SST4

Thermal Label, Washdown Printer

Technical Manual

RICE LAKE®
WEIGHING SYSTEMS

September 24, 2025

PN 212602 Rev B

All information contained within this publication is, to the best of our knowledge, complete and accurate at the time of publication. Rice Lake Weighing Systems reserves the right to make changes to the technology, features, specifications and design of the equipment without notice.

The most current version of this publication, software, firmware and all other product updates can be found on our website:

www.ricelake.com

Revision History

This section tracks and describes the current and previous manual revisions for awareness of major updates and when the updates took place.

Revision	Date	Description
A	4/22/2022	Initial manual release with the launch of the product
B	9/24/2025	Updated software installation

Table i. Revision Letter History

Contents

Rice Lake continually offers web-based video training on a growing selection of product-related topics at no cost. Visit ***www.ricelake.com/webinars***

1.0 Introduction

This manual is intended for use by service technicians responsible for installing and servicing the SST4 washdown printer.

Manuals are available from Rice Lake Weighing Systems at www.ricelake.com/manuals
Warranty information is available at www.ricelake.com/warranties

1.1 Safety

Safety Signal Definitions:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. Includes hazards that are exposed when guards are removed.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death. Includes hazards that are exposed when guards are removed.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.

IMPORTANT: Indicates information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.

General Safety

Do not operate or work on this equipment unless this manual has been read and all instructions are understood. Failure to follow the instructions or heed the warnings could result in injury or death. Contact any Rice Lake Weighing Systems dealer for replacement manuals.

WARNING

Failure to heed could result in serious injury or death.

Do not use without the enclosure completely assembled and sealed.

Ensure power cord is disconnected from the power outlet before repairing or adjusting the product.

Product must sit on a level, sturdy surface, especially when the cover is open to prevent tipping.

Do not place fingers into slots or possible pinch points.

Use appropriate GFI grounded power outlets for the environment and for use around water.

Product must be installed near an easily accessible power outlet to allow for quick disconnect.

Do not use product if any of the components are cracked.

Danger of explosion if battery is incorrectly replaced. Replace only with the Rice Lake replacement parts.

Dispose of used batteries according to state and local regulations.

Only use product with the designated power supply adapter.

Do not make alterations or modifications to the unit.

IMPORTANT

Please read the following instructions carefully to avoid equipment damage.

Before connecting product to a power outlet, check the voltage of the power source.

Make sure the product is off before plugging the power connector into the power outlet.

It is recommended that the product be connected to a surge protector to prevent possible transient over-voltage damage.

Work inside the product enclosure are to be performed by qualified service personnel only.

1.2 Disposal

Product Disposal

The product must be brought to appropriate separate waste collection centers at the end of its life cycle.

Proper separate collection to recycle the product helps prevent possible negative effects on the environment and to health, and promotes the recycling of the materials. Users who dispose of the product illegally shall face administrative sanctions as provided by law.

1.3 FCC Compliance

United States

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.

Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A prescites dans le Règlement sur le brouillage radioélectrique edicté par le ministère des Communications du Canada.

1.4 Product Overview

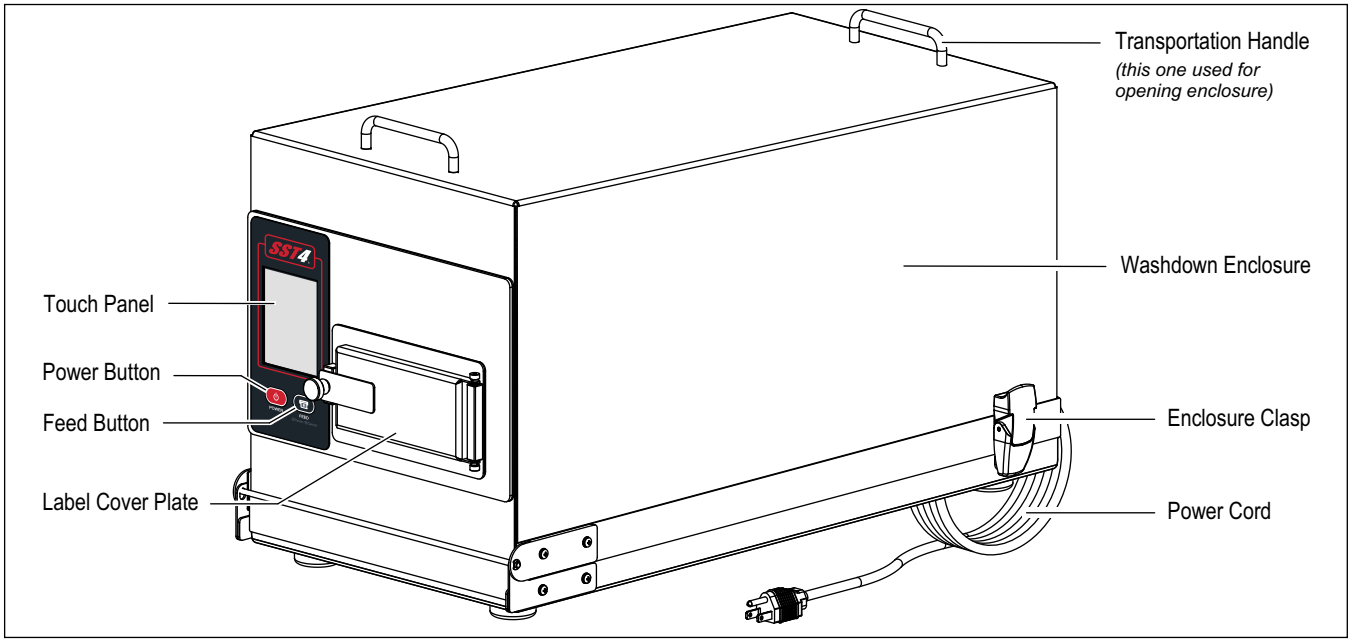


Figure 1-1. Printer Front View

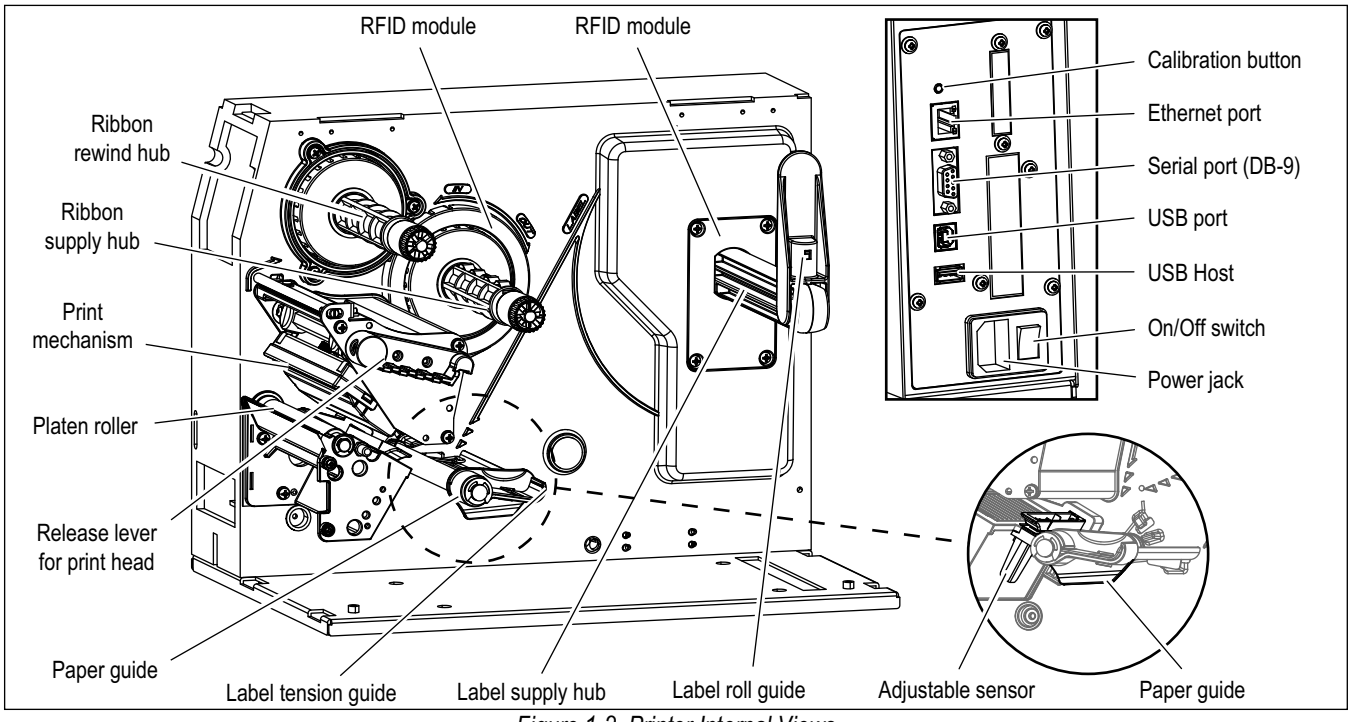


Figure 1-2. Printer Internal Views

2.0 Setup

When setting up the SST4 printer, ensure that the unit is firmly placed on a sturdy, horizontal work surface that has sufficient work space around the perimeter of the unit. The unit opens towards the front so adequate space must be made available to allow the user to safely lift the cover of the unit and change out labels as needed. Because the cover opens to the front, counter depth only needs to accommodate the base footprint of the unit. The cover does not rest on counter top when open.

The SST4 printer comes in several configurations with varying options:

Part No.	Description
209110	SST4 direct thermal printer
209111	SST4 direct thermal printer with heater installed
209112	SST4 direct thermal printer with Wi-Fi
209113	SST4 direct thermal printer with Wi-Fi and heater installed
209114	SST4 direct thermal printer with internal rewind
209115	SST4 direct thermal printer with internal rewind and heater installed
209116	SST4 direct thermal printer with internal rewind and Wi-Fi
209117	SST4 direct thermal printer with internal rewind, Wi-Fi and heater installed

Table 2-1. SST4 Printer Variations

2.1 Opening the Enclosure

CAUTION: Use anti-static protection for grounding and to protect components from electrostatic discharge (ESD) when working inside the enclosure. This prevents a static discharge from one's body through the internal components.

1. Touch a bare metal part of the printer frame to dissipate any static electricity that may be present.
2. Turn the printer off and unplug the power cable from the power outlet.
3. Unlatch the SST4 hinges.
4. Swing open the enclosure cover towards the front of the unit, using the back transportation handle.

2.2 Interface Cable

The SST4 can be interfaced to a host device via Ethernet, Serial and USB ports. Use the appropriate cable for application (not included).

- **Ethernet Connection** – The Ethernet interface supports several menu-selectable modes.
- **USB Connection** – The USB connection cable supports USB 2.0 (Type-B) and USB Host (Type-A) communications.
- **Serial Connection** – The serial interface supports RS-232 communications.

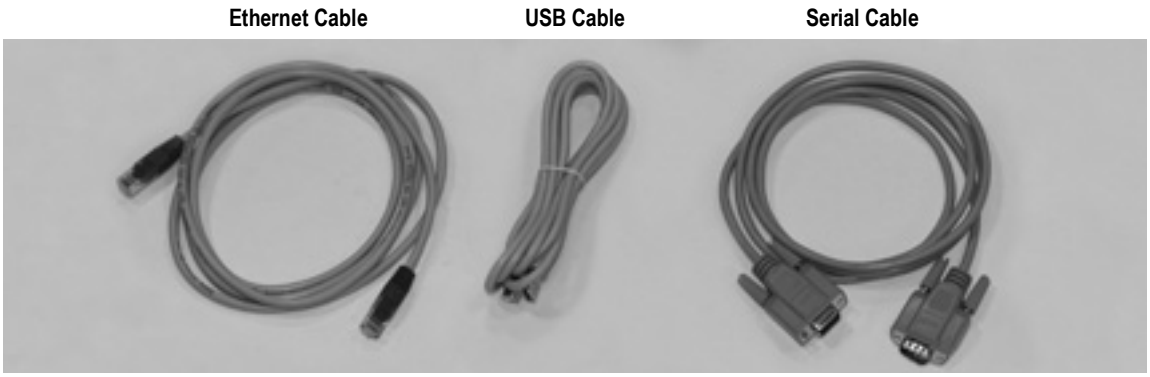


Figure 2-1. Various Types of Interface Cables

Following power up, interface port selection occurs automatically upon detection of valid data. If the incoming data flow stops and the host timeout period is achieved, partially received formats will be ignored and the port detection process repeated.

2.3 Interface Cable Installation

The SST4 printer enclosure comes with a unique cable installation assembly that ensures the interior of the unit stays moisture free even during washdown conditions. The assembly allows the installer to eliminate the need to cut cables and still maintain a watertight barrier. Use the following steps to install cable of choice through the communications cable seal.

1. Using a 7/16" socket, remove the four nuts holding the communications cable plate in place. Take care in removing the nuts as they could slip and fall down between the plate and the printer enclosure. Set the nuts aside.

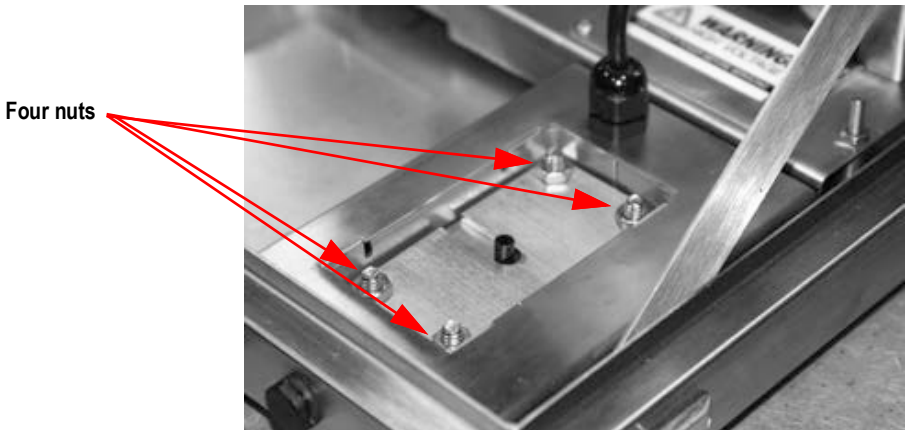


Figure 2-2. Communications Cable Assembly

2. Pull the SST4 enclosure forward so that it hangs slightly off of table edge to allow access to the bottom access hole.
3. Remove communications cable plates by pushing with fingers up through the bottom access hole from the underside to dislodge the communications cable plates. Set aside.

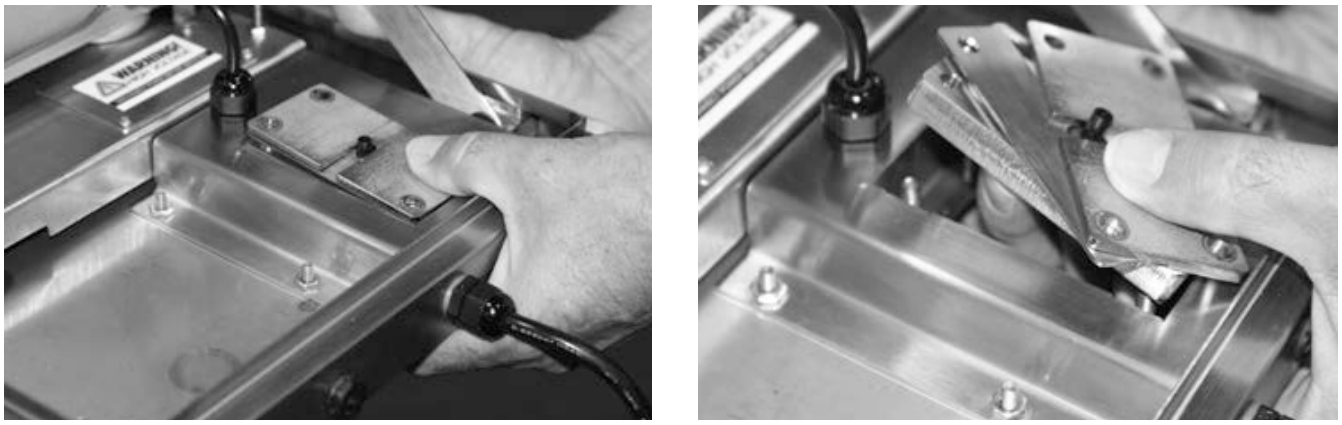


Figure 2-3. Remove the Component Parts of the Communications Cable Assembly

4. The communications cable plate is made up of several individual pieces (Figure 2-4).

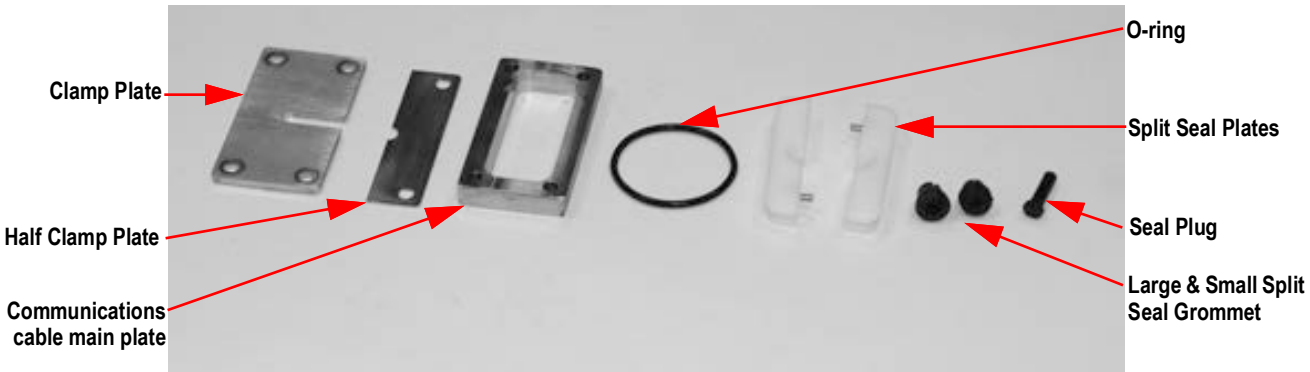


Figure 2-4. Component Pieces

5. Ensure the rubber gasket is seated properly in the SST4 printer enclosure.

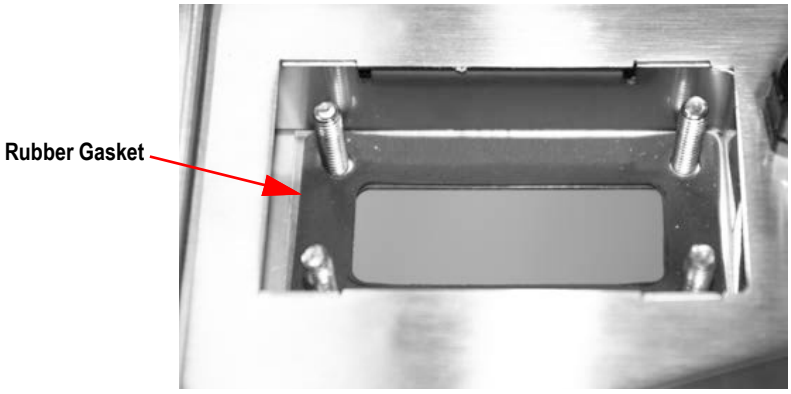


Figure 2-5. Rubber Gasket

6. Set the main plate over the four studs with recesses around the four holes located downward and press down.

NOTE: Ensure that the communications cable main plate is oriented so that the tapered side is facing up as shown in Figure 2-6. An easy way to tell if the main plate is oriented correctly is to note that the four holes on the main plate have counter bores which should face down.

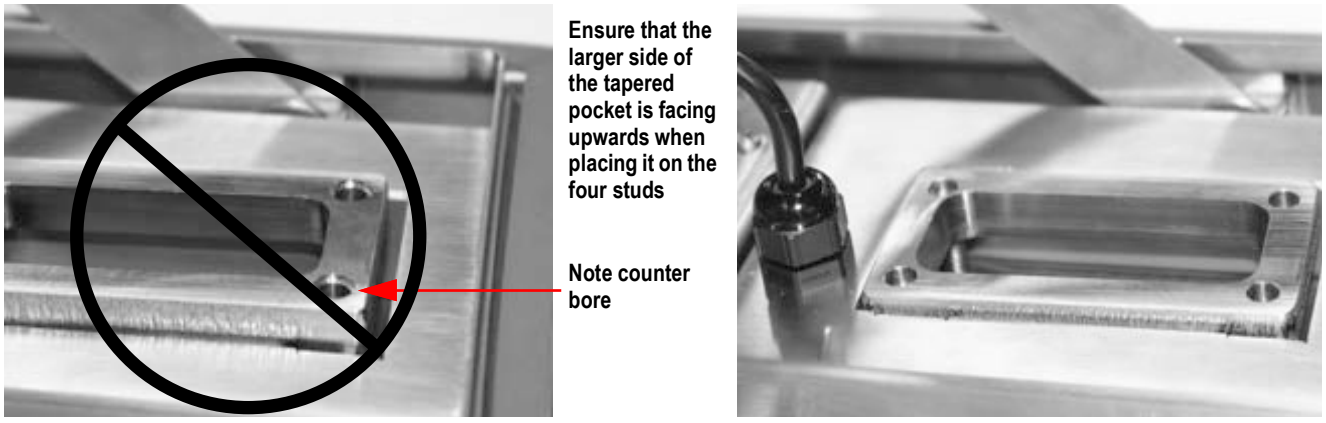


Figure 2-6. Incorrect and Correct Orientation of Main Plate

7. Pass the communications cable through the printer base and main plate. Make sure that the cable end and printer communications socket match correctly.

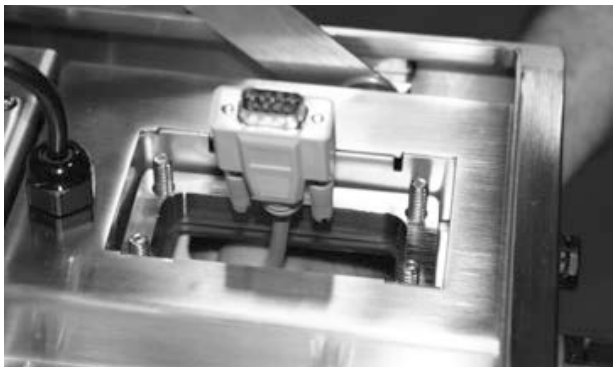
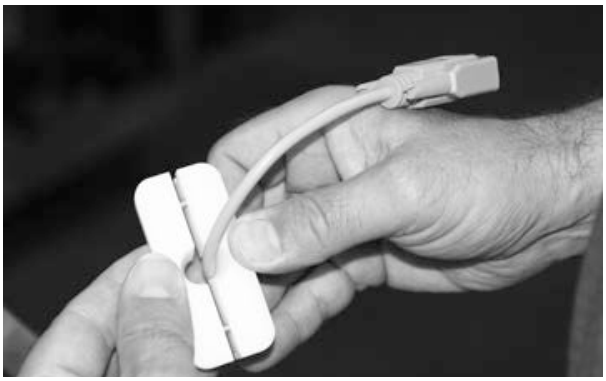


Figure 2-7. Communications Cable Comes Up Through Bottom of Hole

8. Push the entire SST4 enclosure unit back onto the table or other sturdy work surface.

9. Assemble the split seal plates back together with the cable in between (Figure 2-8).
   - Run finger across the split seal plates to ensure there is no dirt or oil on the surface prior to joining the two surfaces together.
   - Make sure the larger diameter hole side is facing upwards when putting the two pieces together.



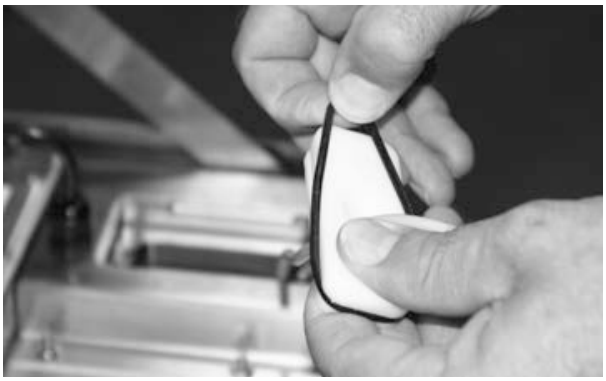


Figure 2-8. Assemble Split Seal Plates Together

10. Place the O-ring over the cable end and into the groove around the split seal plates (Figure 2-8, right image). This will hold the plates together and also offer a watertight barrier.
11. Connect the communications plug to the appropriate connection on the back of the printer.

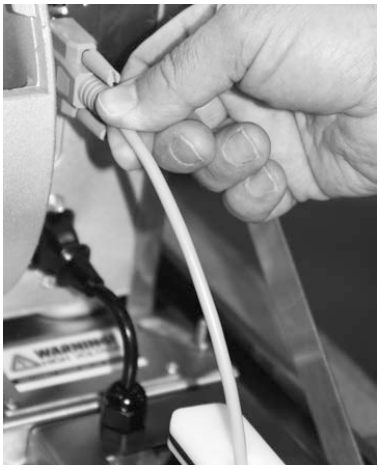


Figure 2-9. Connect Communications Cable to Back of Printer

12. Carefully push the whole split seal assembly down into the printer enclosure as shown below.

Figure 2-10. Seat the Split Seal Assembly

13. Wrap a split grommet around the cable with the small end of the grommet pointing downwards. Orient the grommet split to a position that is 90 degrees to the split in the split seal insert and press the grommet into the tapered hole in the split seal insert. At this time, position the cable to make a 90° bend from the printer.

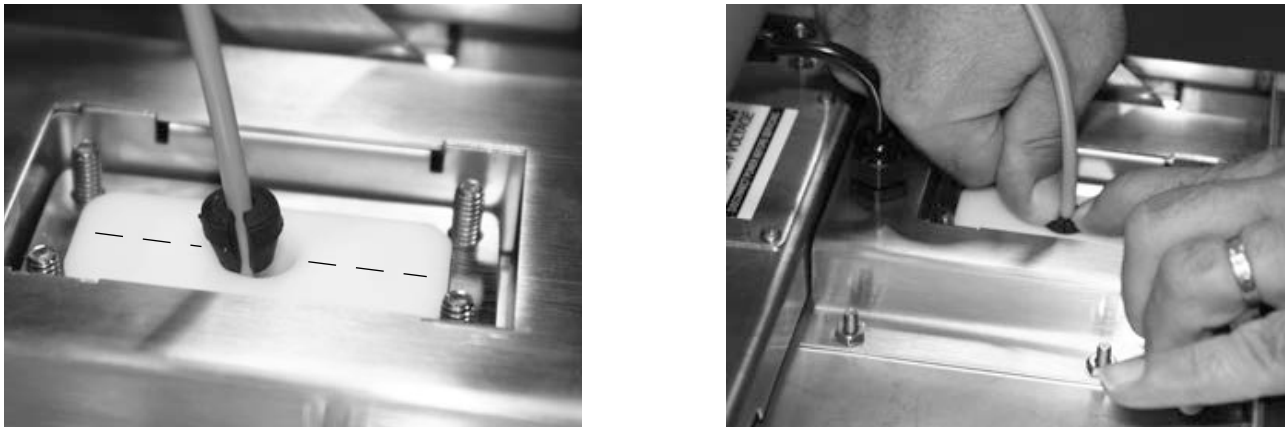


Figure 2-11. Insert Split Grommet Onto the Split Seal Plates

14. Place the half clamp plate onto the studs, then place the clamp plate onto the studs with the step facing down and the half plate nesting in the step of the clamp plate.

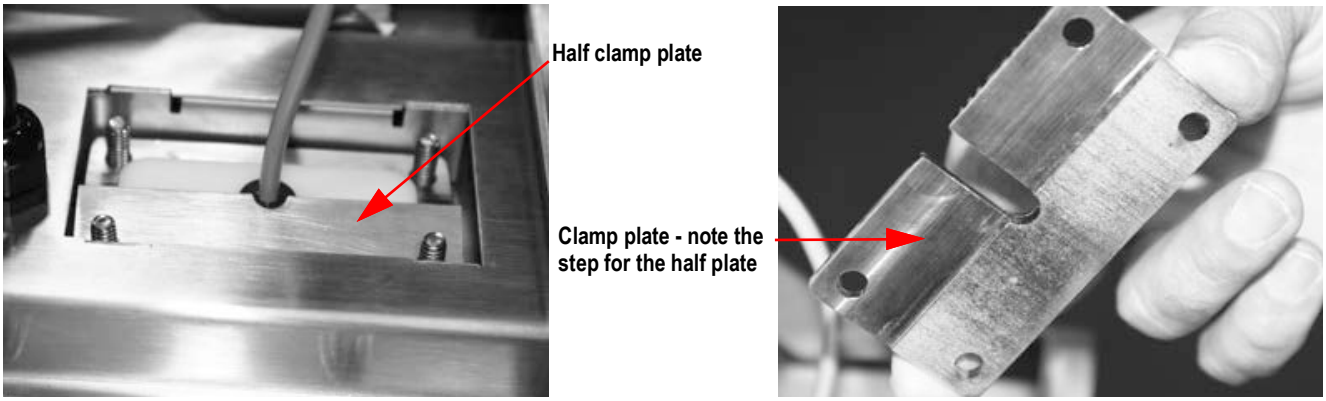


Figure 2-12. Place Half Clamp Down on Assembly

15. Press the assembly down and partially tighten the four nuts that hold the entire assembly in place. Once all the nuts are started, tighten the nuts in a diagonal sequence until all the nuts are tight using a 7/16" socket and torque wrench. Tighten to 30 in/lb torque.

IMPORTANT: Do not over tighten. Over tightening can break the studs from the base.

Figure 2-13. Tighten Up The Entire Assembly

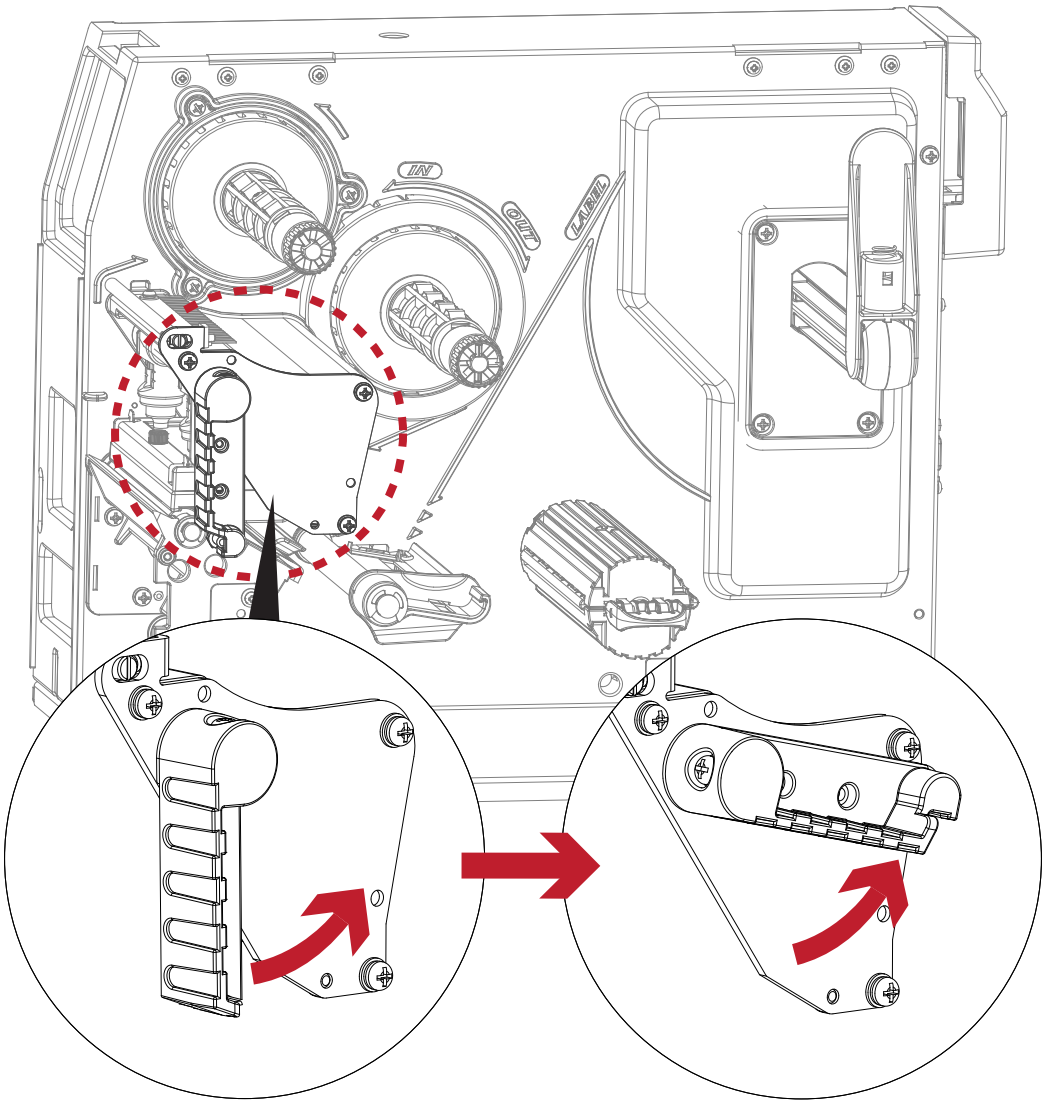
2.4 Loading the Label Roll

This printer supports the following printing methods:

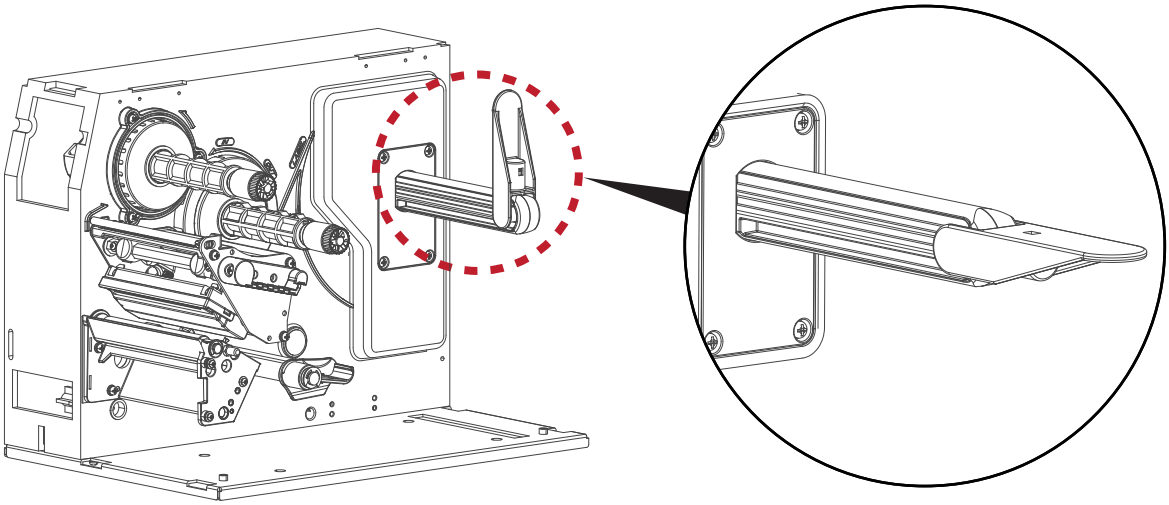
- Thermal transfer printing (TTP) – Requires a ribbon for transferring a printed image to a medium.
- Direct thermal printing (DTP) – Does not require a ribbon, only thermal paper.

NOTE: Check which printing method being used and alter the settings accordingly in the printer driver, printer menu and/or software.

1. Turn printhead release lever counterclockwise to the top right position.

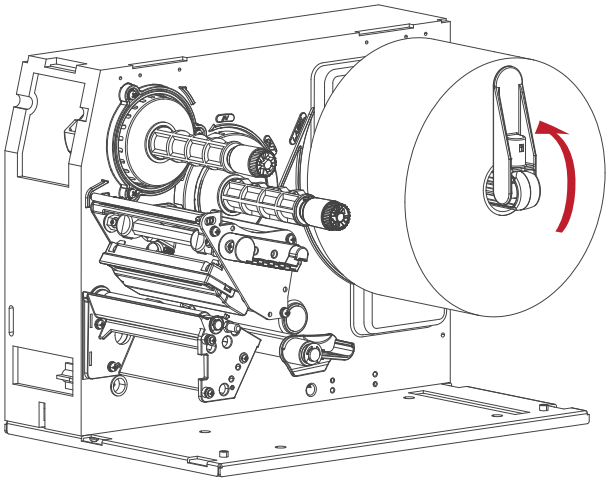


2. Slide the label roll guide forward and fold it down.



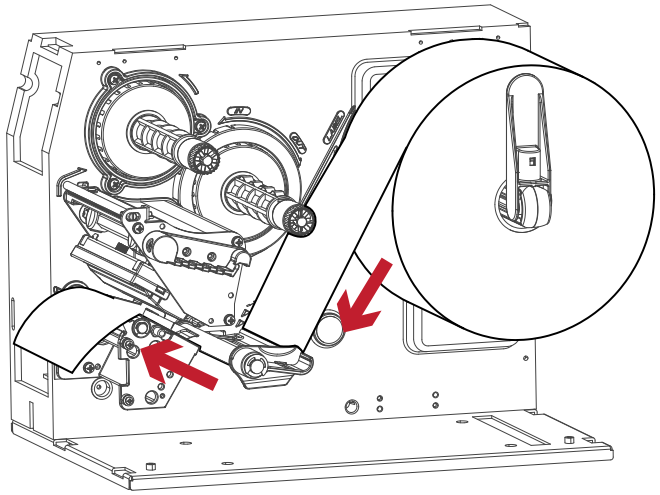
3. Place the label roll on the label supply hub, pushing it right up to the printer frame.

IMPORTANT: Do not apply too much pressure to avoid damaging the label stock.

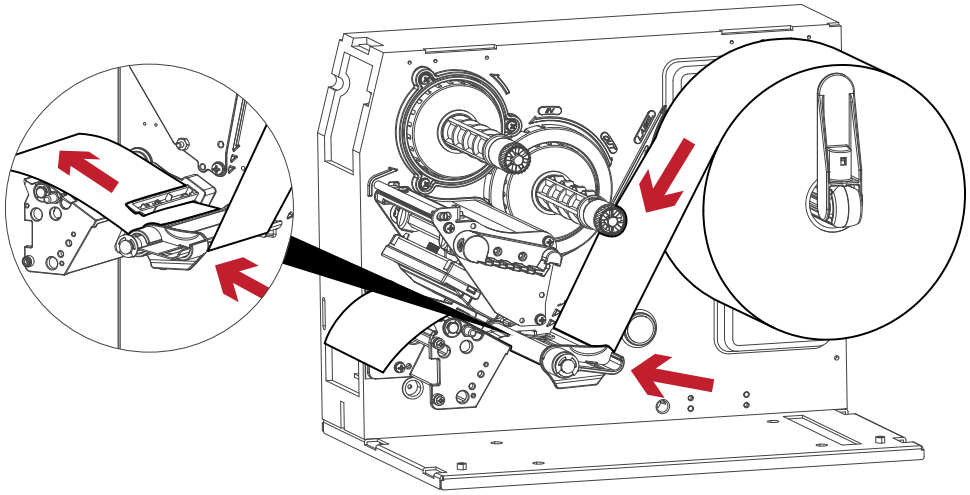


NOTE: When moving the label roll guide, hold it only by the end that is attached to the bracket, not by the top.

4. Load the label roll into the printer as shown in illustration below and pass it through the paper guide.

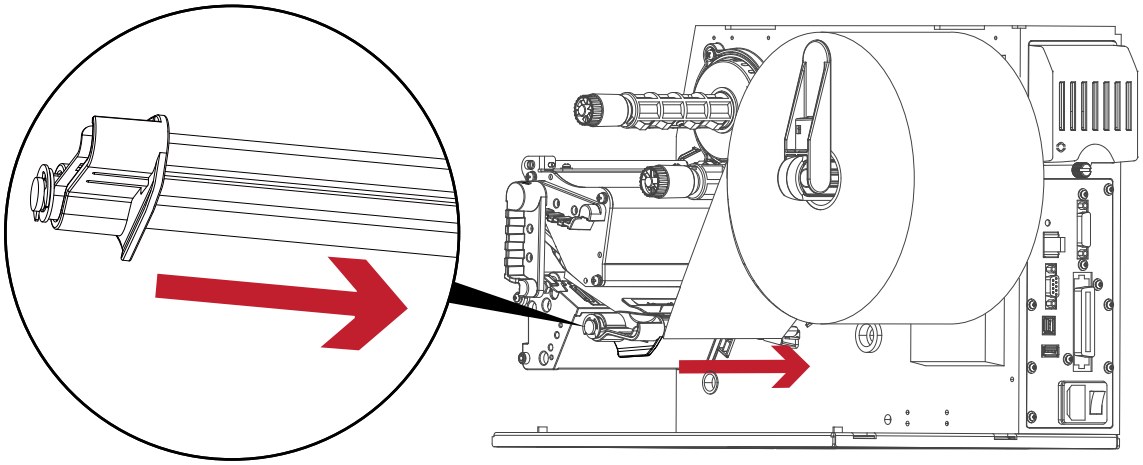


5. Pass the label stock through the adjustable sensor and up to the tear-off plate.

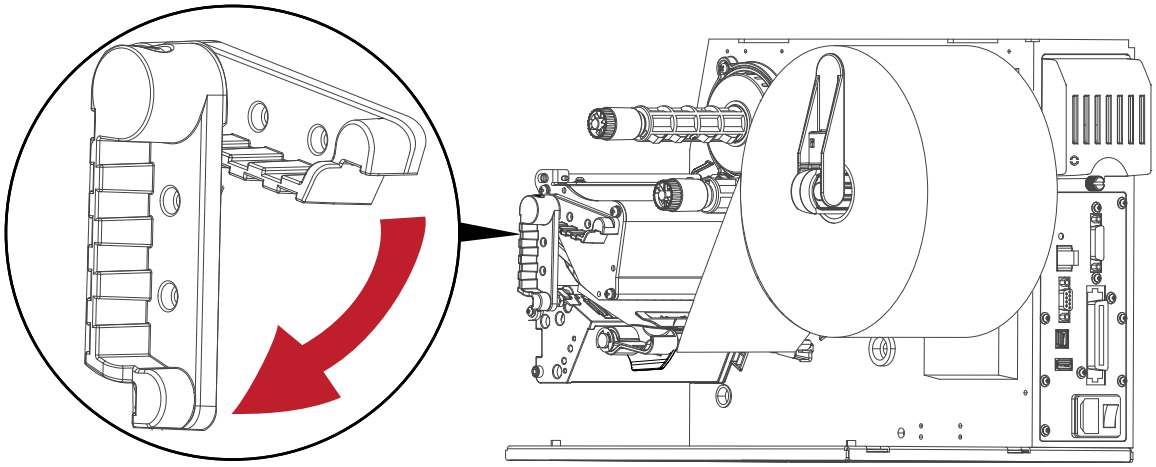


NOTE: Remember to set the movable sensor to gap, black mark or tag hole by changing the position of the sensor with the adjustment wheel.

6. The labels pass between the wall of the printer frame and the adjustable paper guide.

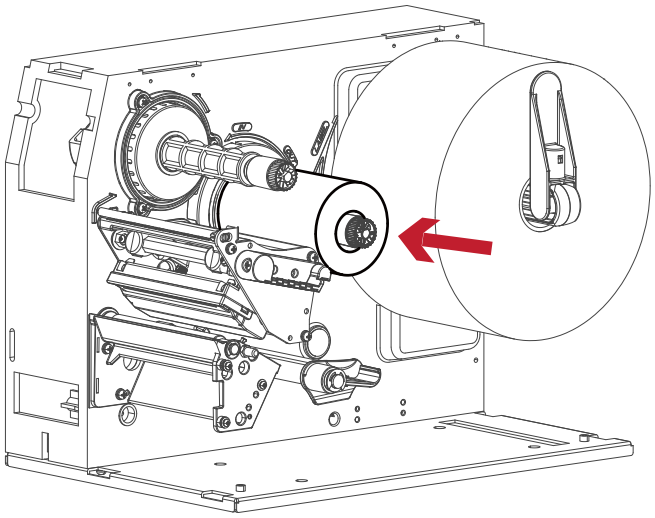


7. Return the printhead release lever to its original position.

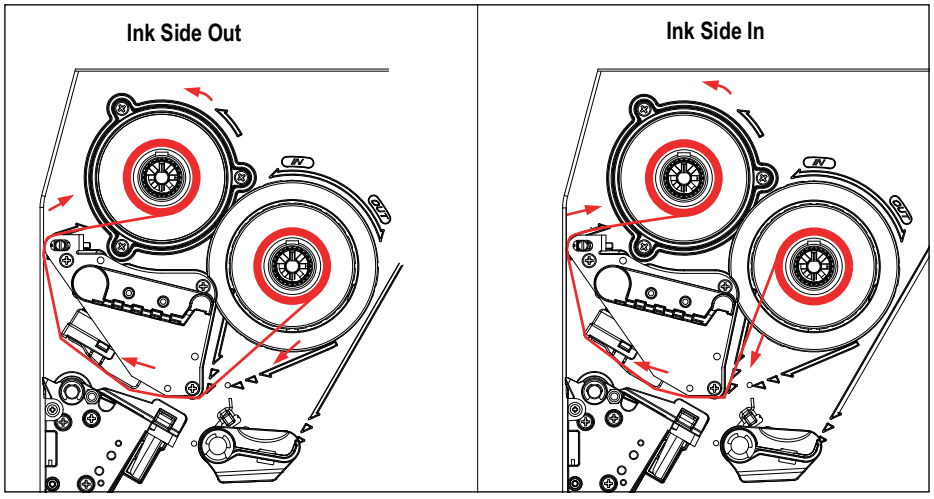


2.5 Loading and Removing the Ribbon

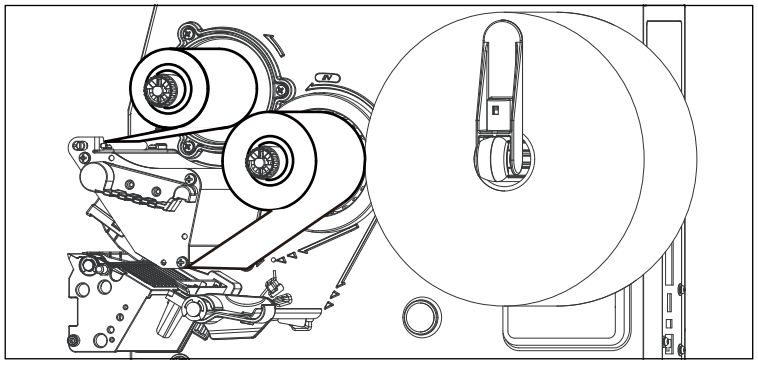
1. Place a new ribbon on the ribbon supply hub.



2. The two illustrations below show how to install the ribbon depending on the ribbon type (ink side in or out).



3. Pass the ribbon under the printhead and back up on the other side. Attach it to the empty ribbon core on the ribbon rewind hub.



NOTE: Do not pass the ribbon under the print sensor.

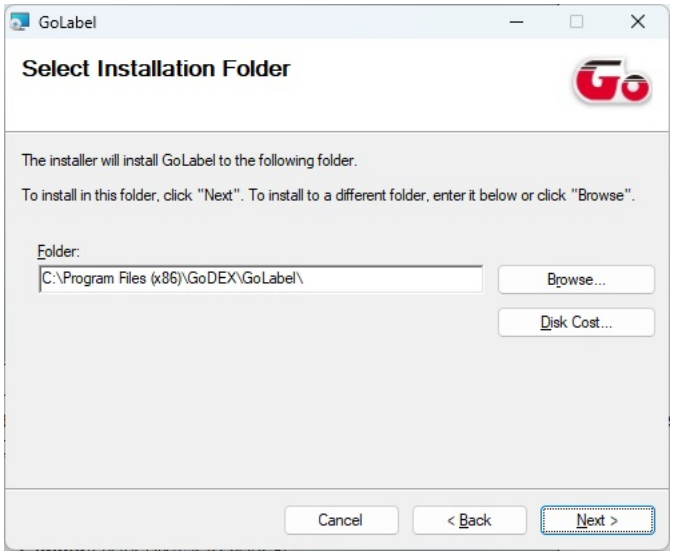
2.6 Connecting the Printer to the Host Computer

1. Please make sure that the printer is switched off.
2. Connect the power cord to the printer and to a power outlet.
3. Connect the type B connector of the USB cable to the printer and the type A connector of the USB cable to the host computer.
4. Switch on the printer. The operator panel should light up.

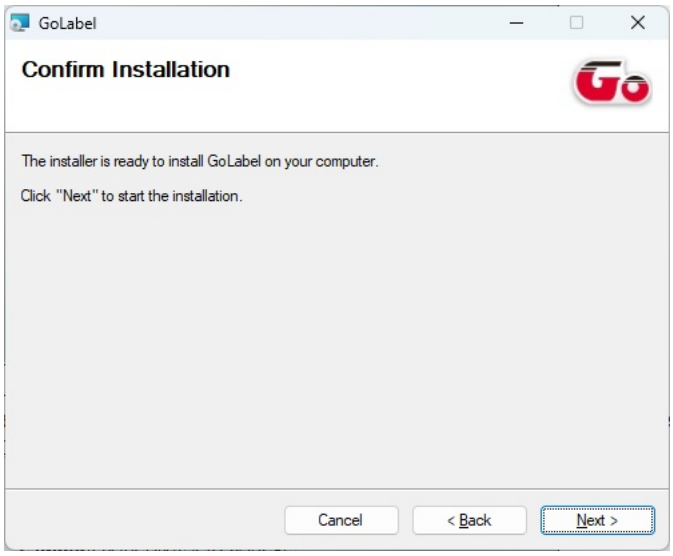
2.7 Installing GoLabel

1. Download the GoLabel installer from the product page at **www.ricelake.com**.
2. If needed, unzip the installer.
3. In the installer files, locate and activate **Setup.exe**. The Setup Wizard launches.
4. Confirm USB and power cables are connected and that the power is turned on. Once confirmed, click **Next**.

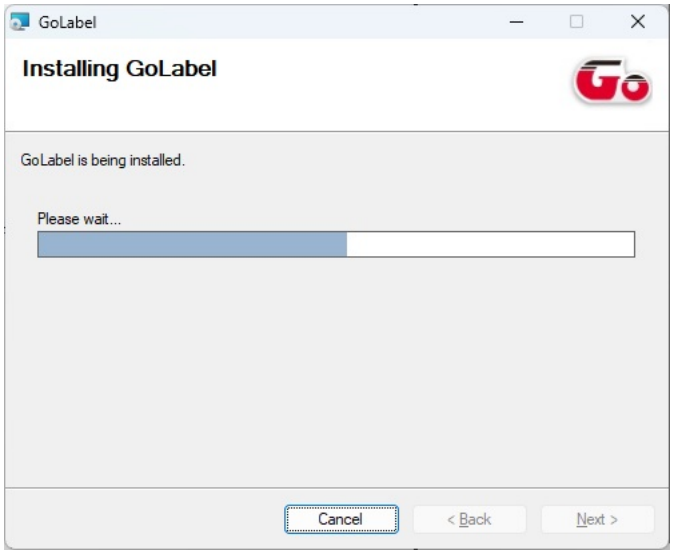
5. Select the desired installation folder and then select **Next**.



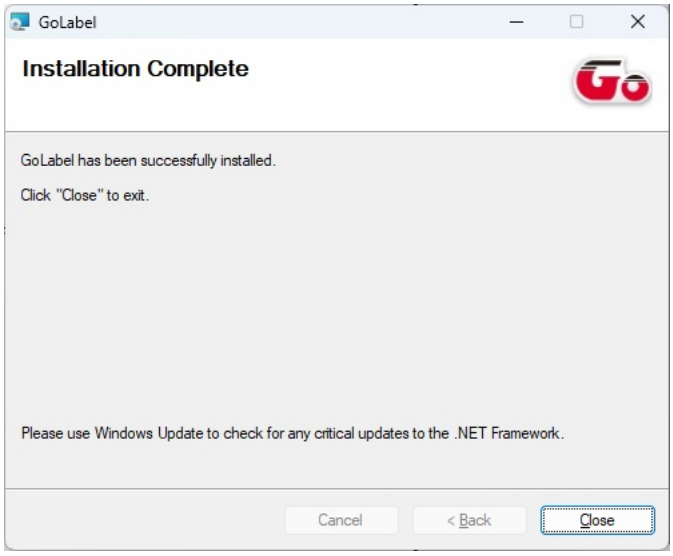
6. Initiate the installation by selecting **Next**.



7. As the GoLabel is installed, a screen displays a progress bar.

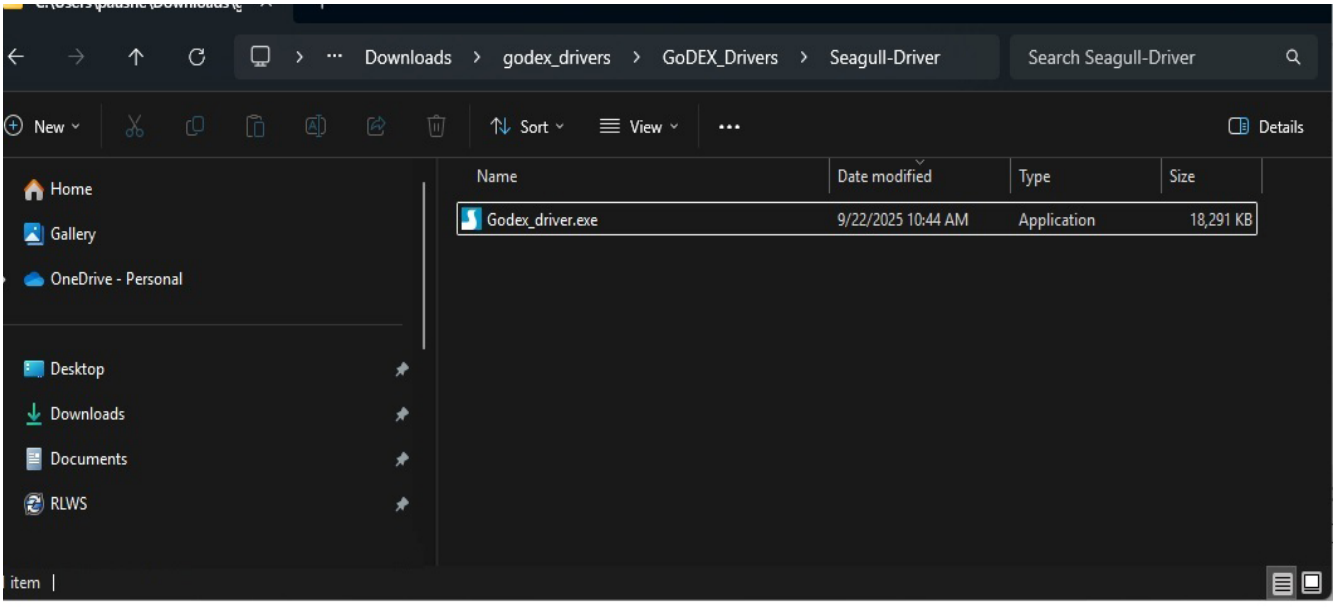


8. Once the installation is complete, select **Close** to exit the installer.



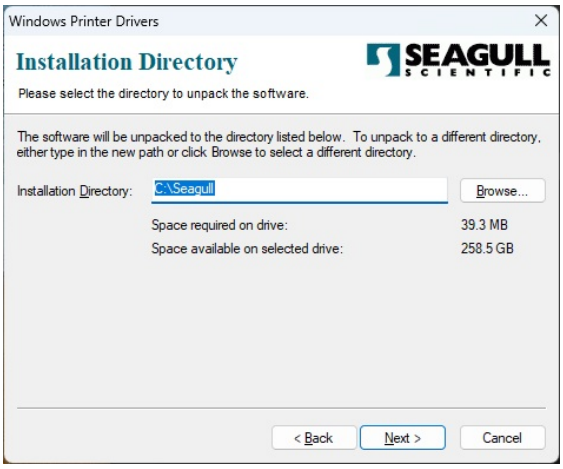
Installing Printer Driver

1. Download the printer driver from the product page at **www.ricelake.com**.
2. If needed, unzip the driver.
3. In the installer files, locate and activate **Godex_driver.exe**.

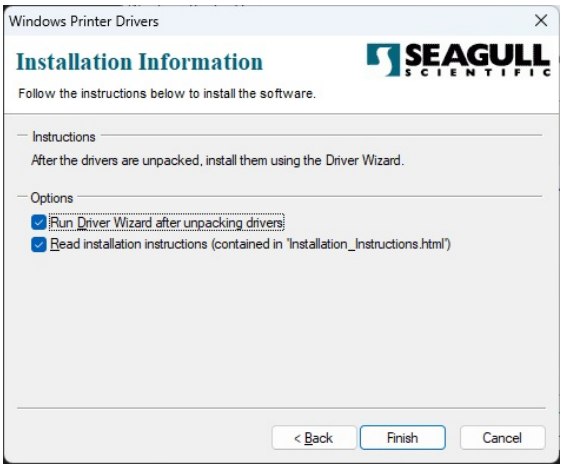


4. The Driver Wizard installer displays. Read the terms and if they are acceptable, enable **I accept the terms in the license agreement** and then select **Next**.

5. Designate the location to install the Driver Wizard and then select **Next**.

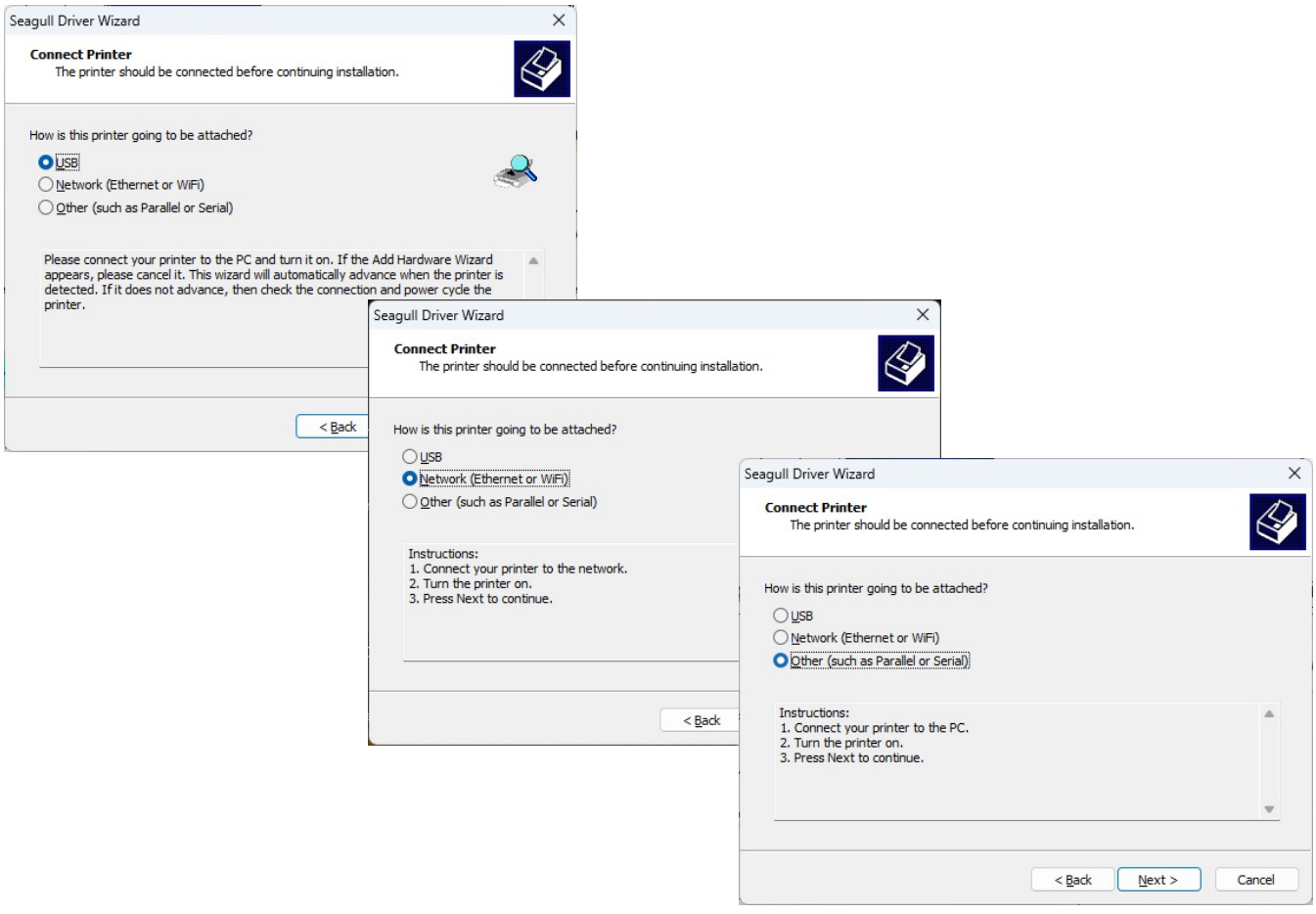


6. Enable **Run Driver Wizard after unpacking drivers** and the select **Finish**. The Driver Wizard installs.

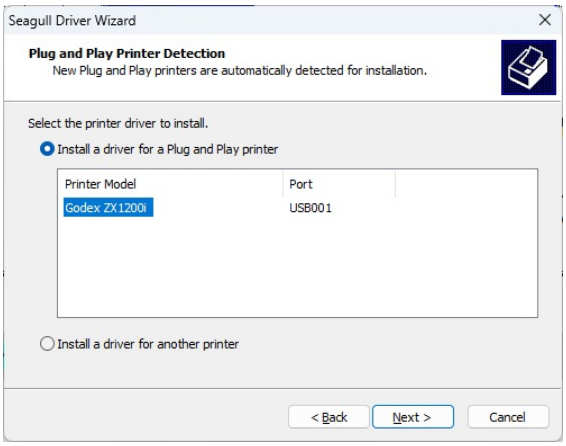


7. After installation is complete, the Diver Wizard launches. Enable **Install printer drivers** and then select **Next**.

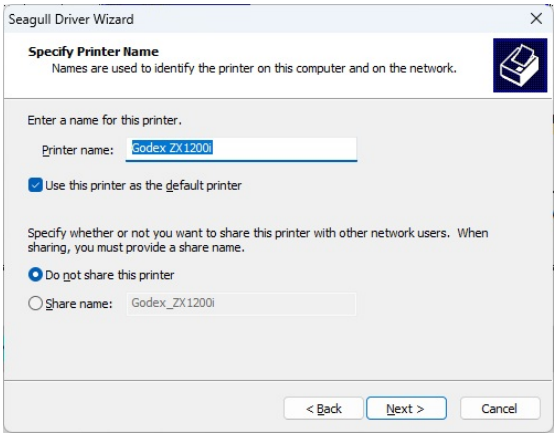
8. Select how the printer will connect to PC, perform connection instructions provided in the Driver Wizard, and then select **Next**.



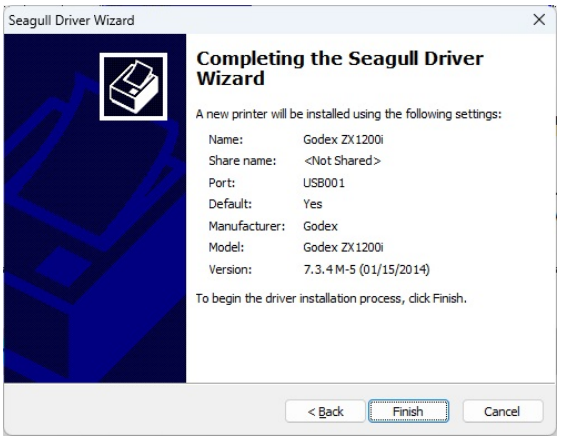
9. Specify the printer model and then select **Next**.

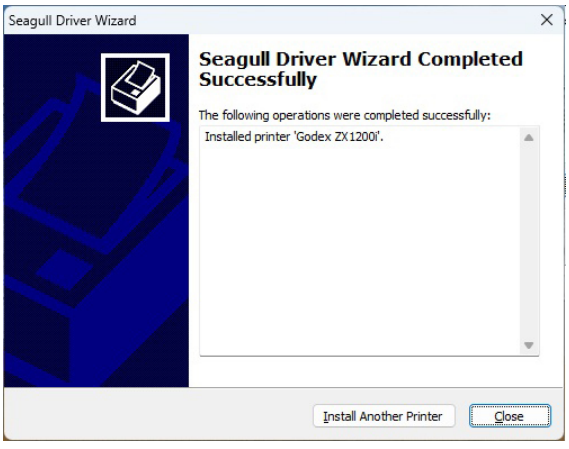


10. Enter a printer name and assign the appropriate rights.

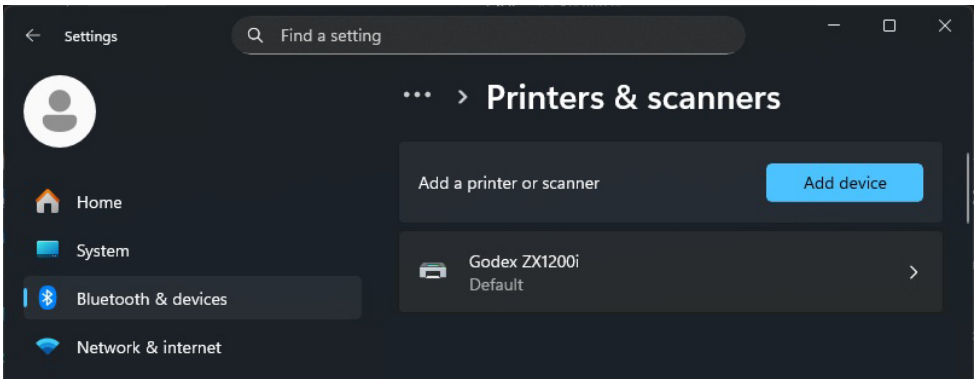


11. When installation is complete a summary of printer settings is displayed.
12. Check if the printer settings are correct and click **Finish** to start copying the driver files. Wait until copying is complete, then finish the installation.





13. Once the driver installation is complete, the new printer should appear in the **Printers & scanners** settings.



2.8 USB Host

The USB Host port supports a USB memory stick, keyboard or scanner.

Purpose

- Using a USB memory stick to extend the user memory space up to 32 GB for downloading Graphic, Font, Label Format, DBF and Command files. The printer's Firmware can be updated by copying the new version of Firmware onto a USB memory stick.
- Connecting a USB keyboard to the printer for *Keyboard Mode* mode operation.
- Plugging in a USB scanner to operate the printer in *Keyboard Mode*.

Usage of Extended Memory

- USB memory stick supports hot-plugging function; printer will create a folder "\LABELDIR" and switch *User Flash* to *Extended Memory* automatically while user plugs a USB memory stick into a SST4 printer.
- Connect printer (with USB Stick plugged in) to PC via USB Device or Ethernet port and run "GoLabel" software to download Graphic, Font, Label Format, DBF and Command files to the printer.
- Detail download procedures, please refer to "GoLabel On-line Help".

Usage of Firmware Update

- Remove USB memory stick from printer and plug it into a PC's USB port; delete Firmware "*.bin" file from "\LABELDIR\FW" folder of the USB memory stick (if it exists); or create a "\LABELDIR\FW" folder on the USB memory stick if it doesn't exist.
- Copy a new version of Firmware "xxxx.bin" to the Folder "\LABELDIR\FW"; and then remove the USB and plug it back into the printer to receive the updated Firmware.
- The printer updates the Firmware automatically when plugged into the printer; printer finds the Firmware in "\LABELDIR\FW" if it is a newer version.
- Don't remove the USB memory stick while updating; with "Flash Writing..." message displaying on LCD panel.

USB Keyboard

- When plugging in a USB keyboard to the printer, LCD touch panel displays **Enter Standalone**, press the **Y** key on keyboard to enter the dialog for *Keyboard Mode* operation.
- There are six sub-dialogs: **Recall Label**, **Country Code**, **Code Page**, **Clock Setting**, **Database Setting** and **Label Edit**
- Use the following procedure to operate keyboard:
  1. Press **ESC** key to exit from *Keyboard Mode* or go back to previous dialog.
  2. Press **F1** key to change printer from *Home/Ready page* mode to *Keyboard Mode*.
  3. Press **Enter**, **Arrow** and **Alphabetic** keys (as used on PC) to perform key-in functions in *Keyboard Mode*.

Scanner

- When a USB scanner is plugged into the printer, LCD touch panel displays **Enter Standalone**, press the **Y** key to enter the dialog for *Keyboard Mode* operation.
- Scanner is used in *Keyboard Mode* to scan **Serial Number, Variable** and **Print Quantity**, while the printer prompts a message on LCD touch panel and wait for data input.

NOTE:

- ***The USB Host port on SST4 printer is without "HUB" function.***
- ***The USB Memory Stick supports with "FAT32" Disk Format and up to 32GB only.***
- ***The download function for Graphic, Font, Label Format, DBF and Command files is operated by GoLabel of PC and must go through the a "i" "x" model printer itself.***
- ***On a PC, user may copy entire folder "\LABELDIR" from USB memory stick to PC or vice-versa. Copy a sub-folder or individual file in "\LABELDIR" to PC or vice-versa is not supported.***

3.0 Operation

3.1 Operation Front Panel

Figure 3-1. Front Panel

3.1.1 POWER Button

Press the POWER button to turn on the printer, and the *Start Up Screen* appears. The printer is on *Ready to Print* status, the LCD screen should display the message **READY** on the screen. When printer is on, hold and press down the POWER button for 3 seconds to turn the printer off.

3.1.2 FEED Button

Turn on the printer and press the FEED button. When the FEED button is pressed, the printer advances media until the FEED button is released. If using continuous labels, pressing the FEED button advances a length of media until the button is released. If using media with gaps, pressing the FEED button once advances only one label.

NOTE: If the label does not stop at the correct position, run the auto-detection function for the media being used, please see Section 3.4 on page 38.

Pause Printing

Pressing the FEED button while the printer is in standby mode to set the printer to pause mode. In this mode, the printer can receive commands, but it only processes them when it is reset to standby mode. Pressing the FEED button again resets the printer to standby mode. Pressing the FEED button during printing interrupts printing. When the FEED button is pressed again, the printer resumes printing.

Example: While a 10-label print job is running, press the FEED button to pause the printer. If two of the labels have been printed, press the FEED button again to resume printing and print the remaining eight labels.

Cancel Printing

Press and hold the FEED button for 3 seconds during printing cancels a print job. The current print job is canceled.

Example: While a 10-label print job is running, press the FEED button to cancel the print job. If two of the labels have been printed, the remaining eight labels will not be printed.

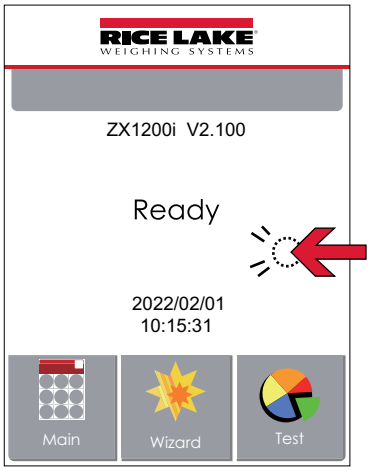
3.2 LCD Interface Introduction

3.2.1 Getting Started

Press the POWER button to turn on the printer, and the *Start Up Screen* appears.

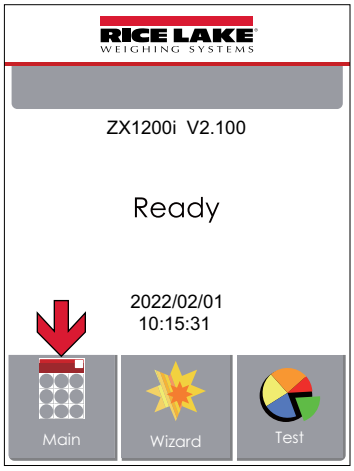
If the printer is on *Ready to Print* status, the LCD screen should display the message **Ready** on the screen. Use the touchscreen to navigate the *Home* screen and other screens.

NOTE: Tap the screen with a finger or a stylus pen to select on screen items such as settings icons.

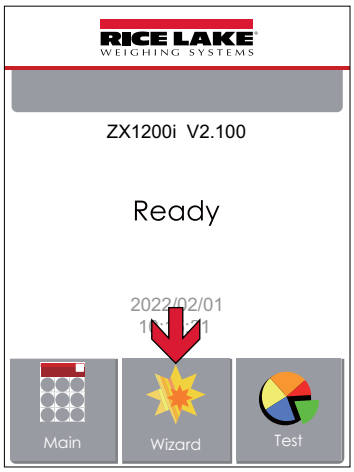


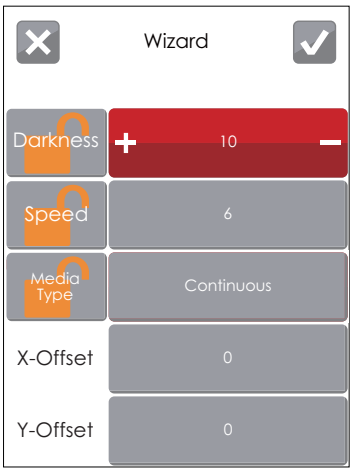
On the Home/Ready page, three function modes are available.

In FUNCTIONAL MODE various setting functions can be adjusted.

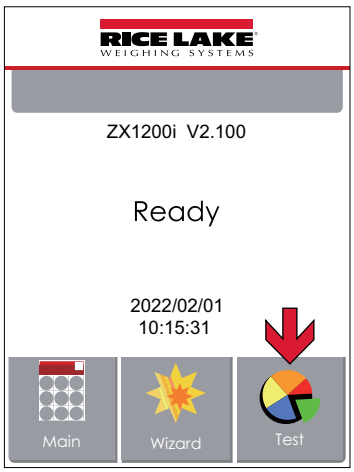


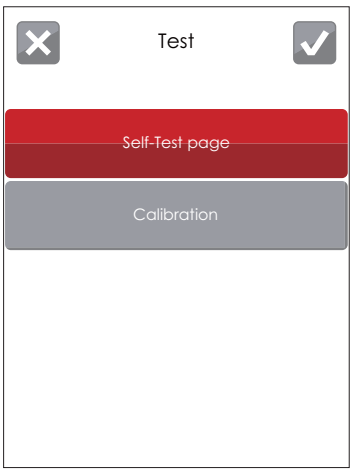
Tap "Main".
Screen displays Main menu options.



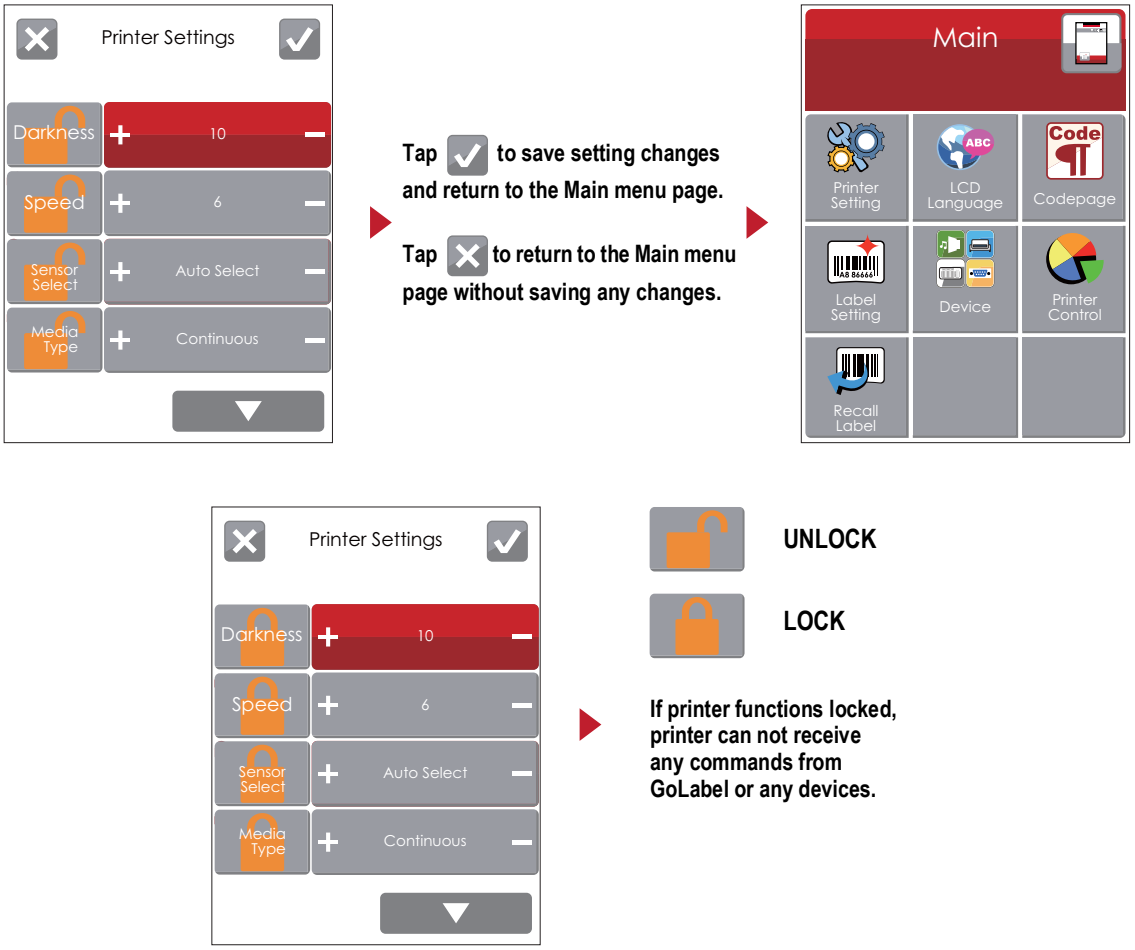


Tap "Wizard".
Screen displays printer setup parameters.



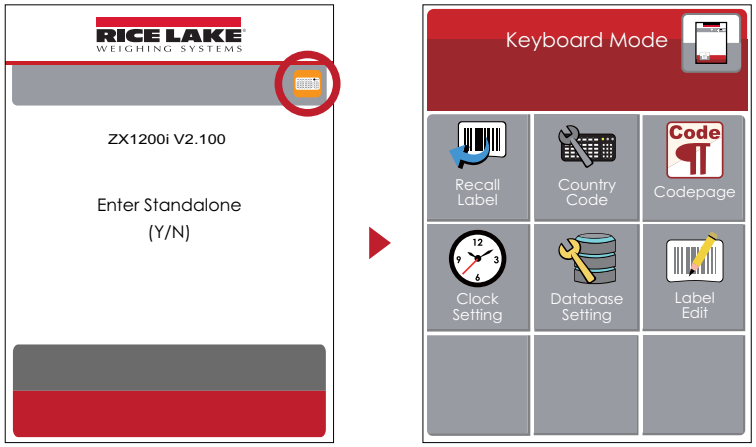


Tap "Test".
Screen displays options for Self-Test page and Calibration.



3.2.2 Keyboard Mode

When a USB keyboard is plugged into the printer, LCD touch panel displays *Enter Standalone*, press the **Y** key on keyboard to enter the dialog for *Keyboard Mode* operation.

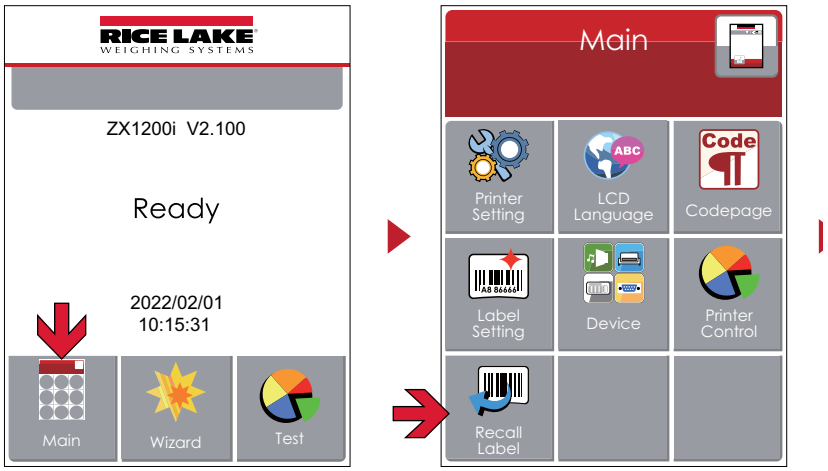


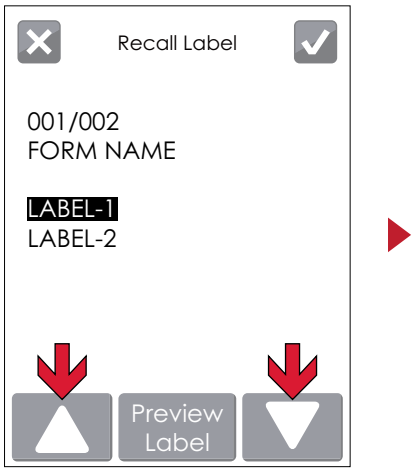
3.2.3 Preview Label Function

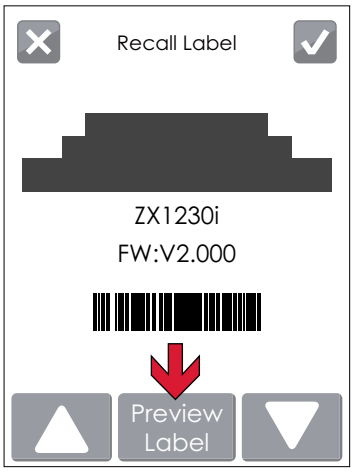
User can choose any labels which have done in the printer and preview it.

From the Home screen, tap to go to Main menu page.

From the Main menu page, tap Recall Label to go to Recall Label page.







From the Recall Label page the touch panel shows all labels.

The Data processing time will be extend as long as the labels increase.

Tap UP to choose labels

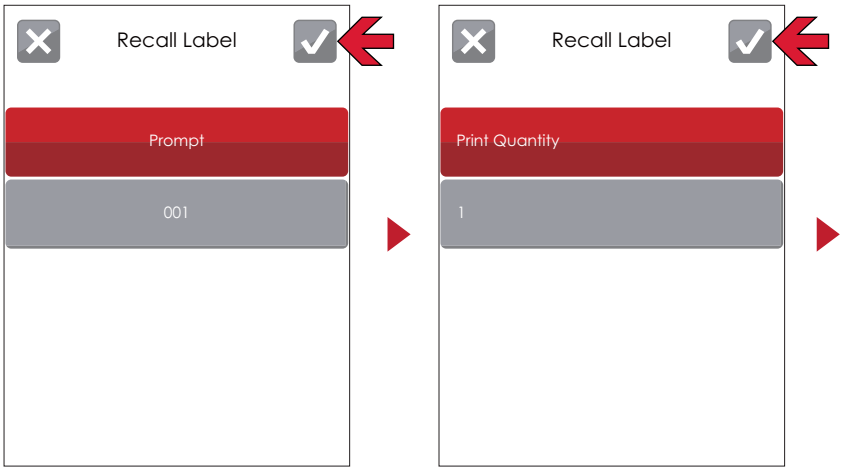
Tap DOWN to choose labels

Preview Label **Tap Preview Label to see chosen label**

Keep tapping ✓ **to next page.**

Print out selected label.

NOTE: Display must be on the Home/Ready page to use the recall label function.



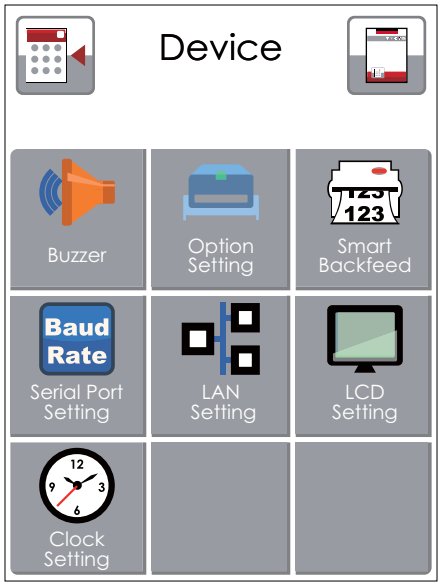
3.3 LCD Interface Function

3.3.1 Main Menu Page

Item	Description
	Setting items for printer (e.g. Printing speed, darkness). Also includes a Printing Wizard for ease of printing.
	More than 10 languages for printer setting.
	It consists of a table of values that describes the character set for a particular language.
	Setting items for printing label, ex. Rotation, Printing position offset.
	Option modules and connection port settings.
	Self-Diagnose functions for printer, ex. TPH testing, self-test page printing.
	Recall Label

Table 3-1. Main Menu Page Items and Descriptions

3.3.2 Device Page



Item	Description
	Setting off or on for buzzer.
	Setting items for options (e.g. Label Dispenser, Applicator).
	Choose ON. Printing labels would be back to start position.
	Setting items for Serial Port (e.g. Baud Rate, Parity, Data Bits, Stop Bits).
	Setting items for LAN (e.g. Port NO., DHCP, Dynamic IP, Default Gateway, Subnet Mask).
	Setting items for LCD (e.g. Brightness, Contrast, Power Saving, Password).
	Setting items for Clock (e.g. Year, Month, Day, Hour, Minute).

Table 3-2. Device Page Items and Descriptions

3.3.3 Setting Items in Setting Mode

Item	Details			
	Printer Setting	Darkness	0-19	
		Speed	2-5	
		Sensor Select	Media Detection	Auto Select
				See-Through
				Reflective
			Media Type	Label with Gaps
				Label with Marks
				Continuous
		Printing Mode	Direct Thermal	
			Thermal Transfer	
		Tear-off Position	0-40	
		Top of Form	Apply	
			Cancel	
	LCD Language		English	
			Deutsch	
			繁體中文	
			簡體中文	
			Français	
			Español	
			日本語	
			Italiano	
			Русский	
			Türkçe	
	Codepage		850	
			852	
			437	
			860	
			863	
			865	
			857	
			861	
			862	
			855	
			866	
			737	
			851	
			869	
			Win 1252	
			Win 1250	
			Win 1251	
			Win 1253	
			Win 1254	
			Win 1255	
			Win 1257	

Table 3-3. Setting Item Details

Item	Details			
	Label Setting		Rotation	
			X-offset	
			Y-offest	
			Start Offset	
	Devices	Buzzer	Off	
			On	
		Optional Setting	None	
			Cutter (not an available option)	
			Label Dispenser	
			Applicator	
		Smart Backfeed	Off	
			On	
		Serial Port Setting	Baud Rate	4800 bps
				9600 bps
				19200 bps
				38400 bps
				57600 bps
				115200 bps
			Parity	Non
				Odd
				Even
			Data Bits	7 bits
				8 bits
			Stop Bits	1 bits
				2 bits
		LAN Setting	DHCP	On
			IP Address	0.0.0.0
			Subnet Mask	255.255.255.0
			Gateway	192.168.0.254
		LCD Setting	Brightness	5
			Contrast	5
			Power Savings	15
			Password	Off
		Clock Setting	Year	
			Month	
			Day	
			Hour	
			Minute	
	Printer Control		Test	
			Sample Pattern	
			Select Memory	
			Clear Memory	
			Calibration	
			Reset to Default	

Table 3-3. Setting Item Details (Continued)

Item	Details		
	Wizard	Darkness	2-5 or 7
		Speed	0-19
		Media Type	Label with Gaps
			Label with Marks
			Continuous
		X-Offset	
		Y-Offset	
	Bluetooth®	Clear Blind	Enable
			Disable
		Make Device Visible	Enable
			Disable
		SSP	Enable
			Disable
		PIN Code	0000
		Search Devices	
	Test	Self-Test page	
		Calibration	

Table 3-3. Setting Item Details (Continued)

3.3.4 Status of LCD Interface

When printer is in standby mode (ready to print), the LCD interface displays **Ready** on screen. **Ready** must be displayed in order to print.

If there are any printer errors, the LCD screen displays the error screen to show the type of error. Errors can be fixed according to the message that displays with the error. See Section 6.10 on page 81 for list of error alerts.

Item	Function	Description
	To Upper Level	Appears on the NAVIGATION ICON of Setting pages. It guides back to upper level by touching display upper right icon.
	To Main Menu Page	Appears on the NAVIGATION ICON of Setting Value pages. It guides back to Main menu page by touching display upper left icon.
	Lock	On Setting Value pages, touch display icons to lock the value for preventing unexpected change.
	Unlock	Touch display icons again to unlock the value.

Table 3-4. LCD Interface Items

3.4 Label Calibration and Self Test

3.4.1 Label Calibration

The printer can automatically detect and store label height.

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

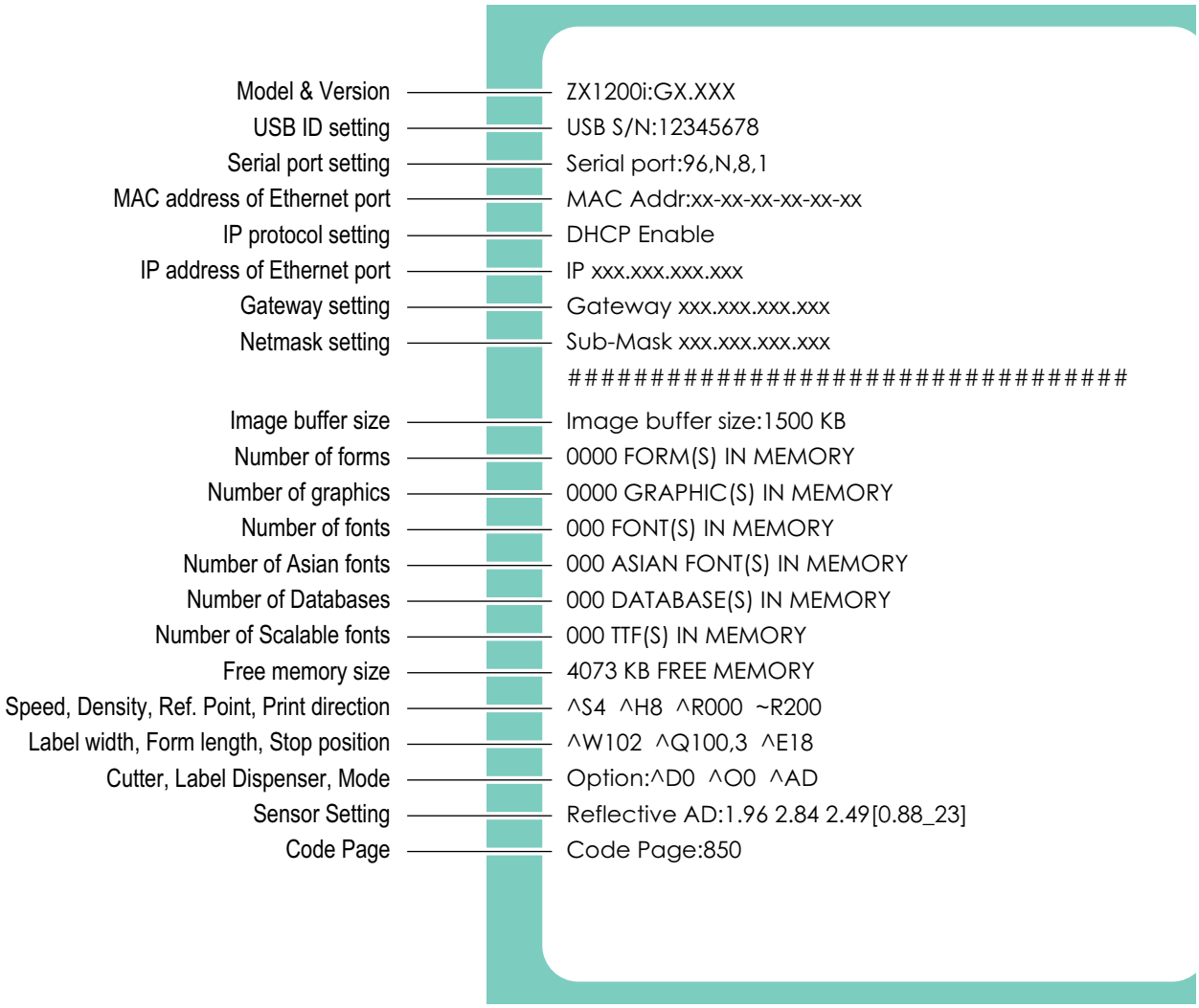
3.4.2 Self Test

The self-test function checks whether the printer is functioning normally.

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

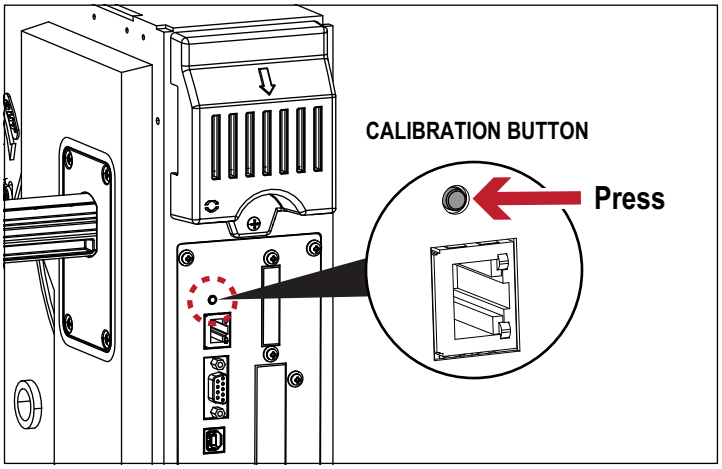
1. Check that the label stock is loaded correctly.
2. Turn off the printer.
3. Turn the printer on again, keeping the FEED button pressed. When the LED starts to flash red, release the FEED button. The printer measures the label stock and stores the label height.
4. Once the printer has successfully measured the label stock, it prints a self-test label.

Self-Test Printout Contents

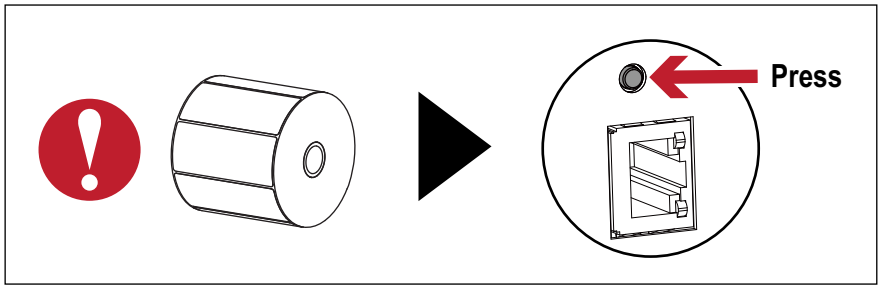


3.4.3 Label Calibration Button

Use the Calibration button to initiate Label Calibration when printer encounters a *Media Error* during a first-time printer startup or when changing a label or ribbon to another type (such as a change from a gap label to continuous or black mark labels).



Press Calibration button for 2 seconds, it uses auto-sensing to calibrate the label and ribbon's parameters.



NOTE: Press Calibration button is equivalent to the auto-sensing command "~S,SENSOR" that cancels on-printing-job and make the Label Calibration immediately.

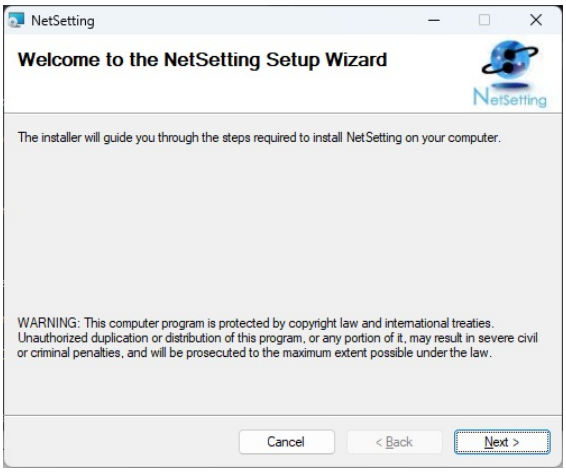
4.0 Communications

4.1 NetSetting for Ethernet

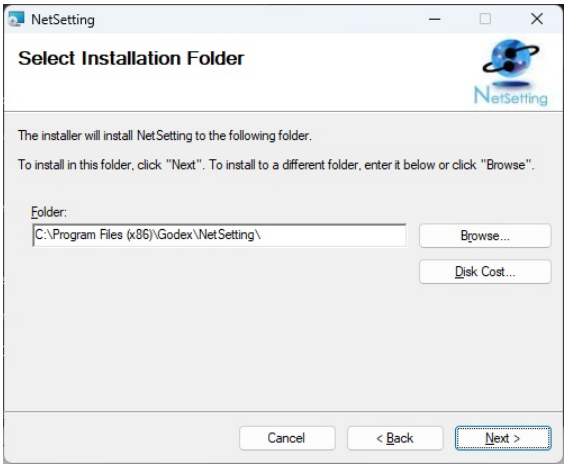
4.1.1 Installing the NetSetting Software

The NetSetting software is used to manage the network configurations when connecting the printer via Ethernet port.

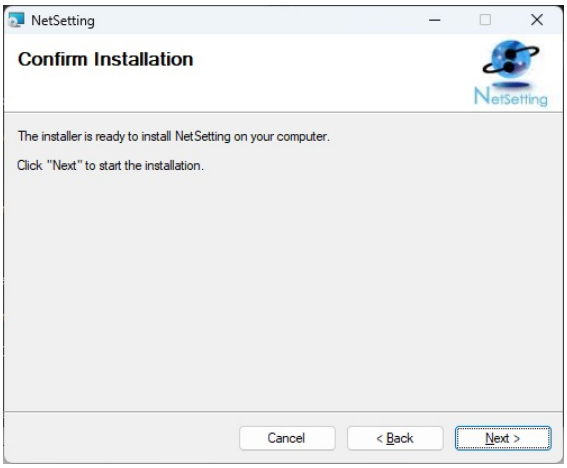
1. Download the NetSetting software from the product page at **www.ricelake.com**.
2. If needed, unzip the installer.
3. In the installer files, locate and activate **GoDEX_NetworkSettingSetup_US.msi**.
4. The Setup Wizard launches. Follow the instructions on the screen. The Setup Wizard guides through the installation procedure. Select **Next** to initialize installation.



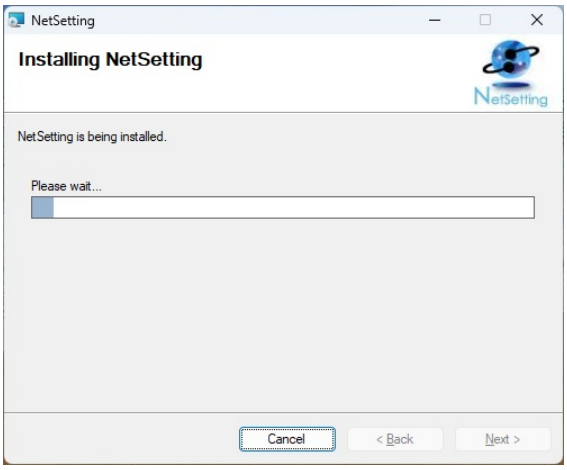
5. Specify the **Installation Folder** location.



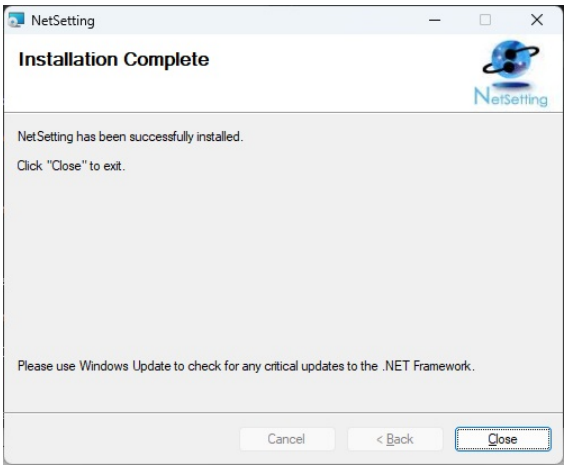
6. Click **Next** to start the installation.



7. The progress bar fills that the software is installed.



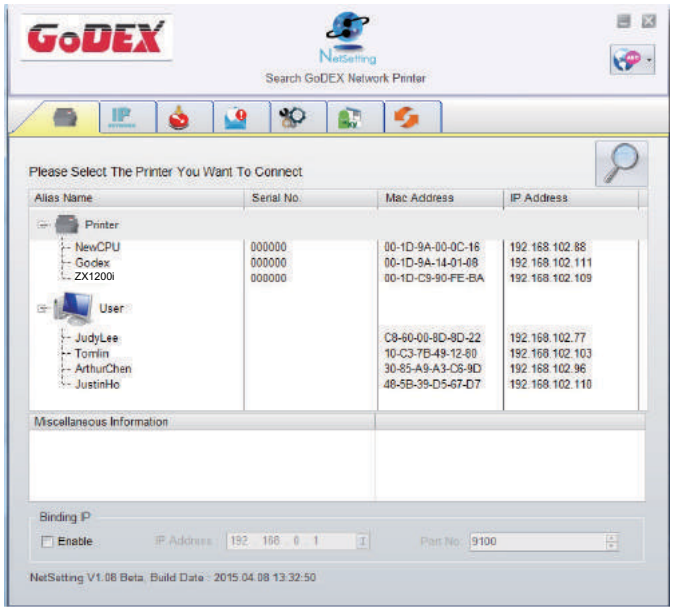
8. The installation is completes, select **Close** to exit the Wizard.



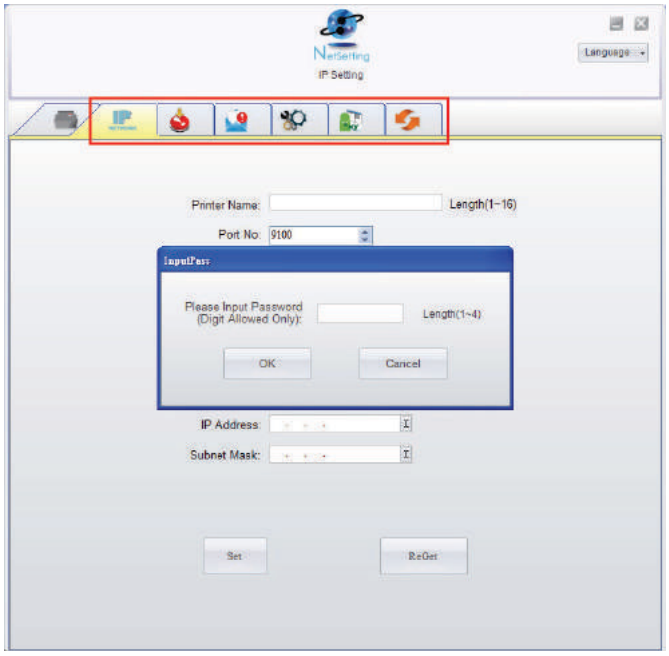
9. The NetSetting icon appears on the desktop.

4.1.2 The Interface of NetSetting

Connect the printer to the PC with an Ethernet cable. Click the NetSetting icon to start the program and the start page appears. The start page displays the basic information of the connected printer and PC.



Click the magnifier icon to search the Godex printers which are connected via Ethernet port in the network environment. Once a connected Godex printer is detected, it will be listed on the start page.



There are six tabs at the top of the interface window which can configure different types of network settings. The correct password is needed to enter the configuration pages for data security.

NOTE: The default password is "1111". The password can be changed from the "IP Setting" tab.

IP Setting

The IP Setting tab can change the printer name, port number, Gateway setting and the password for configuring the printer. The printer's IP address can also be set to either DHCP or Static IP.

Press **Set** button to apply the settings and **Refresh** button to refresh the setting values.

NOTE:

- ***To fully benefit from the NetSetting software, familiarity with basic networking principles is needed. Please contact network administrator for related network setting information.***
- ***When enabling DHCP, if the IP Address is: IP = 169.254.229.88, Netmask = 255.255.0.0, Gateway = invariable (last value), the IP Address is invalid.***

Alert Path Setting

NetSetting sends alert messages to a designated mail account when errors happened on the printer. The alert messages are sent by SMTP (Simple Mail Transfer Protocol) or SNMP (Simple Network Management Protocol). Set or change the configurations of SMTP and SNMP on the **Alert Path Setting** tab.

Press **Set** button to apply the settings and **Refresh** button to refresh the setting values.

Alert Message Setting

For the alert message notification function, decide which error cases need to be sent out to the operator. The alert messages can be set to be sent by SMTP, SNMP or both.

Press **Set** button to apply the settings and **Refresh** button to refresh the setting values.

Printer Configuration

Set or change the configurations of connected printer. Most key settings for the printer operation can be done by settings on this page.

Press **Set** button to apply the settings and **Refresh** button to refresh the setting values.

User Command

The **User Command** tab provides a communication interface for the operator to control the printer. Input printer commands in the **Input Command** window and press **Send Command** button to send commands to the printer. For commands that return a response message, the response message displays in **Output Message** window.

Press **Set** button to apply the settings and **Refresh** button to refresh the setting values.

Firmware Download

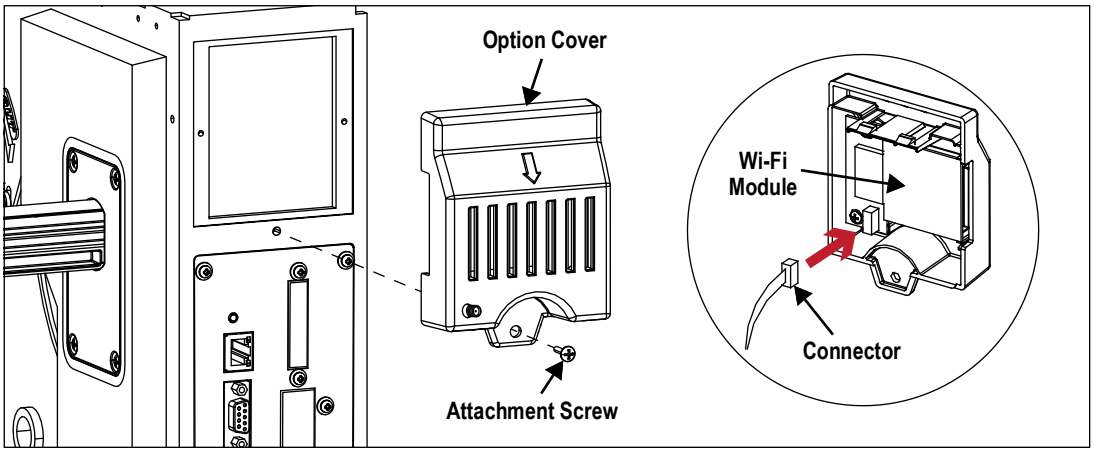
On the **Firmware Download** tab, the current version of printer firmware will be showed on the screen. To update the printer firmware, just specify the file location of the firmware file and press **Start Download Firmware** button. The printer firmware then can be updated remotely.

In addition to updating the firmware, the **Recover To Factory Settings** button can be pressed to restore the printer configurations back to factory default.

4.2 Wi-Fi Module Option

4.2.1 Wi-Fi Module Installation

1. Power off the printer.
2. Remove the option cover attachment screw.



3. Remove the option cover and disconnect the connector.
4. Install Wi-Fi module and plug the connector back in.
5. Attach the Wi-Fi module with previously removed screw.

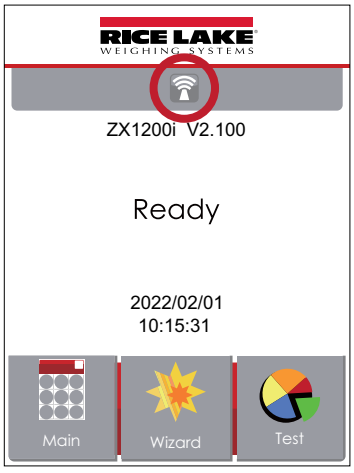
NOTE: The wireless antenna kit is included with SST4 ***Wi-Fi option printers. See Section 5.3 on page 66 for wireless antenna kit installation.***

4.2.2 Wi-Fi Module Initial Setup

1. Power off the printer.
2. Install the Wi-Fi module.

NOTE: Methods for installing Wi-Fi module, please refer to Wi-Fi module installation.

3. Power on the printer and wait 15 seconds. The home screen displays a gray Wi-Fi icon, which means that the Wi-Fi module is already detected by the printer.

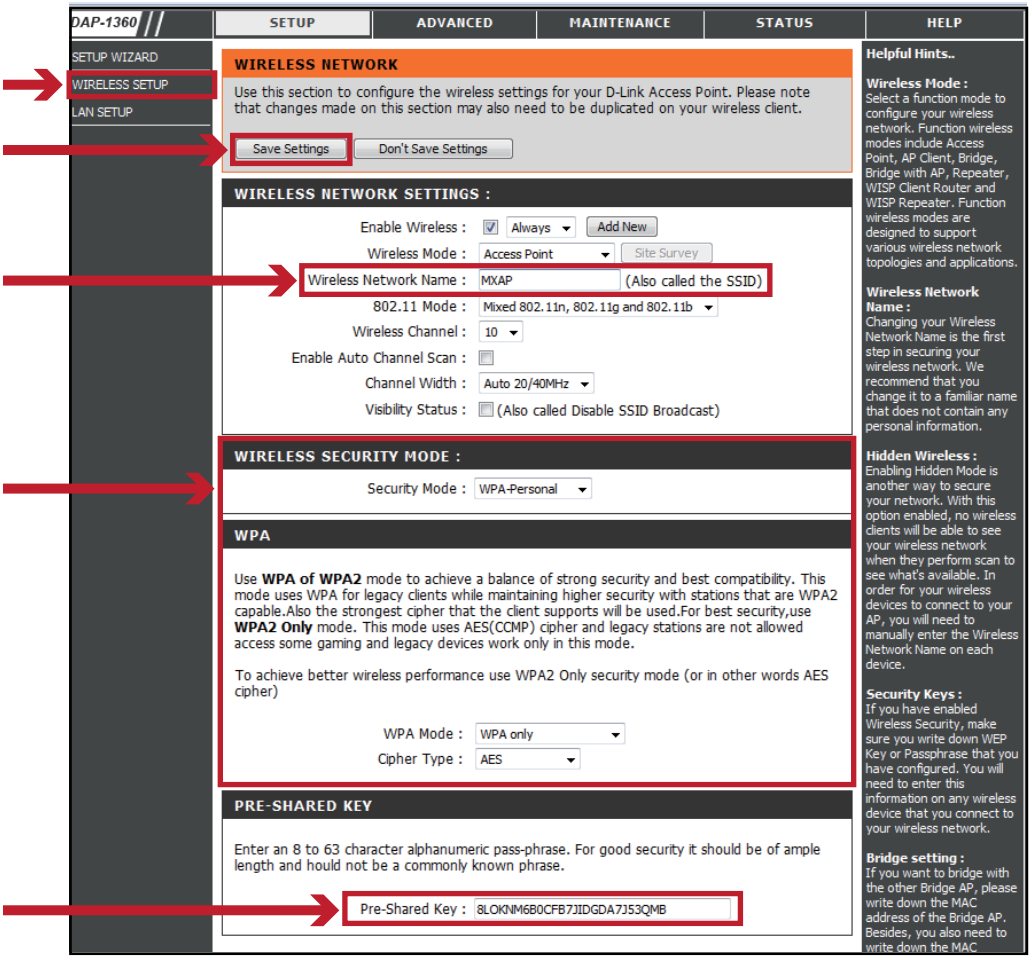


NOTE: The firmware version of the printer should be above V.2005 to use the Wi-Fi function. GoLabel version should be above V1.12 to use the Wi-Fi Tool function.

NOTE: When a Wi-Fi module is installed into a printer, the Ethernet of the printer will lose its function.

4.2.3 Setting Access Point (D-Link)

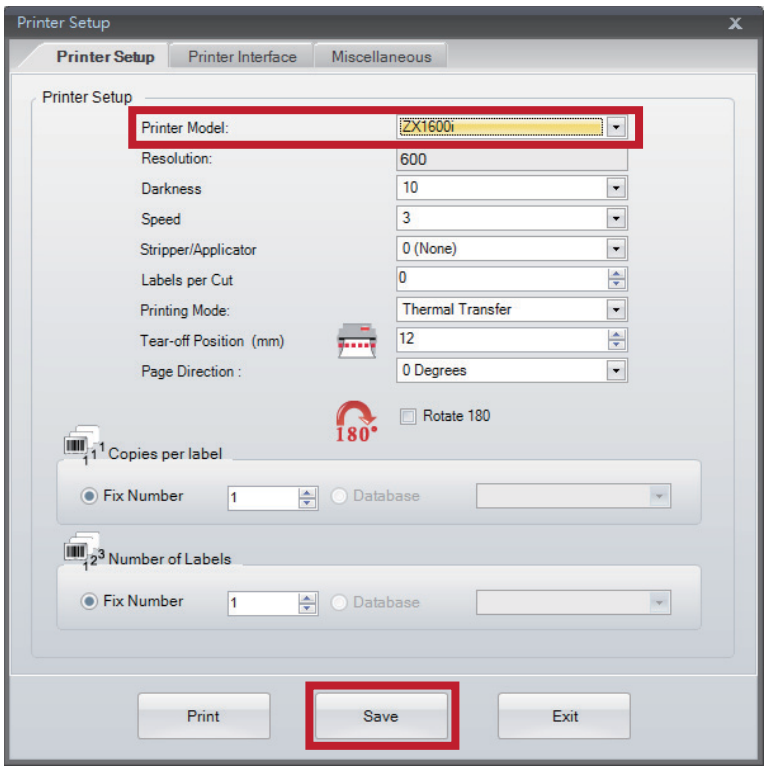
1. Execute browser and log in the setting page of access point.
2. Click **WIRELESS SETUP** on the left side of the setting page and enter into the AP settings page.



3. Click **Save Settings** button after the Wi-FI AP is completely set. After approximately 20 seconds, the setting of AP is stored and takes effect.

4.2.4 How to Execute Wi-Fi Tool

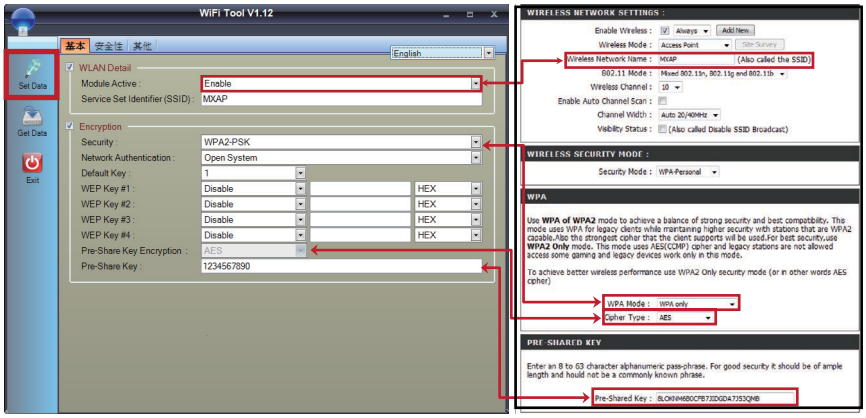
1. Execute GoLabel Version V1.12.
2. Select ZX1200i printer model.



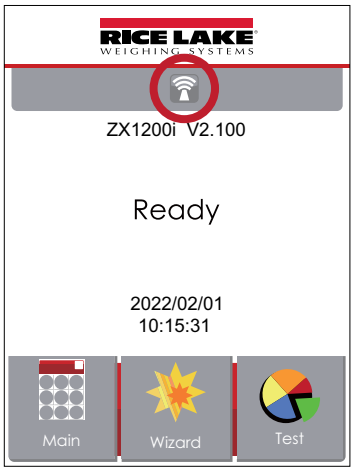
3. Click **Save**.
4. Execute the Wi-Fi Tool.

4.2.5 Setting Corresponding Items Between Wi-Fi Tool and AP

1. Set Wi-Fi parameters as needed.



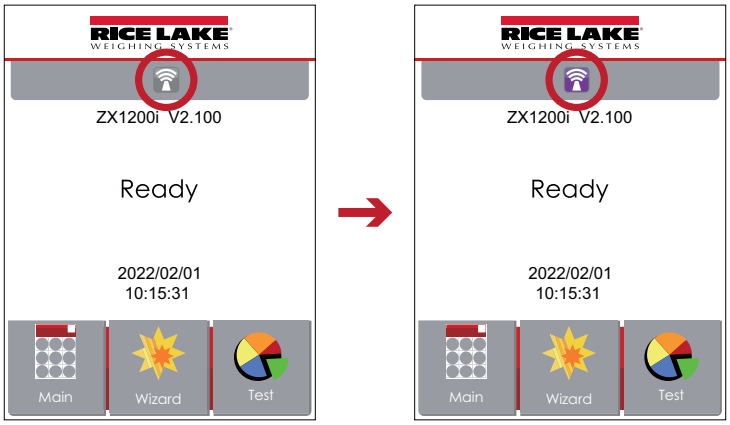
2. Click **Set Data** button after the parameters are completely set. Approximately 5 seconds later, the printer will automatically reboot.
3. Approximately 15 seconds, LCD panel displays gray Wi-Fi icon, and it means that the Wi-Fi module is already detected by the printer.



NOTE: The Setting content of Wi-Fi Tool should be corresponding with the setting of AP.

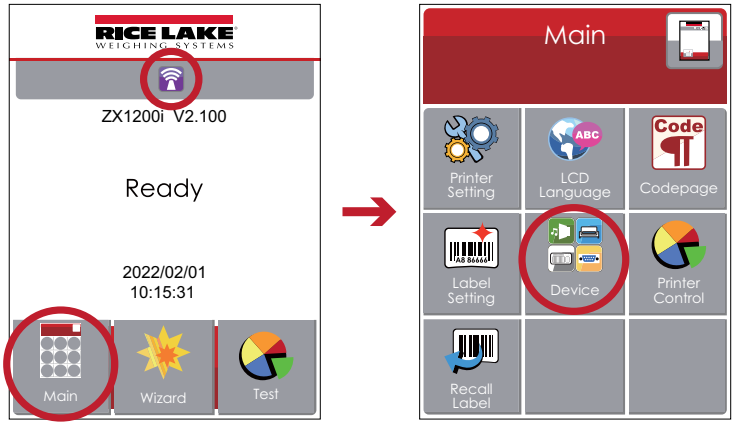
4.2.6 Check for Successful Wi-Fi Connection

After 8 to10 seconds, the Wi-Fi icon changes from gray to purple and it means that the Wi-Fi connection has been successfully created.

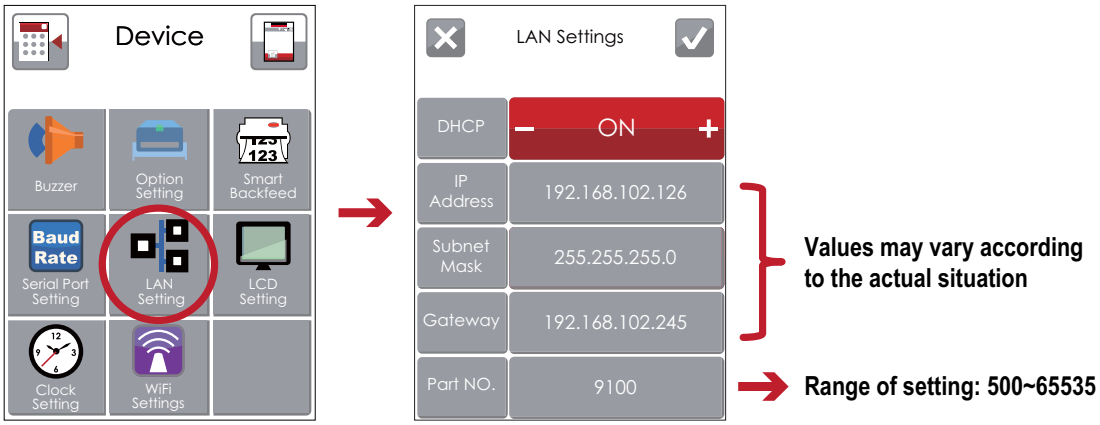


4.2.7 Check LAN Information

1. Select **Main** at the bottom left corner of the LCD panel.
2. Select **Devices**.

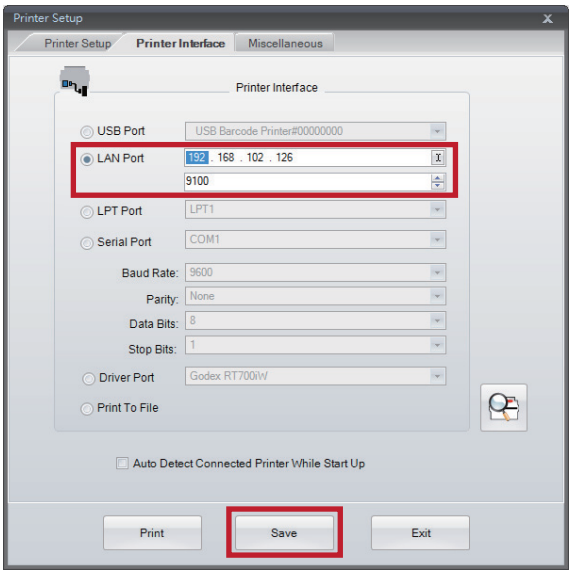


3. Select **LAN Settings** and the display indicates the related information of LAN.

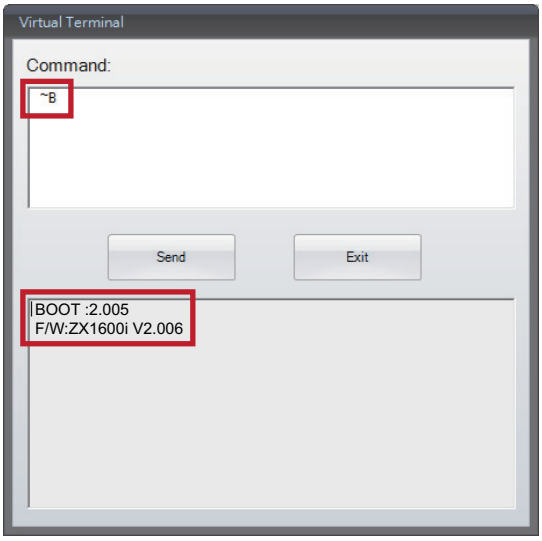


4.2.8 Create Connection Between Computer and Printer via Wi-Fi

1. Execute GoLabel Version V1.12.
2. Select **Printer Setup**.
3. Select **Printer Interface** and Click **LAN Port**, and enter IP address.



4. Click **Save**.
5. Select **Virtual Terminal** and enter *"~B"* into **Command:** field, and then click **Send**. The Wi-Fi connection is working if the printer returns related information automatically.



5.0 Options

Installation of an option is to be performed by qualified service personnel only. Always disconnect power to the printer before installing any options.

The following options are available for the printer:

- Printer Heater Kit, PN 111121 or 111872 (Section 5.1)
- Internal Rewind Option (Section 5.2 on page 63)
- Wi-Fi Module Option (Section 4.2 on page 49)
- Wireless Antenna Kit, PN 113764 (Section 5.3 on page 66)

NOTE: See Table 2-1 on page 4 for a list of all the SST4 printer variations and the options they each include. The wireless antenna kit is included with Wi-Fi option printers.

5.1 Heater Kit Installation

WARNING: Installation of the optional heater kit requires work inside the printer enclosure. This procedure is to be performed by qualified service personnel only.

Figure 5-1. Printer Heater Kit

The Hoffman heater is designed to protect labels, sensitive mechanical, electrical and electronic equipment from the harmful effects of condensation, corrosion from condensation, and low temperatures. Thermostatically controlled, the fan-driven heater maintains a stable temperature within the enclosure to allow component parts to perform reliably over a longer period of time.

Whether installing the heater for the first time or replacing the unit, there are several steps involved with the installation.

The heater kit should be mounted to the enclosure panel using existing studs.

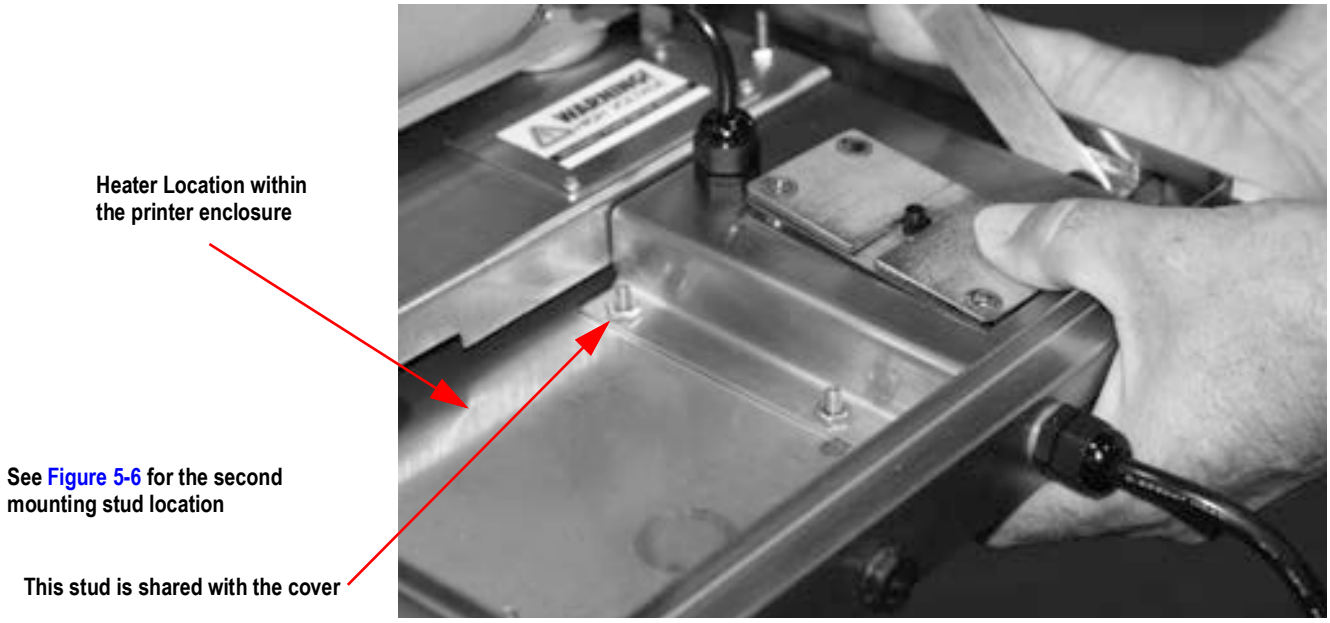


Figure 5-2. Hoffman Heater Location

The heater kit comes with the following parts.

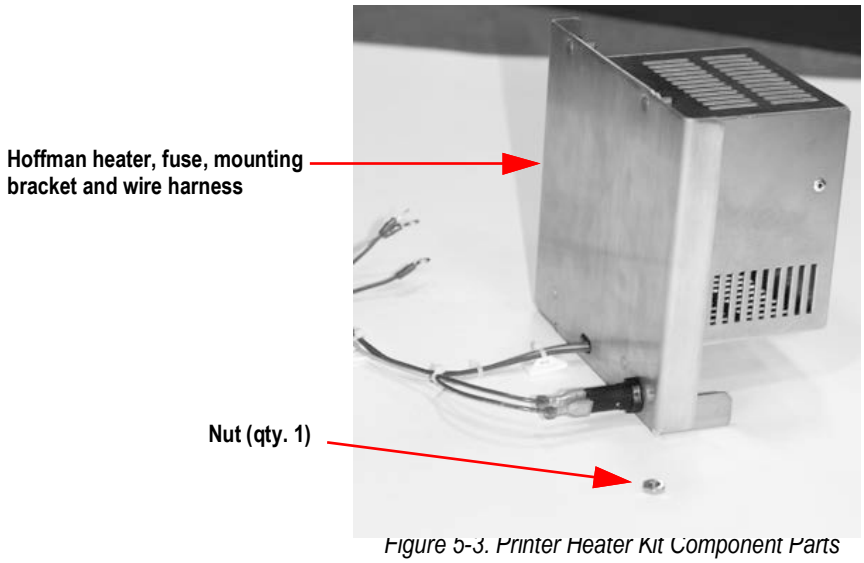


Figure 5-3. Printer Heater Kit Component Parts

Perform the following to install or replace the heater.

1. Unplug power to the unit.
2. Disconnect any cables such as the power cord and the communications cable located on the back of the printer, and the ribbon cable located at the front of the printer.

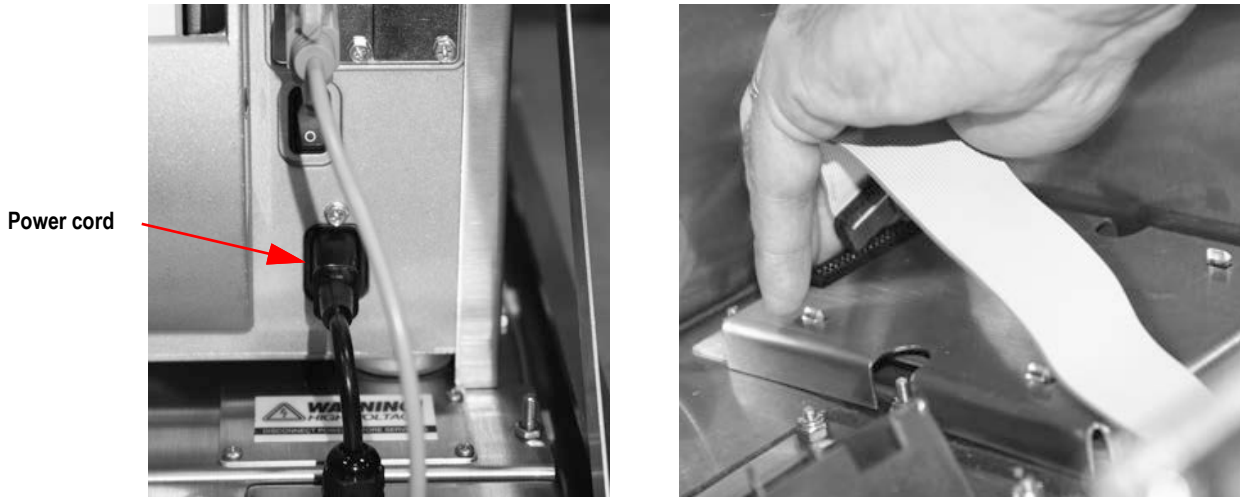


Figure 5-4. Disconnect Power and Printer Cables

3. Using a 3/8" socket, carefully remove the four nuts that are holding the printer pad to the printer base plate in the enclosure and set nuts aside.

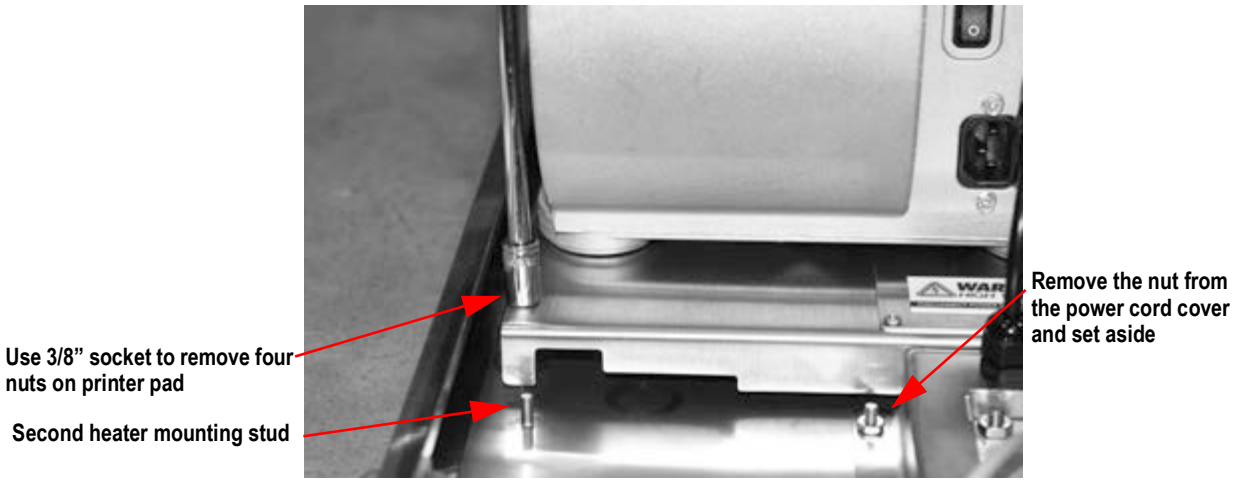


Figure 5-5. Unscrew Four Nuts Holding Printer Pad to Printer Base Plate

4. Gently pull the printer and printer pad off the printer base plate mounting studs and set aside. The printer base plate is now exposed.

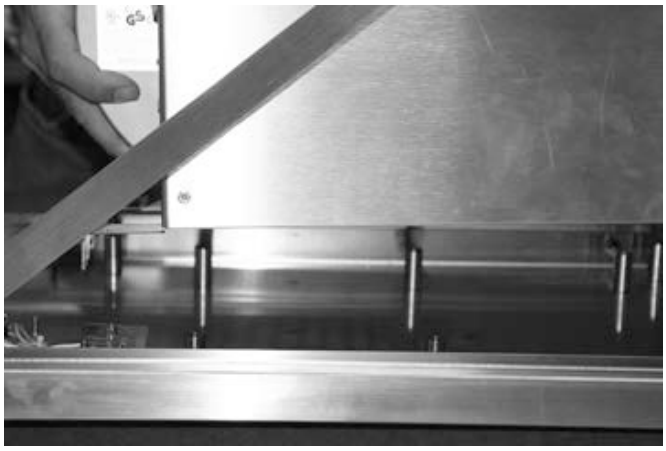


Figure 5-6. Pull Printer and Mounting Pad Off Base Plate

5. Remove the upper nut on the power cord cover.

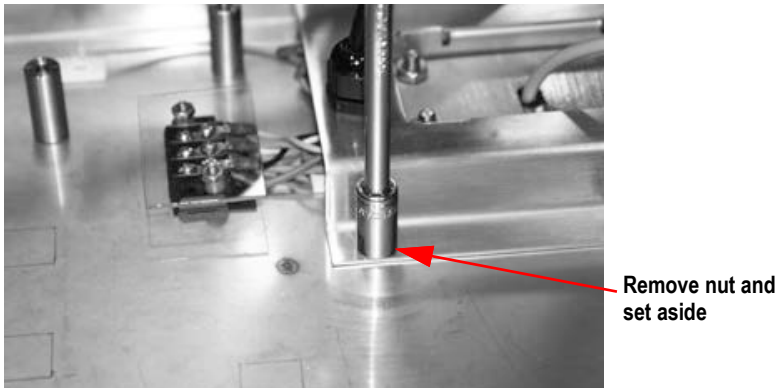


Figure 5-7. Remove Upper Nut of the Power Cord Cover Assembly

6. Remove the terminal strip nuts that are holding down the clear terminal strip cover using a 5/16" socket. Set the clear plastic terminal strip cover aside and ensure that the plastic spacers do not get lost. See Figure 5-9.

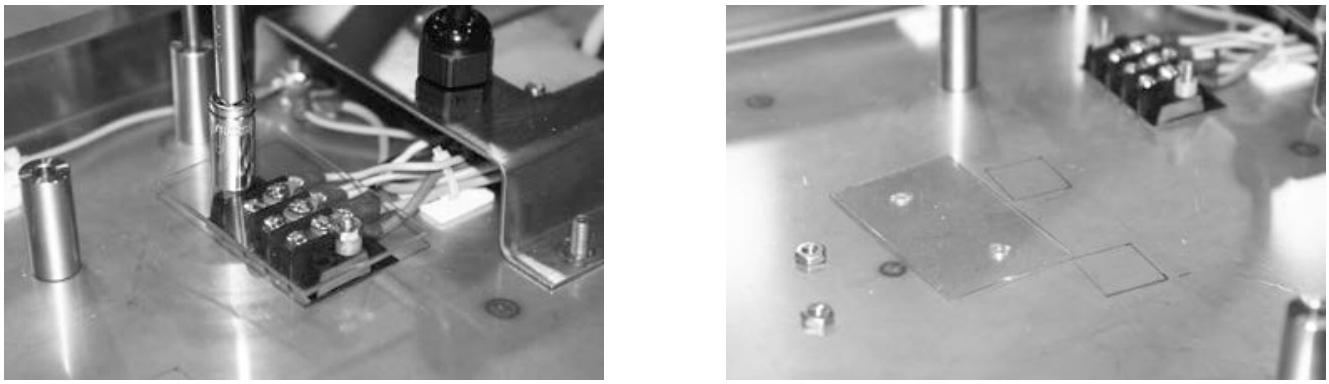


Figure 5-8. Terminal Strip Location, Wiring, and Clear Cover

7. Using a Phillips head screwdriver, remove the three open terminal screws located on the terminal block.

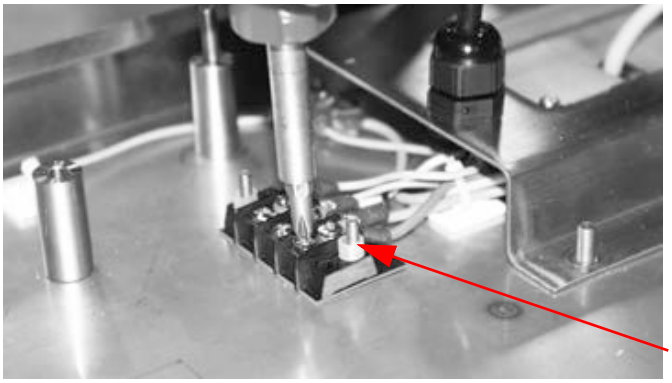


Figure 5-9. Remove Open Terminal Screws

8. Set the heater into position onto the two threaded posts and using a 3/8" socket, tighten up the nuts to secure the heater to the enclosure base.

NOTE: The heater kit comes with one nut. Use the second nut which comes from the upper left hand corner to secure the heater

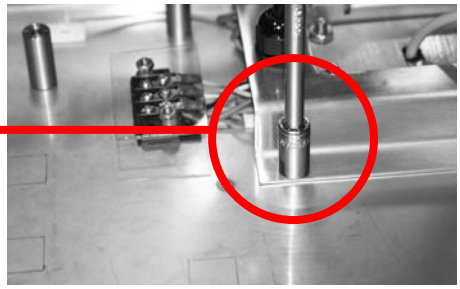


Figure 5-10. Secure Heater to Enclosure Bottom

9. Take the wire harness and match up the colors on the terminal strip block and the wire harness.

Figure 5-11. Color Match Wire Harness and Terminal Strip Wires

10. Connect the wire harness to the terminal strip block as shown.

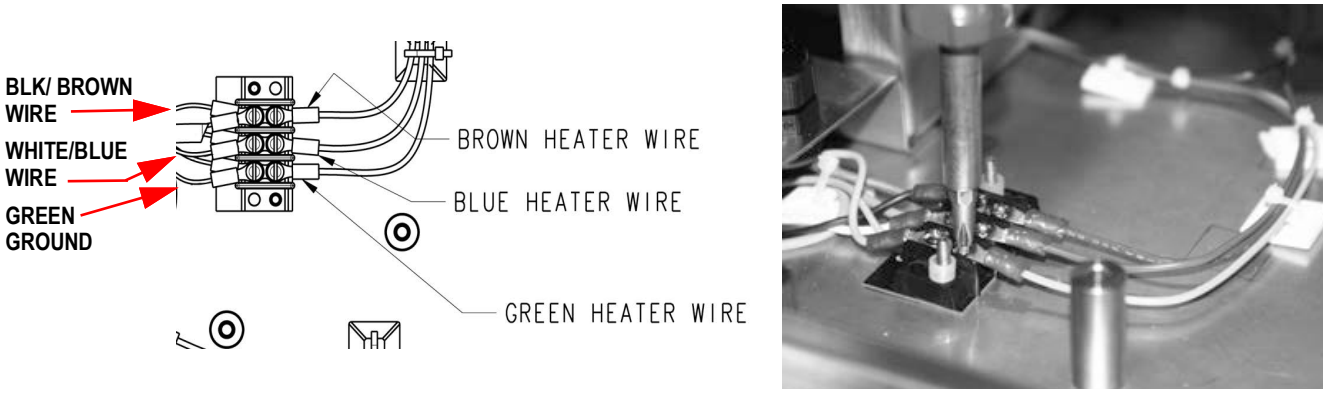


Figure 5-12. Connect Wiring Harness to Terminal Strip

11. Making sure the plastic spacers are in place, put the clear plastic terminal strip cover on top of the terminal strip and using the 5/16" socket, tighten the two nuts. This should be done by hand to snug the nuts. Over tightening can crack the clear plastic cover.

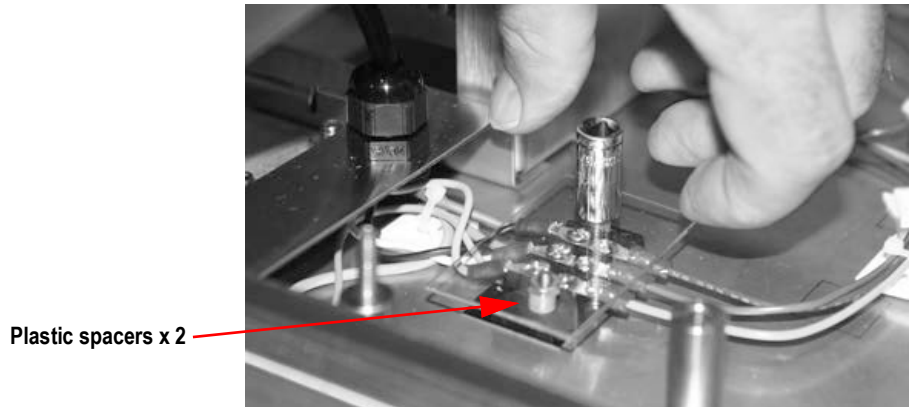


Figure 5-13. Replace Clear Plastic Cover and Gently Tighten

12. Gently peel off adhesive backing from the three square cable ties. The location of placement of the square cable ties are noted on the bottom of the enclosure. Press the square cable ties firmly onto the enclosure bottom where noted.

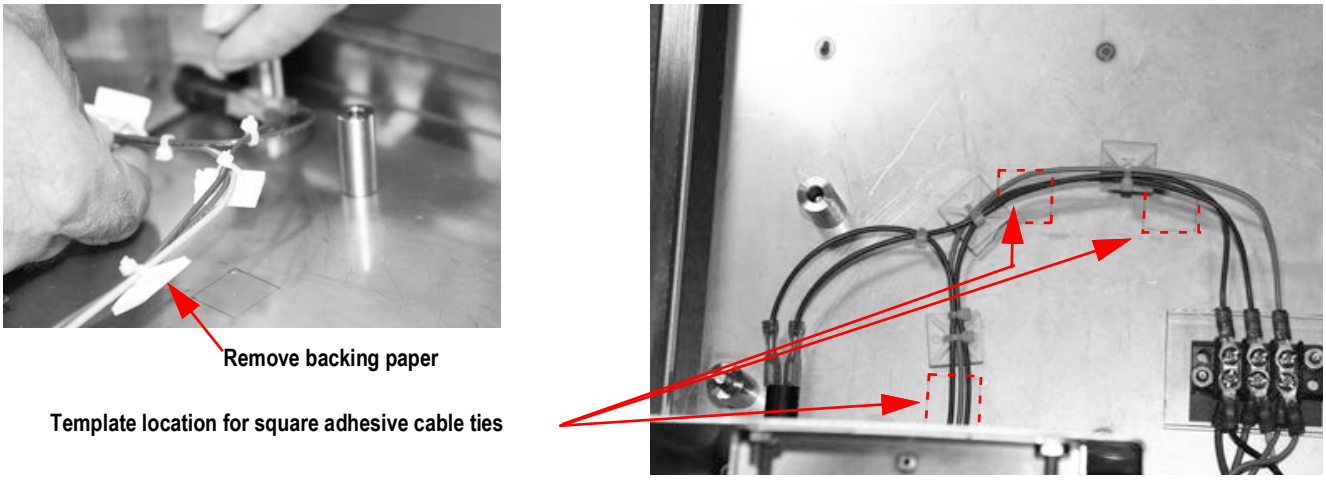


Figure 5-14. Secure Square Adhesive Cable Ties to Enclosure Bottom

13. Set the printer unit back down onto the printer base plate, lining up the four metal studs. Also ensure the ribbon cable at the front of the printer is also out of the way when placing the printer back into the enclosure. Note the ground wire location leading to the front of the enclosure. The wires should run between the side of the enclosure and the metal standoff. This will eliminate the risk of wires being pinched.

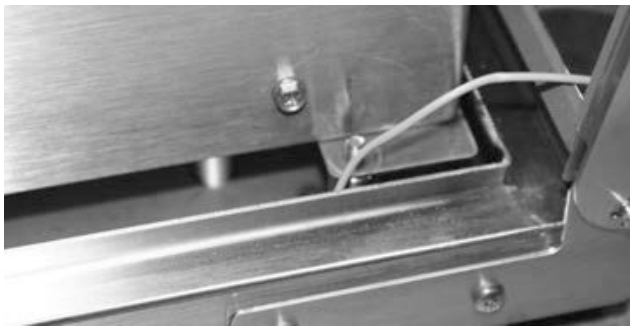


Figure 5-15. Don't Pinch Ground Wire

14. Secure the printer pad to the enclosure bottom by securing four nuts and tightening using a 3/8" socket.

Figure 5-16. Secure All Four Nuts Holding Printer Pad to Enclosure Bottom

15. Re-attach the ribbon cable located at the front of the unit.

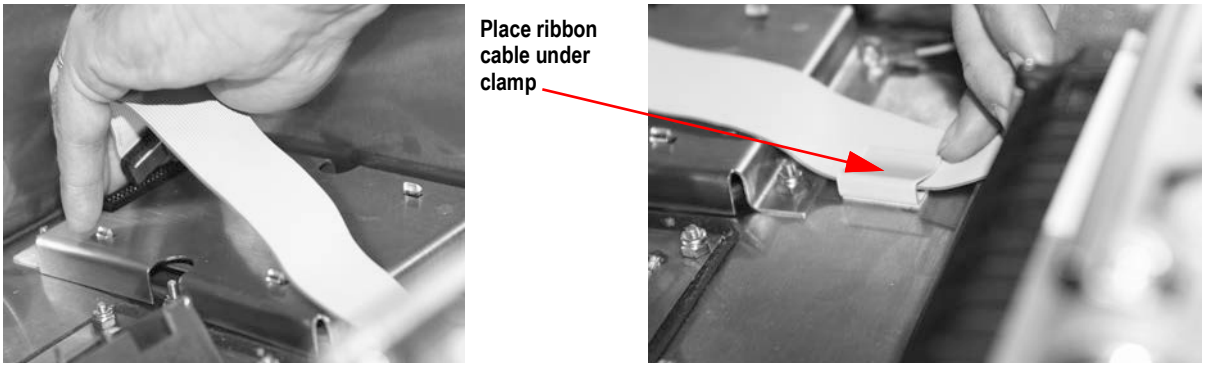


Figure 5-17. Re-Attach Ribbon Cable

16. Re-attach any other cables.

5.1.1 Heater Fuse Replacement

The Hoffman heater has a fuse that could possibly need replacing. Use the following steps to replace the fuse.

1. Using a slotted screwdriver, push against the fuse holder cover and turn at the same time. This will dislodge the fuse from the receptacle.

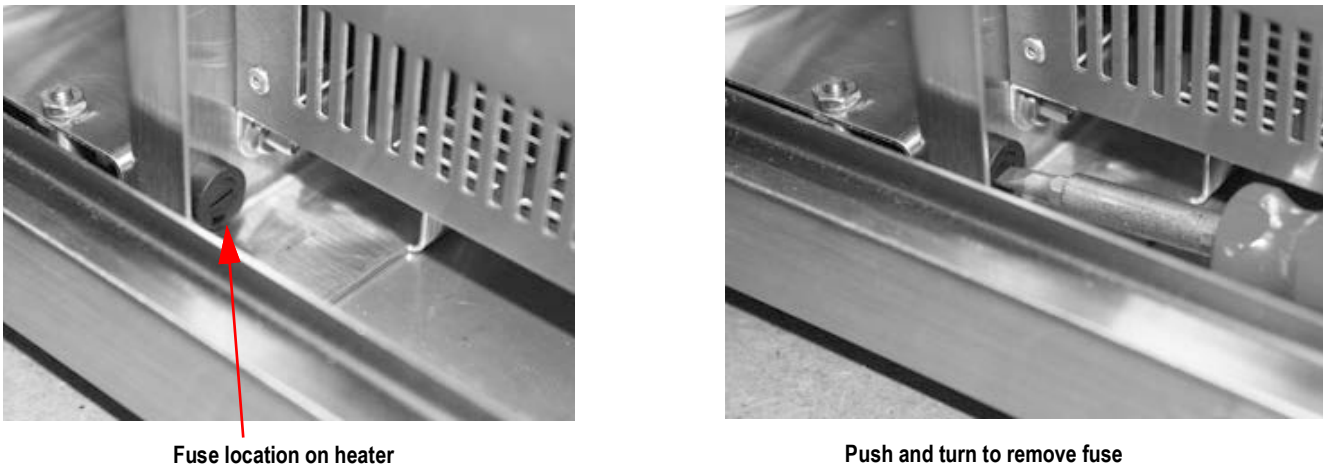


Figure 5-18. Push and Turn Fuse Receptacle to Remove

2. Pull the actual fuse from the receptacle and replace with a new fuse.

Figure 5-19. Remove Actual Fuse From the Receptacle and Replace with a New Fuse

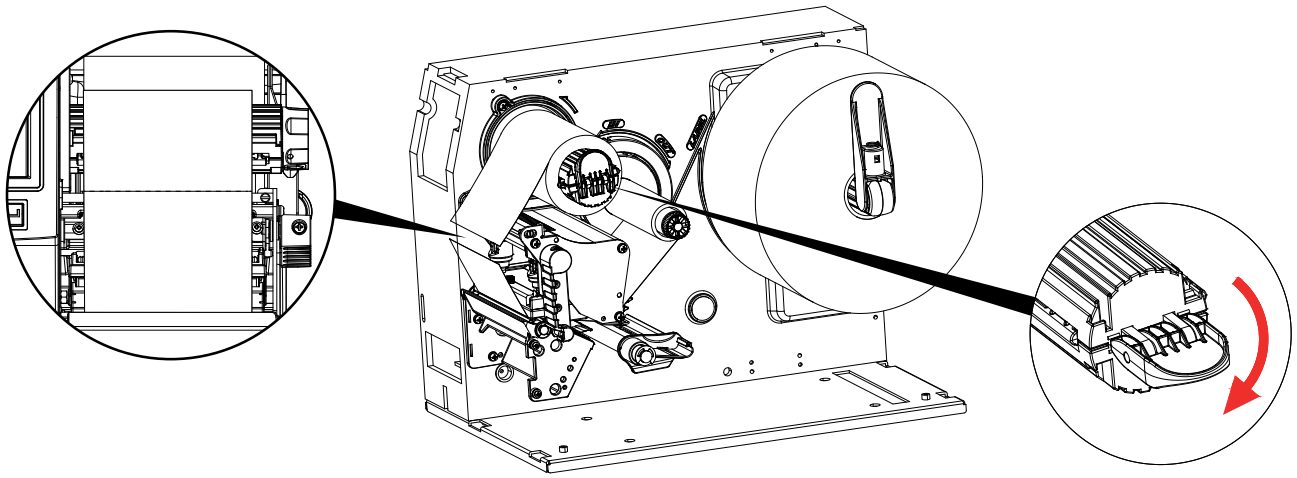
3. Reverse the removal steps to re-install the fuse holder cover.

5.2 Internal Rewind Option

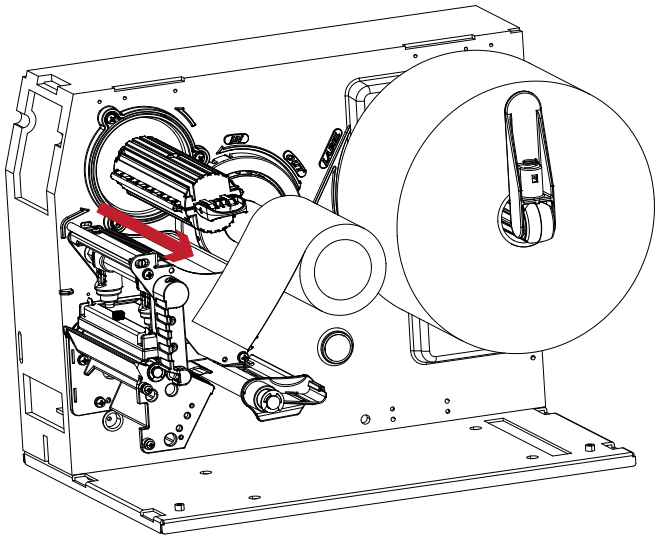
Use the following procedures for the internal rewind option on the printer.

5.2.1 Ribbon Rewind Roll Removal

1. Use tool to cut the ribbon.

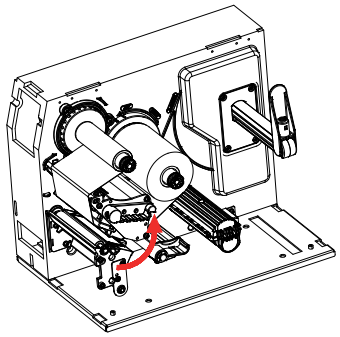


2. Pull open the knob, ribbon could be easy to remove.



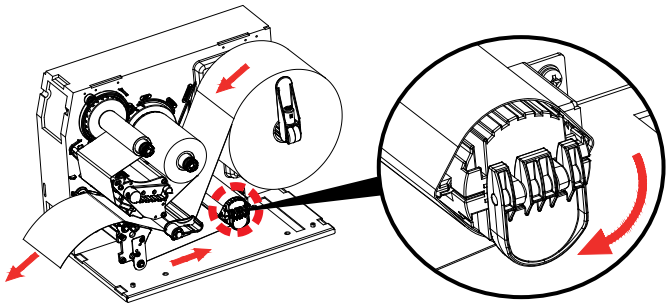
5.2.2 Liner Rewind Operation

1. Open TPH rotary arm.

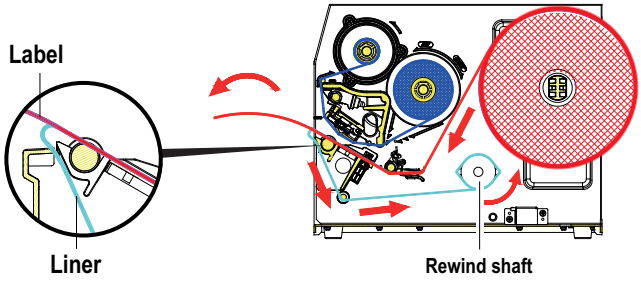


2. Install the label roll.

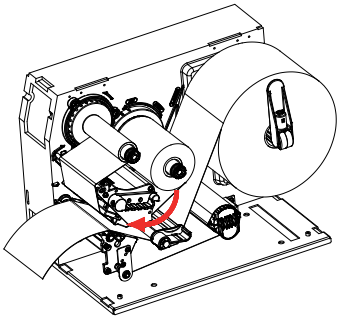
NOTE: Check whether the rewinder knob is in the closed position.



3. Pull the liner back to rewinder shaft and rotate it 2~3 circles.



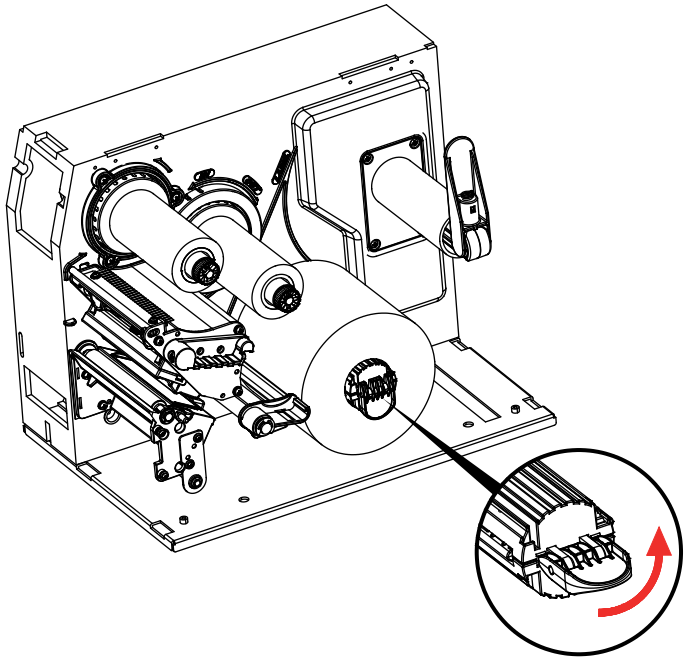
4. Close TPH rotary arm. The printer is ready to print.



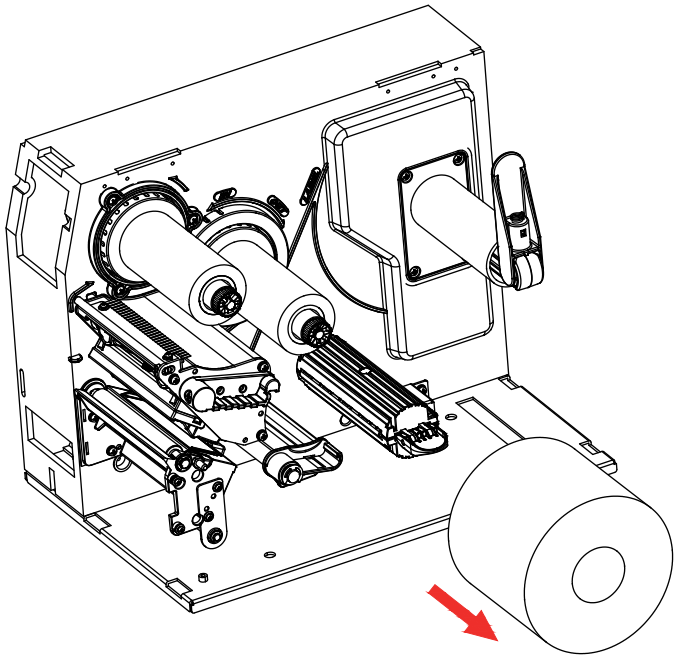
NOTE: With the rewind installed, set the stop position in GoLabel (E value) and Driver to 6. Liner rewind can be operated without setting GoLabel and Driver.

5.2.3 Liner Rewind Roll Removal

1. Have the rewinder knob in the straight position.



2. Pull the liner roll out.



NOTE: The rewind is applied to liner only. Do not use it with other printed labels.
If any adhesion is left on the label dispenser cover, please clean it with soft fabric and denatured alcohol.

5.3 Wireless Antenna Kit

Use the following procedure to install the wireless antenna option on the Printer.

This kit contains the following items:

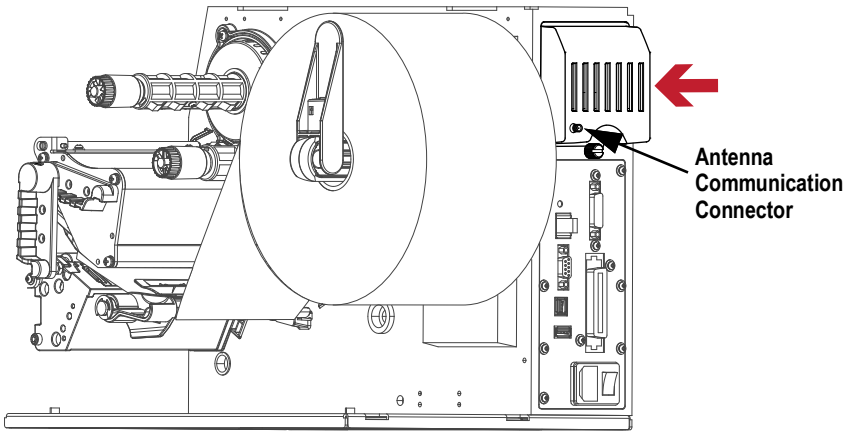
- Antenna
- Attachment Mount and Hardware
- Communication Cable

The following list of tools is required to install the wireless antenna option:

- #2 Phillips head screwdriver
- 7/16-inch Socket
- 9/32-inch Socket

5.3.1 Prepare the Printer

1. Touch a bare metal part of the printer frame to dissipate any static electricity that may be present.
2. Turn the printer off and unplug the power cable from the power outlet.
3. Unlatch the hinges.
4. Swing open the enclosure cover towards the front of the unit, using the back transportation handle.
5. See Section 4.2 on page 49 to install the Wi-Fi module, if not already installed.



5.3.2 Install the Antenna

1. Using a 7/16” socket, remove the four nuts holding the communications cable plate in place. Take care in removing the nuts as they could slip and fall down between the plate and the printer enclosure. Set the nuts aside.

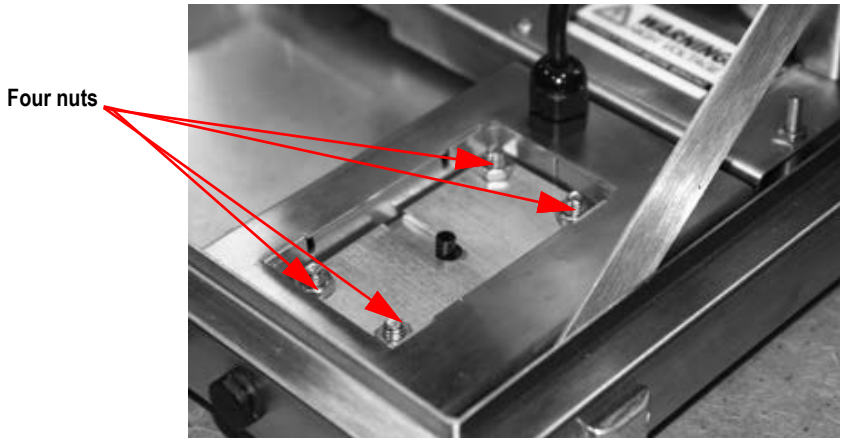


Figure 5-20. Communications Cable Assembly in the Printer Enclosure

2. Pull the enclosure forward so that it hangs slightly off of table edge to allow access to the bottom access hole.
3. Remove communications cable plates by pushing with fingers up through the bottom access hole from the underside to dislodge the communications cable plates. Catch bolts if they fall through. Set aside.

Figure 5-21. Remove the Component Parts of the Communications Cable Assembly

4. The communications cable plate is made up of several individual pieces.

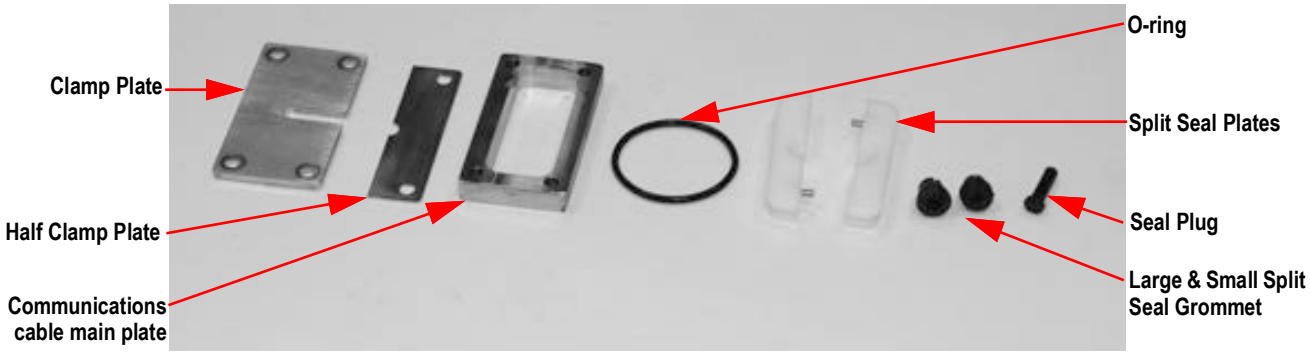


Figure 5-22. Component Pieces

5. Remove the four bolts from the printer case. These bolts can be saved or discarded.

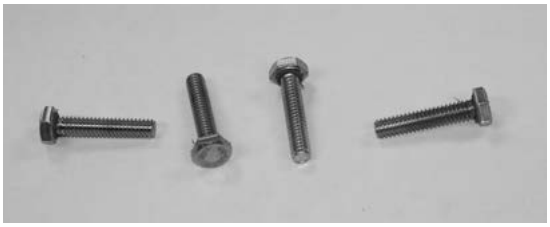


Figure 5-23. Four Bolts Removed

6. Loosen four screws on antenna assembly so the four bolts attached are loose and flexible yet attached to the plate.

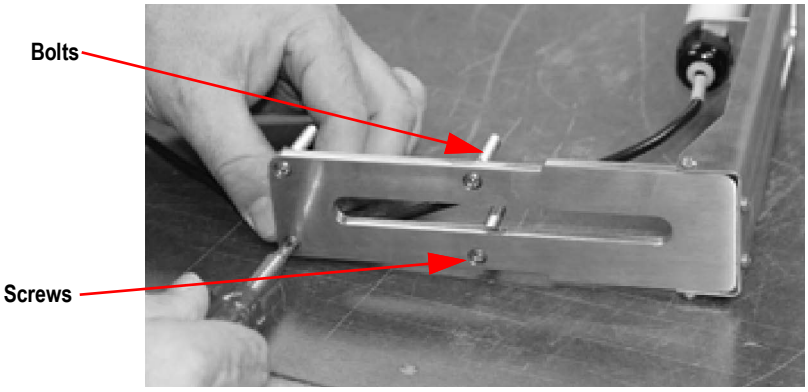


Figure 5-24. Loosen Four Screws on Bottom of Antenna Assembly

7. Insert four loosened bolts on antenna kit through the printer base, along with cable through the opening in the base.

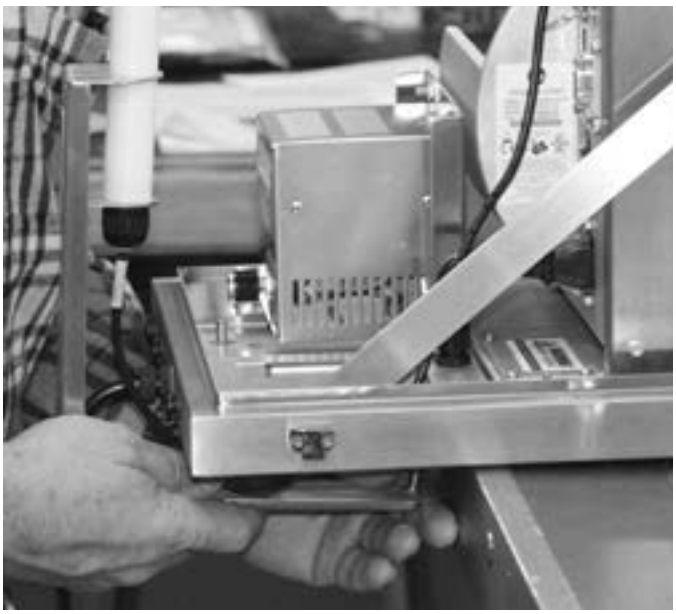


Figure 5-25. Installing Antenna Kit Bolts and Cable Through Printer Base

8. Ensure the rubber gasket is seated properly around the bolts in the printer enclosure.

Figure 5-26. Press Down Rubber Gasket Around Bolts

9. Set the main plate over the four studs with recesses around the four holes located downward and press down.

NOTE: Ensure that the communications cable main plate is oriented so that the tapered side is facing up. An easy way to tell if the main plate is oriented correctly is to note that the four holes on the main plate have counter bores which should face down. Refer to Figure 5-27.

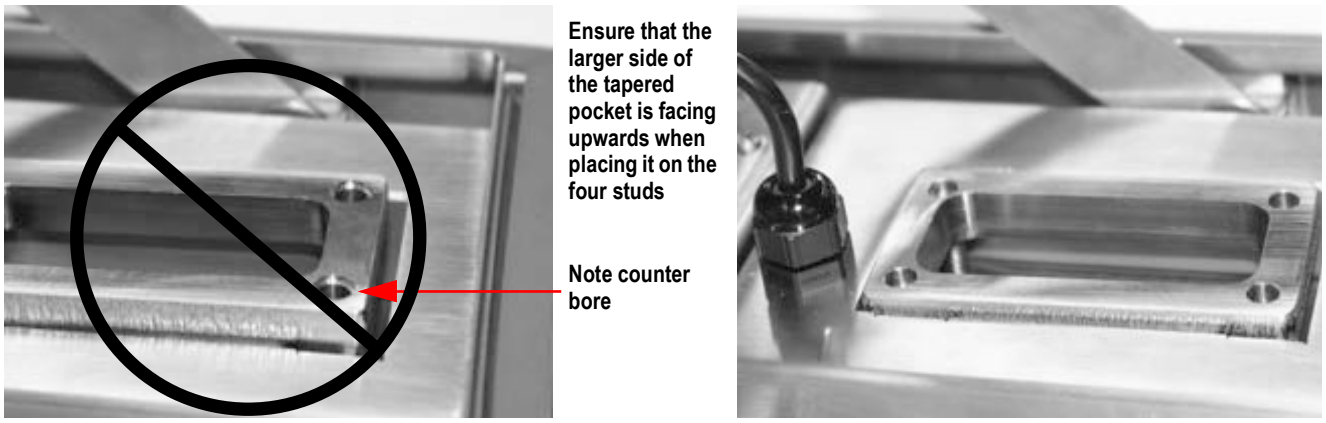


Figure 5-27. Incorrect and Correct Orientation of Main Plate

10. Push the entire enclosure unit back onto the table or other sturdy work surface.
11. Assemble the split seal plates back together with the cable in between (Figure 5-28, left image).

NOTE: Run finger across the split seal plates to ensure there is no dirt or oil on the surface prior to joining the two surfaces together. Make sure the larger diameter hole side is facing upwards when putting the two pieces together.

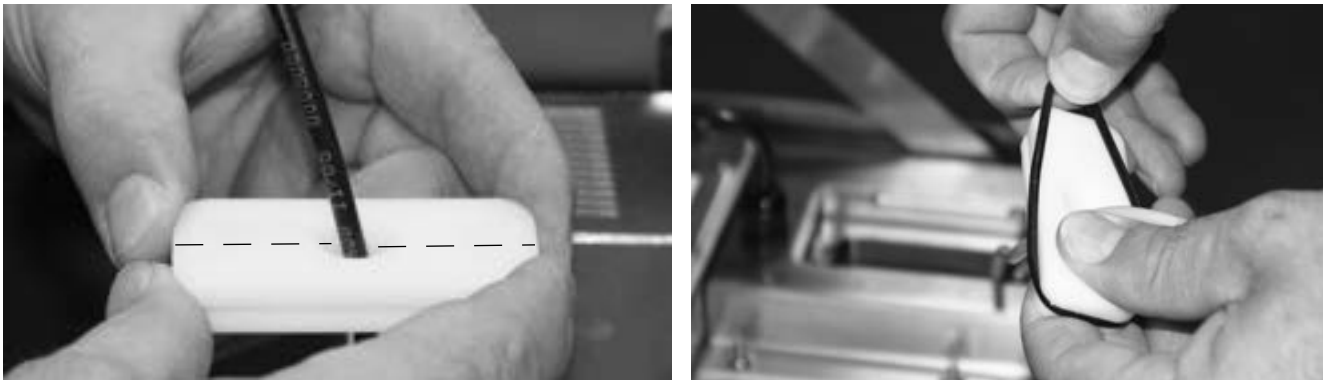


Figure 5-28. Assemble The Split Seal Plates Together

12. Place the O-ring over the cable end and into the groove around the split seal plates. This will hold the plates together and also offer a watertight barrier.
13. Connect the communications plug to the antenna communication connector on the Wi-Fi module.
14. Carefully push the whole split seal assembly down into the printer enclosure as shown below.

Figure 5-29. Seat the Split Seal Assembly

15. Wrap a small hole grommet that is included with the printer around the cable with the small end of the grommet pointing downwards. Orient the grommet split to a position that is 90 degrees to the split in the split seal insert. Press the grommet into the tapered hole in the split seal insert. At this time, position the cable as shown below. See Figure 5-30.

Make certain slack is present as shown in picture to allow sealing of cable to print case

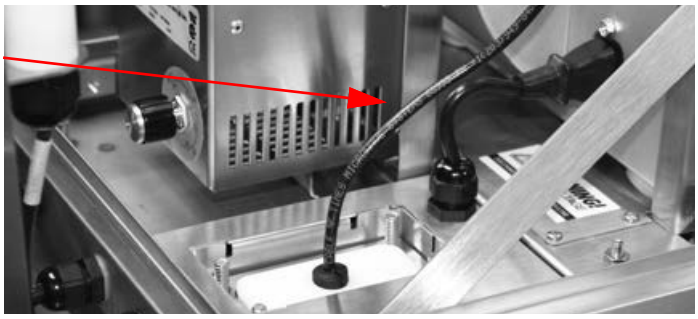


Figure 5-30. Insert Split Grommet Onto the Split Seal Plates

16. Place the half clamp plate onto the studs, then place the clamp plate onto the studs with the step facing down and the half plate nesting in the step of the clamp plate.

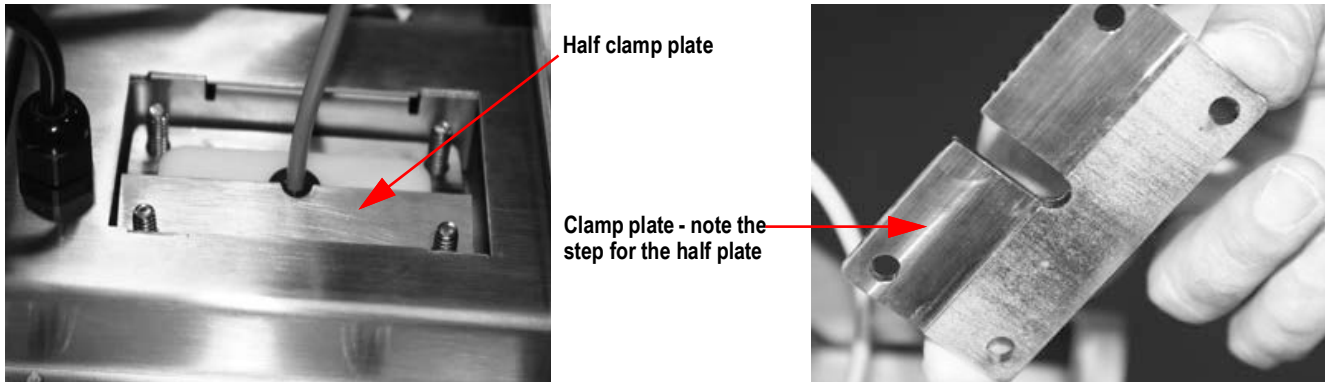


Figure 5-31. Place Half Clamp Down on Assembly

17. Press the assembly down and partially tighten the four nuts that hold the entire assembly in place. Once all the nuts are started, tighten the nuts in a diagonal sequence until all the nuts are tight using a 7/16" socket and torque wrench. Tighten to 30 in/lb torque.

Figure 5-32. Tighten Up The Entire Assembly

18. When tightening plates make certain to allow enough slack in cable.

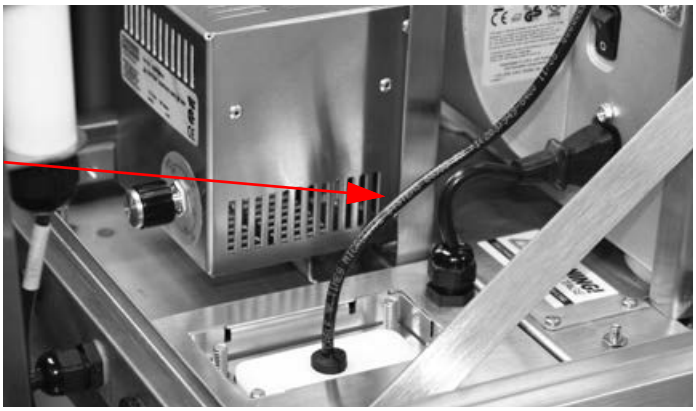


Figure 5-33. Keep Proper Amount of Slack in Cable

19. Close and latch printer cover.
20. Turn printer case on side to expose four mounting screws on bottom.

21. Tighten four screws with Phillips screwdriver.

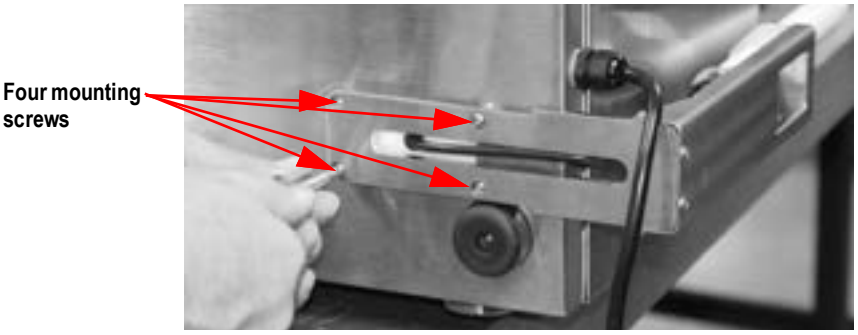


Figure 5-34. Tighten Four Mounting Screws

22. Set printer on feet again.

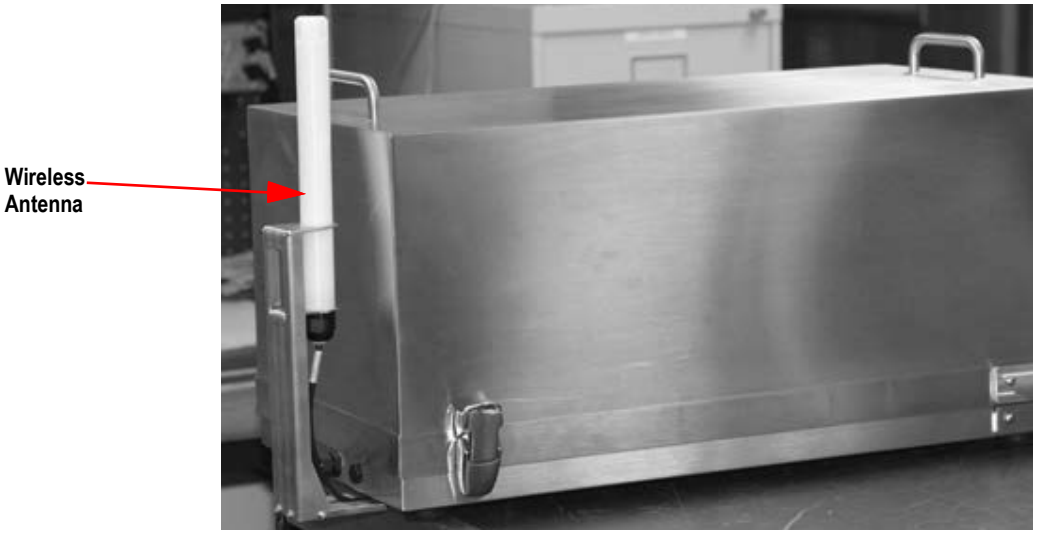


Figure 5-35. Installed Wireless Antenna

23. Plug printer back in. Open cover and turn on power.

After printer display shows it is ready, configure printer and devices to communicate with each other per the instructions provided in Section 4.0 on page 40.

6.0 Maintenance

6.1 Washdown Procedure

WARNING: The following instructions must be followed explicitly. Failure to follow these instructions will result in damage to the contents inside enclosure and/or create a hazardous condition.

This section describes the general procedure for washdown applications.

1. Unplug power to the printer.
2. Securely latch the main latches on the side of the enclosure.

Figure 6-1. Secure Main Latches

3. Ensure that the label presentation chute cover is securely closed. The label cover tab will be tightened securely against retaining washer and mounting block.

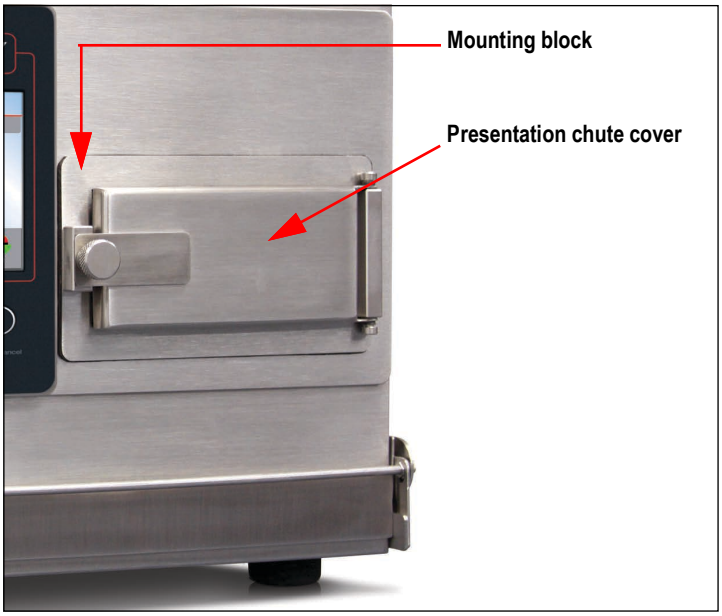


Figure 6-2. Presentation Chute Location

4. Perform washdown.
5. Dry the outside of the enclosure thoroughly before opening.
6. Open the label presentation chute cover first to relieve any pressure or vacuum that might be present.
7. Plug the printer back in after the washdown procedure is completed, making sure that the power plug is completely dry after washdown before inserting into a GFI rated outlet.

6.2 General Cleaning

During normal operation, media debris may accumulate around the printer mechanism inside the printer. This debris should be removed regularly using a soft bristle brush and/or vacuum cleaner.

6.3 Cleaning the Printhead

Foreign particles can collect on the printhead, causing characters or bar codes to appear light or faded. This type of problem is evidenced by a continuous light streak which appears in the same physical position on each printed line. This condition should only appear after extensive printer operation or if poor quality paper has been used. It is recommended that Rice Lake Weighing Systems-supplied labels are used to obtain continuous high quality printing.

Recommended printhead cleaning intervals:

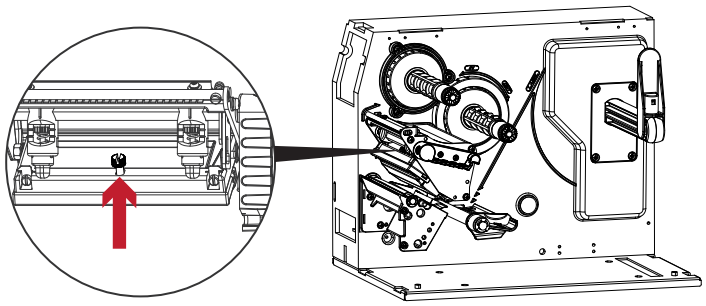
- Due to abrasion and foreign particle deposits, direct thermal printheads should be cleaned every 50,000 linear inches (approximately eight rolls of labels) (12700m).
- Thermal transfer printheads should be cleaned at least every 250,000 linear inches (approximately 40 rolls of labels).

Printhead cleaning procedure:

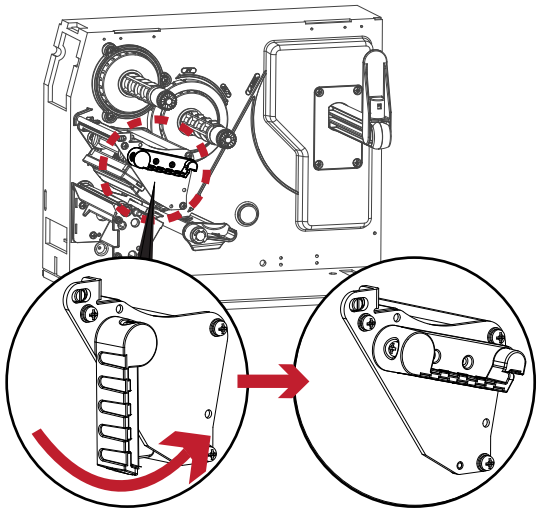
1. Unplug printer from the power outlet.
2. Open cover. Unlock and open printhead.
3. Gently wipe underside of printhead burn-line area using a cotton swab moistened (not soaked) with isopropyl alcohol.
4. Allow to dry.
5. Lock and close the printhead.
6. Close cover.
7. Plug in and turn on printer.

6.4 Print Line Adjustment

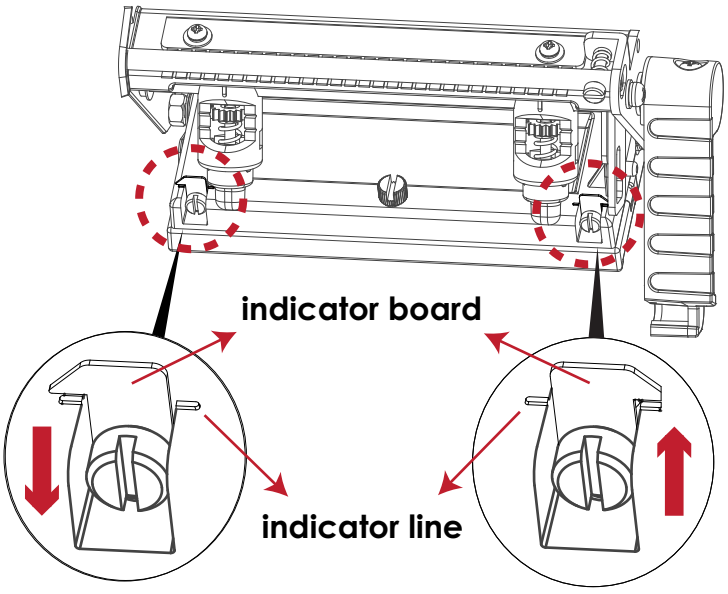
1. Use a screwdriver to loosen the screw to take out the TPH module.



2. Turn the printhead release lever counterclockwise to the top right position.



3. If no improvement is visible, turn the screws clockwise or counterclockwise as far as possible and be sure to align with the indicator board and indicator line. Repeat the adjustment process until printing quality has improved.



6.5 Ribbon Tension Adjustment

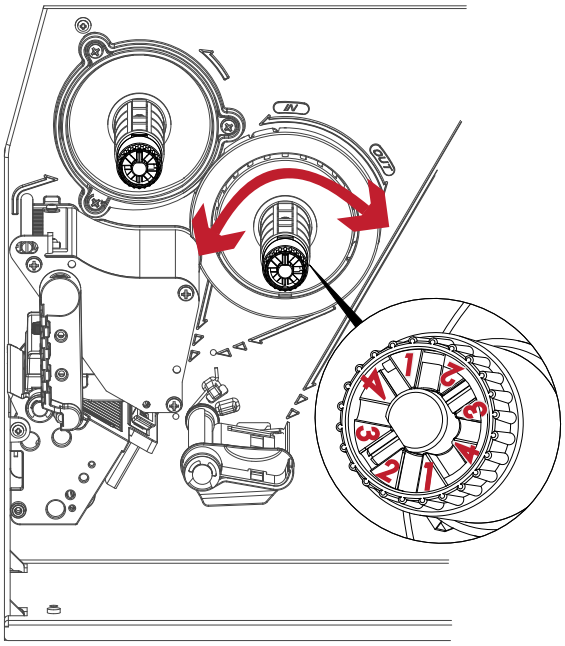
The ribbon tension can be adjusted by turning the ribbon shaft knob clockwise or counterclockwise. There are four possible settings, which are marked on the ribbon supply hub.

- 1 – Tension is the highest
- 4 – Tension is the lowest

If the tension is so low that the ribbon does not move forward, reduce the tension of the ribbon supply hub. To set the tension, press in the knob and turn it clockwise or counterclockwise as required.

Increasing the tension of the ribbon rewind hub will remove any wrinkling of the ribbon during printing, which results from the use of different ribbon materials. (For details about the wrinkling/creasing of ribbons, see Section 6.8 on page 79)

If using a very narrow ribbon, the printer may not move the label stock forward (particularly with a ribbon that is less than 2 inches wide). In that case, reduce the tension by turning the knob of the ribbon supply hub counterclockwise.

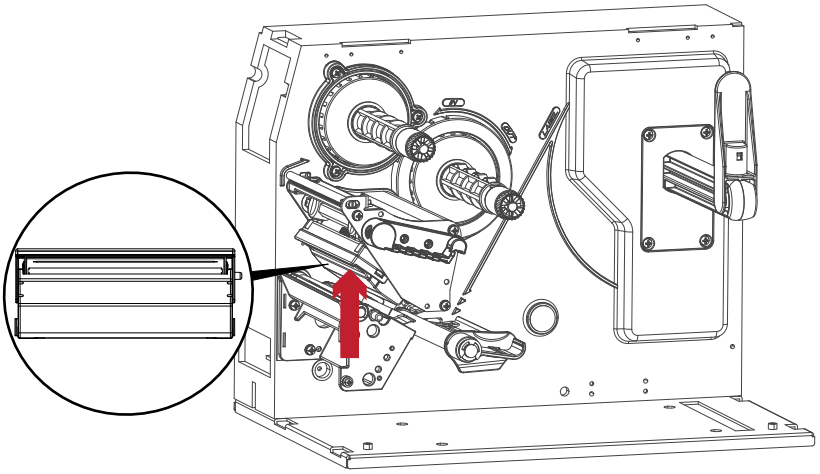


6.6 Thermal Printhead Cleaning

Dirt on the printhead or ribbon may result in inadequate print quality (there are only partial images on the label). The printer cover should therefore be kept closed when possible.

Keeping dirt and dust away from the paper or labels ensures a good print quality and a longer lifespan of the printhead. Here is how to clean the printhead:

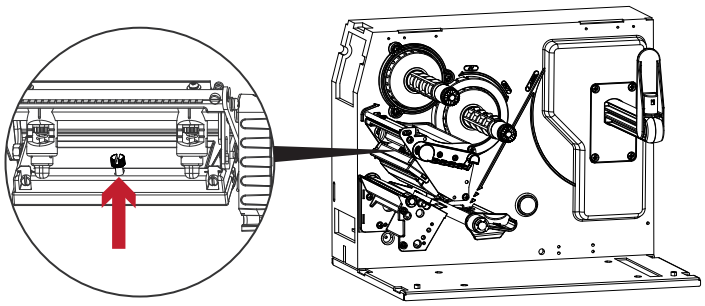
1. Switch off the printer.
2. Open the printer cover.
3. Remove the ribbon.
4. Release the printhead by turning the printhead release lever.
5. To remove any label residue or other dirt from the printhead, please use a soft lint-free cloth dipped in alcohol to wipe.



NOTE: The printhead should be cleaned once a week. Please make sure that there are not metal fragments or other hard particles on the soft cloth used to clean the printhead.

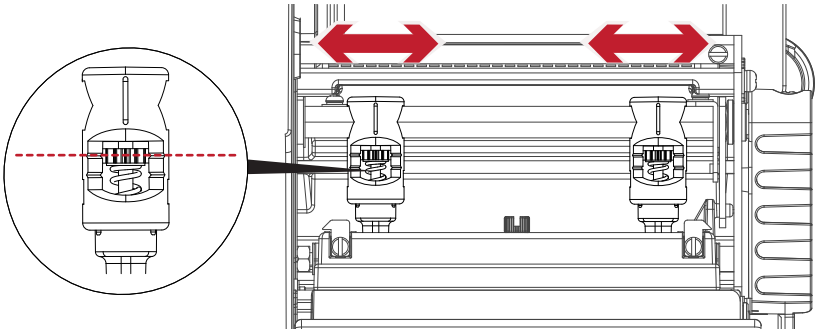
6.7 Balance and Printhead Tension Adjustment

1. Use a screwdriver to loosen the screw to take out the TPH module.

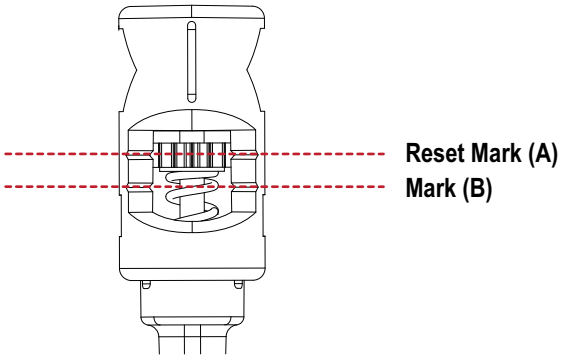


2. When using a variety of label stock and ribbons, the ink may not be evenly distributed. If there is no printed image on one side of the paper, or the ribbon wrinkles, the printhead pressure must be readjusted using the TPH spring boxes.

   Move the TPH spring boxes as shown in the illustration to change the printhead pressure. The wider the label being used, the further apart the TPH spring boxes must be moved away from each other. If there is no quality improvement, change the pressure on the TPH spring boxes.



3. Turning the screw left increases the pressure, while turning it right reduces the pressure. Mark (B), be sure not to turn the screw so that it goes below Mark (B).



6.8 Ribbon Shield Settings

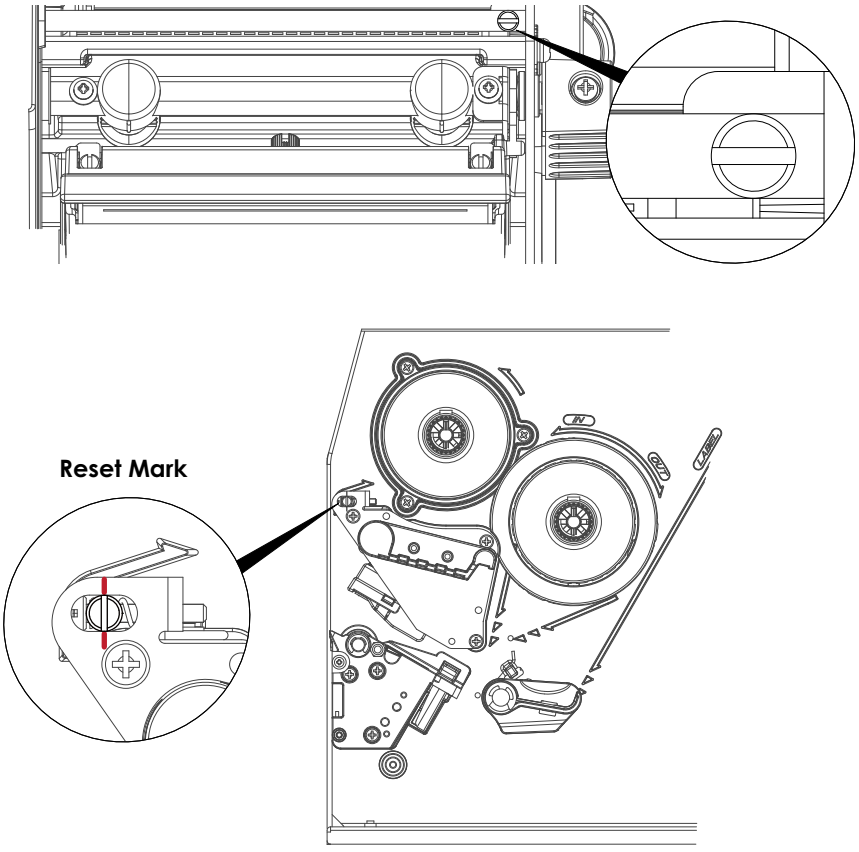
The use of different ribbon materials may cause wrinkling of the ribbon, which in turn affects the print result as illustrated by the examples in (a) and (b). To change the print quality, adjust the ribbon shield screws.

If the print result looks like the example in (a), turn ribbon shield screw clockwise.

If the print result looks like the example in (b), turn ribbon shield screw counterclockwise.

(a) (b)

To keep track of the change in print quality, adjust the screws by half a turn at a time. Print a test page. If there is no improvement in the print result, turn the screw by another half turn. Do not turn the adjustment screw more than two full turns(360°).



NOTE: If the screw is adjusted by more than two full turns, the paper feed may no longer function correctly. In that case, unscrew the ribbon shield screws to align the reset mark and restart the adjustment process.

6.9 Troubleshooting

Issue	Solution
The printer is switched on but the LED does not light up.	• Check the power supply. Please see the Section 1.4 on page 9
The LED lights up red and printing is interrupted.	• Check the software settings (driver settings) or command codes. • Look for the error alert in the table in Section 6.10 on page 81 Error Alerts. • Check whether the print mechanism is closed correctly. Please see the Section 6.10 on page 81
The label stock passes through the printer but no image is printed.	• Please make sure that the label stock is loaded the right side up and that it is the suitable mate rial. • Choose the correct printer driver. • Choose the correct label stock and a suitable printing mode.
The label stock jams during printing.	• Clear the paper jam. Remove any label material left on the thermal printhead and clean the printhead using a soft lint-free cloth dipped in alcohol. Please see the Section 6.4 on page 75
There is no printed image on some parts of the label.	• Check whether there is any label material or ribbon stuck to the thermal printhead. • Check for errors in the application software. • Check whether the starting position has been set correctly. • Check the ribbon for wrinkles.
There is no printed image on part of the label or the image is blurred.	• Check the thermal printhead for dust or other dirt. • Use the internal “~T” command to check whether the thermal printhead will carry out a complete print job. • Check the quality of the print medium.
The printed image is positioned incorrectly.	• Check whether there is paper or dust covering the sensor. • Check whether the label stock is suitable. Contact supplier. • Check the paper guide settings.
Skipping labels during printing.	• Check the label height setting. • Check whether there is dust covering the sensor. • Run the auto-detection function. Please see the Section 3.2 on page 29
The printed image is blurred.	• Check the darkness setting. • Check the thermal printhead for dust or dirt. Please see the Section 6.4 on page 75
The label dispenser is not functioning normally.	• Check whether there is dust on the label dispenser. • Check whether the label stock is positioned correctly.

Table 6-1. Troubleshooting

NOTE: If any problems occur that are not described above, please contact dealer.

6.10 Error Alerts

In the event of a problem that prevents normal functioning of the printer, an error message on LCD screen displays and a beep signal is heard. Please refer to the below table for possible error alerts.

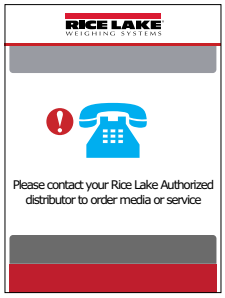
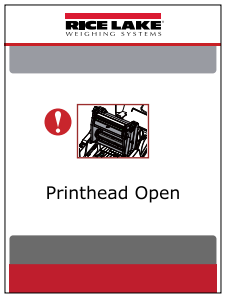
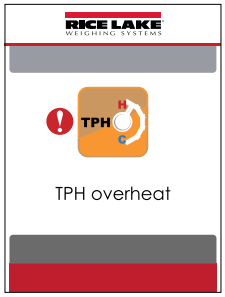
Operation Panel	Status	Beeps	Description	Solution
	General Error Message	None	Alternates on the display with a specific error message.	Resolve the specific error.
	Printhead Error	2 x 4 beeps	The printing mechanism is not correctly closed.	Open the print mechanism and close it again.
	Printhead Error	None	High temperature at the printhead.	Once the printhead has cooled down, the printer switches to standby mode.
	Media Error	2 x 3 beeps	No ribbon is installed and the printer displays an error.	Make sure that the printer is set to direct thermal printing mode.
			The ribbon is finished or the label supply hub is not moving.	Replace the ribbon roll.

Table 6-2. Error Alerts

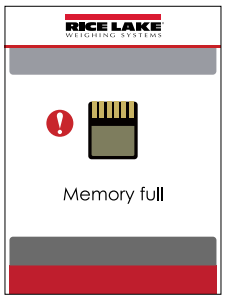
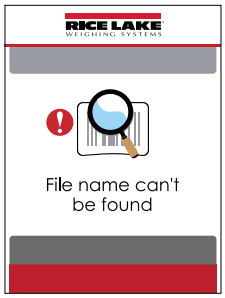
Operation Panel	Status	Beeps	Description	Solution
	Media Error	2 x 2 beeps	No paper is detected.	Make sure that the label sensor is positioned correctly. If the sensor still does not detect the paper, run the auto-detection function again.
			Paper is finished.	Replace the label roll.
			Printer feed problem.	Possible reasons: the print medium has become trapped around the rubber roll; the sensor cannot detect a gap or black mark between the labels; there is no paper. Please reset the sensor.
	File Error	2 x 2 beeps	The memory is full. The printer prints the message “File System full”.	Delete unnecessary data or install additional memory.
			Unable to find file. The printer prints the message “File Name not found”.	Use the “~X4” command to print all files. Then check whether the files exist and whether the names are correct.
			A file of the same name already exists. The printer prints the message “Duplicate Name”.	Change the name of the file and try storing it again.

Table 6-2. Error Alerts (Continued)

7.0 Replacement Parts

Part No.	Description
209136	Board, main
209137	Power supply
209107	Printhead, 203 DPI
Consult	Upper platen roller kit
209138	Display
108717	Gasket, label presentation
108894	Gasket, latch mount
Consult	3/1.5 inch media supply hub
Consult	Stepper motor

Part No.	Description
209138	Display, front panel
109636	Ribbon cable 26 inch
88733	Breather vent
88734	Nut, breather vent M12x1
209082	Internal Printer
209083	Internal Printer with Wi-Fi Module
209084	Internal Printer with Internal Rewind
209085	Internal Printer with Wi-Fi Module and Internal Rewind

Table 7-1. Replacement Parts

7.1 Printhead

The SST4 uses a thin film printhead that dissipates heat faster than thick film, providing a longer head life. Printhead warranty is 1,000,000 linear inches (when used with direct thermal labels or 2,000,000 inches in the thermal transfer mode (with ribbons). See Section 7.4 on page 84 for printhead module replacement.

7.2 Mean Time to Repair (MTTR)

Estimated MTTR the printer is less than 15 minutes. A number of factors contribute to the ease of service. Primarily, all electronics including the power supply are located on a single plug-in circuit board. Most electronic problems can be isolated and repaired with a simple board swap.

The printhead is also designed for easy replacement. One mounting screw and two locator pins eliminate the mechanical head adjustments required of other thermal label printers.

7.3 CPU Board Replacement

Removal:

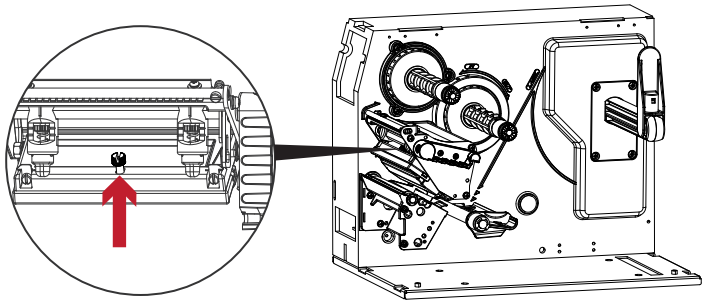
1. Touch a bare metal part of the printer frame to dissipate any static electricity that may be present.
2. Turn the printer off and unplug from the outlet.
3. Unlatch the enclosure hinges.
4. Unplug all cables that connect to the CPU board. It is recommended to take a picture or label all connections before disconnecting them for ease of re-installation.
5. Unscrew the screws that attach the CPU board to the printer frame and slide the CPU board out.

Replacement:

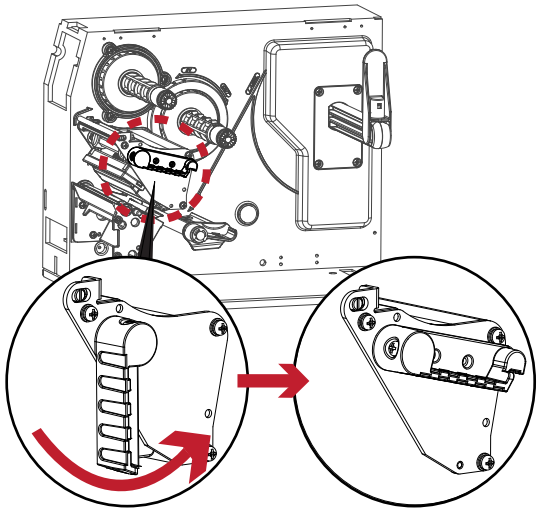
1. Slide new CPU board into the enclosure.
2. Use screws to attach board to enclosure.
3. Reconnect all ribbon cables and connectors. All connectors and cables are marked to corresponding board placement.

7.4 Printhead Module Replacement

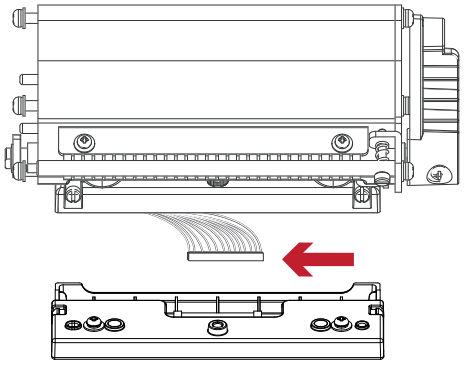
1. Use a screwdriver to loosen the screw to take out the TPH module.



2. Turn the printhead release lever counterclockwise to the top right position.



3. Hold the printhead module, pull out the TPH cable smoothly.



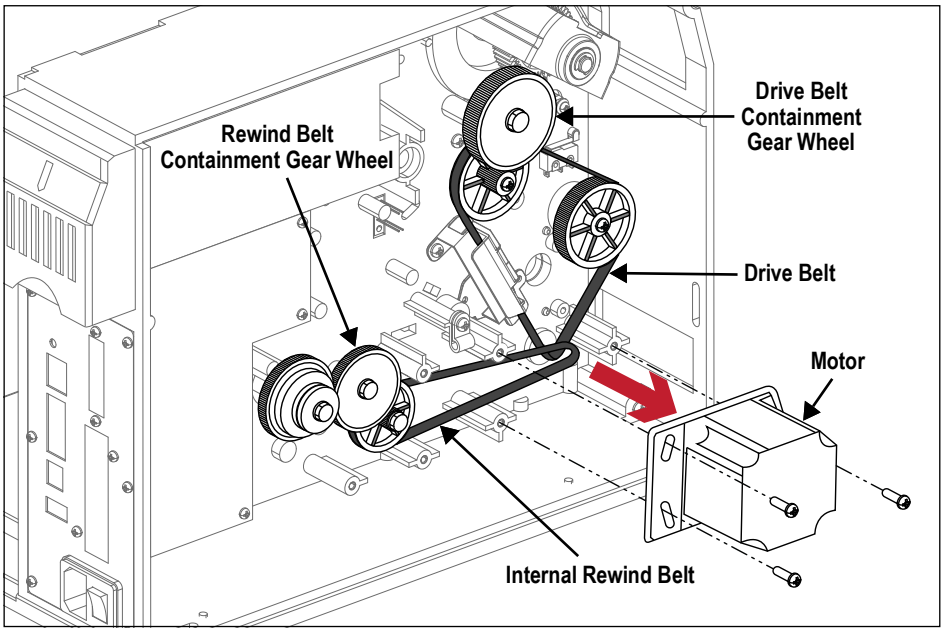
4. Reverse order of previous steps to install TPH module.

NOTE: Remember to switch off the printer before removing the printhead module.

7.5 Belt Replacement

Follow this procedure for replacement of the drive belt or the internal rewind belt.

1. Disconnect power to the printer.
2. Remove the three screws attaching the motor to the printer frame using a Phillips head screwdriver.



3. Remove the belt containment gear wheel, of the belt being replaced, using a 10 mm socket or wrench.
4. Replace the defective belt with a new belt.

NOTE: To replace the drive belt, the Label1 and Label2 connectors on the main board need to be disconnected and routed through the new belt, since the other ends of the label wires travel inside of the drive belt.

5. Reattach the belt containment gear wheel.
6. Move the motor into position, making sure the drive belt is positioned on the motor gear wheel closest to the printer frame and the internal rewind belt is positioned on the motor gear wheel closest to the motor.
7. Start reinstalling the motor by first securing the right motor screw.

IMPORTANT: Do not pinch any of the printer wires when reinstalling the motor.

8. Loosely attach the left two motor screws.
9. Press down slightly on the motor to remove any slack from the drive belt. Do not over tension the belt.
10. Finish screwing in the left two motor screws.

8.0 Specifications

Spec		Description
Print Method		Thermal Transfer / Direct Thermal
Resolution		203 dpi (8 dots/mm)
Print Speed		Up to 10 IPS (254 mm/s)
Print Width		4.09 in (104 mm) Up to (108 mm)
Print Length		Minimum 0.16 in (4 mm) – Maximum 180 in (4572 mm)
Processor		32 bit RISC CPU
Memory	Flash	128 MB Flash (60 MB for user storage)
	SDRAM	32 MB
Sensor Type		Adjustable reflective sensor and transmissive sensor, left aligned
Media	Type	Continuous form, gap labels, black mark sensing, and punched hole; label length set by auto sensing or programming
	Width	Tear: Minimum 1 in (25.4 mm) – Maximum 4.64 in (118 mm) Dispenser / Rewind: Maximum 4.64 in (118 mm)
	Thickness	Minimum 0.003 in (0.06 mm) – Maximum 0.01 in (0.25 mm)
	Label roll diameter	Maximum 8 in (203.2 mm)
	Core diameter	Minimum 1.5 in (38.1 mm) – Maximum 3 in (76.2 mm)
Ribbon	Types	Wax, wax/resin, resin
	Length	Maximum 1476 ft (450 m)
	Width	Minimum 1.18 in (30 mm) – Maximum 4.33 in (110 mm)
	Ribbon roll diameter	3 in (76.2 mm)
	Core diameter	1 in (25.4 mm)
Printer Language		EZPL, GEPL, GZPL auto switch
Software	Label design software	GoLabel (for EXPL only)
	Driver	MAC, Linux, Windows 2000 / XP / VISTA / Windows 7 / Windows 8.1
	DLL	Win CE, .NET, Windows Mobile, Windows 2000 / XP / VISTA / Windows 7 / Windows 8.1 / Android
Resident Fonts	Bitmap fonts	6, 8, 10, 12, 14, 18, 24, 30, 16X26 and OCR A&B Bitmap fonts 90°, 180°, 270° rotating, single characters 90°, 180°, 270° rotating Bitmap fonts 8 times expandable in horizontal and vertical directions
	TTF fonts	TTF fonts (Bold / Italic / Underline); 0°, 90°, 180°, 270° rotating
Download Fonts	Bitmap fonts	Bitmap fonts 90°, 180°, 270° rotating, single characters 90°, 180°, 270° rotating
	Asian fonts	16x16, 24x24; Traditional Chinese (BIG-5), Simplified Chinese (GB2321), Japanese (S-JIS), Korean (KS-X1001) 90°, 180°, 270° rotating and 8 times expandable in horizontal and vertical directions
	TTF fonts	90°, 180°, 270° rotating
Barcodes	1-D barcodes	Code 39, Code 93, EAN 8/13 (add on 2 & 5), UPC A/E (add on 2 & 5), I 2 of 5 & I 2 of 5 with Shipping Bearer Bars, Codabar, Code 128 (subset A, B, C), EAN 128, RPS 128, UCC 128, UCC/EAN-128 K-Mart, Random Weight, Post NET, ITF 14, China Postal Code, HIBC, MSI, Plessey, Telepen, FIM, GS1 DataBar, German Post Code, Planet 11 & 13 digit, Japanese Postnet, I2 of 5 with human readable check digit, Standard 2 of 5, Industrial 2 of 5, Logmars, Code 11, Code 49, Cadablock
	2-D barcodes	PDF417, Micro PDF417, Datamatrix code, Maxicode, QR code, Micro QR code and Aztec code
NOTE: Minimum print height and maximum print speed specification compliance can be dependent on non variables such as label type, thickness, spacing, liner construction, etc. *Specifications are subject to change without notice. All company and/or product names are trademarks and/or registered trademarks of their respective owners.*		

Table 8-1. Specifications

Spec		Description
Code Pages		Codepage 437, 850, 851, 852, 855, 857, 860, 861, 862, 863, 865, 866, 869, 737 Windows 1250, 1251, 1252, 1253, 1254, 1255, 1257 Unicode UTF8, UTF16BE, UTF16LE
Graphics		Resident graphic file types are BMP and PCX, other graphic formats are downloadable from the software
Interfaces		USB 2.0 (B-Type) Serial port: RS-232 (DB-9) IEEE 802.3 10/100 Base-Tx Ethernet port (RJ-45) 3 USB Host (A type) 2 ports at the front panel, 1 port at the rear panel
Control Panel		Backlight 3.2 in touch screen LCD 1 Power on/off button with green color LED backlgith 1 Control key: FEED / PAUSE / CANCEL with dual color LED backlight: Ready (Green), Error (Red) 1 Calibration button at rear panel
Real Time Clock		Standard
Power		Switching power 100-240 VAC, 50-60 Hz input
Environment	Operation temperature	41° F to 104° F (5° C to 40° C)
	Storage temperature	-4° F to 140° F (-20° C to 60° C)
Humidity	Operation	20–85%, non-condensing
	Storage	10–90%, non-condensing
Agency Approvals		CE (EMC), FCC Class A, CB, UL, cUL, CCC, KC
Dimension	Length	18.30 in (465.0 mm)
	Height	12.13 in (308.2 mm)
	Width	10.65 in (270.7 mm)
Weight		30 lb (13.6 kg), excluding consumables
Options		Wi-Fi print server module (IEEE 802.11 b/g/n) Label dispenser + internal rewinder Printer Heater Kits: 115 VAC (PN 111121) or 230 VAC (111872) Wireless Antenna Kit (PN 114543)
NOTE: Minimum print height and maximum print speed specification compliance can be dependent on non variables such as label type, thickness, spacing, liner construction, etc. *Specifications are subject to change without notice. All company and/or product names are trademarks and/or registered trademarks of their respective owners.*		

Table 8-1. Specifications

RICE LAKE®
WEIGHING SYSTEMS

230 W. Coleman St. • Rice Lake, WI 54868 • USA
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