

PEX-2000 Series

Thermal Transfer / Direct Thermal Industrial Barcode Printers



Service Manual

Series Lists: PEX-2240L / 2260L

PEX-2240C / 2260C PEX-2240R / 2260R PEX-2340L / 2360L PEX-2340R / 2360R PEX-2640L / 2640R

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1. Fundamental of the System

The PEX-2000 series are available in a left-hand configuration and a right-hand configuration.



This document is going to show the components inside the media compartment of a left-hand print engine. A right-hand unit contains a mirror image of those components. Familiarize yourself with these components before continuing with the print engine setup procedure.

1.1 Printer Overview

Front View



- **1.** Wi-Fi antenna (option)
- 2. LED indicator
- 3. USB host
- 4. Soft keys
- 5. LCD display
- 6. Power switch
- 7. Media view window
- 8. Media cover
- 9. Print head pressure adjustment knob(s) (4 inch:1 pc/ 6 inch: 2 pcs)

Interior View





- **1.** Ribbon rewind spindle
- **2.** Ribbon supply spindle
- Rear gap sensor LED adjustment bar (6 inch series only)
- **4.** Top black-mark sensor position adjustment bar
- 5. Rear label holder lock
- 6. Print head release lever
- 7. Printhead
- 8. Platen roller
- 9. Peel-off roller release lever
- **10.** Media sensor position adjustment knob
- **11.** Rear label release button
- **12.** Front gap sensor
- **13.** Media sensor LED indicator

(Green = gap sensor/ Red = black-mark sensor)

- 14. Front label guide
- **15.** Rear label guide

Rear View



- **1.** Power cord socket
- 2. Rear cover handle
- 3. Centronics interface
- **4.** GPIO interface (Applicator interface with DB15F connector +5V I/O)
- **5.** RS-232C interface
- 6. Ethernet interface
- 7. USB interface
- 8. Micro SD card socket
- 9. USB host

Note:

The interface picture here is for reference only. Please refer to the product specification for the interface availability.

1.2 Checking the Installation Space

Please check the space for mounting the print engine into an applicator. Please refer to the dimensions in this section.

4 inch model







6 inch model







2. Electronics

2.1 Summary of the Board Connectors

<u>Main Board</u>



Connector	Description
1	USB host connector
2	Power supply output (5V~24V DC) connector
3	Wi-Fi Module connector
4	Parallel Port board connector
5	GPIO interface board connector
6	Head open sensor connector
7	Gap sensor connector
8	Ribbon encoder sensor connector
9	Power supply output (24V DC) connector
10	BM sensor connector
11	Paper distance sensor connector
12	BT module connector
13	Print head connector
14	LCD panel connector
15	Ribbon end sensor connector
16	TPH Power (24V DC) connector
17	Stepping motor connector
18	Solenoid valve connector
19	Ribbon DC motor connector
20	Micro processor
21	RS-232C connector
22	Ethernet interface
23	MICRO SD card socket
24	USB interface
25	Upper BM sensor connector
26	Wi-Fi interface
27	Ribbon DC Motor connector



Connector	Description		
1	Rear gap sensor connector/ transmit		
2	Front gap sensor connector/ transmit		
3	Front gap sensor connector/ receive		
4	Connector to main board (J2, J16, J24 and J25)		
5	Rear gap sensor connector/ receive & Lower BM sensor connector		
6	Upper BM sensor connector		

2.2 Interface Pin Configuration

RS-232C

PIN	CONFIGURATION
1	+5 V
2	TXD
3	RXD
4	CTS
5	GND
6	RTS
7	N/C
8	RTS
9	N/C

USB Device

	PIN	CONFIGURATION
	1	N/C
	2	D-
	3	D+
uu	4	GND

Ethernet

PIN	CONFIGURATION
1	Tx+
2	Tx-
3	Rx+
4	N/C
5	N/C
6	Rx-
7	N/C
8	N/C

GPIO (Applicator interface with DB15F connector +5V I/O)

	PIN	CONFIGURATION
	1	GND
	2	5V (JP2 short)
	3	GPI_1
	4	GPI_2
	5	GPI_3
	6	GPI_4
	7	24V
$X \rightarrow X$	8	GND
15 13 11 9	9	GPO_1
	10	GPO_2
Female Connector Front View	11	GPO_3
	12	GPO_4
	13	GPO_5
	14	GPO_6
	15	GPO_7

GPIO (Applicator interface with DB25F connector +5V I/O)/ Option

	PIN	CONFIGURATION
	1	FGND
	2	+5V
	3	GPO_1
	4	GPO_3
	5	GPO_5
	6	GPO_7
	7	GPI_1
	8	GPI_3
	9	GPI_5
DB 25 pins female	10	GPI_7
connector (printer)	11	OUT_COM
	12	+5V
	13	+24V
25 [14]	14	GND
	15	OUT_COM
	16	GPO_2
	17	GPO_4
	18	GPO_6
	19	GPO_8
	20	GPI_2
	21	GPI_4
	22	GPI_6
	23	GPI_8
	24	IN_COM
	25	GND

3. Mechanism

WARNING:

Always unplug the printer power cord from the printer or power outlet before doing any replacement procedures. Failure to remove power could result in injury to you and damage to equipment.

To prepare the printer for maintenance, follow the steps below.

- 1. Set the printer power switch to O (Off).
- 2. Unplug the printer power cord from the printer or the AC power source.
- 3. Disconnect all data (signal) cables from the printer interfaces.
- 4. Raise the media cover.
- 5. Unload print media.
- 6. Remove the ribbon.
- 7. Read the entire maintenance procedure before you begin working on the printer.
- 8. Gather the necessary parts and tools before you begin working on the printer.

Note:

This document uses the left-hand model as an example.

3.1 Replacing the Roller Assemblies

- 1. Open printer media cover.
- 2. For platen roller assembly, loosen one screw to release the platen roller lock as shown.



3. Disengage print head release lever.



4. Remove the platen roller assembly.



5. Install the new platen roller assembly.



6. For peel-off roller and rear pressing paper roller, loosen the screws to release the roller locks by the same way.



7. Open the peel-off cover by pressing the peel-off roller release lever to remove/replace the peel-off roller.



8. Open the rear label holder cover by pushing the rear label release button to remove/replace the rear pressing paper roller.



9. Reassemble the parts in the reverse procedures.

3.2 Replacing the Printhead Assembly

CAUTION:

To prevent electrostatic damage to electronic components, ground yourself by touching an unpainted part of the printer frame before removing or installing the printhead assembly.

Oils from your hands can damage the printhead. Do not touch the printhead when you handle the printhead assembly.

1. Open printer media cover.



- 2. Disengage the print head release lever.
- 3. Touch an unpainted part of the printer frame before touching the printhead assembly.

4. Push the printhead assembly release latch to the right side to release the printhead assembly.



5. Push the release tab down on the power supply cable assembly and remove the cable from the printhead assembly. Carefully remove the printhead controller cable assembly from the printhead assembly.



- 6. Position the new printhead assembly below the pivoting deck and connect the printhead controller and power supply cable assemblies.
- 7. Slide the printhead assembly upward into the pivoting deck until the retainer clip snap it in place. Make sure that the cable assemblies do not into the media or ribbon path.
- 8. Reassemble the parts in the reverse procedures.

3.3 Replacing the Ribbon Spindle Assembly

- 1. Open printer media cover.
- 2. Remove two screws on ribbon rewind spindle (or ribbon supply spindle) as shown.





3. Replace the new washer and ribbon spindle.



4. Reassemble the parts in the reverse procedures.

3.4 Replacing the Media Cover Assembly

- 1. Open the media cover.
- 2. Remove five screws on the cover as shown. Remove/ Replace the media cover assembly.



3. Reassemble the parts in the reverse procedures.

3.5 Replacing the Power Supply Unit

1. Remove two screws on both sides of the electronics cover as shown.



2. Open the electronics cover.



3. Disconnect three connectors on power supply unit as shown.

Note:

Because these connectors on the power supply are deeper, you can use the tool to loosen the tabs to disconnect them.



4. Remove four screws on the power supply unit as shown.



- 5. Remove/Replace the power supply unit.
- 6. Reassemble the parts in the reverse procedures.

3.6 Replacing the Stepping Motor Assembly

- 1. Refer to section "<u>Replacing the Roller Assemblies</u>" to remove three roller assemblies. (Platen roller, peel-off roller and rear pressing paper roller)
- 2. Loosen the cable tie, remove three screws, and disconnect one connector on the stepping motor assembly. Remove/Replace the stepping motor assembly. (including belt, gears, stepping motor)



Note: For stepping motor, remove two screws and one connector to replace the stepping motor only.



3. Reassemble the parts in the reverse procedures.

3.7 Replacing the Belts

- 1. Refer to section "<u>Replacing the Stepping Motor Assembly</u>" to remove the stepping motor assembly.
- 2. Remove five screws on stepping motor assembly to remove the belt cover.



Note:

Please note that when replacing the belt, <u>DO NOT</u> loosen or remove the screws on the motor assembly as shown in the figure below.


3. Loosen two screws to the loosen the belt (W10 x L544) as shown, then tighten the two screws to secure this loose state.





4. Remove/Replace the belt (W10 x L544).





5. Loosen two screws to the loosen the belt (W10 x L148) as shown, then tighten the two screws to secure this loose state.





6. Remove one screw to remove/replace the belt (W10 x L148).

3.8 Replacing the Ribbon Base Module Assembly

 Refer to section "<u>Replacing the Ribbon Spindle Assembly</u>" to remove the ribbon support spindle and the ribbon rewind spindle. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover.



2. Remove four screws (black) as shown and disconnect the cables to remove/replace the ribbon base module assembly.



3.9 Replacing the DC Motor Modules

- 1. Refer to section "<u>Replacing the Ribbon Base Module Assembly</u>" to remove the ribbon base module assembly.
- 2. Disconnect one connector and remove five screws to replace the DC motor assemblies.



3.10 Replacing GPIO & Parallel Board and USB Host Board

For Replacing GPIO DB15 Board:

1. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover, then open the main board cover.



Or loosen the screws on both sides of the main board cover and remove whole main board cover as shown.



2. Disconnect the two connectors and two screws as below to replace the USB host board.



3. Disconnect the two connectors (Note: Please unlock the plug from connect for the flat cable, and carefully pull the flat cable free.) and six screws as below to replace the GPIO board.



Note:

This GPIO interface (Applicator interface with DB15F connector +5V I/O) supports internal 5V power supply (default). For external power supply, please remove the jumper on main board JP2.





4. Reassemble the parts in the reverse procedures.

For Installing GPIO DB25 Board:

1. Put the DB25 Board in to the slot



2. Lock the below screws.



3. Put the lid and lock the below screws.



3.11 Replacing the Main Board

- 1. Refer to section "<u>Replacing the Power Supply Unit</u>" & section "<u>Replacing GPIO & Parallel Board and USB Host Board</u>" to open the electronics cover and remove the GPIO board first.
- 2. Disconnect all connectors from the mainboard. Please unlock the plug from connect for the flat cable, and carefully pull the flat cable free. Remove two copper pillars, six screws. (four on the main board/ two on serial port)





- 3. Remove/Replace the main board.
- 4. Reassemble the parts in the reverse procedures.

3.12 Replacing the Sensor Control Board

- 1. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover.
- 2. Disconnect six connectors and remove two screws to replace the sensor control board.



3.13 Replacing the Panel Control Board & LCD Panel

1. Remove the marked fix LCD panel module four screws.



2. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover. Loosen cable ties to remove the LCD panel assembly.



3. Remover five screws and antenna (if installed/option) to remove the LCD rear cover.



4. Remove the hex nut and washer as shown to open the LCD cover if installed. (option) Disconnect the connectors for power switch.





5. Remove one screw to take out the Mylar.



6. Disconnect three cable connectors. Please unlock the plug from connect for the flat cable, and carefully pull the flat cable free. And open the USB host cover.



7. Replace the panel control board and LCD panel.





3.14 Replacing the Peel-off Roller Module

1. Open the peel-off cover by pressing the peel-off roller release lever.



2. Turn the thumb screw on the peel-off roller module to remove/replace the peel-off roller module.





3.15 Replacing the Upper Print Module

- 1. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover.
- 2. Refer to section "<u>Replacing the Stepping Motor Assembly</u>" & section "<u>Replacing the Sensor Control Board</u>" to remove the stepping motor assembly and the sensor control board.
- 3. Disconnect the cables (two for printhead/ one for head open sensor) on main board.



4. Remove four screws to remove/replace the upper print module.



3.16 Replacing the Sensor Holder Module

- 1. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover.
- 2. Refer to section "<u>Replacing the Stepping Motor Assembly</u>" to remove the stepping motor assembly.
- 3. Remove one screw as shown and disconnect two cables on sensor control board.





4. Open the rear label holder cover by pushing the rear label release button. Loosen two screws to release the sensor holder module. Reassemble the parts in the reverse procedures.



3.17 Replacing/ Installing Wi-Fi Module (Option)

- 1. Refer to section "<u>Replacing the Panel Control Board & LCD Panel</u>" to remove LCD rear cover.
- For replacing, disconnect two cable connectors, two antenna cable connectors (use the U FL connector removal tool to carefully disconnect the antenna connector) and three screws to remove/ replace Wi-Fi module.
 For installing, secure the Wi-Fi module to LCD rear cover using the three screws provided in the kit. Install the antenna as shown, connect the antenna cable connectors to the radio of the Wi-Fi module.



Then, pull the Wi-Fi cables through the LCD rear cover and printer frame. Secure the LCD rear cover back by five screws. Install the LCD module by four screws. Secure the hex nuts and washers as shown for installing the antennas.



Put the rubber ring on the bottom of the antenna to install the antennas.



Refer to section "<u>Replacing GPIO & Parallel Board and USB Host Board</u>" to remove the GPIO board. Connect the Wi-Fi cable connectors to main board, route the cables thread the wire saddle as shown.



3.18 Replacing the Bluetooth Module (Option)

- 1. Refer to section "<u>Replacing the Panel Control Board & LCD Panel</u>" to remove LCD rear cover.
- 2. Disconnect one cable connector on main board (or connect on assembly) and three screws to replace bluetooth module.





3.19 Replacing RFID Module (Option)

1. Remove two screws as shown to release the RFID module.





2. Disconnect one cable to replace the RFID module.





3.20 Installing Ribbon Saver Assembly (Option)



1. Connect the ribbon saver cable to the module board.



2. Refer to section "<u>Replacing the Power Supply Unit</u>" to open the electronics cover, then open the main board cover.



3. Secure the fan to the printer frame using the two screws (M4*L6) provided in the kit.



4. Secure the ribbon saver module to the printer frame using the two screws (M4xL10) provided in the kit. Note: When installing the ribbon saver, prevent to press the printhead cables or other cables.





5. Connect the fan cable to the module board and connect another side of ribbon saver cable to the main board.



6. Close the main board cover and secure the electronics cover.

Make sure that the black non-woven fabric on the fan side must be removed.



4. Troubleshooting

4.1 Common Problems

Problem	Possible Cause	Recovery Procedure
Power indicator does not illuminate	* The power cord is not properly connected.	* Plug the power cord in print engine and outlet.* Switch the power on.
Carriage Open	* The print head carriages are open.	* Please close the print carriages.
Not Printing	 * Check if interface cable is well connected to the interface connector. * Check if wireless or Bluetooth device is well connected between host and print engine. * The port specified in the Windows driver is not correct. 	 * Re-connect cable to interface or change a new cable. * Please reset the wireless device setting. * Select the correct print port in the driver. * Clean the printhead. * Printhead's harness connector is not well connected with printhead. Turn off the power and plug the connector again. * Check your program if there is a command PRINT at the end of the file and there must have CRLF at the end of each command line.
No print on the label	* Label or ribbon is loaded not correctly.* Use wrong type paper or ribbon	 * Follow the instructions in loading the media and ribbon. * Ribbon and media are not compatible. * Verify the ribbon-inked side. * The print density setting is incorrect.
No Ribbon	* Running out of ribbon.* The ribbon is installed incorrectly.	 * Supply a new ribbon roll. * Please refer to the steps in user's manual to reinstall the ribbon.
No Paper	* Running out of label. * The label is installed incorrectly. * Gap/black mark sensor is not calibrated.	 * Supply a new label roll. * Please refer to the steps in user's manual to reinstall the label roll. * Calibrate the gap/black mark sensor.
Paper Jam	 * Gap/black mark sensor is not set properly. * Make sure label size is set properly. * Labels may be stuck inside the print engine mechanism. 	 * Calibrate the media sensor. * Set media size correctly. * Remove the stuck label inside the print engine mechanism.
Can't downloading the file to memory (FLASH / CARD)	* The space of memory is full.	* Delete unused files in the memory.

SD card is unable to use	 * SD card is damaged. * SD card doesn't insert correctly. * Use the non-approved SD card manufacturer. 	* Use the supported capacity SD card. * Insert the SD card again.
Poor Print Quality	 * Ribbon and media is loaded incorrectly * Dust or adhesive accumulation on the print head. * Print density is not set properly. * Printhead element is damaged. * Ribbon and media are incompatible. * The printhead pressure is not set properly. 	 * Reload the supply. * Clean the print head. * Clean the platen roller. * Adjust the print density and print speed. * Run self-test and check the print head test pattern if there is dot missing in the pattern. * Change proper ribbon or proper label media. * Adjust the printhead pressure adjustment knob. * The release lever does not latch the printhead properly.
Missing printing on the left or right side of label	* Wrong label size setup.	* Set the correct label size.
Gray line on the blank label	* The print head is dirty. * The platen roller is dirty.	* Clean the print head. * Clean the platen roller.
Irregular printing	* The print engine is in Hex Dump mode. * The RS-232 setting is incorrect.	* Turn off and on the print engine to skip the dump mode. * Re-set the Rs-232 setting.
Label feeding is not stable (skew) when printing	* The media guide does not touch the edge of the media.	 * If the label is moving to the right side, please move the label guide to left. * If the label is moving to the left side, please move the label guide to right.
Skip labels when printing	 * Label size is not specified properly. * Sensor sensitivity is not set properly. * The media sensor is covered with dust. 	 * Check if label size is setup correctly. * Calibrate the sensor by Auto Gap or Manual Gap options. * Clear the GAP/Black mark sensor by blower.
Wrinkle Problem	 * Printhead pressure is incorrect. * Ribbon installation is incorrect. * Media installation is incorrect. * Print density is incorrect. * Media feeding is incorrect. 	 * Please refer to the next chapter. * Please set the suitable density to have good print quality. * Make sure the label guide touch the edge of the media guide.
RTC time is incorrect when reboot the print engine	* The battery has run down.	* Check if there is a battery on the main board.

The left side printout position is incorrect	 * Wrong label size setup. * The parameter Shift X in LCD menu is incorrect. 	 * Set the correct label size. * Press [MENU] → [SELECT] x 3 → [DOWN] x 5 → [SELECT] to fine tune the parameter of Shift X.
The printing position of small label is incorrect	 * Media sensor sensitivity is not set properly. * Label size is incorrect. * The parameter Shift Y in the LCD menu is incorrect. * The vertical offset setting in the driver is incorrect. 	 * Calibrate the sensor sensitivity again. * Set the correct label size and gap size. * Enter LCD menu (or via TSC Console) to fine tune the parameter of Shift Y. * If using the software BarTender, please set the vertical offset in the driver. WENDER HEAR TENDER OF THE Set OF TH

4.2 Printing Adjustments

Moveable Printhead Pressure Adjustment



The Moveable Print Head Pressure Adjustment has High/Low pressure adjustment.

Because the printer's paper alignment is located on the inboard side of the mechanism, different media widths require different pressure to print correctly. Therefore adjustment of pressure knob may be required to get your best print quality.

pressure to print correctly. Therefore adjustment of pressure knob may be required to get your best print quality

There is one pressure knob for 4 inch series model and there are two pressure knobs for 6 inch series model.

Turn the knob to L (Decreasing pressure) or H (Increasing pressure) to adjust the printhead pressure.

Use 3 mm hex key to loosen the knob to adjust the printhead pressure position.

Continue to adjust the printhead pressure or position and test print as necessary until the printed image is clear. After adjustment, tighten the screw.

Ribbon Tension Adjustment



The **Ribbon Tension Adjustment** can adjust the ribbon tension level.

Because the ribbon is aligned to the inward side of the printer mechanism, different ribbon or media widths may require different ribbon tension to print correctly. Therefore, it may be necessary to adjust the ribbon tension using the adjustment to avoid ribbon wrinkle and get the best print quality.

Loosen the ribbon tension screw to move the ribbon tension bar forward (Increasing tension) or backward (Decreasing tension) to adjust the ribbon tension level. For scuffing issues, try decreasing the ribbon tension. After adjustment, tighten the screw.

Ribbon Peeling Angle Adjustment



The **Ribbon Peeling Angle Adjustment** can adjust the ribbon peeling angle with media.

When the print quality is not good, the peeling angle can be changed to get the best print quality.

Loosen two ribbon peeling angle screws to move the ribbon peeling plate up (Increasing angle) or down (Decreasing angle) for adjusting the ribbon peeling angle.

In general, reducing the ribbon peeling angle could be increased the printing intensity. After adjustment, tighten the screws.

Printhead Burn Line Adjustment Screws



The **Printhead Burn Line Adjustment Screws** are used to fine tune the print quality for different thicknesses of media. Turning the screws adjusts the print head's burn line forward or backward as it relates to the platen roller.

The print head burn line default is set for general purpose printing media (plain paper and paper thickness less than 0.20mm). In general, print head burn line adjustment will not be required. If you have poor print quality, please try changing the print speed, print intensity or print head pressure adjustment first.

Caution:

Incorrectly adjusting the print head burn line adjustment knobs can lead to poor print quality and may cause damage to the printer. Proceed with caution.

Poor print quality when using paper thicker than 0.20mm may be due to the print head burn line not being at the optimized position. Loosen two set screws half a turn, then use 3 mm hex key to adjust the print head burn line position.

To improve the print quality, increase the head pressure to move print head burn line toward the paper out direction then print again. Continue to adjust the burn line position and test print as necessary until the printed image is clear. After adjustment, tighten the set screws.

Tear Bar Angle Adjustment



The media tearing angle can be adjusted $-18 \sim -3$ degree by moving the **Tear Bar**.

When you want to change the angle of the label exit in peel off mode or tear off mode, you can adjust the tear bar to get the best result.

Loosen two screws on tear bar to move the tear bar up for increasing paper tearing ability. After adjustment, tighten the screws. Move the ribbon peeling plate (as shown in green) up if necessary.

5. Maintenance

This session presents the clean tools and methods to maintain the printer.

For Cleaning

Depending on the media used, the printer may accumulate residues (media dust, adhesives, etc.) as a by-product of normal printing. To maintain the best printing quality, you should remove these residues by cleaning the printer periodically. Regularly clean the print head and supply sensors once change a new media to keep the printer at the optimized performance and extend printer life.

For Disinfecting

Sanitize your printer to protect yourself and others and can help prevent the spread of viruses.

- Important
 - Set the printer power switch to O (Off) prior to performing any cleaning or disinfecting tasks. Leave the power cord connected to keep the printer grounded and to reduce the risk of electrostatic damage.
 - Do not wear rings or other metallic objects while cleaning any interior area of the printer.
 - Use only the cleaning agents recommended in this document. Use of other agents may damage the printer and void its warranty.
 - Do not spray or drip liquid cleaning solutions directly into the printer. Apply the solution on a clean lint-free cloth and then apply the dampened cloth to the printer.
 - Do not use canned air in the interior of the printer as it can blow dust and debris onto sensors and other critical components.
 - Only use a vacuum cleaner with a nozzle and hose that are conductive and grounded to drain off static build up.
 - All reference in these procedures for use of isopropyl alcohol requires that a 99% or greater isopropyl alcohol content be used to reduce the risk of moisture corrosion to the printhead.
 - Do not touch printhead by hand. If you touch it careless, please use 99% Isopropyl alcohol to clean it.
 - Always taking personal precaution when using any cleaning agent.
Cleaning Tools

- Cotton swab
- Lint-free cloth
- Brush with soft non-metallic bristles
- Vacuum cleaner
- 75% Ethanol (for disinfecting)
- 99% Isopropyl alcohol (for printhead and platen roller cleaning)
- Genuine printhead cleaning pen
- Mild detergent (without chlorine)

Cleaning Process:

Printer Part	Method	Interval
Print Head	 Always turn off the printer before cleaning the printhead. Allow the printhead to cool for at least one minute. Use a cotton swab and 99% Isopropyl Alcohol or genuine print head cleaning pen to clean the print head surface. 	Clean the print head when changing a new label roll.
Platen Roller	Turn off the printer.Rotate the platen roller and wipe it thoroughly with the lint-free 99% Isopropyl Alcohol.	Clean the platen roller when changing a new label roll
Peel Bar	Use the lint-free cloth with 99% Isopropyl Alcohol to wipe it.	As needed
Sensor	Use brush with soft non-metallic bristles or a vacuum cleaner, to remove paper dust. Clean upper and lower media sensors to ensure reliable Top of Form and Paper Out sensing.	Monthly
Exterior	Clean the exterior surfaces with a clean, lint-free cloth (water-dampened cloth). If necessary, use a mild detergent or desktop cleaning solution then use the 75% Ethanol to wipe it.	As needed
Interior	Clean the interior of the printer by removing any dirt and lint with a vacuum cleaner, as described above, or use a brush with soft non-metallic bristles then use the 75% Ethanol to wipe it.	As needed

Revise History

Date	Content	Editor
2023/1/6	Release 6in (Rev.2)	Camille
2023/4/15	Add 4in model info.	Camille
2023/4/21	Add "Replacing the Bluetooth Module" section	Camille
2023/4/24	Update "Replacing the Power Supply Unit" section	Camille
2023/5/4	Add "Installing Ribbon Saver Assembly" section	Camille
2023/5/17	Add a note on "Replacing the Belts" section	Camille

