BIXOLON

User's Manual

SLP-DX220 Series

THERMAL LABEL PRINTER
Ver. 2.00

www.bixolon.com

Copyright

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.

This equipment is not suitable for use in locations where children are likely to be present.
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.

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

Cet appareil nest pas adapté d'utilser dans des endroits où des enfants sont probablement d'être présents.

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.

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.

⚠ WARNING & CAUTION

It describes death, physical injuries, serious financial losses, and damage to data etc. that can be caused to the user.

Do not connect multiple products to one single power outlet. Do not connect the product to a loose power outlet.
Use only power outlets that meet the standard. Connect the power cord only to a grounded power outlet. **Noncompliance may cause electric shock or fire.**

Use only authentic products from BIXOLON. **The company will not provide post-sale support for damage or other quality issues that any fake (refurbished) products may incur.**


Do not bend or strain the power cord excessively. Push the power cord all the way into the power outlet lest it remain loose. Make sure to hold the cord tight when separating it from the power outlet. Do not remove the power cord while the product is in use. **Noncompliance may cause electric shock or fire.**


Keep small accessories or other packaging materials away from young children. Beware: children may swallow them. **Mishandling the product may incur injuries. If a child has swallowed any such thing, see a doctor at once.**


Do not touch the power cord with wet hands when pulling it from a power outlet. If the power plug or outlet is smeared with extraneous matter, wipe it with a dry cloth. **Noncompliance may cause electric shock or fire.**
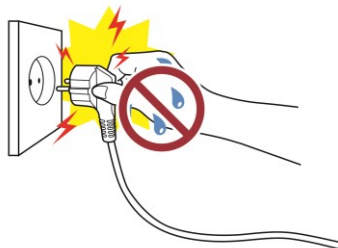

Do not allow the product to be damaged by heavy objects. **Noncompliance may cause electric shock or fire.**

Ver. 2.00
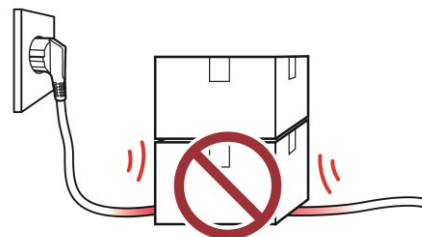
If the product emits a strange sound, burning smell, or smoke, turn off the power immediately and unplug the power cord. If the product is dropped or its exterior is damaged, turn off the power immediately and unplug the power cord. Do not subject the product to shock. **It may start a fire. It may damage the product.**
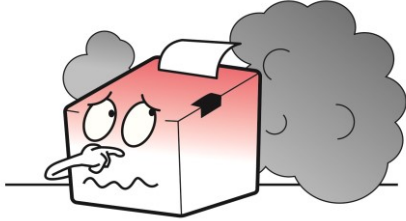
Install the product in a well-ventilated place by keeping it a certain distance from the wall. The product installed in certain places such as where a lot of fine dust is generated, where the temperature is too high or too low, where there is a lot of moisture or water, and at airports or stations that are used continuously for a long time may suffer serious quality problems due to the influence of the surrounding environment. **An increase in internal temperature may start a fire. Be sure to contact the place of purchase before installing the product.**
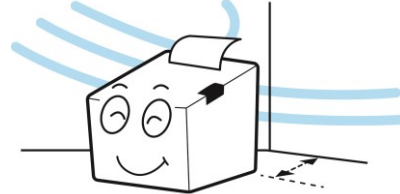
Install the product in a fixed place preventing it from tipping over. When moving the product, turn off the power and disconnect all cables connected to the product, including the power cord. **It may damage the product.**

Never disassemble, repair, or modify the product at your own discretion. **When repair is necessary, contact the place of purchase.**
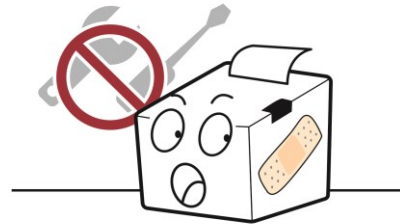
Do not let any foreign substances enter the product. Do not place heavy objects, liquids, or metals on the product. **It may start a fire. It may damage the product.**

If there is a problem with the product, please contact the place of purchase. In addition, Bixolon website (http://www.bixolon.com) provides product repair.

Ver. 2.00
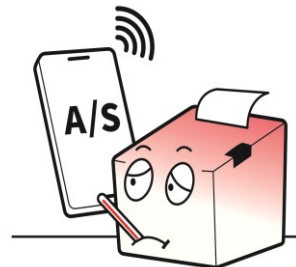
Manual Introduction

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

The following separate manuals provide more detailed content on various technological issues and areas. Manuals for each discipline are available on the home page.

1. Windows Driver Manual

This manual provides information on the installation instructions and main functions of the windows driver.

2. Unified Label Utility-II Manual

This manual provides information on the usage of software for function selection of this product, operating condition modification, etc.

3. Programming (SLCS) Manual

This manual provides information on label printer commands.

4. True Font Downloader Manual

This manual provides information on the usage of the font downloader that can download true fonts and facilitate their usage as device fonts.

5. Network Connection Manual

This manual provides information on network configuration and usage methods.

6. Label design program Manual

This manual provides information on the usage of the Windows PC program that can make labels by adding text, graphics, or barcodes at desired positions.

Printer Introduction

Accompanied by a breadth of connectivity and media handling choices, the compact SLP-DX220 offers a durable printing solution. A user-friendly design ensures easy out-of-box setup and ongoing use, plus free-of-charge utilities and device management ensure control of your wired or wireless SLP-DX220 via fixed or mobile devices is possible. Handling a range of programming languages and supporting industry standard 1D and 2D barcode symbologies, the small SLP-DX220 has a huge feature set across two colour schemes – dark grey or ivory to support all of your printing requirements.

The main features of the printer are as follows

1. Maximum 152mm/s printing speed.
2. 2inch Thermal Label Printer
3. 120 x 230 x 170 (W x D x H)
4. Supports multiple interfaces: USB, serial, Ethernet, wireless LAN
5. Easy to load media
6. Can print various types of barcode labels
7. Supports optional filler and cutter

Product Symbol Introduction

▬ ▬ ▬ ▬ ▬ ▬	DC (Direct current)
⚠	Warning, Caution
USB symbol	USB
Ethernet symbol	Ethernet

Manual Symbol Introduction

⚠️	**Precaution & Warning**	It describes death, physical injuries, serious financial losses, and damage to data etc. that can be caused to the user.
❗	**Note**	It provides additional information on the function and performance of the product.

Table of Contents

1. Content Confirmation

> ❗ - If there is any part missing, please contact the place of purchase.
> - The actual part may look different from the image.

1-1 Standard Model
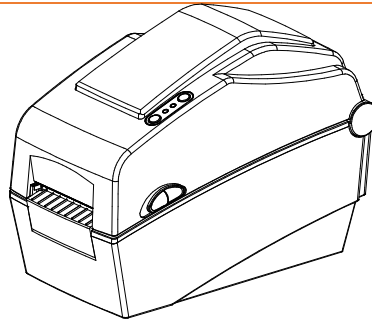
SLP-DX220 Series
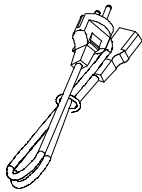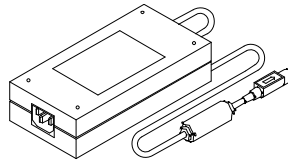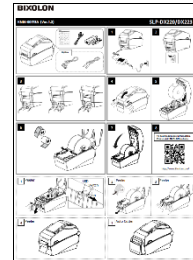
Power Cord   **AC/DC Adapter**   **Quick Manual**

※ **Option**

USB Cable

Serial (RS-232C) Cable

1-2 Wi-Fi Model
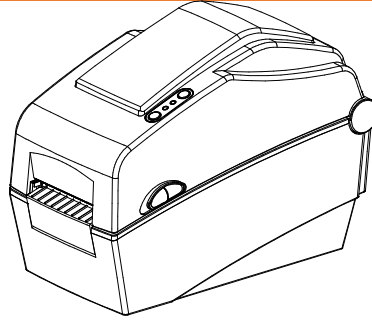
SLP-DX220W Series
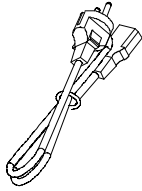
Power Cord
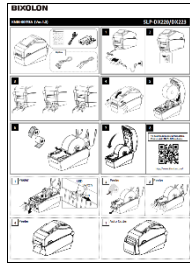
AC/DC Adapter

Quick Manual
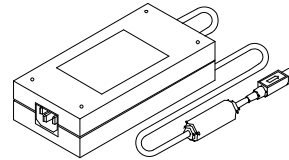
USB Cable

2. Product Part Names

2-1 Printer Part Names

Pause Button

Feed/Cancel
Button

Cover Lever

Printer Head

Media Cover

Black & Notch Sensor

Media Holder

Cover STD

Media Guide + Gap Sensor

Power Switch

Fan-Fold or External Paper Cover

Power Port

USB B-Type Port

USB A-Type Port
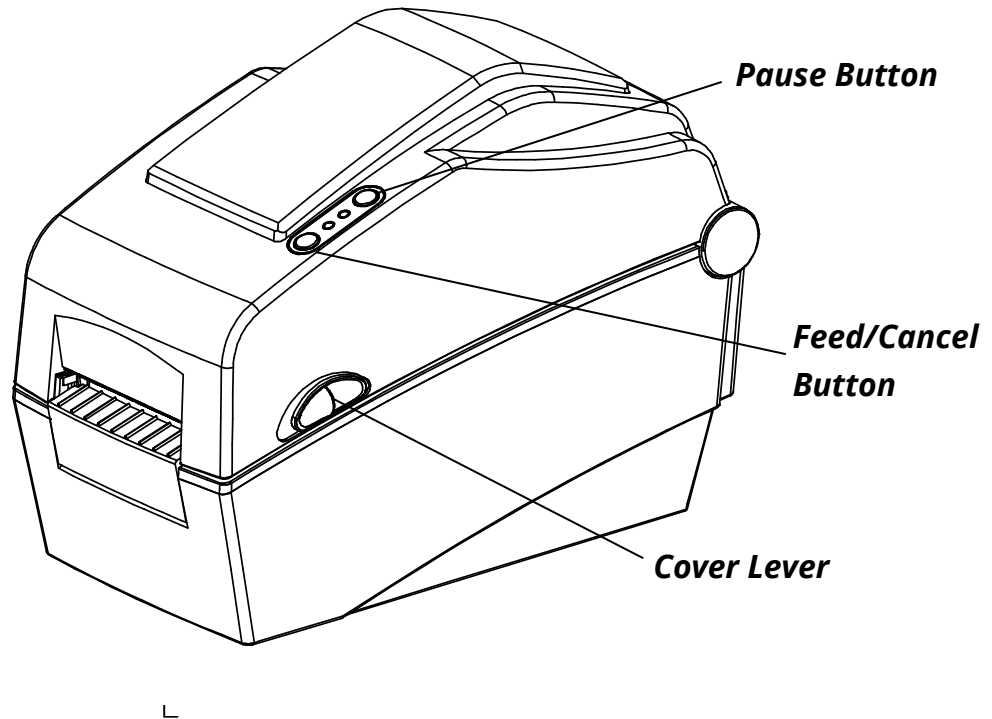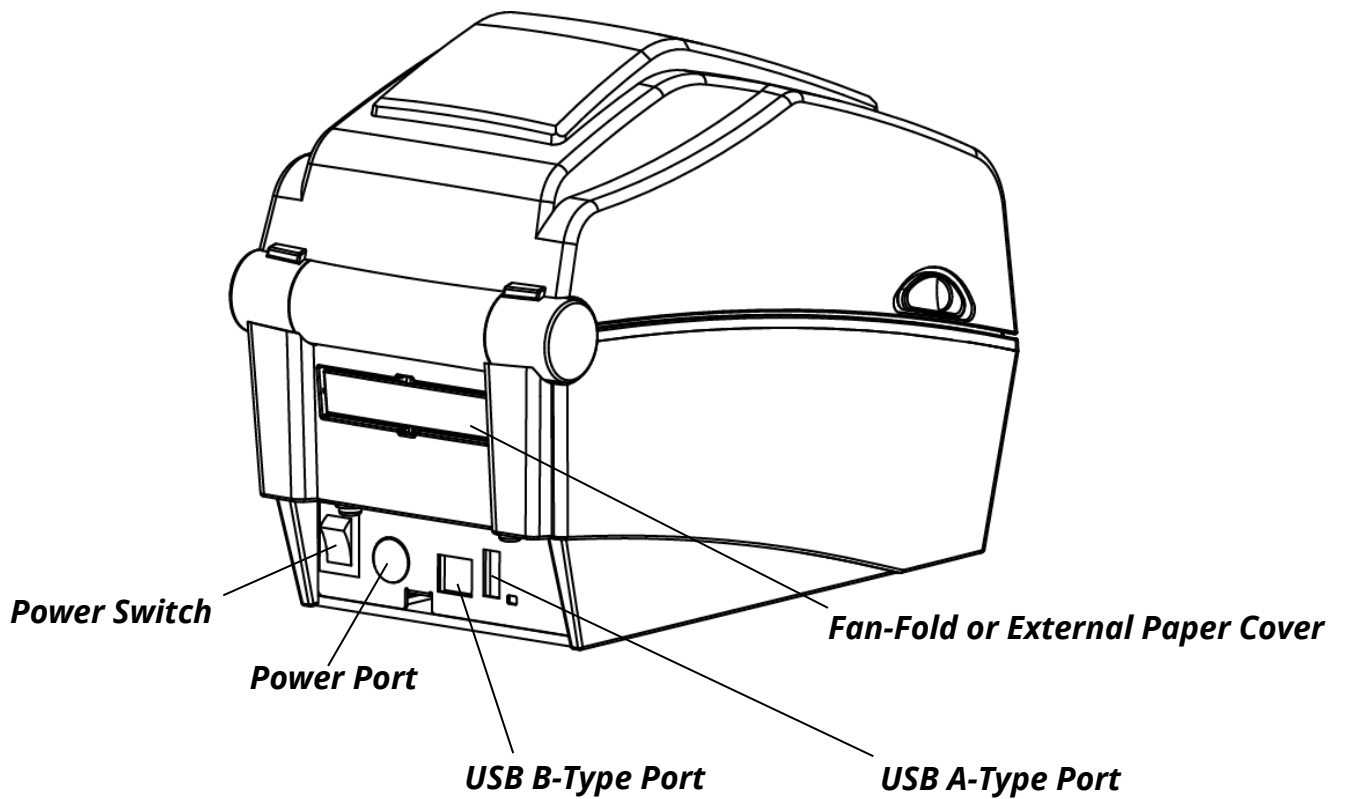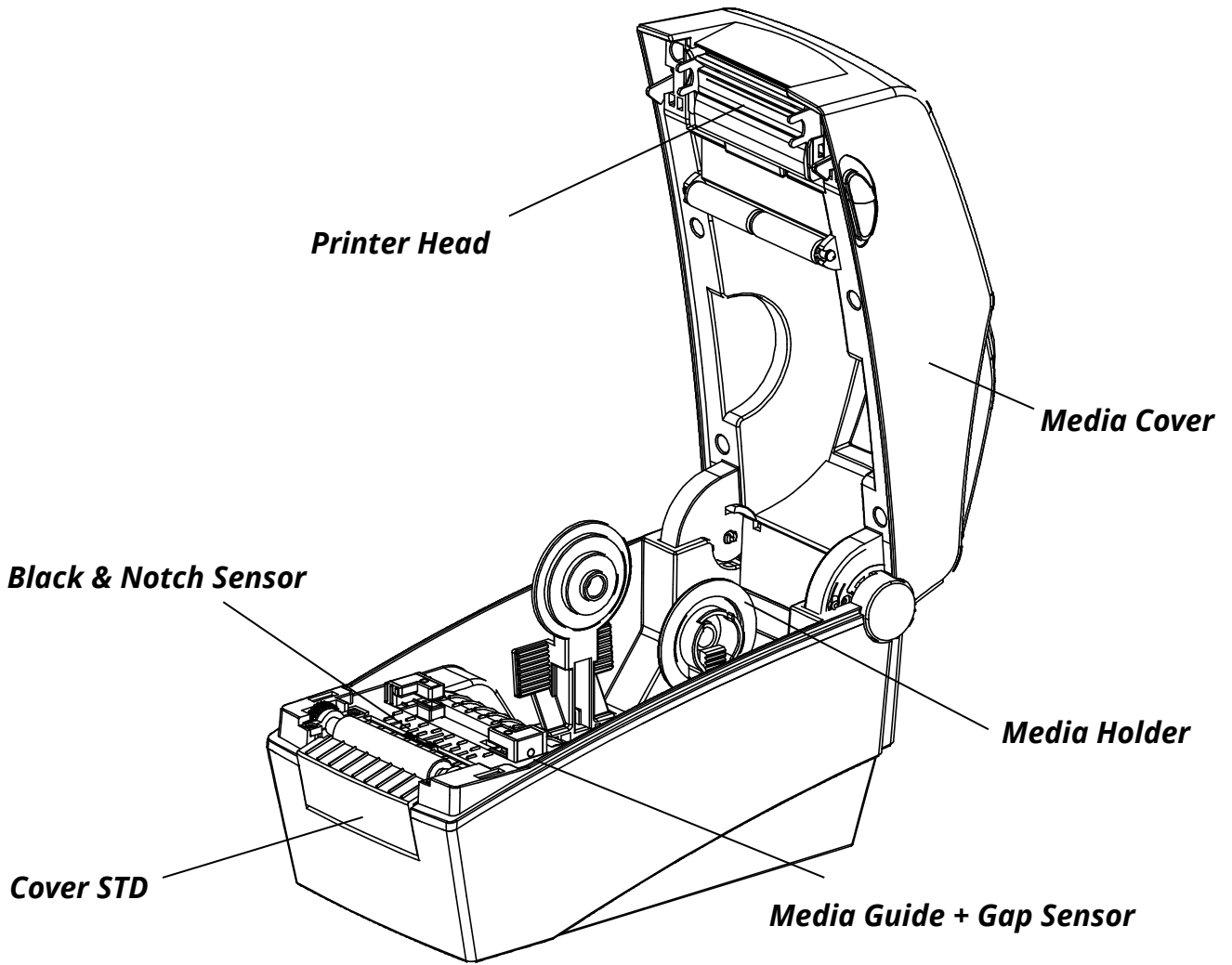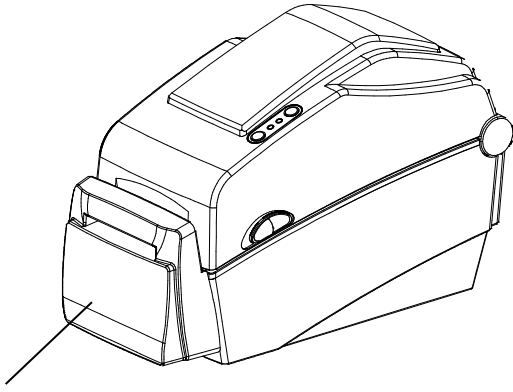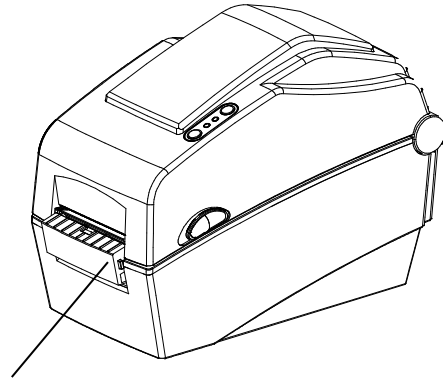
Auto Cutter (Option)   *Cover Peel-off (Option)*

2-2 Button and LED
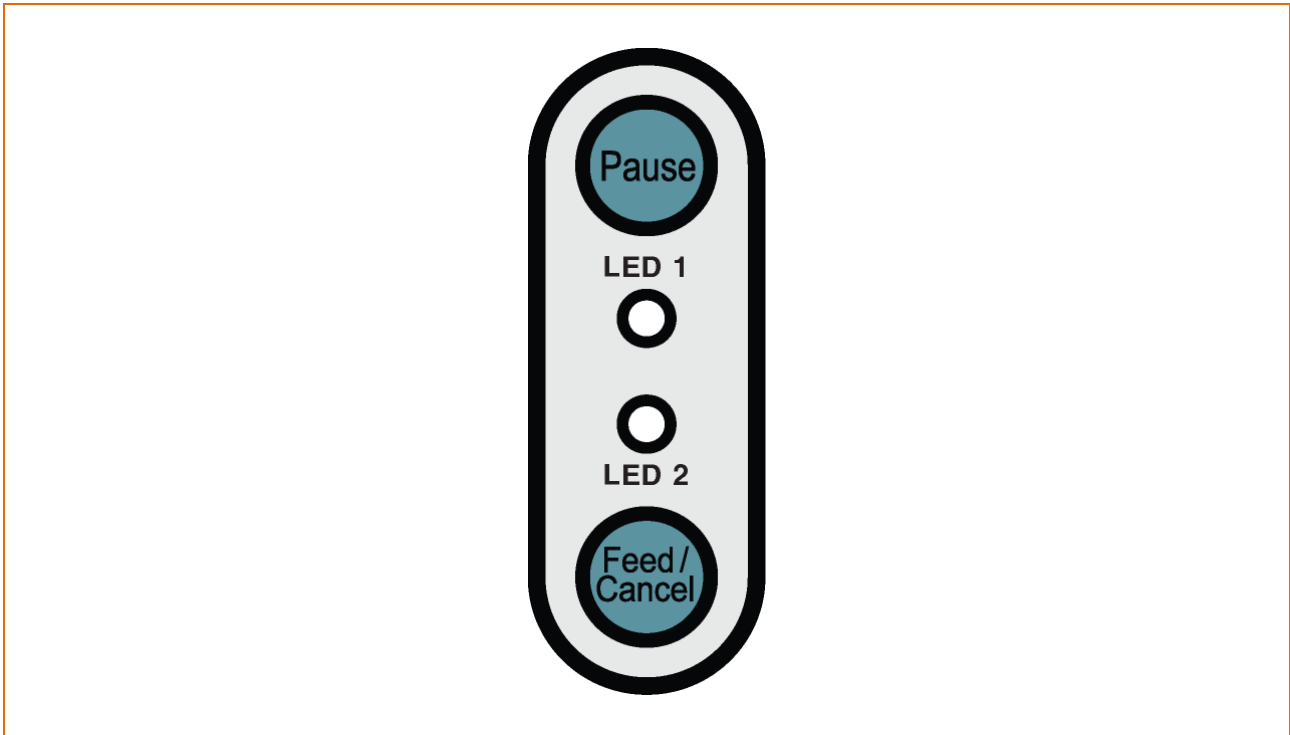
2-2-1 Button Operations

| Printer state before operation | Button | | Operation procedure | Printer operation mode |
	Feed/ Cancel	Pause		
Power OFF	Press	-	Apply power while pressing the button (Hold the button until the printer starts self-test printing)	Self-test Printing Mode.
Print Standby	Press	-	Press the button softly and release it immediately	Feed Mode
Print Standby	Press	-	Press the button for three seconds	Execute SWC (Refer 5-12 SWC)
Print Standby	-	Press	Press the button for two seconds and continue to hold	Stand-alone configuration Mode
During printing	Press	-	Press the button for two seconds and continue to hold	Print Cancel Mode
During printing	-	Press	Press the button softly and release it immediately	Print Pause Mode

2-2-2 LED indicator for various printer statuses

LED 1		LED 2		Printer Status	
Color	Status	Color	Status		
Green	On	Green	On	Print standby mode	Print standby mode
Red	On	Orange	On	Error mode	Paper jam (gap/black mark is not recognized)
Red	On	Green	Blink	Error mode	Printer head overheating
Red	On	Red	Blink	Error mode	Paper Cover open
Red	On	Orange	Blink	Error mode	No paper
Red	On	-	Off	Error mode	Media calibration failure
Red	Blink	Red	Blink	Error mode	Auto-Cutter error
Orange	On	Orange	On	Mode switching notification	Mode switching notification
Green	Blink	Red	On	Wait for input	Print is paused temporarily. Wait for button input
Green	Blink	Green	Blink	Wait for input	Cover Close Mode. Wait for button input
Green	On	Red	Blink	Wait for input	Print Cancel Mode. Wait for button input

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.
- Install in a place that does not exceed the protocol standard of the wireless communication or the specified maximum distance.
- For stable wireless communication, install in a place where there is no physical obstacle (wall, object, etc.).

3-2 Power Connection

• Connect power to the printer as shown below.

Power Switch OFF

AC/DC Adapter
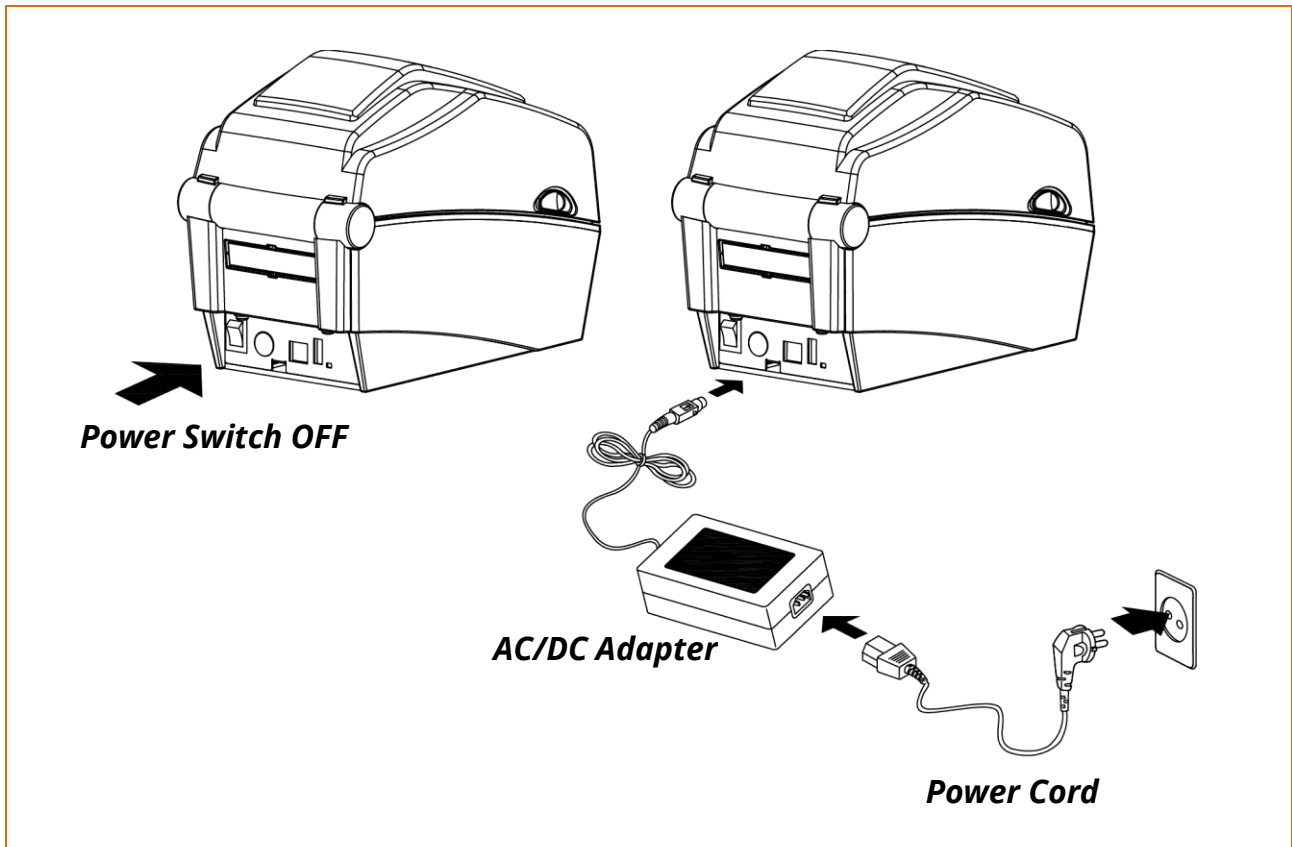
Power Cord

1) Turn off the printer power switch.

2) Check to see that the AC/DC adapter voltage matches that of the power source.

3) Connect the AC/DC adapter jack to the printer power connector.

4) Connect the power cord to the AC/DC adapter.

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

- Only use a power supply provided by BIXOLON.
  BIXOLON shall bear no responsibility for damage caused
  by using a third-party power supply.
- Check the power supply's label to check its electronic specs.
- For the safety of people and equipment, please use the appropriate
  power cord for your country or region.
- When removing the power supply, make sure you have a firm
  grasp of the plug terminal of the power cable and the printer and
  pull horizontally.
- Be sure to turn off the printer before connecting the power cord
  to the printer connector. 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.
- Pay attention to the direction in which you insert the power cable.
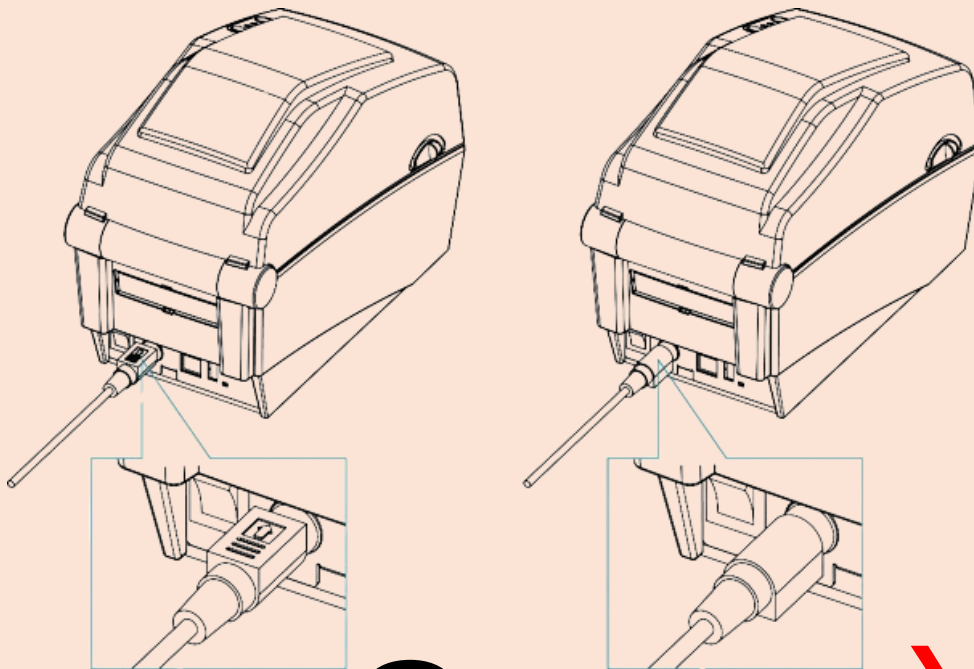
O   X

3-3 Connecting Interface

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)

- **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.**
- **After turning off the power switch of printer, connect or disconnect the communication cable. This can cause serious electrical damage and bodily injury.**

3-3-1 Standard Model

Connect the interface cable as shown below.
This printer supports the following communications interface standards.
- Serial (RS-232C) Cable
- USB B-Type Cable
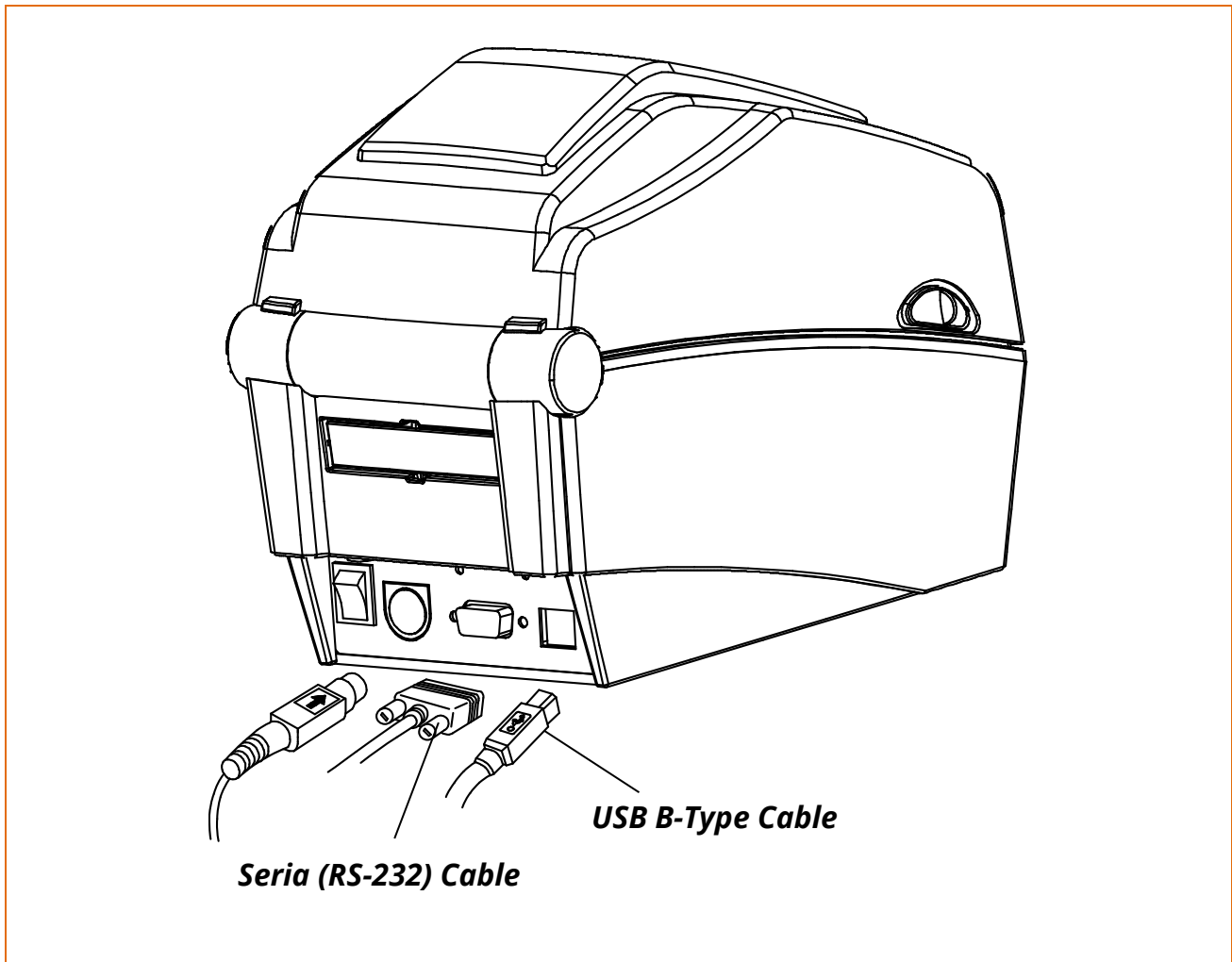
USB B-Type Cable

Seria (RS-232) Cable

1) Turn off the power switch.
2) Connect the communication cable to the printer communication port to be used.
- Connect the RS-232C(Serial) Cable to the SERIAL port. and tighten the screw on both sides.
- Connect USB B-Type cable to the USB port.

3-2-2 Ethernet Model

Connect the interface cable as shown below.
This printer supports the following communications interface standards.
- LAN(Ethernet) Cable
- USB A-Type
- USB B-Type Cable
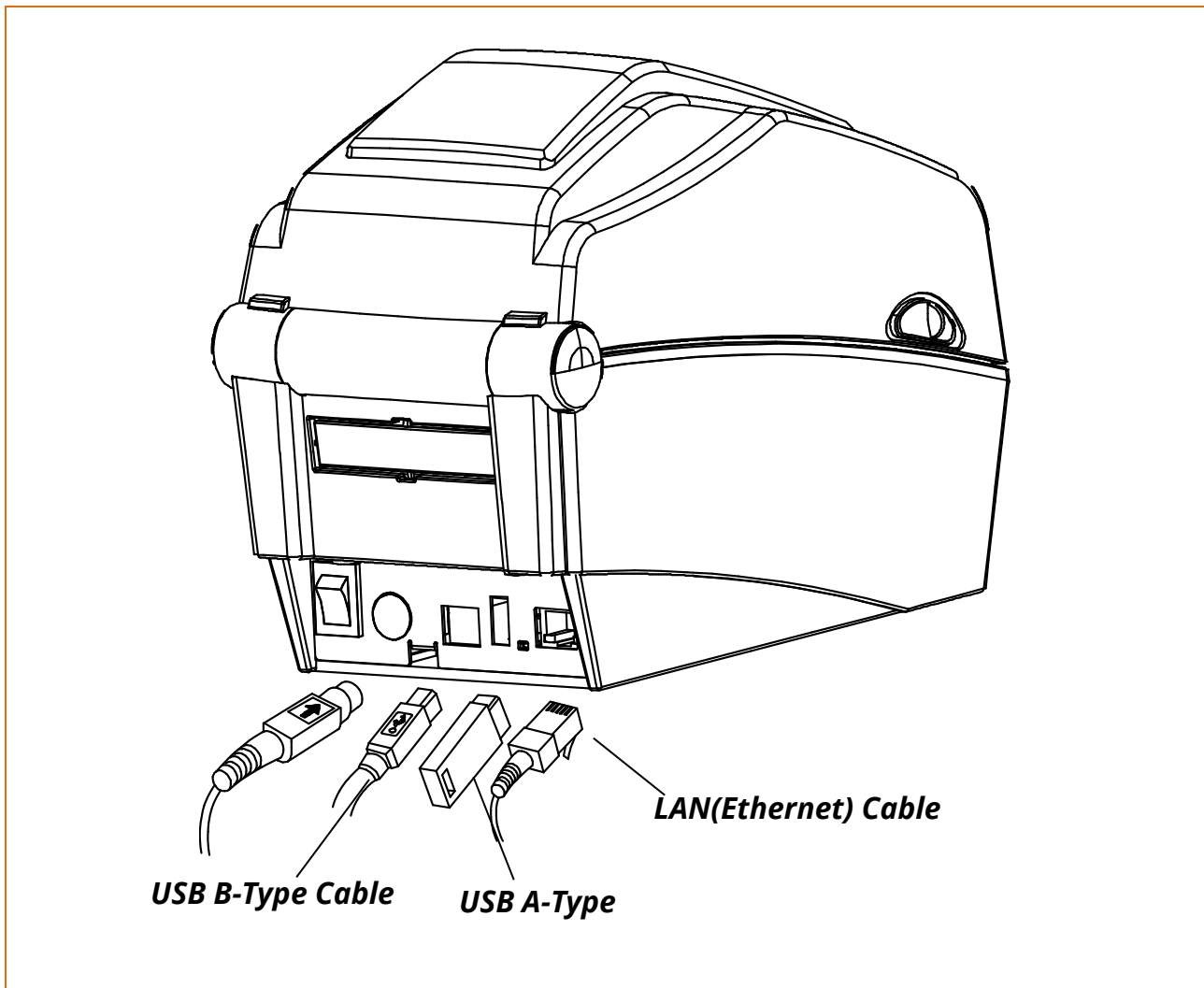
LAN(Ethernet) Cable

USB B-Type Cable   **USB A-Type**

1) Turn off the power switch.
2) Connect the communication cable to the printer communication port to be used.
  - Connect the LAN(Ethernet) Cable to the ETHERNET port.
    (This port requires a UTP cable (CAT5 or higher) less than 3.0m long.)
  - Connect USB B-Type Cable to the USB port.

Ver. 2.00

3-2-3 Wi-Fi Model

Connect the interface cable as shown below.
This printer supports the following communications interface standards.
- USB B-Type Cable
- USB A-Type
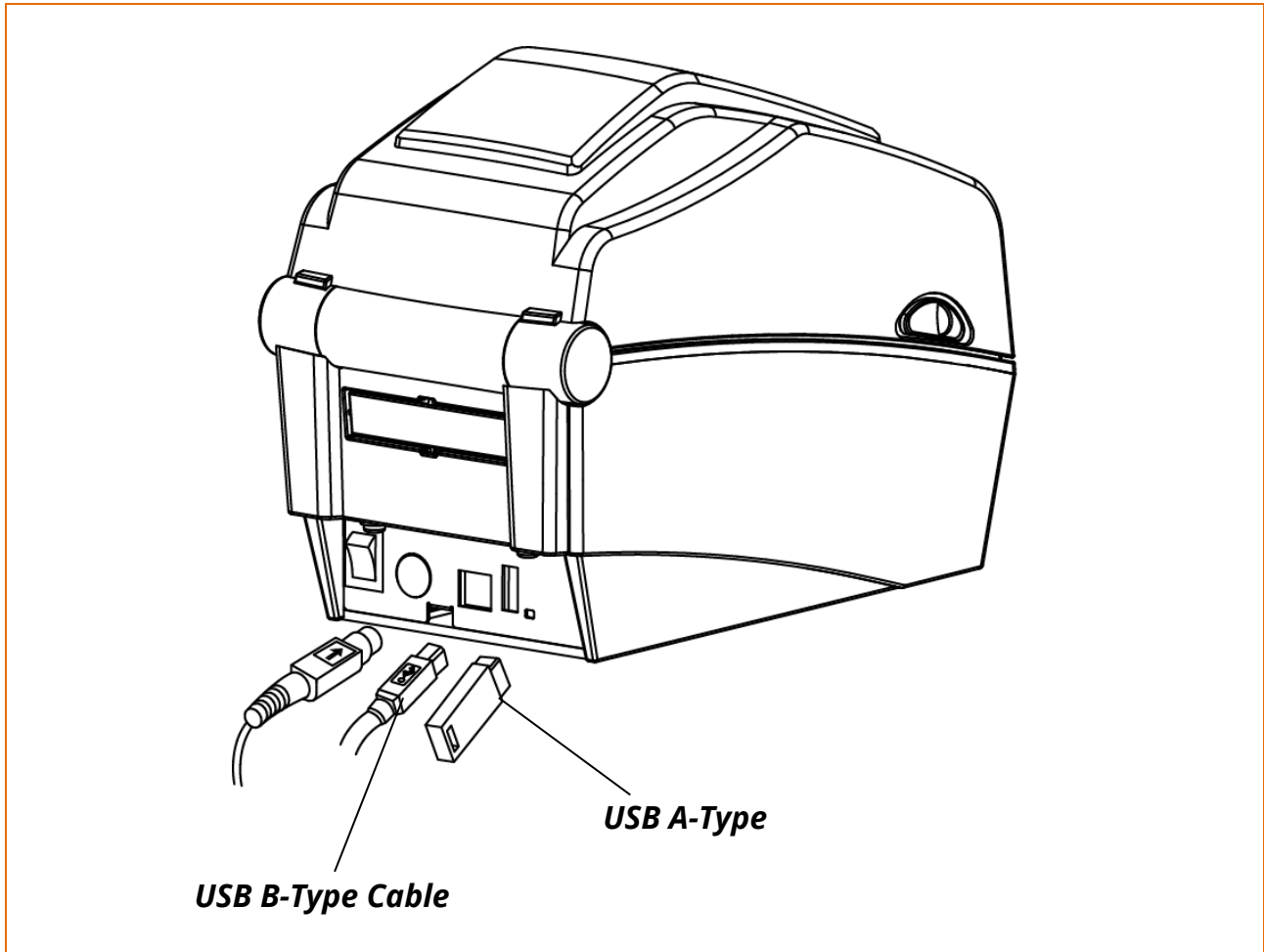
USB A-Type

USB B-Type Cable

1) Turn off the power switch.
2) Connect the communication cable to the printer communication port to be used.
   - Connect USB B-Type Cable to the USB port.
   - It can connect by internal WLAN module

> ❗ Refer to the network connection manual for more information.
> The network connection manual can be found on the website.

3-4 Paper Installation

1) Open the Paper Cover.
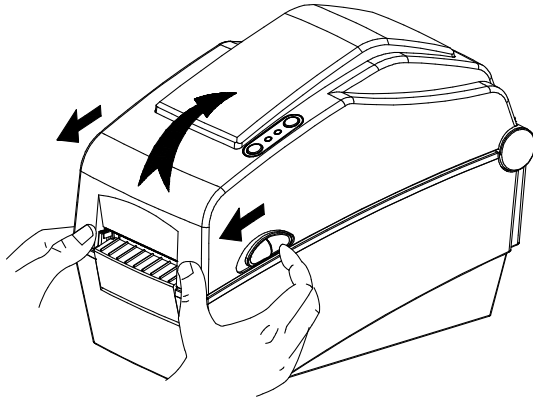
2) Spread the Paper Holder and insert paper roll.
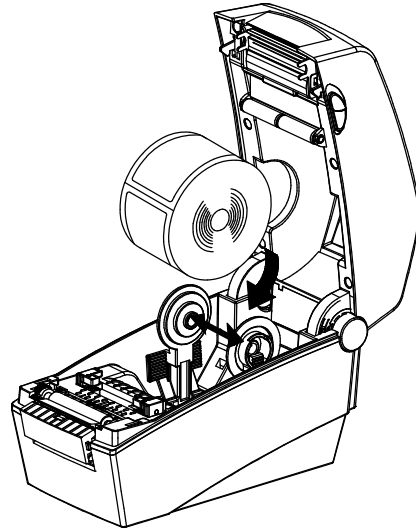
3) Adjust the paper guide to the width of the paper.

Media Guide
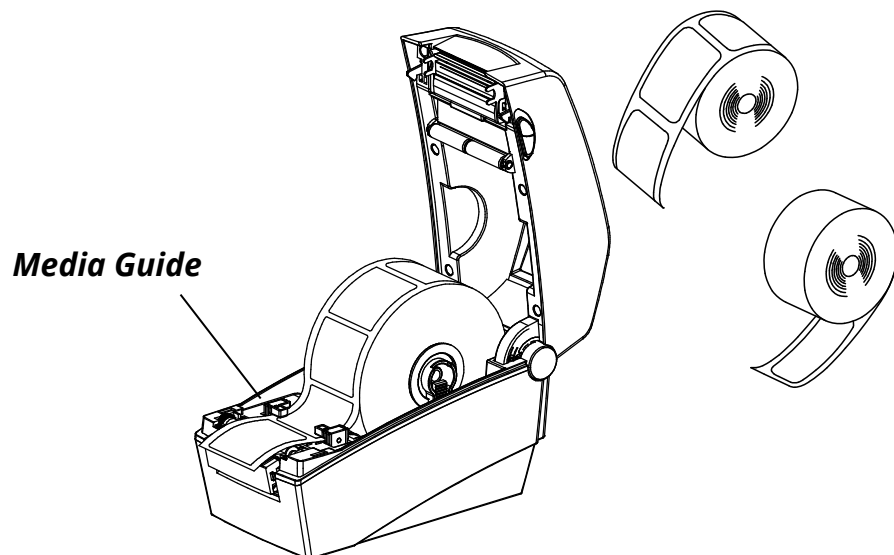
4) Close the Paper Cover until a click sound is heard.

> ❗ Whether the paper label is wound inwards or outwards, its printing surface must face up.

3-5 Test printing

3-5-1 Printing using Windows driver

1) Install the Windows driver.
   Check out the website for information on how to install the driver.

2) Set up the "port" for the Windows driver according to the interface.
   For wireless LAN, refer to the network connection manual that can be found on the website.

3) Print a test page from the Windows driver.

3-5-2 Printing using label design program

1) Install the label design program, which can be downloaded on the website.

2) Set up the interface according to the label design program manual.

3) Design a label and print it.

4. Self-Test

The self-test checks whether the printer has any problems.
  - Firmware version, printer configuration information, printing quality checking pattern, and peripheral configuration information, etc.

Users cannot perform this procedure if using the printer's label peel-off option.
If the printer does not function properly, contact an authorized dealer.

The self-test checks the following;

1) Make sure that the paper roll has been installed properly.

2) Turn on the power while pressing the feed button then self-test will begin.
   (Hold the button until the printer starts self-test printing)
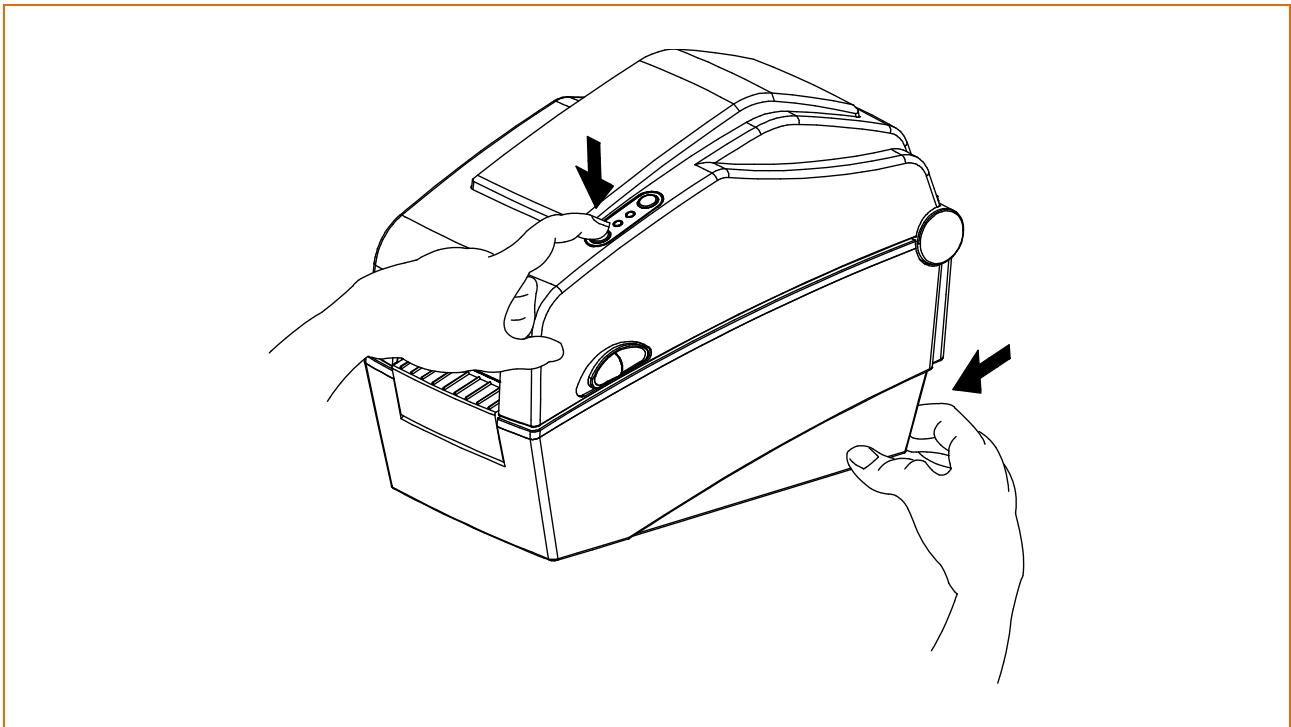
5. Detailed features

5-1 Printer setting using utility program

• Various printer settings can be changed using the utility program (Unified Label Utility-II). The United Label Utility-II manual is available on the home page.

1) Basic printer settings
   Paper size, printing speed and density, paper type can be configured.

2) Language setting
   Code page can be configured.

3) Media sensor manual calibration function
   This function can be used to detect special type or special material paper that is not detected through automatic calibration function. Refer to Manual Calibration mode page for more details

4) Other functions for printer test are also provided.
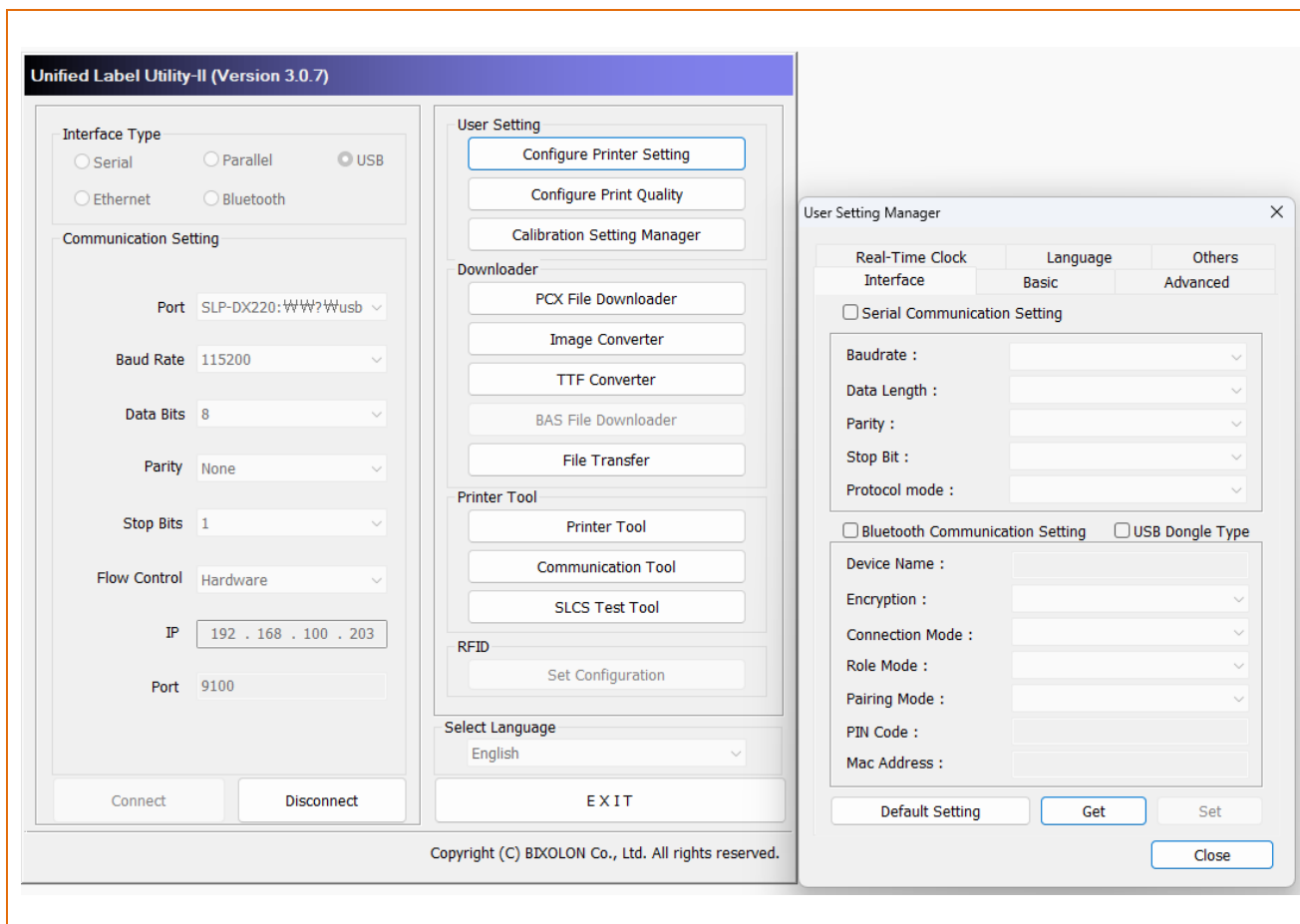
5-2 Stand-alone Configuration Mode
• Various modes can be executed using feed/Cancel buttons and LED only.

5-2-1 How to start stand-alone configuration mode

1) The printer mode is set to Printer Setting Mode when the Pause button is pressed for two seconds while in Print Standby Mode.

2) Both LEDs will change to orange color and the printer will be set to Stand-alone Configuration Mode.

3) When the printer enters into this mode, the status of LED 1 and LED 2 are changed sequentially.

4) When the Feed button is pressed at specific LED color combination, the corresponding printer operation will be selected.

5-2-2 List of supported functions

Sequence number	LED 1		LED 2		Printer operation
	Color	Status	Color	Status	
1	Green	On	Green	Blink four times	Print Configuration Info.
2			Orange	Blink four times	Print File List
3			Red	Blink four times	Factory Reset
4	Orange	On	Green	Blink four times	Gap Sensor Auto Calibration
5			Orange	Blink four times	B/M Sensor Auto Calibration
6			Red	Blink four times	Data Dump Mode
7	Red	On	Green	Blink four times	Demo Mode
8			Orange	Blink four times	Line Mode
9			Red	Blink four times	Download Items Delete

5-3 Pause/Cancel

• During multiple-page print jobs, the Pause and Cancel button can be used to temporarily cease printing and cancel the print job altogether, respectively.
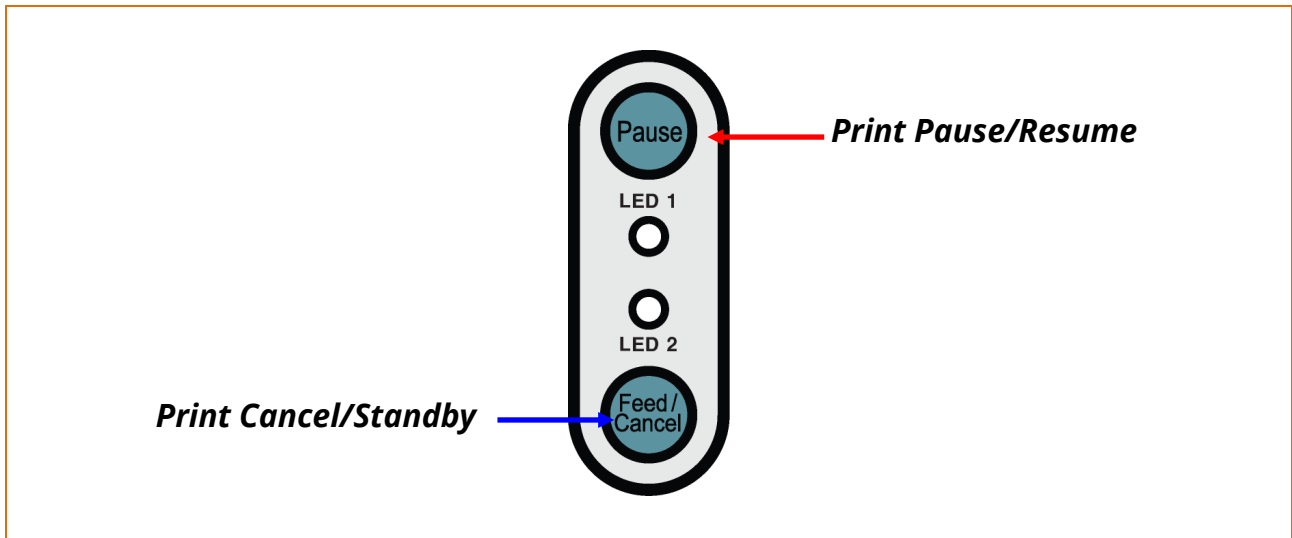
5-3-1 Pause/Resume Function

1) When printing labels, pressing the Pause button

2) The printer will pause after finishing the current label printing and the status of LED will be as follows.
- LED 1: Green Blink
- LED 2: Red On

3) While the print job is paused, press the Pause button again to resume printing.

5-3-2 Print Cancellation

1) During label printing and/or pause mode, pressing the Cancel button enters the print cancellation mode.

2) The following processes occur in the print cancellation mode.
- All label printing cancelled
- All data received in the printer communications buffer deleted.
- All received data deleted.

3) The LED Status in the print cancellation mode can be as follows.
- LED 1: Green On
- LED 2: Red Blink

4) While in the print cancellation mode, press the Cancel button again to return to print standby mode.

5-4 Media Calibration
• This printer has been designed to recognize the gaps with most print papers, but sometimes it may not recognize the gap and keep feeding paper if a special type of paper is used. In this case, run Auto Calibration function so that the printer can recognize the gap. BIXOLON printer provides various media calibration methods in order to accommodate various special paper types.

5-4-1 About media calibration
• This function is for adjusting the sensitivity of the paper detection sensor for accurate printing position control and measuring actual length of paper.
• Sensor sensitivity adjustment
- The purpose is to detect the identifier (gap/black mark/groove) of installed label
• Paper length measurement
- Accurate length is required to rotate the printing orientation.
- The purpose is to detect the change of paper type.

5-4-2 When is media calibration required?
• When the printer is installed first time
• When the newly installed paper is a different paper type
• When printer position is not accurate or printer does not stop in the right position

5-4-3 How to perform media calibration
 • The following four methods of media calibration can be used depending on the
   conditions.
     - Smart Media Detection
     - Gap Sensor Auto Calibration Mode
     - Black Mark Sensor Auto Calibration Mode
     - Manual Calibration Mode
 • Why are several calibration methods provided?
     - Multiple labels should be scanned for media calibration and more accurate
       sensitivity calibration can be performed when more labels are scanned.
    - The number of labels to scan for sensor sensitivity adjustment depends on
       various conditions such as label paper material, color, surface status, thickness,
       gap length, pre-printed pattern, etc.
     - Four different media calibration modes are provided for compromise between
       prevention of excessive use of paper and accuracy of sensor sensitivity
       adjustment.
    - Smart media detection mode that allows for adjustment of sensitivity with
       minimum amount of scanning should be good enough for most cases with
       general labels.
    - Try various methods in order of Smart Media Detection → Gap Sensor Automatic
       Calibration / Black Mark Sensor Automatic Calibration → Manual Calibration
       Mode.

5-5 Smart Media Detection

• Printer executes this function, when necessary, without user input and media configuration can be completed with Smart Media Detection function for most print papers.

Papers with gap and black mark can be identified without separate settings.

3~5 pages of labels will be used depending on the type of paper.

Smart Media Detection function is executed in the following's cases
   - When the printer is installed first time, it is executed through Feed button or print command.
   - When change paper length is detected during feeding or printing.
   - When the paper type entered by command is different from the configured paper type.
   - After reset with factory settings

Smart Media Detection function will be turned off after setting the sensor sensitivity Using Automatic Calibration Mode or Manual Media Calibration mode, and it will be enabled again after resetting the printer with factory settings.

5-6 Gap Sensor Auto Calibration Mode

• Use this mode when paper is not detected correctly with Smart Media Detection function. Printer feeds paper and calibrates Gap Sensor automatically.

The printer will enter error mode if paper detection fails after feeding up to 1 meter of paper. Error mode can be released by opening and closing the cover.

Use Manual Calibration Mode if paper detection fails in this mode.

Smart Media Detection will be disabled if paper detection is successful in this mode.

Press the Feed button at 4th LED sequence as shown in section 5-2-2 List of supported functions (LED 1 is Orange and LED 2 is blinking Green four times) to start Gap Sensor Automatic Calibration Mode.

5-7 Black Mark Sensor Auto Calibration Mode

• Use this mode when paper is not detected correctly with Smart Media Detection function. Printer feeds paper and calibrates Black Mark Sensor automatically.

The printer will enter error mode if paper detection fails after feeding up to 1 meter of paper. Error mode can be released by opening and closing the cover.

Use Manual Calibration Mode if paper detection fails in this mode.

Smart Media Detection will be disabled if paper detection is successful in this mode.

Press the Feed button at 5th LED sequence as shown in section 5-2-2 List of supported functions (LED 1 is Orange and LED 2 is blinking Orange four times) to start Black Mark Sensor Automatic Calibration Mode.

5-8 Media Sensor Manual Calibration

• Manual-calibration of media detection can be used when the printer cannot detect a media gap (or black mark) even after auto-calibration has been executed.

Users can calibrate sensor parameters in detail by using the utility program provided by the manufacturer. The installation files and manuals are provided on the BIXOLON official website.

Please make sure the printer is connected and execute the utility program.
Click on the Calibration Setting Manager Button after setting the interface type.
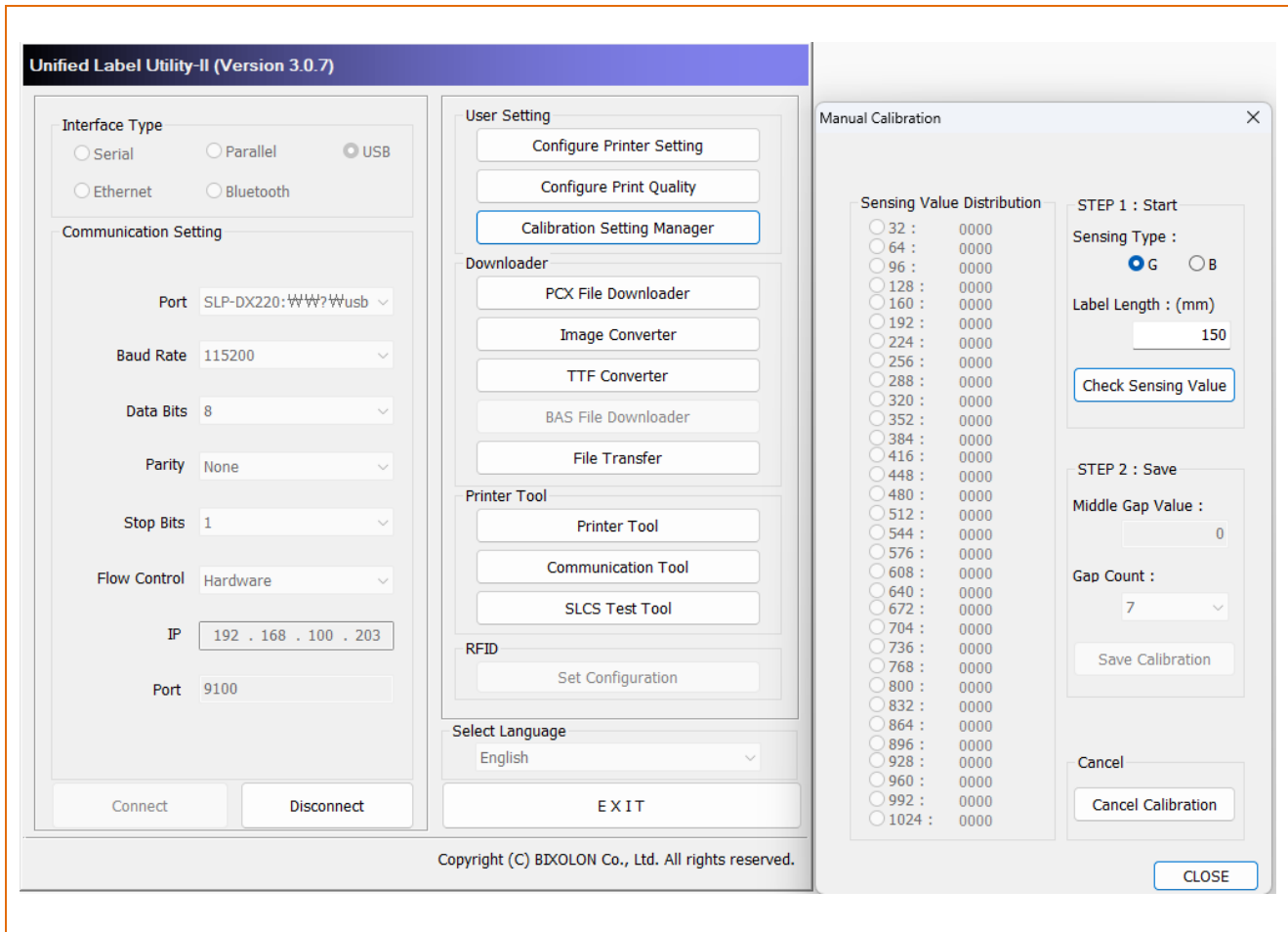
1) Select the sensing type and input the label length by millimeter and click on "Check Sensing Value" button. Then printer starts to calibrate.

2) Printer will print the scanned values after calibration and the values will appear on the Screen.

3) Optimal sensing values will appear in bold letters on the left of the utility screen. Select one of the optimal sensing values by clicking on it's option button and then click on "Save Calibration."

4) If chosen value does not work properly, please try the other values among the bold letters.

5) To go back to the initial value, please click on "Cancel Calibration"

5-9 Cover Closing Mode

5-9-1 About Cover Closing Mode
   • The printed area may become out of range of paper if the paper is not in the
      accurate printing position when the cover is opened and closed.
   • The printer is put into Cover Closing Mode instead of Print Standby Mode when
      the cover is closed in order to prevent this problem, and it waits for user input.
    • The status of LEDS are as follows in this mode.
      - LED 1: Green Blink
      - LED 2: Green Blink
   • The data received during Cover Close Mode is not printed until the printer
      recovers to Print Standby Mode.

5-9-2 How to switch the printer from Cover Close Mode to Print Standby Mode
   • Press the Pause button to switch to Print Standby Mode without feeding any
      paper.
   • Press the Feed button to feed one page to align the paper position and switch to
      the Print Standby Mode.

5-10 Data Dump Mode
• This function can be used to diagnose the communication issues when the printing
   does not work correctly. In this mode, the received data are not analyzed instead
   they are dumped in hex format without processing. Turn the printer off and on to
   recover to the Print Standby Mode.

1) Press the Pause button for two seconds during Print Standby Mode.

2) Both LEDs will change to orange color and the printer will be set to Stand-along
   Configuration Mode.

3) Press the Feed button at the sixth LED sequence in 5-2-2 List of supported
functions (LED 1 Orange / LED 2 Red – Blink four times) to enable Data Dump Mode.

5-11 Factory Reset

• This function is used to reset the printer settings to factory default settings.

1) Press the Pause button for two seconds during Print Standby Mode.

2) Both LEDs will change to orange color and the printer will be set to Stand-alone
  Configuration Mode.

3) Press the Feed button at the 3rd LED sequence as shown in section 5-2-2 (Status
  LED is Green and LED 2 is blinking Red four times) to reset the printer to factory
  settings, and Smart Media Detection function will be executed.

5-12 SWC (Simple Wi-Fi Connect)

• Connect the printer to a network using SWC (Simple Wi-Fi Connect) mode.
   Make sure that media roll has been installed properly.

1) Press the Feed button for more than 3 seconds to enter SWC (Simple Wi-Fi Connect)
  Mode

2) The LED status in the SWC mode ready can be as follows.
          - LED 1: Green On
          - LED 2: Red Blink(pulse)

3) Printer's LED1 Green pulse indicates that the printer is in SWC Mode.
   you can set network through Host Devices.
          - LED 1: Green Blink(Flash → pulse)
          - LED 2: Green On

4) Once the network is not set correctly, LED1 will flash Orange,
           and try entering SWC Mode again.
          - LED 1: Orange Blink(pulse)
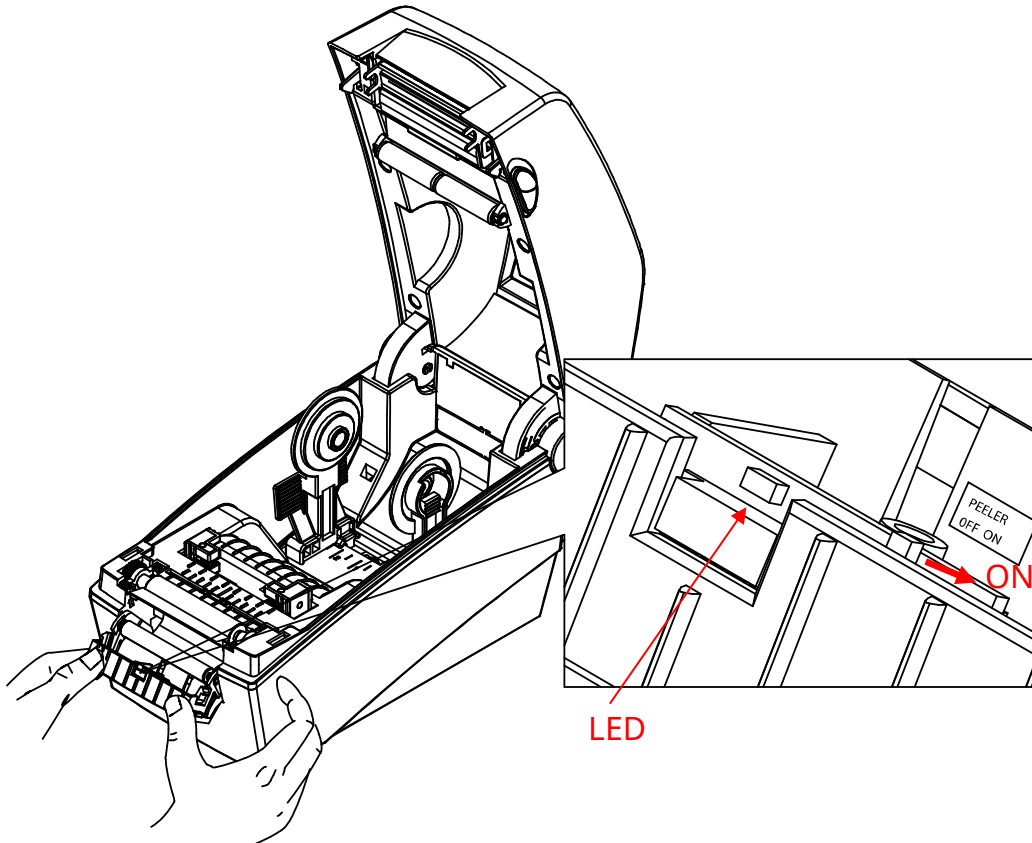   - LED 2: Green On

> 🛈   blink rate of "Pulse" is slower than blink rate of "Flash"

5-13 The Peel-Off (Option)

• This function is used to automatically separate labels from the liner.
It is used only with label paper.
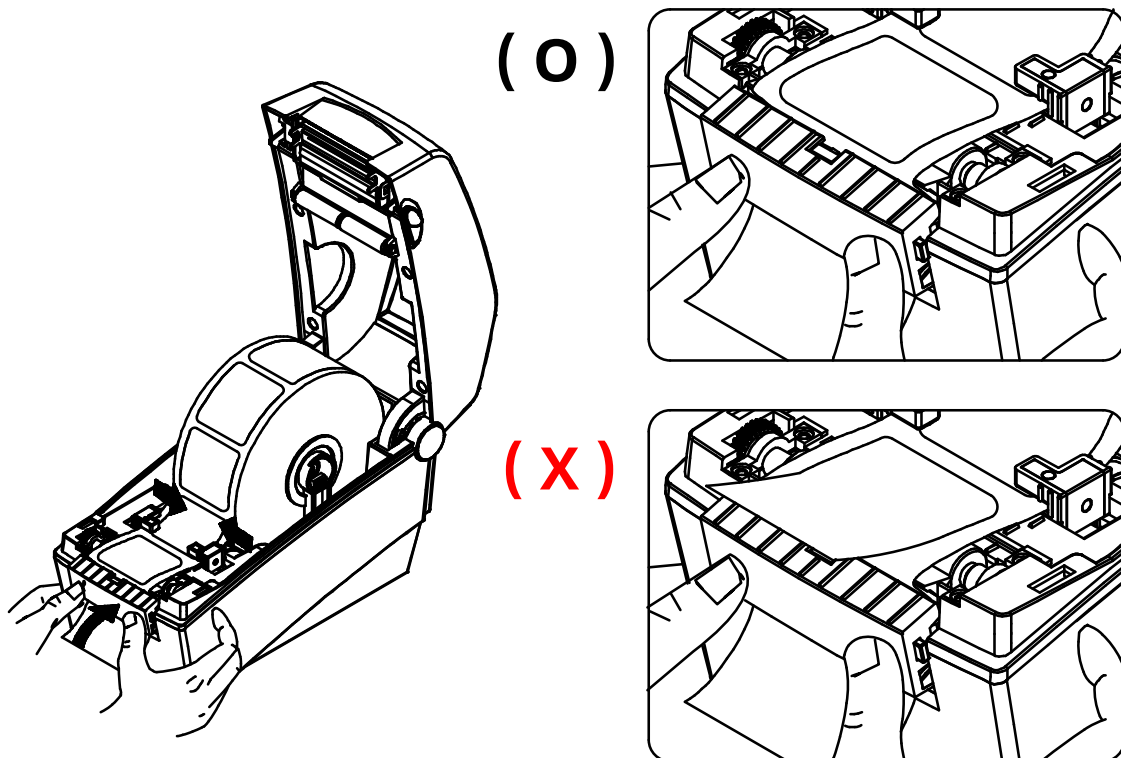
1) Open the paper cover.

2) Open the label peel-off cover and set the peeler switch to the ON position.
   - Check to see that the LED has turned on.

3) Remove one sheet of the label paper, and insert the paper as shown in the image below.
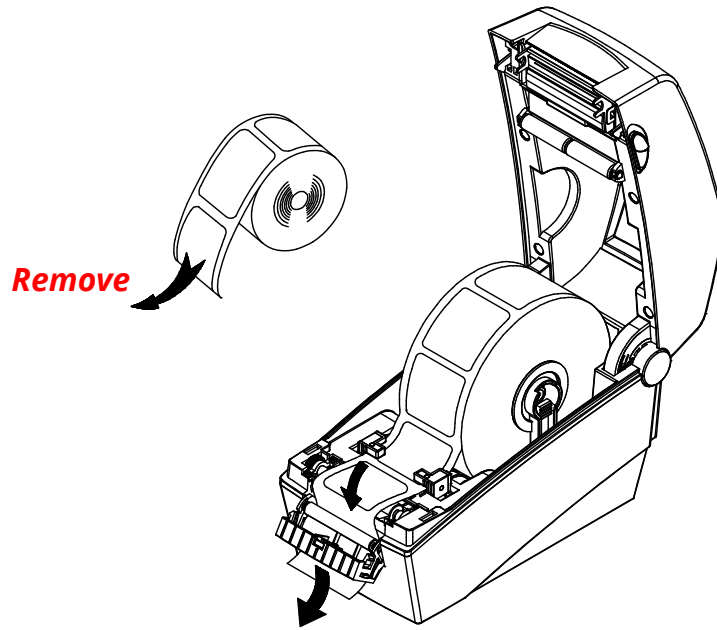
Remove

4) Close the label peel-off cover.

(O)

(X)

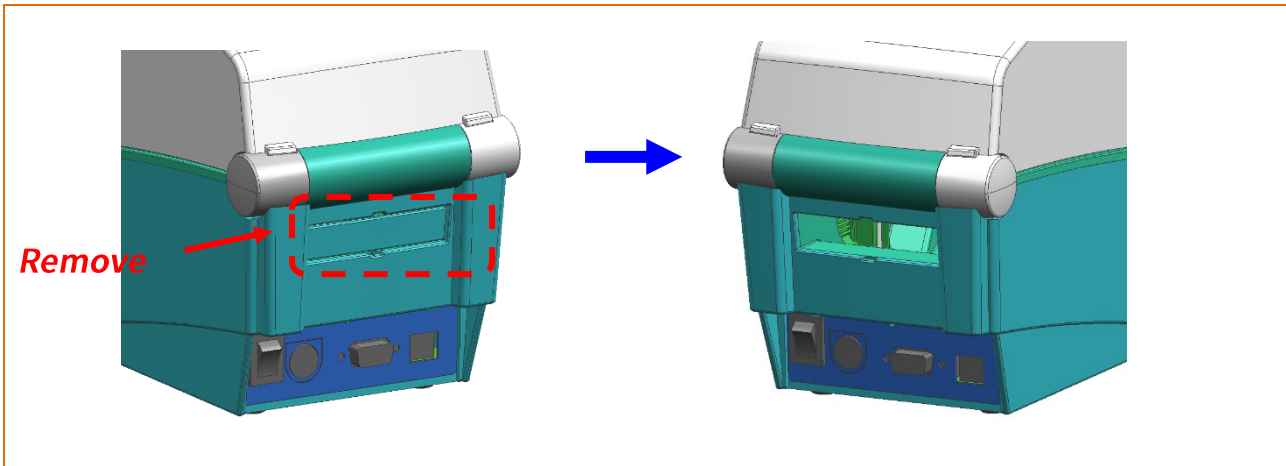5) Close the Paper Cover until a click sound is heard.

6) Turn the printer off and on.

5-14 Using Fan-Fold Paper

• Supplying paper to the printer externally is done as follows.

5-14-1 Printer Preparation

Remove the rear paper supply cover on the back side of the printer with a knife or other cutting instrument.

⚠	- **Take care not to injure the hands and/or any other part of the Body when performing this step.** - **Do not open the print cover while the printer is operating, otherwise, the printer may be damaged.** - **To prevent data loss, replace media only when the printer is not receiving any data.**

5-14-2 When using Fan-Fold paper

1) Insert the paper at the rear of the printer using the slot and guides.
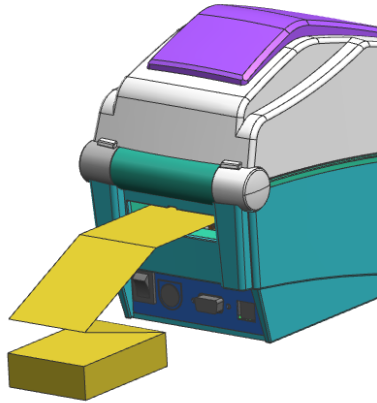
2) Adjust Paper Holders to the paper width by using the Fix Tool.

Media Holder

Fix Tool
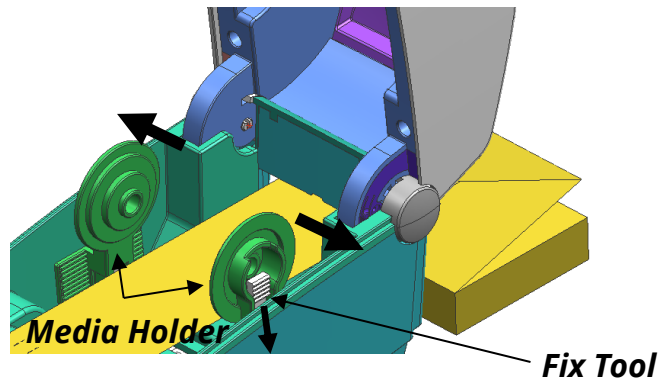
5-15 Auto Cutter (Option)

• For auto paper cutting, products equipped with auto cutter are available.

Auto-Cutter can be controlled by command. And default setting can be changed by Unified Label Utility-II.
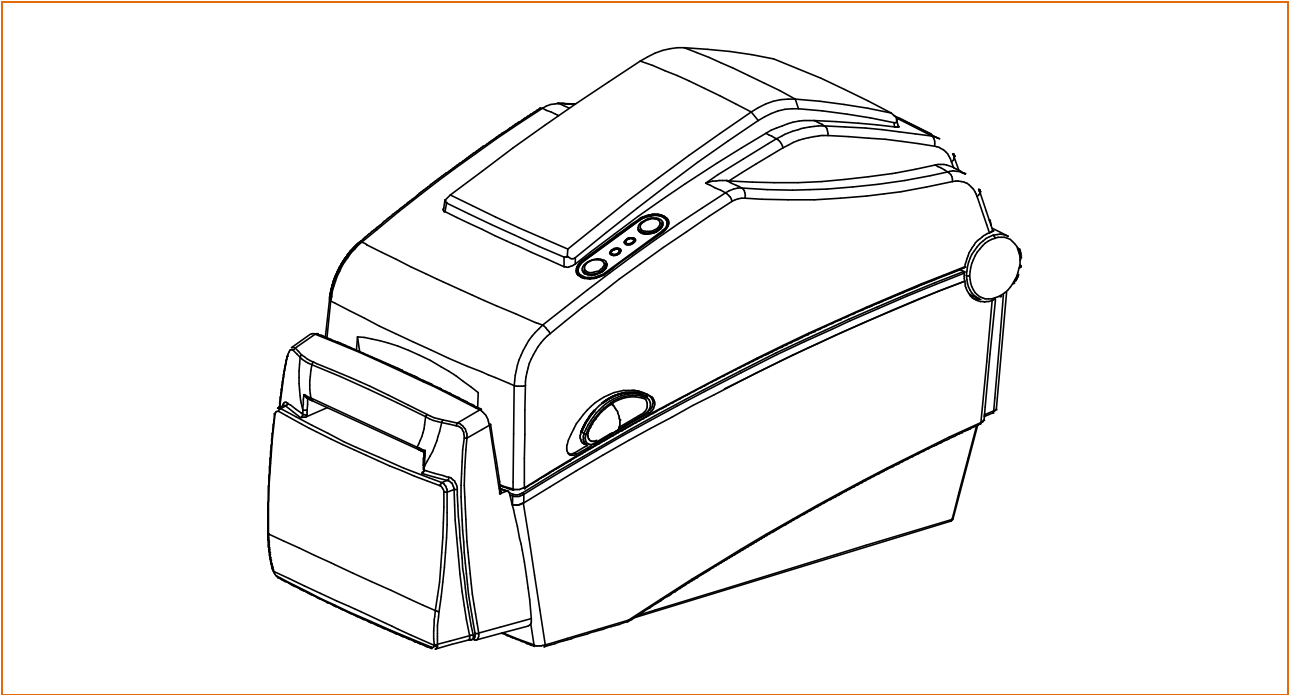
The paper installation method is the same as paper with no auto cutter.

5-16 Real-Time Clock (Option)

• The function of the Real-Time Clock option is to print the time and date onto the label. The date and time can be set in the printer by using the Unified Label Utility-II.

You can discern a low or depleted battery if printer provides a consistently incorrect time and date. In this case, you need to replace the battery. When battery is changed, the time and the date will need to be reset.
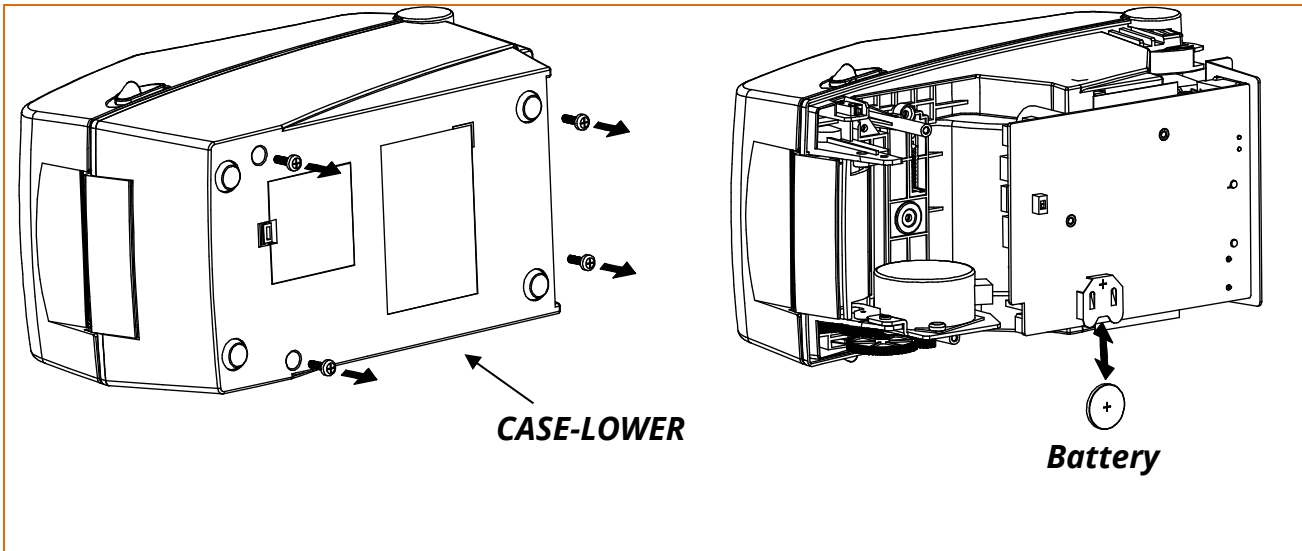
CASE-LOWER

Battery

⚠ - **For your safety, The CASE-LOWER of the printer should always be closed. When changing the battery, please open the CASE-LOWER after remove the screw using the driver.**
- **Wrap the battery when recycling or storing to avoid short circuit.**
- **Do not short circuit the battery. It may result in heat generation or fire.**
- **Do not disassemble or heat the battery.**

6. Printer maintenance

Printing quality might be degraded by dust, foreign substance, adhesive substance, or other pollution materials stuck in the printer head or inside the printer.
Clean the printer periodically to prevent quality degradation.

> ⚠️   - **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 with power off.**
>   - **Do not touch heated area of print–head when cleaning.**
>   **Personal injury may result from static electricity, etc.**

6-1 Cleaning Head

1) Open the paper cover and clean the printhead using the cloth or cotton swab soaked in alcohol for medical.

2) After cleaning the head, do not use the printer until the alcohol used for cleaning evaporates completely (1~2 min) and the printer has completely dried.
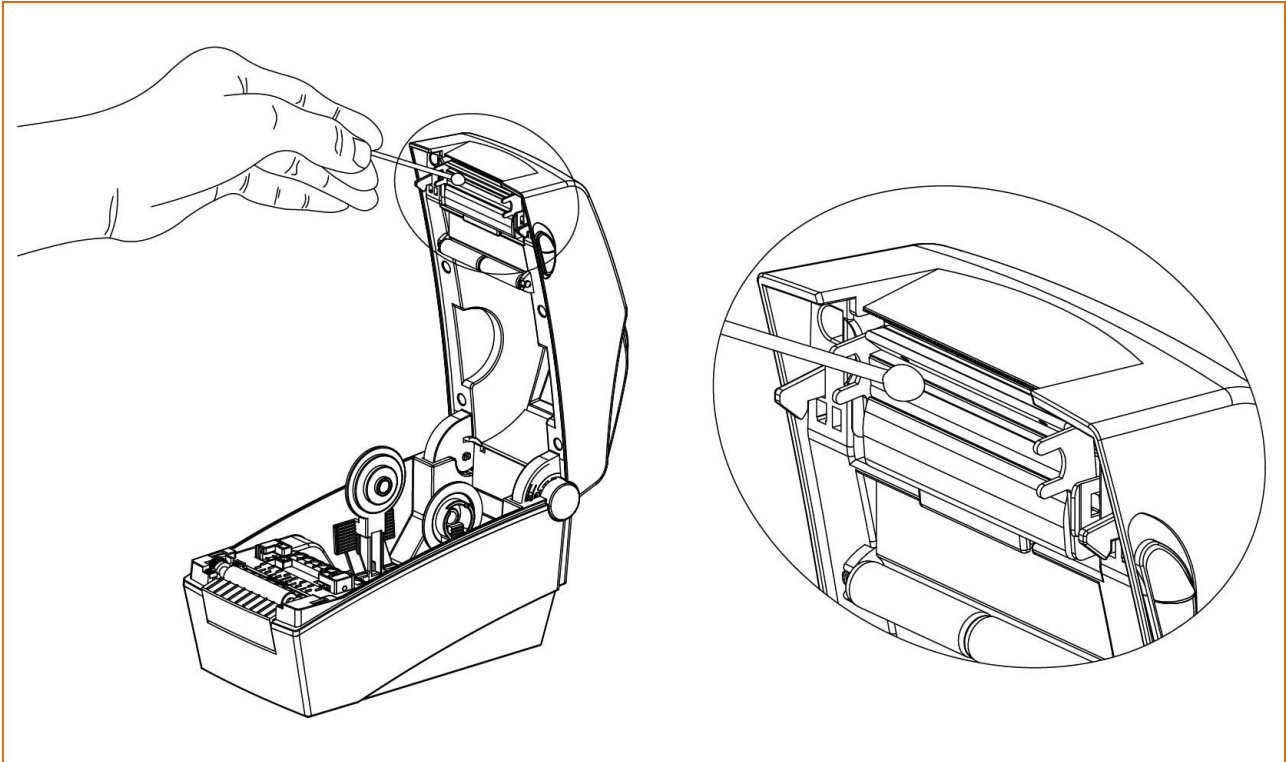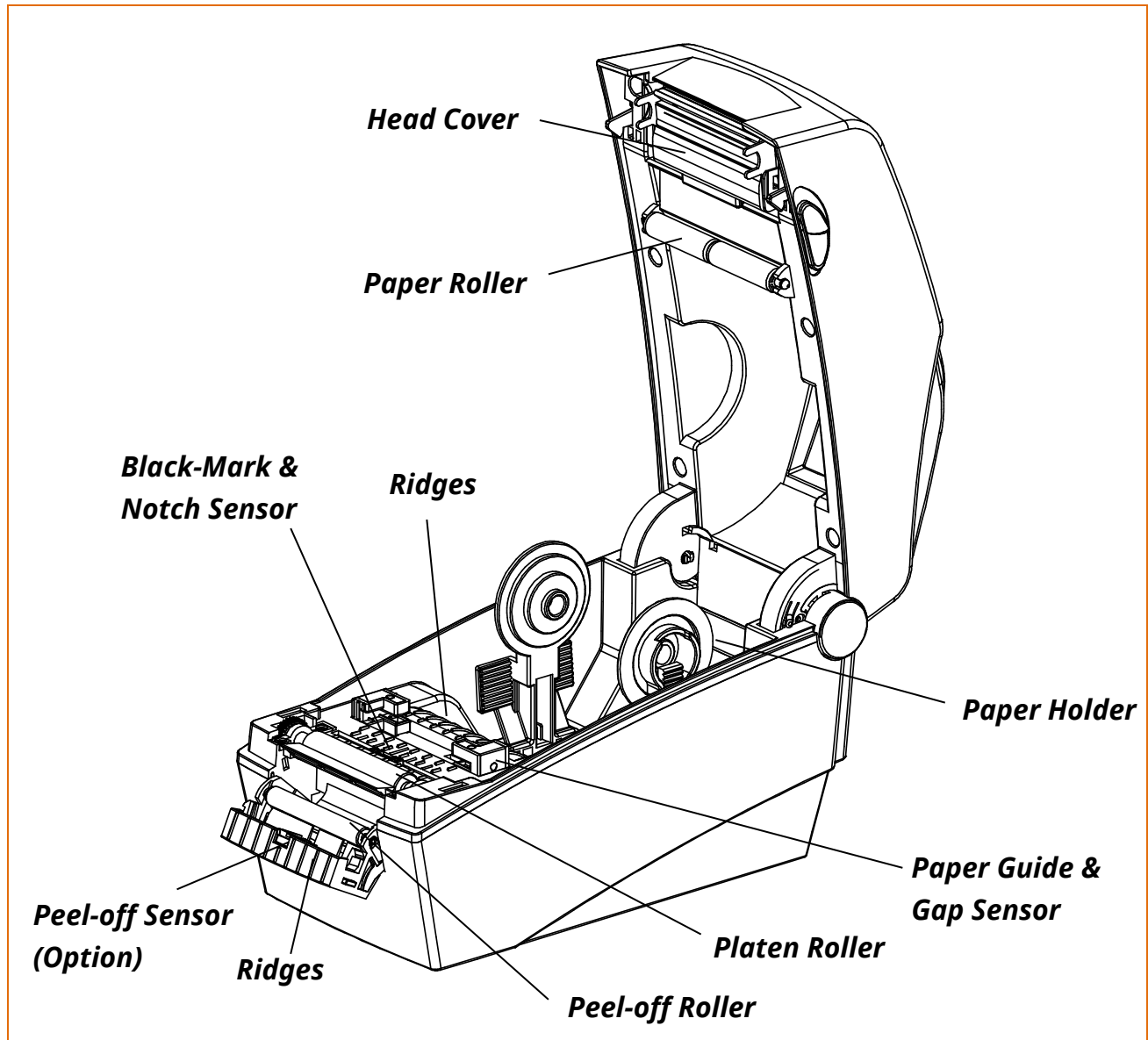
6-2 Cleaning Sensors, Roller or/and Paper Path

1) Open the paper cover and then remove the paper.

2) Remove any dust or foreign substance using dry cloth or cotton swab.

3) Soak the cloth or cotton swab in alcohol for medical use and use it to remove adhesive foreign substances or other pollution materials.

Head Cover

Paper Roller

Black-Mark & Notch Sensor

Ridges

Paper Holder

Peel-off Sensor (Option)

Ridges

Paper Guide & Gap Sensor

Platen Roller

Peel-off Roller

7. Appendix

7-1 Specifications

Item		Description
Printer	Printing Method	Direct Thermal Printing
	Dot Density	SLP-DX220 : 203 dpi (8 dot/mm) SLP-DX223 : 300 dpi (11.8 dot/mm)
	Printing Width	SLP-DX220 : Max 54 mm (Max. 2.13") SLP-DX223 : Max 56.9 mm (Max. 2.24")
	Printing Speed	SLP-DX220: Max. 152.4 mm/sec (Max. 6ips) SLP-DX223: Max. 101.6 mm/sec (Max. 4ips)
Media	Roll Width	15 ~ 60 mm (0.59 ~ 2.36")
	Roll	Max 130mm (Max. 5.12")
	Core	12.5 ~ 38.1mm (0.5 ~ 1.5")
AC/DC Adapter	Input Voltage	AC 100 ~ 240V
	Frequency	50/60 Hz
	Output Voltage	DC 24V ± 5%
	Output Current	2.5A
Usage Conditions	Temperature	0 ~ 40 ℃ (Operating) -20 ~ 60 ℃ (Storage)
	Humidity (except for media)	10 ~ 80 % RH (Operating) 10 ~ 90 % RH (Storage)

> 🛈 Print speed may vary depending on the data transfer speed and the combination of command.

> ⚠️ **- 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**

7-2 Media Types

• The Media types used with this printer are as follows.
- Control Media: PET
- Other Media: PET

Revision History

Ver	Date	Description
2.00	22-04-2024	New