

Honeywell

PX4ie and PX6ie

High Performance Industrial Printer



User Guide

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Customer Support

Technical Assistance

To search our knowledge base for a solution or to log in to the Technical Support portal and report a problem, go to www.hsmcontactsupport.com.

For our latest contact information, see www.honeywellaidc.com/locations.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. To find your service center, go to www.honeywellaidc.com and select Support. Contact your service center to obtain a Return Material Authorization number (RMA #) before you return the product.

To obtain warranty or non-warranty service, return your product to Honeywell (postage paid) with a copy of the dated purchase record.

Limited Warranty

For warranty information, go to www.honeywellaidc.com and click **Resources > Product Warranty**.

GET STARTED

The PX4ie and PX6ie High Performance printers are rugged, high-volume, thermal transfer printers. With sturdy, all-metal construction, these printers are designed to excel at 24/7 printing in harsh industrial environments and easily adapt to changes in host environments or applications.

The PX4ie and PX6ie support a maximum print width of four and six inches, respectively. Throughout this manual, both models of the printer are referred to as “printer” unless otherwise noted.

The printers include integrated USB, RS-232 and Ethernet interfaces. You can connect the printers to a single PC, a wired network, or a wireless network.

Features

- Print speed of up to 12 ips.
- USB host port for connecting storage devices, scanners, or keyboards.
- USB device port to connect to a PC.

Support for printer programming languages including Fingerprint (FP), Direct Protocol (DP), Intermec Printer Language (IPL), Zebra Printer Command Language Simulator (ZSim), and Datamax Printer Language (DPL).

About the Front Panel

The front panel includes the Ready-to-Work indicator, the Print/Feed button, navigation buttons, and the color LCD screen.



Print/Feed Button

Use the **Print/Feed** button to feed media, pause print jobs, and print.



Printer State	Print/Feed Button Action
Startup	Press the Print/Feed button during startup to enter Calibration mode or to restore defaults if the printhead is lifted.
Ready	Press the Print/Feed button to advance the media.
	If the print key feature is on, press the Print/Feed button to reprint the last job.
	Press and hold the Print/Feed button to calibrate the media sensors.
Printing	Press the Print/Feed button to stop or pause printing. The printer stops after completing the current label.
Paused	Press the Print/Feed button to resume printing.
Error	Press the Print/Feed button to advance the media.




About the Ready-to-Work Indicator

The Ready-to-Work indicator turns on when the printer is ready to print.

Status	Description
On	Printer is ready for a print job.
Blinking	Printer is not ready for a print job.
Off	Printer is turned off, not communicating, or not ready to print. For example, the printer may still be starting up, or a firmware upgrade is underway.

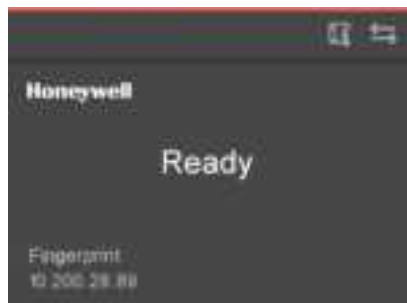
About the Navigation Buttons

Use the navigation buttons to move through the screen.



Button	Description
	Menu/Home button. Toggles between the Ready screen and the Main Menu. If you created menu shortcuts, the Main Menu is replaced by the Quick Choices menu. The Main Menu appears as the first item in the Quick Choices list.
	Directional pad. Use the arrow buttons to highlight an item on the screen. Press the Enter { } button to select the highlighted item or save settings in a menu or list.
	Back button. Returns to the previous menu or page, or stops a running Fingerprint application.

About the Ready Screen

After the printer completes the startup process, the Ready screen appears. By default, the screen displays the printer command language. You can customize the screen to display different kinds of information.



The status bar at the top of the screen displays information and status icons.



Icon	Description
	Printer information. Select this icon to view basic printer information.
	Connectivity. Blinks when data is moving through a wired connection to the printer.



About the Main Menu

The Main Menu contains features to help you configure and manage your printer.

Note: The printer cannot print while the Main Menu is on the screen.



Item	Description
	Programs. Lists the programs installed on the printer. This list includes utility programs provided as part of the printer firmware, as well as programs you installed on the printer. The Programs menu item only appears if the printer command language is set to Fingerprint.
	Settings. Lets you view and change printer settings.

Item	Description
	Tools. Lets you print test labels, manage a connected USB storage device, restore printer default settings, save and load printer profiles, and configure menu item shortcuts.
	Wizards. Lists the wizards you can use to configure printing, communications, and collaboration.

About the On-screen Keypads

When you select a setting that requires you to type characters, an alphanumeric or numeric keypad appears.



To access the extended numeric keypad, select the 123 key on the alphanumeric keypad.



About the Printer Wizards

The printer wizards can help you quickly configure printing and communication settings.



Printing Wizards

Name	Description
Media Setup	Select media and printing type (DT or TRR), media width, length, media margin (X), Start and Stop Adjust values, and print speed.
Print Quality	Prints a series of labels to test print quality.
Loading Media	Shows how to load the media.
Loading Ribbon	(TTR printers only) Shows how to load a roll of ribbon.

Communication Wizard

Name	Description
Line Analyzer	Logs all incoming data on all communications channels and saves the data to a log file.

Calibration Wizards

Name	Description
Media	Calibrates the label stop sensor and displays current print settings.
Date & Time	Calibrates date and time settings, such as time zone. Lets you set the date and time and specify the format.

Printer Command Languages

A printer command language is a set of instructions that controls printer functions:

- Configure the printer.
- Return the status of the printer.
- Control peripheral devices.
- Format a label or receipt for printing.

The printer supports these command languages and language simulator support options:

- [Autosense](#)
- [Direct Protocol \(DP\)](#)
- [Fingerprint](#)
- [Intermec Printer Language \(IPL\)](#)
- [ZPL Command Language Simulator \(ZSim\)](#)
- [Datamax Programming Language \(DPL\)](#)
- [Smart Printing \(C#\)](#)

Autosense

Autosense allows the printer to automatically sense from label to label, the incoming data stream and its language, and print each label accordingly. It also supports auto-detection of DP, ZSim, and DPL.

Note: *The printer is set to 'Autosense' by default. In an environment where only one command language will be used, it is highly recommended to set the printer to the specific printer command language for better printer language conformance.*

Direct Protocol (DP)

Direct Protocol is a subset of Fingerprint that uses a more intuitive English-like syntax. This flexible, host-based printer command language can also be used with Smart Printing applications.

Direct Protocol lets you combine predefined layouts and variable data to create labels, tickets, and tags. If you are using barcode software, select Direct Protocol as your printer command language.

Fingerprint

Fingerprint is a BASIC-inspired general purpose printer language. Use Fingerprint to design custom label formats and write printer application software. If you plan to run Smart Printing applications directly on the printer, without connecting to a PC, select Fingerprint as your printer command language.

Fingerprint is the default printer command language.

Intermec Printer Language (IPL)

IPL is a host-based printer command language. Use IPL to design, modify, and download label formats; write printer application software; and configure the printer. If you are sending IPL label files to the printer, select IPL as your printer command language.

ZPL Command Language Simulator (ZSim)

The ZPL command language interprets Zebra™ programs (ZPL II or later) without requiring any host programming changes. If you are sending ZPL label files to the printer, select ZSim as your printer command language.

Datamax Programming Language (DPL)

The DPL command language interprets Datamax™ data streams without requiring any host programming changes. If you are sending DPL label files to the printer, select DPL as your printer command language.

Smart Printing (C#)

Smart Printing refers to the ability of the printer to independently run printing operations without being connected to a host computer. If you are running printer-based applications written in C#, select Smart Printing as your printer command language.





Set the Printer Command Language

Use one of these methods to change the printer command language:

- Main Menu
- Printer Web Page
- PrintSet 5

Set the Command Language from the Main Menu

You can use the Settings option from the Main Menu to change the printer command language.

1. From the Main Menu select **Settings > System Settings > General**.
2. Press  to scroll down to Command Language.
3. Press  or  to select a different command language.
4. Press  to save your changes.
5. Turn the printer off and then on. The printer starts up in the command language you selected.

Set the Command Language from the Printer Webpage

To set the command language from the printer webpage, you need to turn on the printer and connect to your Ethernet network.

1. Make sure that the printer has media and ribbon (if necessary) installed.
2. On your PC, open a Web browser.
3. In the **Location** or **Address** bar, type the printer IP address and press **Enter**. The printer webpage appears.
4. Click **Login**.
5. Type your **Username** and **Password** and click **Login**. the default username is **itadmin** and the default password is **pass**.
6. Click the **Configure** tab.
7. Click **System Settings > General**.
8. Select a different printer command language from the Command Language list, and then click **Save**.
9. Click the Services tab.
10. Click **Reboot Printer**, and then click **Reboot**. The printer restarts in the command language you selected.

Printer Options and Accessories

Options are either installed at the factory or by factory service technicians in the field. Accessories are designed to be installed by the customer. Options and accessories are sold separately.

Option/Accessory	Description
Liner/Batch Takeup	This factory-installed option separates labels from the liner and windsup the spent liner inside the printer's media compartment.
Paper Cutter	Use the paper cutter to cut through continuous non-adhesive paper-based media or the liner between labels. If you are running Fingerprint or Direct Protocol, you can control the paper cutter using the commands CUT, CUT ON, and CUT OFF.
Media Roll Retainer	Use the media roll retainer with a rotating media supply hub to keep large media rolls in place.
76 mm (3-in) Adapter	Use the 76 mm (3-in) adapter with a rotating media supply hub to use media rolls with 76 mm (3-in) inner diameter cores. The adapter cannot be used with a media supply roll post.

Option/Accessory	Description
Internal Fanfold Guides	<p>Use the internal fanfold guides to facilitate loading media from an external supply.</p> <p>The internal fanfold guide cannot be used in peel-off (self-strip) mode or with the label slack absorber..</p>
Label Taken Sensor	<p>The label taken sensor (LTS) is a photoelectric sensor that enables the printer's firmware to detect if the last printed label, ticket, tag, etc. has been removed before printing another copy.</p> <p>The LTS cannot be used with a paper cutter.</p>
Interface Boards	<p>A number of interface boards are available for use with the printer.</p> <p>The interface boards are either installed at the factory or can easily be installed by an Intermec authorized service technician.</p> <p>The printer can accommodate these interface boards:</p> <ul style="list-style-type: none"> -802.11 Radio Interface Board -Parallel Interface Board (IEEE 1284) -Double Serial Interface Board -Serial/Industrial Interface Board -RFID Interface Board -Applicator Interface Board

About the Media

The PX4ie and PX6ie can print on labels, tickets, tags, and continuous stock in various forms. The method you use to load media depends on how you want the printer to operate. The PX4ie and PX6ie can print in these modes:

- Tear-off (straight-through)
- Peel-off (self-strip)
- Cut-off
- Batch take-up
- External supply
- RFID

Loading Media for Tear-Off Printing

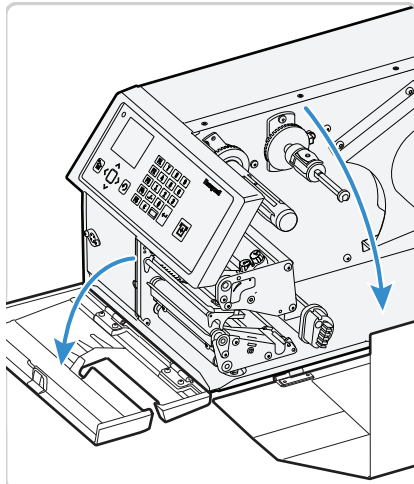
In tear-off, or straight-through, printing mode, you manually tear off the media against the printer's tear bar. In tear-off mode, use these types of media:

- Non-adhesive continuous stock
- Self-adhesive continuous stock with liner
- Self-adhesive labels with liner
- Tickets with gaps (gap stock), with or without perforations
- Tickets with black marks (mark stock), with or without perforations

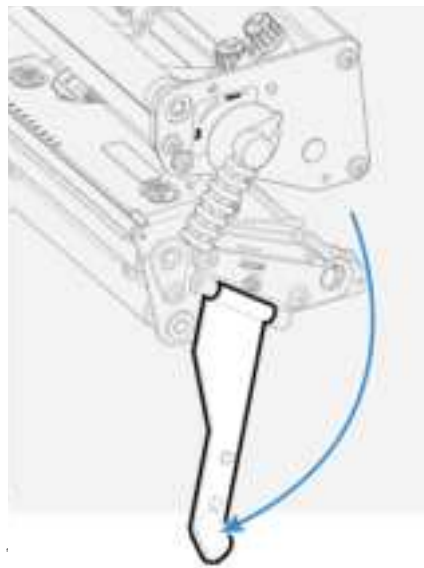
You can also install an optional label taken sensor so that the next copy in the batch is not printed until the current copy is removed.

To load media for tear-off printing

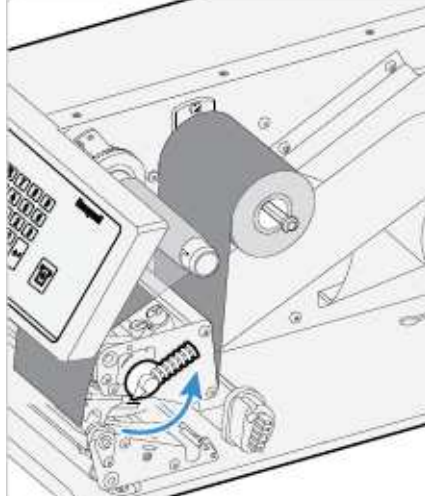
1. Turn off the printer.
2. Open the front door and media cover.



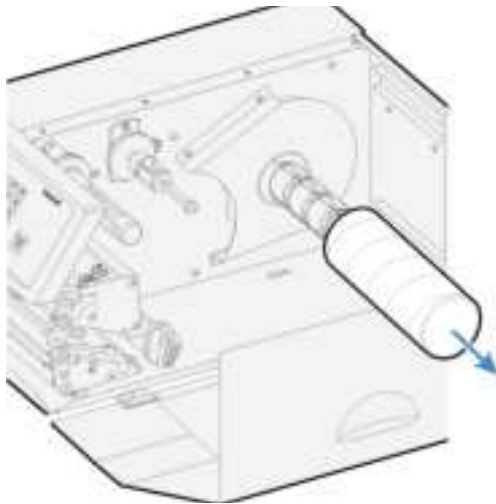
3. (PX6ie only) Pull the locking handle down.



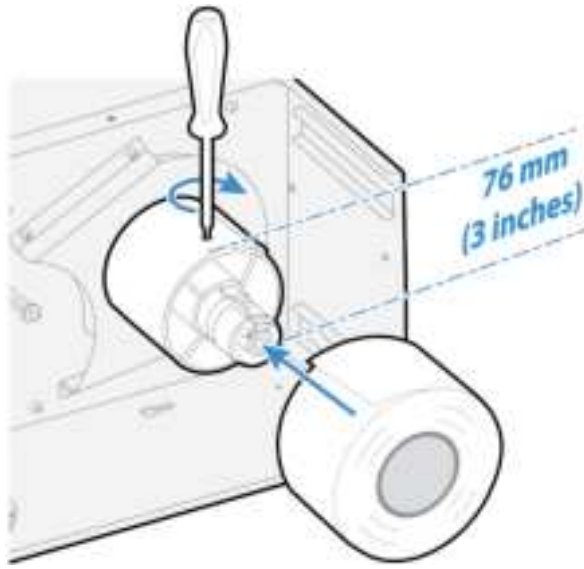
4. Raise the printhead by turning the printhead lift lever counter-clockwise.



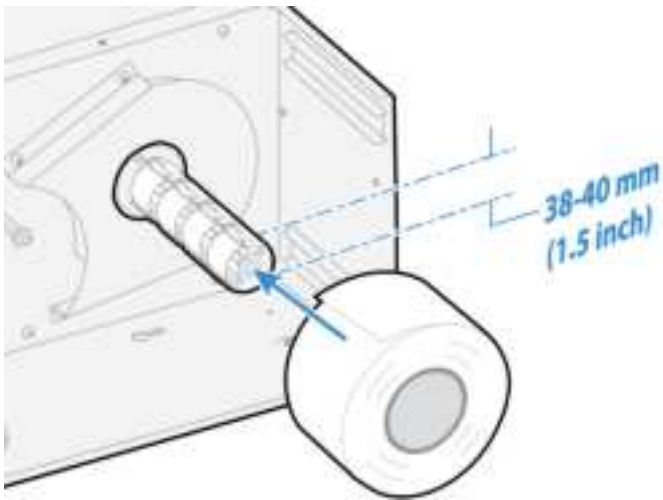
5. If necessary, remove the empty core from the media supply roll post.



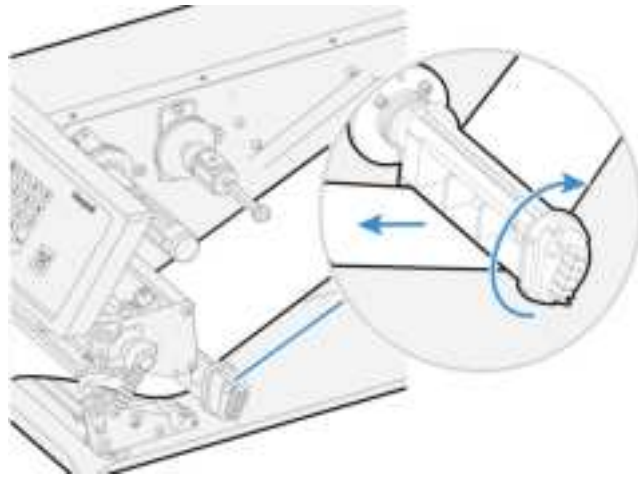
6. If you are using a media roll with a 76 mm (3 in) core, install a 3-inch adapter on the media supply hub.



7. Fit a new roll of media on the supply post and push the roll in as far as it will go.

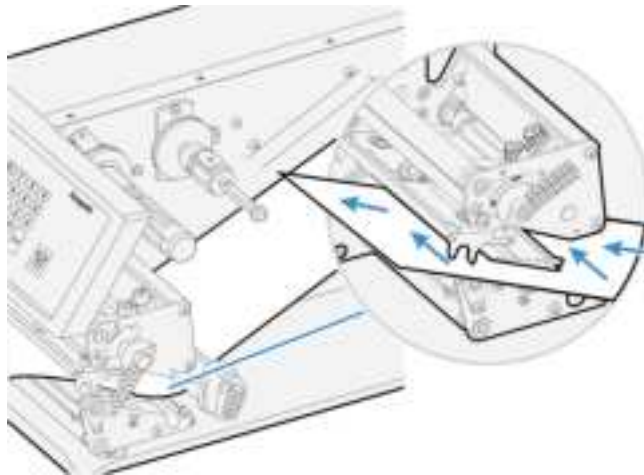


8. Route the media under the slack absorber and forward toward the print mechanism. The slack absorber can be routed for better access and then snap-locked in open position.

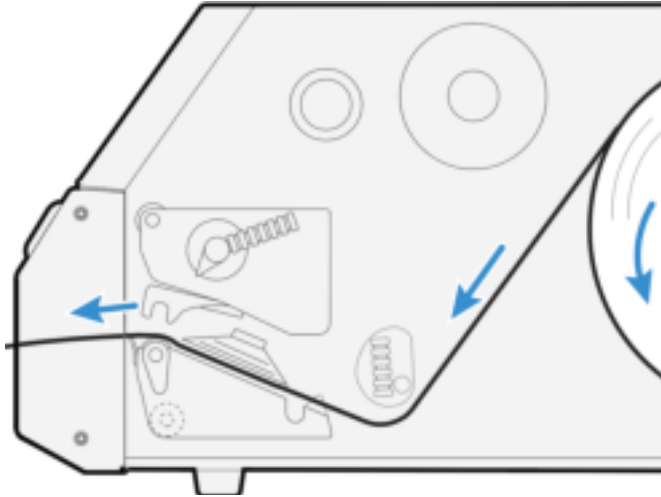


9. Route the media through the print unit and push it in as far as it will go.

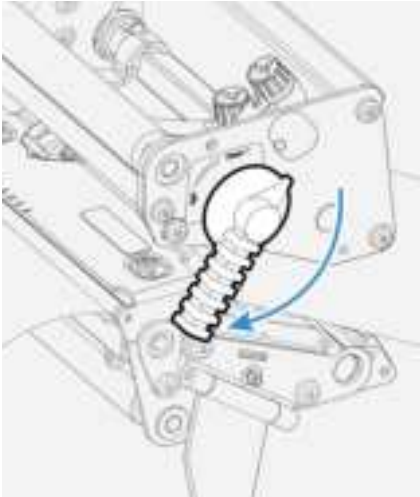
Route the Media



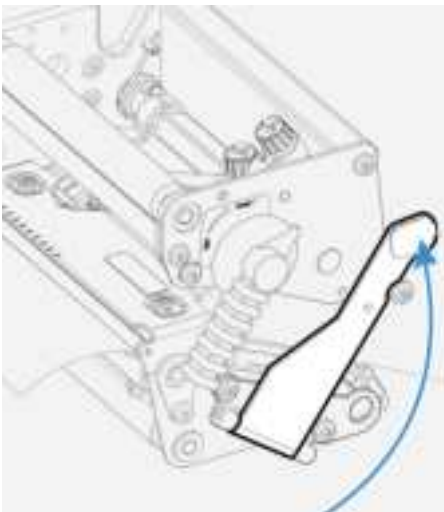
Media Path



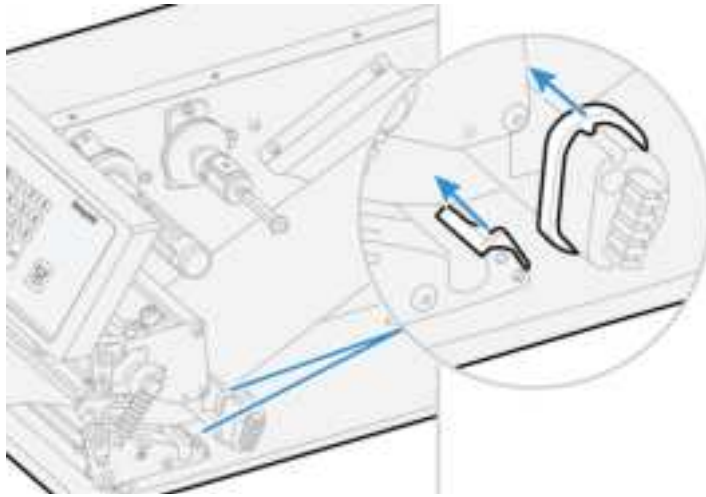
10. Lower the printhead by turning the printhead lift lever clockwise.



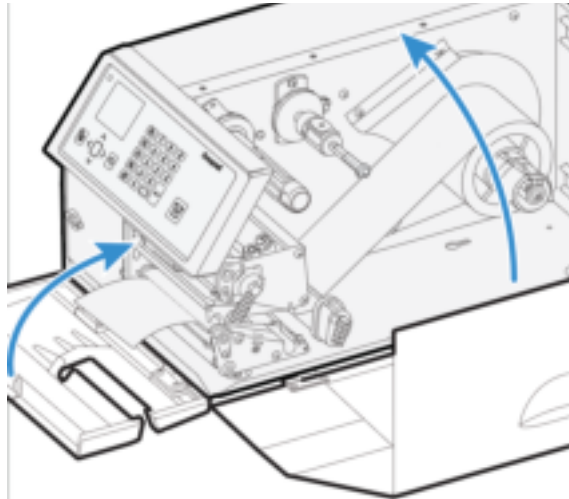
11. (PX6ie only) Push the locking handle up.



12. Adjust the position of the red edge guides so that the media is guided with a minimum of play.



13. Close the front door and media cover. Make sure that the media runs through the slot in the front door.



Loading Media for Peel-Off Printing

In peel-off, or self-strip mode, self-adhesive labels are separated from the liner immediately after printing. Peel-off printing:

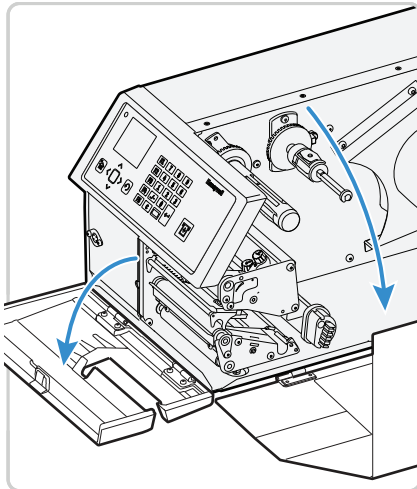
- can only be used for self-adhesive labels with liner.
- requires the optional peel-off assembly.
- cannot be performed with the optional fanfold guide installed.
- sets high demands on the media, such as label stiffness, release characteristics of the adhesive and liner, and resistance against electrostatic charging. Consult your media supplier or test the media to make sure that it is suitable for your application.

- may limit registration performance when printing on labels that have a label length of less than 25 mm (1 in).

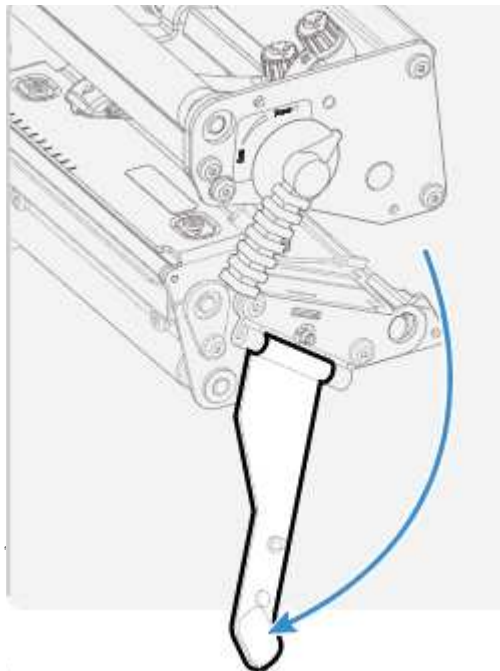
You can also install an optional label taken sensor so that the next copy in the batch is not printed until the current copy is removed.

To load media for peel-off printing

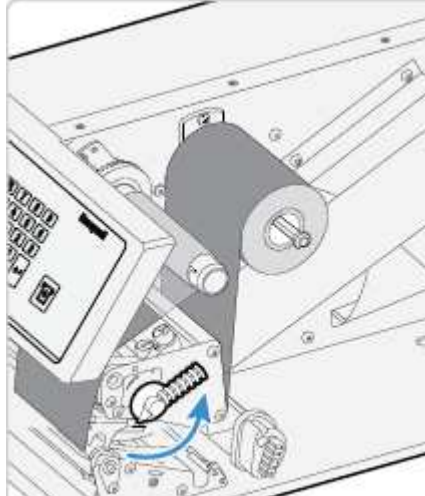
1. Turn off the printer.
2. Open the front door and media cover.



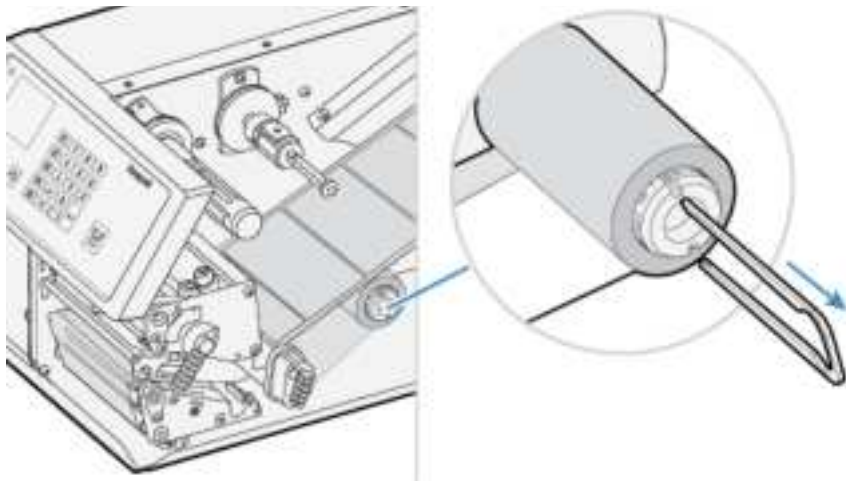
3. (PX6ie only) Pull the locking handle down.



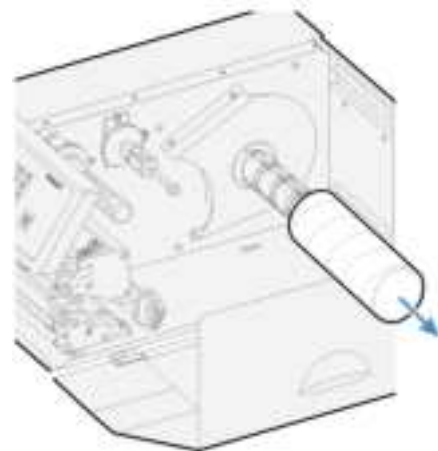
4. Raise the printhead by turning the printhead lift lever counter-clockwise.



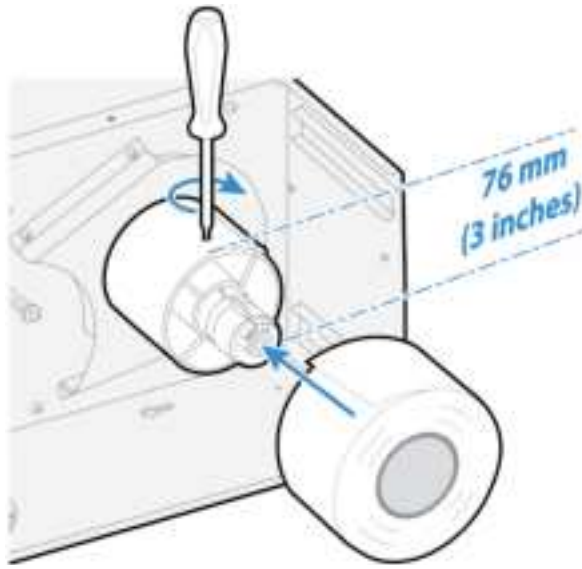
5. Pull out the red clip on the liner take-up hub and dispose of any wound-up liner.



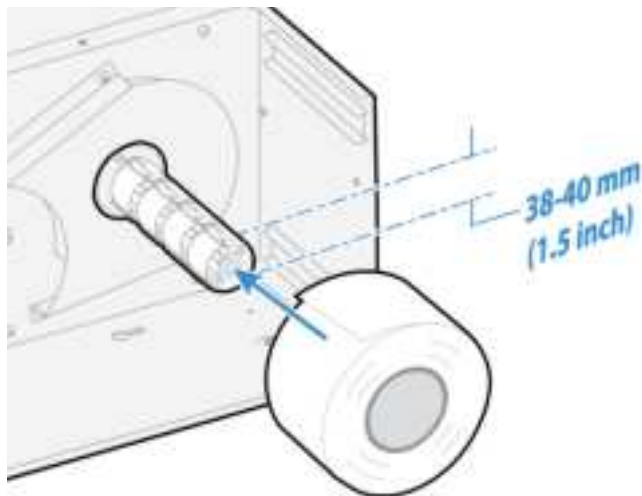
6. Remove any empty core from the media supply hub.



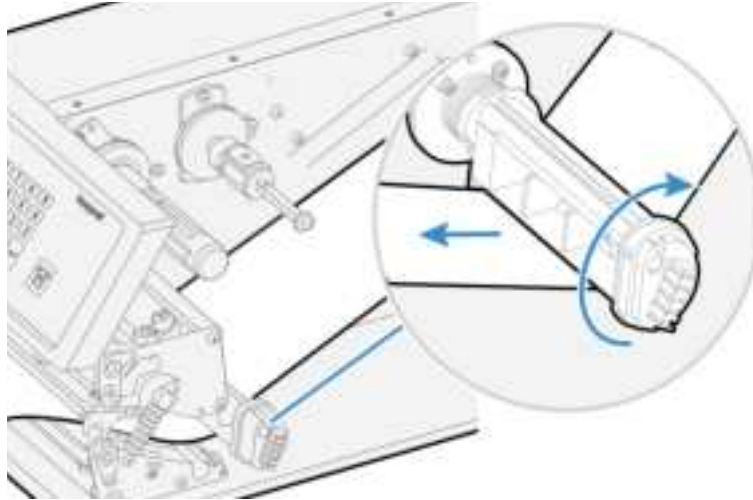
7. If you are using a media roll with a 76 mm (3 in) core, fit an adapter on the media supply hub.



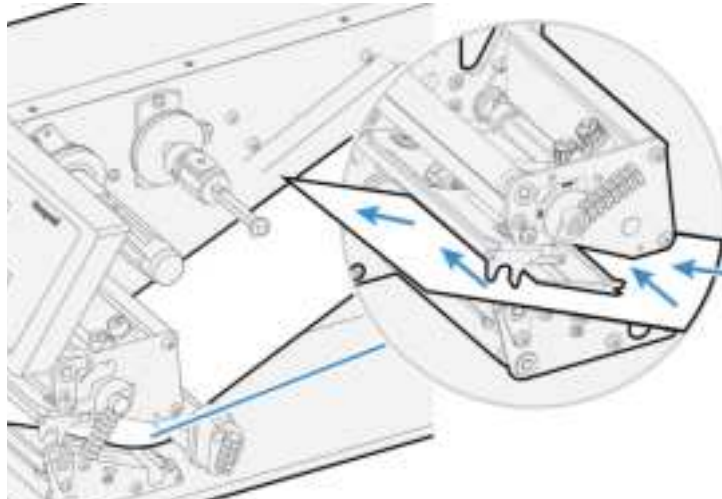
8. Fit a new roll of media onto the media supply hub and push the roll in as far as it will go.



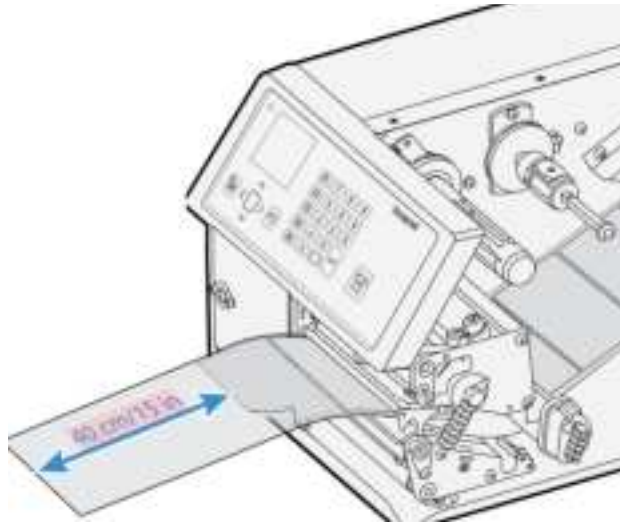
9. Route the media under the slack absorber and forward toward the print mechanism. The slack absorber can be rotated for better access and then snap-locked in open position.



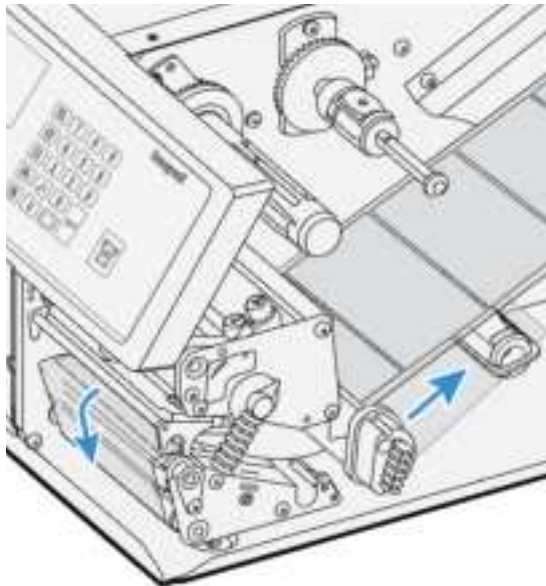
10. Route the media through the print unit and push it in as far as it will go.



11. Pull out approximately 40 cm (15 in) of labels and remove the labels from the liner.

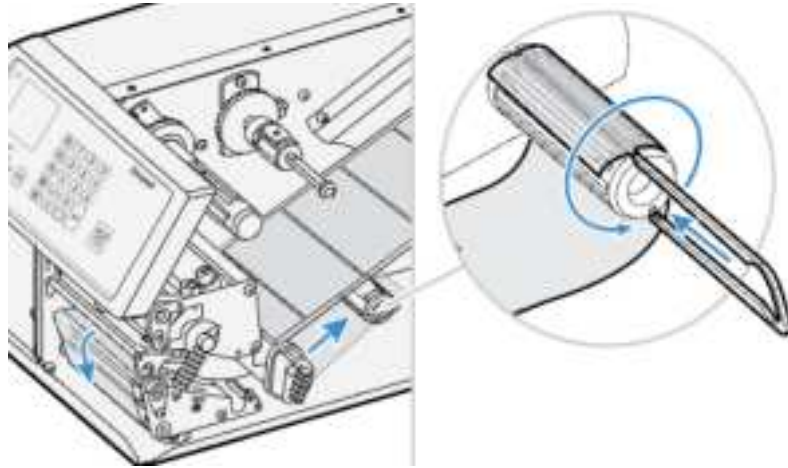


12. Route the liner around the tear bar and back under the print unit.

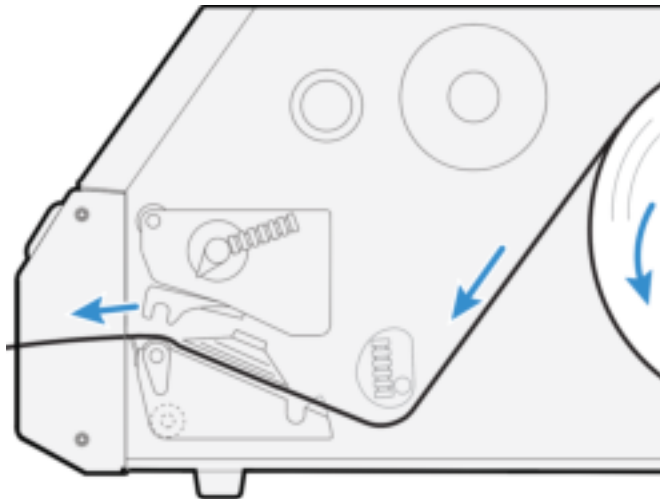


13. Secure the liner to the take-up hub with the red clip and rotate the hub until the media is pulled tight.

Secure the Liner



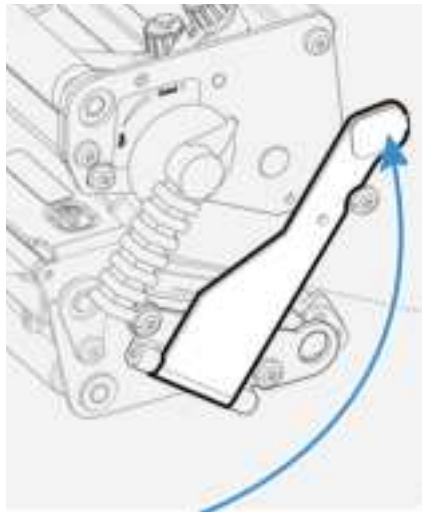
Media Path



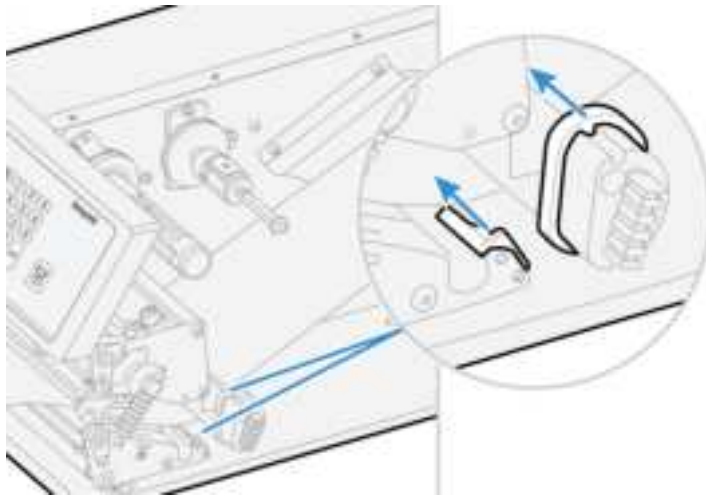
14. Turn the printhead lift lever clockwise to lower the printhead.



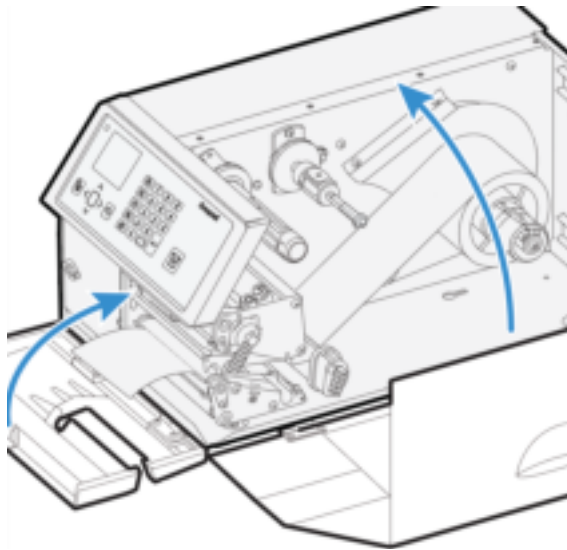
15. (PX6ie only) Push the locking handle up.



16. Adjust the position of the red edge guides so that the media is guided with a minimum of play.



17. Close the front door and media cover.



18. Press the **Print/Feed** button to advance the media and adjust the media feed.

Loading Media for Cut-Off Printing

You can install the automatic paper cutter option to cut off the media. Cut-off printing can be used for non-adhesive continuous stock and self-adhesive labels with liner (cut only liner between labels). The cutter option:

- is designed for paper-based media with a thickness between 60 and 175 μm , roughly corresponding to a paper weight of 60 to 175 grams/m² (basis weight 40 to 120 lb).
- cuts through the media approximately 37 mm (1.5 in) in front of the printer's print line. Make sure to properly adjust the media feed.

- should not be used to cut through labels, because the adhesive sticks to the shears, which can damage the cutter. If you do cut through adhesive labels, tilt the cutter down and clean it with isopropyl alcohol.
- is held by a latch inside the media compartment and can be tilted forward to facilitate loading media.
- has a switch that prevents it from operating when it is in the open position.
- requires the front door to be removed.

You can also install an optional label taken sensor so that the next copy in the batch is not printed until the current copy is removed.



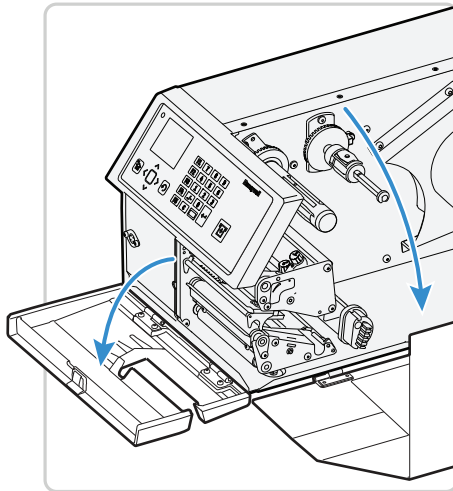
Warning: The cutting edge rotates when you turn on the power and reboot the printer. Always keep the cutter in the closed position during operation. Turn off the power or disconnect the cutter before cleaning. Keep your fingers away from cutting edges.



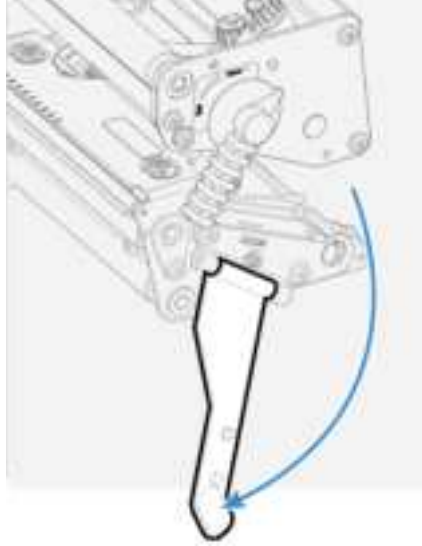
Warning: Do not plug in or out the cutter electrical connection while the printer is powered on. Always power off the printer first before installing or removing the cutter from the printer.

To load media for cut-off printing

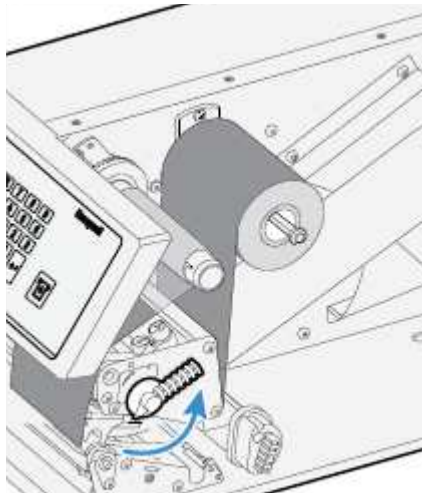
1. Turn off the printer.
2. Open the cutter and media cover.



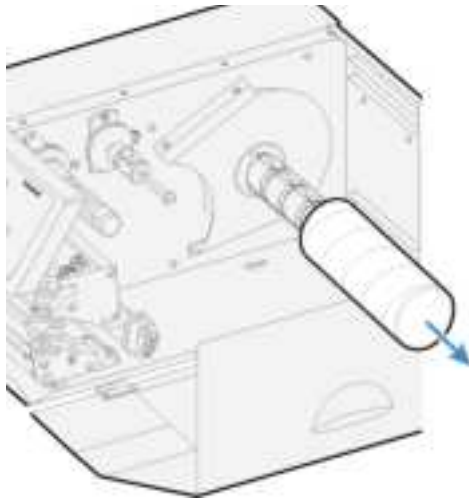
3. (PX6ie only) Pull the locking handle down.



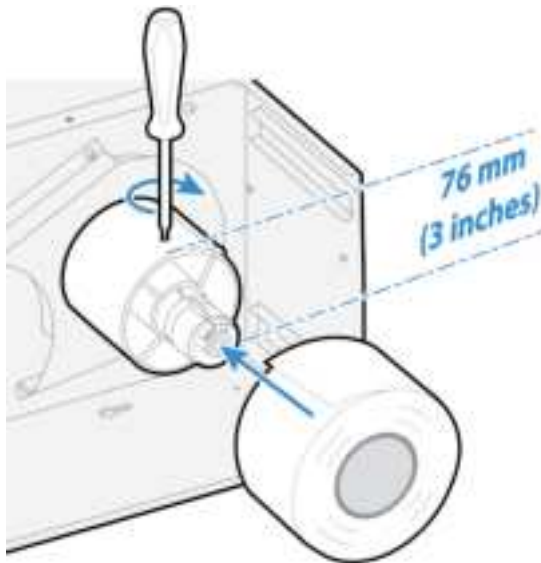
4. Turn the printhead lift lever counter-clockwise to raise the printhead.



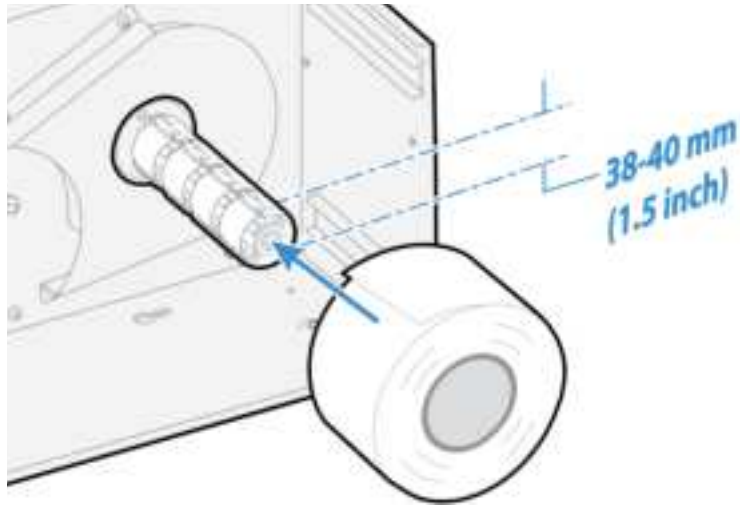
5. Remove any empty core from the media supply hub.



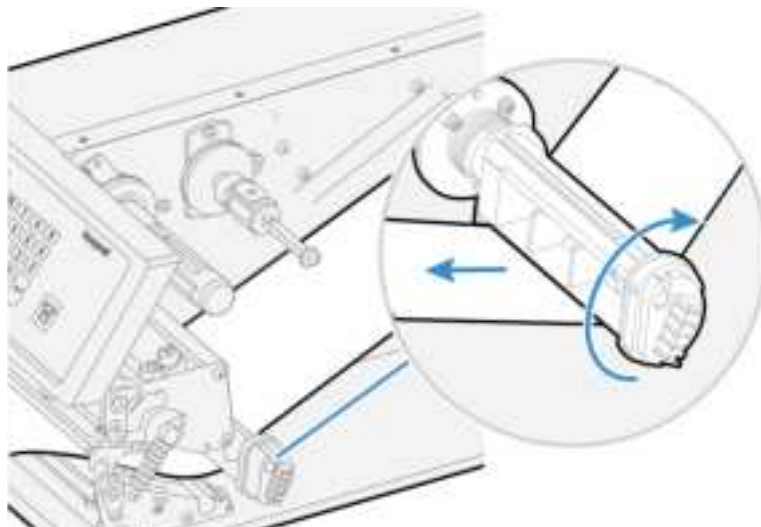
6. If you are using a media roll with a 76 mm (3 in) core, fit an adapter on the media supply hub.



7. Fit a new roll of media onto the media supply hub and push the roll in as far as it will go.

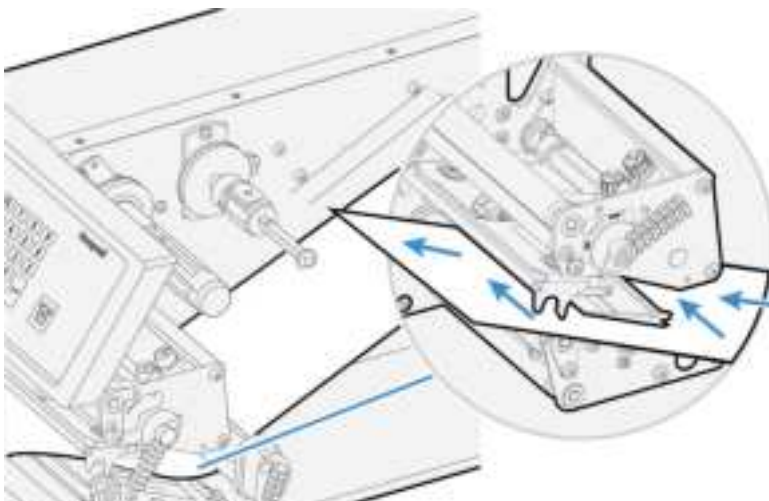


8. Route the media under the slack absorber and forward toward the print mechanism. The slack absorber can be rotated for better access and then snap-locked in open position.

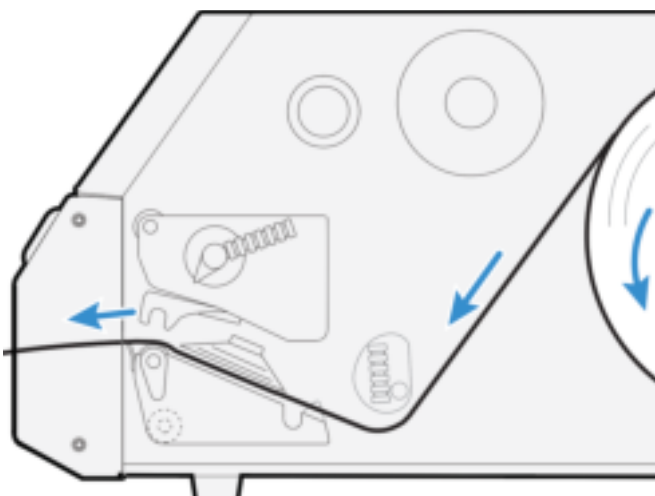


9. Route the media through the print unit and push it in as far as it will go.

Route the Media



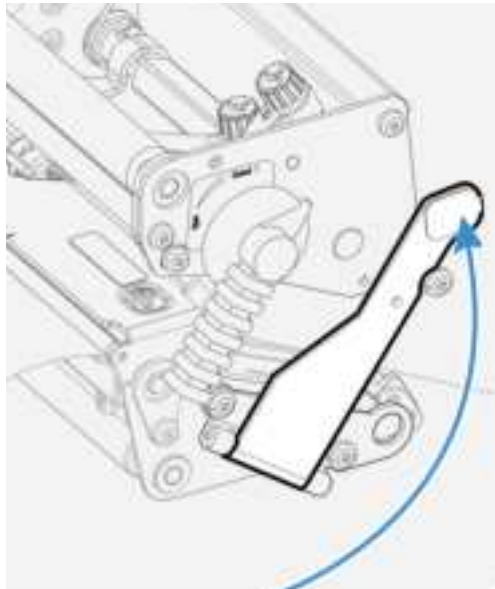
Media Path



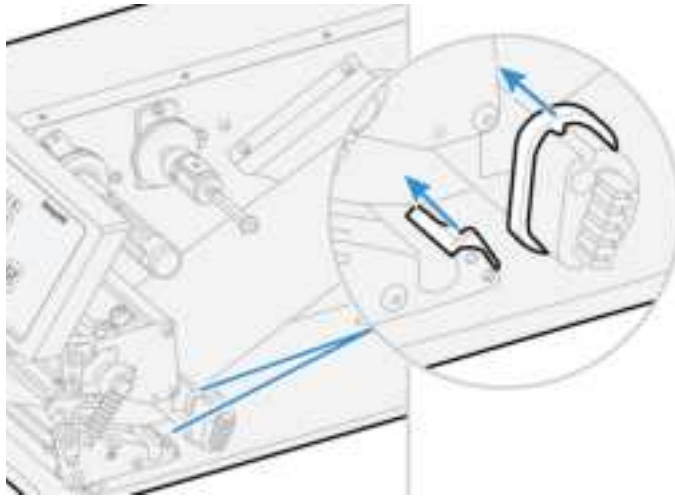
10. Turn the printhead lift lever clockwise to lower the printhead.



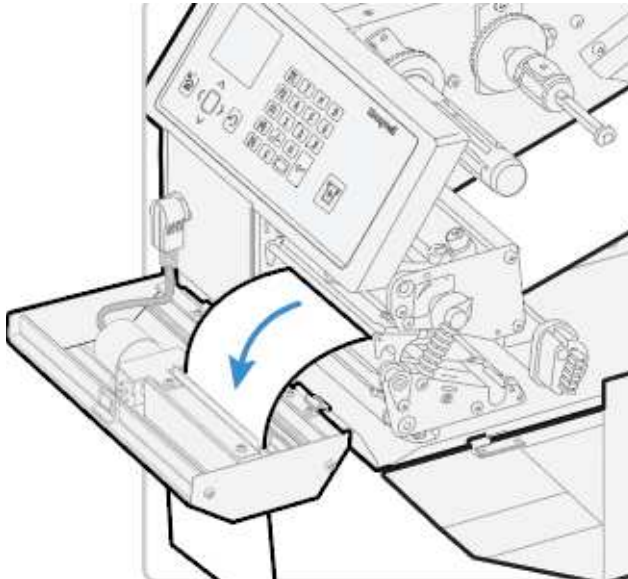
11. (PX6ie only) Push the locking handle up.



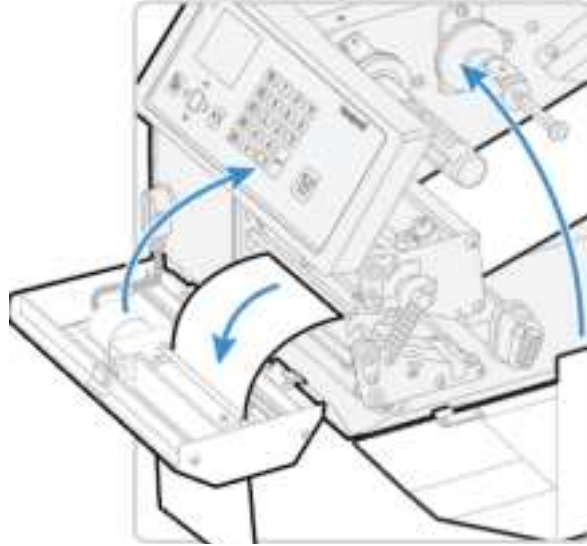
12. Adjust the position of the red edge guides so that the media is guided with a minimum of play.



13. Route the media through the cutter between the two guide plates.



14. Close the cutter while pulling on the end of the media.



15. Close the media cover and then turn on the power.

Loading Media for Internal Batch Takeup Printing

In batch takeup mode, printed labels fitted on liner (backing paper) or pre-perforated tickets and tags are wound up inside the printer. The roll of printed labels, tickets, or tags can then be removed.

Batch takeup printing requires the optional factory-installed internal liner/batch takeup accessory. The takeup hub can accommodate 30 to 40% of a full-size media roll.

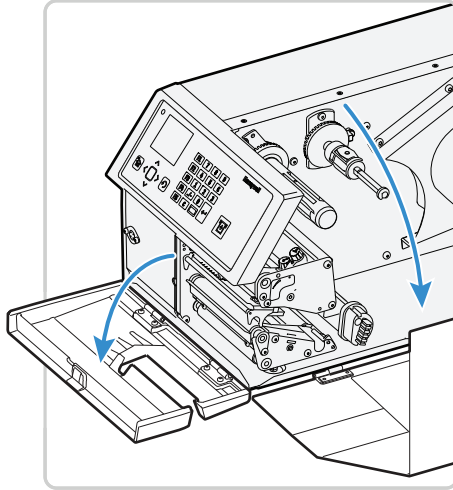
Internal batch takeup can be used for these types of media:

- Self-adhesive labels fitted on liner
- Pre-perforated tickets with gaps
- Pre-perforated tickets with marks

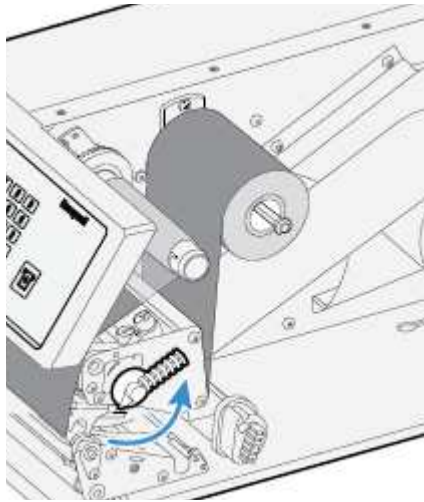
To load media for internal batch takeup printing

1. Turn off the printer.

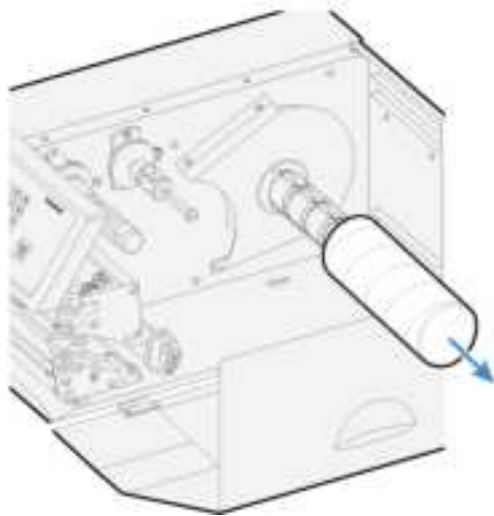
2. Open the front door and media cover.



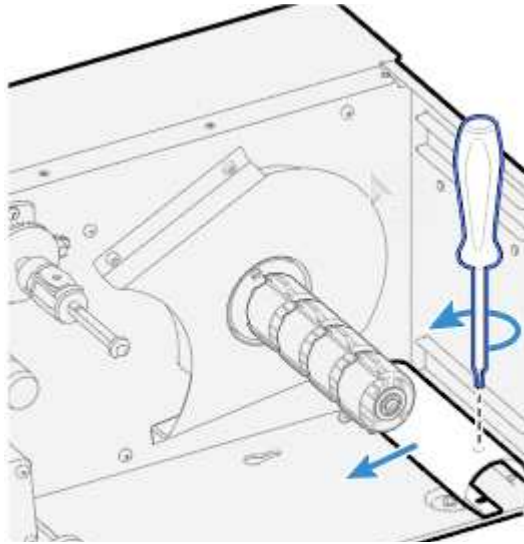
3. Turn the printhead lift lever counter-clockwise to raise the printhead.



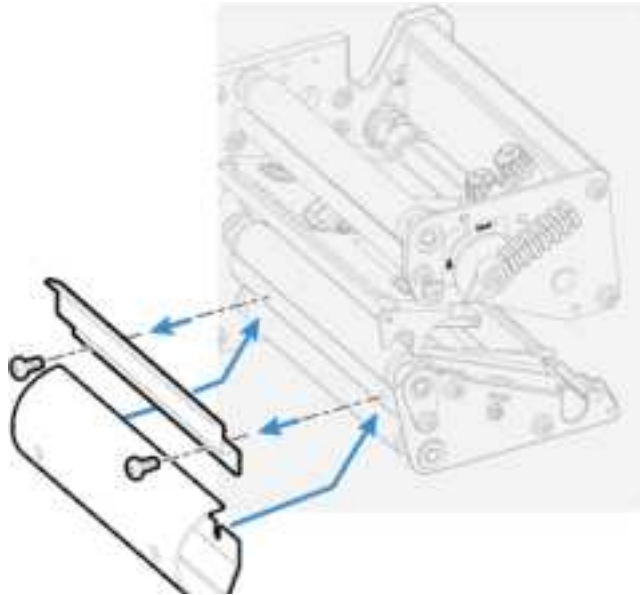
4. Remove any empty core from the media supply hub.



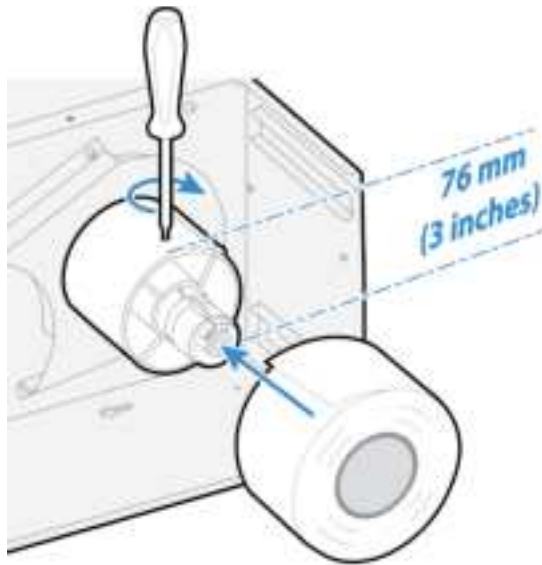
5. Loosen the single screw that holds the guide plate at the rear of the media compartment.



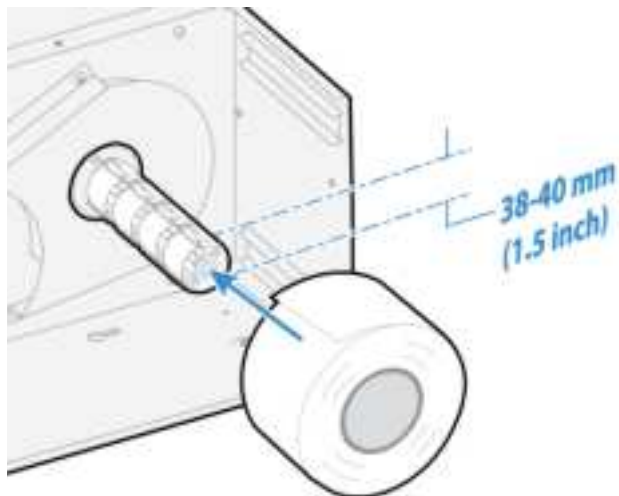
6. Remove the tear bar from the print unit and replace it with the guide plate.



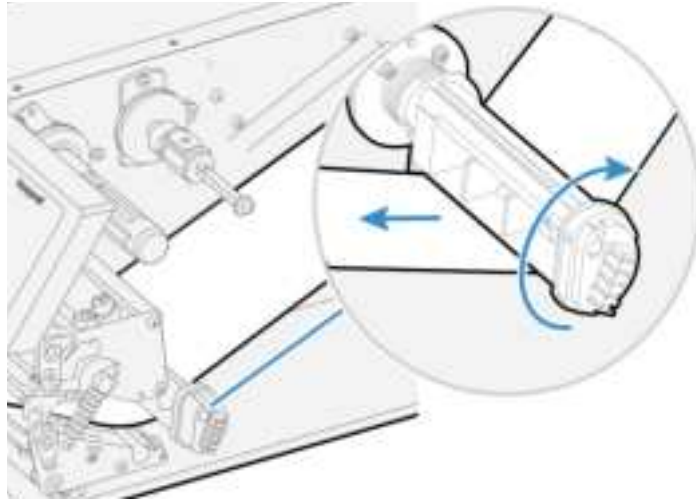
7. If you are using a media roll with a 76 mm (3 in) core, fit an adapter on the media supply hub.



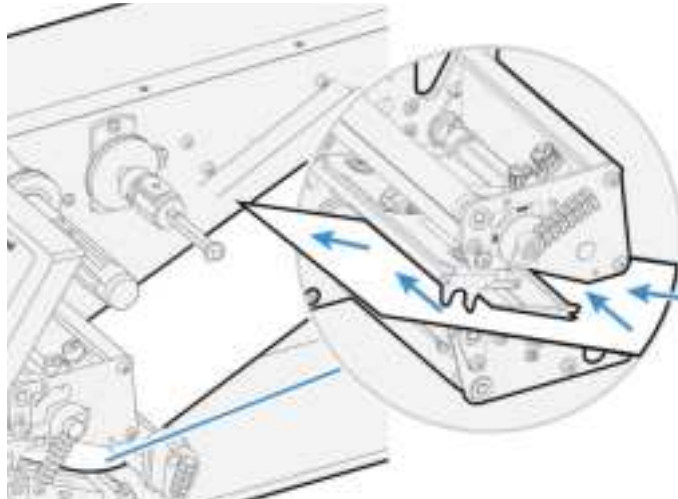
8. Fit a new roll of media onto the media supply hub and push the roll in as far as it will go.



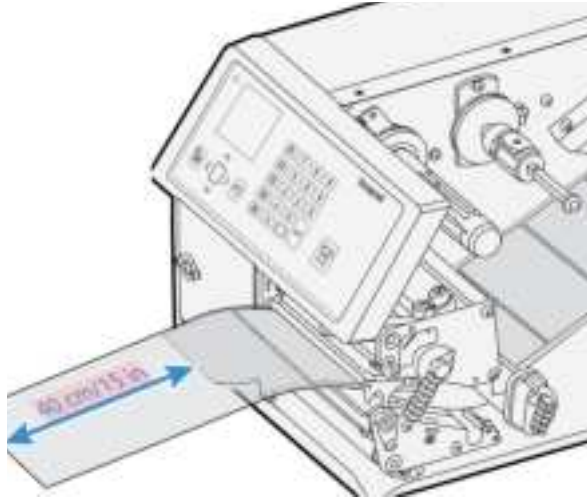
9. Route the media under the slack absorber and forward toward the print mechanism. The slack absorber can be rotated for better access and then snap-locked in open position.



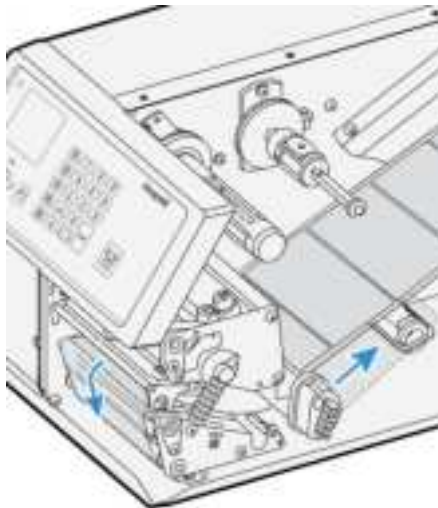
10. Route the media through the print unit and push it in as far as it will go.



11. Pull out approximately 40 cm (15 in) of labels.

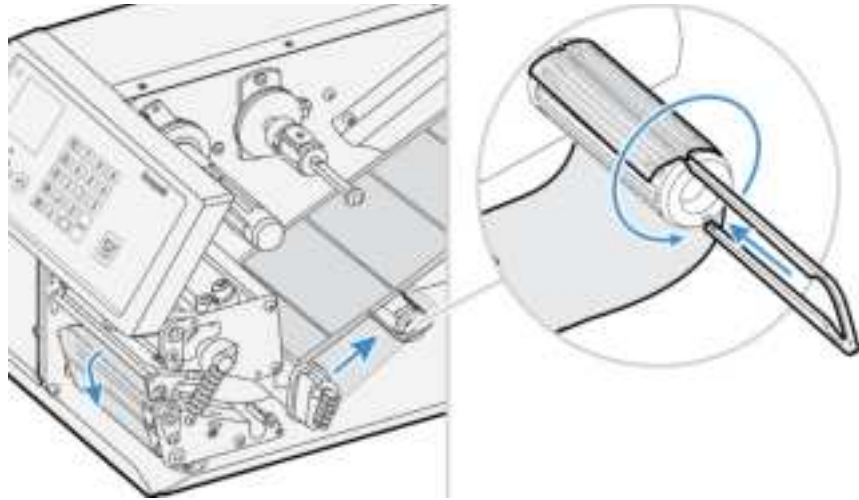


12. Route the labels around the guide plate and back under the print unit to the take-up hub.

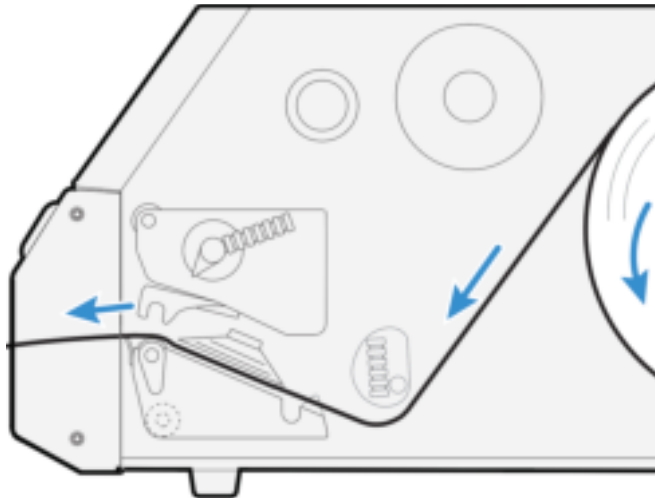


13. Wind up some of the media on the takeup hub and secure it with the red clip.

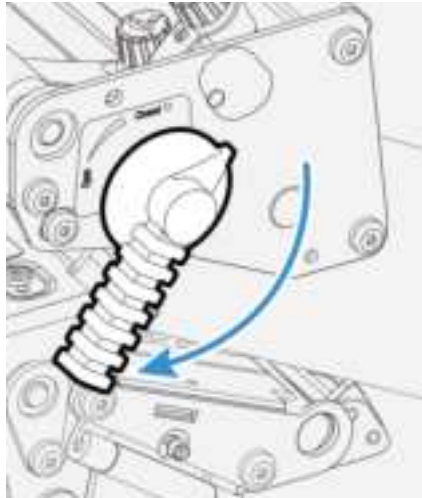
Winding and Securing the Media



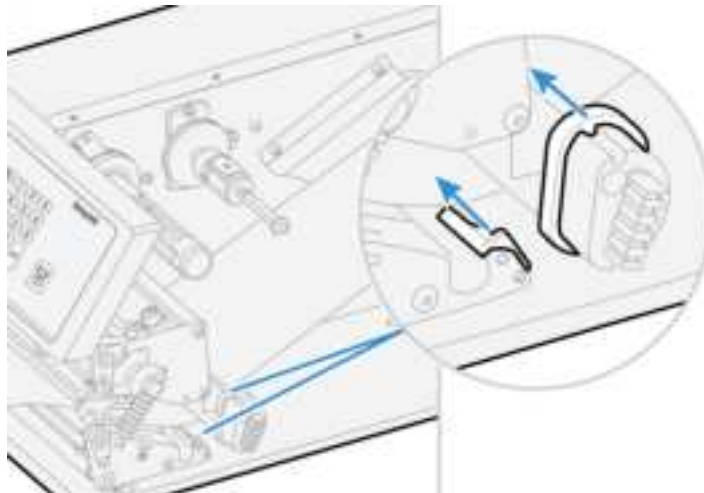
Media Path



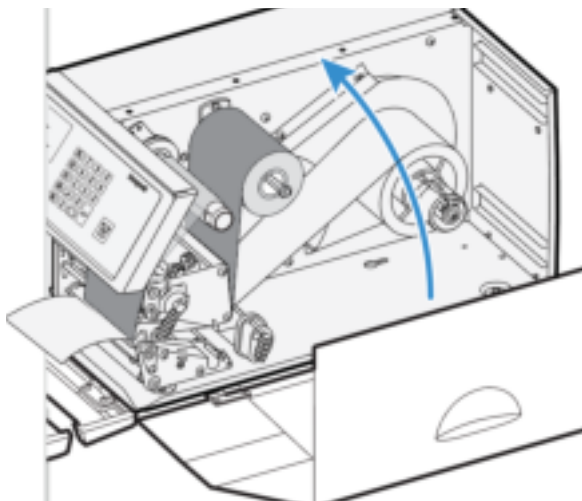
14. Turn the printhead lift lever clockwise to lower the printhead.



15. Adjust the position of the red edge guides so that the media is guided with a minimum of play.



16. Close the media cover, but keep the front door open.



Loading Media for Printing From an External Supply

You can place the media supply, such as fanfold tickets or tags, behind the printer. The external supply can be used with these printing methods:

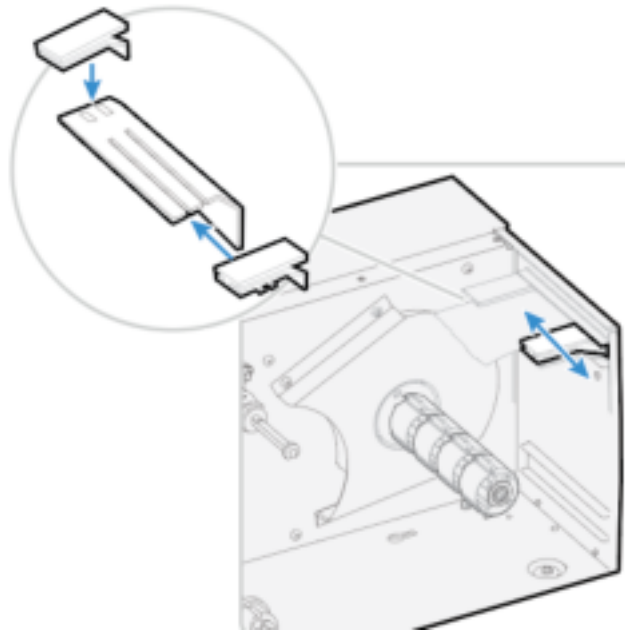
- Tear-off (straight-through)
- Cut-off
- Peel-off (upper slot only)
- Internal batch takeup

It is strongly recommended using the fanfold guide accessory. This guide makes loading media easier and accurately guides the media. The fanfold guide can be adjusted for various media widths down to 40 mm (1.57 in).

Note: *Make sure to protect the media from dust, dirt, or other foreign particles that can impair the printout quality or cause unnecessary wear to the printhead.*

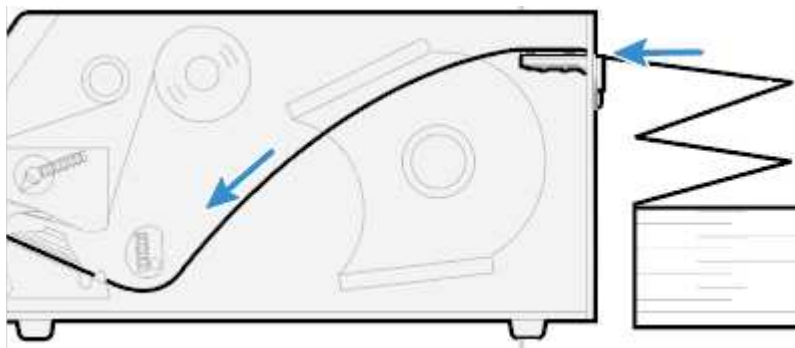
To load media for printing from an external supply

1. (Optional) Fit the fanfold guides in either the upper or lower slot. The outer guide is adjustable for various media widths. The minimum width is 40 mm (1.58 in).
 - Fit the fanfold guide into the upper slot in the rear plate when the supply is at the same level as the printer or in peel-off mode.
 - Fit the fanfold guide into the lower slot in the rear plate when the supply is placed lower than the printer.

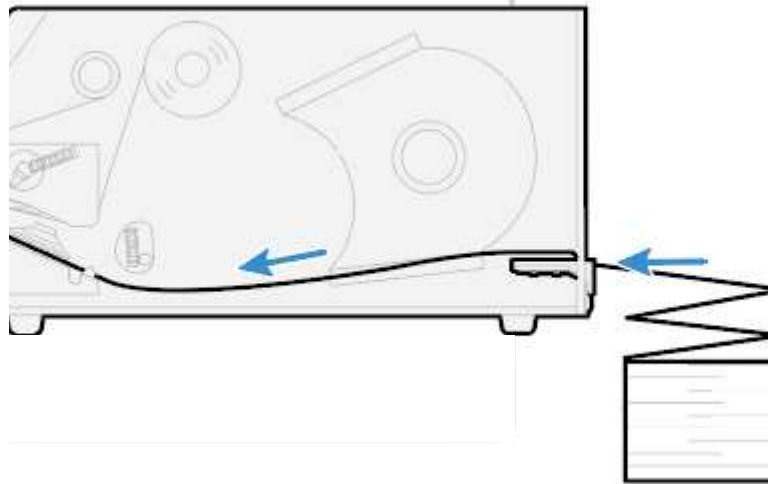


2. Feed the media through the slot in the rear plate.

Feeding Media Through the Upper Slot



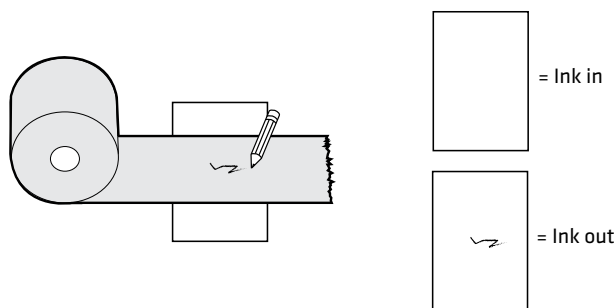
Feeding Media Through the Lower Slot



About the Ribbon

Thermal transfer printing provides a durable printout that is less vulnerable to chemicals, heat, and sunlight than direct thermal printing. Select a ribbon type that matches the media you are using and configure the printer for thermal transfer media.

The printer supports thermal transfer ribbon rolls with the ink-coated side facing either inward or outward. To determine which type of ribbon you have, place the ribbon on a piece of paper as shown, and use a pen or other sharp object to scratch the ribbon. If you see a mark on the paper, your ribbon is wound ink out.



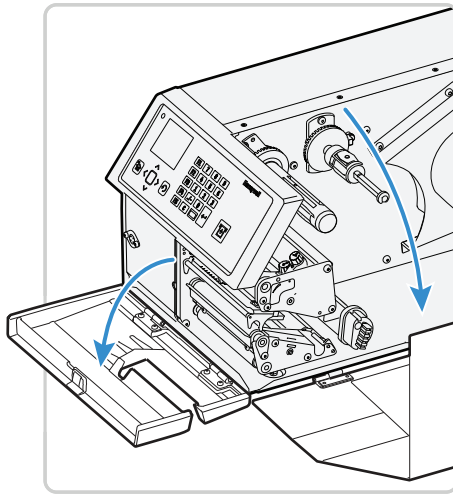
Load Ribbon

The printer can perform direct thermal printing on special heat-sensitive media or thermal transfer printing on special ink-coated ribbon. The printer can use transfer ribbon rolls wound with the ink-coated side facing either outward or inward.

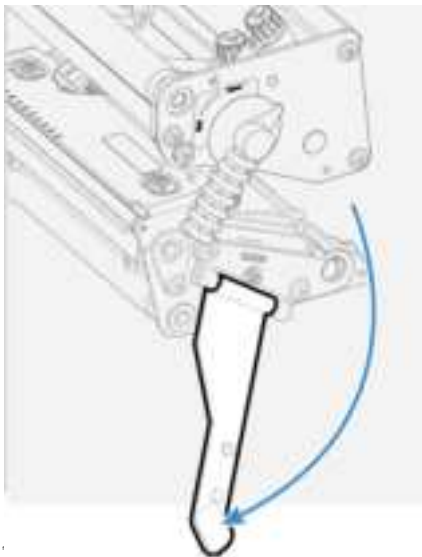
Thermal transfer printing lets you use a wide range of receiving face materials and provides a durable printout that is less vulnerable to external influences, such as oil, chemicals, heat, and sunlight than direct thermal printing. Make sure to select ribbon that matches the type of receiving face material and set up the printer accordingly.

To load ribbon for thermal transfer printing

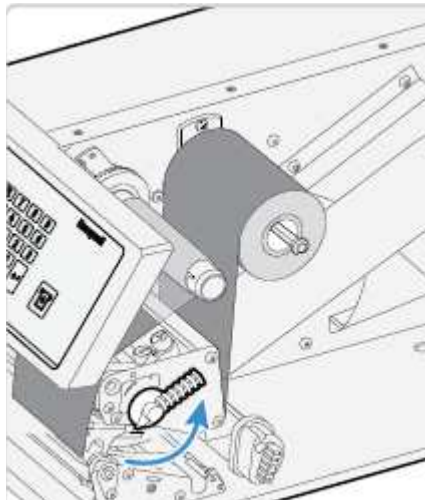
1. Open the front door and media cover.



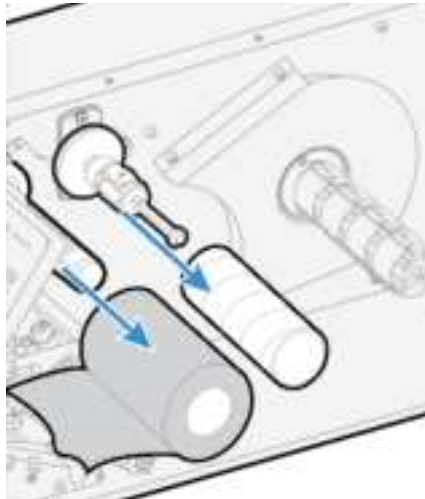
2. (PX6i only) Pull the locking handle down.



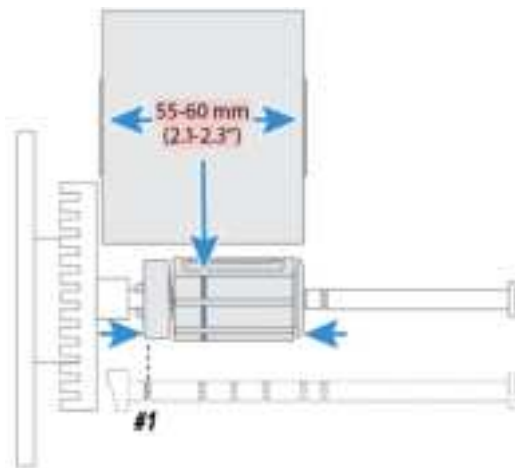
3. Turn the printhead lift lever counter-clockwise to raise the printhead.



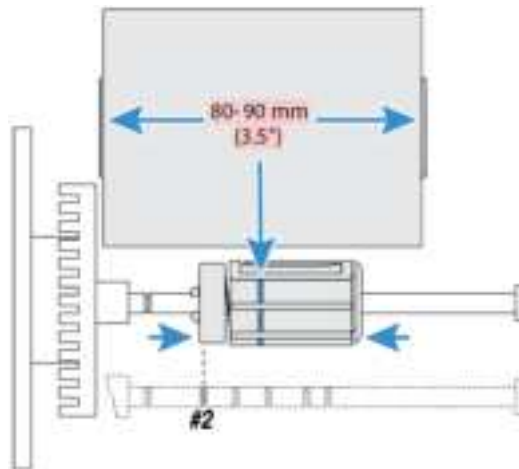
4. Remove any unused ribbon and the empty ribbon core.



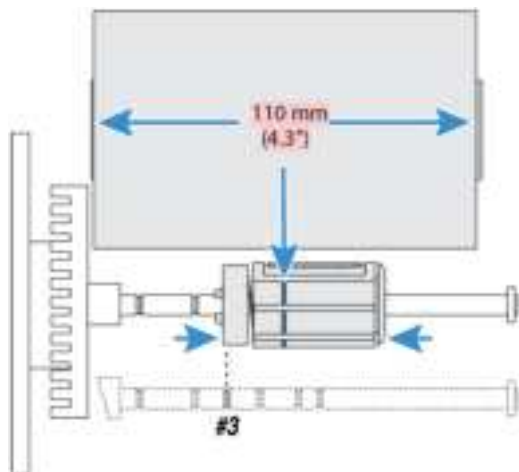
5. Adjust the ribbon supply bobbin for your ribbon.
 - If your ribbon is 55 to 60 mm (2.16 to 2.3 in) wide, compress the ribbon supply bobbin and move it so it snaps into the first (innermost) groove.



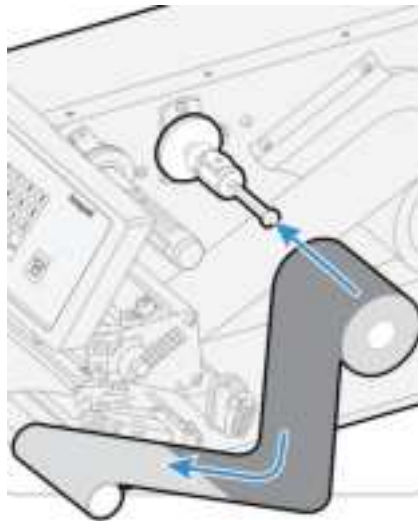
- If your ribbon is 88 to 90 mm (3.5 in) wide, compress the ribbon supply bobbin and move it so it snaps into the second groove.



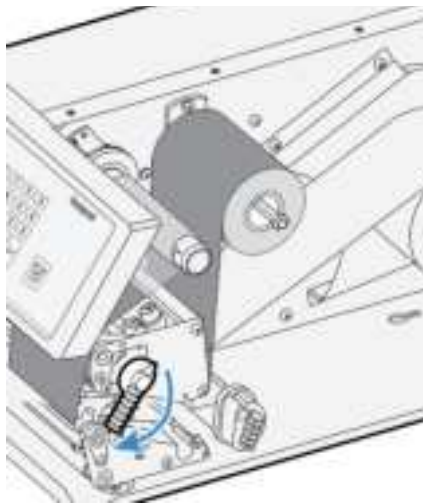
- If your ribbon is 110 mm (4.3 in) wide, compress the ribbon supply bobbin and move it so it snaps into the third (outermost) groove.



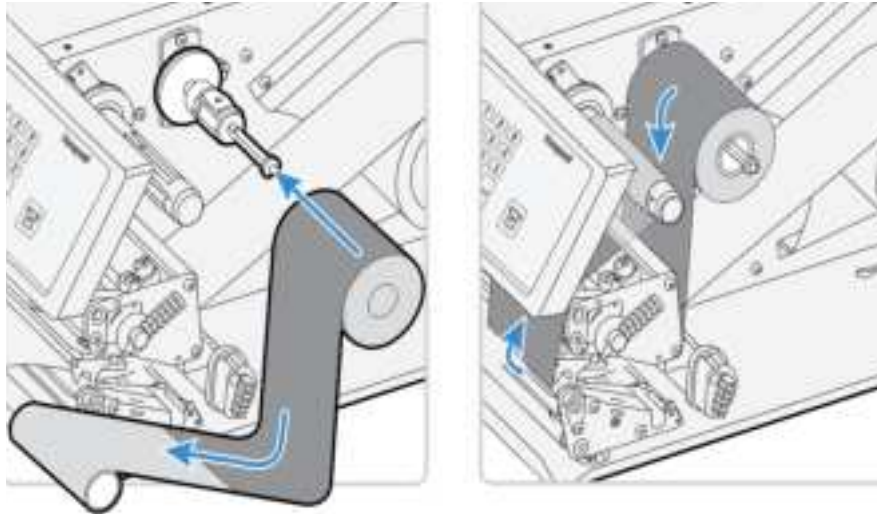
6. Press the ribbon roll onto the ribbon supply bobbin and route the ribbon through the print unit. Pull out 20 cm (8 in) of ribbon.



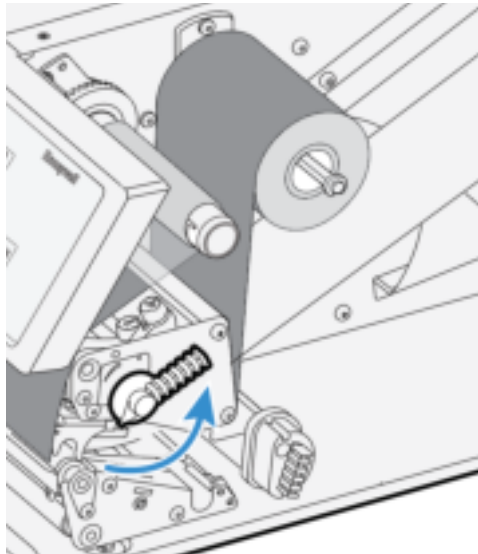
7. Without releasing the ribbon, turn the printhead lift lever clockwise to lower the printhead and lock the ribbon.



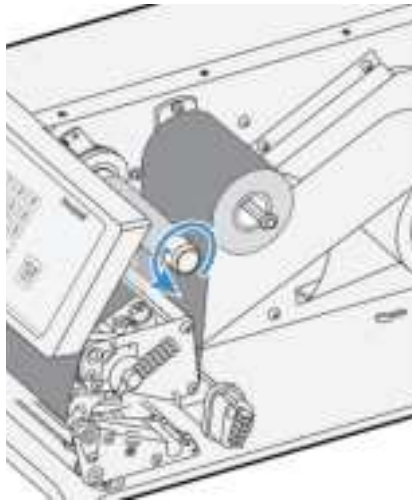
8. Press the cardboard core at the front end of the ribbon onto the rewind hub. During printing, the rewind hub rotates counter-clockwise.



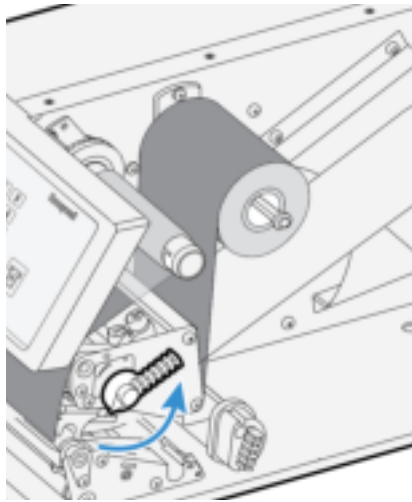
9. Turn the printhead lift lever counter-clockwise to raise the printhead.



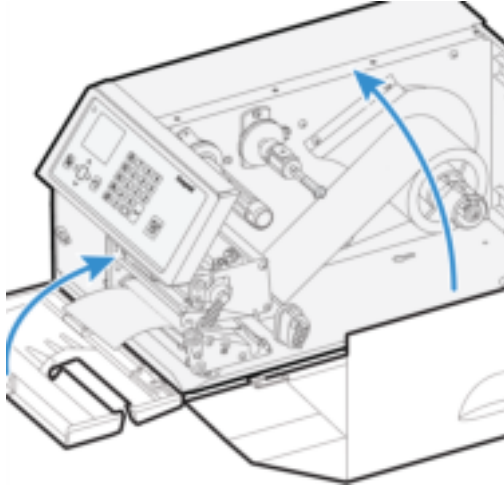
10. Wind up the ribbon until all of the transparent leader has passed the printhead and the ribbon becomes tight.



11. Turn the printhead lift lever clockwise to lower the printhead.



12. Close the front door and media cover.



Connect the Printer to Power

The first time you turn on the printer, the Startup Window appears.

1. Connect one end of the power cord to the back of the printer and connect the other end to AC power.
2. Press the power switch. When the printer starts, a progress bar appears on the screen, and then the Startup Wizard appears.
3. Follow the instructions to configure basic printer settings.
4. Run another wizard to configure more printer settings, or go to the Ready screen.
If a condition occurs that will prevent printing, the Ready-to-Work indicator blinks.


About Smart Calibration

Smart Calibration detects media type (gap, black mark, or continuous), detects printing method (ribbon or no-ribbon), and calibrates media length. This feature reduces the amount of media needed to set up the printer. Smart Calibration is available as an option for these media settings:

- Power Up Action (default setting)
- Head Down Action (default setting)
- Hold Print/Feed Button (default setting)

Print a Test Label

After you load the media and ribbon, print a test label to verify that everything is installed correctly and to get printer information.

1. From the Main Menu, select Tools > Test Labels.
2. Select the label you want to print and press . The printer prints your test label.

How to Create and Print Labels

Use one of these methods to create and print labels:

Use Honeywell printer software. You can download label design software and printer drivers from <http://www.honeywellaidc.com>.

Use the Fingerprint or IPL printer command language. For help, see the Fingerprint Command Reference or the IPL Command Reference manuals.

Printing on RFID Media

Media containing RFID tags is slightly thicker where the RFID tag is located. The slight thickness of this part of the label may affect print quality. For thermal transfer labels, use a high-quality ink ribbon, such as TMX 2200 or TMX 1500.

To achieve the best possible print quality, follow these guidelines:

- After you load RFID media, restart the printer or run a TESTFEED to let the printer identify the RFID media type.
- If necessary, modify the TAGADJUST variable to make sure that the RFID labels are properly aligned with the antenna.
- If necessary, avoid printing on the thickest part of the label.

For printers running Fingerprint:

- If you are using thermal transfer labels, start with the media darkness set to 65 and the media sensitivity set to High. You may need to adjust these values depending on the type of media you choose.
- To write to Gen 2 RFID tags using the TAG FIELD command, set the start and length parameters to even numbers.

For printers running IPL:

- Start with the sensitivity set to 565. You may need to adjust this value depending on the type of media you choose.

- To write to Gen 2 RFID tags, set the start and length parameters of the RFID tag field setup command (a) to even numbers.

Note: *For help configuring RFID parameters, see the Fingerprint Command Reference Manual or the IPL Command Reference Manual.*

CONNECT THE PRINTER

This section contains information about connecting the printer to a PC or to a network. Use the Printer Webpage or the Main Menu to configure the settings.

Connect the Printer to Your PC

You can connect the printer to your PC using one of the following methods.

Connect the Printer Using a Serial Cable

You can use a serial connection to communicate with your PC and send commands directly to the printer through a terminal connection.

1. Connect one end of the DB9 to DB9 RS-232 cable to the back of your printer and connect the other end to a serial COM port on your PC.
2. If necessary, change the PC serial port configuration to match your printer.

Connect the Printer Using a USB Cable

Connect only one printer to your PC, either directly or through a hub. You do not need to set up any parameters for USB communications.

1. Download and install the InterDriver software on your PC (see [Install Printer Drivers](#)).
2. When prompted, connect one end of the USB Type A cable to the back of the printer and connect the other end to your PC.

Connect the Printer to Your Network

These network interfaces provide features such as security, FTP server, web page, and Alert handling.

Connect the Printer to an Ethernet Network

Use the Ethernet port to set up your printer as a network printer. The printer is set to automatically retrieve an IP number from the network (DHCP) when you turn the printer. You can use the network connection with InterDriver. You can also use it to send commands directly to the printer through a terminal connection (Telnet), or through FTP.

1. Turn the printer off.
2. Connect the Ethernet cable to the Ethernet port in the rear of the printer and connect the other end of the cable to your network.
3. Turn the printer on.
4. If your printer uses a DHCP server to assign IP addresses, the IP address appears in the lower left corner of the screen.
 - For an icon printer, use Honeywell PrintSet 5 to retrieve the printer IP address.
5. If you are not using a DHCP server to automatically assign IP addresses to devices in your network, you must set a static IP address and other network information manually. Continue with the next step.
6. For a non-DHCP network:
 - For a full touch printer, from the Main Menu select **Settings > Communications > Ethernet > IPv4 or IPv6** and change the settings as needed.
 - For an icon printer, configure the Ethernet settings through Honeywell PrintSet 5.

Setting	Default
(IPv4) IP Assignment Method	DHCP
(IPv4) IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Default Router	0.0.0.0
DHCP Response	Broadcast
(IPv6) IP Assignment Method	Automatic
(IPv6) IP Address	Automatic

Printer Drivers

Before you can use the printer with Microsoft® Windows® printing applications, you must install printer driver software on the PC. Drivers enable the printer to communicate with your PC and with printer software applications

You can access the Honeywell Technical Support Downloads portal at <https://hsmftp.honeywell.com>. Click on **Software > Printers > Printer Software and Drivers**)

Note: Although Windows may auto-detect the printer when you connect it to a PC through a USB port, you still need to install printer drivers on the PC for the printer to operate correctly.

Install Printer Drivers

Use InterDriver to install printer driver software on your PC.

Note: Although Windows may auto-detect the printer when you connect it to a PC through a USB port, you must still install printer drivers on the PC for correct printer operation.

1. Access the Honeywell Technical Support Downloads portal at <https://hsmftp.honeywell.com>.
2. Go to **Software > Printers > Printer Software and Drivers > Printer Drivers . Honeywell Windows Driver**.
3. Open the Honeywell Software Download Manager and follow the instructions to download the file.
4. Extract the driver files to a location on your PC.

Double-click the .exe file to install InterDriver and follow the prompts to complete the installation.

Install Authentication Certificates

If you are using Wireless 802.11 security, you may need to install authentication certificates in the printer for the highest level of security.

1. Configure the printer for the correct date and time.
2. On your PC, open an FTP connection to the IP address of the printer.
3. Transfer your certificate to `/home/user/certificates/public`.
4. On your PC, open a Telnet session to the printer.
5. Change the directory to: **`/home/user/certificates/public`**.
6. Type the command: **`ls -la`**.
7. You should see the certificate that you transferred in step 3.
8. Use the certinstall script to install the certificate using this format:
`<prompt> certinstall.sh <certificate name>`

Example: `itadmin@PX4IE-12345678 /home/user/certificates/public$ certinstall.sh entrust.cer`

9. When you receive confirmation that the certificate was installed, type this command to make sure you see a .pem file and another soft link to the same file: **`ls -la`**.

10. Use the printer web page, the Main Menu on a full touch printer, or Honeywell PrintSet 5 to specify the certificate .pem file to use for security.

USB Host Port

Use the USB host interface port on the printer to connect these peripheral devices:

Device	Description
Keyboard	Use a standard USB keyboard to send Fingerprint printer language commands directly to the printer or to enter information if you are running a Smart Printing application.
Bar code scanner	Use USB bar code scanners for data input with a Smart Printing application. The printer also supports other USB scanners that use a generic keyboard driver.
USB storage device	Use a USB storage device to load applications, configuration files, fonts, and images into the printer memory, or to perform firmware upgrades. You can also save configuration files to a USB storage device for upload to a printer. The USB storage device must have a single partition and be formatted as FAT16 or FAT32.

You can also connect a peripheral device through the USB-to-Serial or USB-to-Parallel adapter cable accessories. Contact your local sales representative for information.

Connect a USB Device

A USB storage device can be inserted into the USB host port on the back of the printer.

1. If you are connecting a USB storage device, make sure the device has a single partition and is formatted as FAT16 or FAT32.
2. Connect the device to one of the USB host ports.
3. If you connected a USB storage device to an LCD printer, select **Tools > USB Menu** for more options.

CONFIGURE THE PRINTER

Use one of these methods to view and change printer settings:

- Printer web page
- Main Menu
- PrintSet 5
- Programming commands

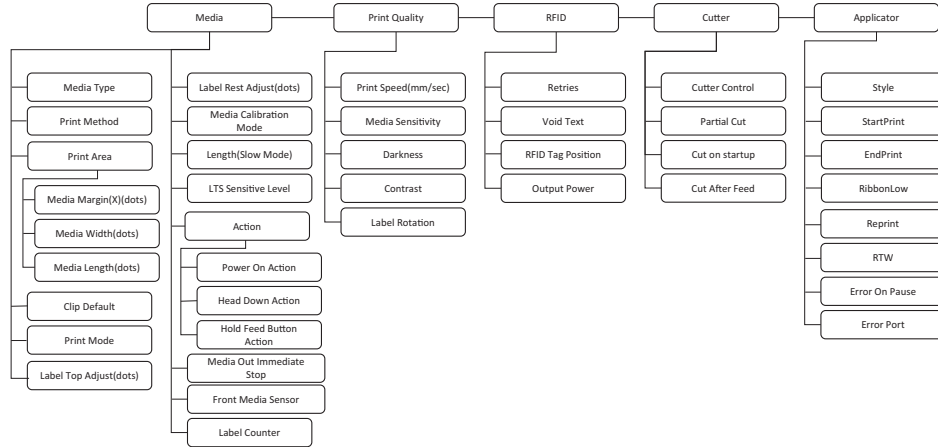
Printer Configuration Menus

The structure of the printer configuration menus is consistent among the different interfaces. The same organization appears whether you are accessing the menus through the web page or the printer Main Menu.

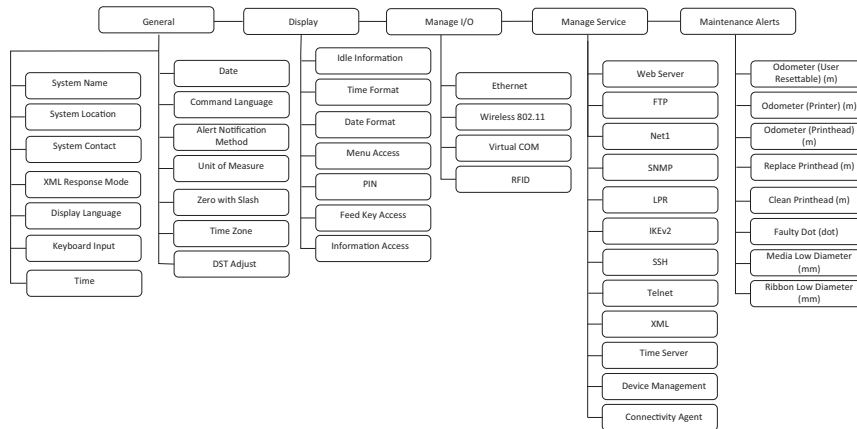
- Printing
- System Settings
- Alert

Use the following illustrations to understand where information is located in the printer configuration menus. Not all configuration items appear in each type of interface.

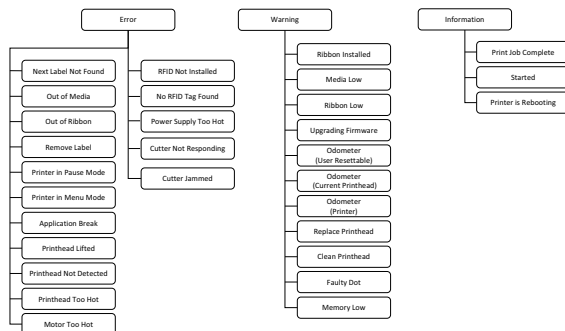
Printing Menu



System Settings Menu



Alert Menu



Printer Configuration

Configure the Printer from the Main Menu

If you have a full touch printer, you can view or change the configuration settings by pressing the **Settings** button from the Main Menu.

1. From the Ready screen, press the Main Menu button.
2. From the Main Menu, press the **Settings** button. The Settings menu appears.
3. Select the settings you want to configure and make your changes.
4. Save your changes when prompted.

Restrict Access to the Main Menu

By default, all menus are available from the Main Menu the first time you turn on the printer. If necessary, you can require a PIN to restrict access to menus or you can disable access to all menus.

Menu Access Setting	Description
Enable (default)	All users can access the menus from the Main Menu and from the USB flash drive menu.
Enable with PIN	Users need to enter a PIN to access the Main Menu or USB flash drive menu.
Disable	Users cannot access the menus from the Main Menu or from the USB flash drive menu.

1. Go to the Display menu for the printer:
 - From the web page, select **Configure > System Settings > Display**.
 - From the Main Menu on a full touch screen, select **Settings > System Settings > Display**.
2. Select a Menu Access setting and save your changes.
3. If you select **Enable with PIN**, you also need to type in a PIN and save your changes.

Access the Printer Web Page

4. Open a browser window on your PC.
5. In the location or address bar, type the printer IP address and press **Enter**. The printer web page appears.
6. Click **Login**. The login page appears.

Printer Webpage User Name and Password

You will be prompted for a user name and password. The default username is **itadmin** and the default password is **pass**.

Configure the Printer from the Web Page

If you are using Ethernet or WiFi communications, you can change configuration settings from the web page of the printer. Connect the printer to your network and obtain an IP address.

1. Open a web browser on your PC.
2. In the address bar, type the IP address of your printer and press **Enter**. The printer web page appears.
3. Click **Login**. The Login page appears.
4. Type your Username and Password and then click **Login**. The default value for Username is **itadmin** and the default value for Password is **pass**.
5. Click **Configure**. The Configuration Summary page appears.
6. To see a complete list of printer settings, click **Configuration Summary**.
7. To configure printer settings, click an item in the navigation pane:
 - For serial, Ethernet, or Wireless 802.11, click **Communications**.
 - For media or print quality settings, click **Printing**.
 - For display, audio, service, and general settings, or maintenance alert message triggers click **System Settings**.
 - To set conditions that trigger error, warning, and information alert messages, click **Alerts**.
 - For network-related settings (such as DNS, WINS, Net1), for web and email server information, or if you are using a network management application, click **Network Services**.
8. Make any changes to the settings you want to configure.
9. To save your changes, click **Save**.
10. To reset all parameters on the page to the default settings, click **Default Settings**.

Configure the Printer with PrintSet 5

You can use PrintSet 5 to change configuration settings on your printer.

You can download Honeywell applications to extend the capabilities of the printer. You may need to purchase a license to run some applications. To learn more about, licenses and other Honeywell software solutions, go to www.honeywellaidc.com > **Browse Products** > **Software**.

Support for Honeywell Safety and Productivity Solutions products is available online through the Technical Support Portal.

Configure the Printer with Programming Commands

You can change configuration settings by sending programming commands directly from your PC to the printer through a terminal program (such as HyperTerminal), a serial connection, or a network connection.

If your printer uses the Fingerprint programming language, use the SETUP command followed by the node, subnode, and parameter setting. For example, this changes your media setting to labels with gaps:

```
SETUP "Printing,Media,Media Type,Media With Gaps"
```

To retrieve the list of available settings for "Printing,Media" you can use the following command.

```
SETUP WRITE "Printing,Media";"stdout"
```

To get a full list of the available settings in Fingerprint language onto the terminal program, you can use the following command:

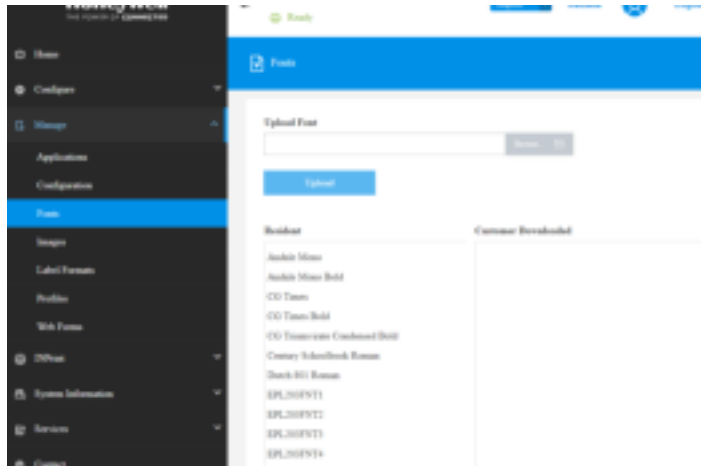
```
SETUP WRITE "All";"stdout"
```

For more information on how to change configuration settings with a programming language, refer to the respective printer command language reference manual.

Uploading from the Web Page

You can use the printer web page to install fonts, images, applications, formats, and web forms to the printer.

1. Open a web browser on your PC.
2. In the address bar, type the IP address of your printer and press **Enter**. The printer web page appears.
3. Click **Login**. The Login page appears.
4. Type your Username and Password and then click **Login**. The default value for Username is **itadmin** and the default value for Password is **pass**.
5. Click the **Manage** tab. The Overview page appears.
6. Click on the desired item in the Overview list. The upload page appears for the option you selected. For example, this is the Fonts page:



7. To upload a file to the printer, click **Browse** to locate your file. Double-click the file to select it, then click **Upload**. The file uploads to the printer.
8. Click **Save** when you are finished.

Uploading from a USB Storage Device

You can use a USB storage device to install fonts, images, applications, formats, and web forms to the printer. Use this table to understand where your files need to be located on the USB storage device for the printer to install them.

File Type	Directory to Place the File	Installed in this Printer Directory
Application	/apps	/home/user/apps
Configuration	/config	
Configuration profile	/profiles	/home/user/profiles
Display images	/display	/home/user/display
Fingerprint script	/scripts	/home/user/scripts
Firmware	/firmware	
Font	/fonts	/home/user/fonts
Form/layout	/forms	/home/user/forms
Printed images	/images	/home/user/images
Installation package (UFF file)	Root of USB storage device	
Start file	Root of USB storage device	
Web Form	/webforms	/home/user/webforms

1. Copy your files to a USB storage device using the directories in the table.
2. Insert the USB storage device into one of the USB host ports on the printer.
3. If you have an icon printer, the files are automatically uploaded to the printer. If you have a full touch printer, the USB Device menu automatically appears:

- a. Select **Install Resources**.
- b. Select the file you want to install and wait until the item turns gray and a checkmark appears next to it. The file is now successfully installed in the printer.
- c. Continue to another file if you have more files to install.

Change Background Image for the Ready Screen

You may customize the Ready screen that appears on the printer. The background image you create must be:

- 320 x 234 pixels.
 - named **background_idle.png**.
1. Create a /display directory on your USB storage device.
 2. Copy your **background_idle.png** file to the **/display** directory on the USB storage device.
 3. Insert the USB storage device into one of the USB host ports on the printer.
 4. If you have an icon printer the file is automatically uploaded to the /home/user/display directory on the printer.
 5. If you have a full touch printer, use the USB Device menu to upload the file to the printer.
 6. Restart the printer.

The new image file you uploaded appears in place of the original Ready screen.

Printer Profiles

You can save updated printer default settings as a printer profile. The printer supports multiple profiles that can be saved and loaded at any time. For example, you can create one profile to use when you are printing on continuous label stock, and a different profile to use when you are printing on label stock with gaps.

The following printer settings are not saved in a profile:

- IP address for either IPv4 or IPv6 networks
- Media calibration settings for the label stop sensor
- Remote port or remote host values for a remote computer accessing the printer through raw TCP

Save a Printer Profile from the Web Page

From the printer web page, you can save the current settings as a profile that you can load from the printer memory at any time.

1. In the printer web page, click the **Configure** tab.
2. Click **System Settings > General**.
3. Click **Save As Profile**. The Save As Profile screen appears.
4. Enter a name in the Profile field, and then click **Save**.




Load a Printer Profile from the Web Page

You can load a saved profile from the printer web page.

1. In the printer web page, click the **Manage** tab.
2. Click **Profiles**.
3. The Resident list includes profiles that are saved in the printer memory.
4. To load a profile from the printer memory, select the profile in the Resident list and then click **Activate**. The profile is loaded.
5. To load a profile from another location, click **Browse** and browse to the location of the file. Double-click the file to select it, then click **Upload**. The profile is uploaded to the printer.


Save a Printer Profile from the Main Menu

From the Main Menu, you can save the current printer settings as a profile that you can load from the printer memory at any time.

1. From the Main Menu, select **Tools > Profiles**.
2. Select **Create** and press .
3. Select the File Name box and press .
4. Use the on-screen keypad to enter a file name (up to 16 characters). When you are finished, select on the keypad to return to the **Create Profile** screen.
5. Select the arrow at the bottom of the screen and press . the profile is saved to the printer memory.

Load a Printer Profile from the Main Menu

You can load a saved profile from the Main Menu.

1. From the Main Menu, select **Tools > Profiles**.
2. Select **Load**.
3. Select the profile you want to load and press . When the upload is finished, a “Complete” message appears on the screen.

Load a Printer Profile Using Programming Commands

You can load a saved LCD printer profile to another printer by sending programming commands directly from your PC to the printer through a terminal program (such as HyperTerminal), a serial connection, or a network connection. All commands are case-sensitive.


Note: To load printer profiles that modify communication settings that require itadmin rights, you must log in (from Fingerprint command language) as an itadmin: RUN “su -p pass”.

Connection	Programming Commands
Printer running Fingerprint	RUN "/system/usr/bin/cfg -o xmlimportset -k /home/user/profiles/myprofile"
Printer running IPL	<STX><ESC>.x,/system/usr/bin/cfg -o xmlimportset -k /home/user/profiles/myprofile<ETX>
Telnet connection over Port 23	/system/usr/bin/cfg -o xmlimportset -k /home/user/profiles/myprofile

Import a Configuration File from a USB Storage Device



You installed a saved .xml configuration file to a USB storage device to your printer.

Note: *If there is more than one configuration file on the USB storage device, the printer imports the first file found alphabetically by file name.*

1. Insert the USB storage device in the printer USB host port.
2. From the Main Menu, select **Tools > USB Menu > Configuration > Install Configuration**. The printer imports the configuration file:
 - An IPL configuration file is copied to /home/user/config/ipl.
 - All other configuration files are incorporated into the current configuration. When the file is successfully imported, a message appears.
3. to close the message, press .
4. From the Main Menu, select **Tools > USB Menu > Remove USB**.
5. Remove the USB storage device.





Export a Configuration File to a USB Storage Device





You can save an .xml configuration file to a USB storage device and install it on other printers.



1. Make sure the USB storage device has a single partition and is formatted as FAT16 or FAT32.
2. Insert the storage device into the printer USB host port.
3. From the Main Menu, select **Tools > USB Menu > Configuration > Export Configuration**. A list of the available files appears.
4. Select the file to export and press . When the file is successfully exported, a message appears.
5. To close the message, press .
6. From the Main Menu, select **Tools > USB Menu > Remove USB**.
7. Remove the USB storage device.

Create Menu Shortcuts

You can create shortcuts for frequently used Main Menu items. Menu Shortcuts are added to the Quick Choices menu, which replaces the Main Menu. The Main Menu appears as the first item in the Quick Choices list.

1. From the Main Menu, select **Tools > Quick Choices > Add**.
2. To load a profile:
 - a. Select **Load Profile**.
 - b. Select **Load Profile** again and press . A check mark appears in the box.
 - c. Select the arrow at the bottom of the screen and press .
3. To select test labels to print
 - a. Select **Test Labels** and press .
 - b. To add the Test Labels menu, select **Test Labels** and press . A check mark appears in the box.

Or, select individual test labels and press  after each selection. A check mark appears in the box.
 - c. Select the arrow at the bottom of the screen and press .
4. To select wizards to run:
 - a. Select **Wizards** and press .
 - b. To add the Wizards menu, select **Wizards** and press . A check mark appears the box.

Or, select individual wizards and press  after each selection. A check mark appears in the box.
 - c. Select the arrow at the bottom of the screen and press .

Customize the Printer Web Page

The printer web page visual presentation is specified using a CSS (Cascading Style Sheet). You can customize the look of the web page by modifying the CSS. The printer web page loads the default style.css prior to loading the user customized

style.css. The customized style.css does not need to contain the complete set of CSS directives, it may only specify the subset of CSS styles that the user wishes to customize.

1. Retrieve the default CSS file from the printer: `http://<printerip>/format/style.css`.
2. Modify the style sheet and save your changes.
3. Upload the style sheet to the printer via `/home/user/webpage/style.css`.

System Information

Look in the **System Information** tab on the printer web page for useful information and statistics on the printer hardware and firmware.

Statistics

Use the printer web page to view important statistics about your printer.

Statistic Type	Information Available
System Information	Printer uptime and CPU usage, firmware and kernel versions, printer configuration and serial numbers, flash and RAM memory information
Supply	Printhead and ribbon information
Hardware Options	Input/output devices, serial port information
Network Interfaces	MAC address, TCP/IP, and 802.11 network information
Font Information	Name, type, location, and size of installed fonts
Bar Code Information	Name and type of installed bar code fonts
Image Information	Name, type, location, and size of installed images

1. Open a web browser on your PC.
2. In the address bar, type the IP address of your printer and press **Enter**. The printer web page appears.
3. Click the **System Information** tab.
4. Click **Statistics > System Information**. The System Information page appears.
5. For more detailed statistics, click another choice in the Statistics list.

Printer Odometer

You can check the odometer from the printer web page to see the printhead usage and how the current values compare to the alert values.

Note: *To check the printer odometer from the web page, the printer must be turned on and connected to your network.*

1. Open a web browser on your PC.
2. In the address bar, type the IP address of your printer and press **Enter**. The printer home page appears.
3. Click the **System Information** tab.
4. Select **Odometer**. The list of current odometer statistics appears.

Maintenance Alerts

To help maintain the printer, you can configure the printer to send alert messages when certain conditions occur. For example, the printer can send a message when the odometer reaches a certain value, or if the printhead is lifted during printing.

There are three types of alerts:

- Error alerts
- Information alerts
- Warning alerts

You configure alert settings in the printer web page. Alert messages can be sent to an email address, an SNMP trap, or both. You can enable or disable each type of alert, set the number of times the alert is repeated, set the unit of measure that determines how often the alert is sent, and change the default text message for the alert.

Set Alerts

You can set maintenance alerts to determine the threshold or value at which an alert is sent to you

1. Open a web browser on your PC.
2. In the address bar, type the IP address of your printer and press **Enter**. The printer web page appears.
3. Click **Login**. The Login page appears.
4. Type your Username and Password and then click Login. The default value for Username is **itadmin** and the default value for Password is **pass**.
5. Click the **Configure** tab. The Configuration Summary page appears.

6. Click **System Settings > Maintenance Alerts**. The Maintenance Alerts settings page appears.
7. Type the values you want to set for each maintenance alert.
8. Click **Save** when you are finished.

Alert Notifications

The way you receive error alerts is determined by the notification method you configure. You can choose between receiving notifications by SNMP trap, email, or SNMP trap + email.

- From the printer Main Menu, select **Settings > System Settings > General > Alert Notification Method**.

Or

- From the printer web page, login and then click the **Configure tab > System Settings > General > Alert Notification Method**.

Error Alerts and Solutions

Use these tables to understand and troubleshoot some common error alerts you may receive and how to fix them.

Error Alert	Solution
Label Not Taken	Printing has been stopped because a label is obstructing the label taken sensor. Remove the label to resume printing or try LTS sensor calibration to clear this error.
Printhead Lifted	Lower the printhead.
Front Arm Lifted	Lower Front Arm
Out of Ribbon	Load ribbon in the printer.
Out of Media	Load media in the printer.
Ribbon Low	The diameter of the remaining roll of media is lower than the specified value in the Ribbon Low Diameter setting. Replace the ribbon.
Media Low	The diameter of the remaining roll of media is lower than the specified value in the Media Low Diameter setting. Replace the media.
Ribbon Installed	The printer is configured as a direct thermal printer and thermal transfer ribbon is installed. Remove the ribbon or configure the printer for thermal transfer media.
Printer in Pause Mode	A print job is paused from the front panel. Press the Print/Feed button to resume printing.
Printer in Menu Mode	A user entered a menu from the front panel. Press the Home button to return to the Ready screen.
Application Break	Fingerprint only. An application breaks uncontrolled.
Print Job Complete	A print job has been successfully completed.
Odometer (Printer)	The printer has reached a limit set in the Odometer (Printer) setting in Maintenance Alerts for the amount of media to print before being alerted.
Odometer (Printhead)	The printhead has reached a limit set in the Odometer (Printhead) setting in Maintenance Alerts for the amount of media to print before being alerted.
Odometer (User Resettable)	The printer has reached a limit set in the Odometer (User Resettable) setting in Maintenance Alerts for the amount of media printed since the last reset.
Printhead Too Hot	The printhead is overheated and needs to cool down. Wait for printing to resume automatically.
Printhead Not Detected	The printer is not detecting the printhead. Check to make sure the printhead is installed and that the printhead cable is firmly connected to the printhead.
Faulty Dot	The printhead has reached the number of faulty dots set in the Faulty Dots setting in Maintenance Alerts. You may need to replace the printhead.
Replace Printhead	The printer has reached a limit set in the Replace Printhead setting in Maintenance Alerts for the amount of media to print before replacing the printhead. Replace the printhead.
Clean Printhead	The printer has reached a limit set in the Clean Printhead setting in Maintenance Alerts for the amount of media to print before cleaning the printhead. Clean the printhead.
Upgrading Firmware	The printer is going to start upgrading the firmware. Do not try to send anything to the printer.
Printer is Rebooting	The printer is going to restart. Wait until the printer is ready before attempting to communicate with it.
Started	The printer is in the process of starting up.

Troubleshoot Printer Problems and Find Solutions

Use this section to find possible solutions to printer problems.

Print Quality Problems

Problem	Possible Solution
The printout is weak	Try these possible solutions in order: <ul style="list-style-type: none"> • Make sure that your media > print quality setting is appropriate for the type of media you are using. • The contrast may be too low. Increase the contrast. • The printhead pressure may be too low. Increase the printhead pressure. • Replace the printhead.
The printout is weaker on one side	Adjust the printhead balance.
There are weak spots on the printout.	Try these possible solutions in order: <ul style="list-style-type: none"> • There may be foreign particles on the media. Clean or replace the media. • Make sure that your media and ribbon are compatible. • Make sure that you are using high quality media and ribbon. • The contrast may be too low. Increase the contrast.
The printout is dark or there is excessive bleeding on the media	Try these possible solutions in order: <ul style="list-style-type: none"> • Make sure your media > print quality setting is appropriate for the type of media you are using. • The contrast may be too high. Decrease the contrast. • The printhead pressure may be too high. Decrease the printhead pressure. The printhead voltage may be incorrect or the energy control may be faulty. For help, contact Product Service and Repair.
There are dark lines along the media path	The printhead may be dirty. Clean the printhead.
There are white vertical lines on the printout	Try these possible solutions in order: <ul style="list-style-type: none"> • The printhead may be dirty. Clean the printhead. • There may be missing dots on the printhead. Replace the printhead.
Part of a dotted line is missing	Try these possible solutions in order: <ul style="list-style-type: none"> • The printhead may be failing. Replace the printhead. • The strobe signal may be failing. For help, contact Product Service and Repair.
The inner edge of the printout is missing	Try these possible solutions in order: <ul style="list-style-type: none"> • The media may not be properly installed or aligned. Reload the media. • The media margin or X-start parameter may be set too low. Increase the setting.
The content on the printout is compressed	The print speed may be too high. Lower the print speed.
Nothing shows up on the thermal transfer printout.	The ink-coated side of the ribbon may not be facing the media. Reload the ribbon.

Problem	Possible Solution
The ribbon breaks	Try these possible solutions in order: <ul style="list-style-type: none"> • Make sure your media setting is appropriate for the type of media you are using. • Make sure that the ribbon is fitted correctly. Reload the ribbon. • The energy control may be faulty. For help, contact Product Service and Repair.
The ribbon wrinkles	Try these possible solutions in order: <ul style="list-style-type: none"> • It is possible that the ribbon was not loaded correctly, check the Ribbon Ink In and Ink Out Switch is in the correct position. • Darkness setting may be too high, reduce darkness setting • You may need to adjust the media edge guide and use/adjust the Media roll holder. • Incorrect or uneven print head pressure, adjust Print head Pressure and Toggle Position. • Adjust the ribbon tension bar, turn the tension bar screw clockwise to move the bar lower and decrease the tension. turn the tension bar screw counterclockwise to move the bar upper and increase the tension.
The printer is connected to the PC using a virtual COM port and printing stops. There are no errors.	Make sure that bidirectional support is disabled. From the printer properties dialog box, click the Ports tab, and then clear the Enable bidirectional support check box.
The printer is connected to a serial port on the PC but the printer is not working.	Try these possible solutions: <ul style="list-style-type: none"> • Make sure the serial port settings are configured correctly. • Make sure the serial cable pinouts are correct and that the cable is not damaged. • If you have the Windows driver for an RS-232 printer installed on your PC, uninstall the driver.

Networking Problems

Problem	Possible Solution
The Ethernet or wireless network connection is not working correctly	Try these possible solutions: <ul style="list-style-type: none"> • Make sure your network cable is securely connected to your printer and a straight pin-to-pin cable, not a crossover cable. • Make sure your PC is correctly configured for and connected to your network. • Make sure your printer is correctly configured for your network.
I can't connect to the printer web page	If you are connecting your printer with a crossover network cable, you may need to disable the web browser's proxy settings on your computer to access the printer web page.

Restore Printer Defaults

To restore factory defaults on the printer, use the printer web page or the Main Menu on the full touch printer. From the printer web page and the Main Menu on a full touch printer, you can choose to restore default network settings, keep or delete user-installed files, and to restore all system settings.

Restore Defaults from the Printer Web Page

Restore your printer's defaults from the printer web page if you are connected to a WiFi or Ethernet network.

1. Start a web browser on your desktop PC.
2. In the address field, type the printer IP address and press **Enter**. The printer web page appears.
3. Click **Login** in the upper right corner of the screen. The Login page appears.
4. Type your Username and Password in the text fields and click **Login**.
5. Select **Services > Restore Defaults**. The Restore Defaults menu appears with none of the check boxes selected.
6. To restore all default settings, select all of the check boxes and then click **Restore**. You can also restore only the defaults for specific settings:
 - To restore the current network settings, select the **Network settings** check box.
 - To restore all applications, fonts, and other files you have installed on the printer, select the **User files** check box.
 - To restore all current system settings, select the **System Settings** check box.
7. When you receive a message to reboot the printer on your desktop PC, click **OK** and restart the printer.

Restore Defaults from the Main Menu

Restore a full touch printer's defaults from the **Tools** menu.

1. From the Ready screen, open the Main Menu.
2. Select **Tools > Restore Defaults**. The Restore Defaults menu appears with all items in the list selected by default.
3. To restore all default settings, continue with the next step. You can also change the settings that are restored as follows:
 - To keep the current network settings, clear the **Network settings** check box.
 - To keep all applications, fonts, and other files you have installed on the printer, clear the **User files** check box.
 - To keep all current system settings, clear the **System Settings** check box.

4. Tap the right arrow and, when prompted, tap **Yes** to restore default settings and reboot. A confirmation message appears.
5. To return to the Main Menu without restoring the default settings, select **No**. To return to the Restore Defaults list without restoring any defaults, select **Cancel**.

Restore Defaults with a Hardware-Based Reset

Restore the printer defaults on a full touch printer by performing a hardware-based reset.

1. Turn the printer off and open the media cover.
2. Turn the printhead lift lever counterclockwise to raise the printhead.
3. Turn the printer on while pressing and holding the **Feed** button.
4. Release the Feed button when the status bar is nearly full.
5. All of the settings are restored on the printer.
6. Turn the printhead lift lever clockwise to lower the printhead and close the media cover.

Upgrade the Printer Firmware

Check for periodic updates to the printer firmware. The latest version of the firmware is available from the Honeywell Technical Support Downloads portal (<https://hsmftp.honeywell.com>). Go to **Software > Printers > Industrial**.

You can upgrade the printer firmware using:

- The printer web page
- A USB storage device
- PrintSet 5

Note: After you upgrade the printer firmware, restore the default settings and calibrate the media sensors.

Upgrade Firmware from the Printer Web Page

1. Start a web browser on your desktop PC.
2. In the address field, type the printer IP address and press **Enter**. The printer web page appears.
3. Click **Login** in the upper right corner of the screen. The Login page appears.
4. Type your Username and Password in the text fields and click **Login**.

5. Click the **Services** tab and select **Firmware Upgrade**. The Firmware Upgrade screen appears, showing the current firmware version.
6. Click **Browse** to locate the upgrade file. Select it and click **Open**.
7. Click **Upgrade**. The printer web page shows that it is upgrading firmware on your printer.

Upgrade Firmware from a USB Storage Device

Place the upgrade file in the root directory on the USB storage device.

Note: *For best results, use a USB storage device that contains no other files besides the upgrade file.*

1. Copy the firmware upgrade file to the root directory of the USB storage device.
2. Turn the printer off.
3. Insert the USB storage device into a USB host port.
4. Restart your printer. An upgrading firmware message appears as the upgrade file is loaded into the printer memory. This process may take a few minutes.
5. Remove the USB storage device.

Clean the Printer

To properly maintain the printer, you should clean it regularly. You can clean these parts of the printer:

- The printhead
- The media guides
- The exterior of the printer



Caution: To avoid possible personal injury or damage to the printer, never insert any pointed or sharp objects into the printer.



Caution: Use only the cleaning agents specified in this section. Honeywell is not responsible for damage caused by any other cleaning materials used on this printer.



Caution: Isopropyl alcohol is a highly flammable, moderately toxic, and mildly irritating substance.

Follow these guidelines for cleaning the printer:

- Always remove the power cord before cleaning.
- Never spray the printer with water. Protect it from water when cleaning the premises.

Clean the Exterior of the Printer

Clean the exterior of the printer as needed.

To clean the exterior of the printer

Wipe external surfaces with a soft cloth slightly moistened with water or a mild detergent.

Clean the Media Guides

The label stop sensor is covered by two plastic guides. The guides are transparent to allow light to pass between the two parts of the label stop sensor. These areas must be kept clean from dust, stuck labels, and adhesive residue.

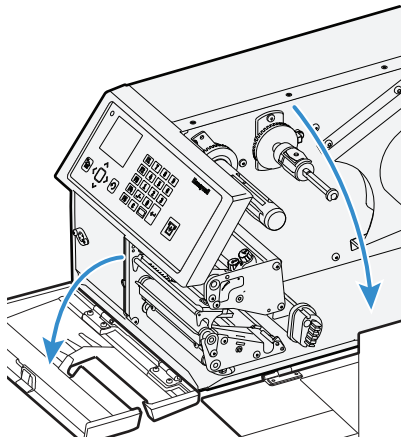
If your printer starts to feed labels in an unexpected way, pull out the upper guide and check for objects such as dust, adhesive residue, or labels blocking the beam of light. If necessary, clean the guides.



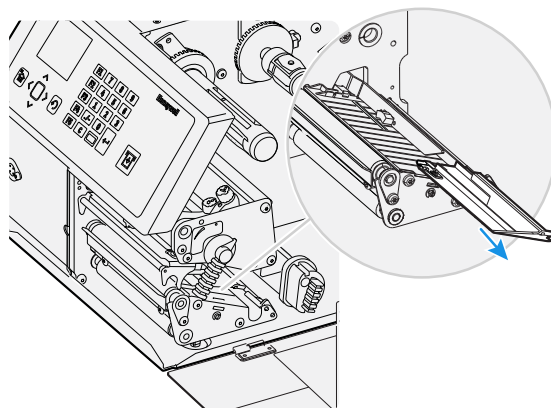
Warning: Isopropyl alcohol [(CH₃)₂CHOH; CAS 67-63-0] is a highly flammable, moderately toxic, and mildly irritating substance.

To clean the media guides

1. Open the front door and media cover.



2. Pull the upper guide straight out and press the snap-lock, lift the edge of the lower guide, and pull the lower guide straight out.



3. Clean the guides with a cleaning card or soft cloth moistened with isopropyl alcohol. Be careful not to scratch the guides.
4. Replace the upper and lower guides.

Clean the Printhead

Cleaning the printhead on a regular basis is important for the life of the printhead and for the print quality. Clean the printhead each time you replace the media. Follow this procedure to clean the printhead using the cleaning card. If you need to clean additional residue from the platen roller or tear bar, use a cotton swab moistened with isopropyl alcohol.

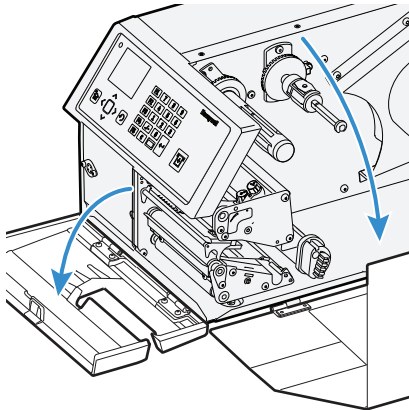


Warning: Isopropyl alcohol [(CH₃)₂CHOH; CAS 67-63-0] is a highly flammable, moderately toxic, and mildly irritating substance.

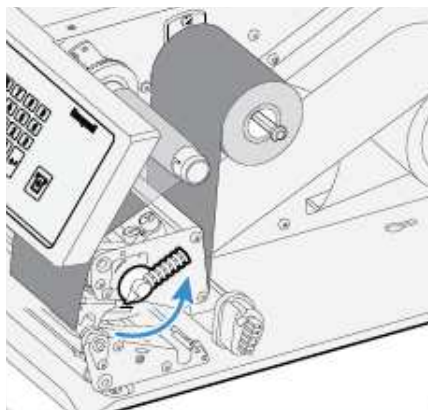


Caution: Never use any sharp tools for removing stuck labels. The printhead and rollers are delicate.

1. Turn the printer off and disconnect the printer from power.
2. Open the front door and media cover.

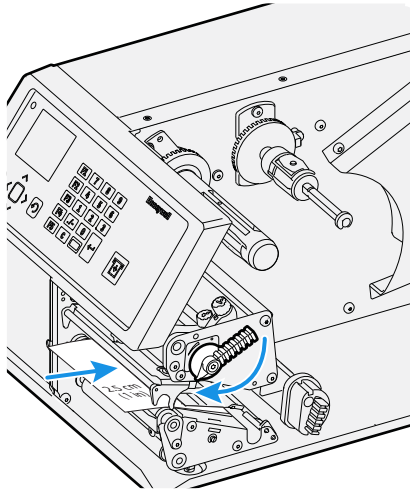


3. Turn the printhead lift lever counter-clockwise to raise the printhead.



4. Remove any media and transfer ribbon.
5. Open the cleaning card envelope and pull out the cleaning card. Read the warning text.

6. Insert most of the cleaning card under the printhead and then lower the printhead.

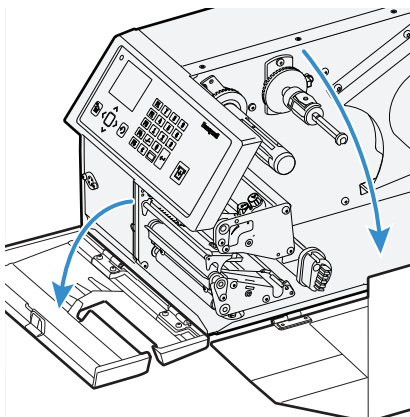


7. Pull out the cleaning card and raise the printhead.
8. Wait approximately 29 seconds to allow the cleaning fluid to dissolve the residue.
9. Repeat steps 5-7.
10. If necessary, repeat the process with a fresh cleaning card.
11. Allow the cleaned parts to dry before loading the media and ribbon.

Replace the Printhead

You need to replace the printhead periodically when it wears out due to the rapid heating and cooling process used during printing. How often you need to replace the printhead depends on factors such as what type of images you print, the type of media or ribbon you use, the amount of energy to the printhead, the print speed, and the ambient temperature of the room you print in. The firmware detects the new printhead when you restart the printer.

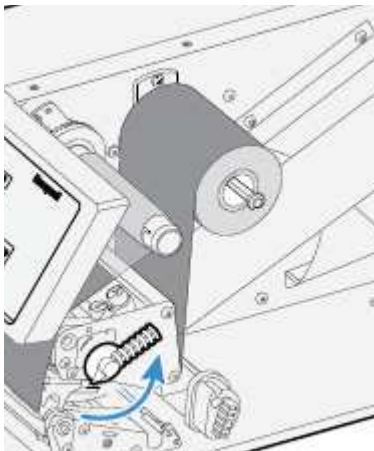
1. Turn off the printer.
2. Open the front door and media cover.



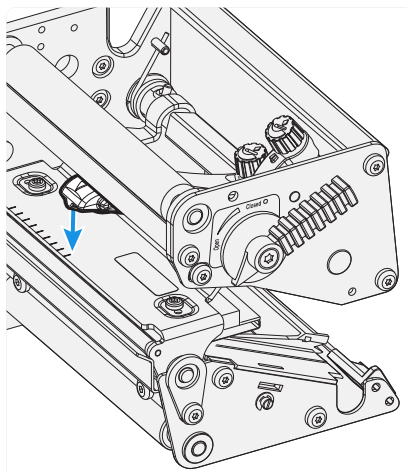
3. Pull the locking handle down (PX6ie only)



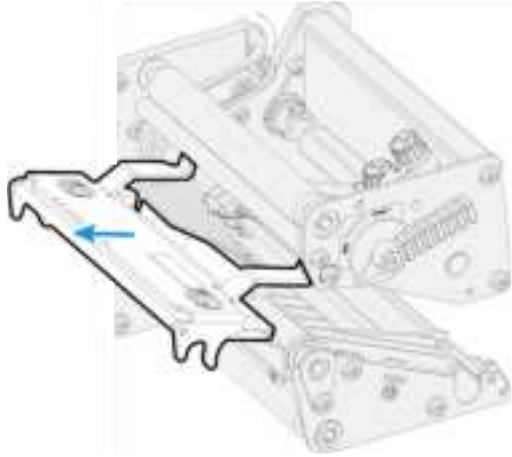
4. Turn the printhead lift lever counterclockwise to raise the printhead.



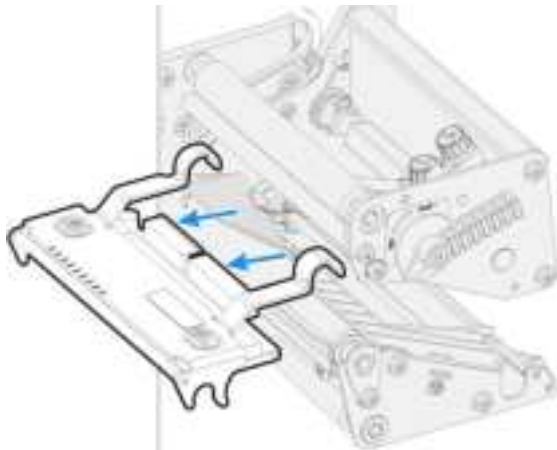
5. Remove any media and transfer ribbon.
6. Pull the printhead bracket away from the magnet in the pressure arm.



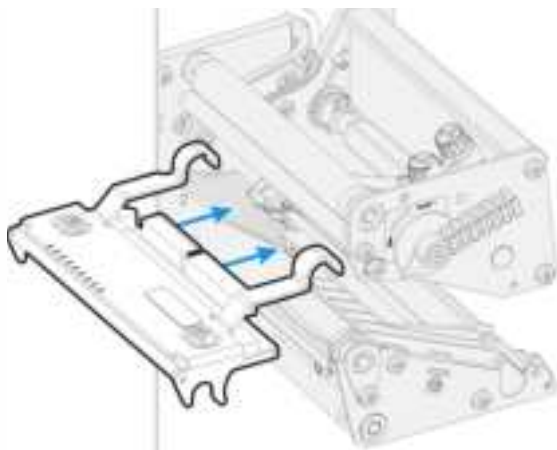
7. Disconnect the hooks of the printhead bracket from the shaft and pull out the printhead as far as the cables allow.



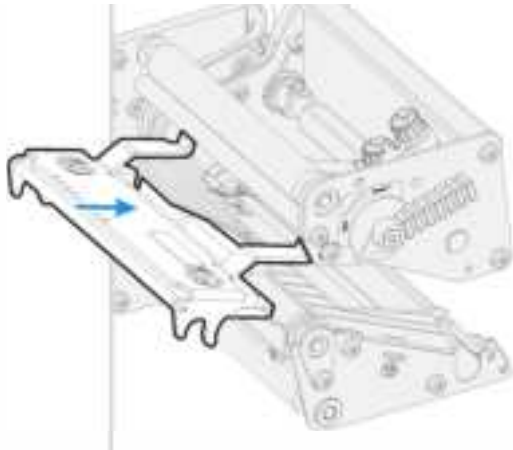
8. Disconnect the cables from the printhead. Note the snap-lock on the inner connector. Pull at the connectors, not at the cables.



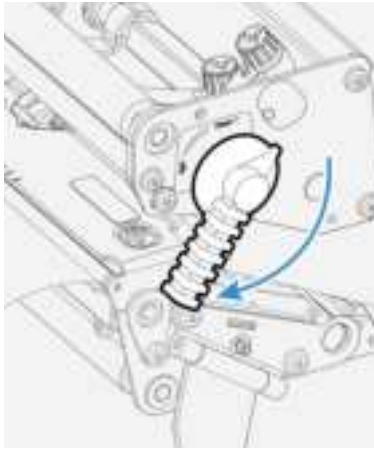
9. Connect the two cables to the replacement printhead.



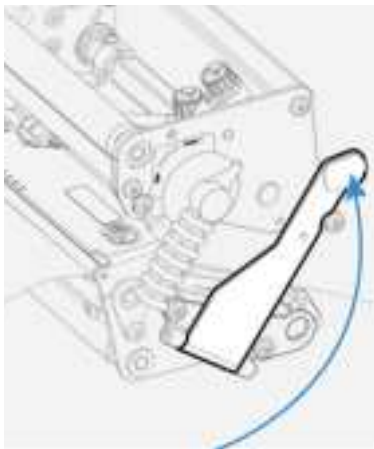
10. Connect the hooks of the printhead bracket to the headlift shaft. Make sure that the cables are not in the way.



11. Turn the printhead lift lever clockwise so the magnet engages the printhead bracket.



12. Push the locking handle up (PX6ie only)



13. Load a new supply of media and ribbon.

Adjusting the Printer

You may need to adjust your printer to accommodate your printing needs or improve performance. The following can be adjusted:

- pressure arm
- label stop sensor (LSS) position
- printhead pressure
- label taken sensor

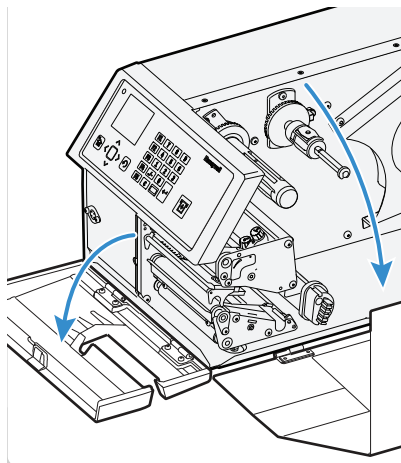
Adjusting the Pressure Arm

The printer is factory-adjusted for full-size media width. If you are using media that is less than full width, adjust the position of the pressure arm so that it is centered on the media and provides even pressure.

A poorly adjusted pressure arm may be detected by a weaker printout on either side of the media path.

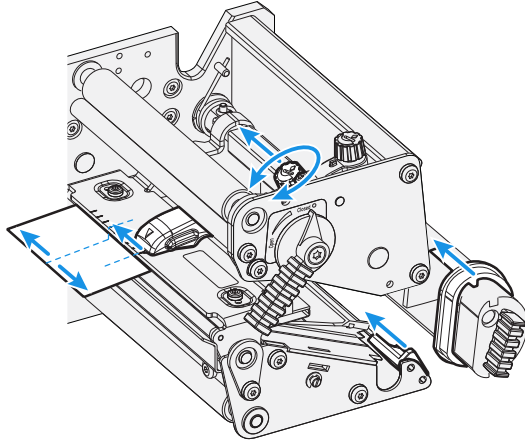
To adjust the pressure arm

1. Turn off the printer.
2. Open the front door and media cover.



3. If necessary, remove the ribbon.

4. Loosen the knob that secures the pressure arm.



5. Move the pressure arm inward or outward until the arrow on the tip of the arm is centered with the media.

Note: Move the pressure arm at the part closest to the knob, not at the tip. If the arm is difficult to move, lift the printhead and pull the printhead bracket free from the magnet in the arm.

6. When the pressure arm is centered, tighten the knob to secure the arm.
7. Adjust the edge guides.
8. If necessary, load ribbon.
9. Close the front door and media cover.

Adjusting the Label Stop Sensor

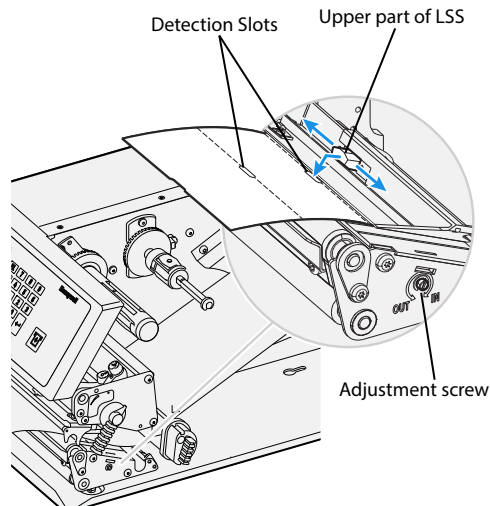
The label stop/black mark sensor (LSS) is a photoelectric sensor that controls the printer's media feed by detecting gaps between labels or slots or black marks in continuous stock, depending on the printer's media type setup. The LSS must be aligned with the gaps, slots, or black marks. If you are using irregularly shaped labels, align the LSS with the front tips of the labels.

The LSS can be moved laterally from the inner edge of the media path to 50mm (1.96in) outward, which corresponds to the center line of full width media. One part of the sensor is on the upper media guide and the other part of the sensor is under the lower guide.

To adjust the LSS

1. Use a slotted screwdriver to turn the adjustment screw.
 - Rotate the screw clockwise to move the sensor toward the center section.

- Rotate the screw counterclockwise to move the sensor outward, away from the center section.



2. Look at the print mechanism from the front with the printhead lifted to make sure that the point of detection on the upper sensor is aligned with the center of the slots or marks in the media.

Note: You can also use the markings, spaced at 1 cm (0.39in) intervals, on the lower guide plate. This method can be especially useful for black marks. Be sure to measure the lateral position of the black marks with a ruler before loading the media.

Adjusting the Printhead Pressure

The pressure of the thermal printhead against the direct thermal media is factory-adjusted, but you may need to adjust the printhead pressure to accommodate thicker or thinner media.

Do not use a higher printhead pressure than necessary because it may increase wear of the printhead and shorten printhead life.

To adjust the printhead pressure

1. Turn the adjustment knob clockwise for more pressure and a darker printout (+) or counter-clockwise for less pressure and a lighter printout (-).



2. Print test labels to check the print quality.

Note: To return the printhead pressure to the factory default setting, tighten the knob (+) as much as you can and then loosen it (-) four full times.

Label Taken Sensor Calibration

If your printer has the optional label taken sensor or the label dispenser (which includes the sensor), use the wizard to calibrate the sensor for your media.

Note: For best results, calibrate the sensor each time you load media or move the printer to a different environment. If you installed the label taken sensor module or the label dispenser in the printer, calibrate the sensor before you begin printing.

Before you calibrate the sensor, load media and ribbon in the printer as necessary.

1. In the Main Menu, select **Wizards > Calibration > Label Taken Sensor**.
2. Follow the prompts to calibrate the sensor.

Printer and Environmental Specifications

1. Go to www.honeywellaidc.com.
2. Navigate to the PX4ie/Px6ie product page.
3. Locate the **Products** tab.
4. Click on your printer model.
5. Select one of the following tabs:
 - **Specifications**
Printer specifications are listed here.
 - **Documents**
Download the Data Sheet, Quick Start Guide, User Guide, Regulatory Information, and other product documentation.

Supported Command Languages

- Autosense
- Fingerprint
- Direct Protocol
- IPL
- DPL
- ZSim
- Smart Printing (C#)

Media Sensors

- Label gap/tag notch
- Black mark
- Printhead lift

- Media low
- Ribbon low

Network Services

- FTP
- HTTP Server
- SNMP v1/2c/3
- SNMP client support for IPv4 and IPv6
- WINS for IPv4
- BOOTP for IPv4
- DNS client support for IPv4 and IPv6
- Line Printer Protocol
- Raw TCP (Telnet in/out)
- DHCP client for IPv4 and IPv6 network (dual stack)
- IPv4 and IPv6
- Ping
- IPSEC/IKEv2 over IPv6
- SSH
- Network Time Protocol (NTP)
- Supports 10/100Mbps Ethernet (10BASE-T, 100BASE-T)

Fonts

Resident Fonts

- Andale Mono
- Andale Mono Bold
- CG Times
- CG Times Bold
- CG Triumvirate Condensed Bold
- Century Schoolbook Roman
- Dutch 801 Roman
- EPL203FNT1
- EPL203FNT2
- EPL203FNT3

- EPL203FNT4
- EPL300FNT1
- EPL300FNT2
- EPL300FNT3
- EPL300FNT4
- EPL300FNT5
- Honeywell Sans TT Bold
- IPLFNT0H
- IPLFNT1H
- IPLFNT20
- IPLFNT20H
- IPLFNT21
- IPLFNT21H
- IPLFNT22
- IPLFNT23
- IPLFNT23H
- IPLFNT24
- IPLFNT24H
- IPLFNT2H
- IPLFNT30
- IPLFNT30H
- IPLFNT31
- IPLFNT31H
- IPLFNT32
- IPLFNT32H
- IPLFNT33
- IPLFNT33H
- IPLFNT34
- IPLFNT34H
- IPLFNT35
- IPLFNT36
- IPLFNT37
- IPLFNT7H
- IPLFONT0
- IPLFONT1

- IPLFONT2
- IPLFONT7
- Letter Gothic
- MHeiGB18030C-Medium
- Monospace 821
- Monospace 821 Bold
- OCR A
- OCR B
- Univers
- Univers Bold
- Univers Condensed Bold
- Univers Extra Condensed

Downloadable Fonts

For broader language and character support, any Unicode TrueType or TrueType-based OpenType font may be downloaded. Fonts from Monotype Imaging are recommended to address global languages. The fonts below have been tested and are available for purchase and download at www.fonts.com.

WorldType Collection fonts support all global languages whereas the other fonts listed support specific languages.

- Angsana New Regular
- Helvetica World
- MSung PRC Medium
- MSung HK Medium
- HYGothic-Medium
- TBMinPro-Light
- NarkisClassicMF
- WorldType Collection J
- WorldType Collection K
- WorldType Collection S
- WorldType Collection T

Supported Font Types

- TrueType
- OpenType
- Bitmap

Bar Code Symbologies

1D Bar Code Symbologies

- Codabar
- Code 11
- Code 39
- Code 93
- Code 128
- DUN-14/16
- EAN
- HIBC 39
- HIBC 128
- Industrial 2 of 5
- Interleaved 2 of 5
- ISBT-128
- Matrix 2 of 5
- Straight 2 of 5
- UPC

2D Bar Code Symbologies

- Aztec
- Code 16K
- Code 49
- Data Matrix
- DotCode
- Grid Matrix
- MaxiCode
- MicroPDF417
- MSI (modified Plessey)
- PDF417
- Planet Code
- Plessey Code
- Postnet
- QR Code
- RSS-14
- USPS 4-State Customer Bar Code

Graphic File Types

- PCX
- PNG
- GIF
- BMP

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