

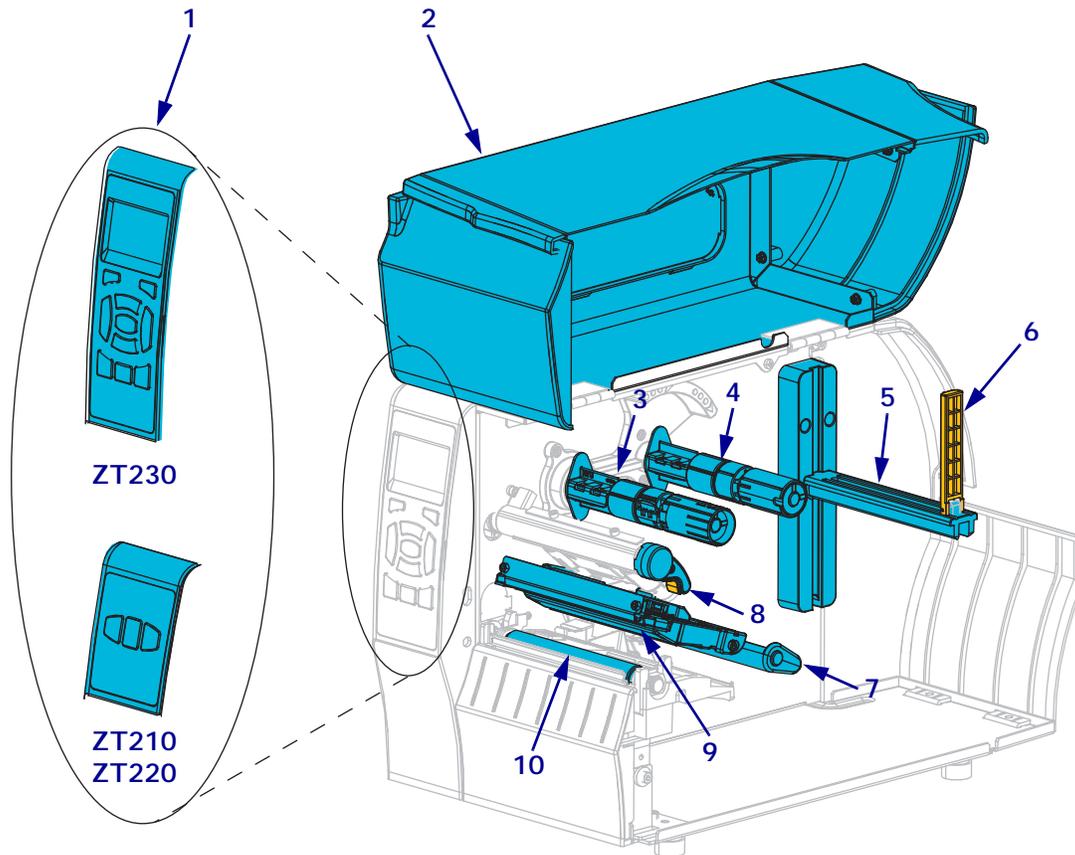
ZT210/ZT220/ZT230 Quick Reference Guide

Use this guide to operate your printer on a daily basis. For more detailed information, refer to the *User Guide*.

Printer Components

Figure 1 shows the components inside the media compartment of your printer. Depending on the printer model and the installed options, your printer may look slightly different. Familiarize yourself with these components before continuing with the printer setup procedure.

Figure 1 • Printer Components



1	Control panel
2	Media door
3	Ribbon take-up spindle
4	Ribbon supply spindle
5	Media supply hanger

6	Media supply guide
7	Media dancer assembly
8	Printhead-open lever
9	Printhead assembly
10	Platen roller

Control Panel

The control panel indicates the printer's operating status and allows the user to control basic printer operation.

Figure 2 • ZT230 Control Panel

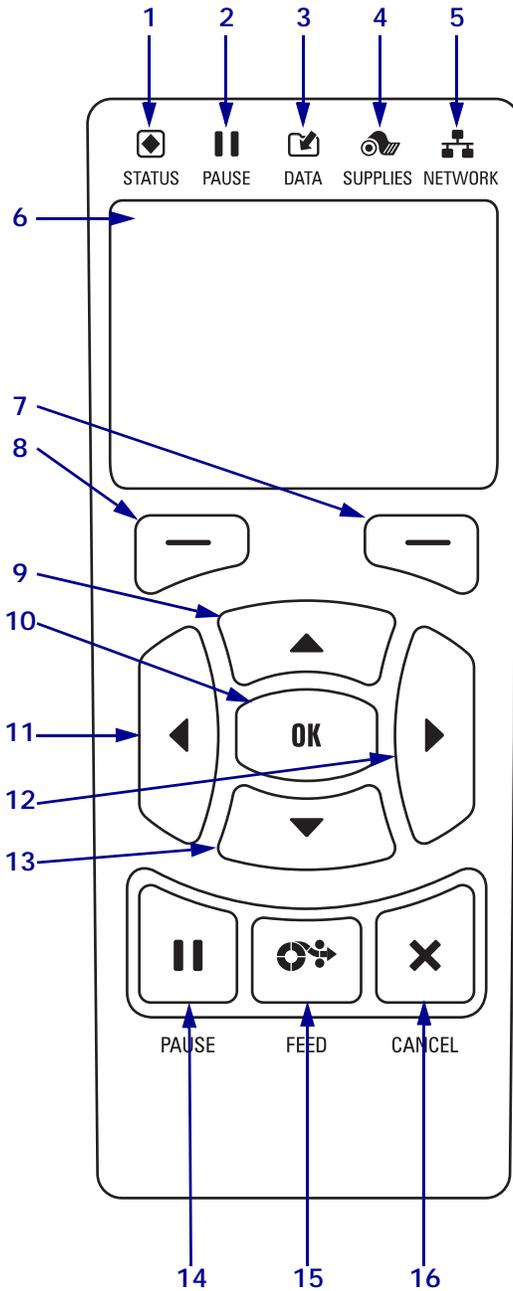


Figure 3 • ZT220 Control Panel

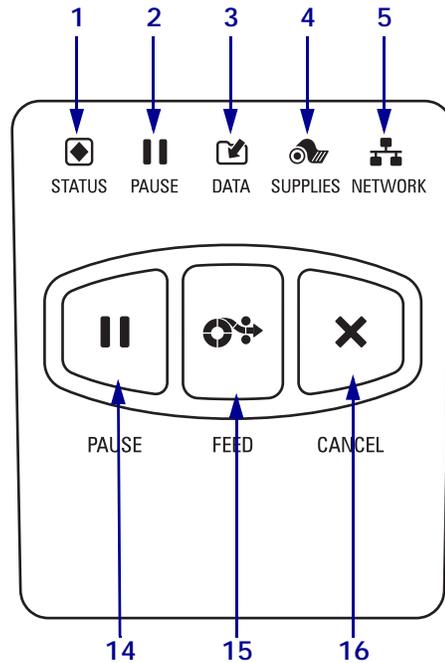
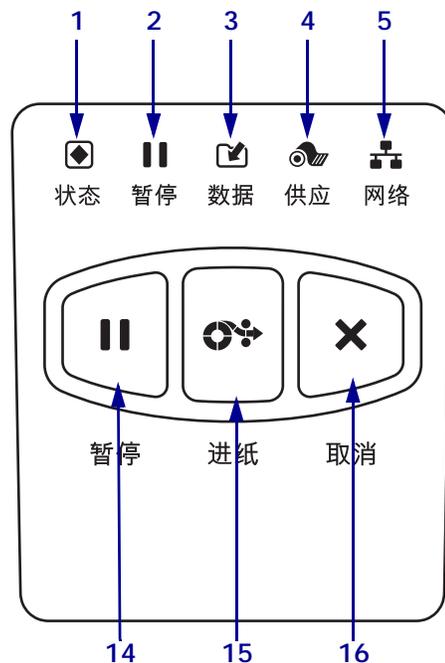


Figure 4 • ZT210 Control Panel



1	 STATUS light	These indicator lights show the current status of the printer. For more information, see Table 1 on page 8 .
2	 PAUSE light	
3	 DATA light	
4	 SUPPLIES light	
5	 NETWORK light	
6	The display shows the printer's operating status and allows the user to navigate the menu system.	
7	RIGHT SELECT button	These buttons execute the commands shown directly above them in the display.
8	LEFT SELECT button	
9	The UP ARROW button changes the parameter values. Common uses are to increase a value or to scroll through choices.	
10	<p>The OK button operates as follows:</p> <p>The OK button operates as follows:</p> <ul style="list-style-type: none"> • From the HOME menu, the printer enters the selected user menu. • From a user menu shortcut, the printer moves to the next user menu. 	
11	The LEFT ARROW button , which is active only in the menu system, navigates to the left.	
12	The RIGHT ARROW button , which is active only in the menu system, navigates to the right.	
13	The DOWN ARROW button changes the parameter values. Common uses are to decrease a value or to scroll through choices.	
14	The PAUSE button starts or stops printer operation when pressed.	
15	The FEED button forces the printer to feed one blank label each time the button is pressed.	
16	The CANCEL button cancels print jobs when the printer is paused.	

Preparing the Printer for Use

After you have familiarized yourself with the printer components, prepare the printer for use.

Caution • When you are loading media or ribbon, remove all jewelry that could come into contact with the printhead or other printer parts.



Caution • Before touching the printhead assembly, discharge any built-up static electricity by touching the metal printer frame or by using an anti-static wriststrap and mat.

To set up the printer, complete these steps:

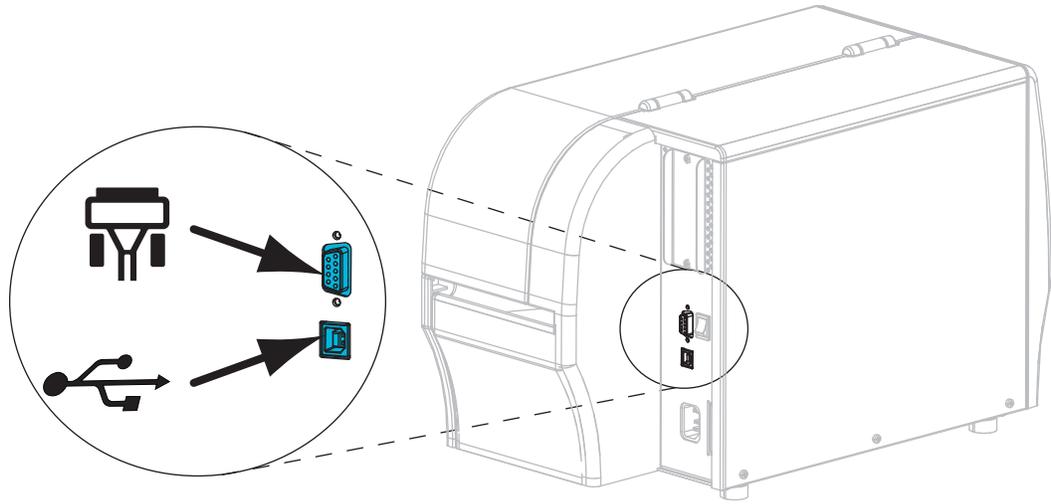
1. Select a location for the printer that meets these conditions:
 - The surface must be solid and level of sufficient size and strength to hold the printer.
 - The area must include enough space for ventilation and for accessing the printer components and connectors
 - The printer should be within a short distance of an appropriate power outlet that is easily accessible
 - The printer must be within range of your WLAN radio (if applicable) or within an acceptable range for other connectors to reach your data source (usually a computer). For more information on maximum cable lengths and configuration, refer to the *User Guide*.
2. Unpack and inspect the printer. If necessary, report any shipping damage. For more information, refer to the *User Guide*.
3. Place the printer in the preselected location.



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4. **Important** • You must install the Zebra Setup Utilities program before connecting the printer to your computer. Your computer will not install the correct printer drivers if you connect the printer to it without the Zebra Setup Utilities program.
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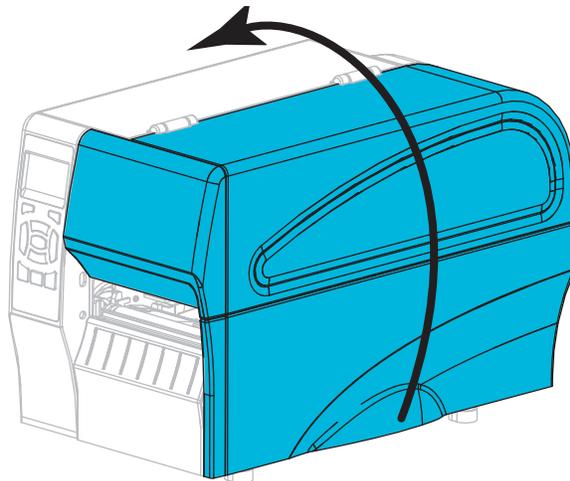
Install the Zebra Setup Utilities program from <http://www.zebra.com/setup>. Use this program to install the printer drivers on your computer. For detailed instructions, refer to the *User Guide*.

5. Connect the printer to a computer using one or more of the available connections. The standard connections are shown here. A ZebraNet[®] wired or wireless print server option or a parallel port may also be available on your printer.



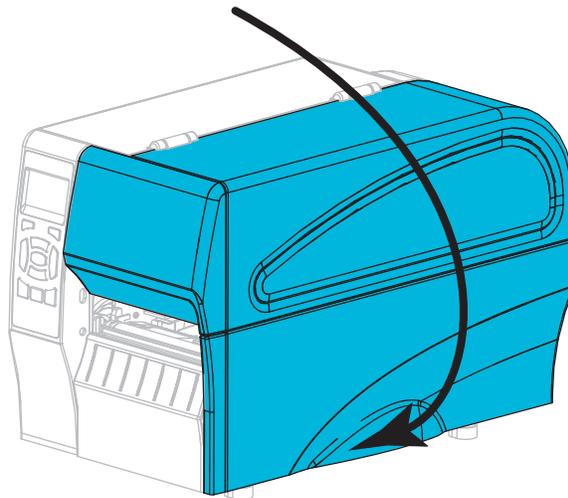
	Serial port
	USB 2.0 port

6. Raise the media door.

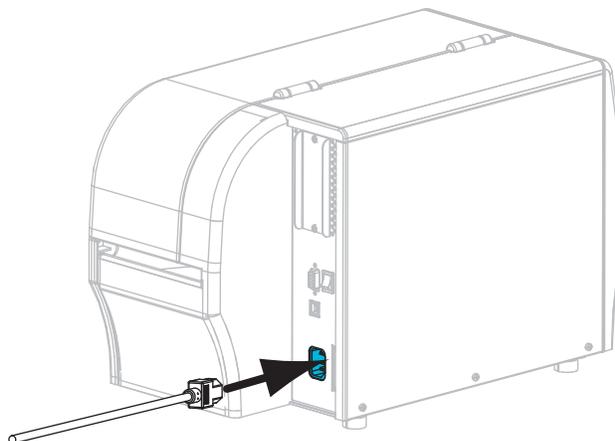


7. Load ribbon (if using Thermal Transfer mode) and media into the printer (see [Load Ribbon and Media on page 10](#)).

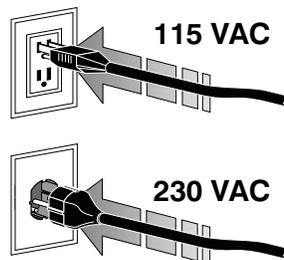
8. Close the media door.



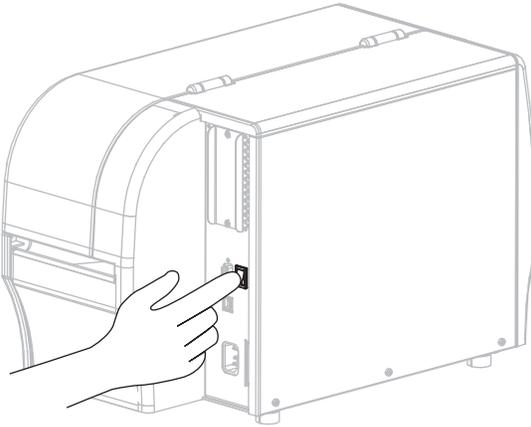
9. Plug the female end of the A/C power cord into the A/C power connector on the back of the printer.



10. Plug the male end of the A/C power cord into an appropriate power outlet.



11. To verify that the media and ribbon are loaded correctly, print a printer configuration label.
 - a. Press and hold the CANCEL button.
 - b. Turn on (I) the printer.



The printer boots up and performs a self-test. The results of the self-test are shown in [Table 1 on page 8](#). If the media and ribbon are loaded correctly, the printer prints a printer configuration label ([Figure 5](#)) and then a network configuration label ([Figure 6](#)).

Figure 5 • Sample Printer Configuration Label

PRINTER CONFIGURATION	
Zebra Technologies ZTC ZT230-203dpi ZPL XXXXXXXX-XX-XXXX	
10.....	LCD CONTRAST
+10.....	DARKNESS
2.0 IPS.....	PRINT SPEED
4000.....	TEAR OFF
TEAR OFF.....	PRINT MODE
GAP/NOTCH.....	MEDIA TYPE
REFLECTIVE.....	SENSOR SELECT
832.....	PRINT WIDTH
1422.....	LABEL LENGTH
35.0IN 888MM.....	PRINT HEAD ID
NOT CONNECTED.....	USB COMM.
BIDIRECTIONAL.....	PARALLEL COMM.
R5232.....	SERIAL COMM.
2400.....	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 11.....	ZPL MODE
CALIBRATION.....	MEDIA POWER UP
CALIBRATION.....	HEAD CLOSE
DEFAULT.....	BACKFEED
+000.....	LABEL TOP
+0000.....	LEFT POSITION
DISABLED.....	REPRINT MODE
020.....	WEB SENSOR
024.....	MEDIA SENSOR
255.....	TAKE LABEL
027.....	MARK SENSOR
027.....	MARK MED SENSOR
102.....	TRANS GAIN
000.....	TRANS BASE
100.....	TRANS LED
050.....	MARK LED
DPCS4FXH.....	MODES ENABLED
MODES DISABLED.....	MODES DISABLED
832 8/11M FULL.....	RESOLUTION
V72.18.12P15107 <.....	FIRMWARE
1.3.....	XML SCHEMA
6.4.1 255.....	HARDWARE ID
NONE.....	OPTION BOARD
1228K.....	RAM
65536k.....	ONBOARD FLASH
NONE.....	FORMAT CONVERT
Firmware.....	IDLE DISPLAY
07/20/12.....	RTC DATE
02:37.....	RTC TIME
DISABLED.....	ZBI
2.1.....	ZBI VERSION
READY.....	ZBI STATUS
15.110 IN.....	NONRESET CNTR
15.110 IN.....	RESET CNTR1
15.110 IN.....	RESET CNTR2
38.378 CM.....	NONRESET CNTR
38.378 CM.....	RESET CNTR1
38.378 CM.....	RESET CNTR2
FIRMWARE IN THIS PRINTER IS COPYRIGHTED	

Figure 6 • Sample Network Configuration Label

Network Configuration	
Zebra Technologies ZTC ZT230-203dpi ZPL XXXXXXXX-XX-XXXX	
PrintServer.....	LOAD LAN FROM?
INTERNAL WIRED.....	ACTIVE PRINTSRVR
Wired*	
ALL.....	IP PROTOCOL
010.003.005.104.....	IP ADDRESS
255.255.255.000.....	SUBNET
010.003.005.001.....	GATEWAY
010.003.001.098.....	WINS SERVER IP
YES.....	TIMEOUT CHECKING
300.....	TIMEOUT VALUE
000.....	ARP INTERVAL
9100.....	BASE RAW 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
NOT INSERTED.....	CARD INSERTED
H.....	CARD MFG ID
H.....	CARD PRODUCT ID
00:00:00:00:00:00.....	MAC ADDRESS
YES.....	DRIVER INSTALLED
INFRASTRUCTURE.....	OPERATING MODE
123456.....	ESSID
100.....	TX POWER
ALL.....	CURRENT TX RATE
OPEN.....	WEP TYPE
NONE.....	WLAN SECURITY
1.....	WEP INDEX
000.....	POOR SIGNAL
LONG.....	PREAMBLE
NO.....	ASSOCIATED
ON.....	PULSE ENABLED
15.....	PULSE RATE
OFF.....	INTL MODE
not available.....	REGION CODE
no region code.....	COUNTRY CODE
0x7FF.....	CHANNEL MASK
FIRMWARE IN THIS PRINTER IS COPYRIGHTED	

12. To test the connection between your printer and your computer, use a label design package to create a sample label and send it to the printer. Zebra recommends ZebraDesigner Pro. You can download this software from <http://www.zebra.com/software> and operate it in Demo mode to print a sample label.

Table 1 • Status of Printer As Shown by Indicator Lights

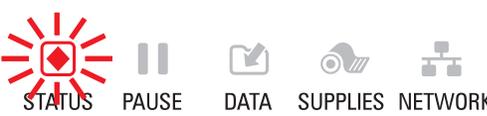
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady green (other lights steady yellow for 2 seconds during printer power-up)</i></p> <p>The printer is ready.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady red</i> <i>SUPPLIES light steady red</i></p> <p>The media supply is out. The printer needs attention and cannot continue without user intervention.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady red</i> <i>SUPPLIES light flashing red</i></p> <p>The ribbon supply is out. The printer needs attention and cannot continue without user intervention.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady yellow</i> <i>SUPPLIES light flashing yellow</i></p> <p>The printer is in Direct Thermal mode, which does not require ribbon; however, ribbon is installed in the printer.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady red</i> <i>PAUSE light steady yellow</i></p> <p>The printhead is open. The printer needs attention and cannot continue without user intervention.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady yellow</i></p> <p>The printhead is over temperature.</p> <p> Caution • The printhead may be hot and could cause severe burns. Allow the printhead to cool.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light flashing yellow</i></p> <p>This indicator light flashing indicates one of the following:</p> <ul style="list-style-type: none"> • The printhead is under temperature. • The media or ribbon supply is over temperature. • The main logic board (MLB) is over temperature.
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light steady red</i> <i>PAUSE light steady red</i> <i>DATA light steady red</i></p> <p>The printhead was replaced with one that is not a genuine Zebra™ printhead. Install a genuine Zebra™ printhead to continue.</p>
 <p>STATUS PAUSE DATA SUPPLIES NETWORK</p>	<p><i>STATUS light flashing red</i></p> <p>The printer is unable to read the dpi setting of the printhead.</p>

Table 1 • Status of Printer As Shown by Indicator Lights (Continued)

Printers with a ZebraNet wireless option					
					<p><i>NETWORK light off</i></p> <p>A radio was found during power-up. The printer is attempting to associate with the network. The light flashes red while the printer associates with the network. The light then flashes yellow while the printer is authenticating with the network.</p>
					
					
					<p><i>NETWORK light steady green</i></p> <p>The radio is associated with your network and authenticated, and the WLAN signal is strong.</p>
					<p><i>NETWORK light flashing green</i></p> <p>WLAN—The radio is associated with your network and authenticated, but the WLAN signal is weak.</p>
					<p><i>NETWORK light steady red</i></p> <p>A WLAN error condition exists. The printer is not connected to your network.</p>
Printers with a ZebraNet wired Ethernet option					
					<p><i>NETWORK light off</i></p> <p>No Ethernet link is available.</p>
					<p><i>NETWORK light steady green</i></p> <p>A 100 Base link was found.</p>
					<p><i>NETWORK light steady yellow</i></p> <p>wired Ethernet—A 10 Base link was found.</p>
					<p><i>NETWORK light steady red</i></p> <p>An Ethernet error condition exists. The printer is not connected to your network.</p>

Load Ribbon and Media

Use the instructions in this section to load ribbon and to load roll media in Tear-Off mode.



Note • The components inside your printer are color-coded.

- The touch points that you will need to handle are colored **gold** inside the printers and are highlighted in **gold** in the illustrations in this manual.
- The components associated with the ribbon system are made of **black** plastic, while the components associated with media are made of **gray** plastic. Those components and others are highlighted in **light blue** in the illustrations in this manual as needed.

Loading Ribbon Ribbon is used only with thermal transfer labels. For direct thermal labels, do not load ribbon in the printer (omit steps 2 through 6 in the following procedure).



Important • Use ribbon that is wider than the media to protect the printhead from wear. Ribbon must be coated on the **outside** (refer to the *User Guide* for more information).



Note • The maximum ribbon length for the ZT210 and ZT220 is 984 ft (300 m). The maximum ribbon length for the ZT230 is 1476 ft (450 m).

Loading Media For instructions for loading fanfold media or for loading in different print modes, refer to the *User Guide*.

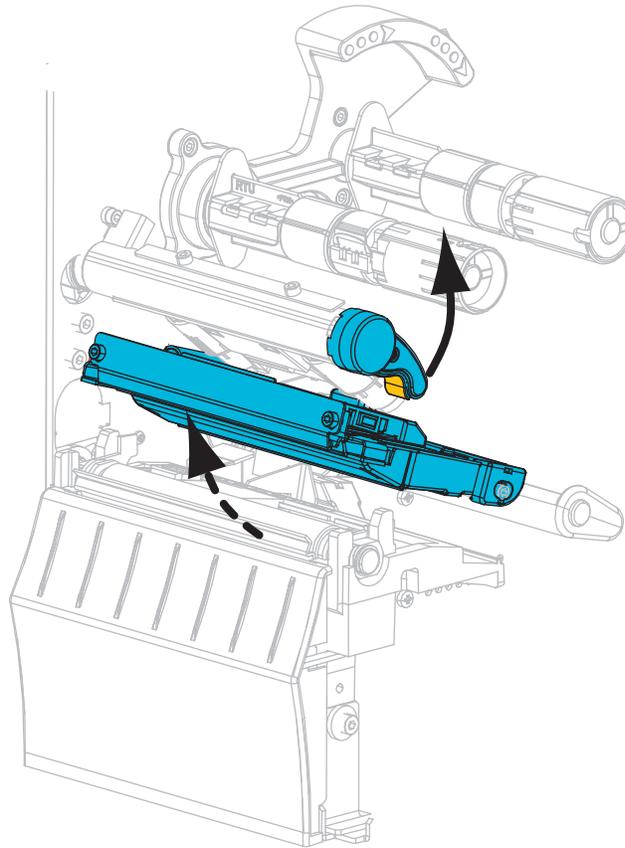
Caution • When you are loading media or ribbon, remove all jewelry that could come into contact with the printhead or other printer parts.

To load ribbon and roll media in Tear-Off mode, complete these steps:



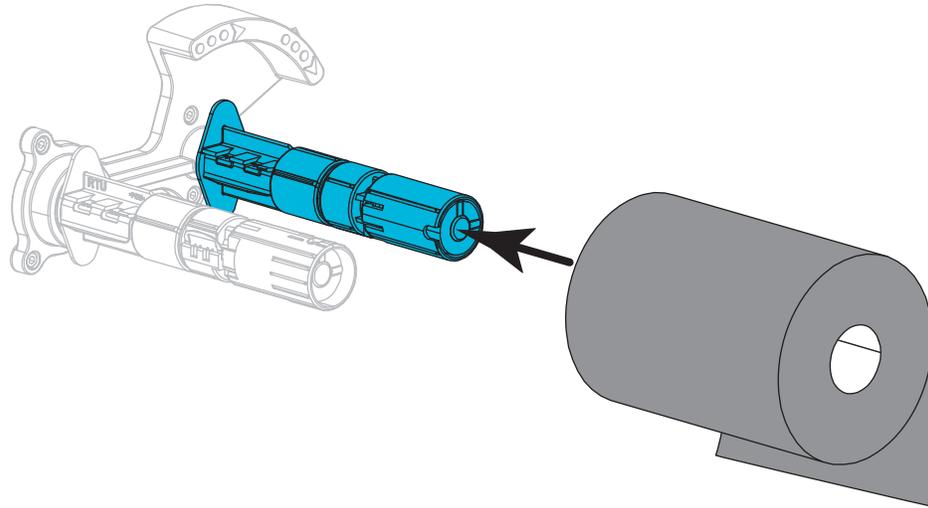
1. **Caution** • The printhead may be hot and could cause severe burns. Allow the printhead to cool.

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

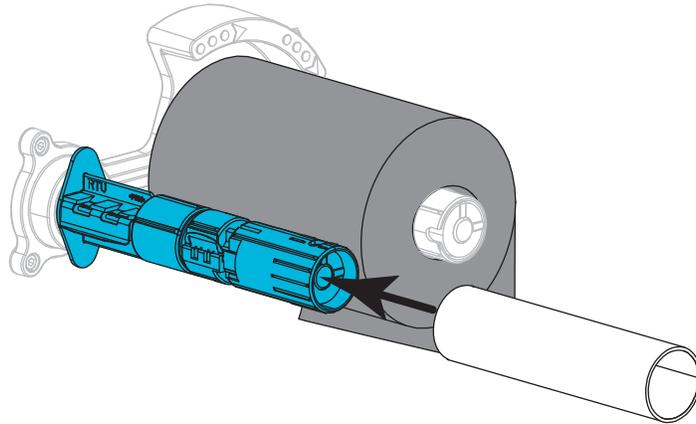


Loading Ribbon

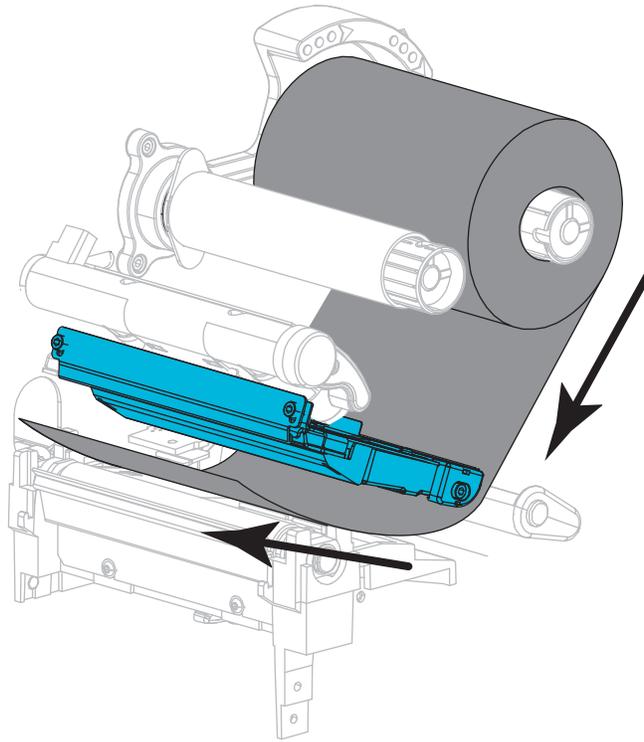
2. Place the roll of ribbon on the ribbon supply spindle with the loose end of the ribbon unrolling as shown. Push the roll back as far as it will go.



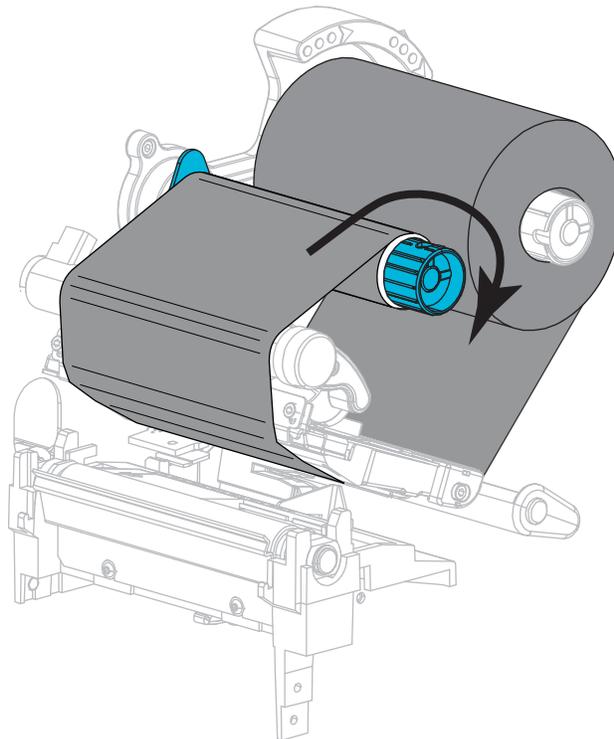
3. Your printer shipped with an empty ribbon core on the ribbon take-up spindle. If this core is no longer there, place an empty ribbon core on the ribbon take-up spindle. Push the core back as far as it will go.



4. Bring the ribbon under the printhead assembly as shown.

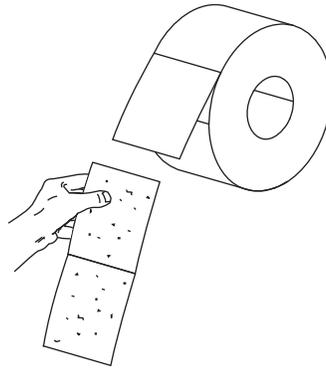


5. With the ribbon tracking as far back as it can under the printhead assembly, wrap the ribbon around the core on the ribbon take-up spindle. Rotate the spindle several turns in the direction shown to tighten and align the ribbon.

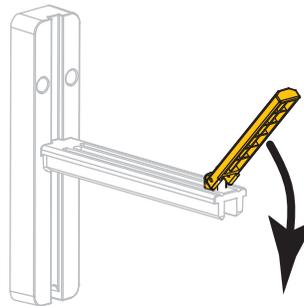


Loading Media

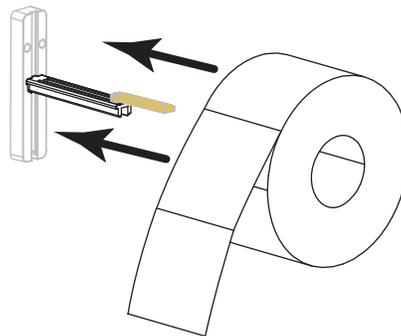
6. Remove and discard any tags or labels that are dirty or that are held by adhesives or tape.



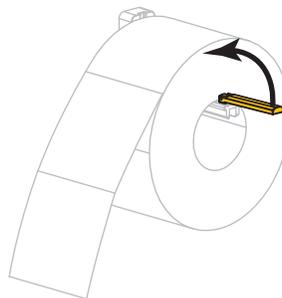
7. Slide out and flip down the media supply guide.



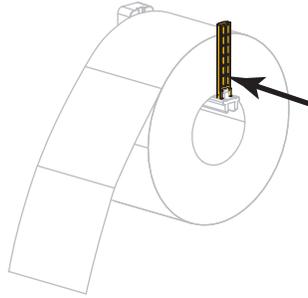
8. Place the roll of media on the media supply hanger. Push the roll back as far as it will go.



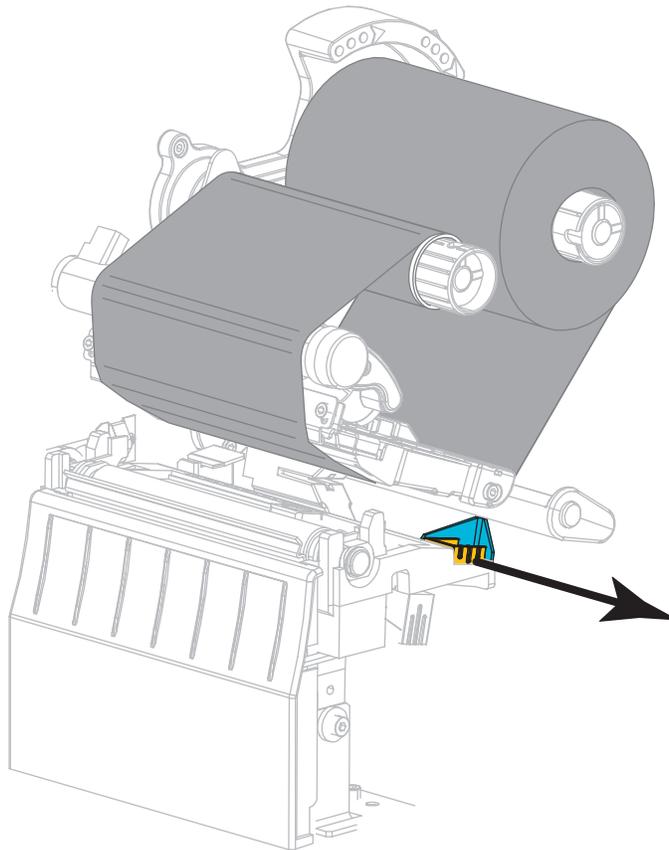
9. Flip up the media supply guide.



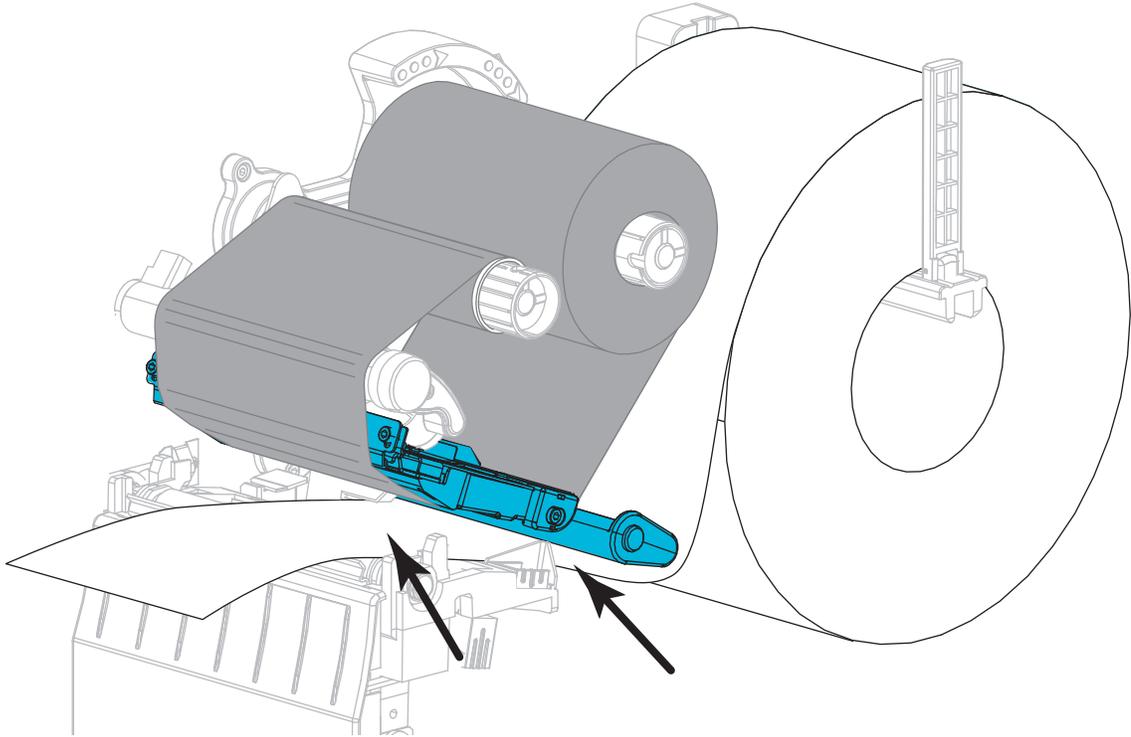
10. Slide in the media supply guide until it touches the edge of the roll.



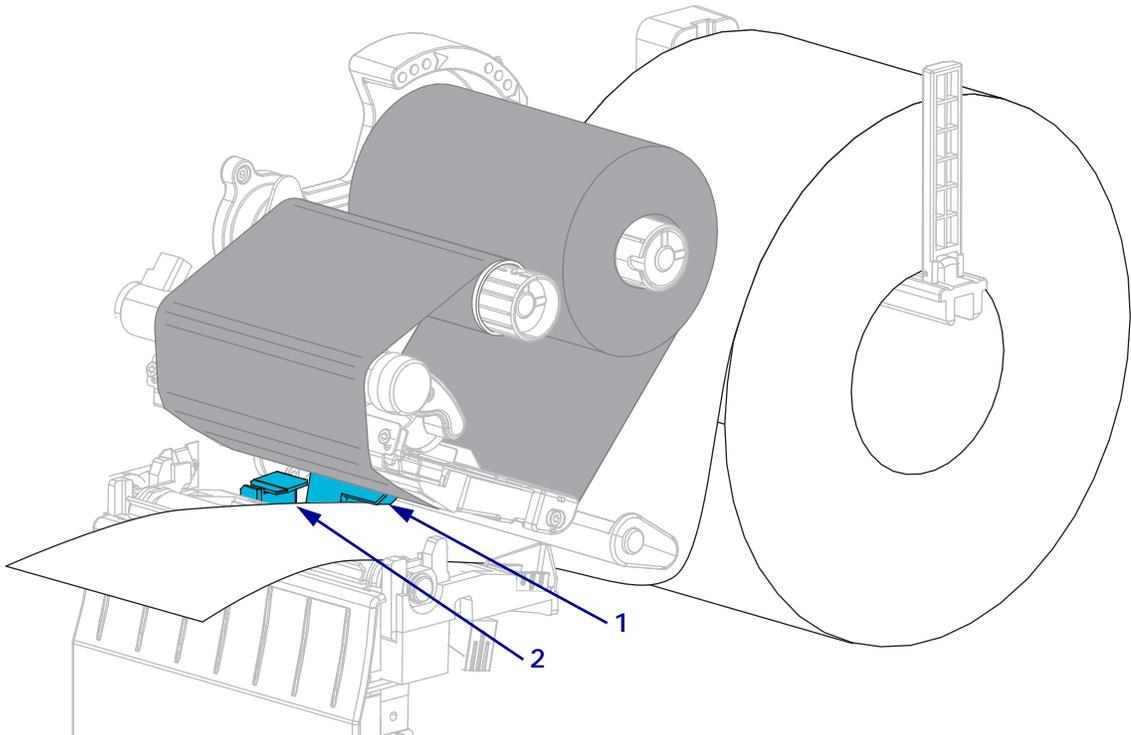
11. Slide the outer media guide all the way out.



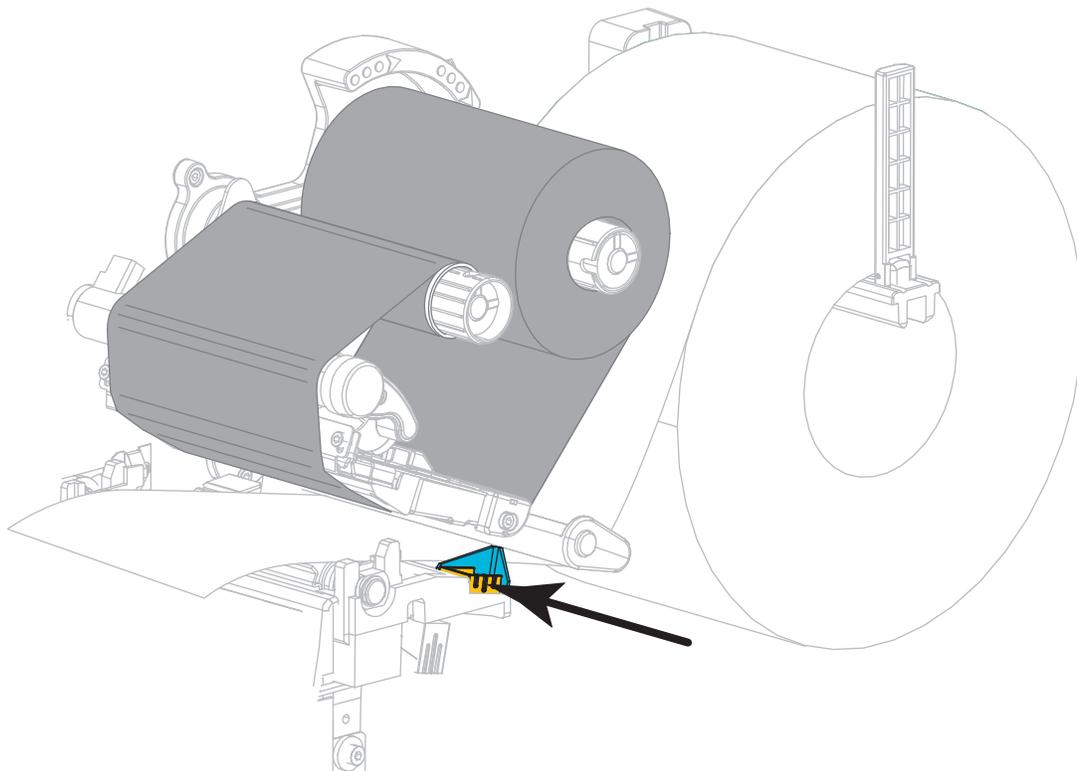
- 12.** Slide the media under the media dancer assembly and the printhead assembly. Allow the end of the media to extend out of the front of the printer.



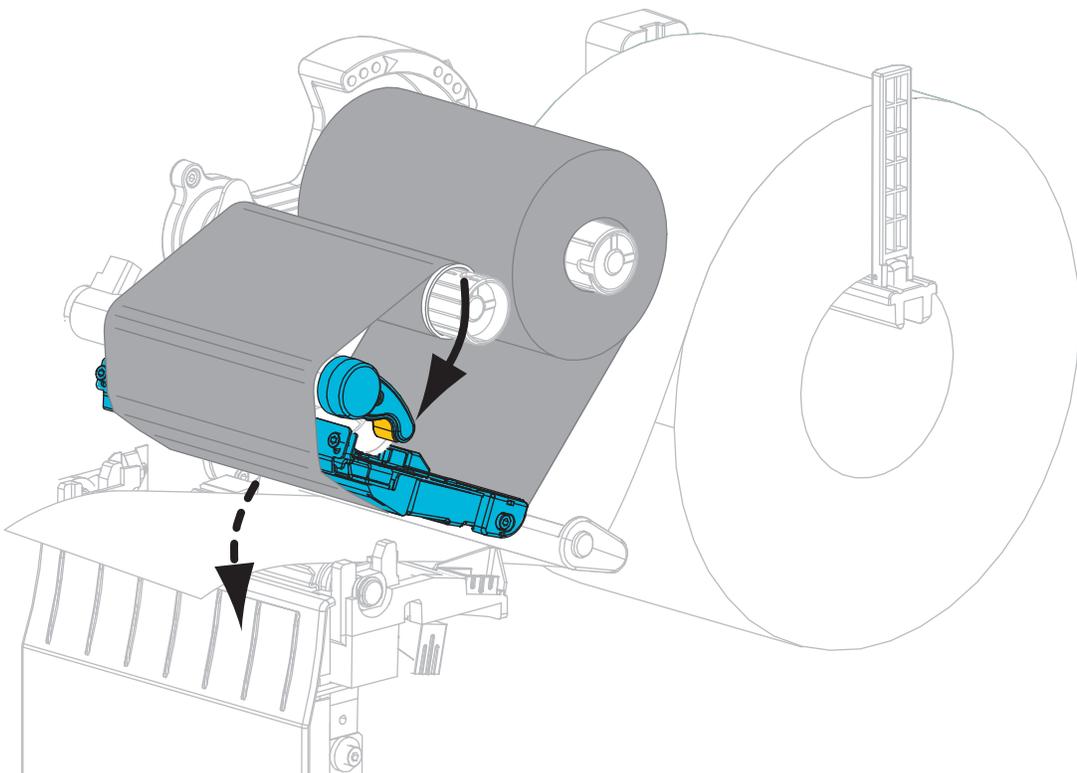
- 13.** Make sure that the media passes through the slot in the transmissive media sensor (1) and under the inner media guide (2). The media should just touch the back of the transmissive media sensor slot.



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



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



16. If necessary, press PAUSE to enable printing.

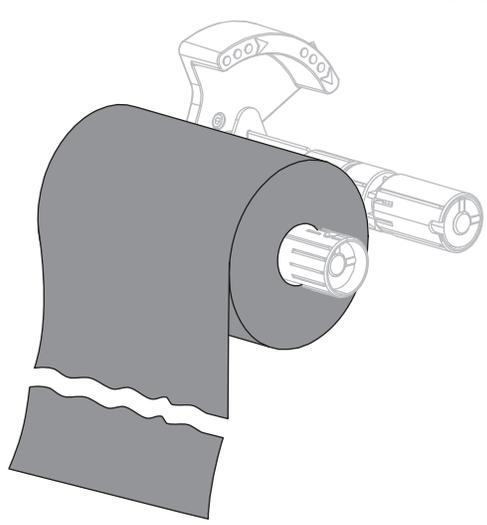
Remove Used Ribbon

Remove used ribbon from the ribbon take-up spindle each time you change the roll of ribbon.

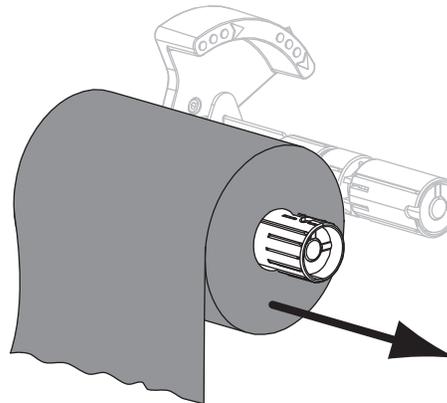
To remove used ribbon, complete these steps:

1. Has the ribbon run out?

If the ribbon...	Then
Ran out	Continue with the next step.
Did not run out	Cut or break the ribbon before the ribbon take-up spindle.

A diagram showing a roll of grey ribbon on a silver spindle. The ribbon is partially unspooled and has a jagged, torn edge, indicating it has been cut or broken before reaching the spindle.

2. Slide the core with the used ribbon off of the ribbon take-up spindle.



3. Discard the used ribbon. You may reuse the empty core from the ribbon supply spindle by moving it to the ribbon take-up spindle.