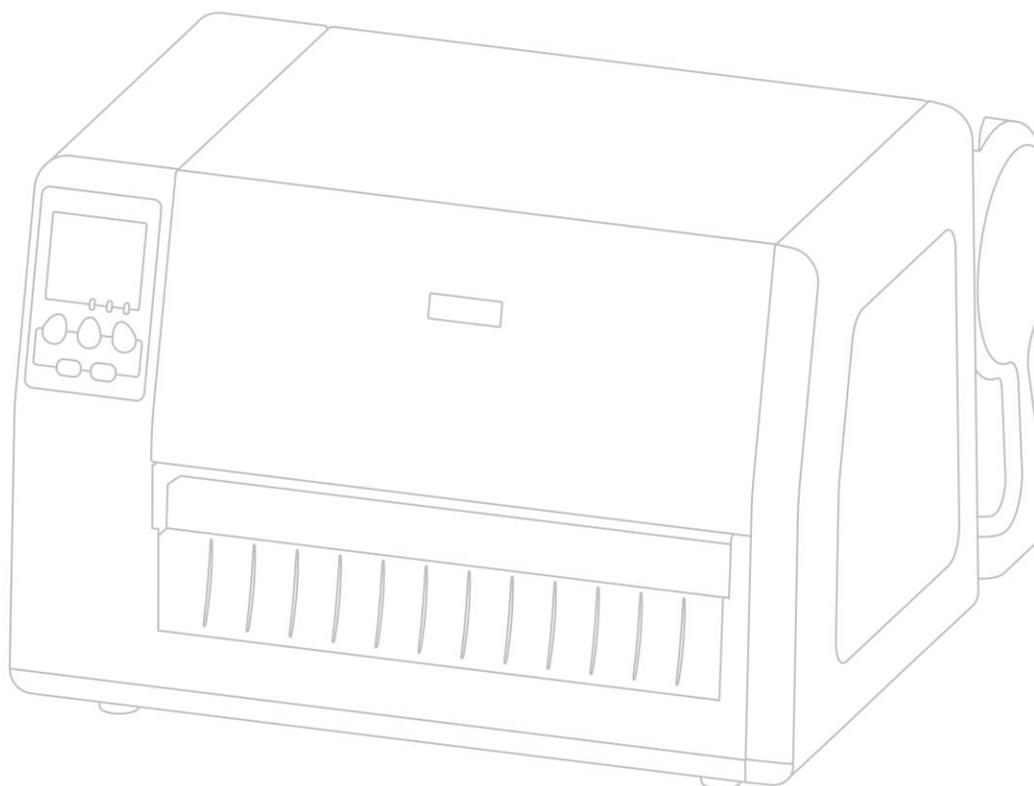# POSTEK
RUGGED PARTS, DURABLE MACHINES

User's Manual

TW Series
Barcode Label Printer

FCC Notice

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 may generate, use and/or radiate radio frequency energy. If not installed and used in full accordance with this instruction manual, interference to radio communications may occur. This equipment complies with the limits for a Class A Information Technology Equipment pursuant to Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may also cause interference. In such case the user will be required, at own expense, to correct the interference using whatever means necessary.

Trademarks

ARM is a registered trademark of Advanced RISC Machines Ltd.
Centronics is a registered trademark of Centronics Data Computer Corporation.
Microsoft, Windows are registered trademarks of Microsoft Corporation.

Copyright

Disclaimer

POSTEK barcode/RFID printers are developed and manufactured by Postek Electronics Co., Ltd (hereinafter as "POSTEK") with the adoption of direct thermal/thermal transfer printing and RFID encoding techniques. For thermal transfer printing, matching ribbons and media are required. Meanwhile, the wide variety of RFID chip and antenna designs make it difficult to guarantee RFID tag's 100% compatibility with POSTEK printers, to satisfy your printing needs, please consult with the local reseller(s) to choose the matching consumables for POSTEK printers.

This manual has been validated and reviewed for accuracy. The instructions and descriptions it contains are accurate for the POSTEK printer at the time of this manual's distribution. However, succeeding printers and manuals are subject to change without notice. POSTEK assumes no liability for damages incurred directly or indirectly from errors, omissions or discrepancies between the printer and this manual.

To protect your interest, and to prevent loss due to improper handling, please read the corresponding user's manual before operation, and don't use the printer during abnormal conditions. In no event shall POSTEK be liable for any damage or loss caused by human misoperation, including but not limited to loss of business profits, business interruption, loss of business information, or other pecuniary loss.

Although this manual describes and details many issues which could possibly occur, the manufacturer cannot warrant against unpredictable conditions during the printer's application. For problems such as the printer not working, missed or unclear print content, etc., POSTEK and/or its resellers are responsible for troubleshooting (according to POSTEK Warranty Clauses). In no event shall POSTEK be liable for any direct or indirect loss, including but not limited to loss of business profits, business interruption, loss of business information, or other pecuniary loss.

Important Safety Instructions

♦ Only qualified and trained service technicians should attempt to repair the printer.

♦ Do not place the printer on or near a heat source.

♦ Be sure that the output of the power adapter is 24 VDC and your power source matches the rating listed on the power adapter. Be certain your power source is grounded.

♦ To avoid getting an electric shock, do not use a worn or damaged power cord. If the power cord becomes damaged or frayed, replace it immediately.

♦ Do not insert anything into the ventilation slots or openings on the printer.

♦ The printer and power adapter should never be operated in a location where either one can get wet. Personal injury may result.

♦ The printhead becomes hot while printing. To protect from damaging the printhead and risk of personal injury, avoid touching the printhead.

♦ To get increased printhead longevity and higher quality printouts, always use approved labels, tags and thermal transfer ribbons. Approved supplies can be ordered from your POSTEK authorized reseller.

♦ Static electricity that accumulates on the surface of the human body or other surfaces can damage or destroy the printhead or electronic components in this device. DO NOT touch the printhead or the electronic components with bare hands.

♦ Place the printer on a flat, firm, solid surface.

♦ Never operate in a high temperature environment.

♦ Turn off the power when not in use for extended periods.

♦ Follow all recommendations and setup instructions included in this manual.

Warnings

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures (see FCC Notice).

Static electricity that accumulates on the surface of the human body or other objects can damage the print head or electronic components in the TW Series printer. Observe proper electrostatic safety precautions when handling.

Content

Preface

Your POSTEK TW Series high performance industrial barcode thermal printer features innovative state-of-the-art technology and superior quality workmanship. Boasting an all metal frame and unique core construction, the TW Series printer achieves a sturdy and durable stationary platform for smooth printing. A powerful control system can easily handle the most complicated printing requirements, and advanced thermal transfer/direct thermal technology offers optimum printout clarity.

This manual explains how to set up and begin using your TW Series printer. It also provides detailed information on configuring your printer, basic operations, care and troubleshooting.

Please read this manual carefully before using the POSTEK TW Series printer.

Important Notice, Read Me First

The thermal printhead can be easily damaged due to its precision construction. A printhead damaged by misuse is not covered under the terms of the warranty. To ensure longevity of the printhead, please note the following:

1. DO NOT scrape or use tools that might damage the printhead surface.
2. To protect from corroding the printhead, DO NOT touch the printhead with bare hands.
3. DO NOT use thermal paper or thermal transfer ribbons which contain Sodium (Na), Potassium (K), Chlorine (Cl).
4. Keep printhead away from any form of liquid or dampness.
5. Only use a cotton swab dipped in anhydrous isopropyl alcohol to clean the printhead.
6. Always use high-quality consumables:
   - When the printhead module is closed, pressure is placed directly onto the printhead; dirt such as paper scraps, sand, dust and glue can scrape or damage the printhead.
   - The thermal printhead is also easily damaged by static electricity, which may be generated by poor quality ribbons.
7. Always purchase high quality consumables.

Note: The TW Series printer functions under Direct Thermal or Thermal Transfer print methods. Thermal Transfer is set as the factory default (requires ribbon for printing). However, if you need to print on Direct Thermal materials (ribbon is not required), please contact your printer supplier or service provider to reduce the printhead pressure. This can protect your printhead from early performance deterioration due to direct contact with the thermal media. Any physical printhead damage caused by direct thermal printing is not covered under warranty.

Chapter 1: Introduction

Printer Specifications

Model	TW6 (203dpi)	TW6 (300dpi)	TW8
Printing method	Thermal Transfer		
Printing resolution	203 dpi (8 dots/mm)	300 dpi (11.8 dots/mm)	
Max printing speed	6 ips (152.4 mm/s)	4 ips (101.8 mm/s)	
Max printing width	6.6″ (168 mm)		8.64″ (219.5 mm)
Max printing length	157″ (4000 mm)	79″ (2000 mm)	
CPU/Memory	8 MB FLASH ROM, 32 MB SDRAM		
Media	Width: 10.23″ (260 mm) max, 3.54" (90 mm) min. Total thickness (including liner, if any): 0.0024″ (0.06 mm) ~ 0.019″ (0.48 mm). Supply roll: OD 8.27″ (210 mm) max. ID 3″(76.2 mm) min.		
Ribbon	Max width: 8.66″ (220 mm), Max length: 1968' (600 m) Ink side: Out Ribbon roll: OD 3.54″ (90 mm) max., ID 1″ (25.4 mm) min.		
Media sensor	UP & Down Reflective (Adjustable) / Transmissive (Adjustable)		
Fonts	Five built-in dot matrix ASCII fonts, user-downloadable TrueType Fonts		
Barcode types	1D Barcode: Code 39, Code 93, Code 128/subset A,B,C, Codabar, Interleave 2 of 5, UPC A/E 2 and 5 add-on, EAN-13/8/128, UCC-128, etc; 2D Barcode: MaxiCode, PDF417, Data Matrix, QR, etc.		
Interfaces	RS-232 Serial, USB Device 2.0, USB Host, 10/100 Mb Ethernet.		
LCD display	Graphic Dot Matrix		
Power rating	100-240 V, 50/60 Hz, 3.5 A		
Weight	9 kgs		
Dimensions	W 14.8″ (375 mm) x D 17.1″ (435 mm) x H 9.8″ (250 mm) with unfolded Media Stand. W 14.8″ (375 mm) x D 14.2″ (360 mm) x H 9.8″ (250 mm) with folded Media Stand.		
Operation environment	Temperature: 32° F ~ +104° F (0° C ~ 40° C) Relative humidity: 5% - 85% non condensing		
Storage environment	Temperature: -40° F ~ +140° F (-40° C ~ 60° C) Relative humidity: 5% - 85% non condensing		
Optional items	Cutter, Centronics Parallel, WiFi, Bluetooth 4.0		

Contents of Box

Inspect the shipping carton(s) for possible shipping damage, if damage is discovered, notify the shipping company to report the nature and extent of the damage.

Please check the items according to the Packing List. If there are any items missing, notify your authorized reseller.

Packing List

TW Series Printer	1 pc
Power Cord	1 pc
USB interface cable	1 pc
Quick Start Guide	1 pc
*CD-ROM	1 pc

 *Note: CD-ROM pack includes TW printer driver, label design software, TW Series User's Manual and the Programming Manual.
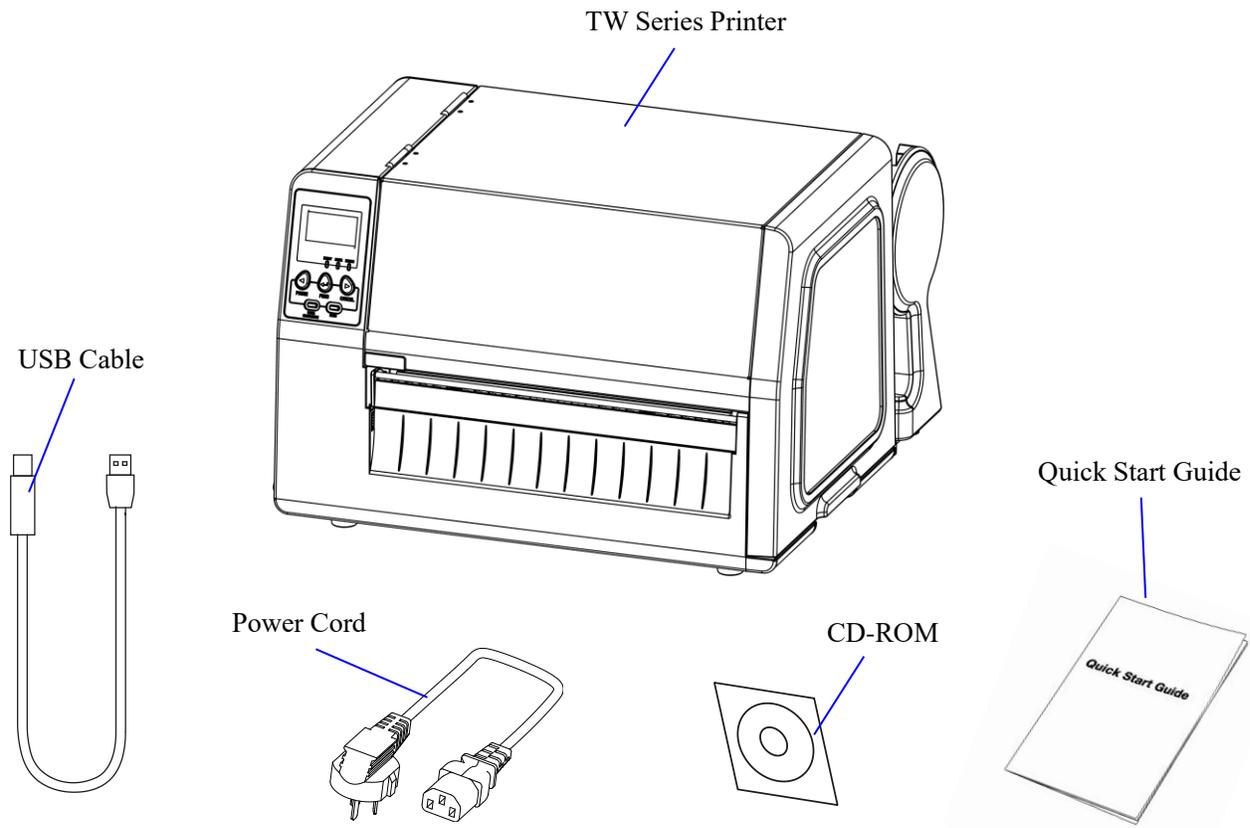

Figure 1: Printer and Accessories

Chapter 2: Setup and Use

Setting up the Printer

Before setting up the printer consider the following:

1. Make sure there is adequate space around the printer for loading consumables and proper ventilation.
2. Make sure the printer is close to the host so the interface cable is easily accessible at either end.
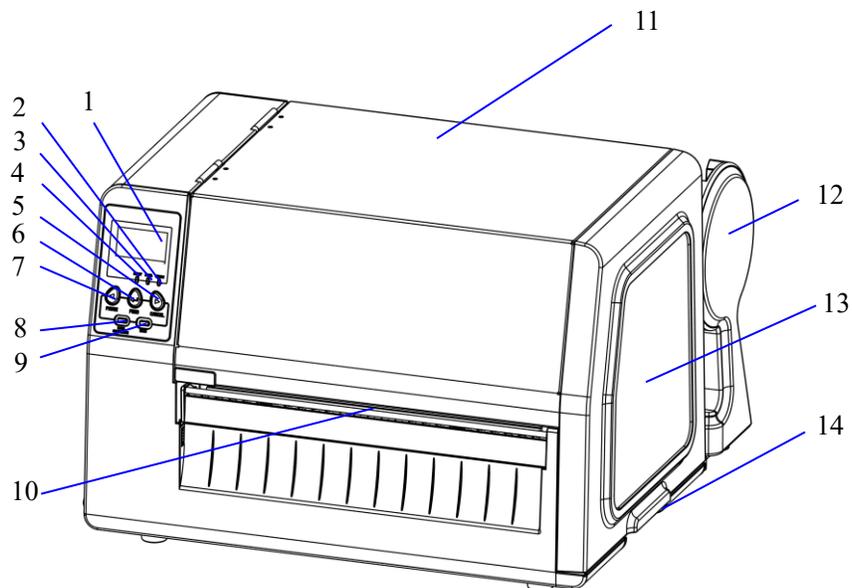
Main Parts and Structures

Figure 2-1

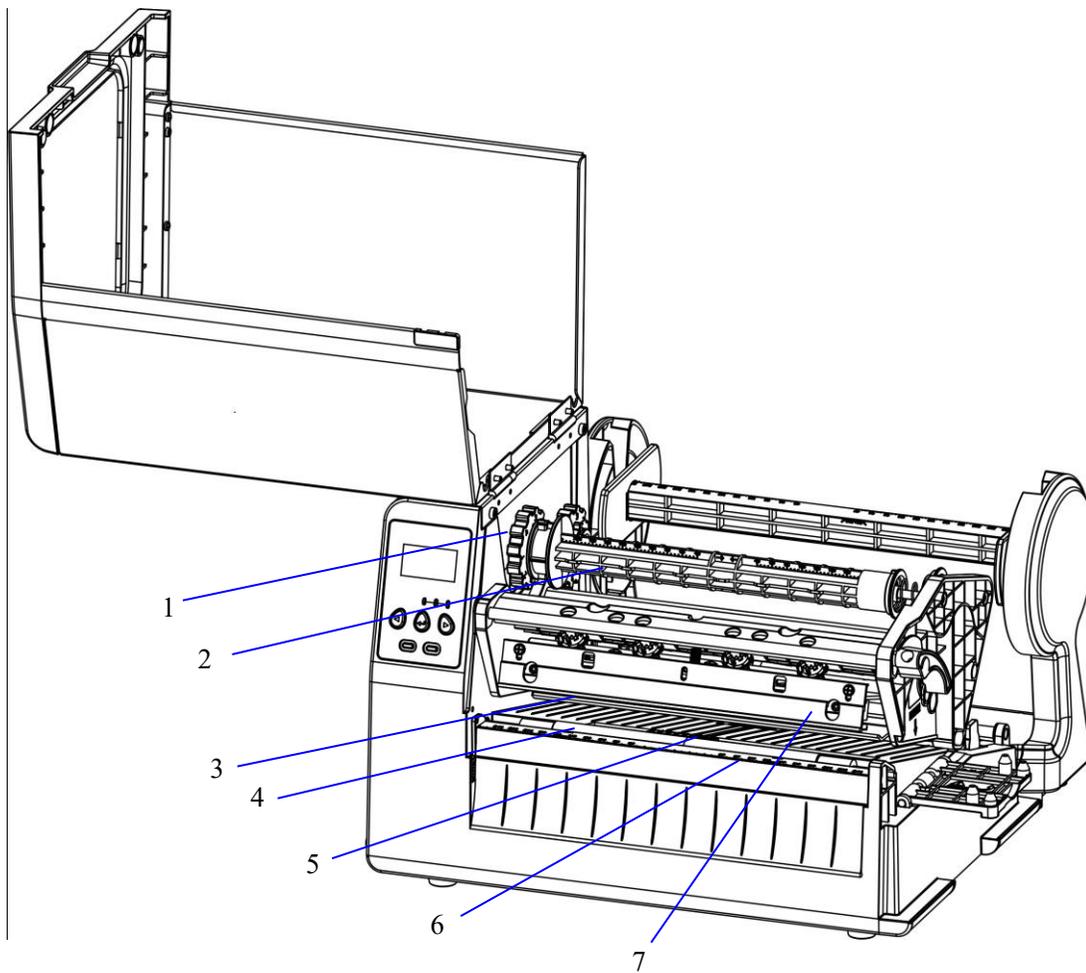|		
1. LCD	2. READY Indicator	3. MEDIA Indicator
4. RIBBON Indicator	5. CANCEL Button	6. FEED Button
7. PAUSE Button	8. Media Calibration Button	9. MENU Button
10. Media Outlet	11. Right Cover	12. Media Stand
13. viewing window	14. Cover Handle	

Figure 2-2

1. Ribbon Take-up Adjusting   2. Ribbon Spindle   3. Printhead
   Knob

4. Platen Roller   5. Media Sensor   6. Tear Bar

7. Printhead Bracket
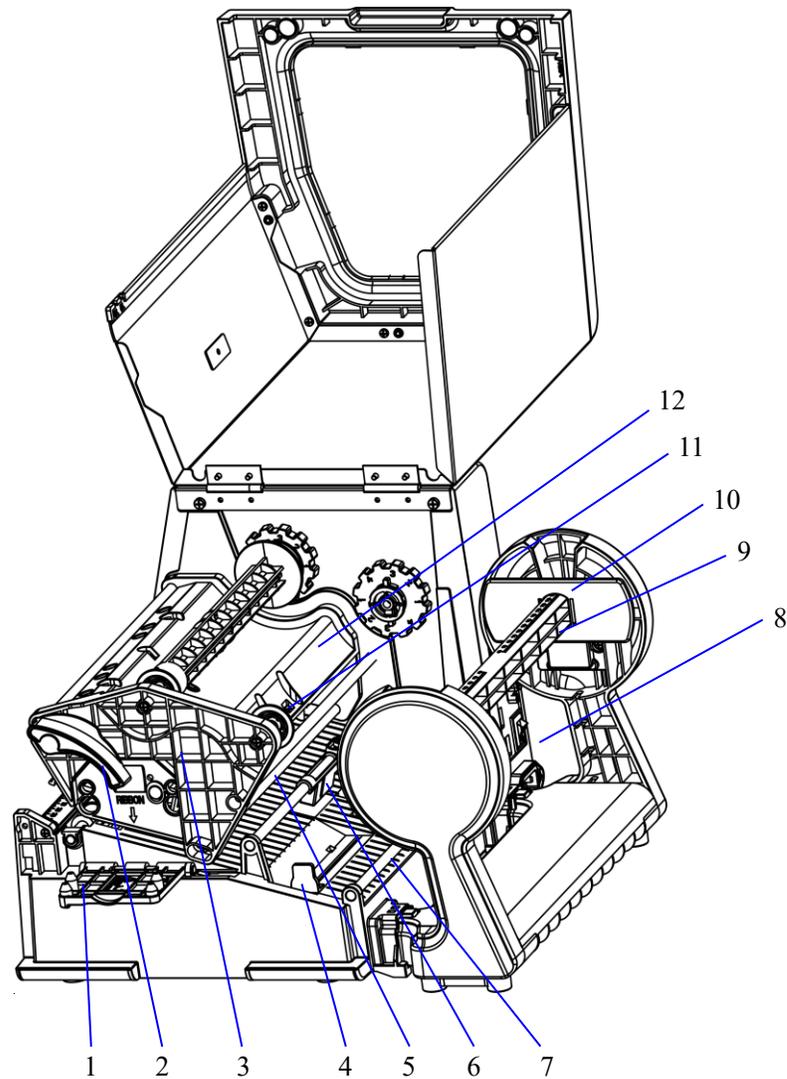
Figure 2-3

1. Printhead Module Plate   2.   Handle   3.   Printhead Module
4. Media Guide   5.   Ribbon Guide Rod   6.   Media Sensor
7. Media Guide Rod   8.   Media Supply   9.   Media Spindle
10. Media Roll Guide   11. Ribbon Sensor   12. Ribbon Supply

1
2
3
4
5
6
7

Figure 2-4

1. RS-232 Serial Port	2. Centronics Port	7. USB Device 2.0
4. USB Host	5. Ethernet Port	6. Power Switch
7. AC In Port		

Loading Path
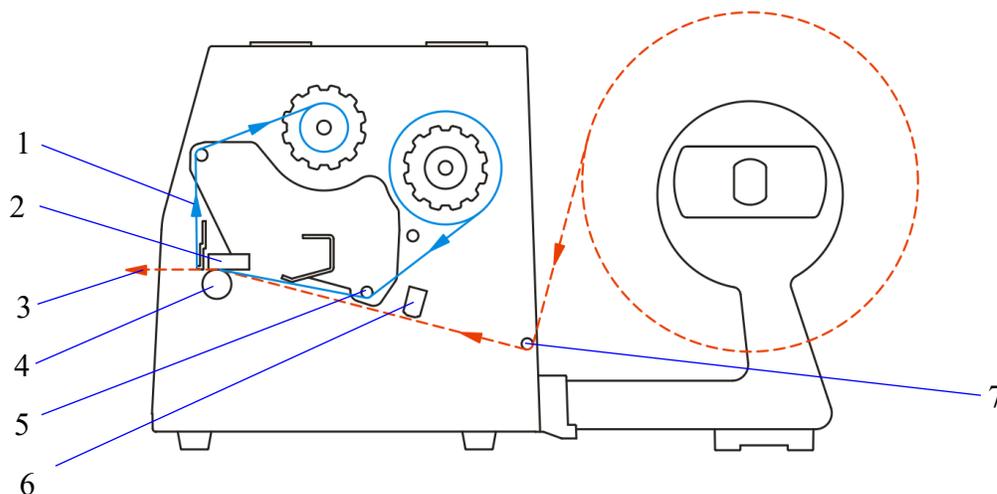
Figure 2-5

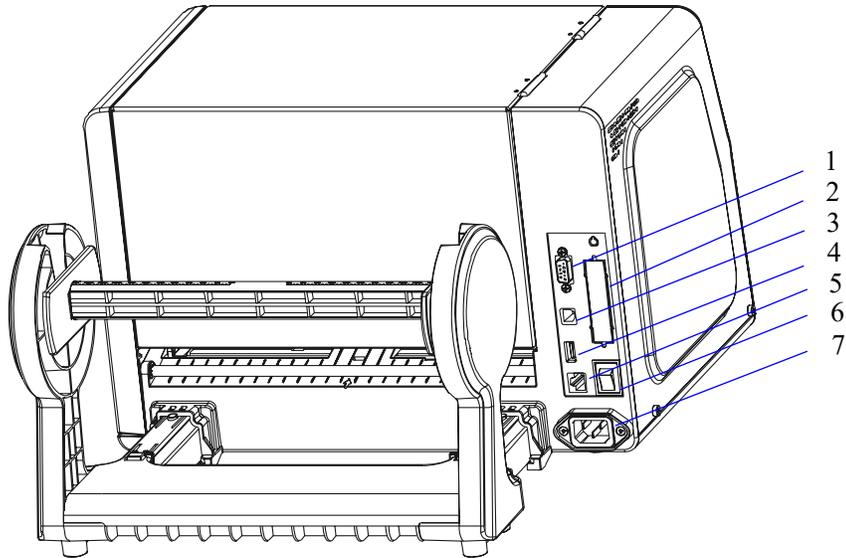|		
1. Ribbon Path	2. Printhead	3. Media Path
4. Platen Roller	5. Ribbon Guide Rod	6. Transmissive Media Sensor
7. Media Guide Rod		

Connecting the Printer

Warnings:

(1) Do not use the printer near liquids or corrosive chemicals.
(2) Using the wrong power cord may cause damage to your printer. POSTEK assumes no liability for any damage in such cases. The rating for the printer is 100-240 V, 50/60 Hz.

Power Connection

1. Make sure the printer is switched OFF.
2. Connect the power cord to the AC In Port on the back of the printer.
3. Plug the power cord into a live wall outlet.

AC In Port

Figure 2-6

Interface Connection

The TW Series printer supports RS-232 Serial, USB, Centronics Parallel, Ethernet and USB Host interface connections.

To connect:

1. Make sure the printer is powered OFF.
2. The printer will identify the communication port automatically.
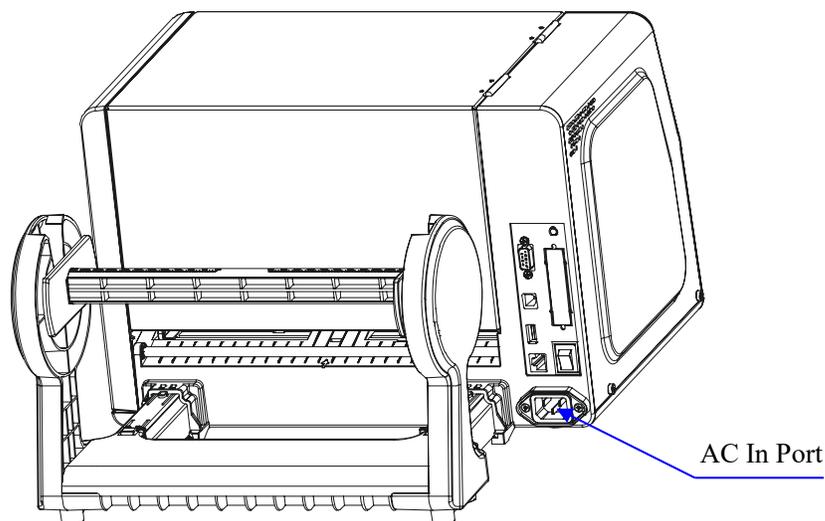3. The default values of printer port can be obtained from the self-test report. (See Chapter 2: Operation Basics/ Advanced Functions/ Self Test)
4. Cable configurations for Serial (RS-232C) interface is found in Appendix A of this guide.
5. Please take the following measures to reduce cable noise.
   - Restrict the length of the interface cable to less than 6' (1.83 m) if possible.
   - Keep the interface cable separate from power cords.

Loading the Ribbon

Note:
(1) Loading the ribbon only when using the thermal transfer printing method.
(2) Please make sure the loaded is ink-outside ribbon.

To install the ribbon:

1. Lift the right cover of the printer, and pick up the ribbon spindles fixed onto the ribbon supply and take-up.
2. Place the ribbon spindle into the ribbon, which will be used as the ribbon supply hub (see Figure 2-7).
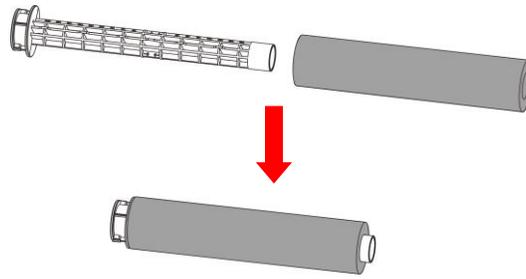
Figure 2-7

3. Place the other ribbon spindle into an empty ribbon core, which will be used as ribbon take-up hub (see Figure 2-8).
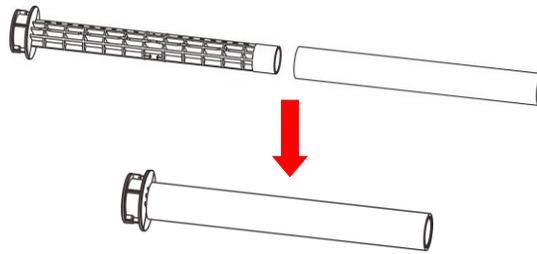
Figure 2-8

4. Turn the handle toward "OPEN" to raise the printhead module (figure 2-9).

Lever

Printhead Module Plate
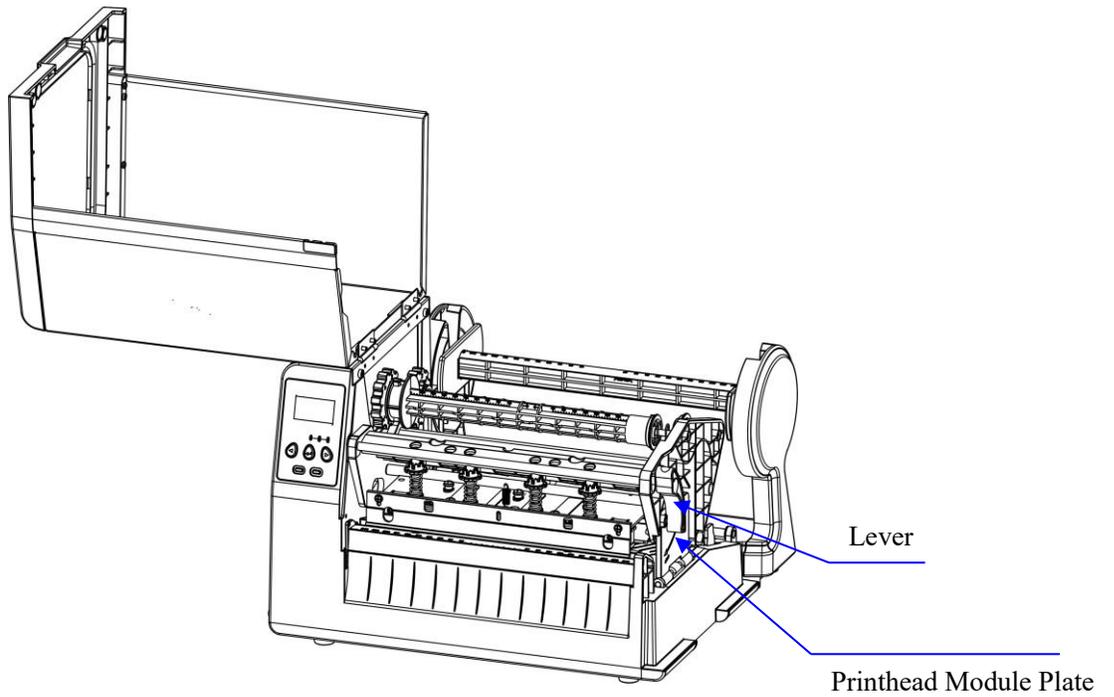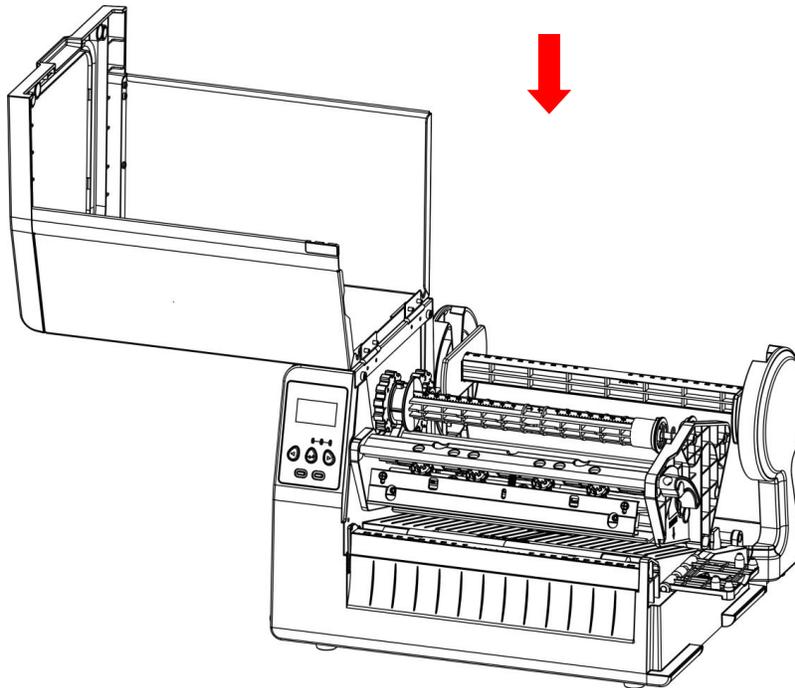
Figure 2-9

5. Load the ribbon supply hub onto the ribbon supply. Pull the ribbon out and lead it below the printhead module (see Figure 2-10).

Ribbon Supply Hub

Printhead Module
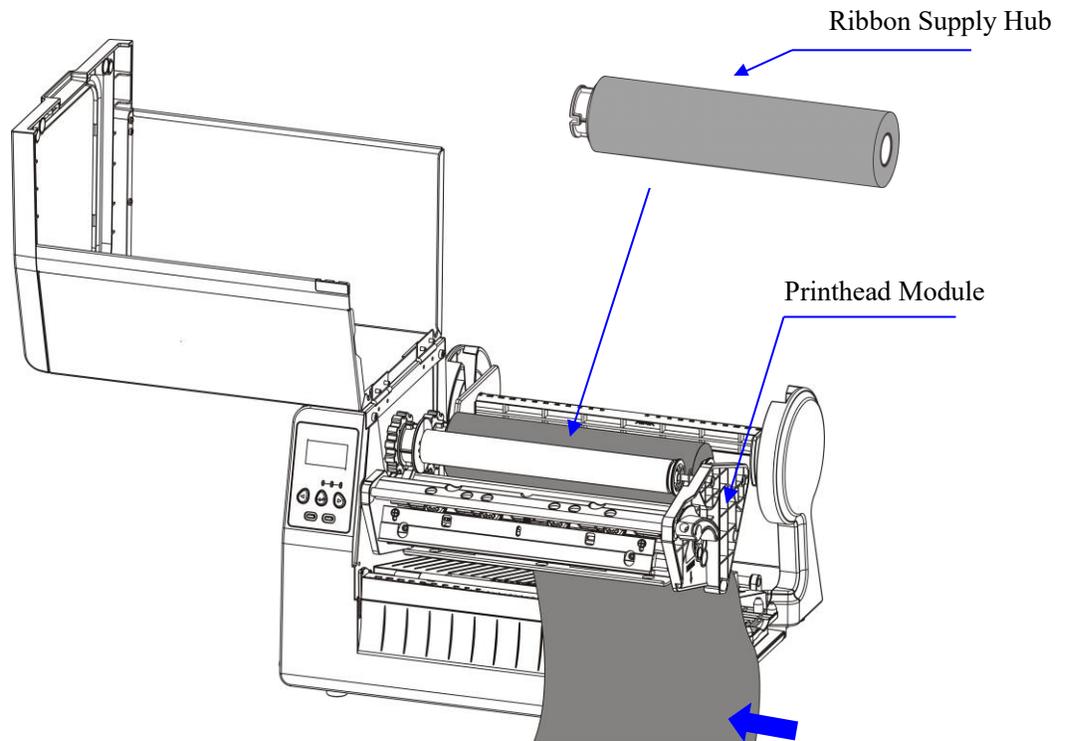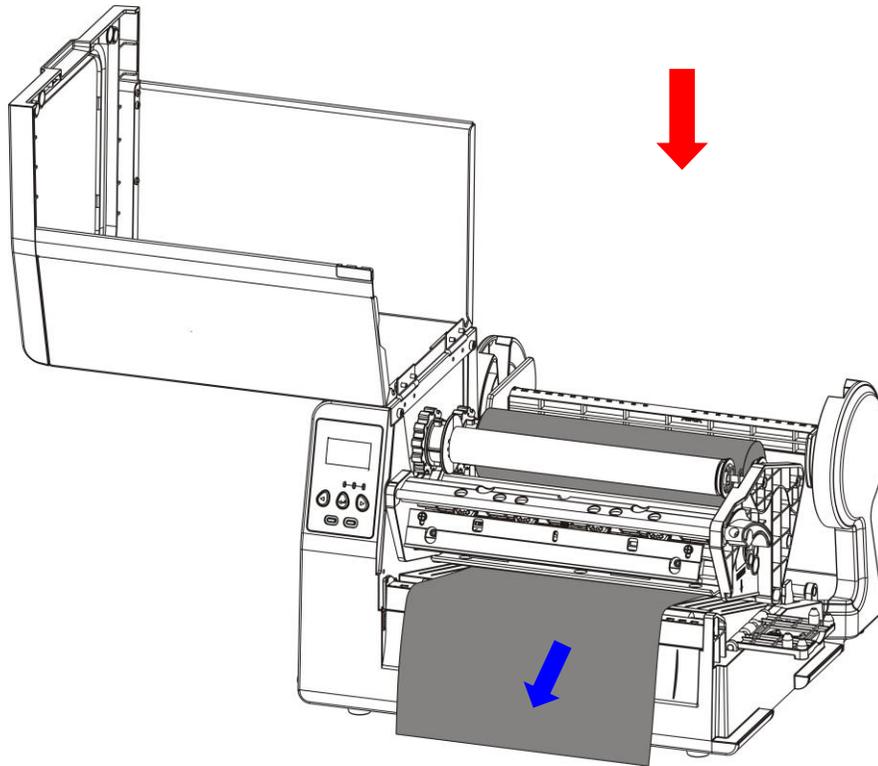
Figure 2-10

6. Wrap the leading edge of the ribbon around the ribbon take-up hub a few laps, and load the ribbon take-up hub onto the ribbon take-up. Turn the left ribbon mount take up clock-wise to tighten and smoothen the ribbon (see Figure 2-11).

Ribbon Take-up Hub
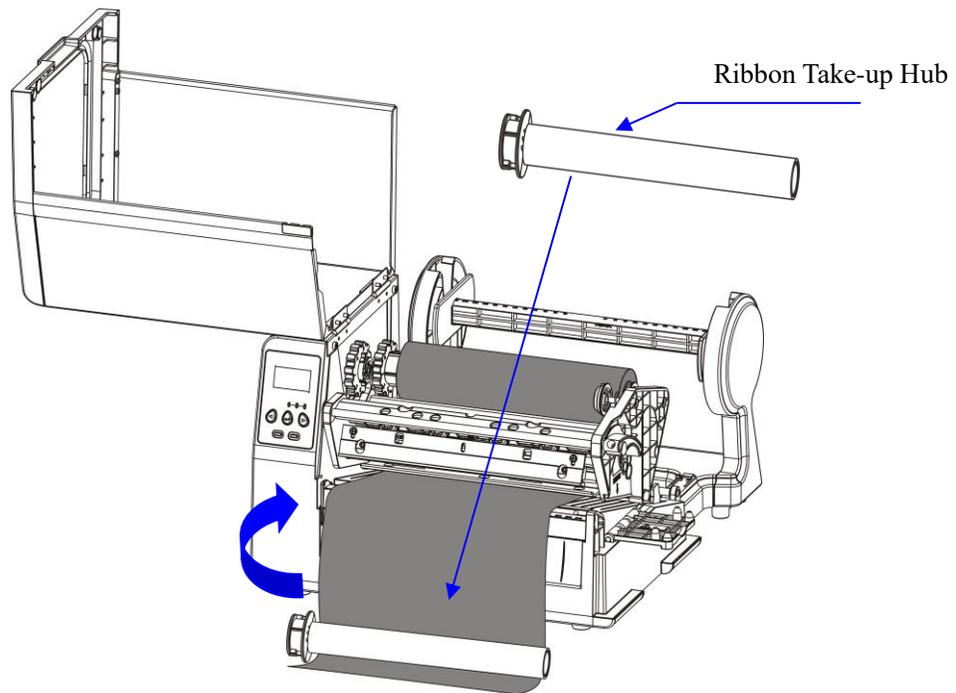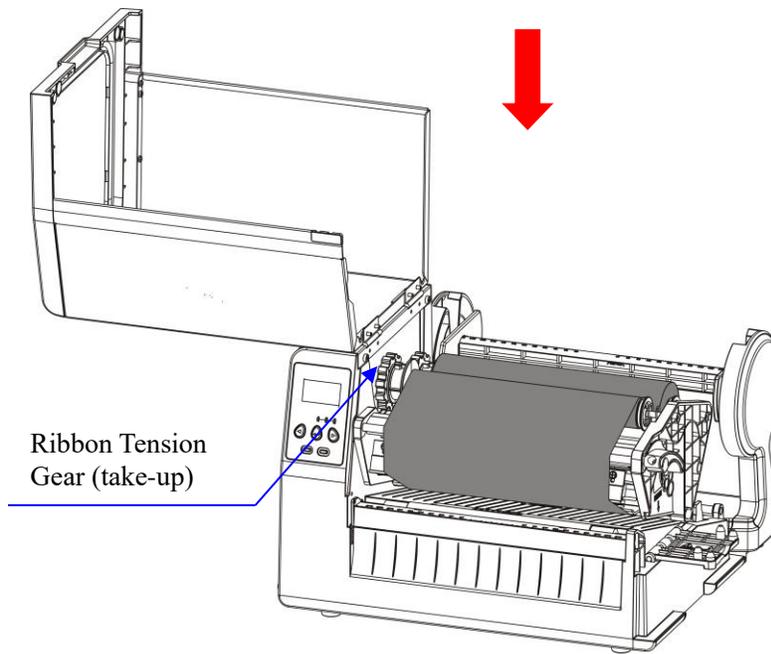
Figure 2-11

7. Close the Printhead Module Plate and turn the handle to lock the Printhead Module.

Unloading the Ribbon

Note: Please remove the used ribbon roll from the printer each time when loading new ribbon or switching to the direct thermal printing method.

To uninstall the ribbon:

1. Lift to open the right cover of the printer, turn the Lever counter clockwise, and open the Printhead Module Plate.
2. Take the ribbon supply and ribbon take-up both out from the printer by pushing the rolls to the spring knobs on the right side and releasing from the adjusting knobs (see Figure 2-12).
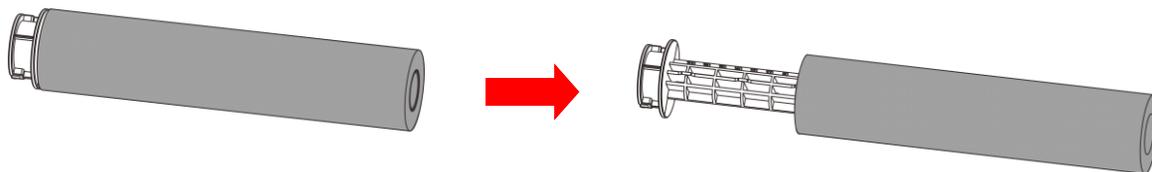
Figure 2-12

Loading the Media

Note: The term "media" in this manual refers to all the different kinds of paper, label, or tag stock material that can be printed on by the printer. TW Series printer can print on continuous paper, adhesive backed labels, or non-adhesive tags packaged in roll.

TW Series printer can be operated in three different modes: Standard mode, Peel-off mode, Manually Tear-off mode and Cutting mode.
−   In Standard mode, each printed label remains on the backing liner.
−   In Peel-off mode and Manually Tear-off mode, each printed label is peeled away or tore off from the backing liner manually.
−   In Cutting mode, the printer automatically cuts the label after it is printed.

Standard Mode, Peel-off mode and Manually Tear-off mode

To load media into the TW Series printer while using Standard Mode, Peel-off mode and Tear-off mode:

1. Press the two buttons at the connecting part between the main frame and the media stand at the same time, and then pull the media stand out, as shown on figure 2-13.
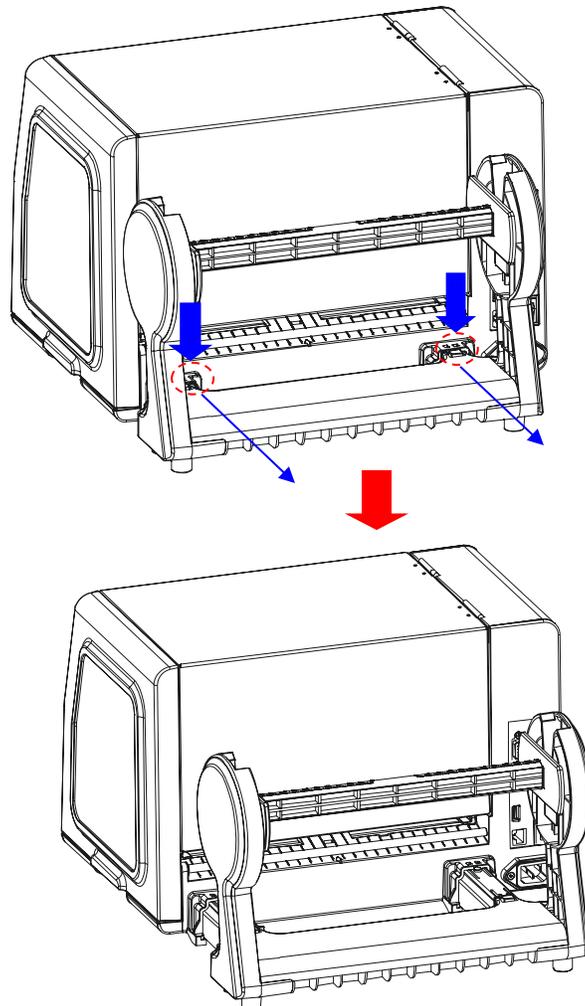
Figure 2-13

2. Take out the Media Spindle and remove the two Media Roll Guides.
3. Load a Media Roll onto the Media Spindle with label facing up, using the scale on the spindle to position the roll in the middle of the spindle.
4. Insert the two Media Roll Guides on each side of the spindle, and push them close to the Media Roll (see figure 2-14).
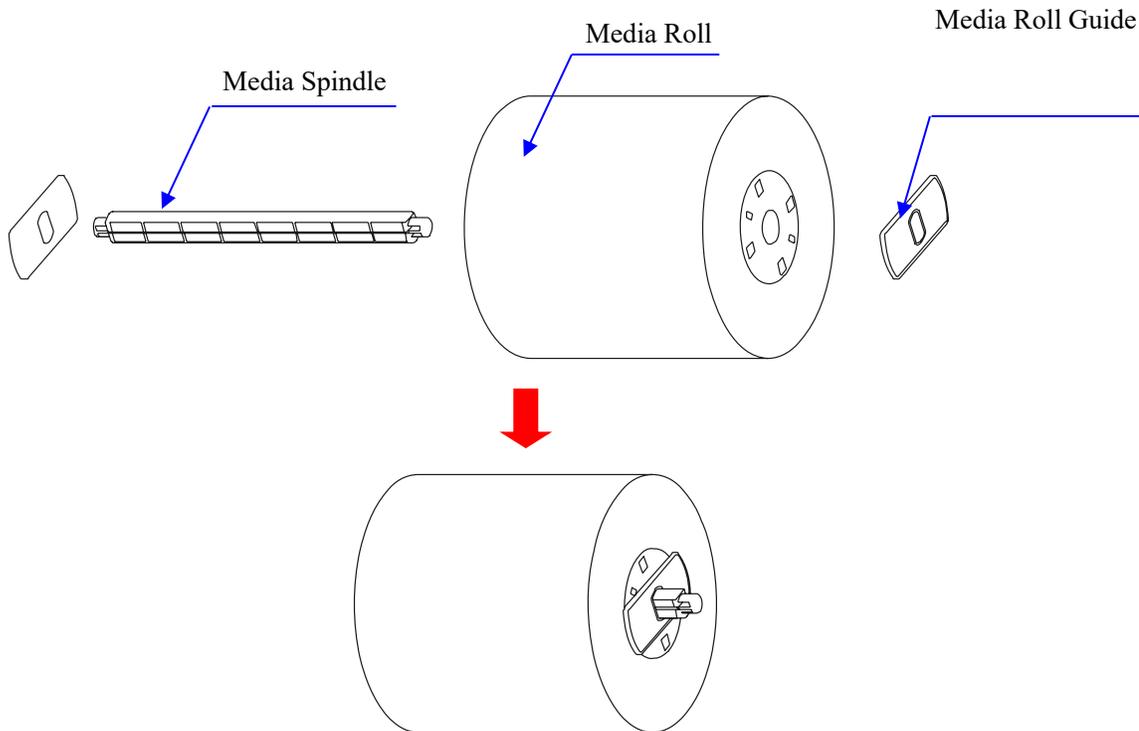
Figure 2-14

5. Put the unit back into the Media Stand, and lift to open the printer's right cover, see figure 2-15.
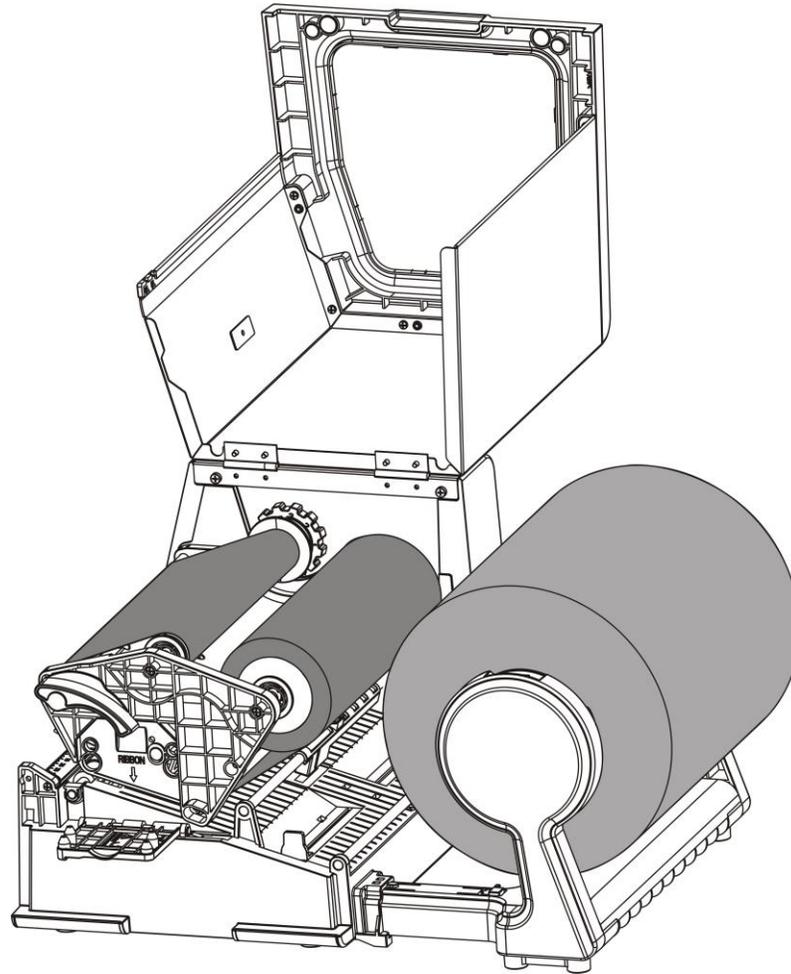
Figure 2-15

6. Route the label under and pass the Media Guide Rod, the Transmissive Media Sensorand, and pass over the Platen Roller to the front of the printer.
7. Slide the Media Guides to the edge of the media properly to ensure the flat and smooth media feeding; please note that do not squeeze the label paper (see figure 2-16).
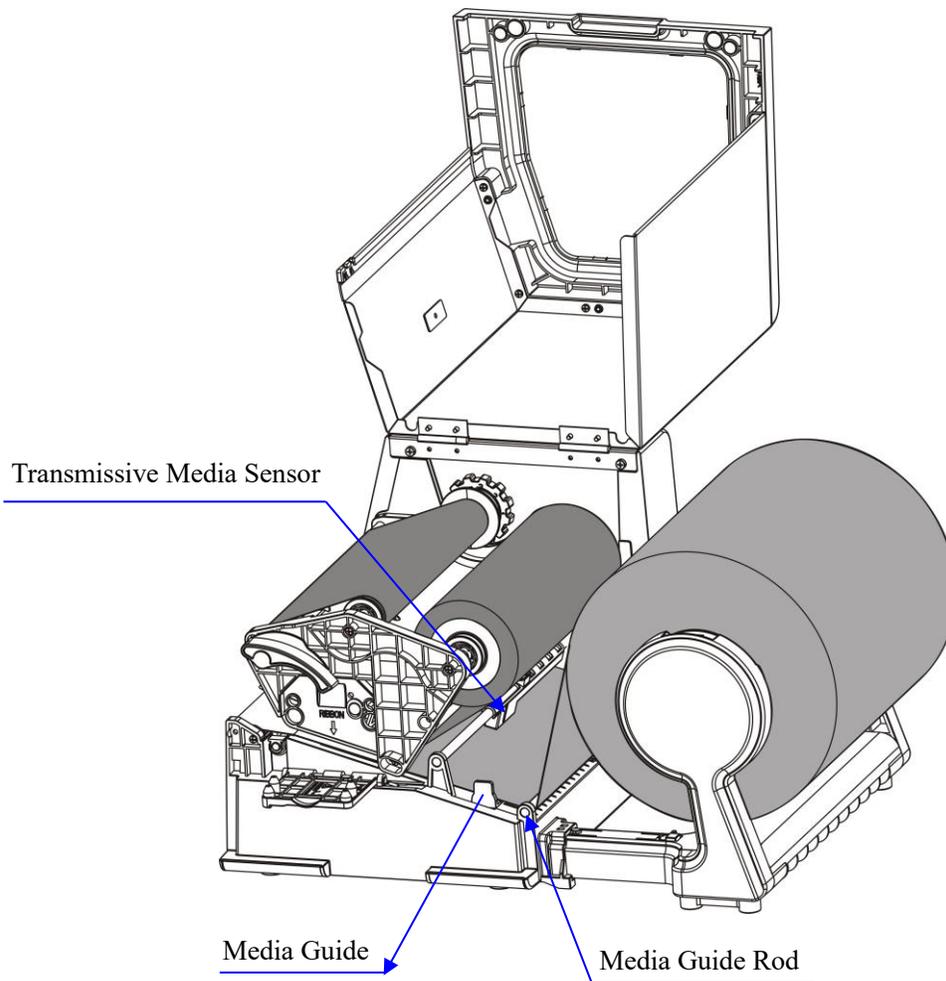
Figure 2-16

8. Pull the media pass and under the Printhead Module and on the tear bar, and use the scale on the tear bar to position the media in the middle. Then close the printhead module plate and turn the Lever clockwise to lock the Printhead Module. See Figure 2-17.

Lever

Printhead Module Plate
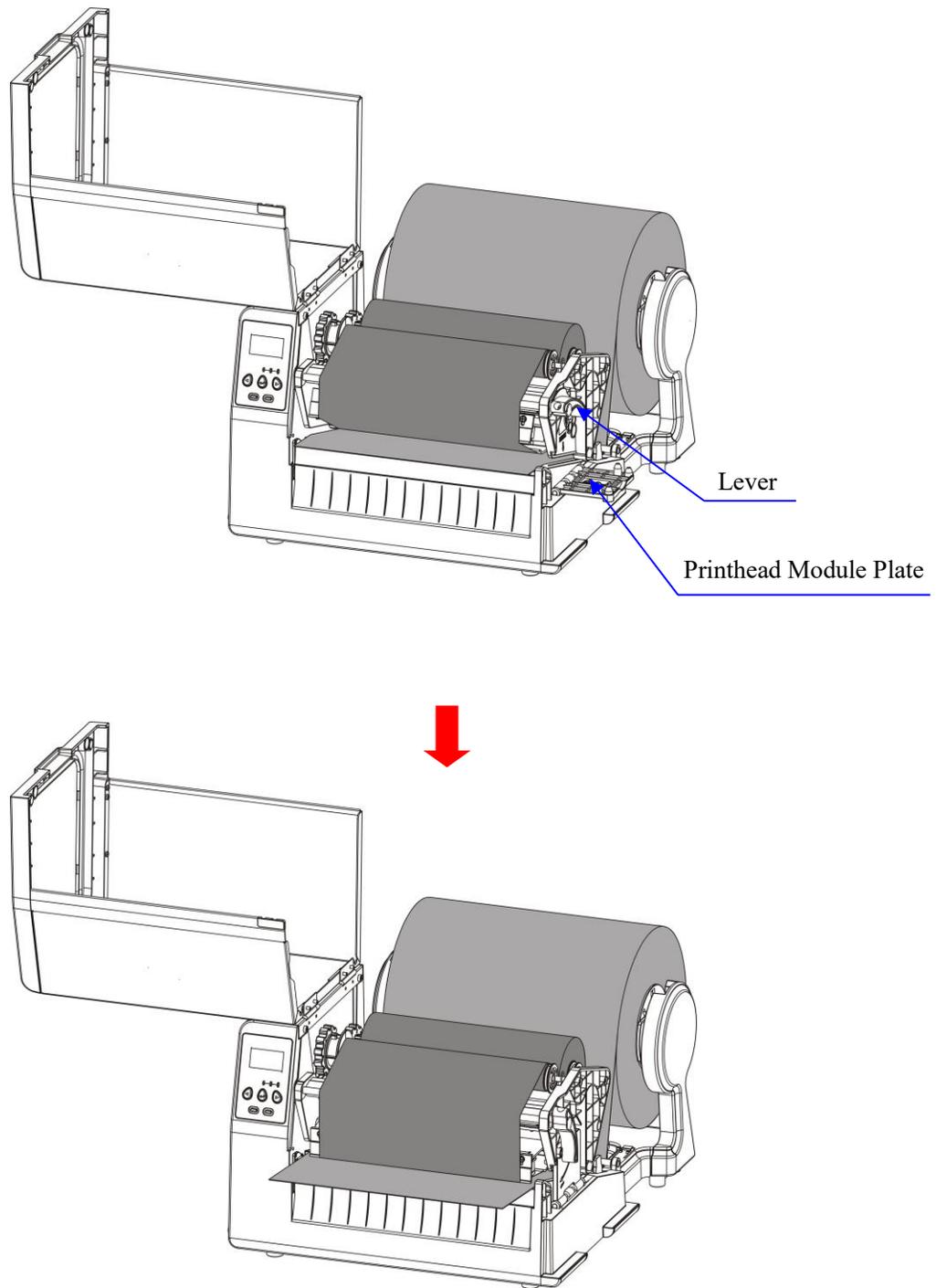
Figure 2-17

9. Close the right cover and turn on the printer, or press the "FEED" button if the printer is already on (see Figure 2-18).

FEED Button
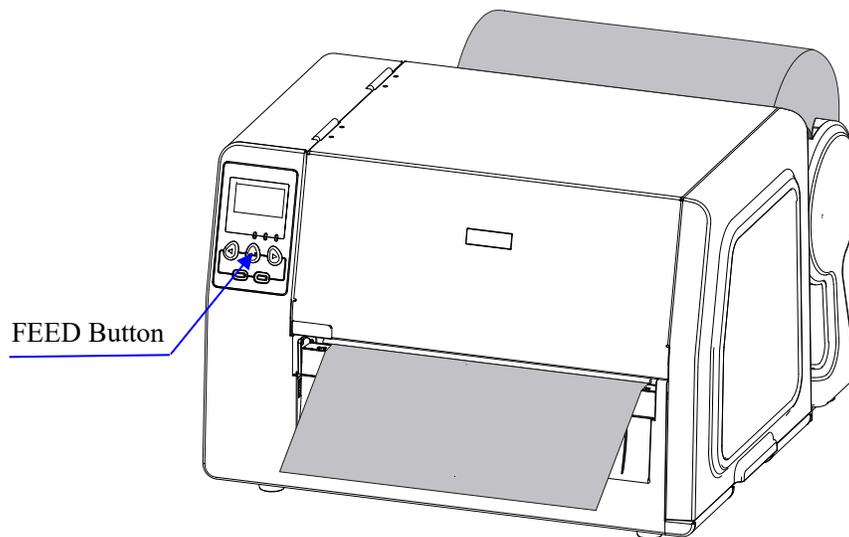
Figure 2-18

Cutting Mode

Using the TW Series printer in Cutting Mode requires an optional rotary cutter. Please consult an authorized POSTEK Reseller for additional information.

1. Please follow step 1 ~ 7 in the section above to load the Media Roll correctly.
2. Lead the media pass over the Platen Roller and through the cutter (see figure 2-19); please note to use the scale on the tear bar to position the media in the middle. If the media cannot pass through the cutter, please see the operation of step 5 (Reset the cutter) of "Cutting Mode" in chapter 3 to solve the problem.
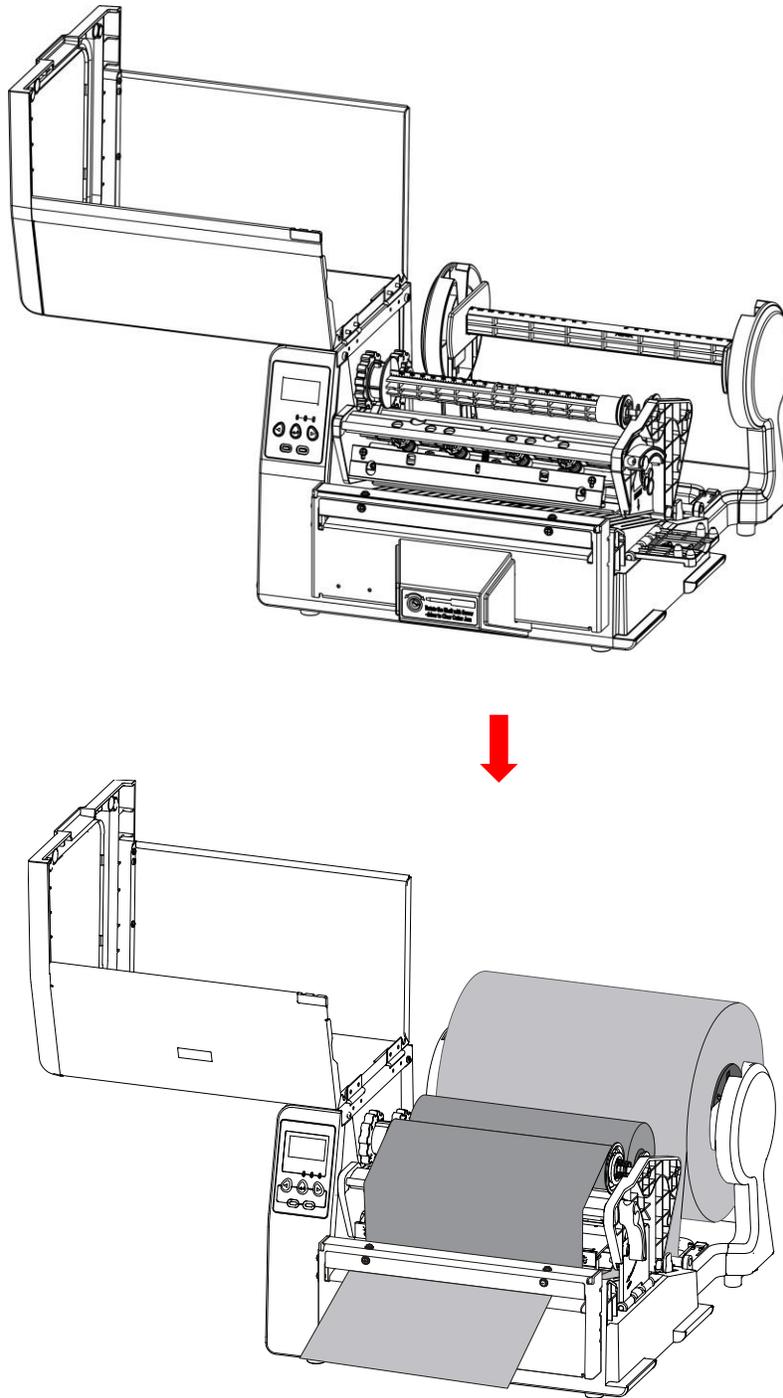
Figure 2-19

Changing Media and Ribbon

Changing Media

If your printer runs out of media while printing, the LCD will display message "Label Runs Out! Please load new label", which means you need to load new media to replace the used one. If you need to cancel the current task and start a new task after a new media is reloaded, simply turn off the printer and turn on again, then follow step 1 ~ 4 listed below and send new task to your printer. If your need to complete the current task, please keep your printer switched on and follow all the steps listed below, your TW Series printer can continue to print the remaining part of the task after reloading.

1. Cut the printed labels off and tidy it up as required.
2. Open the support panel of the printhead module on the right hand side, and turn the lever counter clockwise to release the printhead module.
3. Take out the used media roll.
4. To load a new media according to the process of [Loading the Media](#).
5. Press FEED button to print the remaining part of the current print task.

Note: If you load a new media with the different size compares to the previous one, please press MEDIA CALIBRATION button to calibrate the media sensor first, and then press FEED to continue printing.

Changing Ribbon

If your printer runs out of ribbon while printing, the LCD will display message "Ribbon Runs Out! Please load new ribbon", which means you need to load new ribbon roll to replace the used one. You can only reload the ribbon roll, or you can reload the ribbon and media together as required.
If you need to cancel the current task and start a new task after a new ribbon is reloaded, simply turn off the printer and turn on again, then follow step 1 ~ 3 listed below and send new task to your printer. If your need to complete the current task, please keep your printer switched on and follow all the steps listed below, your TW Series printer can continue to print the remaining part of the task after reloading.

1. Open the support panel of the printhead module on the right hand side, and turn the lever counter clockwise to release the printhead module.
2. Take out the used ribbon roll.
3. To load a new ribbon according to the process of [Loading the Ribbon](#).
4. Press FEED button to print the remaining part of the current print task.

Adjusting the Position of Media Sensor

There are two sets of media sensors installed on TW series printer, which is to enable the media calibration for different types of media roll. According to the differences of structure and mode, the sensor located under the printhead module is called reflective media sensor, and the other is called transmissive media sensor. The following section is to introduce how to adjust the position of the two sensors.

Reflective Media Sensor

1. Lift the right cover, and twist the handle counterclockwise to release the printhead module.
2. Lift the Printhead Module to expose the reflective media sensor (figure 2-20).
3. Slide the media sensor cap to adjust the position of the media sensor pointer (white arrow), making sure it is pointing to the label (see figure 2-21 and 2-22 for reference).

Reflective Media Sensor
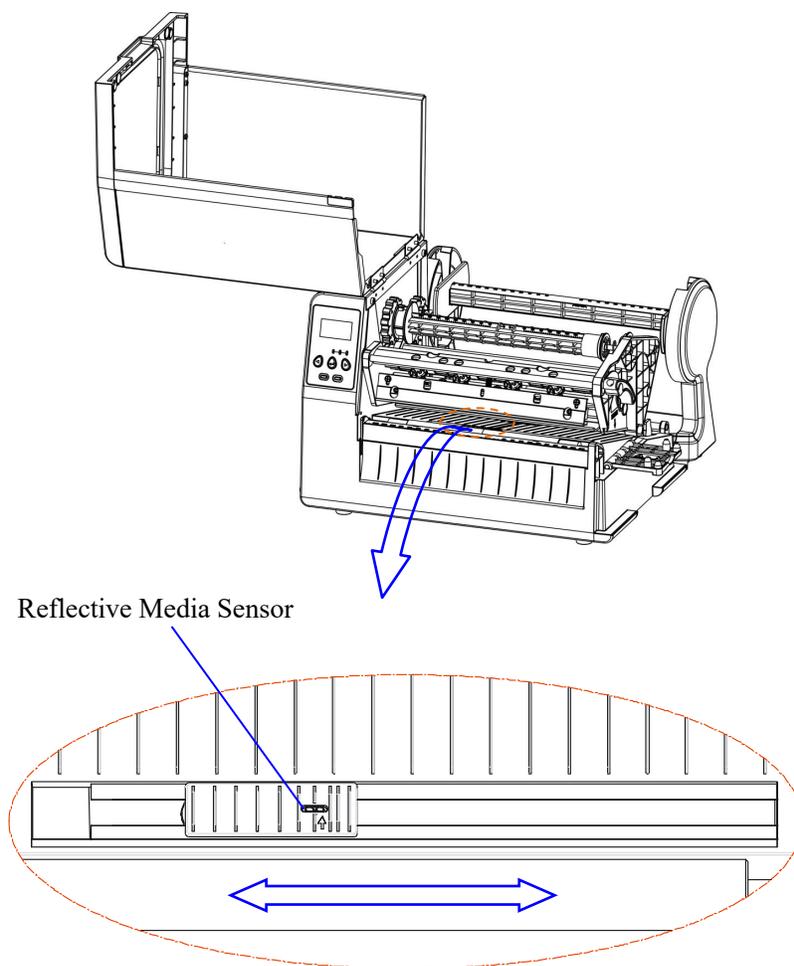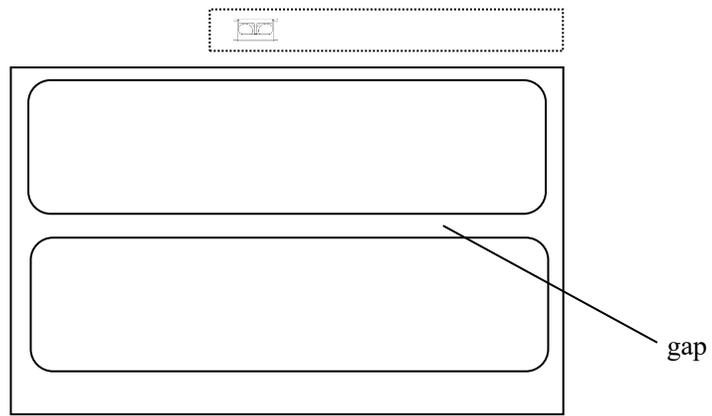
Figure 2-20
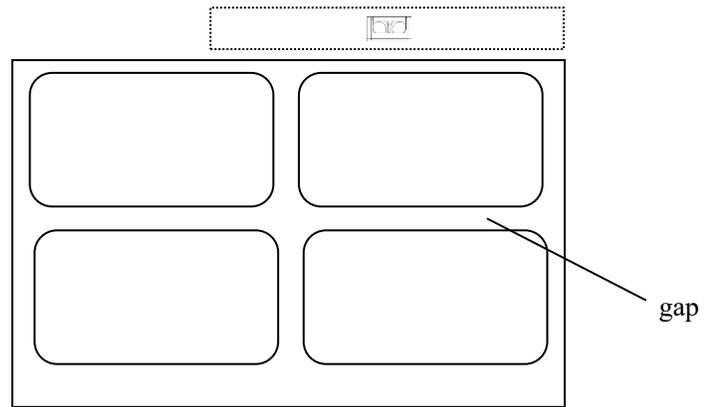
Figure 2-21

Figure 2-22

Transmissive Media Sensor

TransmissIve Media Sensor
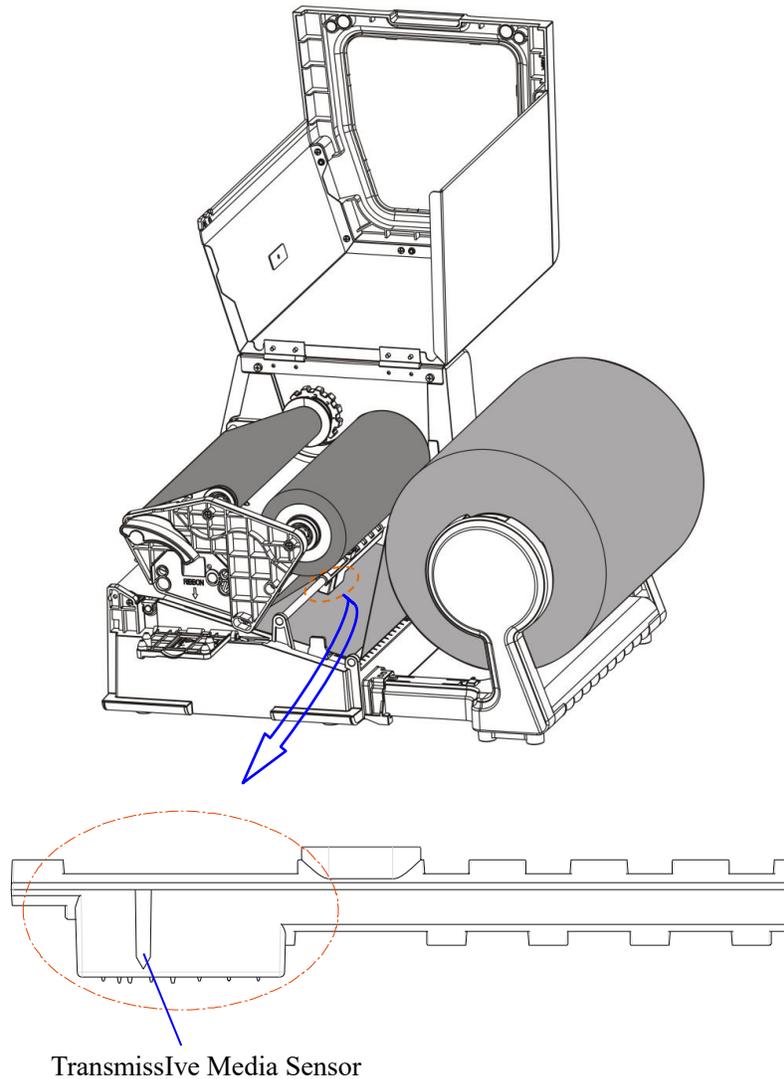
Figure 2-23

1. The Transmissive Media Sensor is located on a metal bar that under the ribbon supply area (figure 2-23), please note to load the media correctly according the procedures of "Loading the Media" on P15.
2. The default location of the Transmissive Media Sensor is centred, which is compatible with most of the cases of detecting media. If the sensor's position is required to adjust for special cases, then it can be done by loosening the screws on top of the sensor for sliding the plastic part along the bar.

Chapter 3: Operations and Settings

Basic Operations

Power Switch

The power switch is on the back panel of the printer. The symbols on the switch are defined as follows:

▬ — ON

○ — OFF

The Front Panel

The Front Panel of the TW Series printer consists of:
- Three Indicator Lamps: READY, MEDIA and RIBBON
- Five multi function buttons: PAUSE, FEED, CANCEL, MEDIA CALIBRATION and MENU
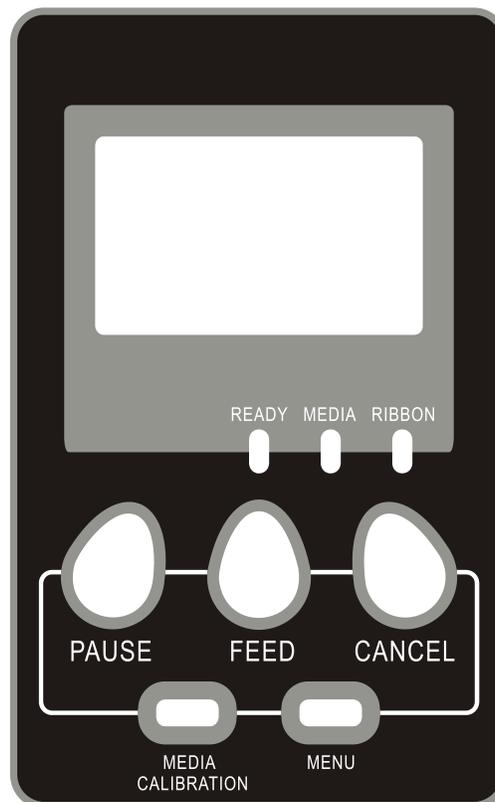
Figure 3-1

Indicator Lamps

The three lamps indicate the status of the printer (please refer to Chapter 4: Troubleshooting, for error indicators).

READY	- **Solid:** Indicates the printer is in the normal state; - **Blinking:** Indicates the printer is in the 'PAUSE' state.
MEDIA	- **Solid:** Indicates the printer is in the normal state; - **Blinking simultaneously with READY:** Running out of media;
RIBBON	- **Solid:** Indicates thermal transfer printing; - **Off:** Direct thermal printing (no ribbon installed); - **Blinking simultaneously with READY:** Running out of ribbon.

Panel Buttons

The five buttons have different functions based on the mode of the operation is performed.

Mode	Function
FEED	Feed one label
PAUSE	- Press once to pause current print job - Press a second time to resume printing
CANCEL	- Cancel current batch of labels - Forces the printer to continue working after an error has been corrected
MEDIA CALIBRATION	Performs media sensor calibration
MENU	Enter/exit setup menu

LCD Display

A graphic dot matrix LCD display is affixed to the front panel. Data in the form of characters, letters and numbers are shown on the LCD display. Please see "LCD Panel Operation" below.

LCD Panel Operation

The LCD can display the printer's status, total print quantities, error messages, and is also valuable when configuring the printer. Following are common examples of LCD displays.

Ready [300DPI]
Total: 888
Version: 1.73
2016-01-01 08:08:08
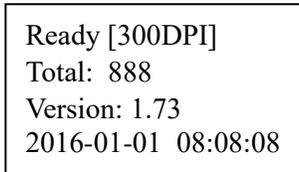
Ready Status   [Resolution]
Total printed labels (pages) count, will
be reset to 0 if cycle the printer power.
Firmware Version
Current Date. Current Time

VERSION:
PPLETW8 1.73
FIRMWARE P/N:
00.10088.001
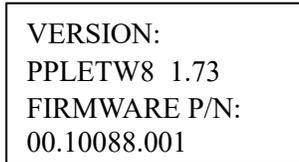
The name and version number of the
installed firmware on the printer.
The P/N number of the firmware.

◄ XXXX   ►

01/40
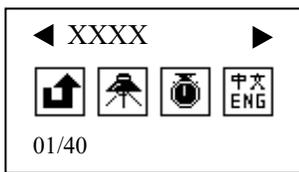
Settings Menu
XXXX is the name of the currently
selected option, icons in the middle
represents different settings options.
Selected/Total (Option Number)

XXXX

12
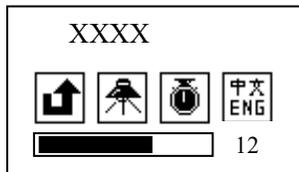
Changing An Option's Value
XXXX is the name of the
activated option.
Status Bar and Value.

Button functions:

BUTTON	FUNCTION	DESCRIPTION
PAUSE	Item/Parameter Selection	Descending Item/Parameter selection
FEED	Enter/exit sub-menu	Confirm selection; Enter/exit sub-menu.
CANCEL	Item/Parameter Selection	Increasing Item/Parameter selection
MEDIA CALIBRATION	Media sensor Calibration	Performs media sensor calibration.
MENU	Enter or exit setup mode	Enter the setup main menu from the ready status or during printing, the LCD will display menu for printing setup; Exit from the setup main menu.

Advanced Functions

BUTTON	OPERATION	FUNCTION
CANCEL	Press CANCEL and hold it for 4 seconds, the three LED indicators will blink simultaneously.	To enter the system mode. If no operations are preformed within 4 seconds, the printer will return to normal status automatically.
CANCEL + FEED	Press CANCEL and hold it for 4 seconds, and short press FEED.	To perform media calibration.
CANCEL + PAUSE	Press CANCEL and hold it for 4 seconds, and short press PAUSE.	To print out the configuration report.
CANCEL + CANCEL	Press CANCEL and hold it for 4 seconds, and short press it again.	To reset the printer to the factory default.

Items to be set and operating guide:

SUB MENU	DESCRIPTION
Exit	Exit from the menu, with or without saving the changes.
Darkness	Machine's default setting is as the value set on LCD panel, meanwhile the command setting will not be valid; but when the value is set as 0 on the LCD panel, the default setting will be subjected to command setting.
Speed	
Language	Options: English, Chinese Default: English
Tear-off Offset	
Feeding Offset	
Cutting Offset	Media Offset under different modes, range from -99 to +99 mm: Set positive values to move the media stop position towards out. Set negative values to move the media stop position towards in.
Peeling Offset	
Print Offset-H	
Print Offset-V	
Cut Frequency	After the specific copies of labels printing will the cutter cut once. Default value: 01.
Error Feedback	Allow or forbid the printer to send back error information to the host. Options: Enable, Disable
Print Mode	Direct Thermal, Thermal Transfer. Default: Thermal Transfer.
Tear Mode	Options: Enable, Disable. Default: Disable. (*Note: Cut mode and Peel mode cannot be turned on at the same time; please enable one if you need to disable the other one.*)
Cut Mode	
Peel Mode	

Media Sensor Type	Options: Down Reflective, Up Reflective, Transmissive. Default: Transmissive
Baud Rate	Options: 9600, 19200, 38400, 57600. Default: 38400.
Data Bits	Options: 7 Bit, 8 Bit. Default: 8 Bit.
Parity	Options: None, Odd, Even Default: None.
IP Address	The range of XXX is 0-255, press PAUSE ◀ to decrease, CANCEL ▶ to increase, FEED ⏎ to move to next XXX. Upon completion, pressing FEED ⏎ will proceed to the "Save/Exit" screen. (Note: restart the printer to activate the changed settings)
Gateway	
Netmask	
Port	
Set Date	Set system date.
Set Time	Set system time.
Font List	Browse the stored fonts.
Delete Fonts	Delete stored fonts.
Command Type	Options: PPLE, PPLZ Default: PPLE
DHCP	Options: Enable, Disable Default: Disable After DHCP is enabled, the printer will ask for a restart. As the printer being powered on again, the LCD will prompt "DHCP CONFIGURING, WAIT ABOUT 2 MINUTES…" Normally it takes 2 minutes to finish the network settings. If failed, the printer will disable the DHCP and prompt "DHCP ABORT, CHECK NET, PLS!"
Dump Mode	Options: Enable, Disable Default: Disable
Detect Length	The Media feed length when perform Media Calibration. Default 200, Unit mm.
Standalone Printing	Browse the pre-stored label forms, select one to print.
Delete Forms	Clear the forms downloaded to the printer.
Delete Graphics	Clear the graphics downloaded to the printer.
Load Default	Restore factory default settings.

Note： Please read the content in "Important Notice" section before setting your printer to direct thermal mode.

Tear-off
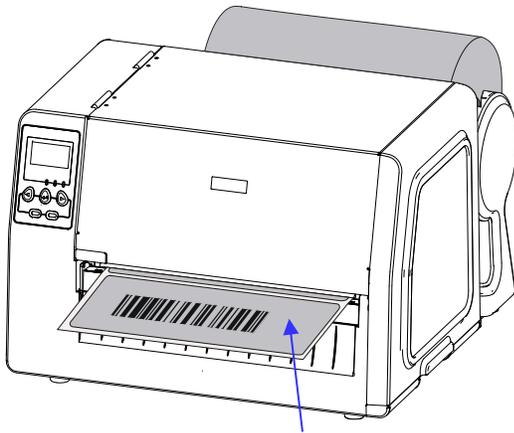
a. Grab printed label
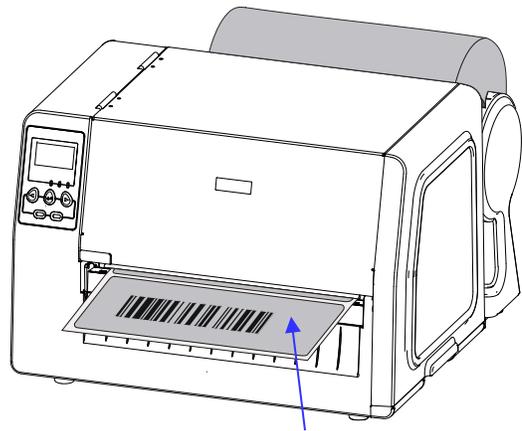
Figure 3-2

b. Tear down

1. Press MENU to enter setup menu: Common Settings → Tear Off, select Enable.
2. Follow the directions shown in Figure 3-2 to tear off the label.
3. If the tear-off position needs to be adjusted, press MENU to enter setup menu: Offset Settings → Tear-off Offset, input suitable offset value.

Manual Peel-off
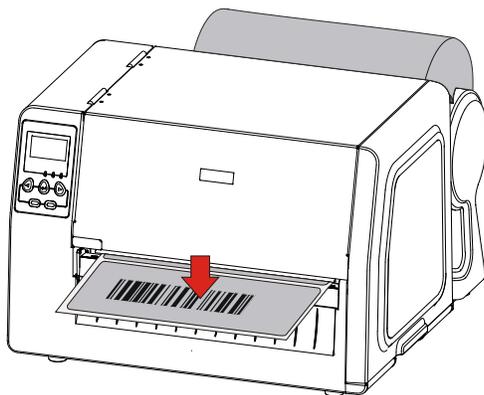
a. Press the printed label downwards
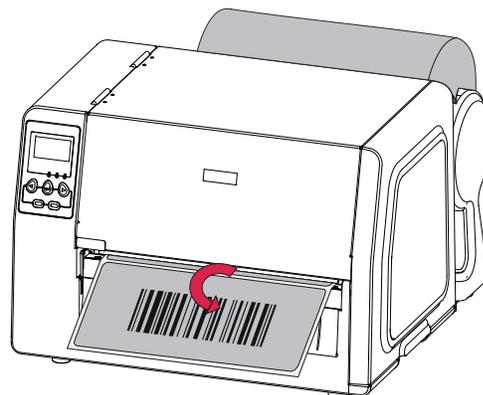
b. Press the label to printer
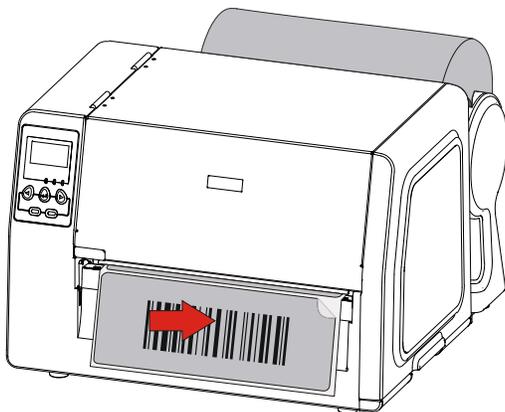
c. Remove the label

Figure 3-3

1. Press MENU to enter setup menu: Manual Peel Off, select Enable.
2. Follow the directions shown in Figure 3-3 to peel off the label.
3. Press PAUSE to print next label.
4. If the peeling position needs to be adjusted, press MENU to enter setup menu: Peeling Offset, input suitable offset value.

Cutting Mode

Note: The Rotary Cutter Kit is an optional accessory.

1. Turn on the printer and enter the Setup Menu by pressing the MENU button on the Front Panel.
2. Enable the cutter under the LCD menu: Common Settings → Cutter, select Enable. Please note that the 'Manual Peel Off' mode and the 'Cutter' mode cannot be set as 'Enable' simultaneously, so the 'Manual Peel Off' should be set as 'Unable' before installing the Cutter.
3. Reset the cutter: press and hold the Cancel button for 4 seconds, the three lamps will blink simultaneously. Release and press the Cancel button again, the three indicators stop blinking and remain lit. The printer is now in its normal state.
4. Turn the handle counter clockwise to release the Printhead Module, load the media and ribbon on the printer, lead the label pass and through the cutter. Then close the printhead, the cutter is now ready to use. See Figure 3-4.

Note: Cutter reset is required before loading the media, or the media maybe jammed by blade thus is not able to pass through.
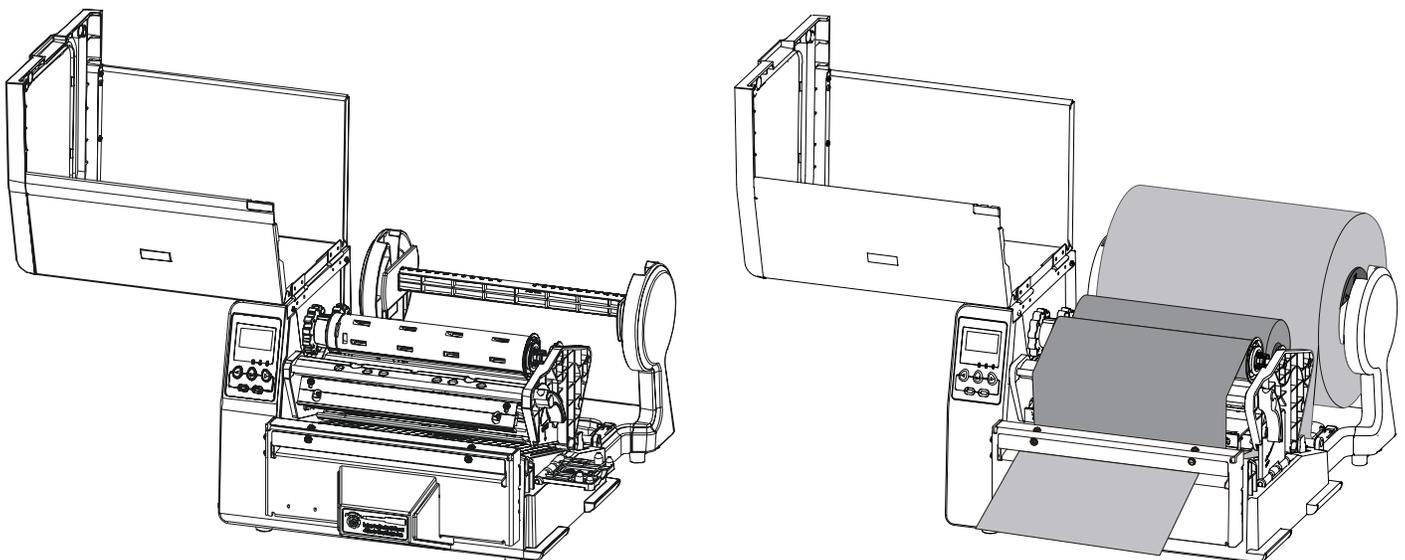
Figure 3-4

Adjusting the Pressure of Printhead
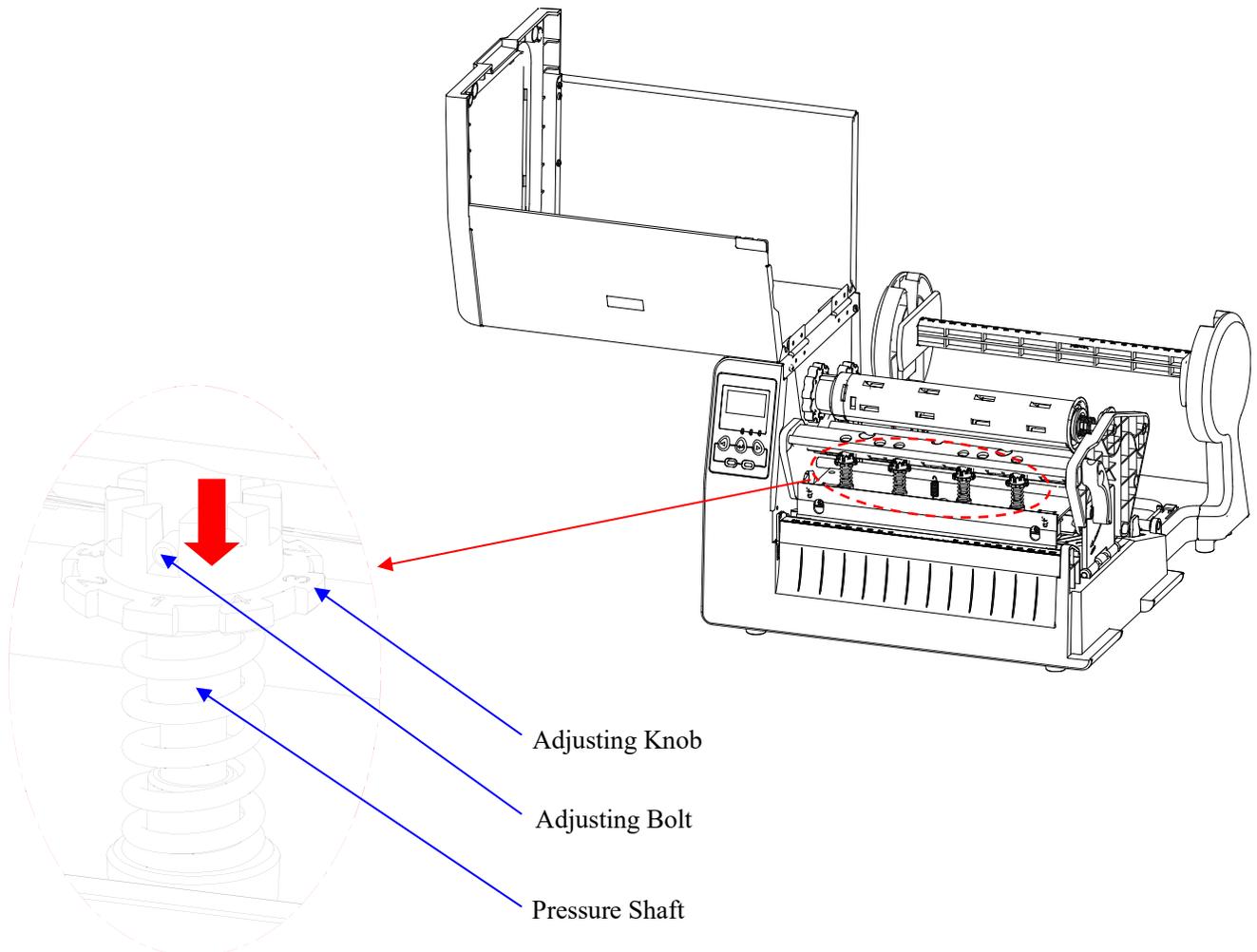
Figure 3-5

As shown in Figure 3-5, there are four spring assemblies on the printhead bracket for adjusting the printhead pressure on each position.

The procedures of adjusting the pressure of printhead: press down the Adjusting Knob below the Adjusting Bolt, and then twist the knob to align the numbered pressure level with the bolt to apply the different level of pressure; please note that the bigger the number was, the more pressure the printhead will get from the Pressure Shaft.

Adjusting the Tension of Ribbon
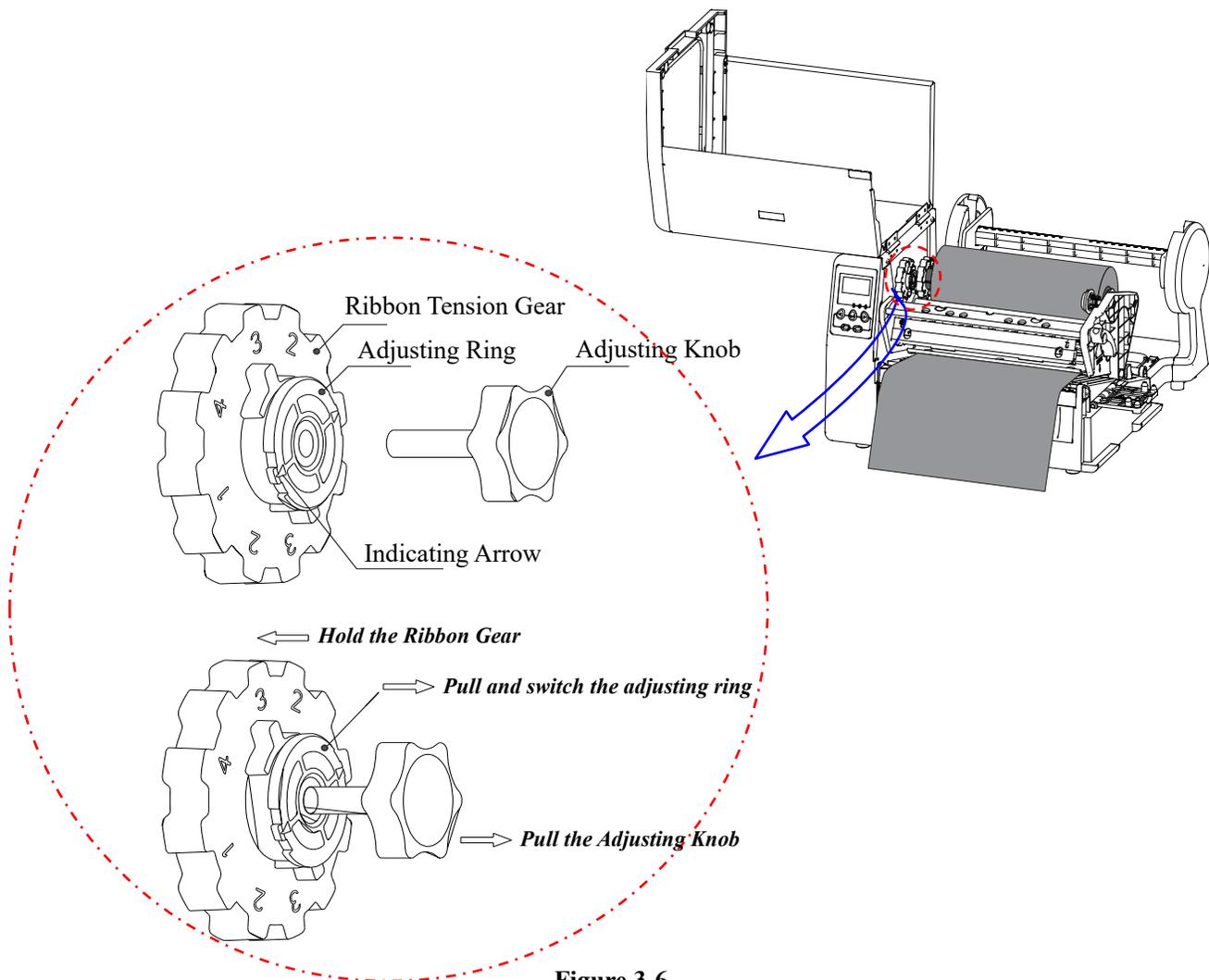
Figure 3-6

The Ribbon Tension Adjusting modules are installed for both ribbon supply and ribbon take-up, see figure 3-6.

Procedures of adjusting the ribbon tension:

1. Screw the adjusting knob into the gear adjusting ring which located on the ribbon tension gear.
2. Pull the adjusting knob and rotate the adjusting ring to choose the gear level, which is to align the indicator arrow with the numbers on the gear panel, the higher value means greater tension level; please note that you may need to hold the gear while pulling the lever, so that the adjusting ring can be rotated smoothly.
3. Unscrew the adjusting knob and keep it in a safe place for future usage.

Windows Driver and Label Software

The TW Series Industrial printer driver is packaged with the printer in the CD-ROM pack, and is compatible with the following operating systems:

- Windows 10
- Windows 8
- Windows 7
- Windows Vista
- Windows XP
- Windows 98
- Windows 2000
- Windows 2003
- Windows 95
- Windows 2008
- Windows NT
- Windows XP

Chapter 4: Maintenance

Warnings:

(1) Make sure the printer is powered off before performing maintenance operations.
(2) The Printhead may be hot due to recent printing. Wait until the Printhead cools before performing maintenance.
(3) Use only anhydrous isopropyl alcohol to clean the Printhead.

Cleaning the Printhead

The Printhead is the mechanism that enables the ink to impact the label. Due to the Printheads precision construction and necessary location in the printer, it comes into contact with consumables and therefore is susceptible to dirt accumulation. If dirt is not removed, the Printhead may be damaged. To ensure longevity of the Printhead, follow the recommended maintenance guidelines below:

Note: A Printhead damaged by misuse is not covered under warranty.

Clean the Printhead after every ONE roll of ribbon used or every THREE rolls of label media used. To clean the Printhead:
1.   Turn printer power off.
2.   Open the top cover of the printer.
3.   Turn the handle to open.
4.   Remove the ribbon (if applicable) and media.
5.   Use a cotton swab dipped in anhydrous isopropyl alcohol. Rub the swab along the Printhead until the swab no longer accumulates ink.
6.   Let the Printhead dry before using the TW Series printer again.

Cleaning the Platen Roller

The Platen Roller, located at the exit point and underneath labels, supports the labels as they feed out of the printer. The roller can accumulate debris from consumables, such as dirt, sand, dust or glue. To ensure longevity of the Platen Roller, follow the recommended maintenance guidelines below:

Clean the Platen Roller after every THREE rolls of label media used. To clean the Platen Roller:

1. Turn off the printer.
2. Open the top cover.
3. Release and lift the Printhead Module
4. Remove the ribbon (if applicable) and media.
5. Use a cotton swab dipped in anhydrous isopropyl alcohol. Rub the swab along the Platen Roller while rotating the roller until the swab no longer accumulates ink or debris.

Cleaning the Printer Interior

Over time, the printer's interior may collect dust or debris from the consumables. It is advised to periodically clean the printer's interior in order to prevent any accumulated debris from damaging internal parts.

To clean the printer interior, use a cotton swabs dipped with anhydrous isopropyl alcohol to remove any debris.

Chapter 5: Troubleshooting

Occasionally situations occur that require some troubleshooting. Possible issues and potential solutions are listed in this section. While not every situation is addressed, you may find some of these tips useful.

LCD Error Messages

The LCD displays messages when there is an error. See the table below for LCD errors, the possible causes, and the recommended solutions.

LCD Display	Possible Cause	Recommended Solution
Memory Error	Problems occurred with printer's flash or RAM memory during printing or executing printing data/command.	Please restart the printer, and then disable the "Dump Mode" setting from the main menu. Or contact an authorized POSTEK service provider for technical support if problems exist.
Printhead Open	The printhead module is released or unlocked.	Press down the printhead module to the close position, and turn the handle to lock it.
Data Error	The labels' data has been sent to printer but cannot be identified due to the invalid format or syntax.	Please follow the command syntax or data format in the command manual to edit data, and then resend it to the printer.
Ribbon Error	See LED Error Indications for more information.	
Label Error		
Cutter Error	The cutter is jammed with paper or debris; or the cutter is not correctly installed on the printer.	Turn off the printer and unplug power cord, remove large pieces of debris as needed; and then inspect the cutter module for correct installation. Turn on the printer again and reset the cutter following the step 3 of Cutting Mode. Or contact an authorized POSTEK service provider for technical support if problems exist.
System Mode	Press and hold CANCLE for 4 seconds, then the printer will enter the system mode, and display this message on LCD.	To perform the advanced functions or the printer will return to normal state automatically if no operations are performed within 4 seconds.
Upgrade Interrupted	The firmware upgrade is interrupted.	Please contact an authorized POSTEK service provider for technical support.

LED Error Indications

Typically, one or two of the three indicator lamps will begin blinking when the printer is not functioning. The possible situations addressed by the status of the three indicator lamps are listed below.

READY and MEDIA Lamps blink simultaneously:

Possible Cause	Recommended Solutions
Media sensor cannot detect labels	a) Check and confirm the media has been loaded correctly b) Check the position of the media sensor and confirm it could detect the media gap or black line c) Calibrate the media sensor d) If using continuous media without any positioner (e.g. gaps or black lines), ensure correct settings are chosen in the label software
Media ran out	Load a roll of media
Media jammed	Clear the jam
The Media Roll Guides are not firmly positioned against the Media or have not been installed.	Install the Media Roll Guides correctly and press them firmly press the media.
Media sensor is broken	Contact an authorized POSTEK service provider for technical support.

Note: If the printer is switched on during the overall process, the outstanding printing task can be continued by press 'Feed' button after the new media is loaded correctly or the issues are solved.

READY and RIBBON Lamps blink simultaneously:

Possible Cause	Recommend Solutions
Ribbon ran out	Load a new roll of ribbon
Ribbon jammed	Clear the jam
Ribbon Sensor error	Contact an authorized POSTEK service provider for technical support.

Note: If the printer is switched on during the overall process, the outstanding printing task can be continued by press 'Feed' button after the new ribbon is loaded correctly or the issues are solved.

Only READY Lamp blinks:

Possible Cause	Recommend Solutions
Serial I/O error	Check LCD menu for the baud rate settings
Memory overflow	a) Restart the printer b) Reset the printer

Miscellaneous

Vertical Blank Lines Appear

If the printer prints vertical blank lines as shown in the below picture, it may be due to a dirty or defective Printhead. See the table below for possible causes and solutions.

Cause	Corrective Action
The Printhead is dirty.	Clean the Printhead. Follow the recommended maintenance guidelines for cleaning the Printhead.
Vertical lines still appear after cleaning the Printhead.	Contact an authorized POSTEK service provider for technical support.

Printer Timeout Error Message

Execute following corrective actions:
1. Check the interface cable for proper connection.
2. Ensure the TW Series printer is powered on.

If the trouble still exists, please contact an authorized POSTEK service provider for technical support.

Data Sent but Not Printing

1. Ensure the correct driver is chosen in the label software.
2. Reset the TW Series printer.

If the trouble still exists, please contact an authorized POSTEK service provider for technical support.

Poor Printing Quality

When experiencing poor print quality, check the following:

1. Adjust print darkness setting value.
2. Adjust print speed setting value.
3. Clean the Printhead and the platen roller.
4. Poor quality printing may be caused from using a low quality ribbon. Change to higher quality ribbon.
5. Poor quality printing may be caused from using low quality media. Change to higher quality media.

Note: The darkness and print speed settings may also be adjusted in printer's menu. Adjusting functions in the hardware always overrides functions set in software.

Recovery

After the miscellaneous has been cleared, press the CANCEL button to clear the alarm or restart the printer to resume the printing automatically.

Note: For errors not listed here, please contact an authorized POSTEK Service Provider for further assistance.

Appendix A: Interface Specifications

RS232 Serial

The RS232 connector on the printer is a DB9F:

Pin	Direction	Definition
1	/	/
2	Out	TX
3	In	RX
4	In	CTS
5	-	Ground
6	Out	RTS
7	In	DSR
8	Out	DTR
9	/	/

Connection with host:

```
Host 25S              Printer 9P        Host 9S               Printer 9P
TX 2      ………  3 RX               RX 2       ………   2 TX
RX 3      ………  2 TX               TX 3       ………   3 RX
DSR 6     ………  8 DTR              DTR 4      ………   7 DSR
DTR 20    ………  7 DSR              DSR 6      ………   8 DTR
RTS 4     ………  4 CTS              RTS 7      ………   4 CTS
CTS 5     ………  6 RTS              CTS 8      ………   6 RTS
GND 7     ………  5 GND              GND 5      ………   5 GND
```

Alternately you can just connect the 3 wires as follows:

```
Host 25S              Printer 9P        Host 9S               Printer 9P
FP 2      ………  3 RX               RX 2       ………   2 FP
RX 3      ………  2 FP               FP 3       ………   3 RX
GND 7     ………  5 GND              GND 5      ………   5 GND
pin 4     ┐                          pin 4      ┐
pin 5     ┘                          pin 6      ┘
pin 6     ┐                          pin 7      ┐
pin 20    ┘                          pin 8      ┘
```

- Baud rate: 9600, 19200, 38400, 57600
- Data format: always 8 data bits, 1 start bit and 1 stop bit.
- Parity: always non parity.
- Flow control: RTS/CTS (Hardware flow control).
  If you are using software or drivers under the Windows environment, the flow control must be set to "hardware."
- Any communications port can transmit data from the host (RS232, Ethernet, or USB). Preliminary communications settings are not required since the printer will automatically detect which port is active.

Note: Never send data from 2 ports at the same time. Data cannot be sent to more than one port simultaneously or data corruption and print errors may occur.

Appendix B: ASCII Table

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

Note: The € sign is included in the embedded table at DEC128 or HEX 80