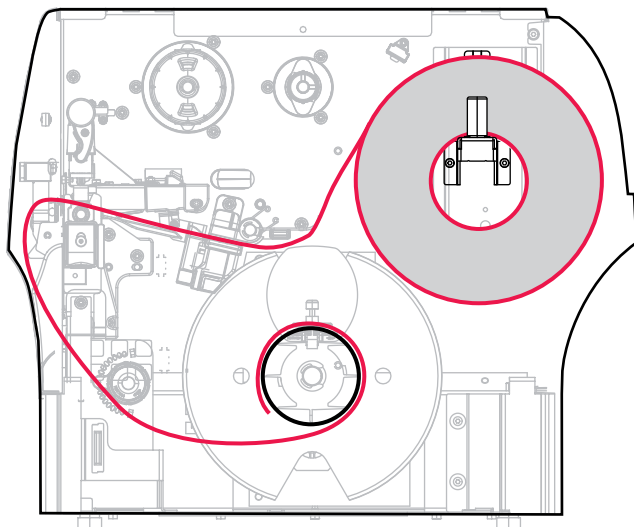
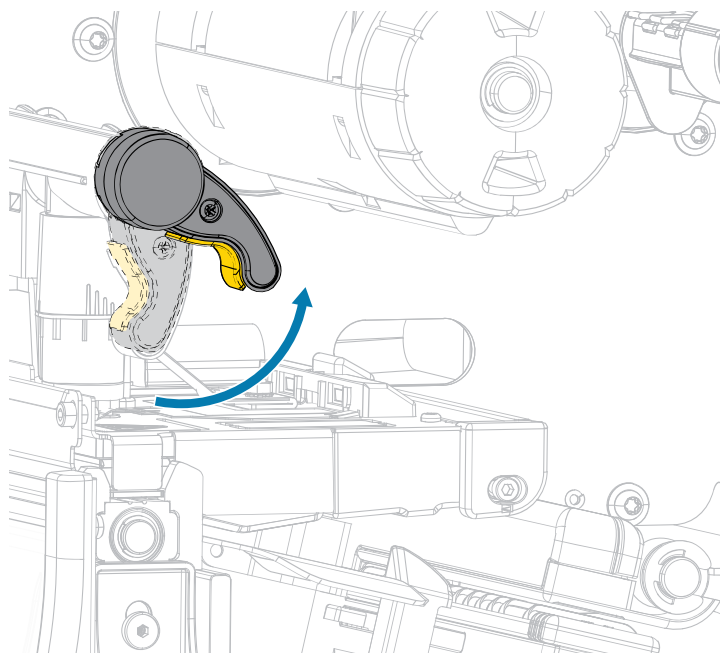


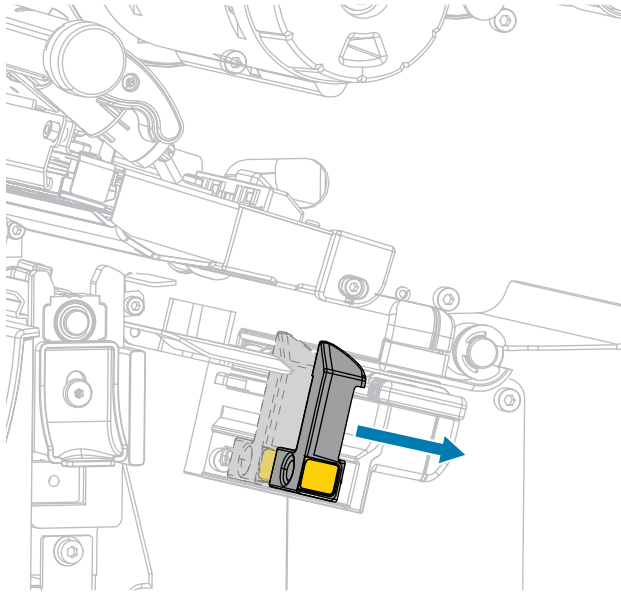
Using Rewind Mode



1. If you have not already done so, follow the instructions in [Inserting the Media into the Printer](#) on page 31.
2. Open the printhead assembly by rotating the printhead-open lever upward.

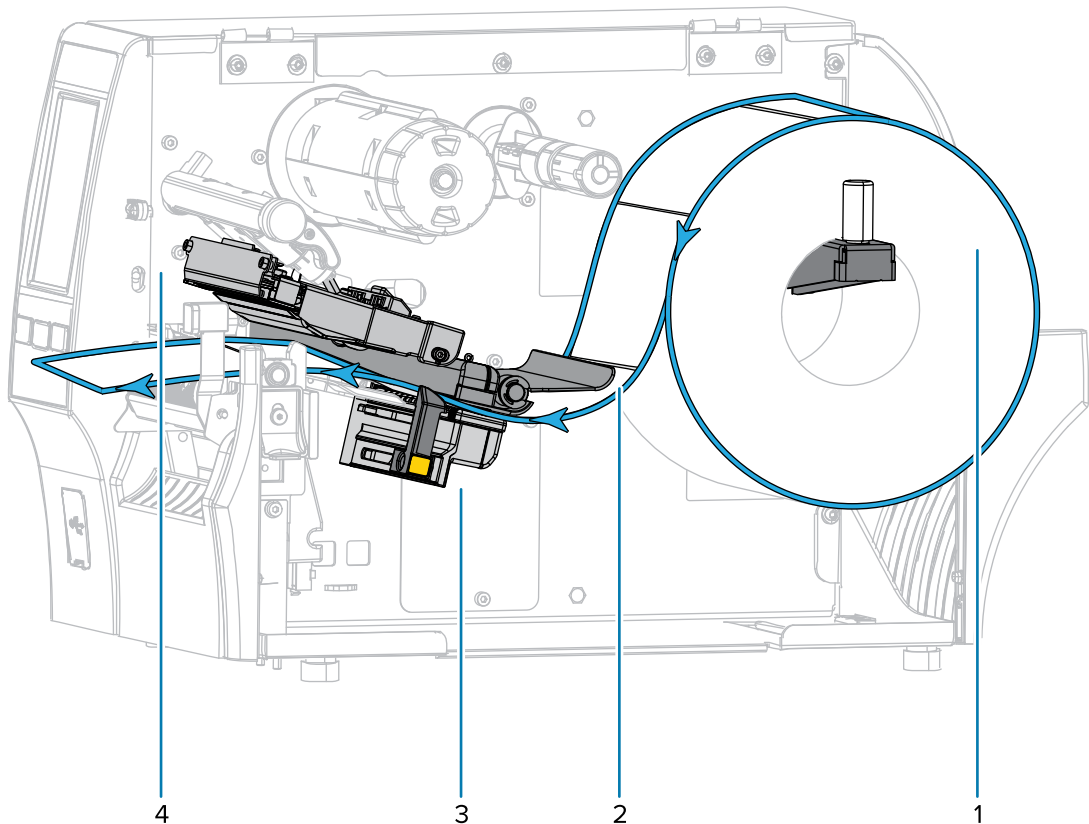


3. Slide the media guide all the way out.

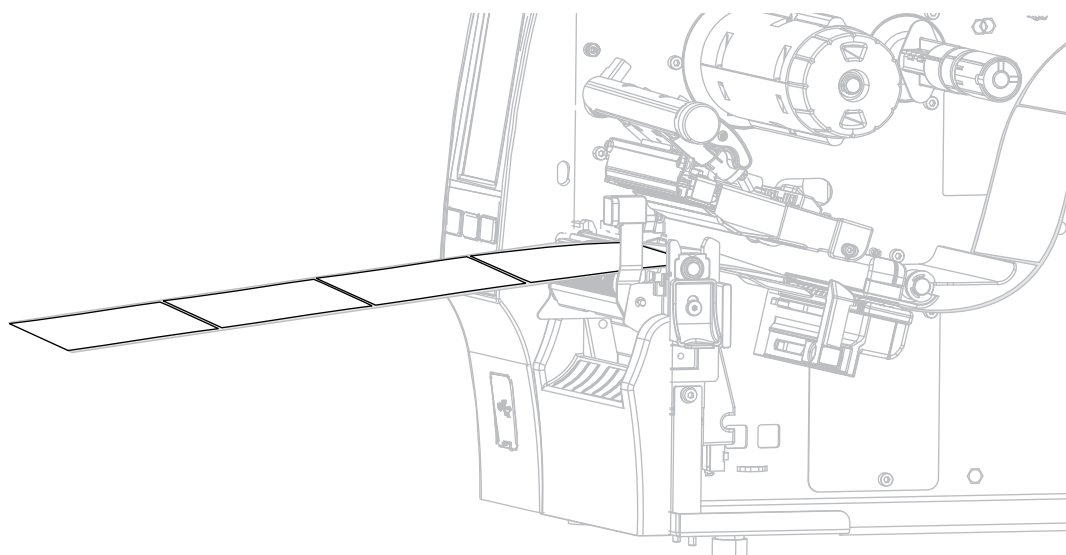


CAUTION: HOT SURFACE: The printhead may be hot and could cause severe burns. Allow the printhead to cool.

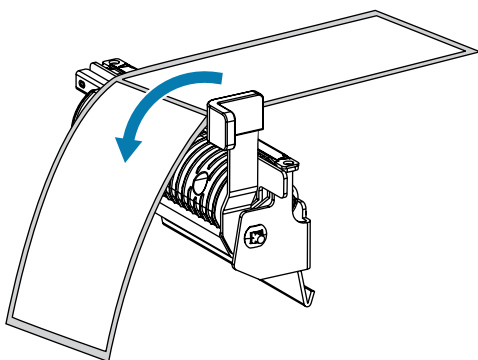
4. From the media hanger (1), feed the media under the dancer assembly (2), through the media sensor (3), and under the printhead assembly (4). Slide the media back until it touches the inside back wall of the media sensor.



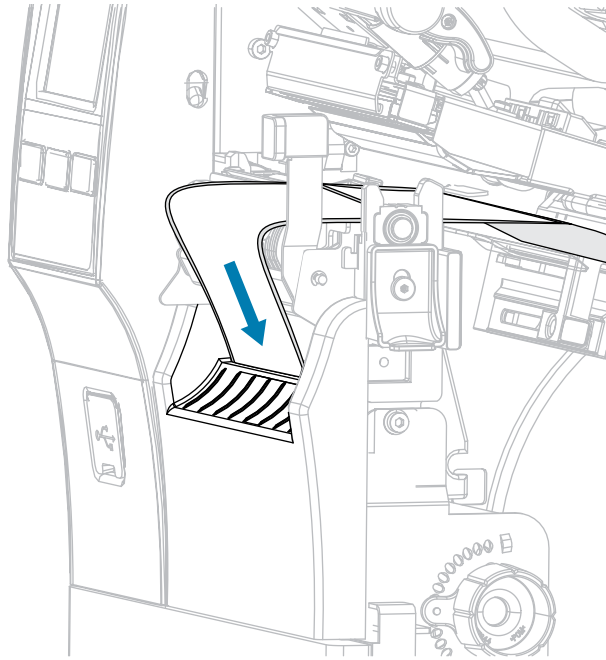
5. Extend approximately 18 in. (500 mm) of media out of the printer.



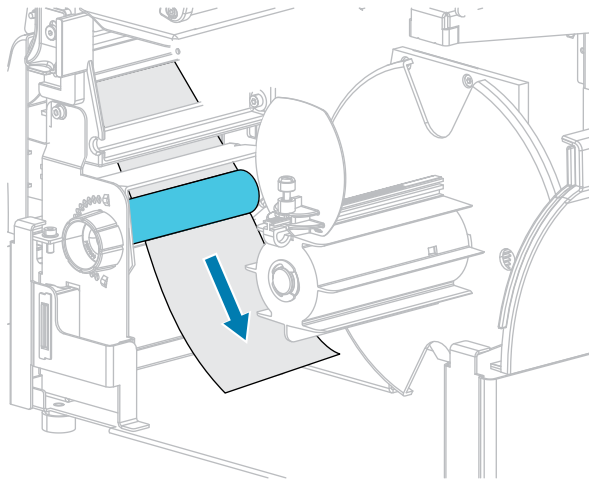
6. Feed the media over the peel assembly.



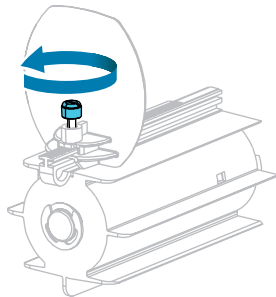
7. Thread the media into the slot below the peel assembly.



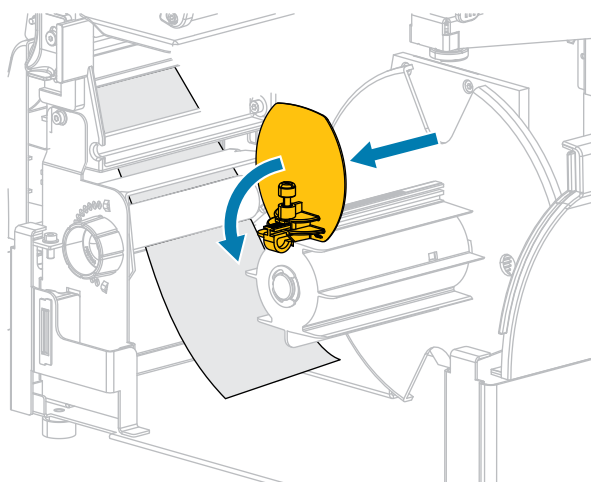
8. Feed the media under the media alignment roller.



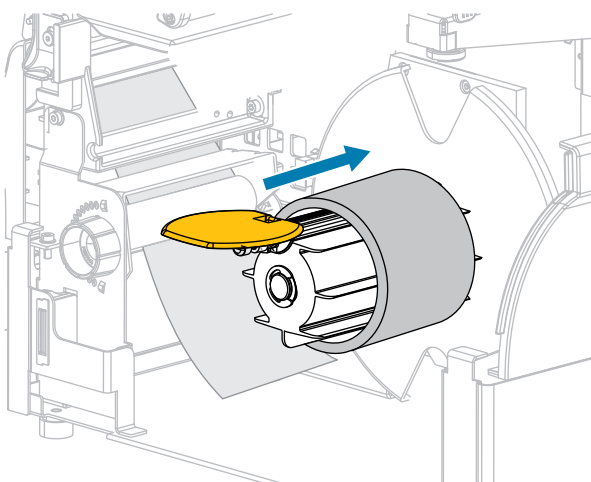
9. Loosen the thumbscrew on the rewind media guide.



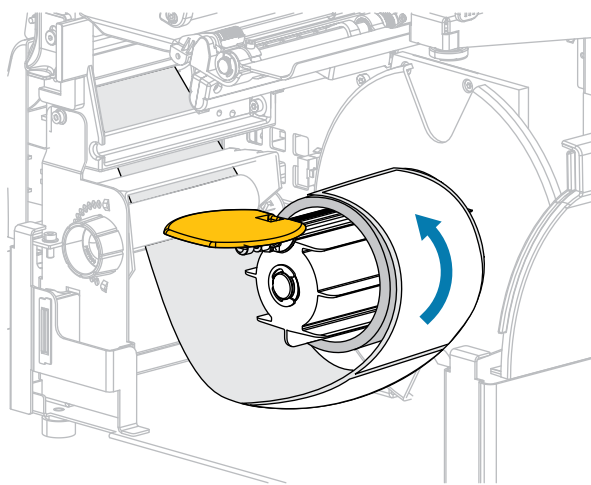
- 10.** Slide the rewind media guide all the way out, and then fold it down.



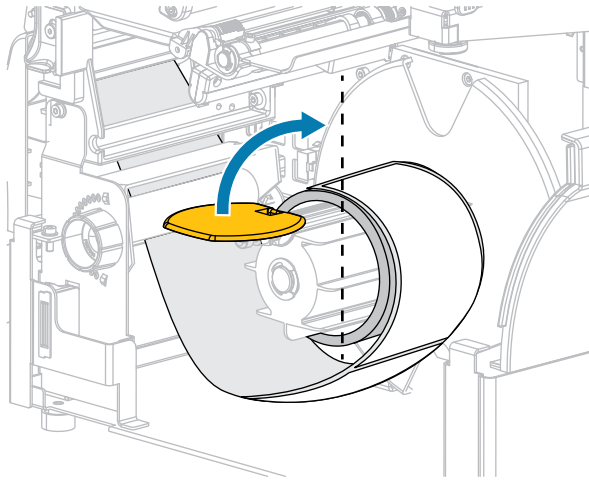
- 11.** Slide an empty core onto the rewind spindle.



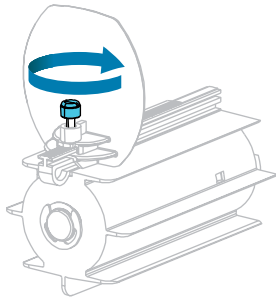
- 12.** Wrap the media around the core as shown and turn the rewind spindle to tighten the media. Ensure that the edge of the media is flush against the backplate of the rewind spindle.



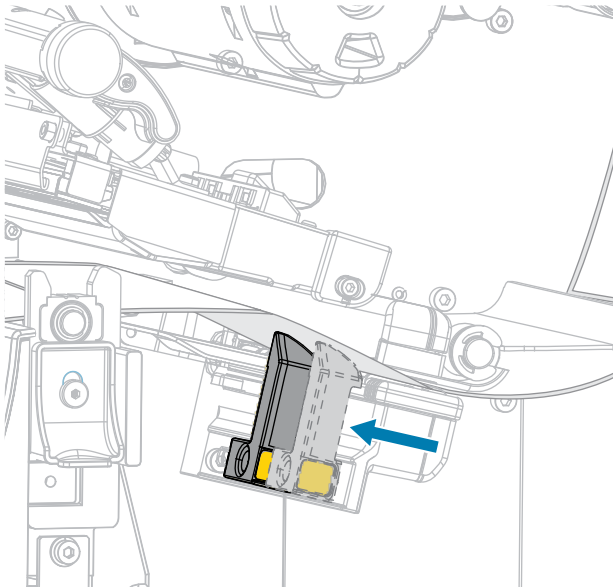
- 13.** Fold up the rewind media guide, and then slide it in until it touches the media.



- 14.** Tighten the thumbscrew on the rewind media guide.



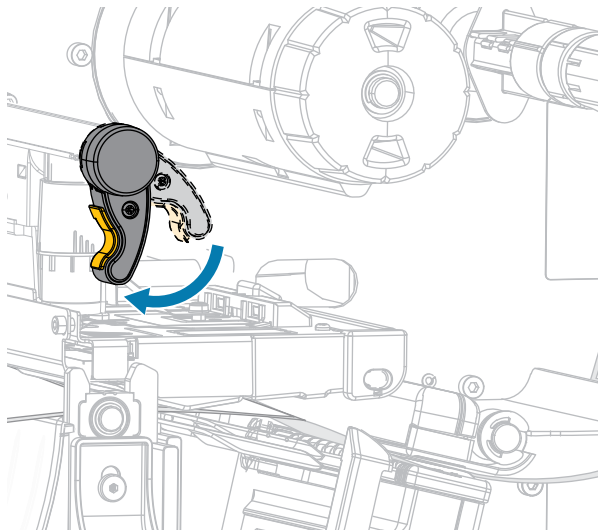
- 15.** Slide in the media guide until it just touches the edge of the media.



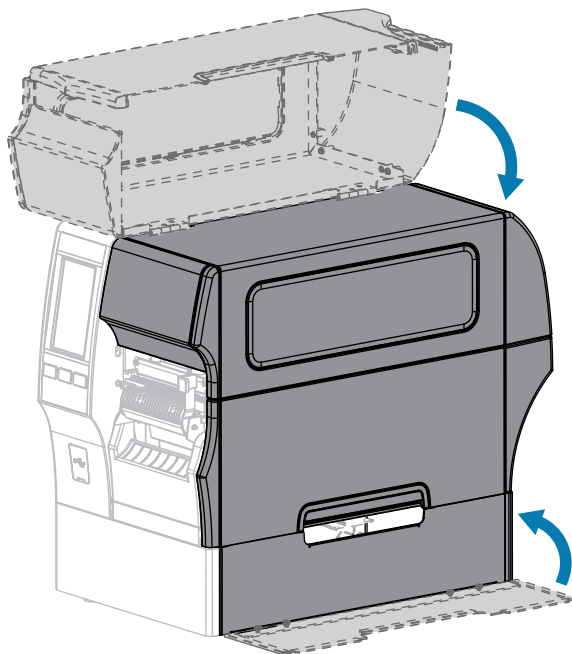
- 16.** Does the media that you are using require ribbon for printing? If you are not sure, see [Ribbon](#) on page 10.

If using...	Then...
Direct Thermal media (no ribbon needed)	Continue with step 17 on page 55.
Thermal Transfer media (ribbon needed)	<p>a. If you have not already done so, load ribbon in the printer. (See Loading the Ribbon on page 62.)</p> <p>b. Continue with step 17 on page 55.</p>

- 17.** Rotate the printhead-open lever downward until it locks the printhead in place.



- 18.** Close the media door and the rewind base door.



- 19.** Set the printer to Rewind mode. (For more information, see [Print > Label Position > Collection Method](#).)

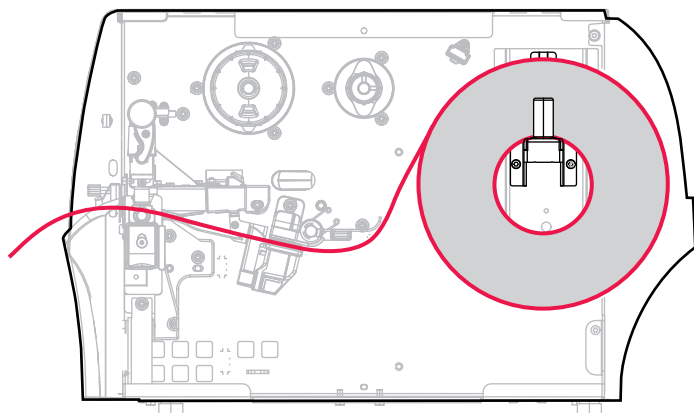
20. Press **PAUSE** to exit pause mode and enable printing.

The printer may perform a label calibration or feed a label, depending on your settings.

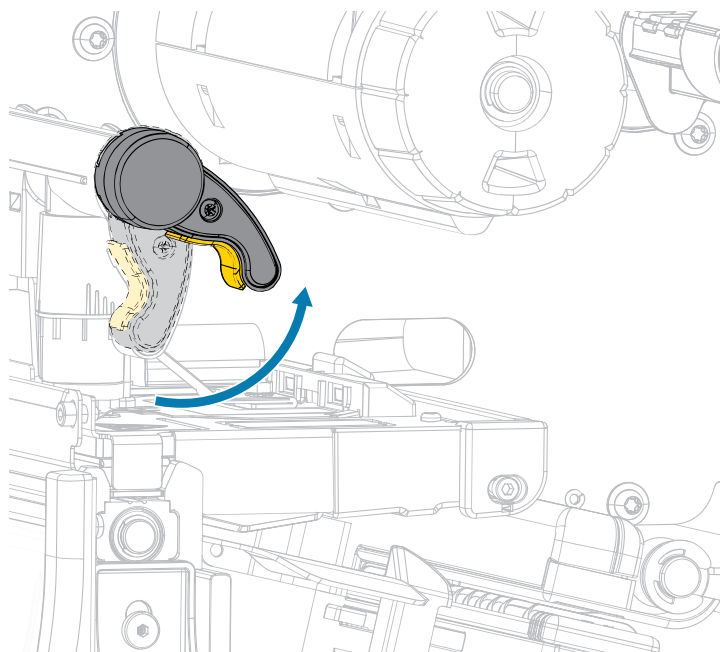
21. For optimal results, calibrate the printer. (See [Calibrating the Ribbon and Media Sensors](#) on page 118.)
22. Verify that your printer is able to print a configuration label by holding both the **FEED** and **CANCEL** keys for 2 seconds.

Media loading in Rewind mode is complete.

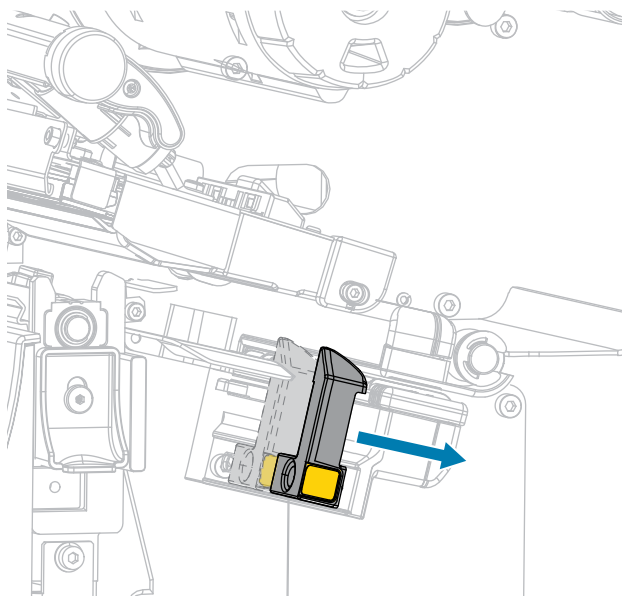
Using Cutter Mode or Delayed Cut Mode



1. If you have not already done so, follow the instructions in [Inserting the Media into the Printer](#) on page 31.
2. Open the printhead assembly by rotating the printhead-open lever upward.



3. Slide the media guide all the way out.

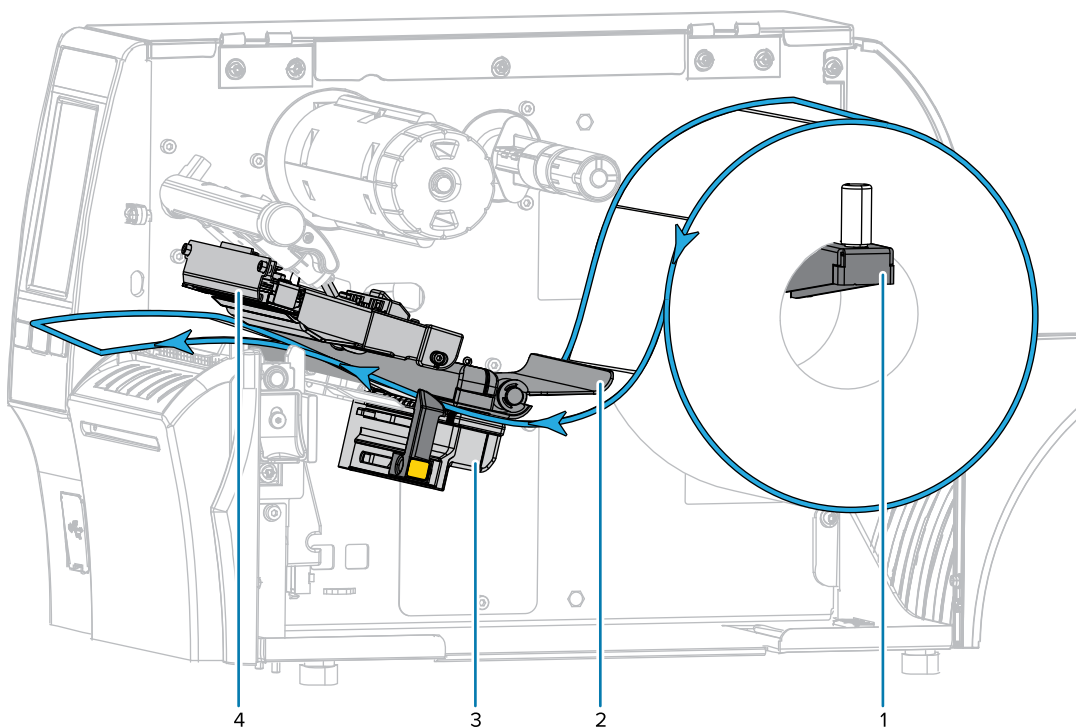


CAUTION: HOT SURFACE: The printhead may be hot and could cause severe burns. Allow the printhead to cool.

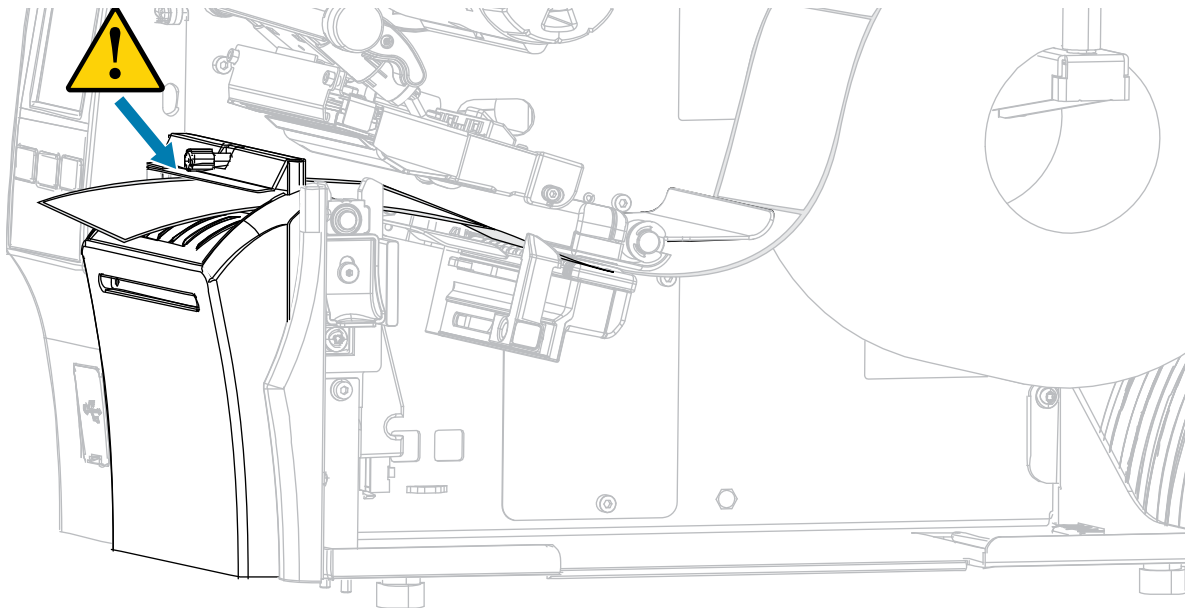
4. From the media hanger (1), feed the media under the dancer assembly (2), through the media sensor (3), and under the printhead assembly (4). Slide the media back until it touches the inside back wall of the media sensor.



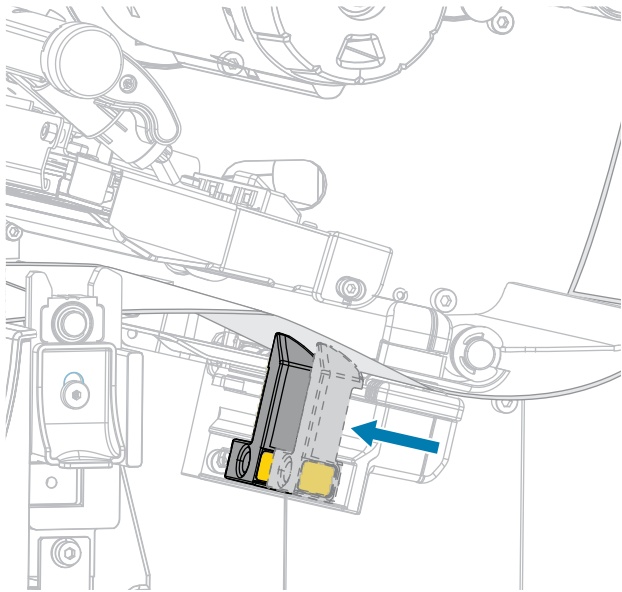
CAUTION: The cutter blade is sharp. Do NOT touch or rub the blade with your fingers.



5. Feed the media through the cutter.



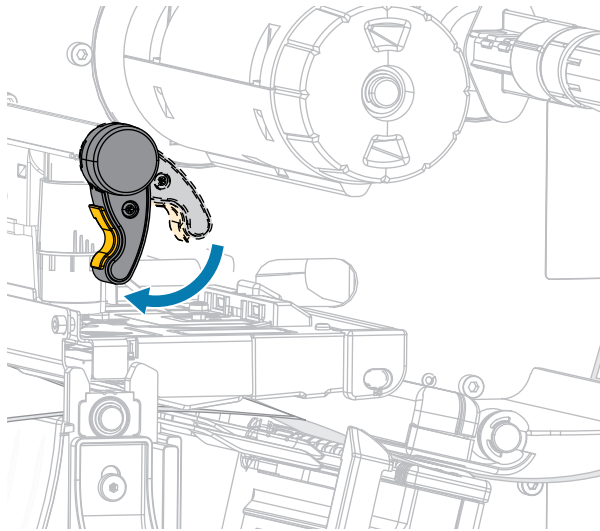
6. Slide in the media guide until it just touches the edge of the media.



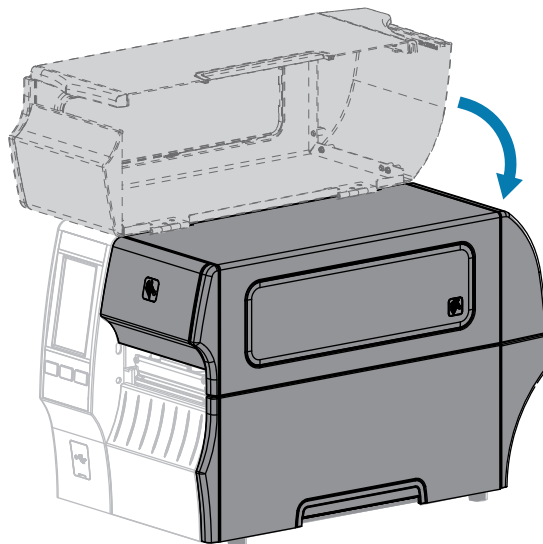
7. Does the media that you are using require ribbon for printing? If you are not sure, see [Ribbon](#) on page 10.

If using...	Then...
Direct Thermal media (no ribbon needed)	Continue with step 8 on page 60.
Thermal Transfer media (ribbon needed)	If you have not already done so, load ribbon in the printer. See Loading the Ribbon on page 62. Continue with step 8 on page 60.

8. Rotate the printhead-open lever downward until it locks the printhead in place.



9. Close the media door.



10. Set the printer to the appropriate collection method (for more information, see [Print > Label Position > Collection Method](#)).
11. Press **PAUSE** to exit pause mode and enable printing.
The printer may perform a label calibration or feed a label, depending on your settings.
12. For optimal results, calibrate the printer (see [Calibrating the Ribbon and Media Sensors](#) on page 118).
13. Verify that your printer is able to print a configuration label by holding both the **FEED** and **CANCEL** keys for 2 seconds.

Media loading in Cutter mode is complete.

Determining the Type of Ribbon to Use



NOTE: This section applies only to printers that have the Thermal Transfer option installed.

What kind of ribbon can I use?

Rolls of ribbon are wound with the coated surface of ink on the inside of the roll or on the outside of the roll. This printer with a standard Thermal Transfer option uses ribbon that is coated on the outside. An optional ribbon spindle is available to use ribbon that is coated on the inside. Contact your authorized Zebra reseller for ordering information.



If you are unsure which side of a particular roll of ribbon is coated, perform an adhesive test or a ribbon scratch test to determine which side is coated.

Performing an Adhesive Test

If you have labels available, perform the adhesive test to determine which side of a ribbon is coated. This method works well for ribbon that is already installed.

1. Peel a label from its liner.
2. Press a corner of the sticky side of the label to the outer surface of the roll of ribbon.
3. Peel the label off of the ribbon.
4. Observe the results.

Did flakes or particles of ink from the ribbon adhere to the label?

If ink from the ribbon...	Then...	
Adhered to the label	The ribbon is coated on the outside and it can be used in this printer.	
Did not adhere to the label	The ribbon is coated on the inside and it cannot be used in the standard printer. To verify this result, repeat the test on the other surface of the roll of ribbon.	



Performing a Ribbon Scratch Test

Perform the ribbon scratch test when labels are unavailable.

1. Unroll a short length of ribbon.
2. Place the unrolled section of ribbon on a piece of paper with the outer surface of the ribbon in contact with the paper.
3. Scratch the inner surface of the unrolled ribbon with your fingernail.
4. Lift the ribbon from the paper.

5. Observe the results.

Did the ribbon leave a mark on the paper?

If the ribbon...	Then...	
Left a mark on the paper	The ribbon is coated on the outside and it can be used in this printer.	
Did not leave a mark on the paper	The ribbon is coated on the inside and it cannot be used in the standard printer. To verify this result, repeat the test on the other surface of the roll of ribbon.	

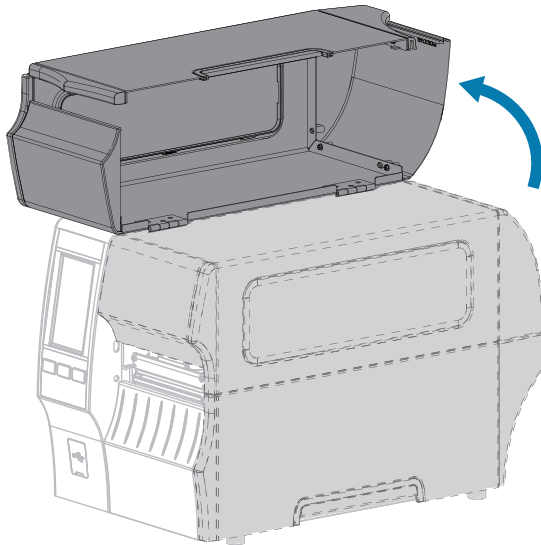
Loading the Ribbon



IMPORTANT: You are not required to turn off the printer power when working near an open printhead, but Zebra recommends it as a precaution. If you turn off the power, you will lose all temporary settings, such as label formats, and you must reload them before you resume printing.

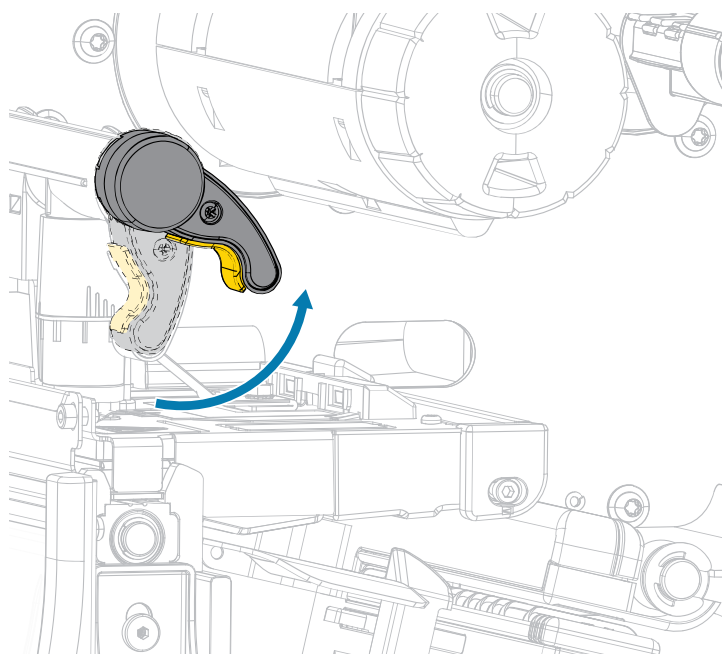
Use ribbon that is wider than the media to protect the printhead from wear. Ribbon must be coated on the outside for use in a standard printer. For more information, see [What kind of ribbon can I use?](#) on page 61.

1. Raise the media door.

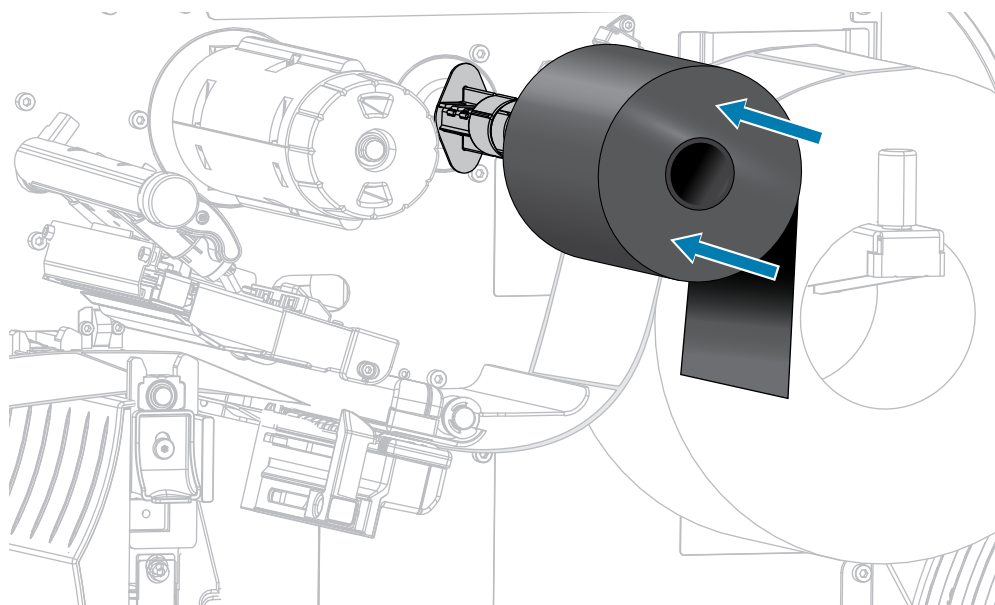


CAUTION: HOT SURFACE: The printhead may be hot and could cause severe burns. Allow the printhead to cool.

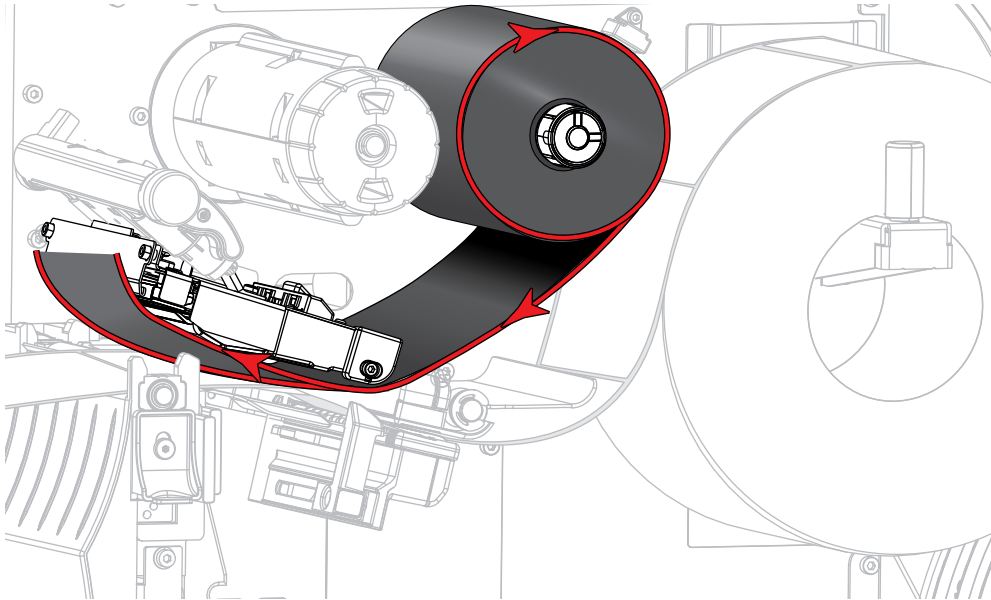
2. Open the printhead assembly by rotating the printhead-open lever upward.



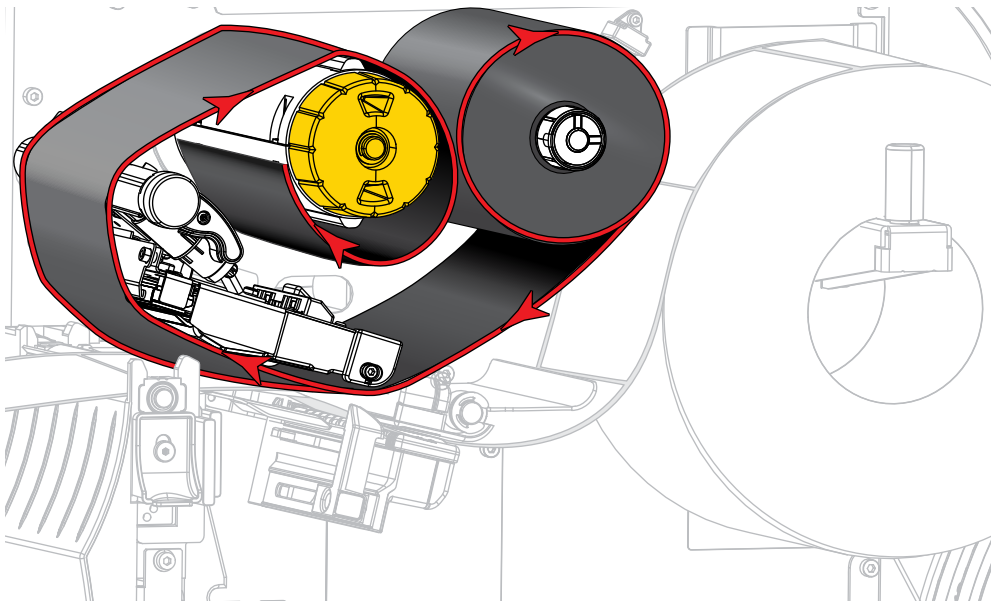
3. Place the roll of ribbon on the ribbon supply spindle with the loose end of the ribbon unrolling as shown. Push the roll back as far as it will go.



4. Bring the ribbon under the printhead assembly and around its left side, as shown.

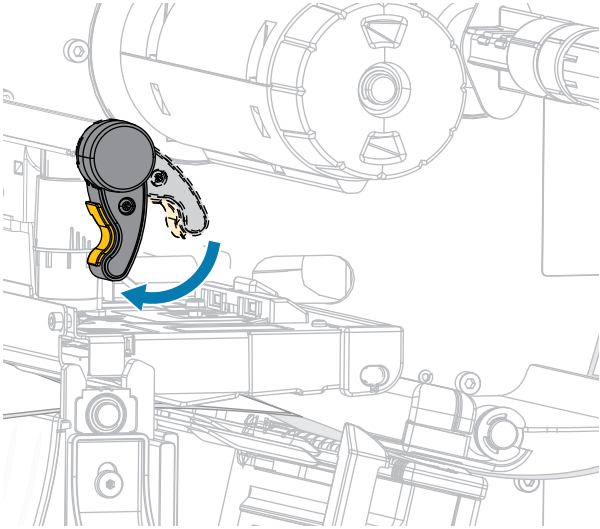
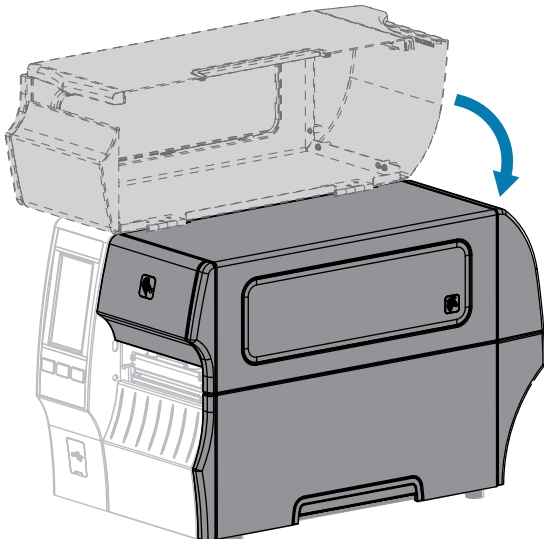


5. With the ribbon tracking as far back as it can under the printhead assembly, wrap the ribbon around the ribbon take-up spindle. Rotate the spindle several turns in the direction shown to tighten and align the ribbon.



6. Is media already loaded in the printer?

If...	Then...
No	Load media in the printer. (See Loading the Media on page 31.)

If...	Then...
Yes	<p data-bbox="527 254 1477 285">a. Rotate the printhead-open lever downward until it locks the printhead in place.</p>  <p data-bbox="527 842 824 873">b. Close the media door.</p>  <p data-bbox="527 1444 1192 1476">c. Press PAUSE to exit pause mode and enable printing.</p>

Running the Print Wizard and Printing a Test Label

The Print Wizard configures the printer, prints test labels, and adjusts print quality based on the results of the test labels.



IMPORTANT: When using the Wizards, do not send data to the printer from the host.

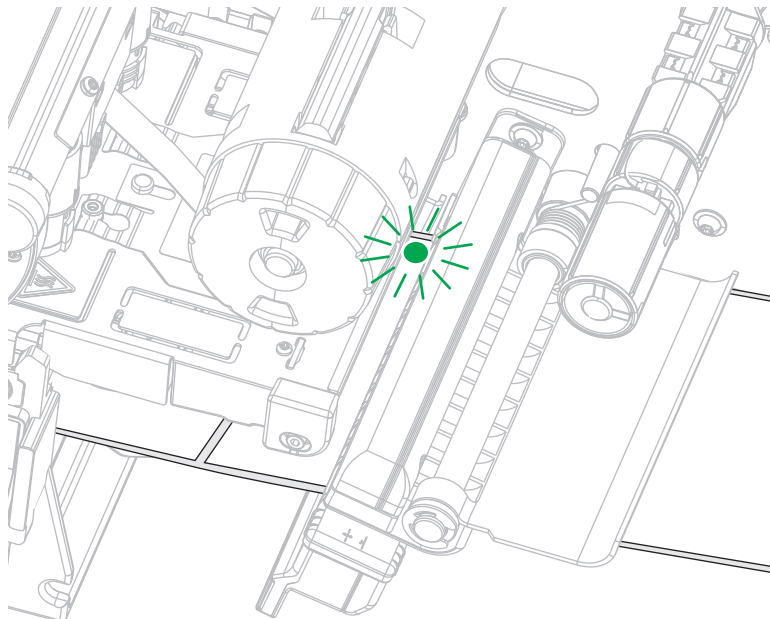
For optimal results, use full-width media running the **Print Wizard** or **Set All Wizard**. If the media is smaller than an image to be printed, the results may be truncated or print across multiple labels.

After you have completed the printer setup procedures and run the printer setup wizard, use this section to print a test label. Printing this label allows you to see if your connection is working and if you need to adjust any of the print settings.

1. On the Home screen, touch **Wizards > Print > Start Print**.
2. Follow the prompts to specify the following information:
 - print type (Thermal Transfer or Direct Thermal)
 - label type (Continuous, Gap/Notch, or Mark)
 - label width
 - collection method (tear off, peel-off, rewind, cutter, delayed cut, linerless peel, linerless rewind, linerless tear, or applicator)

After you have specified these, the wizard instructs you to load media and then to place a label over the media sensor.

3. **Load media** so that a label is over the green light from the media sensor, and then touch the checkmark.

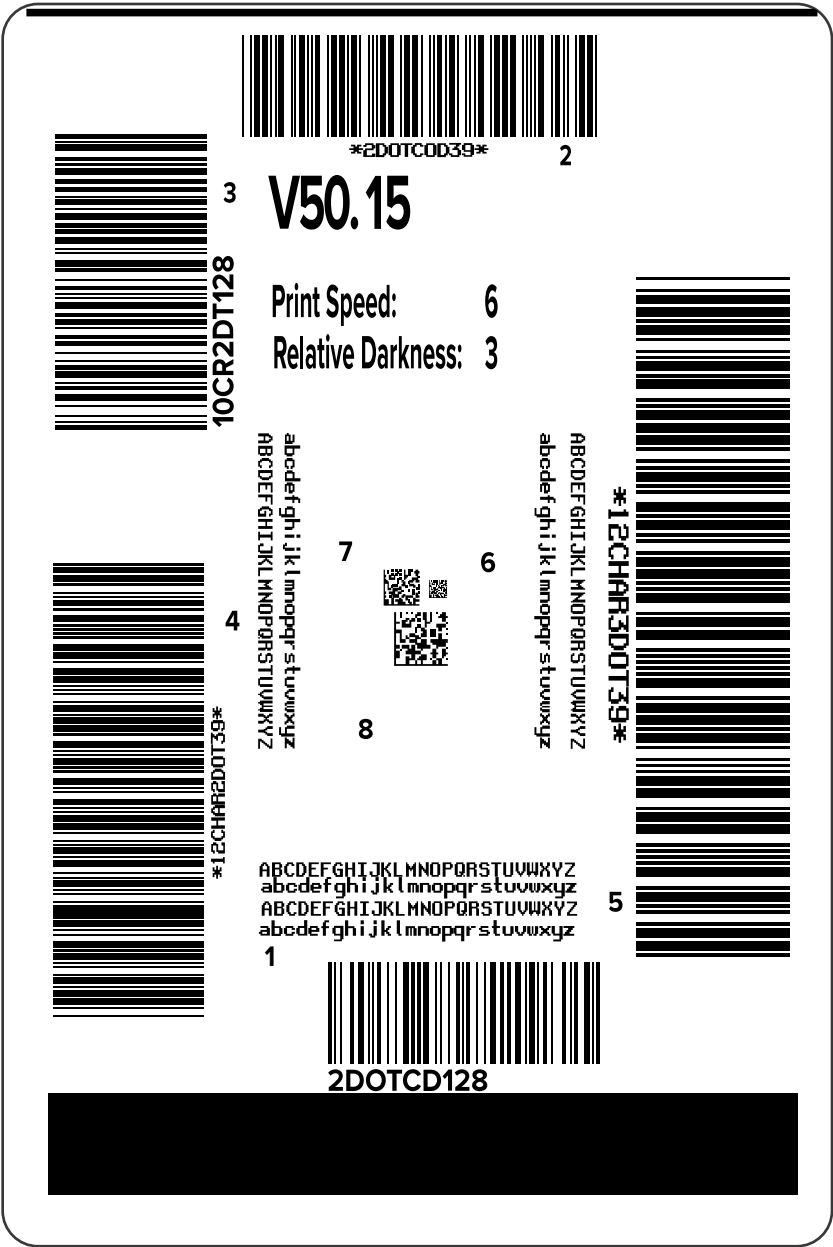


4. At the prompt, close the printhead, and then touch the next checkmark.

The printer calibrates and then asks if you would like to print a test label.
5. Follow the prompts until the printer completes auto calibration.

6. When asked to print a test label, touch the checkmark.

A test label similar to this one prints. If your labels are smaller than the image, only a portion of the test label will print.

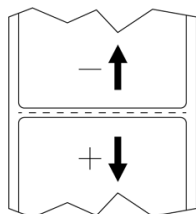


7. Examine the position of the label over the tear bar. If necessary, shift the position of the media over the tear-off bar after printing.

- If the space between labels falls on the tear bar, continue with the next step.
- If the space between labels does not fall directly on the tear bar, shift the position of the media over the tear bar after printing.

Lower numbers move the media into the printer by the specified number of dots (the tear line moves closer to the edge of the label just printed).

Higher numbers move the media out of the printer (the tear line moves closer to the leading edge of the next label).



8. Examine the quality of the image on the test label. Is the quality of the barcode and text on the test label acceptable? See [Evaluating Barcode Quality](#) on page 142 for assistance.

- If yes, touch the check mark, and then check what other issues may be affecting your print quality (see [Printing or Print Quality Issues](#) on page 157).
- If no, adjust the print quality manually by changing darkness and speed settings through the printer's menu system, or run the [Print Quality Assistance wizard](#).

Using the Print Quality Assistance Wizard

1. Touch **Print Quality Assistance**.

The printer prompts for the number of test labels to print. The more labels you choose to print, the more choices that you will have available to decide on label quality. In general, if your test label from the previous wizard was acceptable, a lower number of test labels in this step will probably suffice.

2. Select a number of test labels to print.

The printer prints the specified number of test labels and prompts you for the preferred test label.

3. Decide which test label is the optimal quality. (Refer to [Evaluating Barcode Quality](#) on page 142 for assistance.) If none of the labels are acceptable, use the arrow to back up a screen in the wizard, and select a larger number of test labels.

4. In the list on the display, select the identifier for the test label with the specified quality, and then touch the checkmark.

The printer changes the darkness and speed to the levels used on the preferred test label.

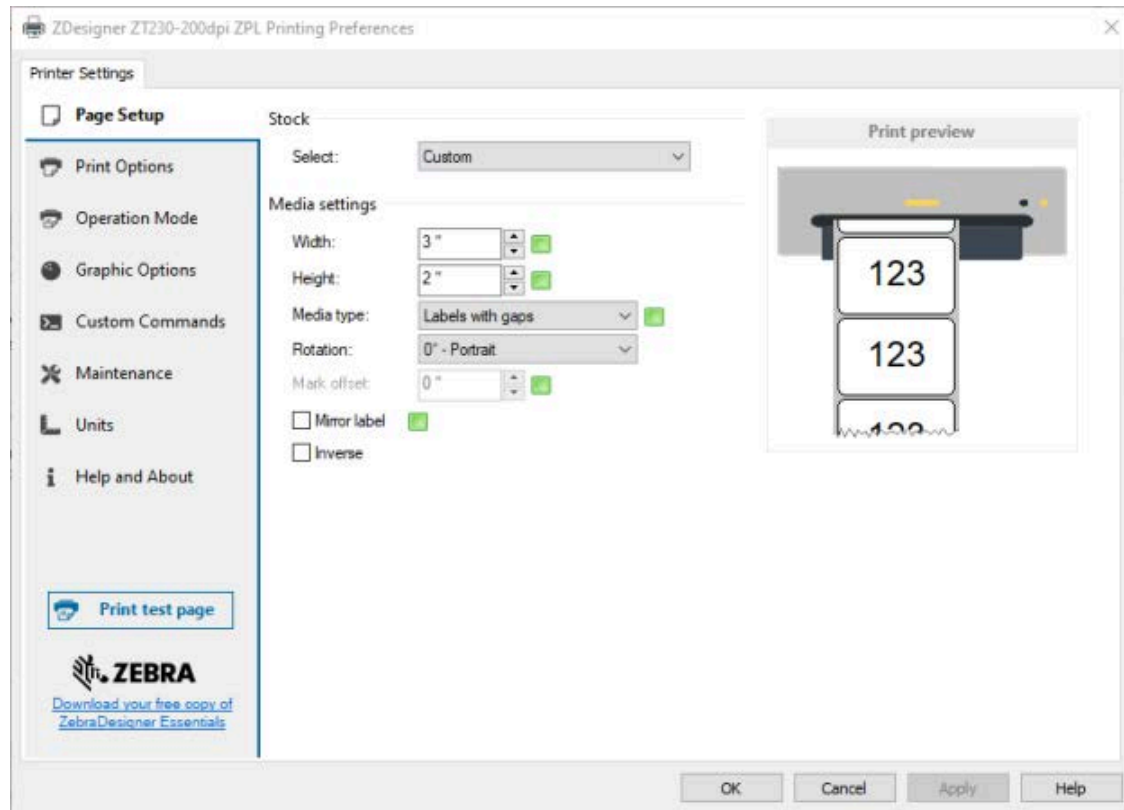
5. If necessary, see [Printing or Print Quality Issues](#) on page 157 to see what other issues may be affecting your print quality.

The print setup procedure is complete.

Installing Label Design Software

Select and install the software that you will use to create label formats for your printer.

One option is ZebraDesigner, which you can download from zebra.com/zebradesigner. You can choose to use ZebraDesigner Essentials for free or purchase ZebraDesigner Professional for a more robust toolset.



ZebraDesigner System Requirements

System requirements for the ZebraDesigner label-format design application are listed below:

- 32-bit or 64-bit Windows 10 desktop editions, Windows 11 desktop editions, Windows Server 2016, Windows Server 2019, Windows Server 2022 operating systems.
- CPU: Intel or compatible x86 family processor
- Memory: 2 GB or more RAM
- Hard drive: 1 GB of available disk space
- Microsoft.NET Framework Version 4.7.2
- Display: 1366 × 768 or higher resolution monitor
- ZDesigner printer drivers



NOTE: Remote Desktop Services and Virtual Machines are not supported.

Printer Configuration and Adjustment

This section assists you with configuration of the printer and adjustments to the printer.

Home Screen

The printer's Home screen shows you the printer's current status and allows you to access the printer's menus. You can rotate the image of the printer 360 degrees to view it from all angles.

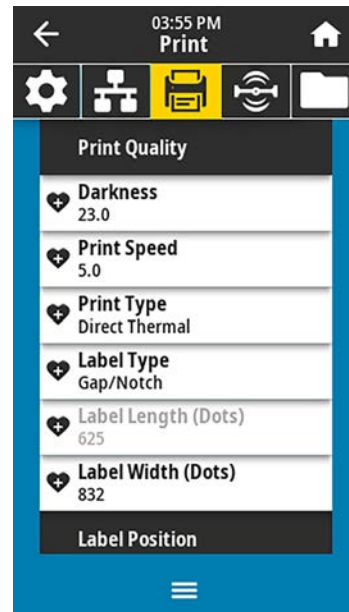


NOTE: If the background color of the Home screen is yellow or red, the printer is in an alert or error state. For more information, see [Alert and Error States](#).

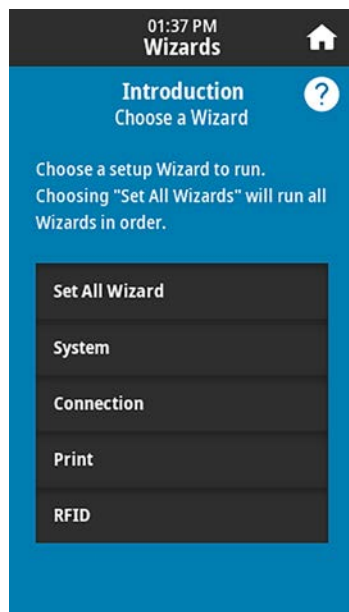
Printer Configuration and Adjustment

The following items are located on the Home screen **Print Status** tab:

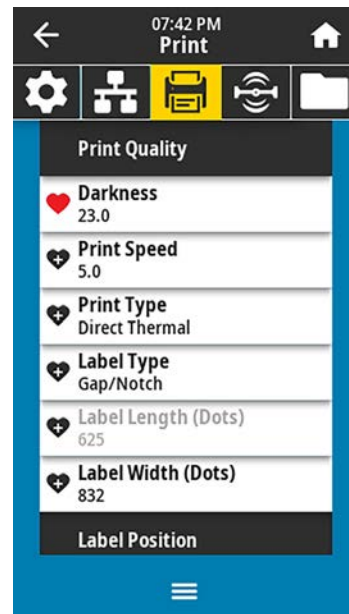
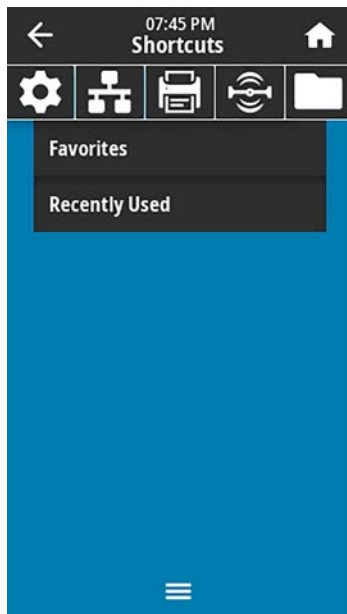
- **Menu**—Allows you to change the printer settings. See [User Menus](#).



- **Wizards**—Allows you to change printer settings by going through prompts. See [Printer Wizards](#).



- **Shortcuts**—Allows you to quickly access the most recent menu items and to save your favorites. Touch the darkened heart icon next to a menu item to save it to your list of favorites. Items in the favorites are shown in the order in which they were saved.



Changing Printer Settings

This section presents the printer settings that you can change and identifies the tools for changing them. These tools include the following:

- The Windows driver installed previously. (See [Changing Printer Settings through the Windows Driver](#) on page 72 for more information.)
- The printer wizards. (See [Printer Wizards](#) on page 73.)
- The printer's user menus (See [User Menus](#) on page 74 for more information.)
- ZPL and Set/Get/Do (SGD) commands (See the Zebra Programming Guide for more information.)
- The printer's web pages when the printer has an active wired or wireless print server connection (See the ZebraNet Wired and Wireless Print Servers User Guide for more information.)

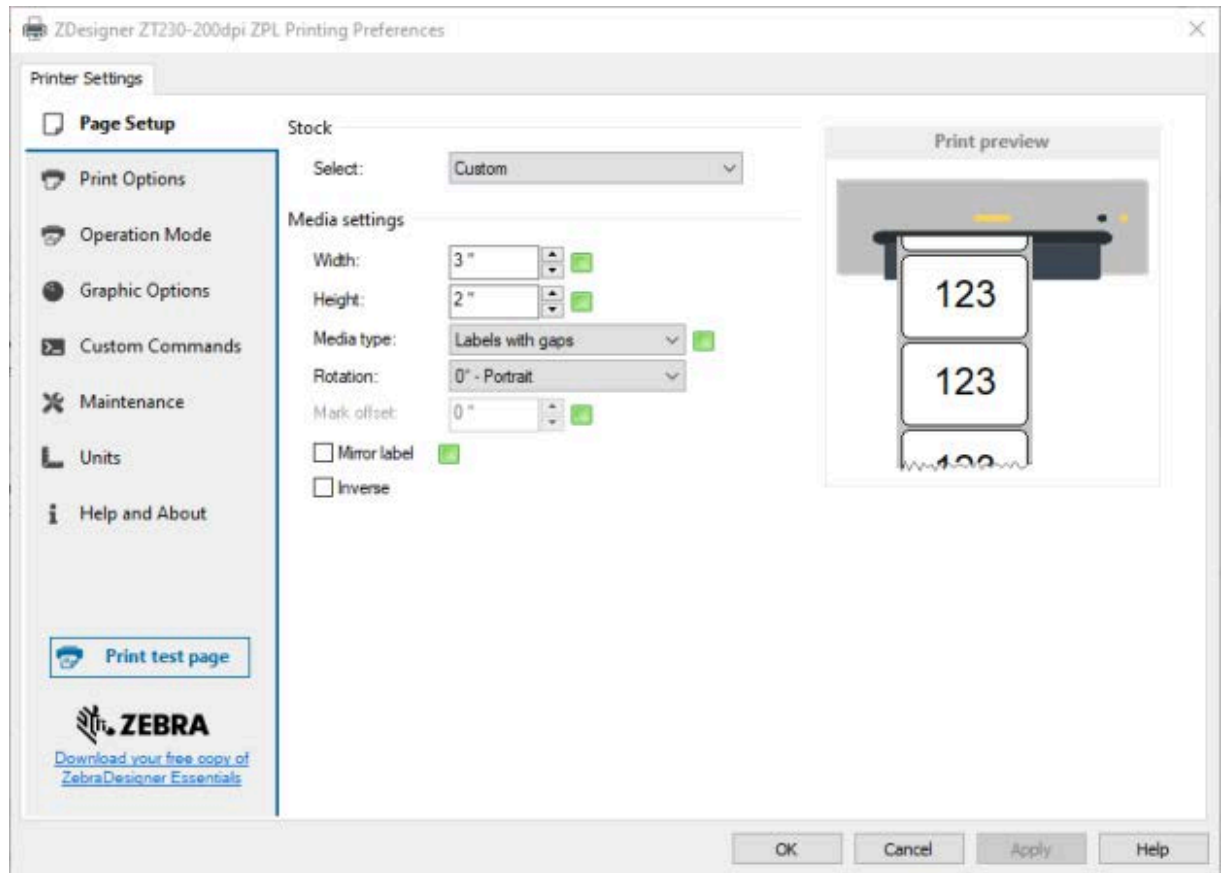
Copies of the referenced manuals are available at zebra.com/manuals.

Changing Printer Settings through the Windows Driver

1. From the Windows Start Menu, go to **Printers & Scanners**.
2. Click your printer in the list of available printers, and then click **Manage**.

3. Click **Printing Preferences**.

The ZDesigner window for your printer displays.



Printer Wizards

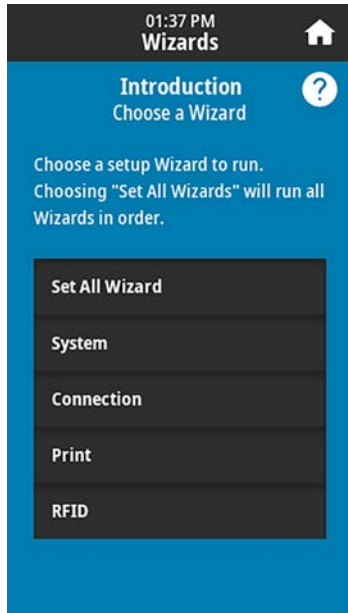
Printer wizards walk you through the setup process for various printer settings and features.

The following wizards are available:

- Set All Wizard—runs all the wizards in sequence.
- System Wizard—sets up non-print related operating system settings.
- Connection Wizard—configures the printer's connectivity options.
- Print Wizard—configures key printing parameters and features. See [Running the Print Wizard and Printing a Test Label](#) on page 66.
- RFID Wizard—sets up the RFID subsystem's operations.

On the Home screen, touch **Wizards** to see the available options.

For more information about individual settings set by any of the wizards, see [User Menus](#) on page 74.



IMPORTANT:

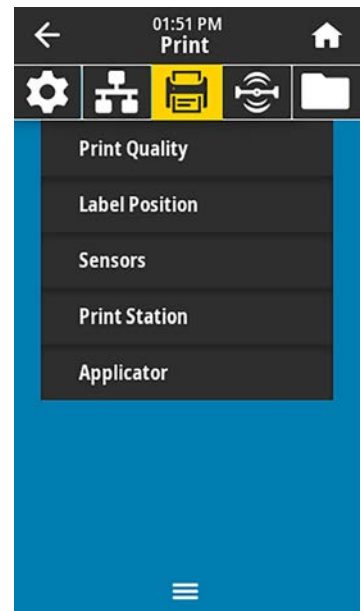
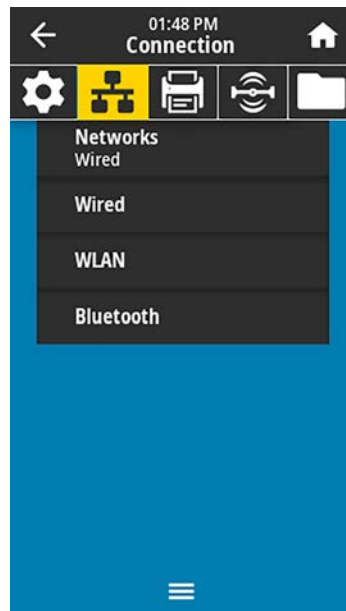
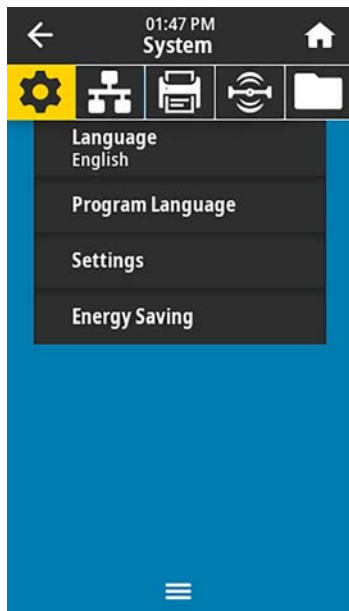
When using the Wizards, do not send data to the printer from the host.

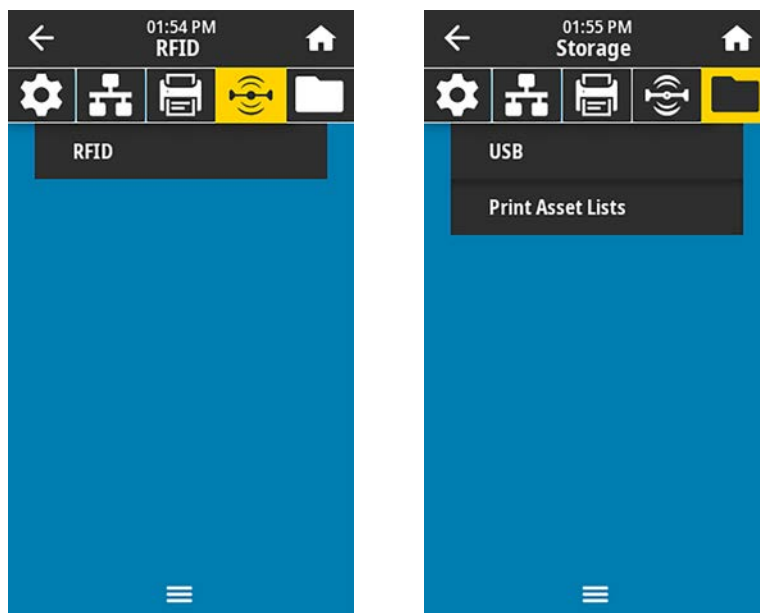
For optimal results, use full-width media running Print Wizard or Set All Wizards. If the media is shorter than an image to be printed, the image may be truncated or print across multiple labels.

User Menus

Use the printer's user menus to configure the printer as needed.

For detailed information on each of these menus, see [System Menu](#) on page 76, [Connection Menu](#) on page 85, [Print Menu](#) on page 99, [RFID Menu](#) on page 109, and [Storage Menu](#) on page 116.



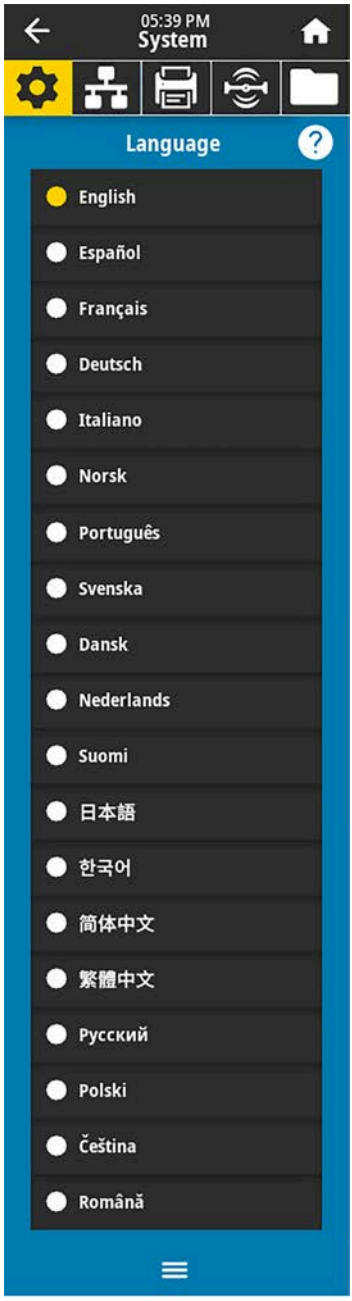


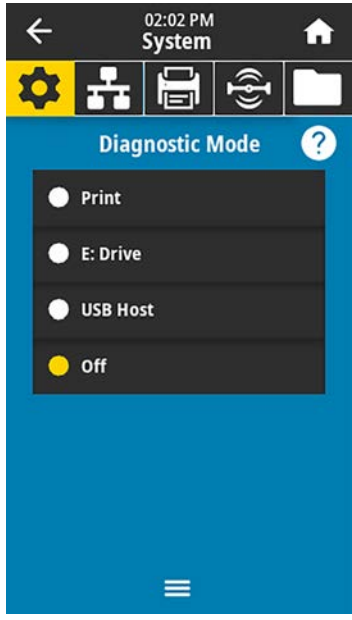

You can modify printer settings through the user menus or optionally using the methods listed below. (The user menu descriptions in this section include information on these optional methods where applicable.)

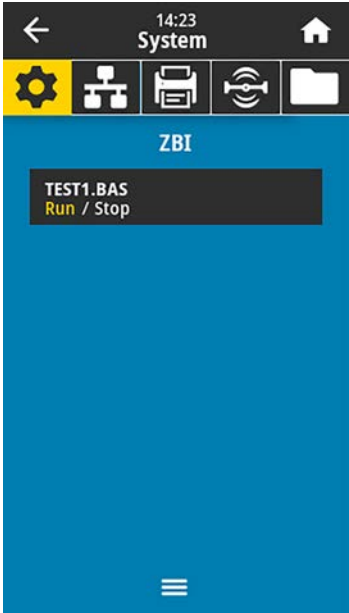
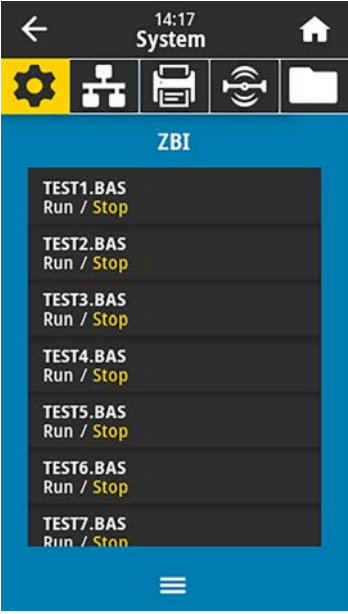
- ZPL and Set/Get/Do (SGD) commands. (See the Zebra Programming Guide at zebra.com/manuals for more information.)
- The printer's web pages, in cases where the printer has an active wired or wireless print server connection. (See the ZebraNet Wired and Wireless Print Servers User Guide at zebra.com/manuals for more information.)

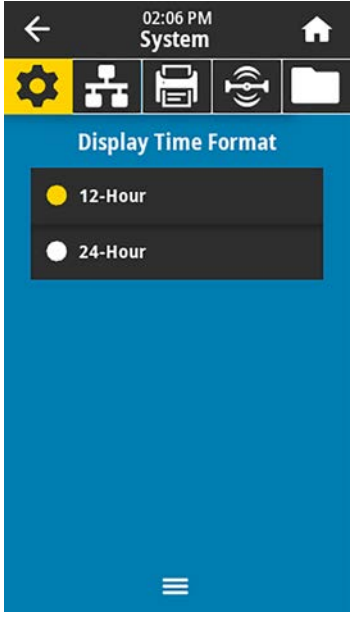

You can also use the printer's task wizards to change some settings (see [Printer Wizards](#) on page 73).

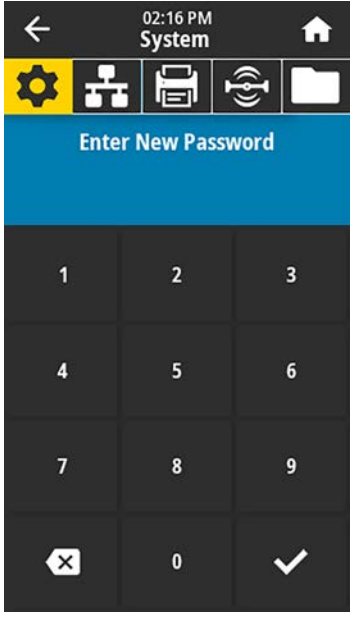

System Menu

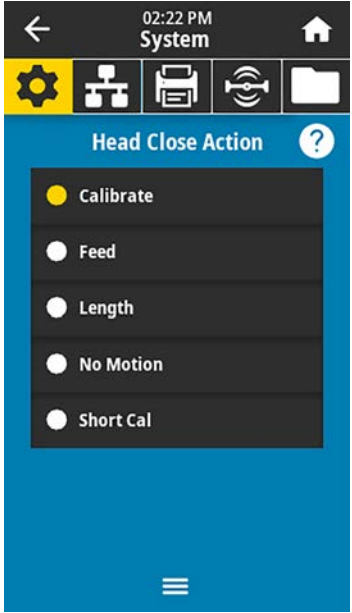
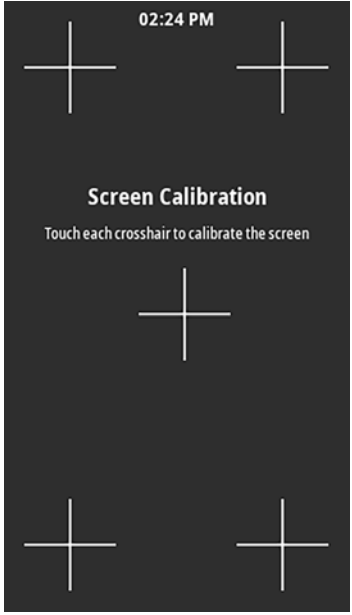
Menu Display	Menu Option Description	
		<p>System > Language</p> <p>If necessary, change the language that the printer displays. This change affects the words shown on the following:</p> <ul style="list-style-type: none"> the Home screen the user menus error messages the printer configuration label, the network configuration label, and other labels that you can select to print through the user menus
	Accepted values:	<p>ENGLISH, SPANISH, FRENCH, GERMAN, ITALIAN, NORWEGIAN, PORTUGUESE, SWEDISH, DANISH, DUTCH, FINNISH, CZECH, JAPANESE, KOREAN, ROMANIAN, RUSSIAN, POLISH, SIMPLIFIED CHINESE, TRADITIONAL CHINESE</p> <p>The selections for this parameter are displayed in the actual languages to make it easier for you to find one that you are able to read.</p>
	Related ZPL command(s):	^KL
	SGD command used:	display.language
	Printer web page:	<p>View and Modify Printer Settings > General Setup > Language</p>


Menu Display	Menu Option Description									
	<p>System > Program Language > Diagnostic Mode</p> <p>Use this diagnostics tool to make the printer output hexadecimal values for all data received by the printer. (For more information, see Using Communication Diagnostics Mode on page 147.)</p> <table><tr><td>Accepted values:</td><td>DISABLED, ENABLED</td></tr><tr><td>Related ZPL command(s):</td><td>~JD to enable, ~JE to disable</td></tr><tr><td>SGD command used:</td><td>device.diagnostic_print</td></tr><tr><td>Control panel key(s):</td><td>Hold PAUSE + FEED for 2 seconds when the printer is in the Ready state.</td></tr></table>		Accepted values:	DISABLED, ENABLED	Related ZPL command(s):	~JD to enable, ~JE to disable	SGD command used:	device.diagnostic_print	Control panel key(s):	Hold PAUSE + FEED for 2 seconds when the printer is in the Ready state.
Accepted values:	DISABLED, ENABLED									
Related ZPL command(s):	~JD to enable, ~JE to disable									
SGD command used:	device.diagnostic_print									
Control panel key(s):	Hold PAUSE + FEED for 2 seconds when the printer is in the Ready state.									
	<p>System > Program Language > Virtual Device</p> <p>If any Virtual Device apps are installed on your printer, you may view or enable/disable them from this user menu.</p> <p>For more information about Virtual Devices, go to the User Guide for the appropriate Virtual Device, or contact your local reseller.)</p>									

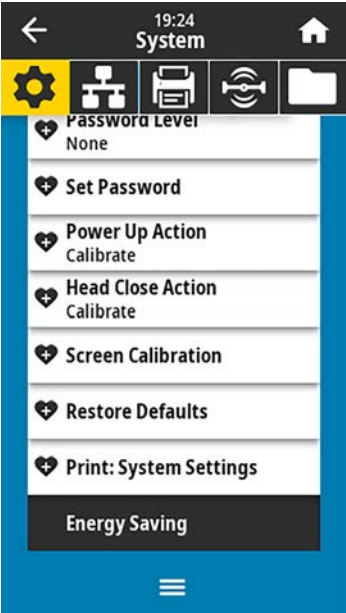
Menu Display		Menu Option Description	
		<p>System > Program Language > ZBI</p> <p>Zebra Basic Interpreter (ZBI 2.0™) is a programming option that may be purchased for your printer. If you would like to purchase this option, contact your Zebra reseller for more information.</p> <p>If ZBI programs have been downloaded to your printer, you may select one to run using this menu item. If no program exists on your printer, NONE is listed.</p> <p>When ZBI programs have been downloaded but none are running, the printer lists all available programs. To run one of them, touch Run (highlighted in white) under the program name.</p> <p>After a program is running, only that program is listed. Touch Stop (highlighted in white) to end the program.</p> 	
		SGD command used:	zbi . key (identifies if the ZBI 2.0 option is enabled or disabled on the printer)



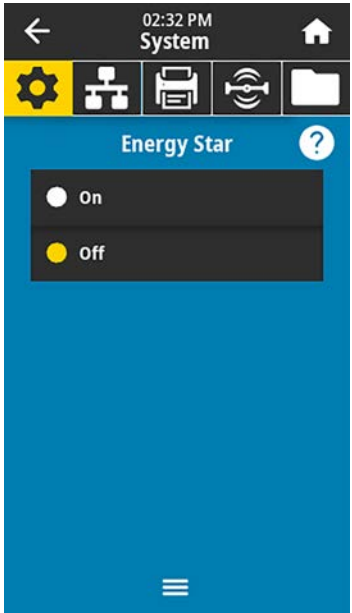
Menu Display	Menu Option Description	
	System > Settings > Display Time Format Select the time format used by the printer.	
	Accepted values:	12-Hour, 24-Hour
	SGD command used:	device.idle_display_value
	System > Settings > Password Level Select the level of password protection for user menu items.	
	Accepted values:	Selected, All, None
	Related ZPL command(s):	^KP (to change the printer password)

Menu Display	Menu Option Description	
	System > Settings > Set Password Set a new printer password for menu items protected by the previous parameter. The default printer password is 1234.	
	Accepted values:	Numerals 0-9
	Related ZPL command(s):	^KP
	System > Settings > Power Up Action Set the action for the printer to take during the power-up sequence.	
	Accepted values:	CALIBRATE—Adjusts sensor levels and thresholds, determines the label length, and feeds the media to the next web. FEED—Feeds the labels to the first registration point. LENGTH—Determines the label length using current sensor values, and feeds the media to the next web. NO MOTION—Tells the printer not to move the media. You must manually ensure that the web is positioned correctly, or press feed to position the next web. SHORT CAL—Sets the media and web thresholds without adjusting sensor gain, determines the label length, and feeds the media to the next web.
	Related ZPL command(s):	^MF
	SGD command used:	ezpl.power_up_action
	Printer web page:	View and Modify Printer Settings > Calibration

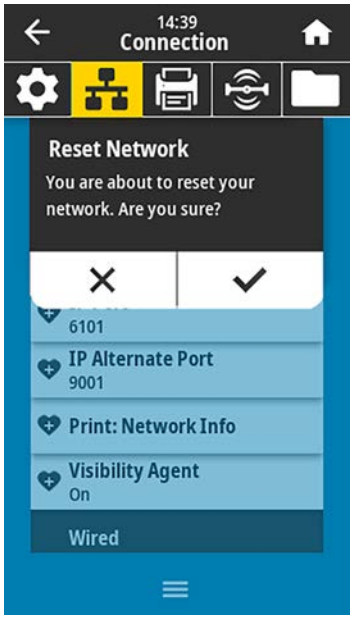


Menu Display	Menu Option Description	
	<p>System > Settings > Head Close Action</p> <p>Set the action for the printer to take when you close the printhead.</p> <p>Accepted values:</p>	<p>CALIBRATE—Adjusts sensor levels and thresholds, determines the label length, and feeds the media to the next web.</p> <p>FEED—Feeds the labels to the first registration point.</p> <p>LENGTH—Determines the label length using current sensor values, and feeds the media to the next web.</p> <p>NO MOTION—Tells the printer not to move the media. You must manually ensure that the web is positioned correctly, or press feed to position the next web.</p> <p>SHORT CAL—Sets the media and web thresholds without adjusting sensor gain, determines the label length, and feeds the media to the next web.</p>
	<p>Related ZPL command(s):</p>	<p>^MF</p>
	<p>SGD command used:</p>	<p>ezpl.head_close_action</p>
	<p>Printer web page:</p>	<p>View and Modify Printer Settings > Calibration</p>
	<p>System > Settings > Screen Calibration</p> <p>Touch each crosshair to calibrate the screen.</p>	

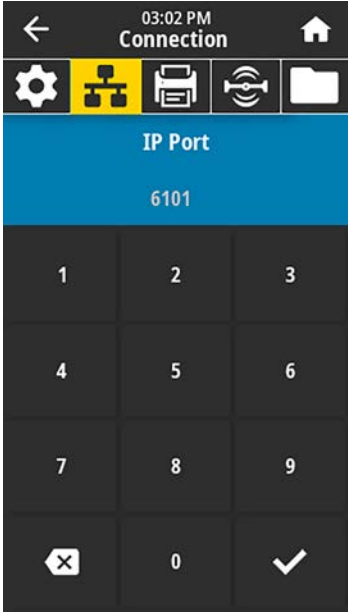
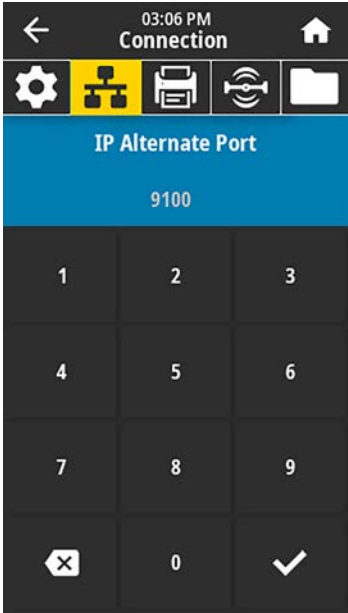

Menu Display	Menu Option Description	
	System > Settings > Restore Defaults Restore specific printer, print server, and network settings back to the factory defaults. Use care when loading defaults because you will need to reload all settings that you changed manually. This menu item is available through two user menus with different default values for each.	
	Accepted values:	PRINTER—Restores all printer settings other than the network settings back to the factory defaults. Use care when loading defaults because you will need to reload all settings that you changed manually. NETWORK—Reinitializes the printer's wired or wireless print server. With a wireless print server, the printer also re-associates with your wireless network. LAST SAVED—Loads settings from the last permanent save.
	Related ZPL command(s):	PRINTER— ^JUF NETWORK— ^JUN LAST SAVED— ^JUR
	Control panel key(s):	PRINTER—Hold FEED + PAUSE during printer power-up to reset the printer parameters to factory values. NETWORK—Hold CANCEL + PAUSE during printer power-up to reset the network parameters to factory values. LAST SAVED—N/A
	Printer web page:	PRINTER— View and Modify Printer Settings > Restore Default Configuration NETWORK— Print Server Settings > Reset Print Server LAST SAVED— View and Modify Printer Settings > Restore Saved Configuration

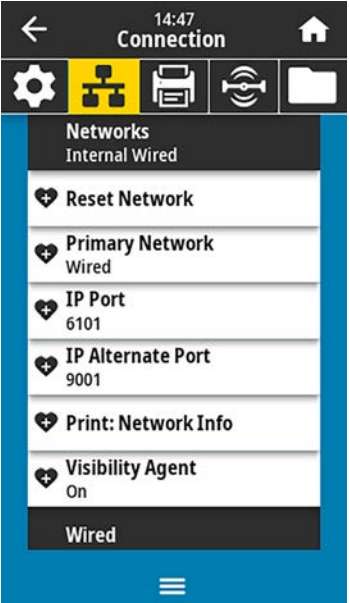

Menu Display	Menu Option Description	
	<p>System > Settings > Print: System Settings</p> <p>Prints a printer configuration label. The following is a sample label.</p> <pre data-bbox="673 338 1015 1514"> PRINTER CONFIGURATION Zebra Technologies ZTC ZT620R-203dpi ZPL 76J162700886 +30.0..... DARKNESS 6.0 IPS..... PRINT SPEED -007..... TEAR OFF TEAR OFF..... PRINT MODE CONTINUOUS..... MEDIA TYPE TRANSMISSIVE..... SENSOR SELECT DIRECT-THERMAL..... PRINT METHOD 1344..... PRINT WIDTH 2000..... LABEL LENGTH P1085892/00005 2... PRINT HEAD ID 15.0IN 380MM..... MAXIMUM LENGTH MAINT. OFF..... EARLY WARNING CONNECTED..... USB COMM. BIDIRECTIONAL..... PARALLEL COMM. RS232..... SERIAL COMM. 9600..... BAUD 8 BITS..... DATA BITS NONE..... PARITY XON/XOFF..... HOST HANDSHAKE NONE..... PROTOCOL NORMAL MODE..... COMMUNICATIONS <~> 7EH..... CONTROL PREFIX <~> 5EH..... FORMAT PREFIX <~> 2CH..... DELIMITER CHAR ZPL II..... ZPL MODE INACTIVE..... COMMAND OVERRIDE FEED..... MEDIA POWER UP LENGTH..... HEAD CLOSE DEFAULT..... BACKFEED +000..... LABEL TOP +0000..... LEFT POSITION OFF..... APPLICATOR PORT ENABLED..... ERROR ON PAUSE PULSE MODE..... START PRINT SIG DISABLED..... REPRINT MODE 080..... WEB SENSOR 090..... MEDIA SENSOR 255..... TAKE LABEL 027..... MARK SENSOR 027..... MARK MED SENSOR 000..... TRANS GAIN 005..... TRANS BASE 080..... TRANS LED 002..... MARK GAIN 100..... MARK LED DPCSWFXM..... MODES ENABLED MODES DISABLED 1344 8/MM FULL..... RESOLUTION 4.0..... LINK-OS VERSION V80.20.03 <..... FIRMWARE 1.3..... XML SCHEMA 6.6.0 22.89..... HARDWARE ID 32768k..... R: RAM 524288k..... E: ONBOARD FLASH NONE..... FORMAT CONVERT MM/DD/YYYY 24HR..... IDLE DISPLAY 05/11/17..... RTC DATE 06:40..... RTC TIME ENABLED..... ZBI 2.1..... ZBI VERSION READY..... ZBI STATUS TM:MSE MICRO..... RFID READER 20.00.00.01..... RFID HW VERSION 01.03.00.18..... RFID FW VERSION USA/CANADA..... RFID REGION CODE USA/CANADA..... RFID COUNTRY CODE RFID OK..... RFID ERR STATUS 16..... RFID READ PAIR F0..... RFID WRITE PAIR F0..... PROG. POSITION 0..... RFID VALID CTR 0..... RFID VOID CTR NONE..... ADAPTIVE ANTENNA A4..... RFID ANTENNA 570 LABELS..... NONRESET CNTR 570 LABELS..... RESET CNTR1 570 LABELS..... RESET CNTR2 2.798 IN..... NONRESET CNTR 2.798 IN..... RESET CNTR1 2.798 IN..... RESET CNTR2 7.107 CH..... NONRESET CNTR 7.107 CH..... RESET CNTR1 7.107 CH..... RESET CNTR2 001 WIRELESS..... SLOT 1 *** EMPTY..... SLOT 2 0..... MASS STORAGE COUNT 0..... HID COUNT OFF..... USB HOST LOCK OUT FIRMWARE IN THIS PRINTER IS COPYRIGHTED </pre>	
	Related ZPL command(s):	~WC

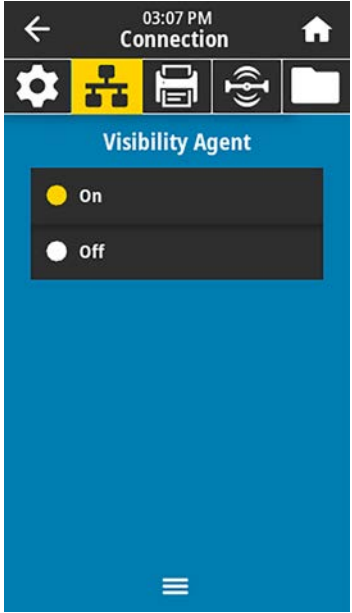

Menu Display		Menu Option Description
	Control panel key(s):	Do one of the following:* <ul style="list-style-type: none"> • Hold CANCEL during printer power-up. (Formerly called a CANCEL self test.) • Hold FEED + CANCEL for 2 seconds when the printer is in the Ready state.  NOTE: * Prints a printer configuration label and a network configuration label.
	Printer web page:	View and Modify Printer Settings > Print Listings on Label *  NOTE: * Prints a printer configuration label and a network configuration label.
		System > Energy Saving > Energy Star When Energy Star mode is enabled, the printer goes into a “sleep” mode after a timeout period, thereby lowering power consumption. Press any button on the control panel to bring the printer back to an active state.
	Accepted values:	ON, OFF
	SGD command used:	<code>power.energy_star.enable</code> <code>power.energy_star_timeout</code> (to set the amount of idle time before Energy Star is invoked)


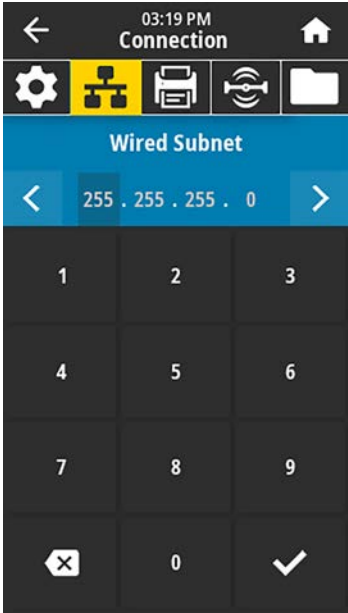
Connection Menu



Menu Display	Menu Option Description	
	Connection > Networks > Reset Network This option resets the wired or wireless print server and saves any changes that you made to any network settings.  IMPORTANT: You must reset the print server to allow changes to the network settings to take effect.	
	Related ZPL command(s):	~WR
	SGD command used:	device.reset
	Printer web page:	Print Server Settings > Reset Print Server
	Connection > Networks > Primary Network View or modify whether the wired or wireless print server is considered primary. You may select which one is primary.	
	Accepted values:	Wired, WLAN
	Related ZPL command(s):	^NC
	SGD command used:	ip.primary_network




Menu Display	Menu Option Description	
	Connection > Networks > IP Port This printer setting refers to the internal wired print servers port number that the TCP print service is listening on. Normal TCP communications from the host should be directed to this port.	
	SGD command used:	internal_wired.ip.port wlan.ip.port
	Printer web page:	View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings
	Connection > Networks > IP Alternate Port This command sets the port number of the alternate TCP port.  NOTE: Print servers supporting this command will monitor both the primary port and the alternate port for connections at the same time.	
	SGD command used:	internal_wired.ip.port_alternate wlan.ip.port_alternate
	Printer web page:	View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings



Menu Display	Menu Option Description	
	<p>Connection > Networks > Print: Network Info</p> <p>Prints the settings for any print server or Bluetooth device that is installed. The following is a sample label.</p> <pre> Network Configuration Zebra Technologies ZTC ZT620R-203dpi ZPL 76J162700886 Wired..... PRIMARY NETWORK PrintServer..... LOAD LAN FROM? INTERNAL WIRED..... ACTIVE PRINTSRVR Wired# ALL..... IP PROTOCOL 192.168.000.017... IP ADDRESS 255.255.255.000... SUBNET 192.168.000.254... GATEWAY 000.000.000.000... WINS SERVER IP YES..... TIMEOUT CHECKING 300..... TIMEOUT VALUE 000..... ARP INTERVAL 9100..... BASE RAW PORT 9200..... JSON CONFIG PORT Wireless ALL..... IP PROTOCOL 000.000.000.000... IP ADDRESS 255.255.255.000... SUBNET 000.000.000.000... GATEWAY 000.000.000.000... WINS SERVER IP YES..... TIMEOUT CHECKING 300..... TIMEOUT VALUE 000..... ARP INTERVAL 9100..... BASE RAW PORT 9200..... JSON CONFIG PORT INSERTED..... CARD INSERTED 02dFH..... CARD MFG ID 9134H..... CARD PRODUCT ID ac:3f:a4:82:05:9c.. MAC ADDRESS YES..... DRIVER INSTALLED INFRASTRUCTURE..... OPERATING MODE 12S..... ESSID 1.0..... CURRENT TX RATE OPEN..... WEP TYPE WPA PSK..... WLAN SECURITY 1..... WEP INDEX 000..... POOR SIGNAL LONG..... PREAMBLE NO..... ASSOCIATED ON..... PULSE ENABLED 15..... PULSE RATE OFF..... INTL MODE USA/CANADA..... REGION CODE USA/CANADA..... COUNTRY CODE 0x7FF..... CHANNEL MASK Bluetooth 4.3.1p1..... FIRMWARE 02/19/2015..... DATE on..... DISCOVERABLE 3.0/4.0..... RADIO VERSION on..... ENABLED ac:3f:a4:82:05:9d.. MAC ADDRESS 76J162700886..... FRIENDLY NAME no..... CONNECTED 1..... MIN SECURITY MODE no..... CONN SECURITY MODE supported..... IOS FIRMWARE IN THIS PRINTER IS COPYRIGHTED </pre>	
	Related ZPL command(s):	~WL
	Control panel key(s):	<p>Do one of the following:*</p> <ul style="list-style-type: none"> Hold CANCEL during printer power-up. (Formerly called a CANCEL self test.) Hold FEED + CANCEL for 2 seconds when the printer is in the Ready state.
	Printer web page:	View and Modify Printer Settings > Print Listings on Label *
	 <p>NOTE: * Prints a printer configuration label and a network configuration label.</p>	



Menu Display	Menu Option Description								
	<p>Connection > Networks > Visibility Agent</p> <p>When the printer is connected to a wired or wireless network, it will attempt to connect to Zebra's Asset Visibility Service via the Cloud-based Zebra Printer Connector using an encrypted, certificate-authenticated web socket connection. The printer sends Discovery Data and Settings and Alerts Data. Data printed via any label formats is NOT transmitted.</p> <p>To opt out of this feature, disable this setting. (For more information, see the "Opting Out of the Asset Visibility Agent" application note at zebra.com.)</p> <table border="1"> <tr> <td>Accepted values:</td><td>ON, OFF</td></tr> <tr> <td>SGD command used:</td><td><code>weblink.zebra_connector.enable</code></td></tr> <tr> <td>Printer web page:</td><td>View and Modify Printer Settings > Network Configuration > Cloud Connect Settings</td></tr> </table>	Accepted values:	ON, OFF	SGD command used:	<code>weblink.zebra_connector.enable</code>	Printer web page:	View and Modify Printer Settings > Network Configuration > Cloud Connect Settings		
Accepted values:	ON, OFF								
SGD command used:	<code>weblink.zebra_connector.enable</code>								
Printer web page:	View and Modify Printer Settings > Network Configuration > Cloud Connect Settings								
	<p>Connection > Wired > Wired IP Protocol</p> <p>This parameter indicates if the user (permanent) or the server (dynamic) selects the wired print server's IP address. When a dynamic option is chosen, this parameter tells the method(s) by which this print server receives the IP address from the server.</p> <p>IMPORTANT: You must reset the print server to allow changes to the network settings to take effect. (See Connection > Networks > Reset Network.)</p> <table border="1"> <tr> <td>Accepted values:</td><td>ALL, GLEANING ONLY, RARP, BOOTP, DHCP, DHCP & BOOTP, PERMANENT</td></tr> <tr> <td>Related ZPL command(s):</td><td>^ND</td></tr> <tr> <td>SGD command used:</td><td><code>internal_wired.ip.protocol</code></td></tr> <tr> <td>Printer web page:</td><td>View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings</td></tr> </table>	Accepted values:	ALL, GLEANING ONLY, RARP, BOOTP, DHCP, DHCP & BOOTP, PERMANENT	Related ZPL command(s):	^ND	SGD command used:	<code>internal_wired.ip.protocol</code>	Printer web page:	View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings
Accepted values:	ALL, GLEANING ONLY, RARP, BOOTP, DHCP, DHCP & BOOTP, PERMANENT								
Related ZPL command(s):	^ND								
SGD command used:	<code>internal_wired.ip.protocol</code>								
Printer web page:	View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings								

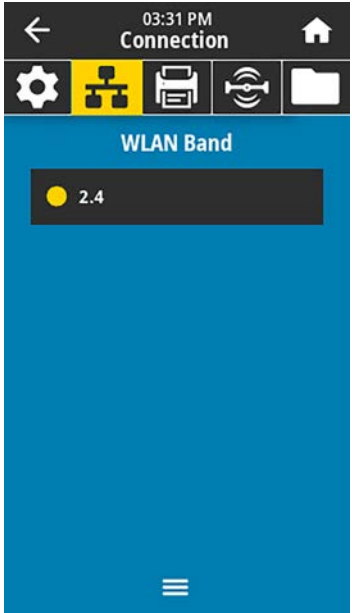
Menu Display	Menu Option Description
	Connection > Wired > Wired IP Address View and, if necessary, change the printer's wired IP address. To save changes to this setting, set Connection > Wired > Wired IP Protocol to PERMANENT , and then reset the print server (see Connection > Networks > Reset Network).
	Accepted values: 000 to 255 for each field
	Related ZPL command(s): ^ND
	SGD command used: internal_wired.ip.addr
	Printer web page: View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings
	Connection > Wired > Wired Subnet View and, if necessary, change the wired subnet mask. To save changes to this setting, set Connection > Wired > Wired IP Protocol to PERMANENT , and then reset the print server (see Connection > Networks > Reset Network).
	Accepted values: 000 to 255 for each field
	Related ZPL command(s): ^ND
	SGD command used: internal_wired.ip.netmask
	Printer web page: View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings

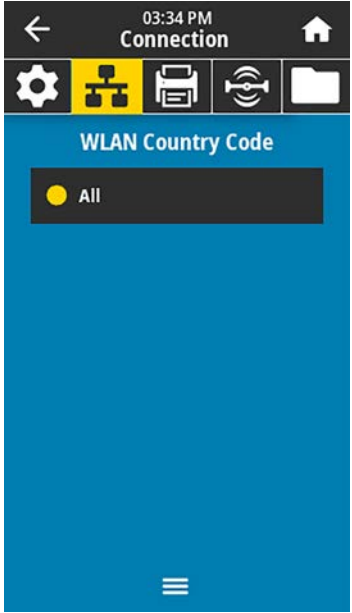

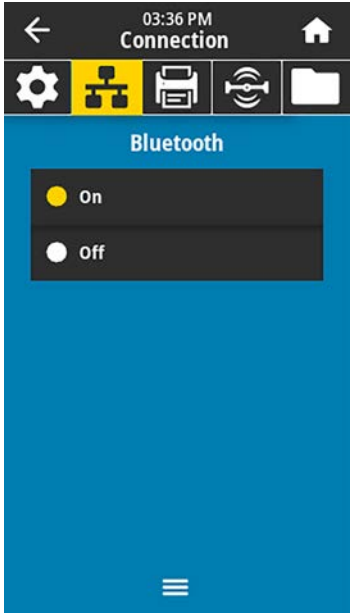
Menu Display	Menu Option Description	
	Connection > Wired > Wired Gateway View and, if necessary, change the default wired gateway. To save changes to this setting, set Connection > Wired > Wired IP Protocol to PERMANENT , and then reset the print server (see Connection > Networks > Reset Network).	
	Accepted values:	000 to 255 for each field
	Related ZPL command(s):	^ND
	SGD command used:	internal_wired.ip.gateway
	Printer web page:	View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings
	Connection > Wired > Wired MAC Address View the Media Access Control (MAC) address of the wired print server. This value cannot be modified.	
	SGD command used:	internal_wired.mac_addr
	Printer web page:	View and Modify Printer Settings > Network Communications Setup > TCP/IP Settings



Menu Display	Menu Option Description								
	<p>Connection > WLAN > WLAN IP Protocol</p> <p>This parameter indicates if the user (permanent) or the server (dynamic) selects the wireless print server's IP address. When a dynamic option is chosen, this parameter tells the method(s) by which this print server receives the IP address from the server.</p> <p> NOTE: You must reset the print server to allow changes to the network settings to take effect. (See Connection > Networks > Reset Network).</p> <table border="1"> <tr> <td>Accepted values:</td><td>ALL, GLEANING ONLY, RARP, BOOTP, DHCP, DHCP & BOOTP, PERMANENT</td></tr> <tr> <td>Related ZPL command(s):</td><td>^ND</td></tr> <tr> <td>SGD command used:</td><td>wlan.ip.protocol</td></tr> <tr> <td>Printer web page:</td><td>View and Modify Printer Settings > Network Communications Setup > Wireless Setup</td></tr> </table>	Accepted values:	ALL, GLEANING ONLY, RARP, BOOTP, DHCP, DHCP & BOOTP, PERMANENT	Related ZPL command(s):	^ND	SGD command used:	wlan.ip.protocol	Printer web page:	View and Modify Printer Settings > Network Communications Setup > Wireless Setup
Accepted values:	ALL, GLEANING ONLY, RARP, BOOTP, DHCP, DHCP & BOOTP, PERMANENT								
Related ZPL command(s):	^ND								
SGD command used:	wlan.ip.protocol								
Printer web page:	View and Modify Printer Settings > Network Communications Setup > Wireless Setup								
	<p>Connection > WLAN > WLAN IP Address</p> <p>View and, if necessary, change the printer's wireless IP address. To save changes to this setting, set Connection > WLAN > WLAN IP Protocol to PERMANENT, and then reset the print server (see Connection > Networks > Reset Network).</p> <table border="1"> <tr> <td>Accepted values:</td><td>000 to 255 for each field</td></tr> <tr> <td>Related ZPL command(s):</td><td>^ND</td></tr> <tr> <td>SGD command used:</td><td>ip.addr, wlan.ip.addr</td></tr> <tr> <td>Printer web page:</td><td>View and Modify Printer Settings > Network Communications Setup > Wireless Setup</td></tr> </table>	Accepted values:	000 to 255 for each field	Related ZPL command(s):	^ND	SGD command used:	ip.addr, wlan.ip.addr	Printer web page:	View and Modify Printer Settings > Network Communications Setup > Wireless Setup
Accepted values:	000 to 255 for each field								
Related ZPL command(s):	^ND								
SGD command used:	ip.addr, wlan.ip.addr								
Printer web page:	View and Modify Printer Settings > Network Communications Setup > Wireless Setup								

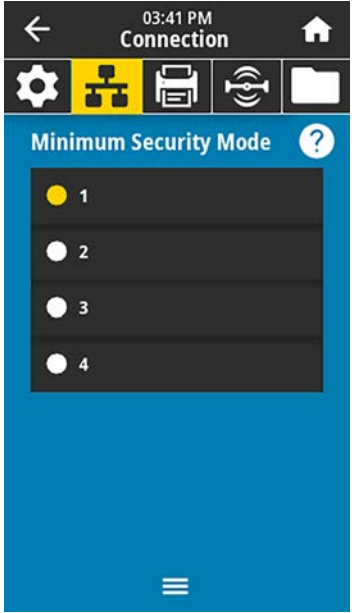
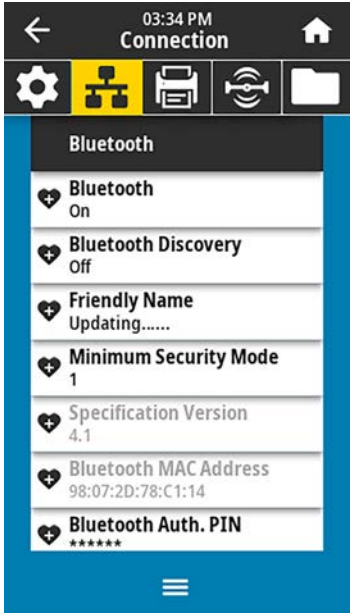
Menu Display	Menu Option Description
	<p>Connection > WLAN > WLAN Subnet</p> <p>View and, if necessary, change the wireless subnet mask.</p> <p>To save changes to this setting, set Connection > WLAN > WLAN IP Protocol to PERMANENT, and then reset the print server (see Connection > Networks > Reset Network).</p>
	<p>Accepted values: 000 to 255 for each field</p>
	<p>Related ZPL command(s): ^ND</p>
	<p>SGD command used: wlan.ip.netmask</p>
	<p>Printer web page: View and Modify Printer Settings > Network Communications Setup > Wireless Setup</p>
	<p>Connection > WLAN > WLAN Gateway</p> <p>View and, if necessary, change the default wireless gateway.</p> <p>To save changes to this setting, set Connection > WLAN > WLAN IP Protocol to PERMANENT, and then reset the print server (see Connection > Networks > Reset Network).</p>
	<p>Accepted values: 000 to 255 for each field</p>
	<p>Related ZPL command(s): ^ND</p>
	<p>SGD command used: wlan.ip.gateway</p>
	<p>Printer web page: View and Modify Printer Settings > Network Communications Setup > Wireless Setup</p>

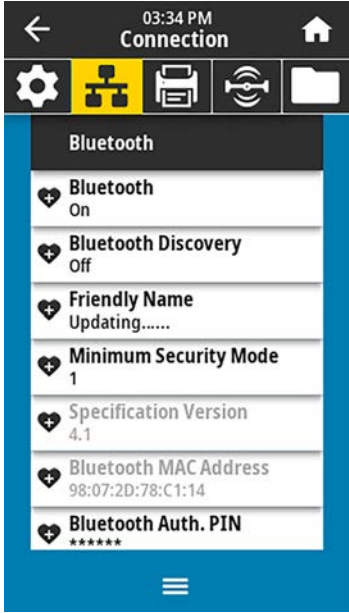
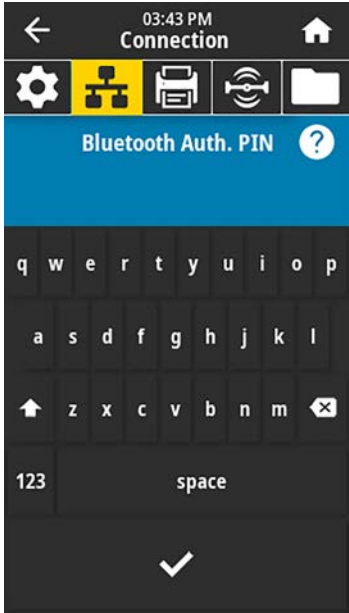
Menu Display	Menu Option Description	
	Connection > WLAN > WLAN MAC Address View the Media Access Control (MAC) address of the wireless print server. This value cannot be modified.	
	SGD command used:	wlan.mac_addr
	Connection > WLAN > ESSID The Extended Service Set Identification (ESSID) is an identifier for your wireless network. Specify the ESSID for the current wireless configuration.	
	Accepted values:	32-character alphanumeric string (default 125)
	SGD command used:	wlan.essid
	Printer web page:	View and Modify Printer Settings > Network Communications Setup > Wireless Setup

Menu Display	Menu Option Description	
	Connection > WLAN > WLAN Security Select the security type being used on your WLAN.	
	Related ZPL command(s):	^WX
	SGD command used:	wlan.security
	Connection > WLAN > WLAN Band Set a preferred band to connect with via WiFi.	
	Accepted values:	2.4, 5, None
	SGD command used:	wlan.band_preference
	Printer web page:	View and Modify Printer Settings > Network Communications Setup > Wireless Encryption Setup
	Printer web page:	View and Modify Printer Settings > Network Communications > Wireless Setup

Menu Display	Menu Option Description	
	<p>Connection > WLAN > WLAN Country Code</p> <p>The country code defines the regulatory country for which the wireless radio is currently configured.</p> <p> IMPORTANT: The list of country codes is specific to each printer and depends on the printer model and its wireless radio configuration. The list is subject to change, addition, or deletion with any firmware update, at any time, without notice.</p> <p>To determine the country codes available on your printer, issue the <code>! U1 getvar "wlan"</code> command to return all commands related to WLAN settings. Locate the <code>wlan.country.code</code> command in the results and view the country codes available for your printer.</p>	
	SGD command used:	<code>wlan.country_code</code>
	<p>Connection > Bluetooth > Bluetooth</p> <p>Select if the printer is “Discoverable” for Bluetooth device pairing.</p>	
	Accepted values:	<p>ON—Enables the Bluetooth radio.</p> <p>OFF—Disables the Bluetooth radio.</p>
	SGD command used:	<code>bluetooth.enable</code>

Menu Display	Menu Option Description	
	Connection > Bluetooth > Bluetooth Discovery Select if the printer is “Discoverable” for Bluetooth device pairing.	
	Accepted values:	ON—Enables Bluetooth discoverable mode. OFF—Disables Bluetooth discoverable mode.
	SGD command used:	<code>bluetooth.discoverable</code>
	Connection > Bluetooth > Friendly Name This command sets the friendly name, which is used during service discovery. For changes to take effect, you must power cycle the printer or issue the <code>device.reset</code> command (see Connection > Networks > Reset Network). If you do not set a friendly name, the setting will default to the printer serial number.	
	Accepted values:	17-character text string
	SGD command used:	<code>bluetooth.friendly_name</code>

Menu Display	Menu Option Description	
	Connection > Bluetooth > Minimum Security Mode This printer setting parameter sets the Bluetooth Minimum Security mode. Minimum Security Mode provides for different levels of security, depending on the printer radio version and printer firmware. See the Zebra Programming Guide at zebra.com/manuals for more information.	
	Accepted values:	1, 2, 3, 4
	SGD command used:	bluetooth.minimum_security_mode
	Connection > Bluetooth > Specification Version This parameter displays the Bluetooth library version number.	
	SGD command used:	bluetooth.version

Menu Display	Menu Option Description	
	Connection > Bluetooth > MAC Address This parameter displays the Bluetooth device address.	
	SGD command used:	<code>bluetooth.address</code>
	Connection > Bluetooth > Bluetooth Auth. PIN Set the PIN used when Bluetooth authentication is enabled.	
	SGD command used:	<code>bluetooth.bluetooth_pin</code> (to set the PIN) <code>bluetooth.authentication</code> (to enable authentication)