality may be reduced. In this case, clean the printer using the cleaning tools for each area as indicated in the following table.

Area	Tools	Interval
Print Head	Cotton swab dipped in medical alcohol solution	When changing media
Platen Roller	Cloth dipped in medical alcohol solution (Cotton swab)	
Label Sensor		
Ribbon Sensor		
Media Feed Path	Air compressors, Cloth dipped in medical alcohol solution (Cotton swab)	
Ribbon Feed Path		
Manual cutting	Cloth dipped in medical alcohol solution (Cotton swab)	When a foreign substance is discovered
Peeler Roller (Option)		When changing media
Peeler Sensor (Option)		
Auto Cutter(Option)	Air compressors, Cotton swab dipped in medical alcohol solution	When a foreign substance is discovered

5-2 Cleaning Print Head

1) Open the media cover and print head levers and remove the media and ribbon.

2) Clean the print head toward both sides from the center using a cotton swab dipped in medical alcohol.

3) After cleaning, use the printer after alcohol has evaporated sufficiently (1 to 2 minutes) and the surface of print head has completely dried up.
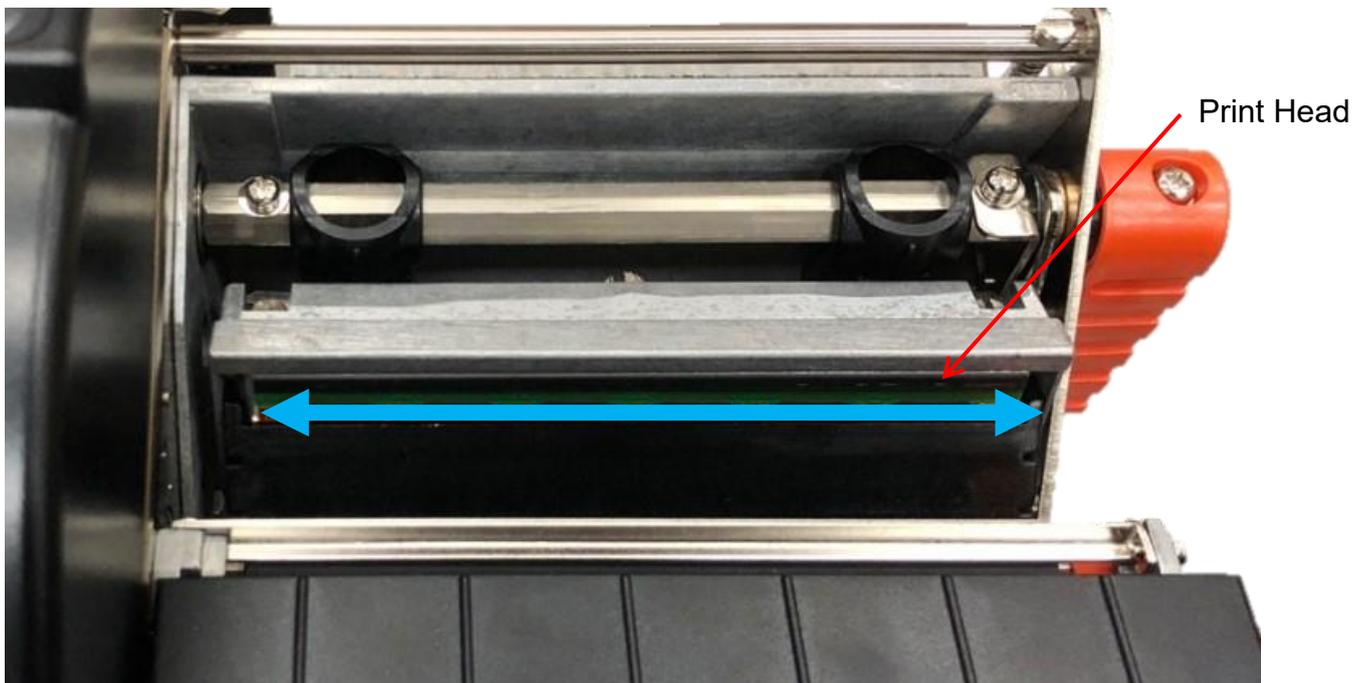
Print Head

⚠ *Caution*	- Be sure to clean after turning the printer off.
	- Be careful not to leave scratches in the print head.
	  The printer may be damaged.
	- Print head is very hot while the printer is printing, so clean the printer
	  after cooling it sufficiently while power is off.

⚠ *Warning*	**Do not touch heated area of print–head when cleaning.** **This can cause serious damage and bodily injury.**

5-3 Cleaning Platen Roller

1) Open the media cover and print head levers and remove the media and ribbon.

2) While rotating the roller, remove dust or foreign substances using a dry cloth or cotton swab.

3) In case that adhesive substances or other contaminants remain, remove it using a cloth or cotton swab dipped in medical alcohol solution while rotating the roller.

4) After cleaning, use the printer after alcohol has evaporated sufficiently (1 to 2 minutes) and the surface of platen roller has completely dried up.
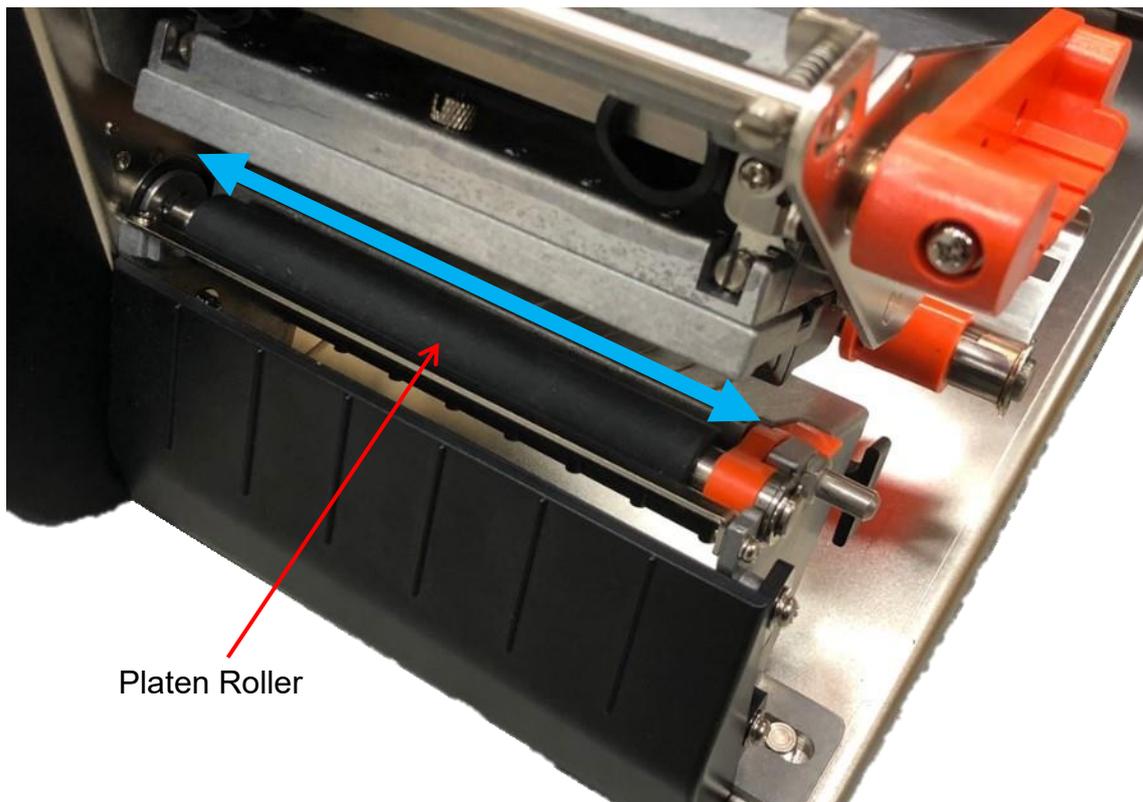

Platen Roller

⚠ *Caution*	- Be sure to clean after turning the printer off. - Be careful not to scratch the roller. The printer may be damaged.

5-4 Cleaning Auto Cutter (optional)

1) Open the media cover and print head levers and remove the media and ribbon.

2) Please refer '3-9 Auto Cutter Module Installation' and remove the Auto Cutter Module.

3) Remove 2 screws on both side and remove the cutter cover.

Cutter Cover
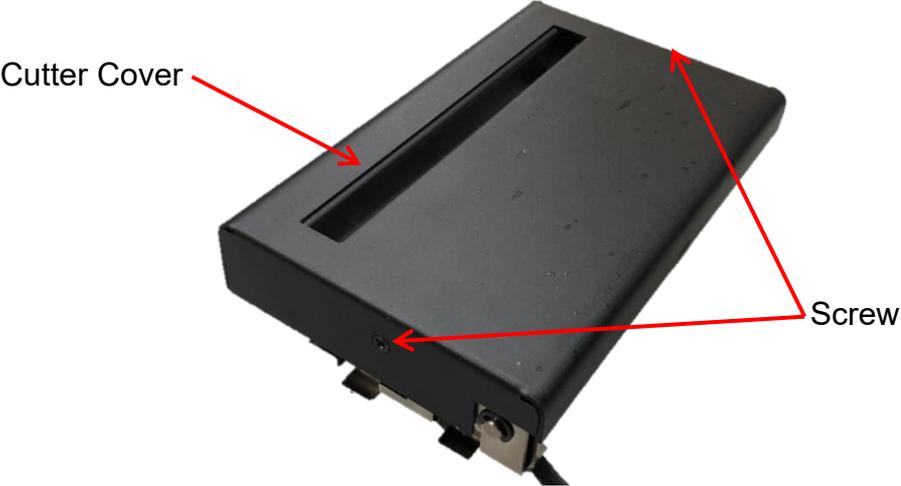
Screw

4) After exposing the cutter blade completely by rotating the knob, remove dust or foreign substances using a cotton swab dipped in medical alcohol solution.
   (Use (+) Screw Driver to adjust the knob.)

Cutter Blade

Knob
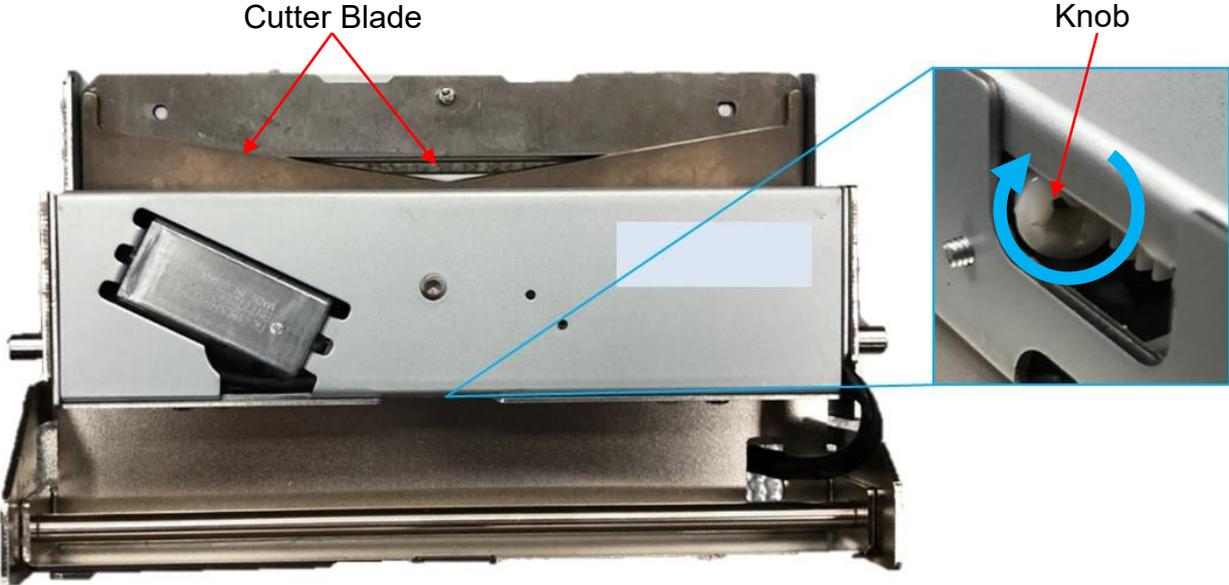
5) Allow 1~2 Minutes for the alcohol to evaporate and reassemble the module.

| ⚠ *Caution*	- Be sure to clean after turning the printer off. - Be careful not to scratch the cutter blade. The printer may be damaged.
⚠ *Warning*	**Do not touch cutter edge of auto cutter when cleaning.** **This can cause serious bodily injury.**

5-5 Replacing Platen Roller

1) Open the media cover and print head levers and remove the media and ribbon.

2) Pull upwards the buckle on right side and remove the platen roller to the right.

Buckle
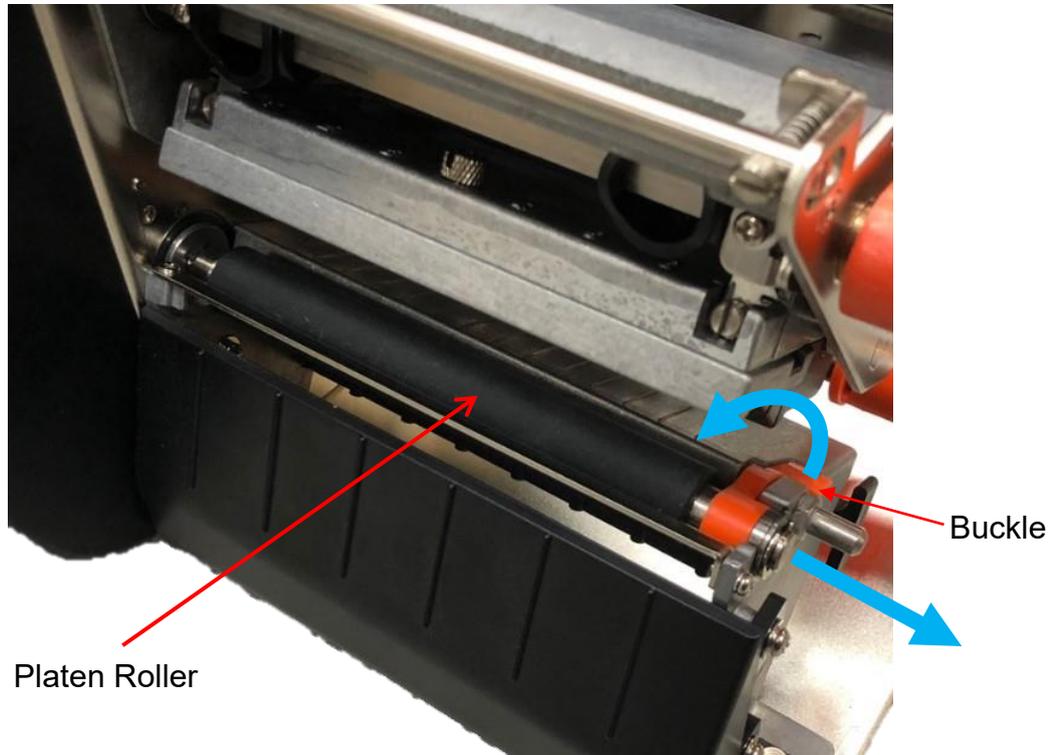
Platen Roller

3) Assemble new Platen roller assembly in reverse order.

⚠ *Caution*	Make sure to turn the printer power off prior to replacing roller.
⚠ *Warning*	**The print head gets extremly hot while printing or after the printing, this can cause serious burns.** **Do not touch the print head.**

5-6 Cleaning Peeler(optional)

1) Open the media cover, print head levers, and peeler cover and remove the media and ribbon.

2) While rotating the roller, remove dust or foreign substances using a dry cloth or cotton swab.

3) In case that adhesive substances or other contaminants remain, while rotating the roller, remove it using a cloth or cotton swab dipped in medical alcohol solution.

4) After cleaning, use the printer after alcohol has evaporated sufficiently (1 to 2 minutes) and the surface of roller has completely dried up.
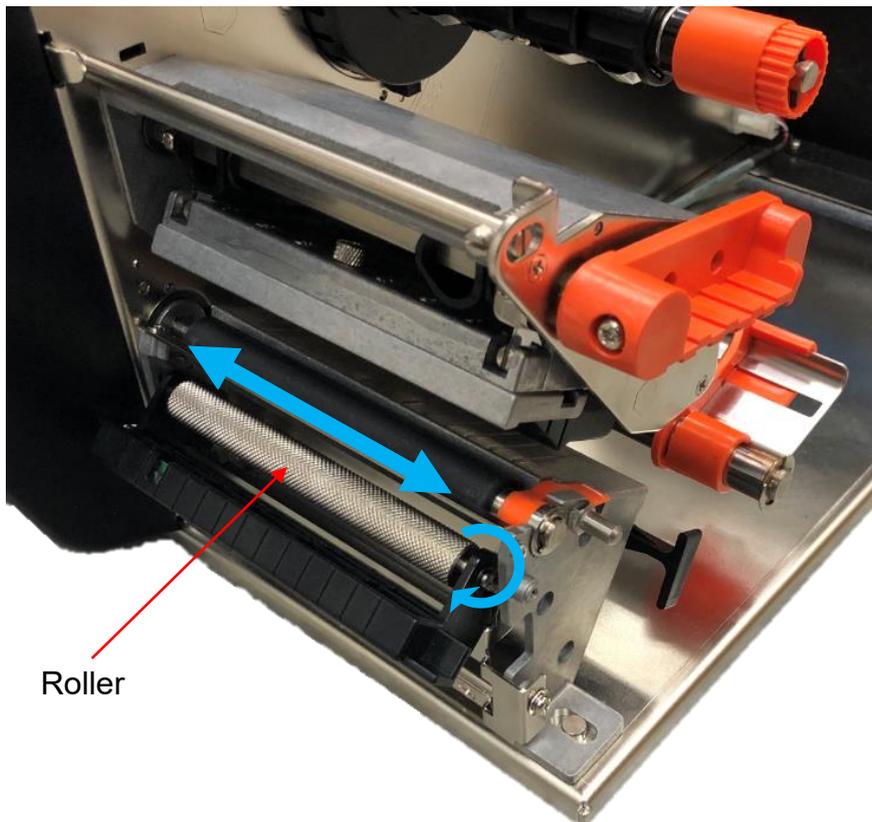
Roller

| ⚠ *Caution*	- Be sure to clean after turning the printer off. - Be careful not to scratch the roller. The printer may be damaged.

6. Printer Specifications

Item		Description
Printer	Printing Method	Thermal Transfer / Direct Thermal Printing
	Dot Density	XT2-40: 203dpi (8 dot/mm) XT2-43: 300dpi (12 dot/mm)
	Print Width	XT2-40: Max 108mm(4.25 Inch) XT2-43: Max 105.7mm(4.16 Inch)
	Print Speed	XT2-40: Max 152mm/sec (Max 6ips) XT2-43: Max 100mm/sec (Max 4ips)
Media	Width	Standard Model: 25.4mm(1 Inch) ~ 118mm(4.64 Inch) Auto Cutter Model: Max 117mm(4.61 Inch) peeler Model: Max 118mm(4.64 Inch)
	Diameter	Max 203.2mm(8 Inch) with 76.2mm(3 Inch) core Max 152.4mm(6 Inch) with 38.1mm(1.5 Inch) core Max 127 mm(5 Inch) with 25.4 mm(1.5 Inch) core
Ribbon	Length/Width	Max 450m / 30mm(1.18 Inch) ~ 110mm(4.33Inch)
	Type	Wax, Wax resin, Resin, Outside, Inside
	Inner Diameter	25.4mm (1 Inch)
AC/DC Enclosed	Input Voltage	Auto Switching 100-240V AC
	Input Frequency	50-60Hz
	Output Voltage/ Current	24V (2.5A)
Usage Conditions	Temperature	Operating: 5 ~ 40°C(41°F ~ 104°F) Storage: -20°C ~ 60°C(-4°F ~ 140°F)
	Humidity (except for Media)	Operationg: 20 ~ 85% Storage: 10 ~ 90%

⚠ **Note**	Print speed may vary depending on the data transfer speed and the combination of command.
⚠ **Caution**	- In case of danger, turn off the power to cut the connection. - The power cord must be grounded to ensure safety and reduce electromagnetic interference

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Ver. 1.02

Caution

Electronics, such as printers, are prone to damage by static electricity. Therefore, to protect the printer from static electricity, be sure to turn off the printer before connecting or disconnecting the cable to the rear of the printer. If the printer is damaged by static electricity, contact your local dealer.

When the printer is operating with the media cover open, do not wear anything that can touch the drive, such as clothing, necklaces, rings, watches, or employee certificates close to it. Also, keep yourself away from the printer as it is dangerous for some parts of the body to come into contact with it. If an object or part of your body touches the drive, immediately disconnect the power cord or turn off the power switch on the back of the product.

If the battery is not replaced correctly, there is a risk of explosion. Replace only with the same model or equivalent product specified by the manufacturer. When the battery is used up, be sure to tape the terminals and insulate them and dispose at the designated place in accordance with the relevant laws and ordinances set by the state.

Warning

Hazardous moving parts
Keep fingers and other body parts away
Pull the print head lever can be stop all moving parts.

IEC 60417-6057 (2011-05) for other moving parts.

Mise en garde

Les appareils électroniques, tels que les imprimantes, risquent d'être endommagés par l'électricité statique. Par conséquent, pour protéger l'imprimante de l'électricité statique, veillez à l'éteindre avant de connecter ou de déconnecter le câble situé à l'arrière de celle-ci. Si l'imprimante est endommagée par l'électricité statique, contactez votre revendeur local

Lorsque l'imprimante fonctionne avec le capot ouvert, ne portez rien qui puisse entrer en contact avec le mécanisme, tel que des vêtements, des colliers, des bagues, des montres ou des certificats d'employé à proximité. Éloignez-vous également de l'imprimante car il est dangereux que certaines parties du corps entrent en contact avec celle-ci. Si un objet ou une partie de votre corps entre en contact avec le mécanisme, débranchez immédiatement le câble d'alimentation ou éteignez l'interrupteur situé à l'arrière du produit.

Si la batterie n'est pas remplacée correctement, il existe un risque d'explosion. Remplacez-la uniquement avec le même modèle ou un produit équivalent approuvé par le fabricant. Lorsque la batterie est épuisée, veillez à coller du ruban adhésif sur les bornes, à l'isoler et à la jeter de manière adéquate, conformément aux lois et réglementations locales et nationales en vigueur.

Attention

Pièces mobiles dangereuses
Veillez à ce que vos doigts ou toute partie du corps n'entre(nt) pas en contact avec ces pièces.
Tirez le levier de la tête d'impression pour arrêter toutes les pièces en movement.

IEC 60417-6057 (2011-05) pour les autres pièces mobiles.

Compliance information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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 when the equipment is operated in a commercial environment. This equipment generates uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution: Exposure to Radio Frequency Radiation.
To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

Caution: Any Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Class A Digital Device : Wired Device
This Apparatus complies with class "A" limits for radio interference as specified in the Canadian department of communications radio interference regulations.

This Class A digital apparatus complies with Canadian ICES-003.

Appareil numérique de classe A: appareil filaire
Get appareil est conforme aux normes class "A" d'interference radio tel que specifier par ministre canadien des communications dans les reglements d'interference radio.

Cet appareil numérique de la classe A est conform à la norme NMB-003 du Canada.

Waste Electrical and Electric Equipment (WEEE)

This marking shown on the product or its literature, indicates that is should not be disposed with other household wastes at the end of its working life, To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Revision History

Rev.	Date	Page	Description
1.00	20.03.24	-	New
1.01	20.06.04	11 23~24 28 35~37 54 58 59	Peeler model image added. Media Installation Method for Peeler(optional) Model added. Adjusting ribbon tension Method revised. Peeler Module Installation Method for Standard Model added. Cleaning Printer Revised. Cleaning Peeler(optional) added.
1.02	21.11.03	13	"TPH Error" added