

Honeywell

PM45 and PM45c

Mid-Range Industrial Printer



User Guide

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Customer Support

Technical Assistance

Go to www.honeywell.com/PSTechnicalsupport to search our knowledge base for a solution or to log into the Technical Support portal.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. Go to www.sps.honeywell.com and select **Support** to find a service center near you or to get a Return Material Authorization number (RMA #) before returning a product.

Limited Warranty

For warranty information, go to www.sps.honeywell.com and select **Support > Warranties**.

Safety Warnings



Warning: Do not put your fingers inside the print mechanism when the power is on.



Warning: This printer contains a coin battery and is NOT user replaceable. Keep children away from the printer when the printer is in service.

Never put batteries in your mouth as swallowing may lead to serious injury or death. If swallowed, seek medical attention immediately from a physician or local poison control center.

Caution Statements



Caution: Observe all safety and accident prevention regulations applicable to your specific region and application.



Caution: You must implement both hardware and software safety precautions to prevent the possibility of undefined system states.



Caution: You must make sure that dangerous conditions cannot occur under any circumstances, even for a brief period of time.



Caution: To reduce the risk of electric shock or fire, keep the cover closed and turn off the printer when not in use. There are no user-serviceable parts inside the power supply unit.

Shipping the Printer

To avoid printer damage during transit:

1. Power off the printer and remove all cables.
2. Remove media and ribbon (if installed) from the printer.
3. Lower the printhead to lock it in place.
4. Pack the printer in the original package.

Note: Honeywell is not responsible for any damage caused during shipment/transit.

GET STARTED

The PM45 and PM45c printers are rugged label printers that include integrated USB, RS-232, Ethernet interfaces. You can connect the printers to a single PC, a wired network, or a wireless (optional) network.

Note: *Bluetooth LE is only used with Print Set MC to configure the printer on Android and iOS devices.*

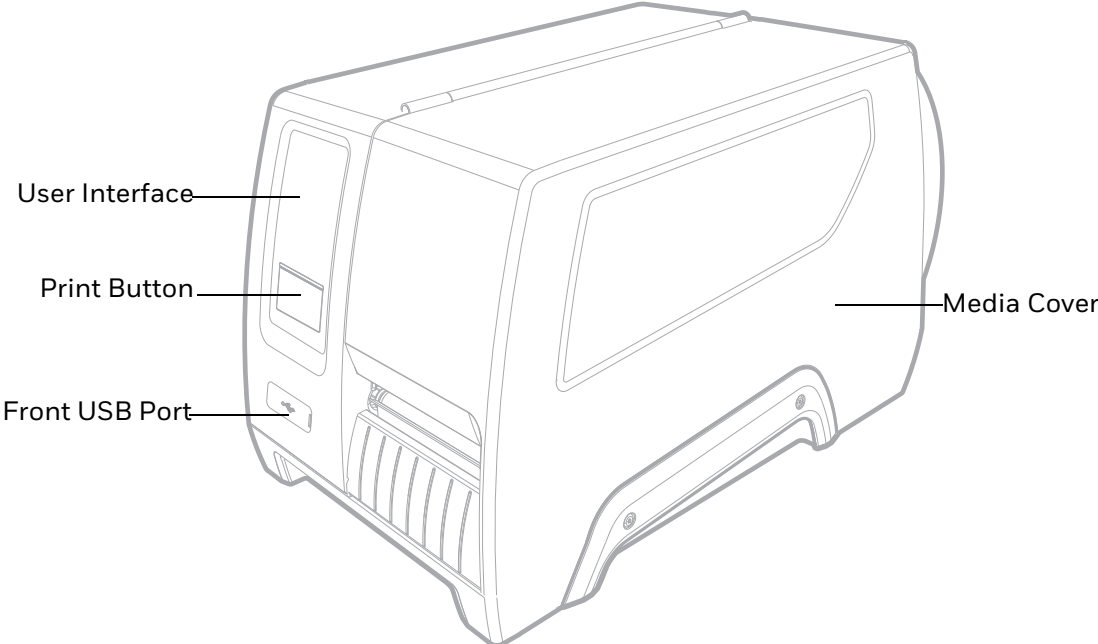


Caution: Read and review the warnings in this manual carefully before connecting the printer.

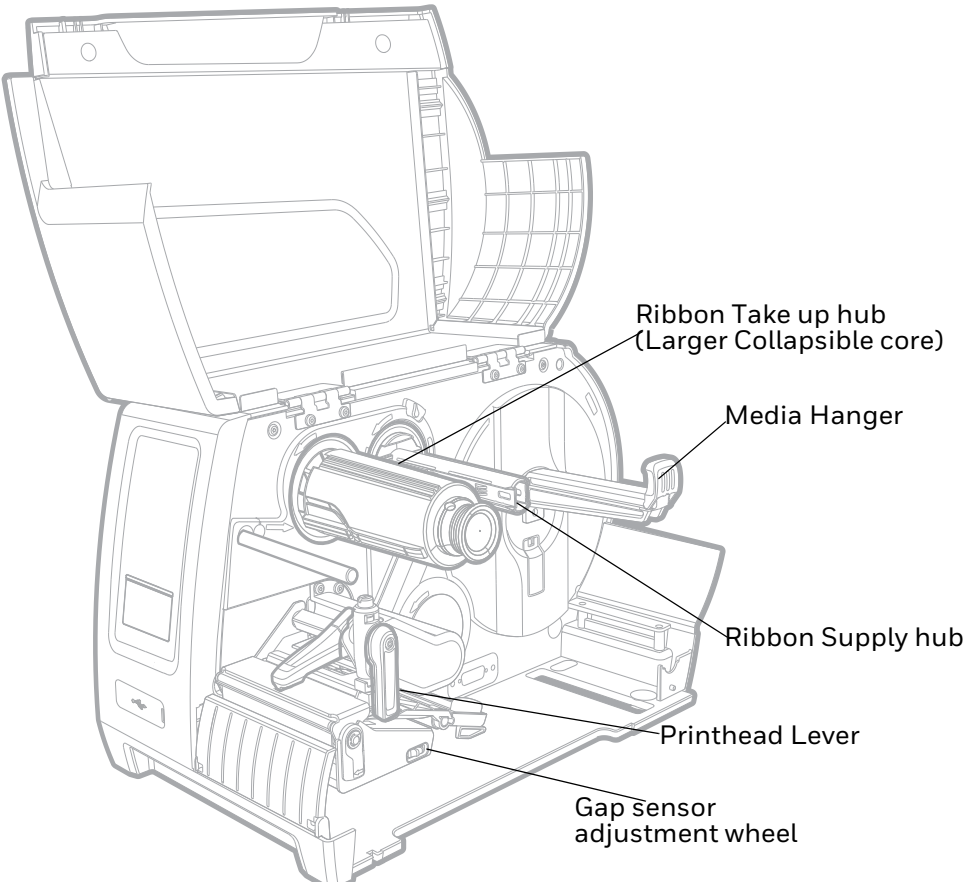
Features

- Print speed of up to 14ips(203dpi), 12ips(300dpi), 10ips(406dpi), and 6ips (600dpi).
- High precision printing.
- Larger ribbon collapsible core for easy ribbon removal.
- Graphical User Interface with full touch (non LED icon models).
- Enhanced security with secured flashing.
- Smart Media calibration.
- USB host port for connecting storage devices, scanners, or keyboards.
- USB device port to connect to a PC.
- Honeywell PrintSet MC support.
- Honeywell Opintel support for print optimization.
- Multiple printer languages support including Fingerprint (FP), Direct Protocol (DP), Intermec Printer Language (IPL), Zebra Simulation (ZSim), Datamax Printer Language (DPL), and Smart Printing (C#) and Direct PDF printing.
- Wide range of printer accessories.

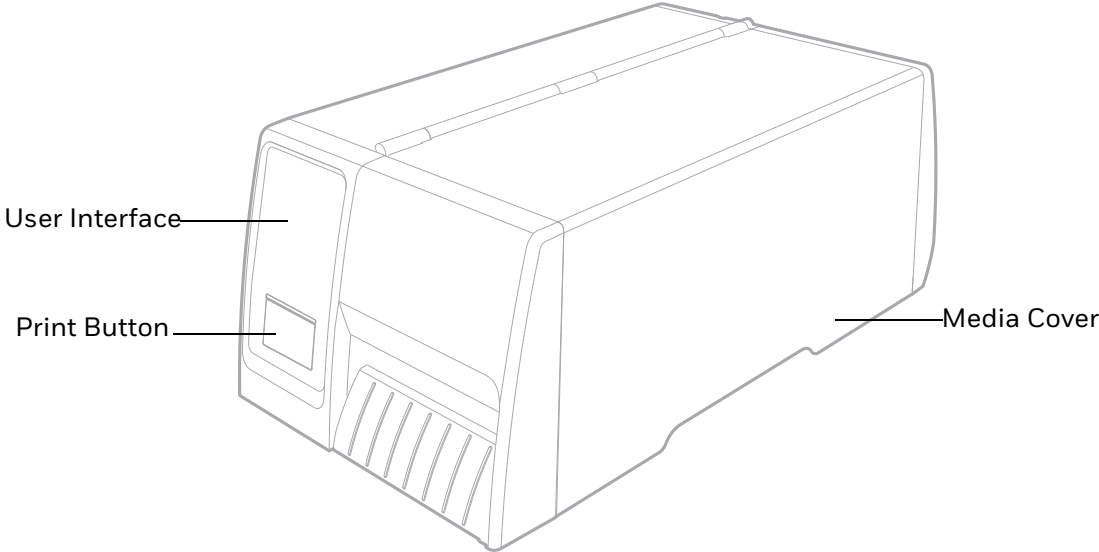
PM45 - Front View



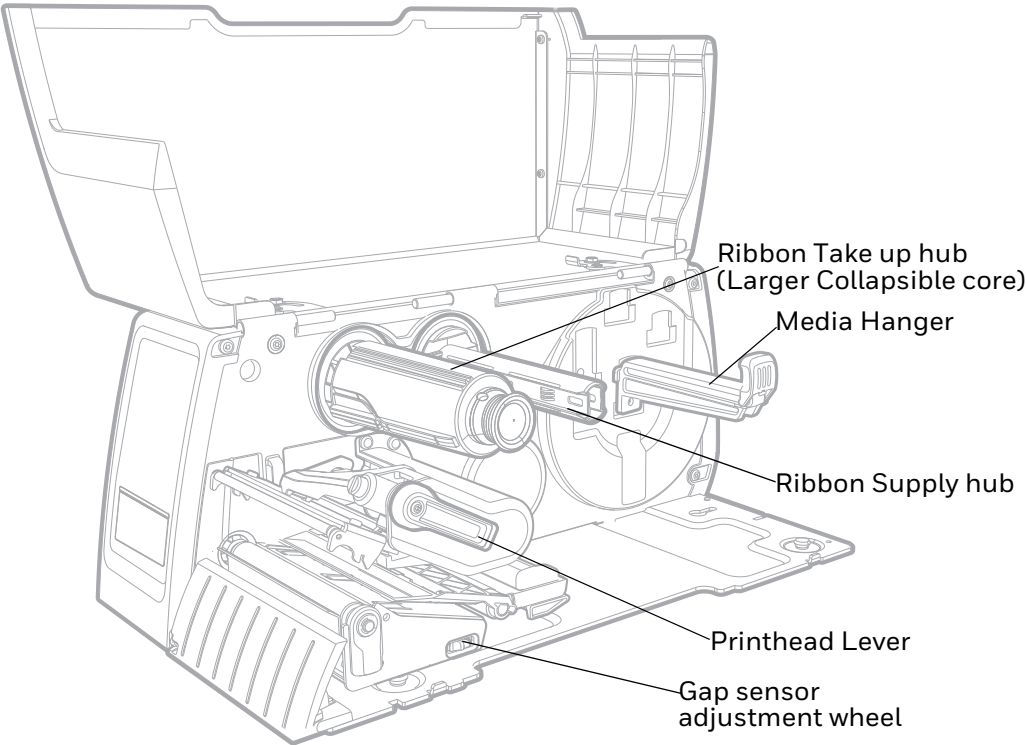
PM45 - Internal View



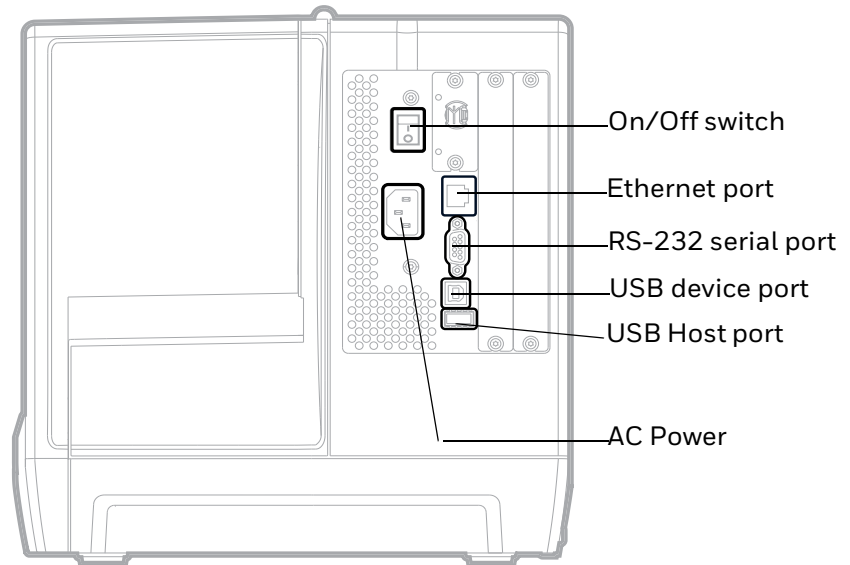
PM45c - Front View



PM45c - Internal View



Back View (Ports and Power)



About the Front Panel

There are two types of user interface available for PM45 and PM45c models.

- LED Icon (no display)
- Touchscreen display



Front Panel of PM45 and PM45c Icon Display Printer







Front Panel of PM45 and PM45c Touchscreen Display Printer








Note: Both versions of the front panel contain the Print button. Only PM45 printer has a USB port on the front panel.

About the LED Icon Front Panel

The icon front panel contains the icons that light up to indicate printer communications, printer errors, and maintenance issues.

Use this table to understand what it means when an icon lights up.

Icon	Name	Color	Description
	Wi-fi Communication	White	Wireless signal.
		Flashing White	Sending or receiving data.
		Off	Wireless disabled or not installed.
	Connectivity	White	Good connection
		Flashing White	Sending or receiving data.
		Off	No data is being sent or received.
	Bluetooth	White	Bluetooth is enabled.
		Flashing White	Sending or receiving data.
		Off	Bluetooth is disabled or not installed.
	Media	Red	Out of media or there is problem with the media (jammed, not loaded correctly).
		Off	Media is available and loaded correctly

Icon	Name	Color	Description
	Printer Configuration	Red	There is printer configuration problem.
		Off	There are no configuration problems.
	Ribbon	Red	Out of ribbon or there is problem with the ribbon (not feeding or loaded incorrectly).
		Off	Ribbon is good or the printer is not configured to use ribbon.
	Printhead Hot	Red	The printhead is too hot.
		Off	The printhead temperature is normal and ready for printing.
	Printhead Lifted	Red	Printhead is lifted.
		Off	Printhead is lowered.
	General Error	Red	There is printer problem not associated with any of the other icons.
		Off	There are no general errors.
	Pause	White	The Printer is paused.
		Off	The printer is not paused.
	Maintenance	Amber	Maintenance is required and a lifetime odometer setting is reached.
		Off	No maintenance is required.

About the Touchscreen Display Panel

The front panel has a 3.5 inch touch screen that supports touch input with fingers, gloved hands, or a stylus.

Print Button

Use the **Print** button to feed media, pause print jobs, calibrate, test feed, and print.



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







Ready Screen

The Ready Screen appears when the printer is powered on and has completed its startup process.

Note: The icon for Wi-Fi status appears only when the optional Wi-Fi module is installed.

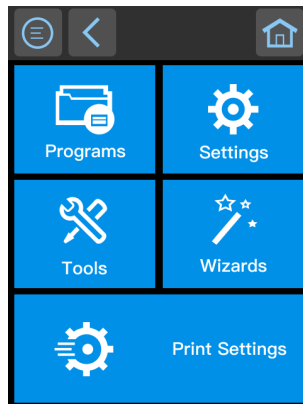
By default, the information bar at the bottom of the screen shows the printer command language and the printer IP address. You will see the time and current date only if the real time clock (RTC) is installed. You can customize the screen to show different types of information.

The status bar at the top of the screen includes these icons:

Icon	Name	Description
	Main Menu	Press the icon to view the main menu for your printer.
	Communications	Press the icon to view communications information for your printer.
	Printing	Press the icon to view specific printer information.
	Wi-Fi Connectivity	Press the icon to view Wi-Fi connectivity information.
	Bluetooth	Press the icon to view Bluetooth/Bluetooth LE information for your printer.
	Back	Press this icon to navigate back through the printer menus.

Main Menu

On the printer Ready screen, press  to view the Main Menu.



Note: If you create menu shortcuts, the Main Menu is replaced by the Quick Choices menu.










Select the **Programs, Settings, Tools, Wizards, or Print Settings** menu.

- **Programs** displays a list of programs installed on the printer. This list includes utility programs provided as part of the firmware and programs you have installed. **Programs** appears in the Main Menu only if the printer is using Fingerprint, Direct Protocol, or DPL as the command language.
- Select **Settings** to view and change printer settings (communication, printing, system settings, network services, and printer language).
- Select **Tools** to print test labels, manage a connected USB storage device, restore printer default settings, or save and load printer profiles.
- Select **Wizards** to see a list of wizards that help you configure printing or communication settings, or calibrate the media sensors.
- Select **Print Settings** to view and change print settings.

Note: *The printer cannot print while the Main Menu is showing. Exit the Main Menu and return to the Ready screen to begin printing.*

Navigate the Main Menu

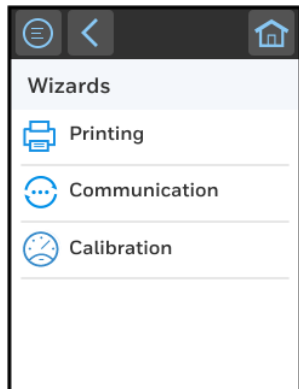
Use the status bar buttons to navigate between menus in the Main menu and save changes.

Button	Description
	Returns to the Main menu
	Goes back one level in the menu
	Returns to the Ready screen
	Moves between options in a settings menu
	Moves to additional options not viewable in the menu
	Wi-fi: Gives the Wi-Fi connectivity information and available Wi-Fi networks.
	Bluetooth: Gives the device name and device address
	Information: Gives Communications information such as Ethernet, Serial, and USB.
	Printer Information

Note: *Use the horizontal scroll bar for settings with additional options.*

Wizards

The full touch display printer includes several wizards you can use to quickly set up your printer. You can start all of the wizards from the Main menu except for the startup wizard. The startup wizard appears the first time you turn on the printer and after the printer has been reset to the factory default state.



Printing Wizard

Wizard	Description
Media Loading Guide	Shows how to load media.
Ribbon Loading Guide	Shows how to load ribbon.
Media Setup	Select media and printing type (DT or TTR), media width, length, and X-margin, Label Reset and Label Top Adjust values, and print speed.
Print Quality	Prints a series of labels to determine the best print quality setting.

Communications Wizard

Wizard	Description
Line Analyzer	Logs all incoming data on all communications channels and saves the data to a log file. For advanced users.
Wireless 802.1x	Looks for wireless networks and sets up Wi-Fi communications. Available when Wi-Fi/Bluetooth module is installed.
Bluetooth	Looks for discoverable Bluetooth devices and sets up Bluetooth communications. Available when Wi-Fi/Bluetooth Module is installed.

Calibration Wizard

Wizard	Description
Media	Calibrates all media sensors and shows current print settings.
Label Taken Sensor	Calibrates the label taken sensor used with the label dispenser. Available when the label taken sensor is installed.
RFID	Calibrates the optimal label adjustment and output power setting for the RFID media loaded in the printer. Available when the RFID module is installed.
Date and Time	Configures the date and time.
Screen	Calibrates the touch screen.

Printer Command Languages and Simulator Support Options

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:

- [Direct Protocol](#)
- [Fingerprint](#)
- [IPL](#)
- [ZSim](#)
- [DPL](#)
- [Smart Printing \(C#\)](#)
- [Direct PDF Printing](#)

Direct Protocol

Direct Protocol (DP) uses a more intuitive English-like syntax. 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.

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.

Note: *IPL can be supported on 200dpi, 300dpi, and 406dpi printers only.*

ZSim

The ZSim (Zebra Printer Language Simulator) 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.

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.

Direct PDF Printing

PDF printing refers to the ability of the printer to directly print PDF files without additional middleware or smart device with generated PDF. If you are sending PDF files to the printer, select PDF printing as your printer command language.

Note: *You can use command languages, like Direct Protocol, and language simulators, like ZSim, to create and print labels. For more information, see the command reference manual for your desired language. For details on how to use Smart Printing directly on the printer, see the Fingerprint Command Reference Manual.*

Access the Printer Web Page

1. Open a browser window on your PC.
2. In the location or address bar, type **https://** followed by the printer IP address and press **Enter**.

Note: The default printer web page is set to HTTPS protocol.

3. Click **Login**. The Login page appears.

You will be prompted for a user name and password. The defaults are:

- User Name: **admin**
- Password: **pass**

After logging in, you will be prompted to change your password.

Note: You can also enter **User** in the Username field without the need of a password to Login. This will allow you to access limited features in the printer web page.

Set the Printer Command Language

You can use one of these methods to change the printer command language:

- From the printer web page
- From the Main Menu
- PrintSet 5
- Print Set MC

From the Printer Web Page

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

1. Follow the directions to [Access the Printer Web Page](#).
2. Once you are logged in to the printer web page, click **Configure**.
3. Click **System Settings > General**.
4. Select the printer command language you want to use from the Command Language list, and then click **Save**. A restart button will appear at the top of the page.
5. Click **Restart**.

From the Main Menu

You can use this procedure to change the printer command language from the main menu on the printer.

1. From the Ready screen, press the **Main Menu** button.
2. From the Main Menu, press **Settings > System Settings > General**.
3. Scroll down until you reach **Command Language**, and make your selection.
4. **Restart** the printer: the printer starts up in the command language that you selected.

SET UP THE PRINTER

This section contains information about loading media and ribbon, printing a test label, calibrating the screen, and adjusting the printer.

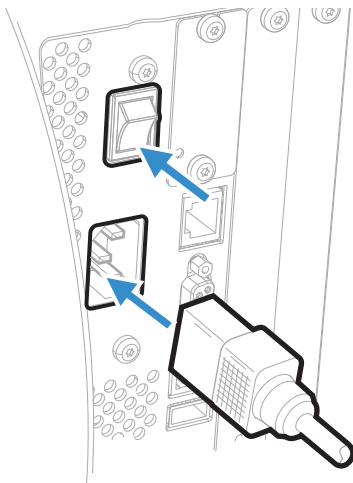
Power Up the Printer

The printer goes through a startup wizard the first time you turn on the power.

1. Connect one end of the power cord to the back of the printer and plug the other end to AC power.



Warning: Installing the printer requires a power cord connected to a socket-outlet with an earthing connection.



2. Press the power switch to turn on the printer.
3. As the printer starts up, a progress bar appears, then the startup wizard appears.

4. Follow the steps on the touch screen to complete the startup wizard.

Note: During the startup process, you are requested to select **Menu Access** method. By default all menus are available from the Main Menu the first time you turn on your printer. You can select **Enable by PIN** to restrict access to menus or disable access to all menus. For more information, see [Restrict Access to the Main Menu](#).

Calibrate the Touchscreen

You can calibrate the touchscreen using the printer website followed by performing touch sequence on the touch panel of the printer.

You can also calibrate the touchscreen from the touch panel on the printer.

To calibrate the touchscreen:

To access the website, make sure your printer is connected to the same network as your computer.

1. Open your browser and type **https://** followed by the printer IP address into the web address bar.
2. In the menu section, click on **Services > Screen Calibration**. If you are prompted to login, the temporary username is **admin** and the password is **pass**.

Note: Once you are logged in, you have option to change the username and password.

3. Click on the blue **Screen Calibration** button, this will engage the touch panel on the printer to start screen calibration.
(or)
On the touch panel of the printer, tap on the **Main Menu** icon > **Wizards** > **Calibration** > **Screen**. Tap **Yes** to start screen calibration.
 - When the small square appears on the front touch panel of the printer, **touch the square** and continue to touch the square until the printer beeps.
4. Once calibration is complete, your touch screen will automatically return to the **Ready** screen.

Note: Typical screen calibration consists of five touches (one in each corner and one in the middle of the screen).

About the Media

The printers can print on labels, tickets, tags, and continuous stock. The procedure you use to load media depends on how you are operating the printer and the options you have installed.

Load Media for Tear-Off Printing

Tear-off printing is applicable to media with perforation. Printed labels, tickets, and other printed media are manually torn from the front of the printer. These of media can be used for tear-off printing:

- Non-adhesive continuous stock.
- Self-adhesive continuous stock with liner.
- Self-adhesive labels with liner.
- Tickets with gaps, with or without perforations.
- Tickets with black marks, with or without perforations.

To load media for tear off printing:

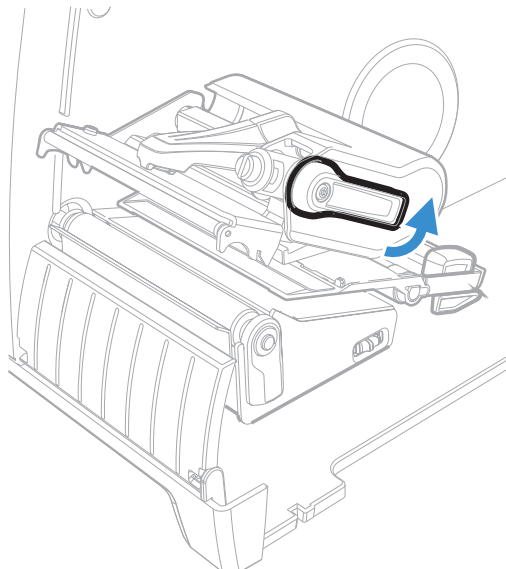
You can install an optional label taken sensor that detects when the current label is removed and prints the next label.

1. Open the media cover.
2. Turn the printhead lift lever counterclockwise to raise the printhead.

Note: This procedure applies for both PM45 and PM45c printer. For simplicity, the PM45 is depicted in the illustrations.

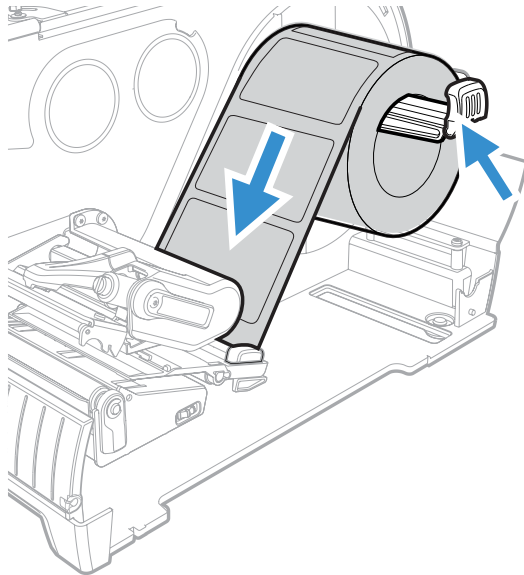


Warning: The tear bar contains sharp edges. Keep fingers and other body parts away from the tear bar.

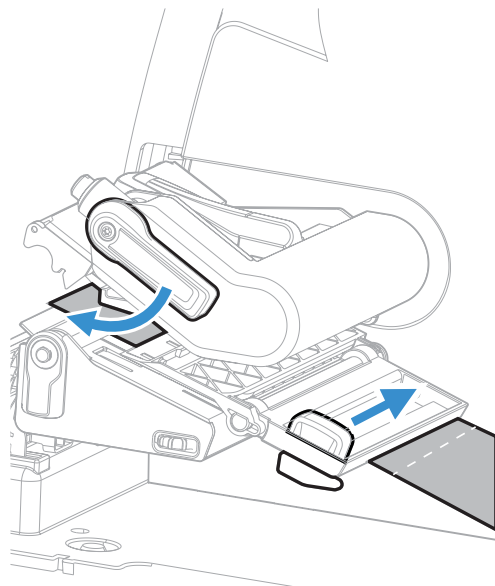


3. Load the media roll onto the media supply hub.

Note: Make sure you push the roll all the way against the inner wall of the printer.



4. Route the media through the print mechanism.
5. Adjust the media and dancer guides to hold the media in place. Adjust the printhead balance.
6. Adjust the label gap and black mark sensor by turning the sensor adjustment knob. The sensor blue LED should line up with the center of the media.
7. Turn the printhead lift lever clockwise to close the printhead.

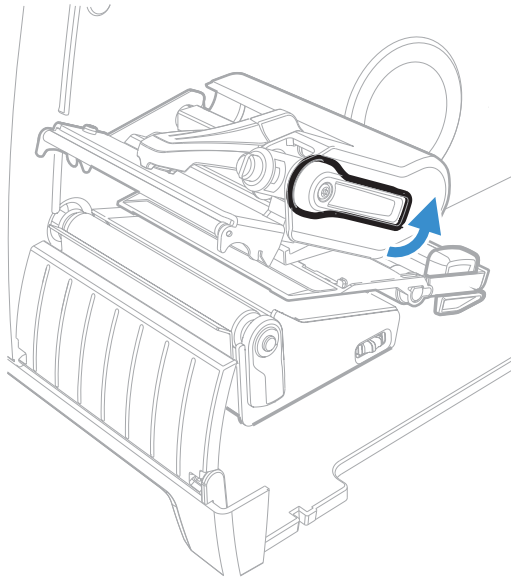


8. The media is automatically advanced once you lock the printhead in place.

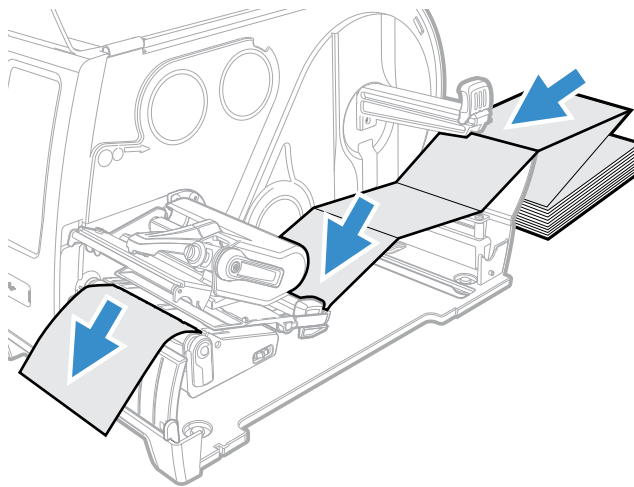
Load Media from an External Supply

You can place the media supply, such as fanfold tickets or tags, behind the printer or underneath it.

1. Open the media cover.
2. Turn the printhead lift lever counterclockwise to raise the printhead.



3. Feed media through the slot in the back of the printer (or from the slot in the bottom of the printer) and route it through the print mechanism.

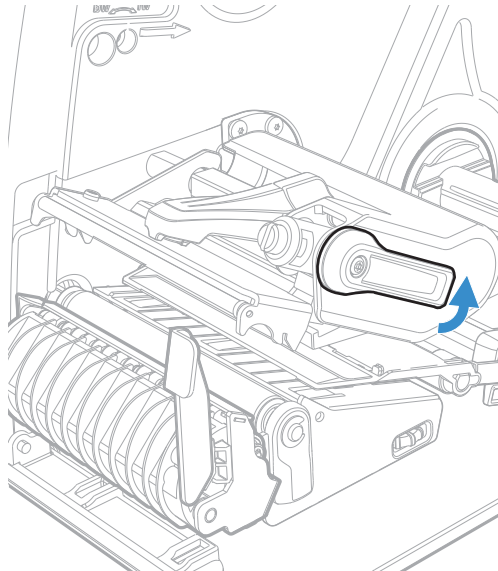


4. Turn the printhead lift lever clockwise to close the printhead. The printer performs the action defined by the Head Down Action setting (Smart calibration).

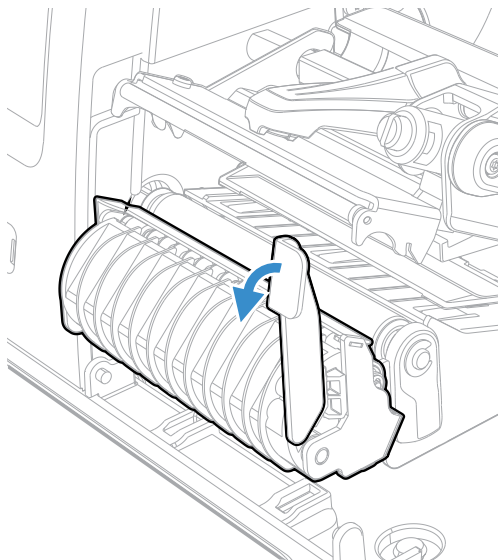
Load Media for Label Dispenser

The label dispenser accessory which includes the label taken sensor removes the liner from self-adhesive labels from the liner. The label taken sensor causes the printer to wait for you to remove a label before printing the next one.

1. Open the media cover.
2. Turn the printhead lift lever counterclockwise to raise the printhead.

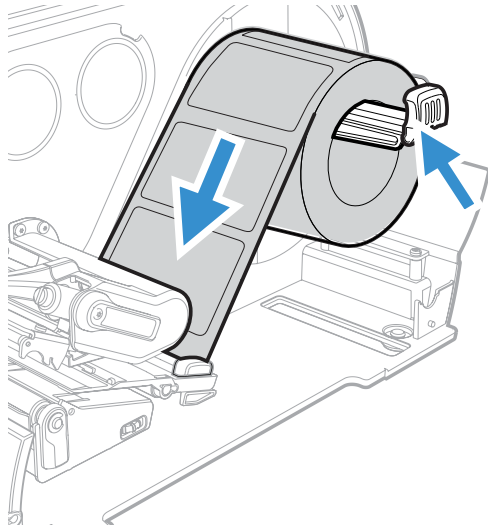


3. Pull down the label dispenser lever to open the media path.

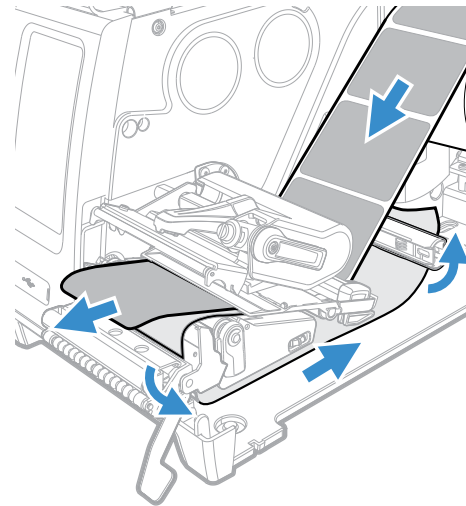
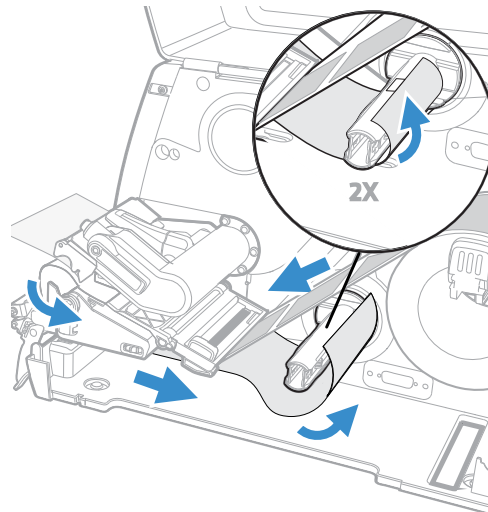


4. Load a media roll onto the media supply hub. Adjust the edge guide and dancer guide to hold the media in place.

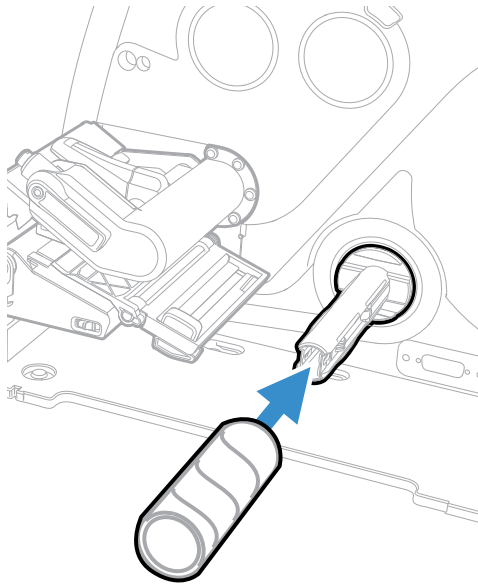
Note: Make sure you push the roll all the way against the inner wall of the printer.



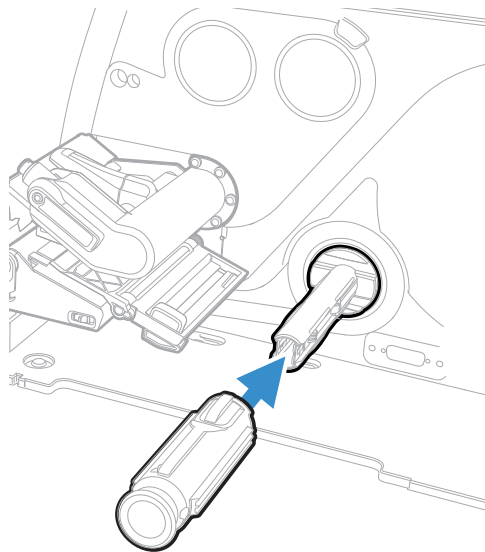
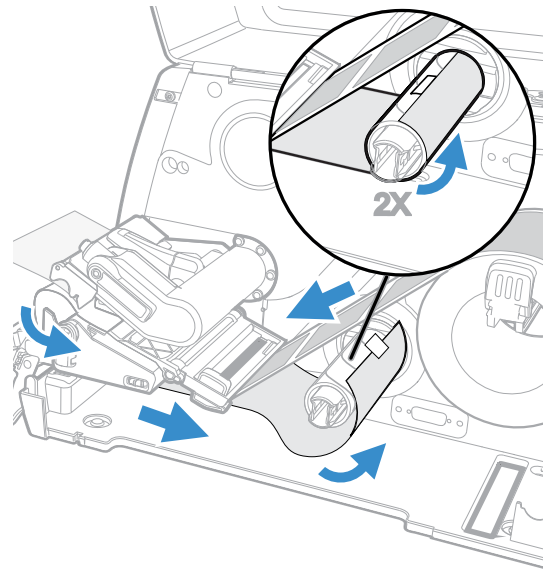
5. Route the media through the print mechanism and out of the front of the printer.
6. Insert the media in the opening between the label dispenser and the platen roller.
 You can pull the liner through the dispenser and out of the bottom of the mechanism or you can route the liner around the internal media rewriter (if installed).



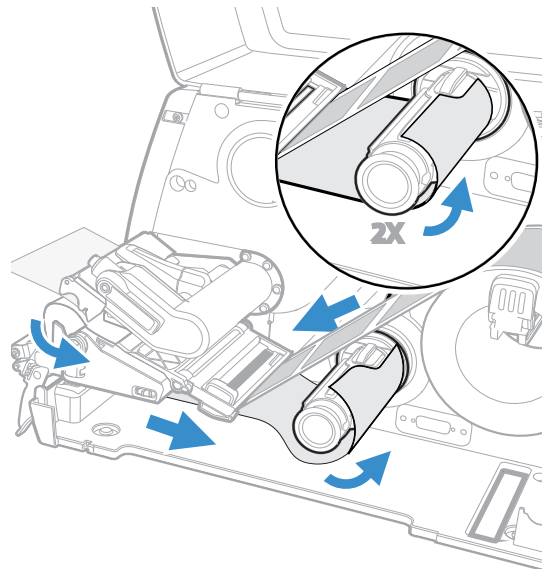
Route the liner around internal media rewriter



Route the liner around cardboard core



Route the liner around collapsible core



7. Align and pull the liner tight around the rewinder and push the label dispenser lever back into the closed position.

Note: You can select the Peel Strength from the Main Menu. Select Settings > Printing > Media > Peel Strength.

8. Turn the printhead lift lever clockwise to close the printhead. The media advances.

About Cut-Off Printing

In cut-off printing, each label is automatically cut from the media roll immediately after the label is printed. You can print on non-adhesive, continuous label stock. You can also use self-adhesive labels with a liner, but you must cut only the liner.



Caution: You must not use the cutter to cut through any kind of adhesive, or other soft material, that may stick to the cutting parts and render the cutter inoperable or even damage the electronic motor.

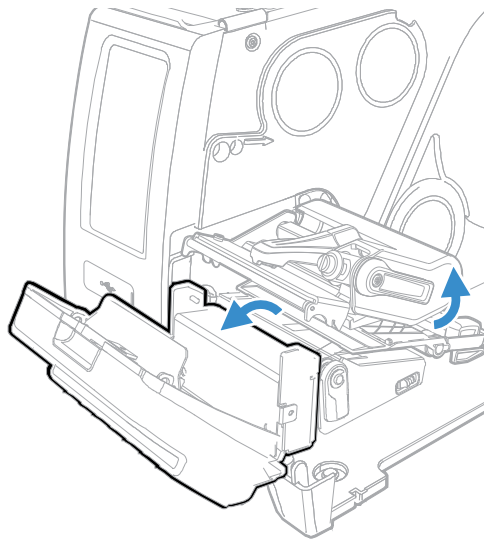
The cutter module includes the top of form sensor. You can also install the optional cutter tray accessory which holds up to 20 labels or tickets.

After you load the media, you need to configure the cutter and the feed adjust settings. You may need to adjust the recommended values slightly depending on your media type, supply method, and roll sizes, or because of individual differences between the printers.

Load Media for Cut-Off Printing

Cut-off printing is supported by both the PM45 and PM45c printers with the cutter installed.

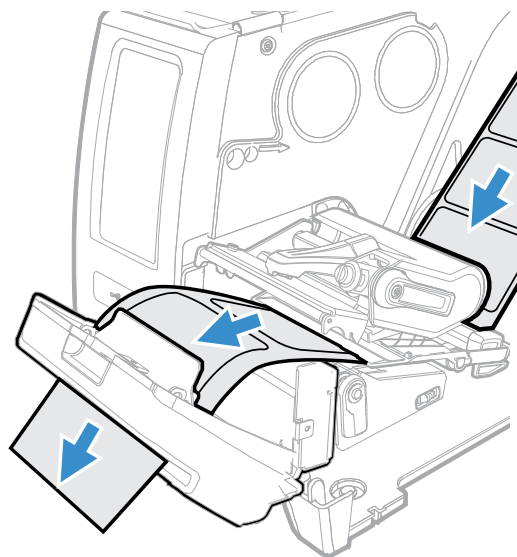
1. Open the media cover.
2. Turn the printhead lift lever counterclockwise to raise the printhead.
3. Open the cutter door.





4. Load a media roll onto the media supply hub.

Note: Make sure you push the roll all away against the inner wall of the printer.

5. Route the media through the print mechanism and out through the slot in the cutter. Adjust the edge guide and the dancer guide to hold the media in place.

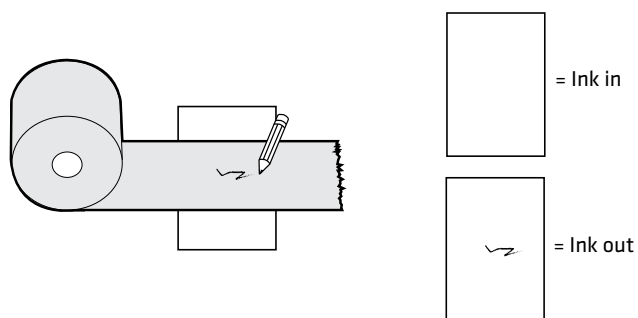


6. Close the cutter door.
7. Turn the printer On and close the media cover.
8. Configure the cutter:
 - If you have an icon printer, use PrintSet 5 or a printer command language to configure the cutter.
 - If you have a touchscreen printer, continue with next step.
9. After the printer finishes starting up, press .
10. Select **Settings > Printing > Cutter**.
11. In the Cutter Control options, select **Automatic**.
12. Press  to save your settings.
13. Configure the Label Top Adjust and Label Rest Adjust settings.

About the Ribbon

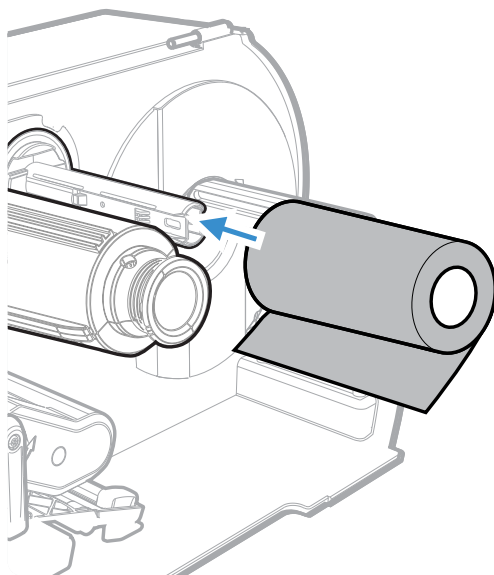
Thermal transfer printing provides a durable printout that is less vulnerable to chemicals, heat, and sunlight than direct thermal printing. Select a ribbon type that matches the media you are using and configure the printer for thermal transfer media.

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

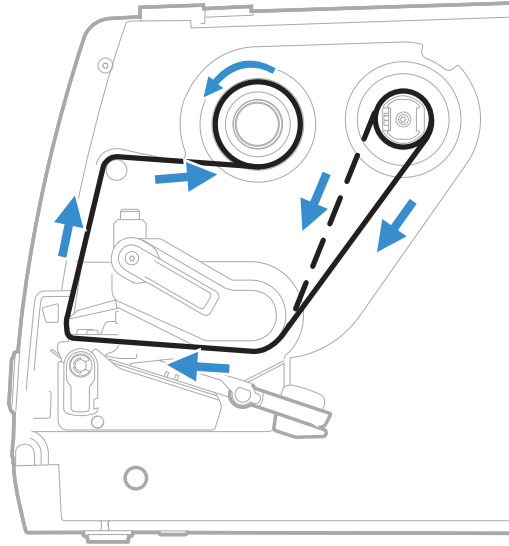
1. Open the media cover.
2. Turn the printhead lift lever counterclockwise to raise the printhead.
3. Slide the ribbon roll onto the ribbon supply hub.



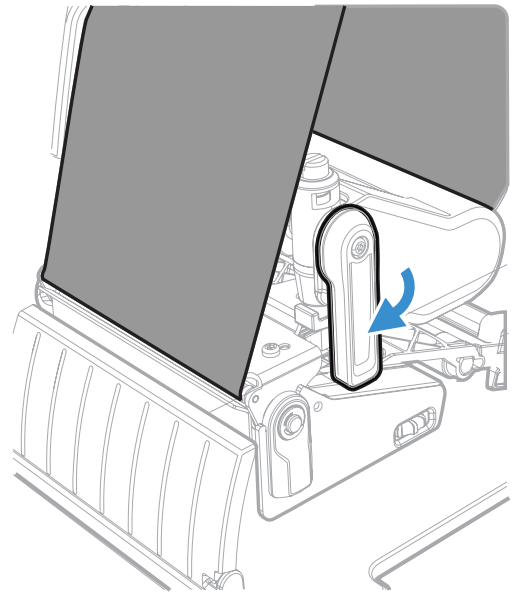
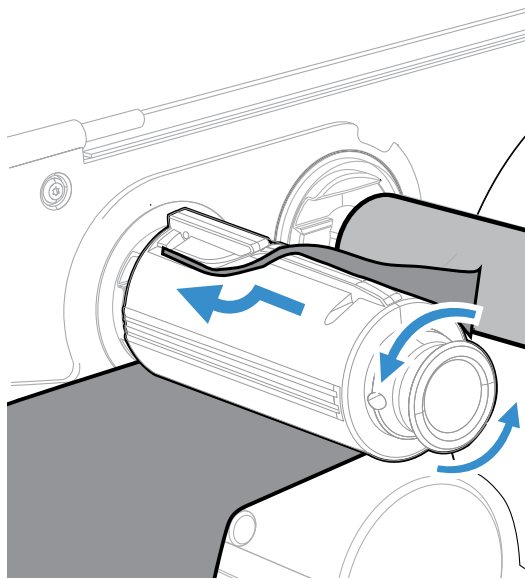
Note: For ribbon that has the ink wound out, place the ribbon on the ribbon supply hub with the ribbon wound clockwise. For ribbon that has the ink wound in, place the ribbon on the ribbon supply hub with the ribbon wound counterclockwise.

4. Route the ribbon through the print mechanism and pull out approximately 8 inches (20cm) of ribbon leader.

The dotted line in this illustration shows how to load ribbon with the ink wound in.



5. Turn the ribbon take-up collapsible core counterclockwise until the ribbon stays tight and runs wrinkle-free through the print mechanism.



6. Turn the printhead lever clockwise to lock the printhead in position.

Note: Make sure that the knob at the take up is pushed in completely before rewinding. This is to ensure easy ribbon pullout when full.

Ribbon Removal

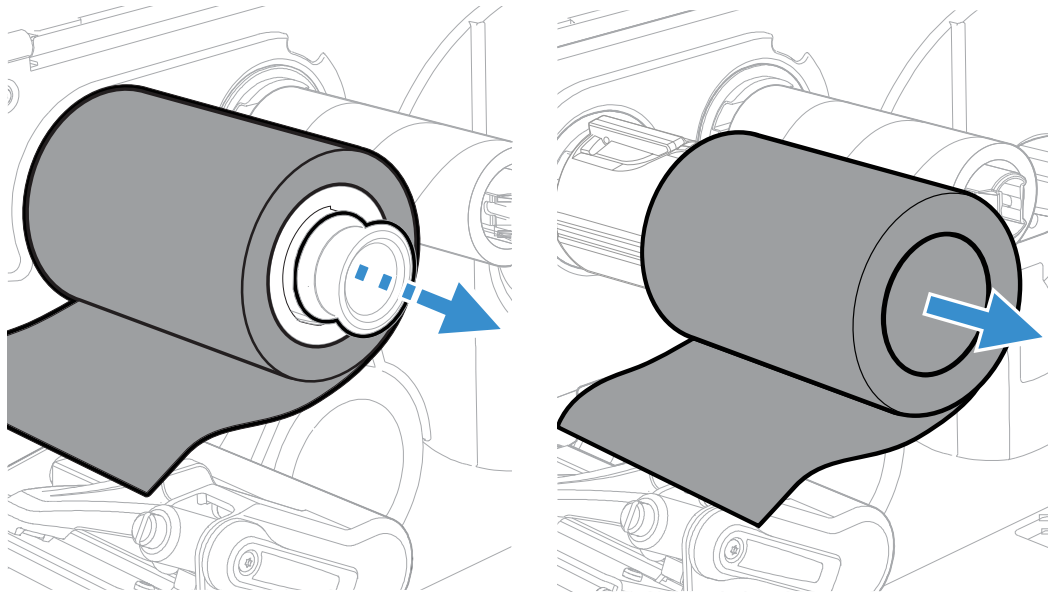
Remove used ribbon from the ribbon take-up hub when you change the roll of ribbon. Remove the used ribbon each time you change a new roll of media if the ribbon is less than the width of the printhead.

To remove the used ribbon:

1. Break/tear the ribbon before the ribbon take-up hub.

Note: Do not cut the ribbon on the ribbon take-up hub; doing so may result in damage to the take-up hub.

2. Pull the ribbon release knob and slide the used ribbon from the ribbon take-up hub.



Note: Do not pull the ribbon release knob if you do not want to remove the used ribbon as this will cause difficulty to remove ribbon when full.

About Test Label

Print a test label after you have loaded media and ribbon to verify that you have installed everything correctly and also to get some important information about your printer.

The way you print a test label is slightly different between the full touch and the icon printer. Please use the respective procedure for the printer.

Print a Test Label with the LED Icon Printer


When you turn on the icon printer, all of the LED's on the display light up and turn off one by one as the printer starts up. The LED's then turn off following a sequence from the top left LED to the bottom right LED.

1. Connect the printer to power and turn on the printer.
2. The printer goes through its startup sequence and all of the LEDs light up. When the last two LEDs are lit (Printhead Hot and Maintenance), press and hold the **Print** button for more than 2 seconds.

Your test label prints.

Print a Test Label with the Touchscreen Printer

The first time you turn on the touchscreen printer or reset to factory defaults, the printer runs a startup wizard to let you enter basic setup information. After the startup wizard finishes, the printer enters Ready mode where you can access the Main Menu and print a test label.

1. Connect the printer to power and turn on the printer.
2. After the startup sequence finishes, the startup wizard begins. Enter all the information on the wizard screens then tap **No** when prompted to run other wizards.
3. From the Ready screen, press  to view the Main Menu.
4. From the Main Menu, tap **Tools > Test Labels**.
5. Select the test label you want to print and tap it.

Your test label prints. If print quality is low, go to **Wizards > Printing > Print Quality**.

Note: You can use command languages, like [Direct Protocol](#), and language simulators, like [ZSim](#), to create and print labels. For more information, see the command reference manual for your desired language.

Printing on RFID Media

If you have the touchscreen display printer or an icon display printer with the optional RFID module installed, you can print on RFID media. Media containing RFID tags is slightly thicker where the RFID tag is located. The slight thickness of this part of label may affect the print quality. For thermal transfer labels, Honeywell recommends using high-quality ink ribbon.

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

- For the touchscreen printer, run the RFID calibration wizard to determine the best Tag Position and Output Power for RFID media.
- If necessary, modify the Tag Position (RFID Tag Position variable) to make sure the RFID labels are properly aligned with the antenna.
- Avoid printing on the thickest part of the label when possible.

For help configuring RFID parameters, see the Fingerprint Command Reference, IPL Command Reference, or the ZSIM Command Reference.

About RFID Tag Position

RFID Tag Position specifies the distance (in dots/mm/in) to move the label to align the tag with the RFID antenna. Positive values move the label back.

Use one of these methods to calculate Tag Position:

- For touchscreen printer, run the RFID wizard or manually calculate the Tag position.
- For icon printer, manually calculate the Tag Position.

Run the RFID Calibration Wizard on the Touchscreen Printer

For the touchscreen printer, run the RFID calibration wizard to determine the best Tag Position and Output Power (UHF inlays, only) for RFID media.

Note: After you determine the correct RFID media settings, you can save these settings to a printer profile and load the profile when you need to print on the specific RFID media.

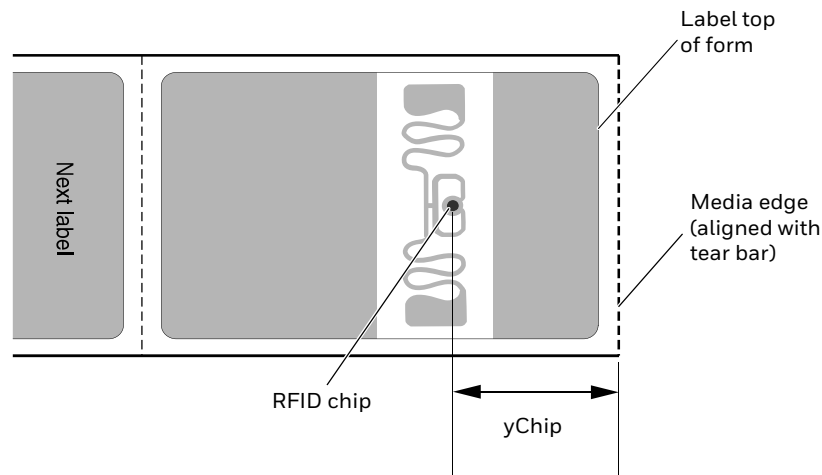
1. Make sure the media type and media length are properly configured.
2. From the Main Menu, select **Wizards > Calibration > RFID**.
3. To enable the RFID module, select **Enable**.
4. Load the RFID media and tap **OK**.

When the calibration is complete, the printer displays the RFID Tag Position and Output Power (UHF inlays, only).

Calculate the RFID Tag Position

You can perform a manual calculation to come up with an estimate of the RFID Tag Position. Because this value is an estimate, you may need to slightly adjust the calculated value to achieve the best results.

1. Make sure Label Top and Label Rest are set to 0.
2. Measure the yChip value, which is the distance between the RFID chip and the media edge aligned with the tear bar.



3. The yAntDist for the printers are 280 dots, 35mm, 1.378in.
4. Use this formula to calculate the estimated Tag Position:
$$\text{TagPosition} = \text{yChip} - \text{yAntDist}$$

Configure RFID settings for Icon Printer using Web Page

To configure the RFID media settings on the icon printer, the printer must be connected to an Ethernet or wireless network and you must know the printer IP address.

1. Open a web browser on your PC.
2. In the address bar, type **https://** followed by the printer IP address and press Enter. The printer web page appears.
3. Click **Login**.
4. Type your Username and Password and then click **Login**. The default value for Username is **admin** and the default value for Password is **pass**.
5. Click **Configure > Printing > RFID**. The RFID settings page appears.
6. Change RFID settings as needed. You can also click **Default Settings** to restore all default RFID settings.
7. Click **Save**.

CONNECT THE PRINTER

This section contains information about connecting the printer to a PC or to a network. Use the [From the Printer Web Page](#) or the Main Menu on a touchscreen printer to configure 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.

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. Connect one end of the USB Type A cable to the back of the printer and connect the other end to your PC.
2. Your PC will recognize the printer driver and connect to the printer.

Connect the Printer Using Bluetooth Communication

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

To connect a host PC/Mobile to the printer,

- For Touchscreen printer, turn on the Bluetooth and discover the printer in your PC/Mobile devices list and connect. The printer will display a numeric key on the screen. Tap OK if the key displayed matches the key displayed on your PC/Mobile to make connection.
- For the Icon model printer, you need to put the printer in discover mode. This is disabled by default. Open the printhead and press and hold the Feed button for more than 2 seconds. You can now connect to the printer using terminal connection.

To connect other Bluetooth devices on the touchscreen printer, for example, Bluetooth keyboard, Bluetooth scanner etc, use the Bluetooth wizard on the Ready screen. To connect, tap on the Bluetooth wizard and select the device from the list and tap OK.

Connect the Printer to Your Network

These network interfaces provide features such as security, FTP/SFTP 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 address 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/SFTP.

Note: To enable the FTP/SFTP from the webpage, go to **Configure > System Settings > Manage Service**.

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 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 touchscreen 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 PrintSet.

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

Configure the Printer via Bluetooth Communication

The printer supports Bluetooth communication when the optional Wi-Fi+Bluetooth module is installed.

You can configure Bluetooth communication:

- From the printer web page.
- From the printer Main Menu.

Configure Bluetooth Communications from the Web Page

The printer must be connected to an Ethernet or wireless network and you must know the printer IP address.

1. Open a web browser on your PC. In the address bar, type **https://** followed by your printer IP address and press Enter. The printer Web Page appears.
2. Type your Username and Password and click **Login**. The default value for Username is **admin** and the default value for Password is **pass**.
3. Click **Configure**. The Configuration Summary page appears.
4. Click **Communications > Bluetooth**. The Bluetooth settings page appears.
5. Change Bluetooth settings as needed. You can also click **Default Settings** to restore all default Bluetooth settings.
6. Click **Save**.

Configure Bluetooth Communications from the Main Menu

Use this procedure to configure Bluetooth settings from the printer Main Menu. You may need to configure these settings if you want to connect to a mobile computer through Bluetooth.

1. Press the **Main Menu** button.
2. Select **Settings > Communications > Bluetooth**.
3. Change settings as needed for your Bluetooth device.
4. Tap **Save**.

Connect the Printer via Wi-Fi

The printer supports wireless communications when the optional Wi-Fi+Bluetooth module is installed.

You can configure wireless communications:

- From the printer web page.
- From the touchscreen printer Main Menu.

By default, the printer supports DHCP networks.

Note: *If you are not using a DHCP network, Wi-Fi settings must be configured by using Honeywell PrintSet 5 through a USB connection to the printer. Send commands through a serial connection, or use the wizards and settings menus on the touchscreen printer.*

Configure Wi-Fi Communications from the Web Page

Use this procedure to configure wireless communications from the printer web page.

Note: *The printer must be turned on and connected to your Wi-Fi or Ethernet network to configure the printer from the web page.*

1. Open a web browser on your PC.
2. In the address bar, type **https://** followed by the printer IP address and press Enter. The printer web page appears.
3. Click **Login**.
4. Type your Username and Password and then click **Login**. The default value for Username is **admin** and the default value for Password is **pass**.
5. Click **Configure**. The Configuration Summary page appears.
6. Click **Communications > Wireless 802.11**. The Wireless 802.11 settings page appears.
7. Change wireless settings as needed. You can also click **Default Settings** to restore all default Wireless 802.11 settings.
8. Click **Save** when you are finished.

Configure Wi-Fi Communications from the Main Menu

You can configure wireless communications using the Wireless 802.11 wizard or from the Main Menu.

1. Press the Main Menu button.
2. Select **Settings > Communications > Wireless 802.11**.
3. Change settings as needed for your wireless connection.
4. Tap **Save** when you are finished.

Alternatively, you can also access the Wi-Fi wizard from the Ready Screen to select or make changes to your Wi-Fi settings.

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/SFTP 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@PM45-00000000073 /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`**.

Note: 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.

Connect the Printer via Cellular Modem

The printer supports cellular network communication when the optional Cellular modem is installed.

You can configure cellular communication:

- From the printer web page
- From the touchscreen printer Main Menu

Configure Cellular Modem from the Web Page

Use this procedure to configure cellular network communication from the printer web page.

Note: *The printer must be turned on and connected to your cellular network to configure the printer from the web page.*

1. Open a web browser on your PC.
2. In the address bar, type **https://** followed by the printer IP address and press Enter. The printer web page appears.
3. Click **Login**.
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. Click **Communications > Cellular Modem**. The Cellular Modem settings page appears.
7. Change cellular network settings as needed. You can also click **Default Settings** to restore all default Cellular Network settings.
8. Click **Save** when you are finished.

Configure Cellular Modem from the Main Menu

Use this procedure to configure cellular modem settings from the Main Menu. You may need to configure these settings if you want to connect to a cellular network.

1. Press the Main Menu button.
2. Select **Settings > Communications > Cellular Modem**.
3. Change settings as needed for your cellular connection.
4. Tap **Save** when you are finished.

Note: *To view the Cellular network connection information like, Cellular Signal, Cellular IP, and Operator, select the communications icon from the Ready Screen.*

Printer Drivers

Drivers enable the printer to communicate with your PC and with printer software applications. The Printer driver is now part of your Windows driver. Windows auto-detect the printer when you connect it to a PC through a USB port.

Note: Make sure your Windows PC is up to date before connecting to your printer.

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.
Barcode scanner	Use USB barcode 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 front of PM45 or into the USB host port on the back of the PM45 or PM45c 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 a touchscreen 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 (touchscreen printers)
- PrintSet 5
- Print Set MC
- 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. There are four main printer configuration menus for each interface:

- Communications
- Printing
- System Settings
- Alerts
- Network Services
- Languages

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

Configuration Menu	Description
Communications	General, Security, and Network
Printing	Media and Print Quality
System Settings	General, Display, Audio, Manage I/O, Manage Services, and Maintenance Alerts
Alerts	Error, Warning, and Information

Configuration Menu	Description
Network Services	Network services related configurations
Languages	Printer command language specific settings

Printer Configuration

If you have a touchscreen 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 (see [Smart Printing \(C#\)](#)), click **Configure > System Settings > Display**.
 - From the Main Menu screen on a full touch screen, select **Settings > System Settings > Display**.
2. Select the **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

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

Printer Web page User Name and Password

You will be prompted for a user name and password. The default username is **admin** and the default password is **pass**. Once you login, you have the option to change the user name and password.

Configure the Printer from the Web Page

If you are using Ethernet or Wi-Fi 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 **https://** followed by the printer IP address 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 **admin** 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, Wireless 802.11, or Bluetooth/Bluetooth LE settings, 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**.

Note: For Network related settings, user needs to login as itadmin and the default value for password is pass.

- To change printer command language specific print settings, click **Languages**.
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 or Print Set MC

You can use PrintSet 5 or Print Set MC to change configuration settings on your printer. Download the PrintSet 5 or Print Set MC from the App Store on iOS or Google Play Store on Android devices.

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.sps.honeywell.com > **Software > Productivity**.

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.

You must log in as an itadmin to perform a SETUP operation, but you do not need to log in to perform a SETUP GET operation.

Note: For more information on how to change configuration settings with a programming language, see [Printer Command Languages and Simulator Support Options](#), beginning on page 10.

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 **https://** followed by the printer IP address 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 **admin** 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.
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.

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.
4. If you have a touchscreen printer:
 - a. Insert the USB storage device and then restart the printer. The resources will be automatically installed after printer startup.
 (or)
 - a. Once the USB storage device is inserted, the USB device menu automatically appears.
 - b. Select **Install Resources**.
 - c. 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.
 - d. 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 240 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 icon printer, the file is automatically uploaded to the /home/user/display directory on the printer.
 5. If you have a touchscreen 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 (see [Access the Printer Web Page](#)), click **Configure**.
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, lick **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

Use this procedure to save the current settings as a printer profile.



1. From the Ready screen, press the Main Menu button. The Main Menu appears.
2. Select **Tools > Profiles**. The Profiles menu appears.
3. Select **Create**. The Create Profile menu appears.

Note: *Selecting Create acts as the Save function.*

4. Select the **Filename** text box and type a name for the profile. The profiles can have up to sixteen characters.
5. Press  on the SIP to save your profile name and go back to the Save Profile menu.
6. Press  and wait until **Complete** appears on the screen.
7. Press  to return to the Main Menu.

Load a Printer Profile from the Main Menu

Use this procedure to load a saved printer profile on the printer.

1. From the Ready screen, press the Main Menu button. The Main Menu appears.
2. Select **Tools > Profiles**. The Profiles menu appears.
3. Select **Load**. The Load Profile menu appears.
4. Select the profile you want to load on the printer and press .
5. When **Complete** appears on the screen, press  to return to the Main Menu.

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 admin rights, you must log in as an itadmin: RUN “su- p pass itadmin” for FD/DP.

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

Install a Configuration File from a USB Storage Device

After you save an .xml configuration file to a USB storage device, you can install it on the printer at any time.

1. Insert the USB storage device in the printer USB host port and restart the printer. The configuration files are automatically installed.

(or)

1. From the Ready screen, press the Main Menu button. The Main Menu appears.
2. Select **Tools > USB Menu**.
3. Select **Configuration**.
4. Select **Install Configuration**. The printer imports the configuration file.
 - For most printer languages, the configuration file is imported directly into the working configuration and is not copied to the /config directory.
 - An IPL configuration file is copied to /home/user/config/ipl.
5. Press **OK** when the confirmation message appears.

Export a Configuration File to a USB Storage Device

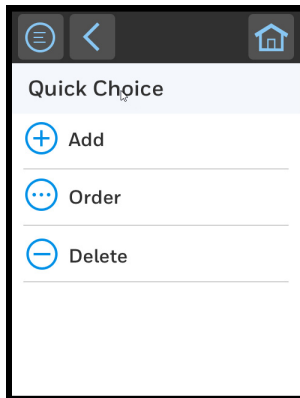
You can save an .xml configuration file to a USB storage device and install it on other printers.

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 Ready screen, press the Main Menu button. The Main Menu appears.

4. Select **Tools > USB Menu**.
5. Select **Configuration**.
6. Select **Export Configuration**. A list of the available files appears.
7. Select the file to export.
8. Press **OK** when the confirmation message appears.



Quick Choice Menu (Shortcuts)

You can create shortcuts to access frequently used menus or items, such as profiles, applications, test labels, and wizards to the full touch printer. These shortcuts are added to a Quick Choices menu, which replaces the Main Menu.




The Main Menu appears as the first item in the Quick Choice menu. Items in the Quick Choice menu appear in the order in which they are added. The Main Menu always appears as the first item.

Menu shortcuts can be very useful in these situations:

- You need to frequently change media. Create a profile for each media type and create shortcuts for each profile. To quickly change the printer media settings, press the Main Menu icon  from the Ready screen to display the Quick Choice menu, then select the appropriate media profile.
- You frequently run Smart Printing applications. Create a shortcut for each Smart Printing application. To access these applications, press the Main Menu icon  from the Ready screen to display the Quick Choice menu, and select the appropriate application.

Create Menu Shortcuts

If you have a touchscreen printer, you can create shortcuts for frequently used menus or items.

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 a check mark appears in the box.
 - c. Select the arrow at the bottom of the screen.
 - d. Select the check mark icon at the bottom of the screen.
3. To select applications:
 - a. Select **Programs**.
 - b. To add a Program, select each program and a check mark appears in each box.
 - c. Select the check mark icon at the bottom of the screen.
4. To select test labels:
 - a. Select **Tools**.
 - b. Select **Test Labels**.
 - c. To add individual test labels, select each test label option and a check mark appears in each box.
 - d. Select the check mark icon at the bottom of the screen.
5. To select wizards:
 - a. Select **Wizards**.
 - b. To add individual wizards, select each wizard and a check mark appears in each box.
 - c. Select the check mark icon at the bottom of the screen.
6. The next time you press the Main Menu icon  from the Ready screen, the Quick Choice menu (containing the Main Menu and your menu shortcuts) appears.

Customize the Printer Web Page

The printer web page visual presentation is specified using a CSS (Cascading Style Sheet). The printer web page loads the default style.css.

There are two ways to customize the printer web page:

- Adjusting layout style
- Replacing complete standard web pages

To adjust the style sheet:

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`.

The layout and structure of the printer web page is the same throughout each of the different pages. Below is an overview of how the web page looks with three different main components that always exist:

Area	Description
Left-Menu Navigation define in mainmenu.lua	For each of the pages, this area will show links to more detailed pages depending on which section is currently shown. On the Home Page this area will show the current status of the printer.
Right Top Bar define in maintop.lua	Displays the information about the printer/login/language as well as printer's status.
Main Content	Here is where all the content is displayed to the user.

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, Bluetooth/Bluetooth LE, 802.11 network information, and Cellular Modem
Bluetooth	Name of paired devices, connected devices, and device address information
Font Information	Name, type, location, and size of installed fonts
Barcode Information	Name and type of installed barcode 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 **https://** followed by the printer IP address 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 **https://** followed by the printer IP address 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
- Warning alerts
- Information 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 **https://** followed by the printer IP address 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 **admin** and the default value for Password is **pass**.
5. Click **Configure**. 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 **Configure > 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.
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.
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 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.

Error Alert	Solution
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.
No RFID tag found	The printer cannot find an RFID tag.
RFID Not installed	You are attempting to write to a tag, but the printer does not support RFID. You must install the RFID module in the printer to be able to write to RFID tags.
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 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.

Problem	Possible Solution
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 darkness might be too high. Decrease the darkness. • The media sensitivity might be too low. Increase the media sensitivity. • The contrast might be too high. Decrease the contrast. • The printhead pressure may be too high. Decrease the printhead pressure.
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	The printhead may be failing. Replace the printhead.
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 or adjust the printhead pressure.
Nothing shows up on the thermal transfer printout.	The ink-coated side of the ribbon may not be facing the media. Reload the ribbon.
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 ribbon wrinkles	Try these possible solutions in order: <ul style="list-style-type: none"> • The ribbon tension bar may not be adjusted correctly. Adjust by turning 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. • It is possible that the ribbon was not loaded correctly, check the Ribbon and load correctly. • You may need to adjust the media edge guide. • Incorrect or uneven printhead pressure, adjust Printhead Pressure and Toggle Position.
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.

Problem	Possible Solution
The printer boot up time is slower than before.	Try these possible solutions: <ul style="list-style-type: none"> Remove the USB device or use a new (blank) USB The printhead may be failing. If part of the dotted line is missing, replace the printhead

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.

RFID Problems

Problem	Possible Solution
The printer has RFID media loaded, but it is not writing to the tags.	After you load RFID media, restart the printer to let the printer identify the RFID media type or run the RFID calibration wizard.
None of the RFID commands work.	RFID is disabled. Enable RFID from the web page or the Main Menu. Go to Settings (Main Menu) or Configure tab (web page) > System Settings > Manage I/O .
Printing on regular media (RFID) is slow and halted in between labels.	RFID is enabled. Disable RFID from the web page or the Main Menu.
I am using an application to write to RFID tags and the printer is printing "VOID" labels.	Try these possible solutions: <ul style="list-style-type: none"> The printer may not recognize the RFID media type. Restart the printer or run the media or RFID calibration wizard. You may need to modify the RFID Tag Position parameter. You may need to adjust the output power (field strength) to the antenna.
I receive this message "No RFID tag found".	Try these possible solutions: <ul style="list-style-type: none"> Make sure you are using RFID media. You may need to modify the RFID Tag Position parameter. The tag may be broken. Try printing on a different label.
When I send a TAGREAD or TAGWRITE command, I get this error message: "Tag format error".	The TAGFORMAT defined for the operation determines the number of required parameters. You may need to modify the TAGFORMAT. For help, see the Fingerprint Command Reference.

Restore Printer Defaults

To restore factory defaults on the printer, use the printer web page, a hardware-based reset on the icon printer, or the Main Menu on the touchscreen printer. From the printer web page and the Main Menu on a touchscreen 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 Wi-Fi or Ethernet network.

1. Start a web browser on your desktop PC.
2. In the address field, type **https://** followed by 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-installed 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 the 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-installed 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

You can restore the printer defaults on a full touch or icon printer by performing a hardware-based reset.

Note: *Although this procedure restores all defaults on the touchscreen printer, it only restores settings on the icon printer. You need to use PrintSet or another method to restore all defaults on an icon printer.*

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 (on the touchscreen printer) or when the last two LEDs remain lit (on the icon printer).
5. All the settings are restored on the printer.
6. Turn the printhead lift lever clockwise to lower the printhead.

Clean the Printer



Warning: Disconnect the power cord from the socket-outlet before installing user-service parts in the printer.

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

- Printhead
- Platen roller
- Media guides
- Media path
- 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.



Caution: Do not spray the printer with water. If you are using a hose to clean the premises in an industrial environment, remove the printer or protect it carefully from spray and moisture.

Clean the Printhead

Warning: The printhead/motor may be hot. Allow the printhead/motor to cool.



Cleaning the printhead on a regular basis is important for the life of the printhead and for the print quality.

Note: *Honeywell recommends cleaning 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.



Caution: Carefully read the warning text on the envelope before using the cleaning card.



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 media cover.
3. Remove the media and ribbon (if installed).
4. Insert most of the cleaning card under the printhead, and then lower the printhead.
5. Pull out the cleaning card and raise the printhead.
6. Wait for approximately 30 seconds to allow the cleaning fluid to dissolve the residue.
7. Repeat Steps 4 through 6 if necessary.
8. If necessary, clean residue from the platen roller or tear bar with a cotton swab moistened with isopropyl alcohol.
9. Once the parts are dry, replace the media (and ribbon) in the printer.
10. Close the media cover, reconnect power, and turn on the printer.

Clean the Media Path

Both the upper and lower media guides are transparent to allow light to pass between the two parts of the label gap and label mark sensors. It is important to keep these surfaces free of dust, stuck labels, and adhesive residue.

1. Turn the printer off and disconnect the printer from power.
2. Open the media cover.
3. Remove the media and ribbon (if installed).
4. Insert a cleaning card or a soft cloth soaked in isopropyl alcohol between the two media guides to clean them.
5. Wait for approximately 30 seconds to allow the cleaning fluid to dissolve the residue.
6. Once the parts are dry, replace the media (and ribbon) in the printer.
7. Close the media cover, reconnect power, and turn on the printer.

Clean the Exterior of the Printer

Keep the exterior of the printer clean. Maintaining a clean exterior will reduce the risk of dust or foreign particles reaching the inside of the printer and affecting printer function.

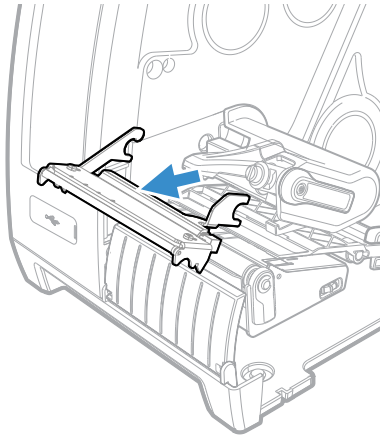
Use a soft cloth moistened with water or a mild detergent when cleaning the printer exterior. Keep the surface surrounding the printer clean as well.

Replace the Printhead

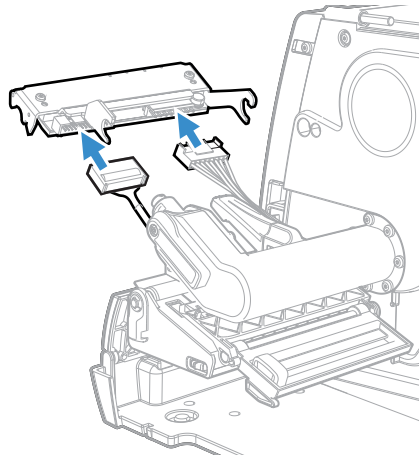
You need to replace the printhead periodically when it wears out due to the rapid heating and cooling process used during printing. How often you need to replace the printhead depends on factors such as what type of images you print, the type of media or ribbon you use, the amount of energy to the printhead, 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 the printer off and disconnect the printer from power.
2. Open the media cover.
3. Remove the media and ribbon (if installed).
4. Turn the printhead lift lever counterclockwise to raise the printhead.

5. Detach the magnetic pressure arm from the printhead bracket and disconnect the two cables from the printhead as you remove it from the printer.



6. Connect the two printhead cables to the new printhead.



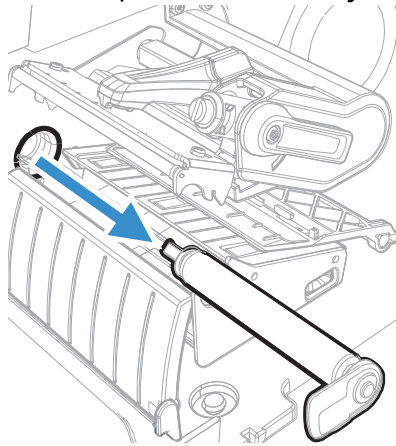
7. As you insert the new printhead bracket into the printer, make sure the metal arms on the printhead go around the magnetic pressure arm bar. Attach the magnetic pressure arm to the printhead.
8. Replace the media (and ribbon) in the printer.
9. Turn the printhead lift lever clockwise to lower it.

Replace the Platen Roller

If the printer platen roller gets damaged or wears out, it may need to be replaced.

1. Turn the printer off and disconnect the printer from power.
2. Open the media cover.
3. Remove the media.

4. Turn the printhead lift lever counterclockwise to raise the printhead.
5. Rotate the platen roller latch clockwise to detach it from the printer and pull the platen roller away from the printer.



6. Insert the new platen roller into the printer and secure it by turning the latch counterclockwise.
7. Reload media and turn the printhead lift lever clockwise to lower it.
8. Close the media cover, reconnect power, and turn on the printer.

Adjust the Printer

You may need to adjust your printer to accommodate how you are printing or to improve printer performance. You can make these adjustments on the printer:

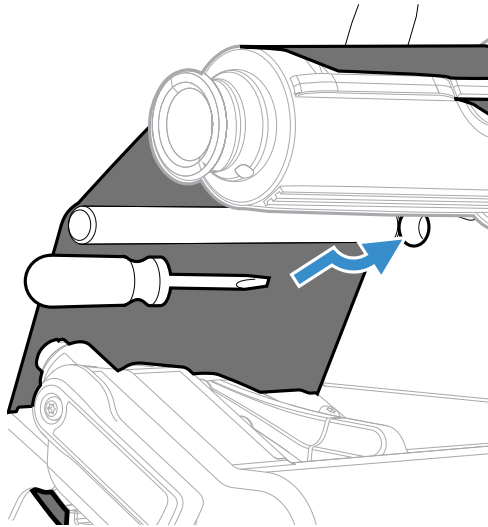
- Ribbon wrinkling
- Printhead balance
- Printhead pressure
- Label taken sensor
- Label gap sensor and label mark sensor

Prevent Ribbon Wrinkling

If you have problems with the thermal transfer ribbon getting wrinkled, try adjusting the ribbon tension bar.

1. Open the media cover.
2. Use a large straight-slot screwdriver to adjust the ribbon tension bar.
 - Turn the tension bar screw clockwise to move the bar backward and decrease the tension.

- Turn the tension bar screw counterclockwise to move the bar forward and increase the tension.



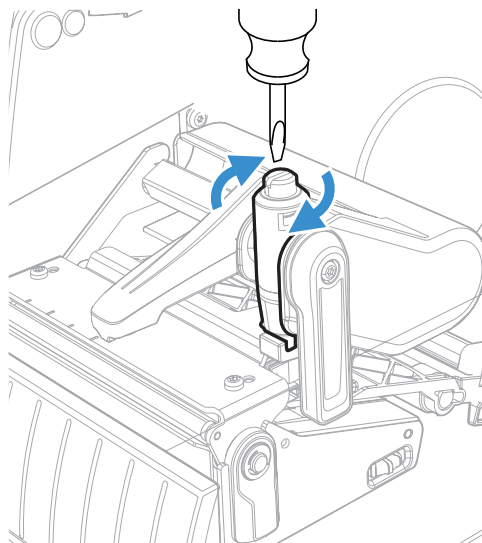
Pressure Adjustment

You may need to adjust the printhead pressure on the printer if:

- you are using thicker or thinner media than previously
- your labels are printing lighter on one side than the other
- your thermal transfer ribbon starts to crease

Do not use a higher printhead pressure than necessary. It may increase the wear on the printhead and shorten its life.

1. Open the media cover.
2. Use a straight-screwdriver to adjust the pressure screw.



- Turn the screw clockwise to increase the pressure resulting in darker print.
- Turn the screw counterclockwise to decrease the pressure resulting in lighter print.

Test and readjust the printhead pressure if necessary.

Printhead Balance

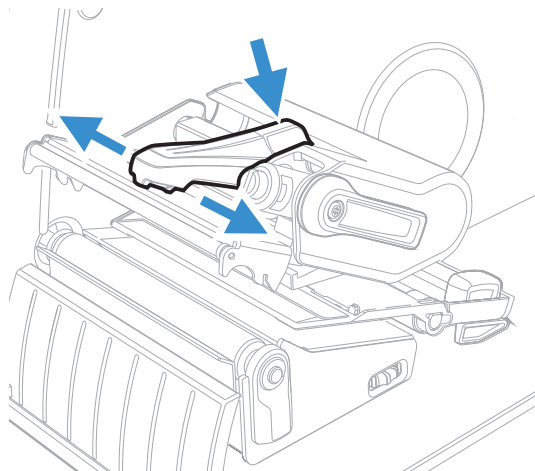
If the printhead balance is not adjusted correctly, the following issues may occur:

- Labels print lighter on one side than the other
- Media and ribbon may slip
- Ribbon may wrinkle
- Media may move from side to side during printing

If any of these occur, you probably have an unbalanced printhead. The printer is adjusted at the factory for full-width media.

If you are using media that is less than full-width (4 inches or 102 mm), adjust the position of the printhead balance arm so that the printhead is correctly pressured against the media.

1. Open the media cover.
2. If you have thermal transfer ribbon installed, remove it.
3. Turn the printhead lift lever counterclockwise to raise the printhead.



4. Press down on the blue part of the printhead balance bar and move it:
 - outward for wider media
 - inward for narrower media
5. Close the printhead and load the ribbon.
6. Test and readjust the printhead balance if necessary.

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.

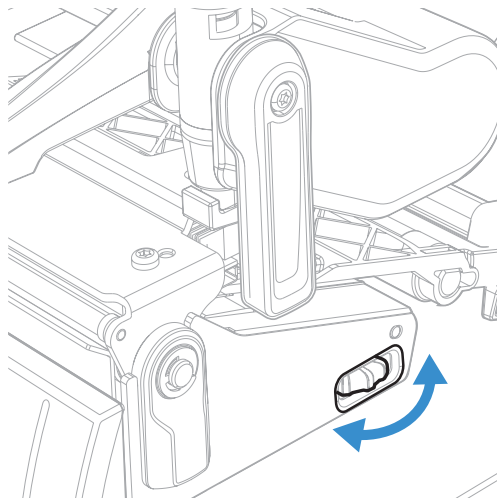
1. In the Main Menu, select **Wizards > Calibration > Label Taken Sensor**.
2. Follow the prompts to calibrate the sensor.

Label Gap and Black Mark Sensor Adjustments

The label gap sensor is a transmissive sensor that controls how the printer feeds media by detecting gaps between the labels. The black mark sensor is a reflective sensor that detects black marks on continuous media.

The sensor contains a blue LED that is strong enough to see through media. You can use the blue LED to help determine the proper location for the sensor.

1. Open the media cover.
2. Adjust the label gap and black mark sensor:
 - Turn the sensor adjustment knob counterclockwise to move the sensor toward the outside of the printer.
 - Turn the sensor adjustment knob clockwise to move the sensor toward the inside of the printer.



3. Close the media cover.

About Software Updates

Cyber security best practices include keeping your device apps and OS up to date. To help, Honeywell offers maintenance patches, security updates and operating system upgrades through our Honeywell Edge services.

Availability and cost depend on the following:

- Date of purchase of the device or software app.
- Warranty status.
- Service agreement status (devices) or Maintenance plan status (apps).

To learn more about Honeywell Edge Services, go to <https://sps.honeywell.com/us/en/services/productivity/support-services>.

Software Downloads

Product support is available online through [Technical Support](#). Software updates can be accessed through the [Software Downloads](#) portal. You will need to create a login account for portal access. Additional information such as purchased date, service agreement number, maintenance plan number, or software license number may be required for downloads.

1. Go to <https://hsmftp.honeywell.com>.
2. Create a login account if you have not already created one.
3. Install the Honeywell Download Manager tool. See “Note” on the portal page. This tool is required for downloads.
4. Locate the app or upgrade you want to download in the Software directory.
5. If prompted, enter additional information, and click **Submit**.
6. Select **Download**. Follow the prompts to download the file.

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 > PM45 PM45C > Current > Firmware**)

You can upgrade the printer firmware using:

- The printer web page, a USB storage device, PrintSet 5, or by using Honeywell OptIntel.

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

Note: To learn more about OptIntel, see the Honeywell Cloud Connect User Guide available for download from the Operational Intelligence Software product page at www.sps.honeywell.com.

Upgrade Firmware from the Printer Web Page

1. Start a web browser on your desktop PC.
2. In the address field, type **https://** followed by 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.

SPECIFICATIONS AND ADDITIONAL RESOURCES

Specifications and Resources

1. Go to www.sps.honeywell.com.
2. Type PM45 in the search box and then press **Enter**.
3. Click on the product link in the search results.
4. Select one of the following tabs:
 - **Specifications**
View Printer features, Software, Hardware information, and environmental specifications.
 - **Resources or Documents**
View and download available product documentation. For example, Data Sheet, Accessory Guide, Quick Start Guide, User Guide, Regulatory Information, and other product documentation.

Command Languages and Simulator Support Features

- Fingerprint
- Direct Protocol
- IPL
- ZSim
- DPL
- Smart Printing C#
- Direct PDF Printing

Print Sensors

- Dual label gap/tag notch
- Black mark
- Printhead lift
- Media low
- Ribbon present/end
- Ribbon low
- Label taken (optional)

Network Services

- FTP/SFTP
- HTTP/HTTPS
- SNMP v1/v2/v3
- 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
- TELENET/SSH
- NTP
- OpIntel

Fonts

Resident Fonts

- Andale Mono
- Andale Mono Bold
- CG Times
- CG Times Bold

- CG Triumvirate Condensed Bold
- Century Schoolbook Roman
- Dutch 801 Roman
- Honeywell Sans TT Bold
- 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 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

Printed Barcode Symbologies

1D Barcode Symbologies

- Codabar
- Code 11
- Code 39
- Code 93
- Code 128
- DUN-14/16
- EAN
 - EAN-8
 - EAN-8 Composite with CC-A or CC-B
 - EAN-13
 - EAN-13 Composite with CC-A or CC-B
 - EAN 128
 - EAN 128 subset A
 - EAN 128 subset B
 - EAN 128 subset C
 - EAN.UCC 128 Composite with CC-A or CC-B
 - EAN.UCC 128 Composite with CC-C
- HIBC 39
- HIBC 128
- Industrial 2 of 5
- Interleaved 2 of 5
- ISBT-128
- Matrix 2 of 5
- Straight 2 of 5
- UPC
 - UPC-5 digits Add-On Code

- UPC-D1
- UPC-D2
- UPC-D3
- UPC-D4
- UPC-D5
- UPC Shipping Container Code

2D Barcode Symbologies

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

Graphic File Types

- PCX
- PNG
- GIF
- BMP

DEFAULT SETTINGS

Use this appendix to view the printer's factory default settings.

Communications

Serial Port

The printer must be connected to the PC through a serial port to view the settings:

- From the printer Main Menu, select **Settings > Communications > Serial > COM1**.
- From the printer web page, click **Configure > Communications > Serial**.

Serial Port Setting	Description	Default
Baud Rate	Transmission speed in bits per second (bps) for the serial port.	115200
Data Bits	Number of bits that define a character or byte.	8
Parity	Specifies how the printer checks the integrity of the transmitted data.	None
Stop Bits	Number of bits sent at the end of every character to allow the receiving signal hardware to detect the end of a character and to resynchronize with the character stream.	1
Hardware	Specifies if hardware flow control (RTS/CTS) is used to manage the rate of data transmission between the device and the host.	Disable
ENQ/ACK	Specifies if software flow control (ENQ/ACK) is used to manage the rate of data transmission between the device and the host.	Disable
XON/XOFF To	Specifies if software flow control (XON/XOFF) is used to manage the rate of data transmission to the host.	Disable
XON/XOFF From	Specifies if software flow control (XON/XOFF) is used to manage the rate of data transmission from the host.	Disable
New Line Character	Defines the characters that the printer echoes to the host to indicate that it has moved to a new line.	CR/LF

Ethernet

Note: The printer supports 100/1000 Mbps Ethernet (100BASE-T, 1000BASE-T).

To view these settings:

- From the printer Main Menu, select **Settings > Communications > Ethernet**.
- From the printer web page, click **Configure > Communications > Ethernet**.

Ethernet Setting	Description	Default
(IPv4) IP Assignment Method	Specifies how the printer obtains an IP address.	DHCP
(IPv4) IP Address	Specifies the unique network-level address that is assigned to each device in a TCP/IP network (IPv4).	0.0.0.0
Subnet Mask	Specifies a number that defines the range of IP addresses that can be used in a TCP/IP network.	0.0.0.0
Default Router	Specifies the IP address of a router that is used when a device sends a packet to another subnet or to an unknown destination.	0.0.0.0
DHCP Response	Specifies if the printer receives DHCP responses by broadcast or unicast.	Broadcast
(IPv6) IP Assignment Method	Specifies how the printer obtains an IP address (for IPv6 networks).	Automatic
(IPv6) IP Address	Specifies the unique network-level address that is assigned to each device in a TCP/IP network (IPv6).	Automatic
802.1xSecurity	Enables 802.1x security	Disable
EAP Type	Selects the protocol that the radio uses to verify its identity and makes sure that it is authorized to communicate on the wireless network.	PEAP
Username	Specify Username for 802.1x Authentication	-
Password	Password for PEAP authentication or private-key password for TLS	-
CA Certificate	Sets the name of the Certificate Authority (CA) that verifies the server certificate. This CA should be the same one that was used to sign the server certificate.	-
Client Certificate	Sets the name of the client certificate the printer uses to authenticate to the network using EAP-TLS. Maximum length is 128 characters.	-
Private Key	Sets the full path to the private key file the printer uses for EAP-TLS. Maximum length is 128 characters. If using pfx file here, the Client Certificate should not be specified.	-
Gigabit Ethernet	Enables Gigabit Ethernet	Disable

Wireless 802.11

To view these settings:

- From the printer Main Menu, select **Settings > Communications > Wireless 802.11**
- From the printer web page, click **Configure > Communications > Wireless 802.11**

802.11 Wireless Setting	Description	Default
Network Name (SSID)	Defines the wireless network. To communicate, all access points and wireless devices must have the same network name, which is case-sensitive.	PM-45
Network Tyoe	Selects the radio behavior of the printer.	Soft AP
Channel	Sets the common channel that radios in the Ad Hoc mode use to transfer data.	
Security Type	Selects the protocol that the radio uses to verify its identity and makes sure that it is authorized to communicate on the wireless network.	
Association	Selects the security method that the radio uses to get access to the wireless network.	
Pre-Shared Key	Defines the passphrase that allows the radio to authenticate over the wireless network (for both WPA and WPA2 security). Range is 8 to 64 characters.	
Network Key Index	Selects the active network key to use for WEP security. Range is 1 to 4.	
User Name	Sets the name that the printer uses when logging in to the network. Range is 1 to 96 characters.	
Password	Sets the password that the printer uses when logging in to the network. Range is 1 to 96 characters.	
Anonymous Name	Sets the outer EAP user name that the printer uses for logging in to the network. Maximum length is 96 characters.	
Inner Authentication	Selects the authentication method that is uses when the EAP type is EAP-FAST, PEAP, or TTLS	MSCHAPv2
CA Certificate	Sets the name of the Certificate Authority (CA) that verifies the server certificate. This CA should be the same one that was used to sign the server certificate.	honeywell.pem
Client Certificate	Sets the name of the client certificate the printer uses to authenticate to the network using EAP-TLS. Maximum length is 128 characters.	
Client Key	Sets the private key the printer uses for EAP-TLS. Maximum length is 128 characters. Use the certinstallsh script to install the certificate correctly.	
Validate Certificate	Determines if the identity of the authentication server is verified using its certificate when using EAP-TTLS, PEAP, or EAP-TLS. Honeywell recommends that you set Validate Certificate to Yes.	No

802.11 Wireless Setting	Description	Default
PAC	Sets the name of the PAC (Protected Access Credential) file that is used for EAP-FAST authentication. The printer uses this file if Acquire PAC is ON and the current installed PAC fails to authenticate the printer to the network.	eap-fast.pc
Acquire PAC	Determines if automatic PAC file provisioning is on for EAP-FAST authentication.	On
(IPv4) IP Assignment Method	Specifies how the printer obtains an IP address.	Manual
(IPv4) IP Address	Specifies the unique network-level address that is assigned to each device in a TCP/IP network (IPv4).	0.0.0.0
Subnet Mask	Specifies a number that defines the range of IP addresses that can be used in a TCP/IP network (IPv4).	0.0.0.0
Default Router	Specifies the IP address of a router that is used when a device sends a packet to another subnet or to an unknown destination.	0.0.0.0
DHCP Response	Specifies if the printer receives DHCP responses by broadcast or unicast.	Broadcast
(IPv6) IP Assignment Method	Specifies how the printer obtains an IP address (for IPv6 networks).	Automatic
(IPv6) IP Address	Specifies the unique network-level address that is assigned to each device in a TCP/IP network (IPv6).	

Bluetooth

To view these settings:

- From the printer Main Menu, select **Settings > Communications > Bluetooth**.
- From the printer web page, click **Configure > Communications > Bluetooth**.

Bluetooth Setting	Description	Default
Device Name	Sets the name that identifies the printer in the Bluetooth network. Maximum length is 16 characters.	Printer model number and serial number.
Discover	Determines if other Bluetooth devices can detect the printer	Disable
Passkey	Sets the passkey that is used when pairing Bluetooth devices to the printer. Range is 1 to 16 characters (case-sensitive)	-
Reserve	Determines if the printer is exclusively reserved for one Bluetooth device. The first Bluetooth device that connects with the printer locks out any other connection attempts.	Disable

Cellular Modem

To view these settings:

- From the printer Main Menu, select **Settings > Communications > Cellular Modem**.
- From the printer web page, click **Configure > Communications > Cellular Modem**.

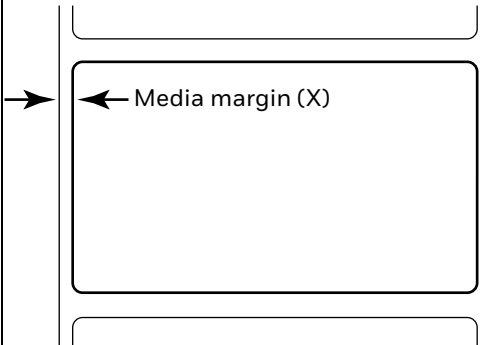
Cellular Modem Setting	Description	Default
APN	Access Point Name (APN) of Service Provider	
Username	Username for APN	
Password	Password for APN	

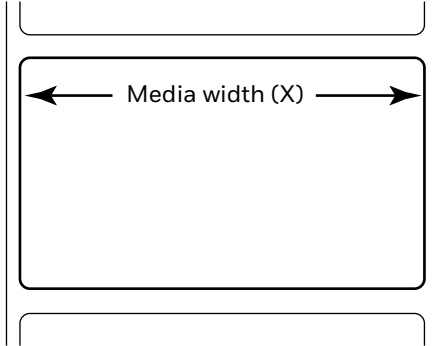
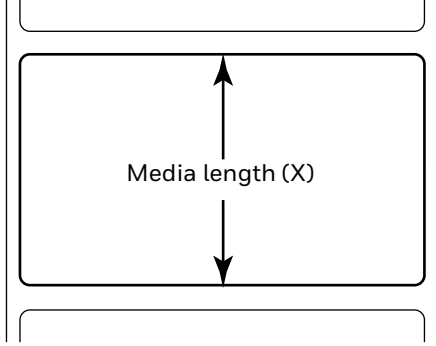
Printing

Media

To view these settings:

- From the printer Main Menu, select **Settings > Printing > Media**.
- From the printer web page, click **Configure > Printing > Media**.

Media Setting	Description	Default
Media Type	Selects the type of media that is loaded in the printer.	Media With Gaps
Print Method	Selects the method of printing that the printer is using.	Ribbon (TTR) for thermal transfer printers, or No Ribbon (DT) for direct thermal printers
Media Margin (X)	<p>Sets the width of the margin from the left edge of the label along the printhead to the edge of the printable area. Unit of measurement is defined in the Unit of Measurement parameter.</p> 	Variable

Media Setting	Description	Default
Media Width	<p>Sets the width of the printable area measured from the media margin (X) across the printhead. Unit of measurement is defined in the Unit of Measure parameter.</p>  <p>The diagram shows a rectangular label on a media strip. A horizontal double-headed arrow spans the width of the label, labeled 'Media width (X)'. The label is centered between two vertical lines representing the media margins.</p>	Variable
Media Length	<p>Sets the length of the printable area measured from one edge of the label to the edge that is closest to the printhead. Unit of measurement is defined in the Unit of Measurement parameter.</p>  <p>The diagram shows a rectangular label on a media strip. A vertical double-headed arrow spans the length of the label, labeled 'Media length (X)'. The label is centered between two horizontal lines representing the media margins.</p>	Variable
Clip Default	<p>Determines if the printer prints items outside the printable area of the label. When this is set to Off, the printer returns an error if any part of a barcode label cannot be printed because that part extends beyond the printable area. When this is set to On, the printer prints all barcode labels, but may also print unreadable, incomplete labels.</p>	Off
Print Mode	Selects the printer tear off, peel off, or rewind media mode	Tear Off
Peel Strength	Selects strength the printer uses to peel the label off from liner. Use Medium or High if the printer has trouble to peel certain types of media.	Low
Label Top Adjust	Sets the length of media the printer feeds (positive value) or retracts (negative value) before printing a label. Unit of measurement is defined in the Unit of Measure parameter. Range is -9999 to +9999.	0
Label Reset Adjust	Sets the length of media the printer feeds (positive value) or retracts (negative value) after printing a label. Unit of measurement is defined in the Unit of Measure parameter. Range is -9999 to +9999.	0

Media Setting	Description	Default
Media Calibration Mode	Selects the mode the printer uses to calibrate media. Use Slow if the printer has trouble identifying gaps or marks in media. Use Fast with Retraction or Slow with Retraction to retract the media and ribbon fed for calibration back to the printer.	Slow
Length (Slow Mode)	If Media Calibration Mode is set to Slow, the printer prints the media length plus 10 mm. This value sets an additional amount of media to be printed. Unit of measurement is defined in the Unit of Measurement parameter. Range is 0 to 3200.	0
LTS Sensitivity Level	Sets the sensitivity of the label taken sensor.	0
Power Up Action	Sets the action when you turn the printer on: No Action Form feed: The printer feeds one label. Test feed: The printer prints two configuration labels as it calibrates the media sensors. Smart Calibration: Detects media type (gap, black mark, or continuous, detects printing method (ribbon or no-ribbon), and calibrates media length.	Smart Calibration
Head Down Action	Sets the action when you close the print mechanism after opening it: No Action Form feed: The printer feeds one label. Test feed: The printer prints two configuration labels as it calibrates the media sensors. Smart Calibration: Detects media type (gap, black mark, or continuous, detects printing method (ribbon or no-ribbon), and calibrates media length.	Smart Calibration
Hold Feed Button Action	Sets the action when you press and hold the Print button for more than 2 seconds: Test feed: The printer prints two configuration labels as it calibrates the media sensors. Smart Calibration: Detects media type (gap, black mark, or continuous, detects printing method (ribbon or no-ribbon), and calibrates media length.	Smart Calibration
Label Counter	Specifies a label counter (from 1 to 49) that SNMP uses to report media counts.	0 (off)
Media Out Immediate Stop	Determine if stop feeding the media immediately once no media is detected.	Disable

Note: *If no action is selected for Head Down Action, then you need to align the media gap, black mark, hole, and notch with the tear bar before you close the printhead at Thermal Transfer printing mode. Otherwise, the first label may be printed by the used ribbon.*

Print Quality

To view these settings:

- From the printer Main Menu, select **Settings > Printing > Print Quality**.
- From the printer web page, click **Configure > Printing > Print Quality**.

Print Quality Setting	Description	Default
Print Speed	Sets how fast the printer prints labels. The unit of measure is defined in the Unit of Measure parameter.	200dpi:102 300dpi:102 600dpi: 51
Media Sensitivity	Sets the level of sensitivity of the media to the printhead heat for media and ribbon.	High
Darkness	Sets the image darkness for media and ribbon. Adjust this parameter with the Media Sensitivity parameter. Range is 1 to 100.	55
Contrast	Adjusts the blackness of the printing on the label in 2% increments from -10% to +10%.	+0%
Label Rotation	Rotate the label in 0 (no rotation), 90, 180, 270 degree in clockwise direction.	0 deg

RFID

To view these settings:

- From the printer Main Menu, select **Settings > Printing > RFID**.
- From the printer web page, click **Configure > Printing > RFID**.

RFID Setting	Description	Default
Retries	Sets the number of RFID Labels the printer tries to access after it fails to read or write to an RFID Tag. Range is 1 to 10.	0
Void Texts	Sets the text that is printed on each label that has a faulty RFID tag. Range is 1 to 16 characters.	VOID
RFID Tag Position	Sets the distance the label is moved to align the RFID tag over the antenna to allow a successful read and write operation. Unit of measurement is defined in the Unit of Measure parameter. Range is -10000 to +10000	0 dots
Output Power	Sets the amount of field strength the antenna applies to communicate with the RFID tag.	18
RFID Tag Type	Select the type of RFID tag used in the printer.	Read and Write

System Settings

General System

To view these settings:

- From the printer Main Menu, select **Settings > System Settings > General**.
- From the printer web page, click **Configure > System Settings > General**.

General System Setting	Description	Default
System Name	Sets the network identification name (WINS name) of the printer.	Printer model number and serial number.
System Location	Sets the location of the printer.	Empty string
System Contact	Sets the name of the printer administrator.	Empty string
XML Response Mode	Determines if the printer provides XML responses to printing requests (over Telnet and HTTP).	False
Display Language	(LCD printers only.) Selects the language the printer uses to display text on the screen.	English
Display Language (Web Page)	Selects the language the printer uses to display text on the web page.	English
Keyboard Input	Selects the language of the external keyboard that is connected to the printer.	U.S./U.K.
Time	Sets the current time.	System time
Date	Sets the current date.	System date
Sleep Timer	Selects the amount of time the printer waits before it goes into Sleep mode.	15 minutes
Command Language	Sets the printer command language. If changed, requires restart.	Autosense
Alert Notification Method	Selects how you want the printer to notify you of printer alerts.	SNMP Trap + Email
Unit of Measure	Selects the unit of measure that is used to define several printing parameters.	Dots
Zero with Slash	Determines how the zero character is printed and displayed on the screen. Disable (0) or Enable (Ø).	Disable
Time Zone	Sets the time zone.	(UTC 00:00) Universal Time
DST Adjust	Determines if Daylight Saving Time is automatically adjusted.	Disable
Legacy Mode	Selects the EasyCoder PF/PM/PX Compatibility Mode	Disable

Display Settings

To view these settings:

- From the printer Main Menu, select **Settings > System Settings > Display**.
- From the printer web page, click **Configure > System Settings > Display**.

Display Setting	Description	Default
Brightness	Selects the brightness of the printer screen.	Low
Idle Information	Selects the information that appears on the printer screen when it is in Idle mode.	IPv4 address
Time Format	Selects the format used to display time on the printer.	24 Hour
Date Format	Selects the format used to display date on the printer.	dd/mm/yyyy
Menu Access	Determines if the Menu button on the printer web page is accessible.	Enable
PIN	Sets the password that allows access to the Menu button on the printer web page, if the Menu Access parameter is set to Enable With PIN. Range is 4 to 16 characters.	1234
Screen Timeout	Selects how long the printer screen stays on before the screen saver starts.	Disable
Feed Key Access	Determines if the Feed button on the printer keypad is enabled or disabled.	Enable
Information Access	Determines if the information bar on the Main Menu is accessible.	Enable
Volume	Sets the printer volume.	Medium

Note: *PM45 and PM45c printers are Energy Star qualified, but require the brightness set to Low and power consumption may vary in actual application with Applicator Board or Industrial Interface Board. Energy Star is qualified only for Non-Applicator or Non-Industrial Interface.*

Audio Settings

To view these settings:

- From the printer Main Menu, select **Settings > System Settings > Audio**.
- From the printer web page, click **Configure > System Settings > Audio**.

Audio Setting	Description	Default
Volume	Sets the printer volume.	Medium

Manage I/O

To view these settings:

- From the printer Main Menu, select **Settings > System Settings > Manage I/O**.
- From the printer web page, click **Configure > System Settings > Manage I/O**.

System I/O Setting	Description	Default
Ethernet	Determines if the printer is allowed to communicate using Ethernet communications.	Enable
Wireless 802.11	Determines if the printer is allowed to communicate using its 802.11 radio. Supported only if the optional Wi-Fi module is installed.	Enable
Bluetooth	Determines if the printer is allowed to communicate using its 802.11 radio. Supported only if the optional Wi-Fi+Bluetooth module is installed.	Enable
RFID	Determines if the printer is allowed to communicate using its RFID radio. Supported only if the RFID module is installed.	Enable
Virtual COM	Determines if you can enable the USB port to be used as a virtual serial port. When you change this setting, you must restart the printer to enable the new setting.	Disable
Cellular Modem	Determines if the Cellular Modem is enabled in the printer when it is inserted.	Enable

Manage Services

Note: You will only see **Manage Services** from the menus if you have an Ethernet or Wireless module installed in the printer.

To view these services:

- From the printer Main Menu, select **Settings > System Settings > Manage Services**.
- From the printer web page, go to **Configure > System Settings > Manage Services**.

System Network Service Setting	Description	Default
Web Server	Determines if the web server is enabled in the printer.	Enable
FTP	Determines if the printer can use File Transfer Protocol.	Disable
Net1	Determines if the printer can use Telnet to communicate with Fingerprint.	Enable
SNMP	Determines if the printer can use SNMP.	Enable
LPR	Determines if the printer can use the line printer server (LPR) daemon.	Enable
IKEv2	Determines if the printer can use IKEv2.	Disable

System Network Service Setting	Description	Default
SSH	Determines if the printer can use Secure Socket Handling (SSH).	Disable
Telnet	Determines if the printer can use Telnet.	Disable
XML	Determines if the printer can use XML printing.	Enable
Time Server	Determines if the printer uses the Network Time Protocol (NTP) to synchronize its time with a network time server. The default Server Address is ntp0.cornell.edu , and the default Port Number is 123 .	Disable
Device Management	Determines if the printer can use 9300 TCP/IP port to communicate with HCD.	Disable
Connectivity Agent	Determines if the printer can communicate with Honeywell Cloud on port 10000.	Disable

Maintenance Alerts

To view these settings:

- From the printer Main Menu, select **Settings > System Settings > Maintenance Alerts**.
- From the printer web page, click **Configure > System Settings > Maintenance Alerts**.

Maintenance Alerts Setting	Description	Default
Odometer (User Resettable)	Sets the length of media (in meters) that the printer prints before the Odometer (User Resettable) alert is sent, if this alert is configured. Unit of measurement is defined in the Unit of Measure parameter. Range is 0 to 4294967295.	0
Odometer (Printer)	Sets the length of media (in meters) that the printer prints before the Odometer (Printer) alert is sent. Unit of measurement is defined in the Unit of Measure parameter. Range is 0 to 4294967295.	0
Odometer (Printhead)	Sets the length of media (in meters) that the printer prints before the Odometer (Current Printhead) alert is sent, if this alert is configured. Unit of measurement is defined in the Unit of Measure parameter. Range is 0 to 4294967295.	0
Replace Printhead	Sets the length of media (in meters) that the printer prints before the Replace Printhead alert is sent, if this alert is configured. Unit of measurement is defined in the Unit of Measure parameter. Range is 0 to 4294967295.	0
Clean Printhead	Sets the length of media (in meters) that the printer prints before the Clean Printhead alert is sent, if this alert is configured. Unit of measurement is defined in the Unit of Measure parameter. Range is 0 to 4294967295.	0
Faulty Dot	Sets the number of faulty dots on the printhead before the Faulty Dot alert is sent, if this alert is configured. Range is 0 to 4294967295.	0

Maintenance Alerts Setting	Description	Default
Ribbon Low Diameter	Sets the minimum diameter of the ribbon roll before the Ribbon Low alert is sent, if this alert is configured. Range is 0 to 200 mm.	0

System Alerts

System alerts include error and warning.

Alert	Description
Status	Determines if an alert is sent out for a specific error.
Delay Repeats	Sets how often the alert is sent out for a specific printer event. Range is 1 to 65535.
Delay Unit	Selects the unit of measure that determines how often the alert is sent out.
Message	Sets the message that is sent out with alert for a specific printer event.

Error

To view these settings:

- From the printer Main Menu, select **Settings > Alerts > Error**.
- From the printer web page, click **Configure > Alerts > Error**.

Errors Alerts	Default Values			
	Status	Delay Repeat	Delay Unit	Message
Next Label Not found	Disable	1	Occurrences	Error-Next label not found
Out of Media	Enable	1	Occurrences	Error-Out of media
Out of Ribbon	Enable	1	Occurrences	Error-Out of ribbon
Printer in Pause Mode	Disable	1	Occurrences	Error-Printer in pause mode
Printer in Menu Mode	Disable	1	Occurrences	Error-Printer in menu mode
Application Break	Disable	1	Occurrences	Error-Application break
RFID Not Installed	Disable	1	Occurrences	Error-RFID not installed
No RFID Tag Found	Disable	1	Occurrences	Error-No RFID tag found
Printhead Lifted	Enable	1	Occurrences	Error-Printhead lifted
Printhead Not Detected	Disable	1	Occurrences	Error-Printhead not detected
Printhead Too Hot	Disable	1	Occurrences	Error-Printhead too hot
Motor Too Hot	Disable	1	Occurrences	Error-Motor too hot
Power Supply Too Hot	Disable	1	Occurrences	Error-Power supply too hot

Warning

To view these settings:

- From the printer Main Menu, select **Settings > Alerts > Warning**.
- From the printer web page, click **Configure > Alerts > Warning**.

Warning Alerts	Default Values			
	Status	Delay Repeat	Delay Unit	Message
Ribbon Installed	Disable	1	Occurrences	Warning-Ribbon installed
Media Low	Enable	1	Occurrences	Warning-Media low
Ribbon Low	Enable	1	Occurrences	Warning-Ribbon low
Upgrading Firmware	Disable	1	Occurrences	Warning-Upgrading firmware
Odometer (User Resettable)	Disable	1	Occurrences	Warning-Odometer (User Resettable) has reached a preset value.
Odometer (Printhead)	Disable	1	Occurrences	Warning-Odometer (Printhead) has reached a preset value.
Odometer (Printer)	Disable	1	Occurrences	Warning-Odometer (Printer) has reached a preset value.
Replace Printhead	Disable	1	Occurrences	Warning-Replace printhead
Clean Printhead	Disable	1	Occurrences	Warning-Clean printhead
Faulty Dot	Disable	1	Occurrences	Warning-Faulty dot is detected
Memory Low	Disable	1	Occurrences	Warning-memory low
Flash Memory Low	Disable	1	Occurrences	Warning-Flash Memory low

Information

To view these settings:

- From the printer Main Menu, select **Settings > Alerts > Information**.
- From the printer web page, click **Configure > Alerts > Information**.

Warning Alerts	Default Values			
	Status	Delay Repeat	Delay Unit	Message
Print Job Complete	Disable	1	Occurrences	Print Job Complete
Started	Disable	1	Occurrences	Printer is started
Printer is Rebooting	Disable	1	Occurrences	Printer is Rebooting

Network Services

DNS

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > DNS**.
- From the printer web page, click **Configure > Network Services > DNS**.

DNS Network Service	Description	Default
Primary DNS Server	Sets the IP address of the primary server to which the printer sends DNS requests. The DNS server retains IP address and routing information for the TCP/IP network.	
Secondary DNS Server	Sets the IP address of the secondary server to which the printer sends DNS requests. The DNS server retains IP address and routing information for the TCP/IP network.	

Net1

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > Net1**.
- From the printer web page, click **Configure > Network Services > Net1**.

Net1 Network Service	Description	Default
Queue	Selects how the printer handles multiple Net1 connections.	On
Port Number	Sets the port number that defines the Net1 TCP port. Range is 1024 to 65535.	9100
New Line Character	Defines the characters that the printer echoes to the host to indicate that it has moved to a new line	CR/LF
Timeout	Sets the timeout value in seconds that printer uses to check the existing connection when the connection is terminated from other end. Range is 60 to 700 seconds.	700

Email Server

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > Email Server**.
- From the printer web page, click **Configure > Network Services > Email Server**.

Email Server	Description	Default
Mode	Selects the mode the printer uses to communicate with the email server.	Manual

Email Server	Description	Default
Port Number	Sets the port number the printer uses to communicate with email server. Range is 1 to 65535.	62241
Server Address	Sets the IP address of the email server	0.0.0.0
From Address	Sets the email address of the person who will receive the alert messages.	
To Address	Sets the email address that appears as the sender of the alert messages.	
Email Password	Sets the password the printer uses to communicate with SMTP SSL service.	

SNMP

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > SNMP**.
- From the printer web page, click **Configure > Network Services > SNMP**.

SNMP	Description	Default
Authentication Failure Trap	Determines if the printer sends a trap to its management station when a request is received from an unauthorized source.	Disable
Read Community	Sets the name of the community that has rights to read the SNMP MIBs.	
Write Community	Sets the name of the community that has rights to write the SNMP MIBs. Range is 1 to 32 characters.	
SNMPv1	Determines if the printer supports SNMPv1 functionality.	Enable
SNMPv2	Determines if the printer supports SNMPv2 functionality.	Enable
Trap Status 1 - 4	Determines if the trap is enabled or disabled	Enable
Trap Name1 -4	Sets a descriptive name for the trap.	
Trap Address 1 -4	Sets the IP address of this trap.	0.0.0.0
Trap Port Number 1-4	Sets the port number of this Trap address. Range 1 to 65535.	162
Trap Community 1 - 4	Sets the name of the trap community. Range 1 to 32 characters	Public
SNMPv3 Username	Sets the username that the printer uses when communicating with its management station. Range is 1 to 32 characters.	
SNMPv3 Authentication Key	Sets the password that is used to generate a key that verifies that the printer is authorized to communicate with the management station. Range is 8 to 32 characters.	
SNMPv3 Encryption Key	Sets the password that is used to generate a privacy key that is used for encryption. Range is 8 to 32 characters.	
SNMPv3 Authentication Protocol	Selects the algorithm that the printer uses to determine that the messages are from valid source.	SHA
SNMPv3 Encryption Protocol	Selects the type of encryption that the printer uses to prevent messages from being seen by an unauthorized user.	AES

WINS

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > WINS**.
- From the printer web page, click **Configure > Network Services > WINS**.

WINS	Description	Default
Primary WINS server	Sets the IP address of the primary server to which the printer sends WINS requests. The WINS server IP address and routing information for the network.	
Secondary WINS server	Sets the IP address of the secondary server to which the printer sends WINS requests. The WINS server IP address and routing information for the network.	

Web Server

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > Web Server**.
- From the printer web page, click **Configure > Network Services > Web Server**.

Web Server	Description	Default
Image Buffer	Determines if the image buffer appears in the printer web page.	Enable
Web Server Protocol	Selects web server protocol. Auto (HTTP+HTTPS) or HTTPS only.	HTTPS only

Time Server

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > Time Server**.
- From the printer web page, click **Configure > Network Services > Time Server**.

Time Server	Description	Default
Server Address	Sets the address the printer uses to communicate with time server.	ntp0.cornell.edu
Port Number	Sets the port number the printer uses to communicate with the time server.	123

Connectivity Agent

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > Connectivity Agent**.
- From the printer web page, click **Configure > Network Services > Connectivity Agent**.

Connectivity Agent	Description	Default
Server Address	Sets the IP address of the connectivity server.	0.0.0.0
Server Hostname	Sets the Hostname of the connectivity server.	hostname.dns.com
Port Number	Sets the port number printer uses to communicate with the connectivity server.	10000
Telemetry Frequency(Seconds)	Sets the telemetry frequency (in seconds) of the connectivity agent at which telemetry data has to be sent to the connectivity server.	2160
Unique Id	Sets the unique ID from the connectivity server.	
Fingerprint Validation	Sets the fingerprint ID from the connectivity server.	
Update Request Interval(Minutes)	Sets the interval (in minutes) to send the auto update request to connectivity server.	60
Buzzer	Sets the buzzer to beep while downloading/updating the file.	Disable

XML Printing

To view these settings:

- From the printer Main Menu, select **Settings > Network Services > XML Printing**.
- From the printer web page, click **Configure > Network Services > XML Printing**.

Time Server	Description	Default
Port Number	Sets the port number that defines the TCP port of XML printing. Range is 1024 to 65535.	9200

The INPrint Page

The INPrint page features sample web forms you can use to print single labels if you are using the Fingerprint or Direct Protocol Language on your printer. Select a web form from the lists and enter information in the fields for that label. You can then preview and print the label.

The printer firmware includes several predefined label formats. You can also copy your own label formats to the printer and print them from the INPrint page.

Create and Save a Web Form

1. Create a webform using Fingerprint or Direct Protocol commands. (See [Sample Code](#)).
2. Save the file as .lbx
3. Create a Webforms folder in the USB thumbdrive and save the .lbx file in the folder.
4. Upload the Web Form to the printer. (See [Uploading from a USB Storage Device](#)).

Sample Code

```
input on
qVendor$ = /Vendor/
qModel$ = /Model Name/
qSerial$ = /Serial Number/

qDpi% = 406 \ sysvar(45)
qLen% = len(qVendor$)+len(qModel$)+len(qSerial$)
qMag%=2
if qLen% < 50 then qMag%=3
if qLen% < 40 then qMag%=4
if qLen% < 30 then qMag%=5
if qLen% < 20 then qMag%=6
if qLen% < 10 then qMag%=7

AN 1
PP 20,20
PX 160,360,4

AN 5
PP 100,100
BT "DATAMATRIX"
BM qMag%
PB "@"+qVendor$+"@"+qModel$+"@"+qSerial$

AN 5
FONT "Univers Bold", 14
PP 260,110
PT qVendor$

AN 5
FONT "Univers", 14
PP 260,70
PT qModel$
```


Print INPrint Labels

If the printer is connected to an Ethernet or Wi-Fi network, you can print labels by entering information in a web form. Access the web forms through the printer web page.

1. Open a browser window on your PC.
2. In the location or address bar, type **https://** followed by the printer IP address and press **Enter**. The printer web page appears.
3. Click the **INPrint** tab.
4. Select the web form you want to print:
 - If you created the web form yourself, click **Customer Downloaded** and then select the web form in the list.
 - To use one of the Honeywell resident web forms, click **Resident** and then select the web form in the list.
5. Type information in the web form as needed.

To preview the label on screen, click **Preview**. To print the label, click **Print**.

ACCESSORIES AND OPTIONS

Printer Accessories and Options

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	PM45/ PM45c/ Both	Description
Option		
Parallel IEEE1284 Interface Board	Both	Service technician installed accessory. Use the parallel interface board to make a parallel interface port on the back of the printer.
Applicator Interface Board	Both	Service technician installed accessory. Use the applicator interface board to make an applicator port on the back of the printer.
Industrial Interface	Both	Service technician installed accessory. Use the industrial interface board to make GPIO port on the back of the printer.
RFID Board	Both	Service technician installed accessory. Use the RFID board to read and write RFID media.
Wi-Fi / Bluetooth Module	Both	Customer installed accessory. Use the Wi-Fi module to communicate with the printer wirelessly.
Cellular Modem	Both	Service technician installed accessory. Use the cellular modem to make a cellular network connection.
Accessory		
Label Dispenser	Both	Use the label dispenser to remove the liner from the self-adhesive label stock.

Option/Accessory	PM45/ PM45c/ Both	Description
Cutter Module	Both	Use the cutter module to cut media into individual labels.
Cutter Tray	Both	Use the cutter tray with the cutter module to collect the cut-off labels.
3-Inch Media Core	Both	Use this module to hold the 3-inch media core media.
Collapsible Core	Both	Use the collapsible core to easily remove ribbon from the take up hub.
Rotation Hanger	Both	Use the rotation hanger to enable consistent feeding of media stock.
Boarding Pass Guides	Both	Use this accessory to guide the boarding pass into the TPH.
Ticket Shelf	Both	Use this accessory to hold the fan-fold ticket.
Extended Ticket Tray	PM45c	Use this accessory to hold the printed boarding pass in position and allow easy tear off at perforation.
Extended Base	PM45	Use the extended base option to rewind full roll of labels.
Large Media Arm Edge Guide	PM45	Use the large edge guide to make sure that large rolls of media stay on the hanger.
Short Door	PM45c	Use the short door to accommodate large rolls of media.
Dome Door	PM45c	Use the dome door when printing with large media size and to protect the inside of the printer from dust and debris.

Note: To view the Accessory User Guide, visit the PM45 product page at www.sps.honeywell.com.

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