X-Plus II Quick Reference Guide

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

Contents

External View 2
Printer Components 3
Control Panel 4
  Control Panel LCD 5
  Control Panel Buttons 5
  Control Panel Indicator Lights 7
Select a Communication Interface 8
  Connector Locations 8
  Data Cable Requirements 9
Connect the Printer to a Power Source 10
  Power Cord Specifications 11
Load Media 12
Load Ribbon 17
  Remove Used Ribbon 22
Print a Configuration Label 24
Configure the Printer 25
  How to View or Modify Parameters 25
  Basic Printer Parameters 26
Adjust Media Sensors 27
  Upper Media Sensor—Inside Half of Media 27
  Upper Media Sensor—Outside Half of Media 28
  Lower Media Sensor 29
Adjust Printhead Pressure and Toggle Position 30
  Toggle Position Adjustment 30
  Printhead Pressure Adjustment 31
Cleaning Schedule 33
Clean the Printhead and Platen Roller 34
Replace the Fuse (360X-Plus II Only) 36

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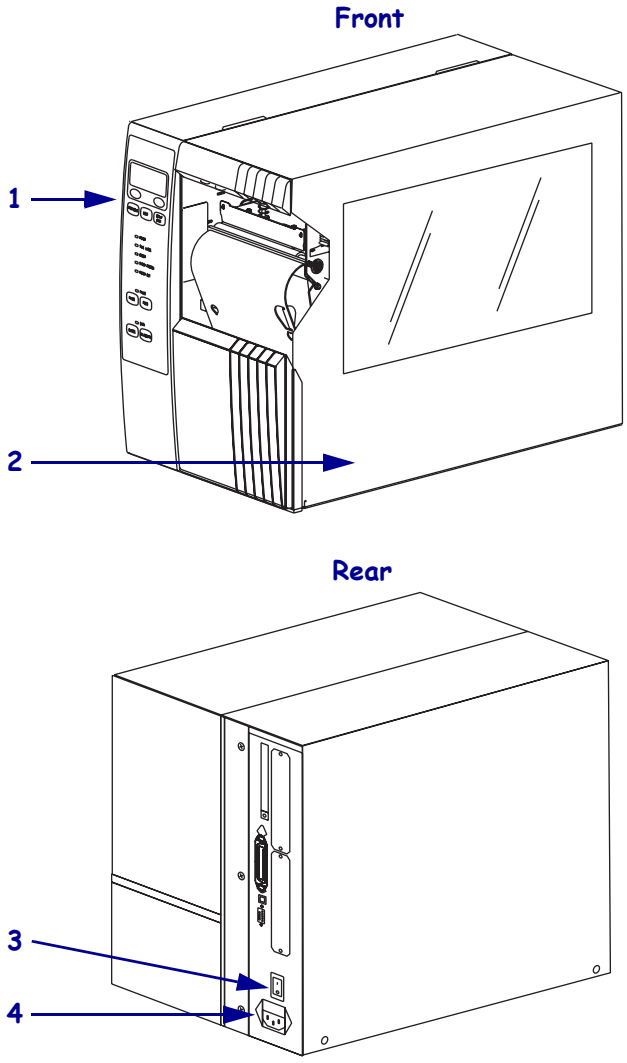
External View

Figure 1 shows the outside of the printer.

Figure 1 • Exterior of Printer

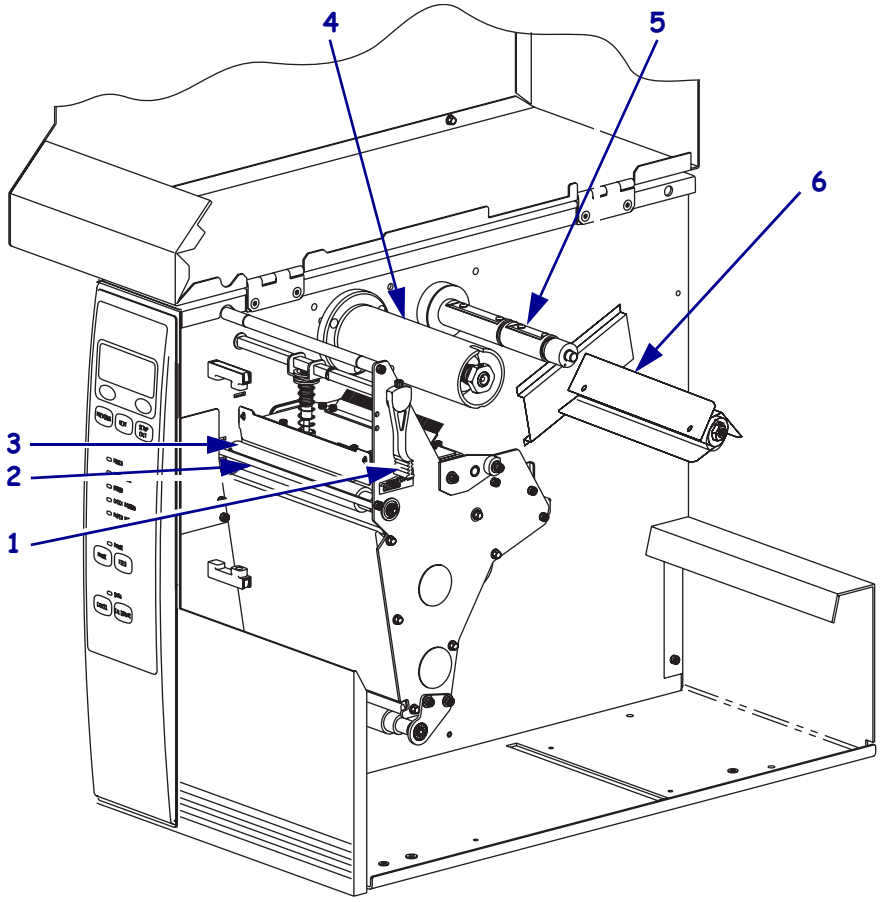


1	Control panel
2	Media door
3	Power switch (**O** = Off, **I** = On)
4	AC power connector

Printer Components

Figure 2 shows the components inside the media compartment of your printer. Depending on installed options, your printer may look slightly different.

Figure 2 • Printer Components



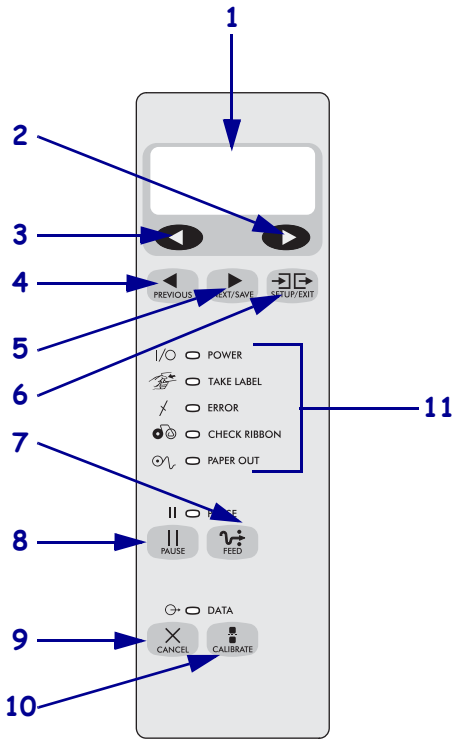
1	Printhead-open lever
2	Peel-off/tear-off bar
3	Platen roller
4	Ribbon take-up spindle
5	Ribbon supply spindle
6	Media supply spindle

Control Panel

All controls and indicators for the printer are located on the control panel (Figure 3).

- The **control panel Liquid Crystal Display (LCD)** shows the operating status and printer parameters.
- The **control panel buttons** are used to control the printer operations and to set parameters.
- The **control panel lights (LEDs)** show the printer's operating status or indicate which control panel buttons are active.

Figure 3 • Location of Control Panel Buttons and Lights



1	LCD
2	PLUS button
3	MINUS button
4	PREVIOUS button
5	NEXT/SAVE button
6	SETUP/EXIT button
7	FEED button
8	PAUSE button
9	CANCEL button
10	CALIBRATE button
11	Indicator lights

Control Panel LCD

The control panel LCD functions differently in different printer modes.

- In **Operating mode**, the LCD displays the printer's status, sometimes in conjunction with a control panel light (see *Control Panel Indicator Lights* *on page 7*).
- In **Pause mode**, the printer stops printing temporarily.
- In **Setup mode**, you can use the control panel LCD to view or modify printer parameters (see *Configure the Printer* *on page 25*).
- In **Error mode**, the LCD may display an alert or error message.

Control Panel Buttons

Table 1 describes the function of each button.

Table 1 • Control Panel Buttons

Button	Appearance	Function
PAUSE		Stops and restarts the printing process or removes error messages and clears the LCD. • If the printer is idle, it enters Pause mode immediately. • If the printer is printing, the label is completed before the printer pauses.
FEED		Advances a blank label. • If the printer is idle or paused, the label is fed immediately. • If the printer is printing, the label is fed after printing finishes.
CANCEL		CANCEL functions only in Pause mode. Pressing CANCEL once has these effects: • Cancels the label format that is currently printing. • If no label format is printing, the next one to be printed is canceled. • If no label formats are waiting to be printed, CANCEL is ignored. To clear the printer's entire label format memory, press and hold CANCEL. When the formats are cleared, the DATA light turns off.
CALIBRATE		Calibrates the printer for the following: • Media length • Media type (continuous or non-continuous) • Print mode (direct thermal or thermal transfer) • Sensor values
SETUP/EXIT		Enters and exits Setup mode.
PREVIOUS		When in Setup mode, scrolls the LCD to the previous parameter. Press and hold to scroll quickly.

Table 1 • Control Panel Buttons (Continued)

Button	Appearance	Function
NEXT/SAVE		• When in Setup mode, scrolls the LCD to the next parameter. Press and hold to scroll quickly. • When exiting Setup mode, saves any changes you have made in the configuration and calibration sequence.
LEFT OVAL		Changes the parameter values. Common uses are to decrease a value, to answer “no,” to scroll through choices, or to change the cursor position while entering the password.
RIGHT OVAL		Changes the parameter values. Common uses are to increase a value, to answer “yes,” to scroll through choices, or to change values while entering the password.

Control Panel Indicator Lights

Table 2 describes lights on the control panel that indicate different printer conditions.

Note • If two operating conditions occur simultaneously (for example, one that causes a light to be on constantly and one that causes the same light to flash), the indicator light flashes.

Table 2 • Control Panel Indicator Lights

Light	Appearance	Status	Indication
POWER		Off	The printer is off or power is not applied.
		On	The printer is on.
TAKE LABEL		Off	Normal operation.
		Flashing	(Peel mode only.) The label is available. Printing pauses until the label is removed.
ERROR		Off	Normal operation—no printer errors.
		Flashing	A printer error exists. Check the LCD for more information.
CHECK RIBBON		Off	Normal operation—ribbon (if used) is properly loaded.
		On	Printing is paused, the LCD displays a warning message, and the PAUSE light is on. • If the printer is in Direct Thermal Mode: ribbon is loaded. • If the printer is in Thermal Transfer Mode: no ribbon is loaded.
PAPER OUT		Off	Normal operation—media is properly loaded.
		On	No media is under the media sensor. Printing is paused, the LCD shows an error message, and the PAUSE light is on.
PAUSE		Off	Normal operation.
		On	The printer stopped all printing operations. Causes include: • PAUSE was pressed • A label format included a pause command • The online verifier detected an error • A printer error was detected. The LCD gives additional information.
DATA		Off	Normal operation. No data being received or processed.
		On	The printer is processing data or is printing. No data is being received.
		Flashing	The printer is receiving data from or sending status information to the host computer.

Select a Communication Interface

The way that you connect your printer to a data source depends on the communication options installed in the printer. You may use any available connection to send commands and label formats from a host computer to the printer.

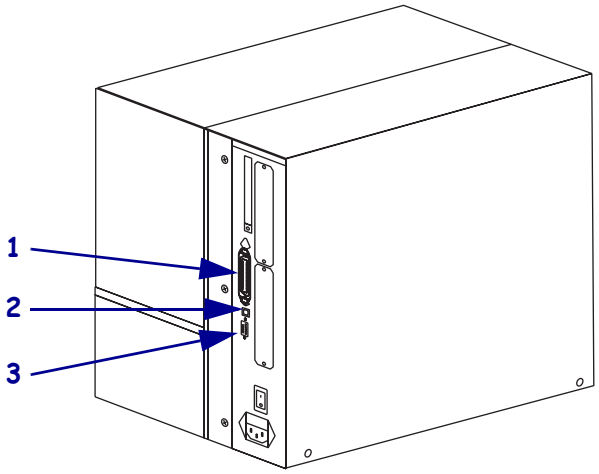
Caution • Ensure that the printer power is off (**O**) before connecting data communications cables. Connecting a data communications cable while the power is on (**I**) may damage the printer.

Note • You must supply all interface cables or wireless cards for your application. Refer to *Data Cable Requirements* *on page 9* for specific cable requirements.

Connector Locations

Refer to Figure 4. The printer comes standard with an Electronics Industries Association (EIA) RS-232 serial interface (DB-9 connector), an IEEE 1284 bidirectional parallel interface, and a USB 2.0-compatible interface. An optional Ethernet port may also be included. You may use any of these interface methods to send commands and label formats from a computer to the printer.

Figure 4 • Cable Connections



1	Parallel interface connector
2	USB 2.0 connector
3	DB-9 serial interface connector

Optional Ethernet Print Servers Ethernet-based print servers also are available to connect your printer to a data source. Manuals are available on the user CD that came with your printer.

Note • The parallel connection on your printer is not operational when one of these print server is installed. Wireless and external wired print servers plug directly into the printer's parallel port. Internal print servers include a mounting bracket that covers the parallel port.

With the BradyConnect PrintServer II (PSII), the printer can communicate with a 10BaseT network. For more information on PSII, see the *PrintServer II User and Reference Guide*.

Data Cable Requirements

Ethernet cables do not require shielding, but all other data cables must be fully shielded and fitted with metal or metalized connector shells. Unshielded data cables may increase radiated emissions above the regulated limits.

To minimize electrical noise pickup in the cable:

- Keep data cables as short as possible.
- Do not bundle the data cables tightly with the power cords.
- Do not tie the data cables to power wire conduits.

Note • Brady printers comply with FCC Rules and Regulations, Part 15 for Class B Equipment using fully shielded, 6.5 ft. (2 m) data cables. Use of unshielded cables may increase radiation above the Class B limits.

Connect the Printer to a Power Source

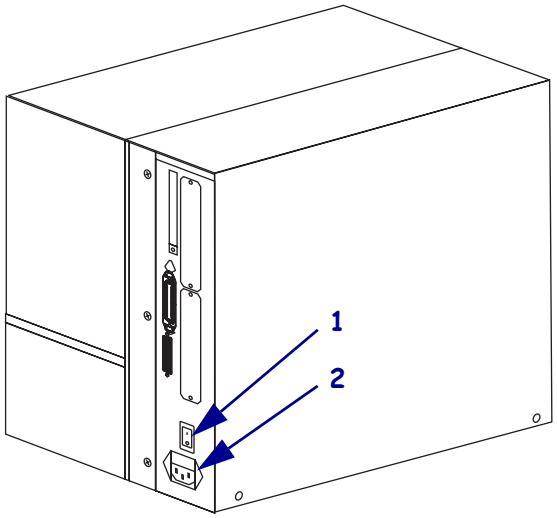
The AC power cord must have a three-prong female connector on one end that plugs into the mating AC power connector at the rear of the printer. If a power cable was not included with your printer, refer to *Power Cord Specifications* *on page 11*.

Caution • For personnel and equipment safety, always use an approved three-conductor power cord specific to the region or country intended for installation. This cord must use an IEC 320 female connector and the appropriate region-specific three-conductor grounded plug configuration.

To connect the printer to a power source, complete these steps:

1. Toggle the printer power switch to the off (**O**) position.
2. See Figure 5. Plug the power cord into the AC power connector on the rear of the printer.

Figure 5 • Power Connection



1	Power switch
2	AC power connector

3. Plug the other end of the power cord into a power outlet near the printer.
4. Turn on (**I**) the printer.

   The control panel LCD and lights activate, indicating that the printer is booting up.

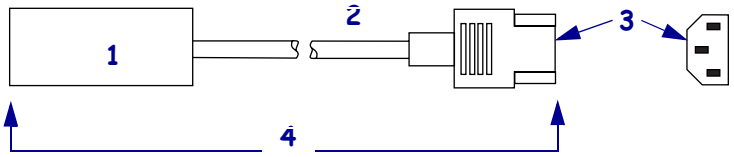
Power Cord Specifications

Caution • For personnel and equipment safety, always use an approved three-conductor power cord specific to the region or country intended for installation. This cord must use an IEC 320 female connector and the appropriate region-specific, three-conductor grounded plug configuration.

Depending on how your printer was ordered, a power cord may or may not be included. If one is not included or if the one included is not suitable for your requirements, refer to the following guidelines:

- The overall cord length must be less than 9.8 ft. (3.0 m).
- The cord must be rated for at least 10 A, 250 V.
- The chassis ground (earth) **must** be connected to ensure safety and reduce electromagnetic interference. The third wire in the power cord grounds the connection (Figure 6).

Figure 6 • Power Cord Specifications



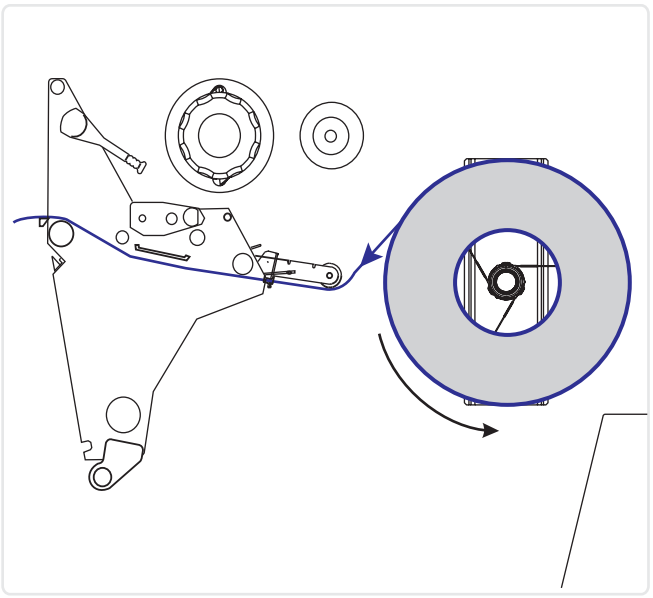
1	AC power plug for your country—This should bear the certification mark of at least one of the known international safety organizations (Figure 7).
2	3-conductor HAR cable or other cable approved for your country.
3	IEC 320 connector—This should bear the certification mark of at least one of the known international safety organizations (Figure 7).
4	Length ≤ 9.8 ft. (3 m). Rating 10 Amp, 250 VAC.

Figure 7 • International Safety Organization Certifications

Load Media

Use the instructions in this section to load roll media in Tear-Off mode (Figure 8). For instructions for loading fanfold media or for loading in different print modes, refer to the *User Guide*.

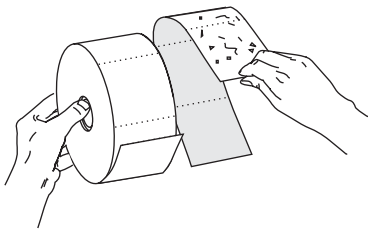
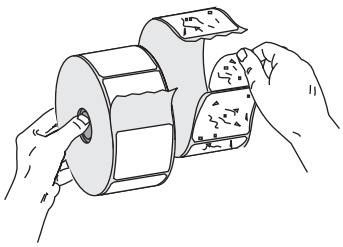
Figure 8 • Tear-Off Mode Media Path



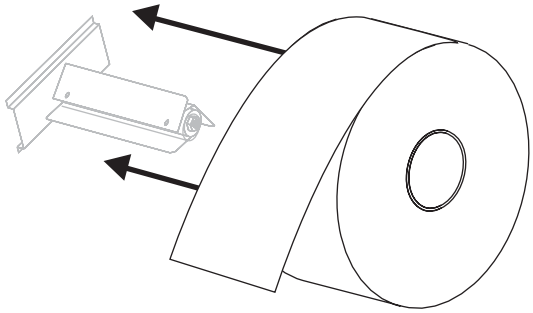
Caution • When you are loading media or ribbon, remove all jewelry that could come into contact with the printhead or other printer parts.

To load roll media, complete these steps:

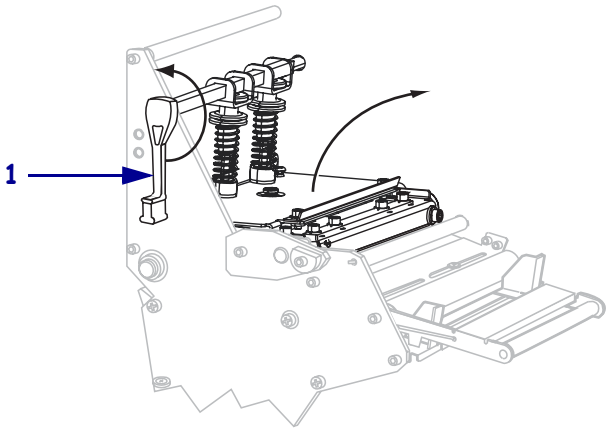
1. Remove and discard any tags or labels that are dirty or that are held by adhesives or tape.

Tag Stock	Labels
	

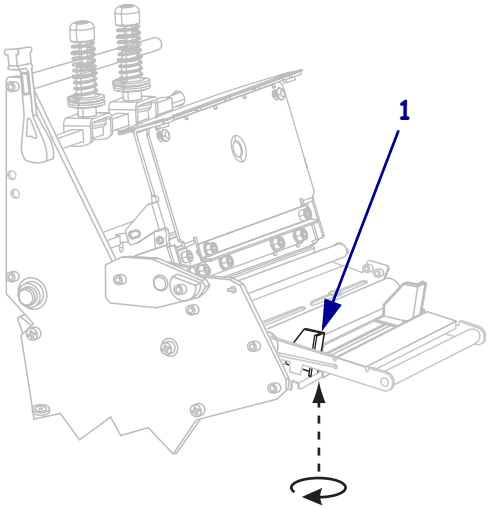
2. Place the roll of media on the media supply spindle. Push the roll back as far as it will go.



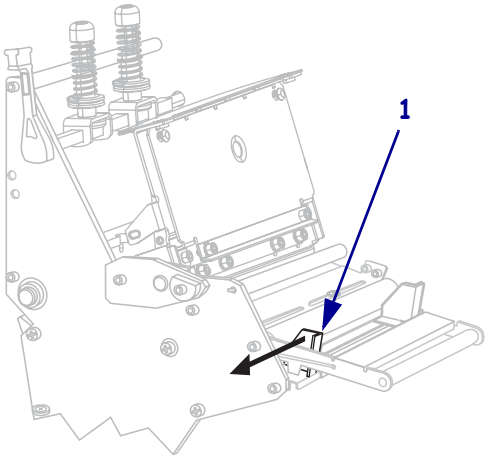
3. Open the printhead assembly by rotating the printhead-open lever (**1**) counter-clockwise.



4. Loosen the thumb screw (not visible from this angle) that is located on the bottom of the outer media guide (**1**).

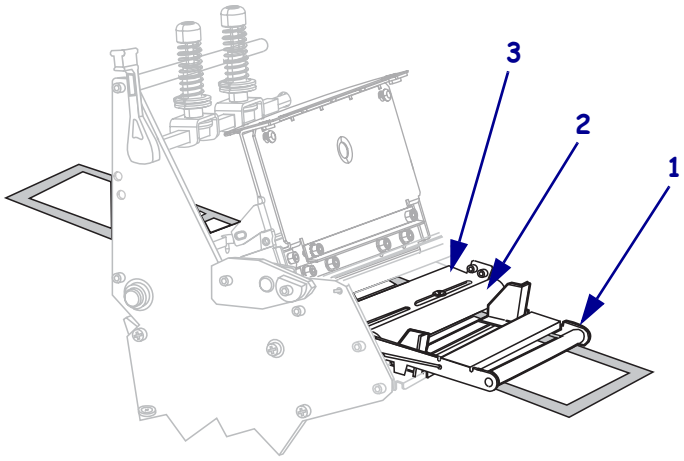


5. Slide the outer media guide (**1**) all the way out.

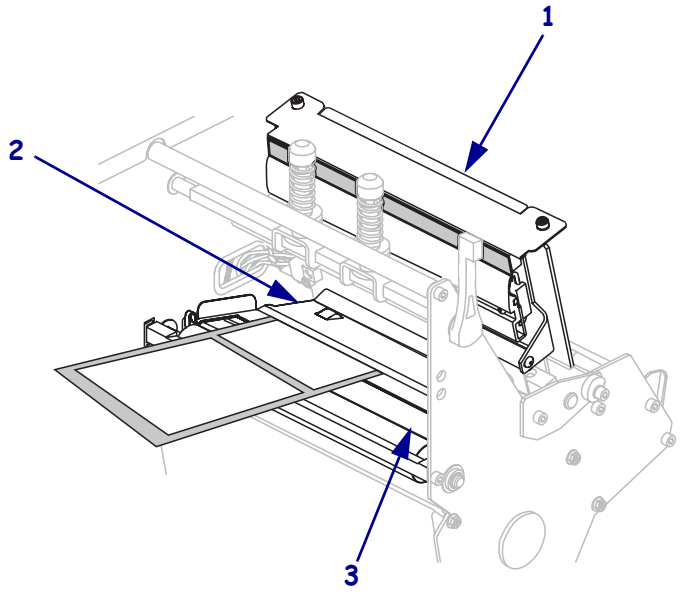


6. If your printer includes a media dancer assembly (**1**), thread the media under the media dancer assembly roller. For all printers, thread the media under the media guide roller (**2**) and then the upper media sensor (**3**).

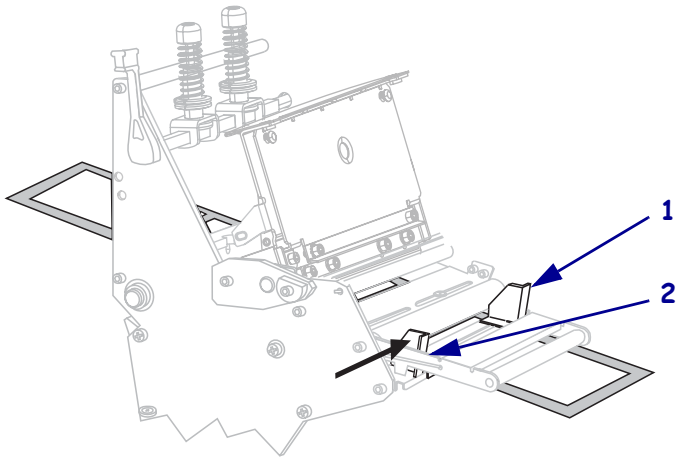
Important • Make sure that you thread the media under these components. If you thread the media over the them, the media obstructs the ribbon sensor and causes a false `RIBBON OUT` error.



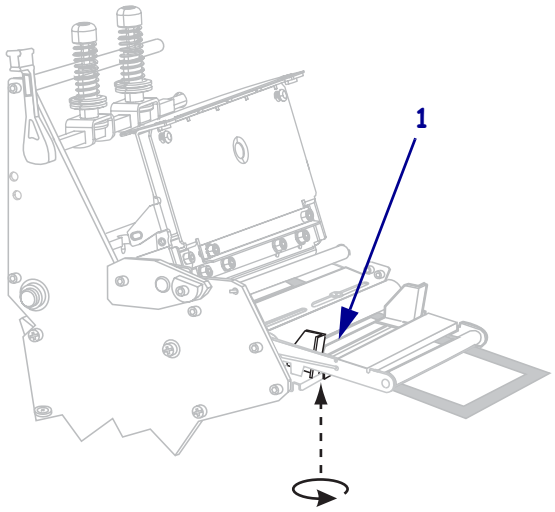
7. Push the media forward until it passes under the printhead assembly (**1**), under the snap plate (**2**), and then over the platen roller (**3**).



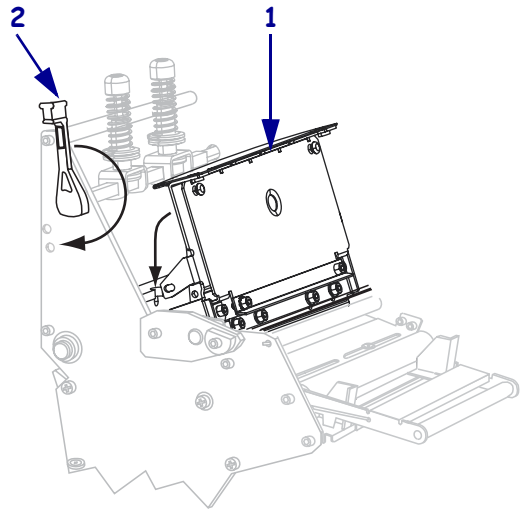
8. Align the media with the inner media guide (**1**). Slide in the outer media guide (**2**) until it just touches the edge of the media.



9. Tighten the thumb screw (not visible from this angle) that is located on the bottom of the outer media guide (**1**).



10. Push down the printhead assembly (**1**), and then rotate the printhead-open lever (**2**) clockwise until it locks into place.

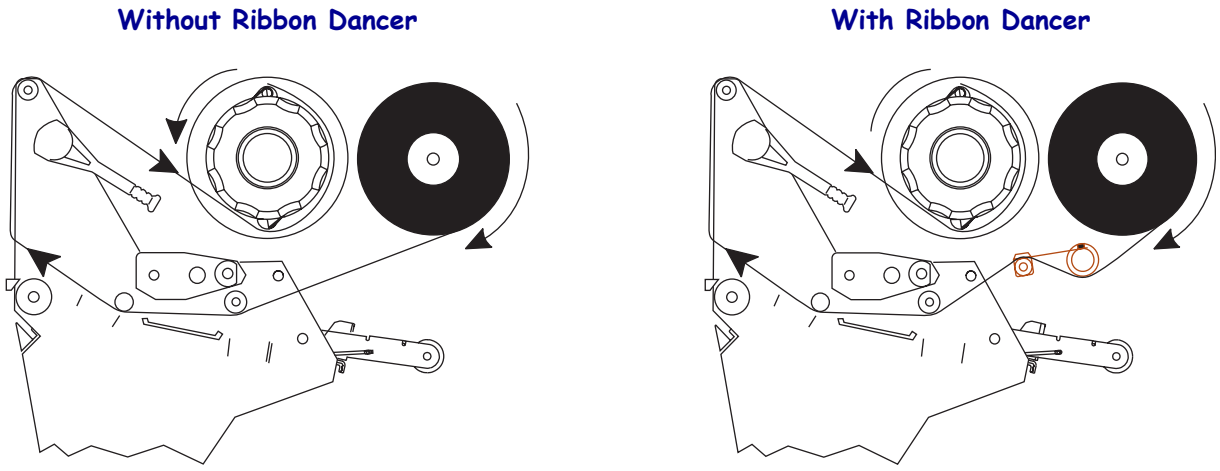


Load Ribbon

Use the instructions in this section to load ribbon for use with thermal transfer labels. For direct thermal labels, do not load ribbon in the printer. The ribbon path is slightly different for printers with ribbon dancers (Figure 9).

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).

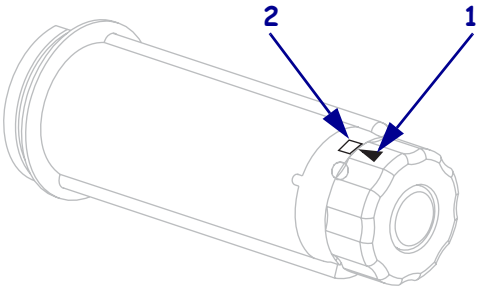
Figure 9 • Ribbon Path



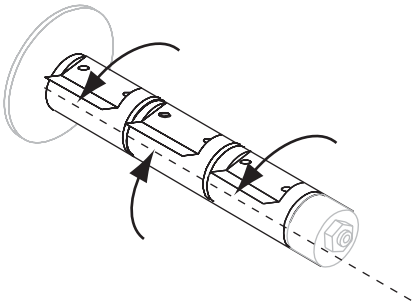
Caution • When you are loading media or ribbon, remove all jewelry that could come into contact with the printhead or other printer parts.

To load ribbon, complete these steps:

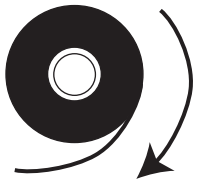
1. Align the arrow (**1**) on the ribbon take-up spindle knob with the notch (**2**) in the ribbon take-up spindle.



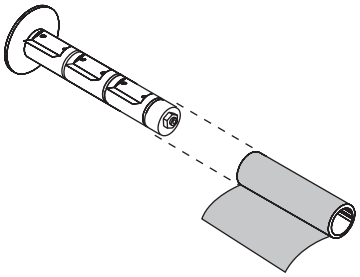
2. Align the segments of the ribbon supply spindle.



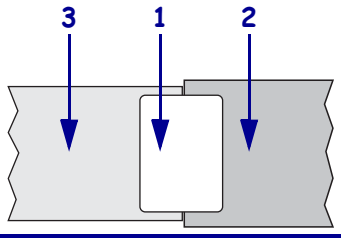
3. Orient the ribbon with the loose end unrolling clockwise.



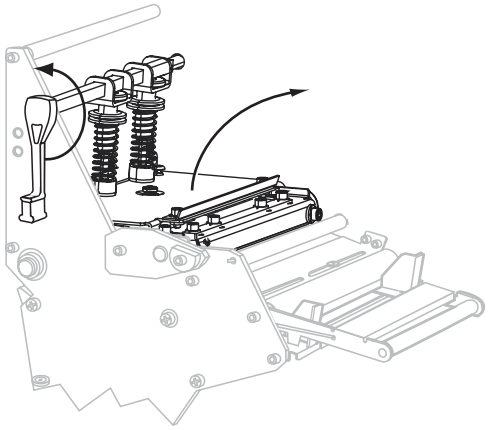
4. Place the roll of ribbon on the ribbon supply spindle. Push the roll back as far as it will go.



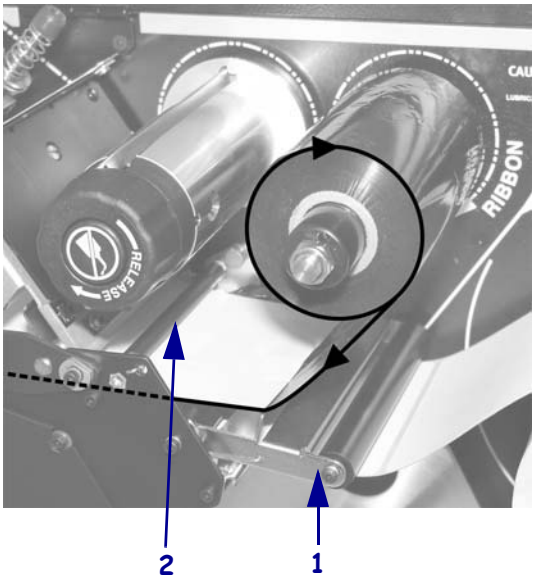
5. A ribbon leader makes ribbon loading and unloading easier. Does your roll of ribbon have paper or something else attached to the end to serve as a ribbon leader?

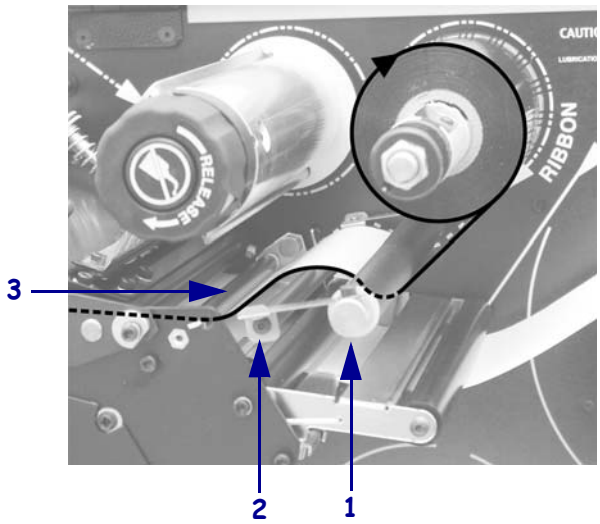
If…	Then…
Yes	Continue with the next step.
No	**a.** Tear off a strip of media (labels and liner) about 6–12 in. (150–305 mm) long from the roll. **b.** Peel a label from the media strip. **c.** Use this label (**1**) to attach the end of the ribbon (**2**) to the media strip (**3**). The media strip acts as a leader. 

6. Open the printhead assembly by rotating the printhead-open lever counter-clockwise.

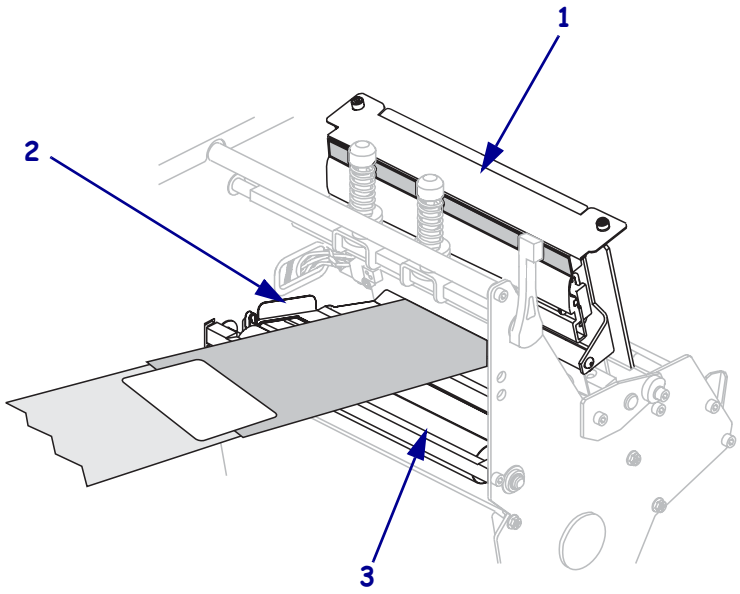


7. Does your printer contain a ribbon dancer assembly? (See Figure 9 on page 17 for the ribbon dancer location.)

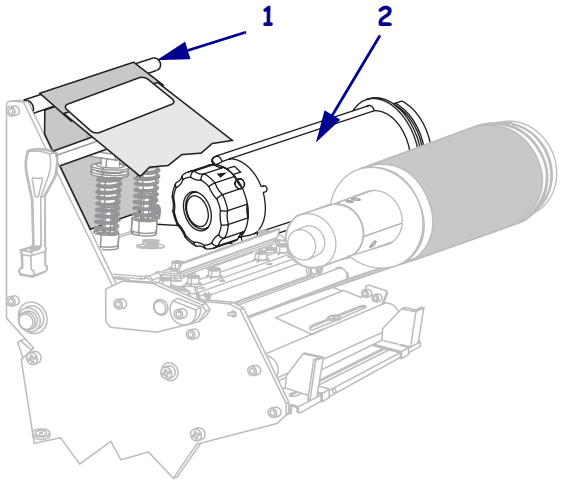
If...	Then...
No	Thread the ribbon over the media dancer assembly (**1**) and under the ribbon guide roller (**2**). 

If...	Then...
Yes	**a.** Thread the ribbon through the ribbon dancer. The ribbon must go under the upper roller (**1**) and then over the lower roller (**2**). **b.** Thread the ribbon under the ribbon guide roller (**3**). 

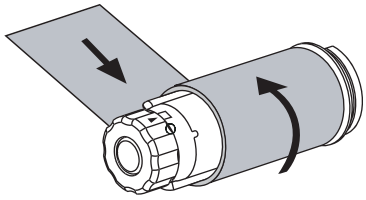
8. Push the ribbon leader forward until it passes under the printhead assembly (1), over the snap plate (2), and then over the platen roller (3).



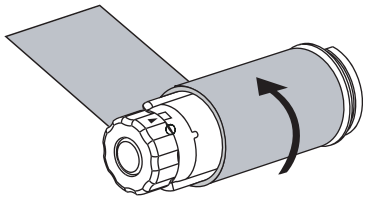
9. Bring the ribbon leader over the upper ribbon roller (**1**) and then toward the ribbon take-up spindle (**2**).



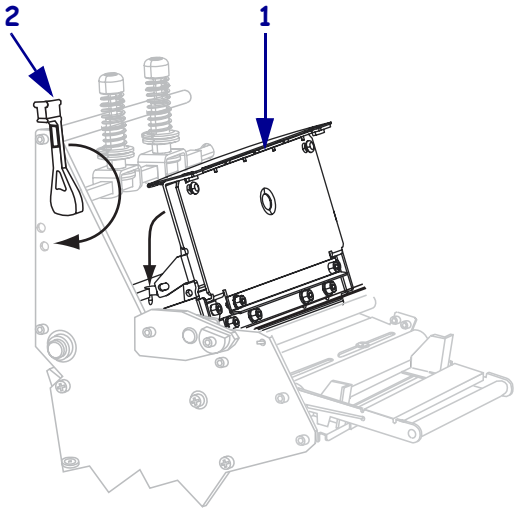
10. Wind the ribbon leader and attached ribbon counterclockwise around the ribbon take-up spindle.



11. Rotate the spindle counterclockwise several turns to wind the ribbon and remove any slack.



12. Push down the printhead assembly (**1**), and then rotate the printhead-open lever (**2**) clockwise until it locks into place.

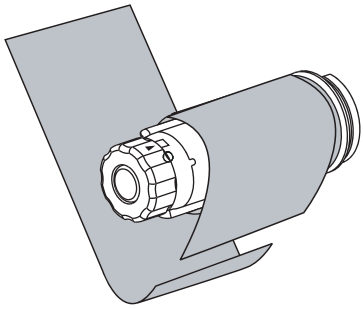


Remove Used Ribbon

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

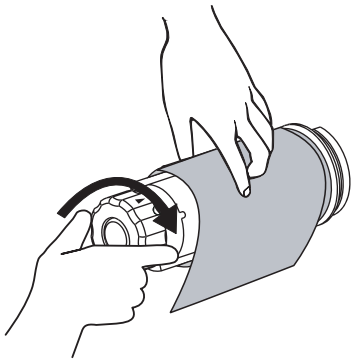
To remove used ribbon, complete these steps:

1. Has the ribbon run out?

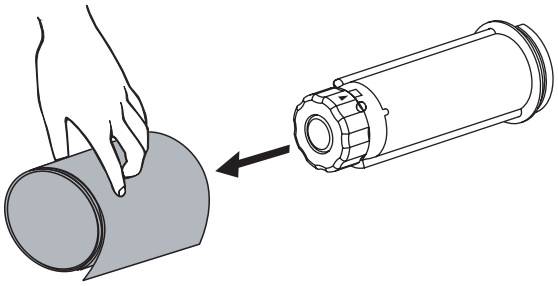
If the ribbon...	Then
Ran out	Continue with the next step.
Did not run out	Cut or break the ribbon before the ribbon take-up spindle. 

2. While holding the ribbon take-up spindle, turn the ribbon release knob clockwise until it stops.

   The ribbon release bars pivot down, easing the spindle's grip on the used ribbon.



3. Slide the used ribbon off of the ribbon take-up spindle and discard.



Print a Configuration Label

A configuration label lists the printer settings that are stored in configuration memory. After you load the media and ribbon (if necessary), print a configuration label as a record of your printer's current settings. Keep the label to use when troubleshooting printing problems.

To print a configuration label, complete these steps:

1. On the control panel, press SETUP/EXIT.
2. Press NEXT/SAVE or PREVIOUS to scroll through the parameters until you reach **LIST SETUP**.
3. Press the right oval to confirm printing.

   A configuration label prints (Figure 10).

Figure 10 • Configuration Label

```
PRINTER CONFIGURATION

BRADY Corporation
600X Plus-II
ZBR2241360

20.0.............. DARKNESS
2 IPS............. PRINT SPEED
+000.............. TEAR OFF
TEAR OFF.......... PRINT MODE
CONTINUOUS........ MEDIA TYPE
WEB............... SENSOR TYPE
DIRECT-THERMAL.... PRINT METHOD
080 00/24 MM...... PRINT WIDTH
3500.............. LABEL LENGTH
11.0IN  278MM..... MAXIMUM LENGTH
MEDIA DISABLED.... EARLY WARNING
MAINT. OFF........ EARLY WARNING
NOT CONNECTED..... USB COMM.
BIDIRECTIONAL..... PARALLEL COMM.
RS232............. SERIAL COMM.
9600.............. BAUD
8 BITS............ DATA BITS
NONE.............. PARITY
XON/XOFF.......... HOST HANDSHAKE
NONE.............. PROTOCOL
000............... NETWORK ID
NORMAL MODE....... COMMUNICATIONS
<~>  7EH.......... CONTROL PREFIX
<^>  5EH.......... FORMAT PREFIX
<,>  2CH.......... DELIMITER CHAR
ZPL II............ ZPL MODE
CALIBRATION....... MEDIA POWER UP
CALIBRATION....... HEAD CLOSE
DEFAULT........... BACKFEED
+000.............. LABEL TOP
+0000............. LEFT POSITION
OFF............... VERIFIER PORT
OFF............... APPLICATOR PORT
ENABLED........... ERROR ON PAUSE
PULSE MODE........ START PRINT SIG
FEED MODE......... RESYNCH MODE
DISABLED.......... REPRINT MODE
070............... WEB S.
070............... MEDIA S.
060............... RIBBON S.
089............... TAKE LABEL
050............... MARK S.
000............... MARK MED S.
074............... MEDIA LED
031............... RIBBON LED
006............... MARK LED
+15............... LCD ADJUST
DPSWFXM........... MODES ENABLED
...............   MODES DISABLED
1920 24/MM FULL... RESOLUTION
ZSP1115AP1 <-..... FIRMWARE
V30 33037 57...... HARDWARE ID
CUSTOMIZED........ CONFIGURATION
NONE.............A: COMPACT FLASH
11776k...........R: RAM
NONE.............B: MEMORY CARD
2048k............E: ONBOARD FLASH
NONE.............. FORMAT CONVERT
005 DISPLAY....... P32 INTERFACE
...............   TWINAX/COAX ID
FW VERSION........ IDLE DISPLAY
07/17/97.......... RTC DATE
13:28............. RTC TIME
NO................ RFID READY
1837 IN........... NONRESET CNTR
1837 IN........... RESET CNTR1
1837 IN........... RESET CNTR2
4594 CM........... NONRESET CNTR
4594 CM........... RESET CNTR1
4594 CM........... RESET CNTR2
1463 LABLS........ NONRESET CNTR
1463 LABLS........ RESET CNTR1
1463 LABLS........ RESET CNTR2
gk 41779.05AF110123.41008.08.VH1....
2006-10-17 12:35:31 TIME STAMP

FIRMWARE IN THIS PRINTER IS COPYRIGHTED
```

Configure the Printer

Use the LCD on the control panel to view and adjust printer settings.

Note • Your label preparation software or the printer driver may override adjustments made through the control panel. Refer to the software or driver documentation for more information.

How to View or Modify Parameters

To view or modify parameters, complete these steps:

1. Press SETUP/EXIT to enter Setup mode.
2. While viewing parameters, press NEXT/SAVE to continue to the next parameter, or press PREVIOUS to return to the previous parameter in the cycle.
3. Press the right oval or the left oval to modify the parameter.

   When a parameter is changed, an asterisk (*) appears in the upper left corner of the display to indicate that the value is different from the one currently active in the printer.
4. Press SETUP/EXIT.

   The LCD displays `SAVE CHANGES`.
5. Press the left or right oval to display the save options (Table 3).

Table 3 • Save Options When Leaving Setup Mode

LCD	Description
`PERMANENT`	Stores values in the printer even when power is turned off.
`TEMPORARY`	Saves the changes until power is turned off.
`CANCEL`	Cancels all changes made since you entered Setup mode, except for changes made to the darkness and tear-off settings, which go into effect as soon as they are made.
`LOAD DEFAULTS`	Restores all parameters 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. **Note •** Loading factory defaults causes the printer to auto-calibrate.
`LOAD LAST SAVE`	Loads values from the last permanent save.
`DEFAULT NET`	Restores the wired and wireless network settings back to factory defaults.

6. Press NEXT/SAVE to select the displayed choice.

   When the configuration and calibration sequence is done, `PRINTER READY` displays.

Basic Printer Parameters

Table 4 shows some parameters that you may need to change to configure your printer initially. Refer to the *User Guide* for the complete list of printer parameters.

Table 4 • Printer Parameters

Menu Display	Description
DARKNESS	**Adjust Print Darkness**
PRINT MODE	**Select Print Mode** **Default:** TEAR-OFF **Selections:** TEAR-OFF, PEEL-OFF, CUTTER, APPLICATOR, REWIND
MEDIA TYPE	**Set Media Type** **Default:** NON-CONTINUOUS **Selections:** CONTINUOUS, NON-CONTINUOUS
SENSOR TYPE	**Set the Sensor Type** **Default:** WEB **Selections:** WEB (gaps or perforations between labels), MARK (black marks on the back of the liner to indicate where labels end)
PRINT METHOD	**Select Print Method** **Default:** THERMAL TRANSFER **Selections:** THERMAL TRANSFER (uses ribbon), DIRECT THERMAL (does not use ribbon)

Adjust Media Sensors

The transmissive sensor consists of two sections: a light source (the lower media sensor) and a light sensor (the upper media sensor). The media passes between the two.

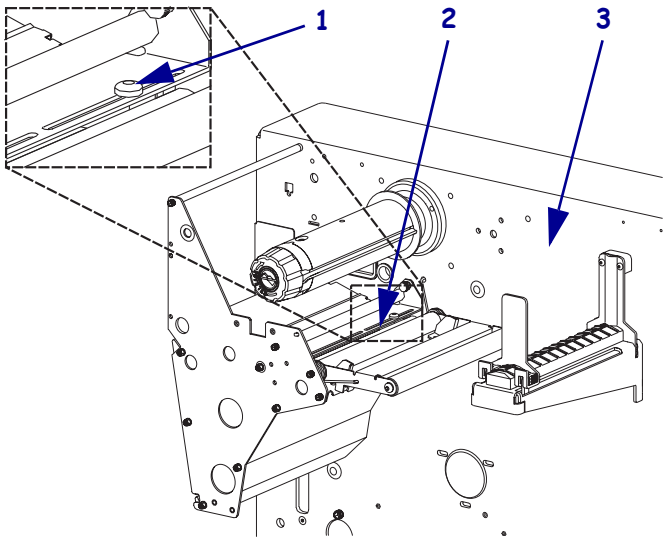
Adjust these sensors only when the printer cannot detect the top of the label. The control panel LCD displays **ERROR CONDITION PAPER OUT**, even though there are labels loaded in the printer.

Upper Media Sensor—Inside Half of Media

To adjust the upper media sensor for the inside half of the media, complete these steps:

1. Remove the ribbon (if ribbon is used).
2. See Figure 11. Locate the upper media sensor. The upper media sensor eye is directly below the adjustment screw head.

Figure 11 • Upper Media Sensor Location



1	Upper media sensor adjustment screw
2	Upper media sensor
3	Printer back frame

3. Using a Phillips-head screwdriver, slightly loosen the upper media sensor adjustment screw.
4. Using the tip of the screwdriver, slide the upper sensor along the slot to the desired position (for non-continuous media with a notch or hole in the media, the sensor must be directly above the notch or hole).
5. Tighten the adjustment screw to secure the upper media sensor.

Upper Media Sensor—Outside Half of Media

To adjust the upper media sensor for the outside half of the media, complete these steps:

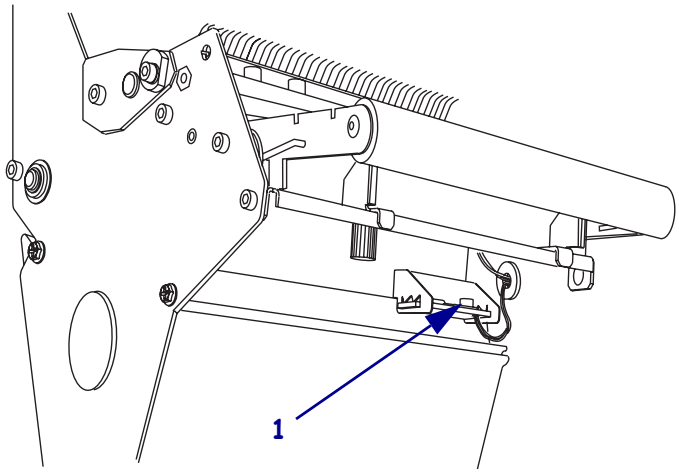
1. Remove the ribbon (if ribbon is used).
2. See Figure 11. Locate the upper media sensor. The upper media sensor eye is directly below the adjustment screw head.
3. Using a Phillips-head screwdriver, remove the upper media sensor adjustment screw.
4. Lift the upper media sensor assembly from the slot, and move it and the wire cover to the outside slot. Carefully pull the wires through the cable tie. You may need to set aside the sensor wire cover if the adjustment is too far to the outside.
5. Replace and slightly tighten the adjustment screw.
6. Slide the upper media sensor along the slot to the desired position (for non-continuous media with a notch or hole in the media, the sensor must be directly above the notch or hole).
7. Tighten the adjustment screw.
8. Make sure that the wires are routed back into the groove of the media sensor bracket.

Lower Media Sensor

To adjust the lower media sensor, complete these steps:

1. Locate the lower media sensor assembly under the rear roller (Figure 12). The sensor is a spring clip holding a circuit board.

Figure 12 • Lower Media Sensor Location



1	Lower media sensor

2. Slide the lower sensor until it is under the upper media sensor. Gently pull wires out as needed (wires should have a little slack).

3. If you move the sensor inward and a large loop of wire develops, remove the electronics cover from the side of the printer, and gently pull the wires through. Clamp the wires so that they do not touch any drive belts.

Adjust Printhead Pressure and Toggle Position

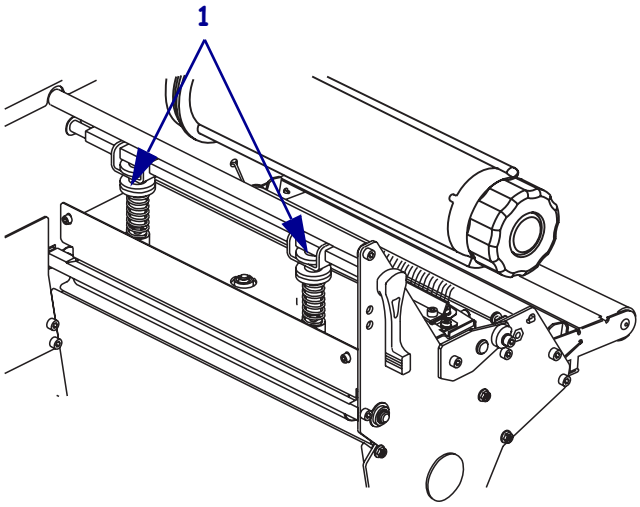
Print quality depends on the labels and ribbon used as well as the toggle pressure and position. Make sure that your labels and ribbon are acceptable for your application. If they are, check the toggle position and then the printhead pressure.

Toggle Position Adjustment

You may need to adjust the toggles if printing is too light on one side or if thick labels are used. If the toggle pressure is too light or uneven, the labels and ribbon may slip.

To position the toggles, complete these steps:

1. Loosen the locking nuts (**1**) at the top of the toggle assemblies.



2. Slide the toggles until they provide even pressure on the media.
3. Tighten the locking nuts.

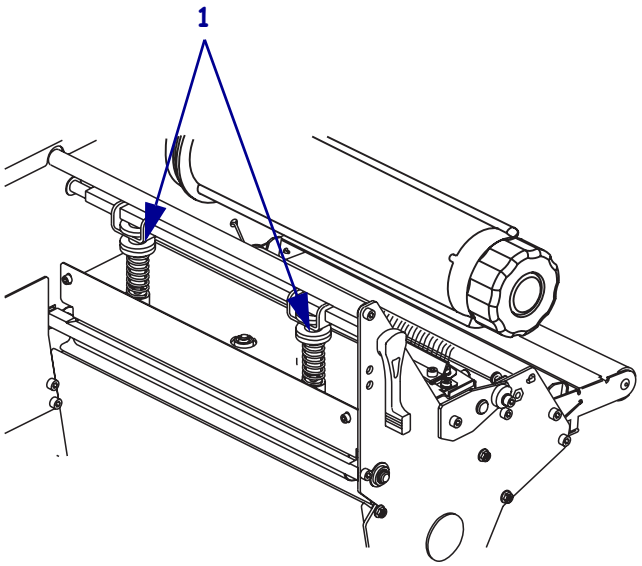
Printhead Pressure Adjustment

If positioning the toggles properly does not solve a print quality problem, try adjusting the printhead pressure. Maximize printhead life by using the lowest pressure that produces the desired print quality.

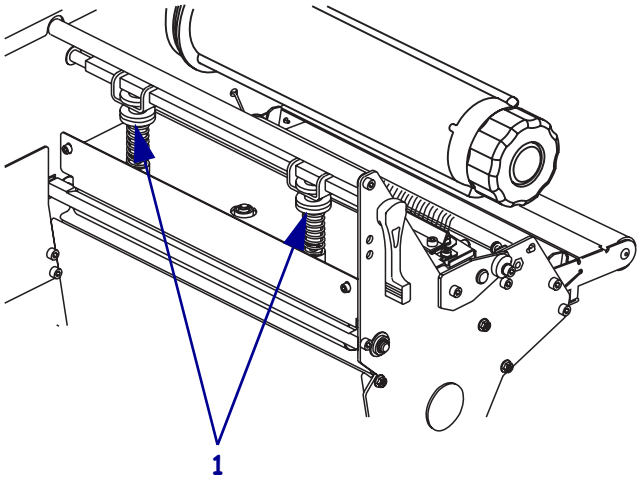
Caution • Observe proper electrostatic safety precautions when handling any static-sensitive components such as circuit boards and printheads.

To adjust printhead pressure, complete these steps:

1. Print some labels at 2.4 in. (61 mm) per second by running the PAUSE Self Test (see the User Guide for instructions).
2. While printing labels, use the control panel controls to lower the darkness setting until the labels are printing gray instead of black.
3. Loosen the upper knurled nuts on the toggle assemblies (1).



4. Some media types require higher pressure to print well. For these media types, increase or decrease pressure using the lower knurled nuts (**1**) until the left and right edges of the printed area are equally dark.



5. Increase the darkness level using the control panel controls until the printing is clear.

6. Tighten the upper knurled nuts.

Cleaning Schedule

Cleaning your printer regularly maintains print quality and may extend the life of the printer. The recommended cleaning schedule is shown in Table 5. See the following pages for specific procedures.

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

Caution • Use only the cleaning agents indicated. Brady is not responsible for damage caused by any other fluids being used on this printer.

Table 5 • Recommended Printer Cleaning Schedule

Area	Method	Interval
Printhead	Solvent*	Perform these procedures at the following times: • When CLEAN HEAD NOW appears. • **Direct Thermal Print Mode:** After every roll of labels or 500 ft (150 m) of fanfold labels. • **Thermal Transfer Print Mode:** After every roll (1500 ft or 450 m) of ribbon.
Platen roller	Solvent*	
Transmissive (media) sensor	Air blow†	
Black mark sensor	Air blow†	
Media path	Solvent*	
Ribbon sensor	Air blow	
Label-available sensors	Air blow	Every 6 months, or as needed
Tear-off/peel-off bar	Solvent*	
Snap plate	Solvent*	As needed
Cutter	Solvent*	

* Brady recommends using Preventive Maintenance Kit (part number PCK-4). In place of this kit, you may use a clean swab dipped in a solution of isopropyl alcohol (minimum 90%) and deionized water (maximum 10%).

† If using canned air, it is recommended that you turn off the printer before cleaning.

Clean the Printhead and Platen Roller

After every roll of ribbon, clean the printhead. Clean the printhead more often if you see inconsistent print quality, such as voids in the bar code or graphics.

For 300 dpi printers Clean after every roll (1500 feet or 450 m) of thermal transfer ribbon or after every roll (500 feet or 150 m) of direct thermal labels or when CLEAN HEAD NOW appears on the LCD.

For 600 dpi printers Clean after each roll (500 feet or 150 m) of labels or when CLEAN HEAD NOW appears on the LCD.

Note • You do not need to turn off the printer before cleaning the printhead. If power is turned off, all label formats and images, as well as any temporarily saved parameter settings stored in the printer's internal memory, are lost. When power is turned back on, these items must be reloaded.

If power is removed from a 600 dpi printer when cleaning the printhead, the CLEAN HEAD NOW warning shown on the LCD will not disappear.

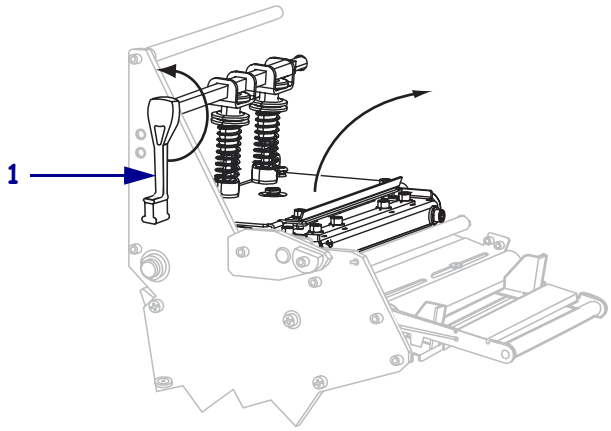
If print quality does not improve after you perform this procedure, clean the printhead with *Save-a-Printhead* cleaning film. This specially coated material removes contamination buildup without damaging the printhead. Call an authorized Brady distributor for more information.

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

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.

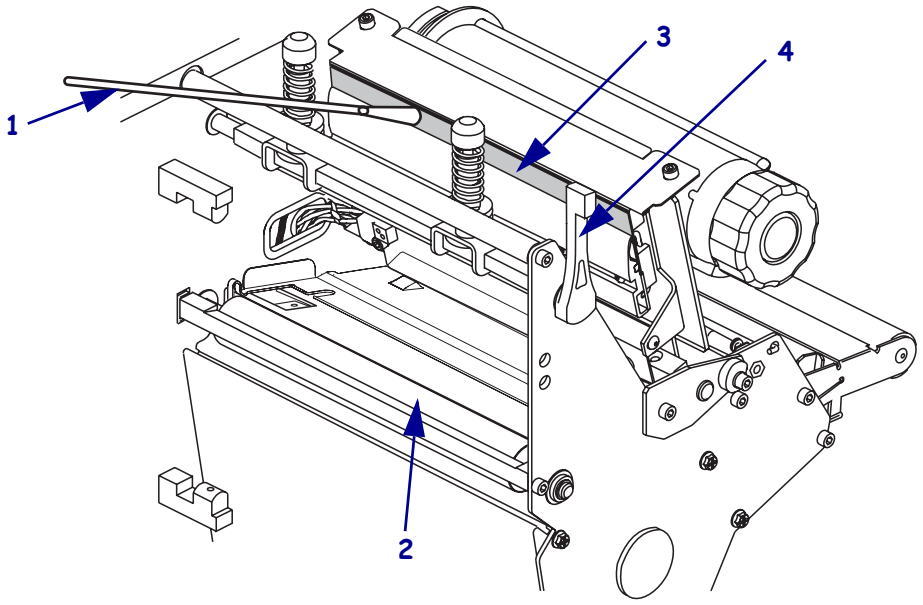
To clean the printhead and platen roller, complete these steps:

1. Open the printhead assembly by rotating the printhead-open lever (**1**) counter-clockwise.



2. Remove the media and ribbon (if loaded).

3. Using the swab from the Preventive Maintenance Kit (part number PCK-4), wipe along the brown strip on the printhead assembly from end to end. In place of the Preventive Maintenance Kit, you may use a clean swab dipped in a solution of isopropyl alcohol (minimum 90%) and deionized water (maximum 10%). Allow the solvent to evaporate.

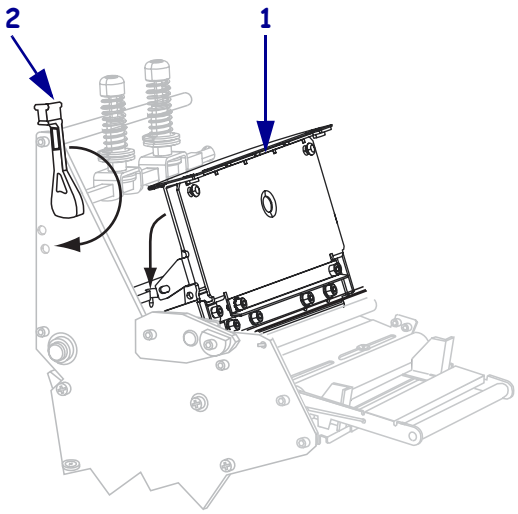


1	Swab
2	Platen roller
3	Printhead print elements
4	Printhead-open lever

4. While manually rotating the platen roller, clean it thoroughly with the swab. Allow the solvent to evaporate.

5. Reload the media and the ribbon (if required).

6. Push down the printhead assembly (**1**), and then rotate the printhead-open lever (**2**) clockwise until it locks into place.



Replace the Fuse (360X-Plus II Only)

The instructions that follow are for the 360X-Plus II series printers only. The 300X-Plus II and 600X-Plus II fuses are not user-replaceable.

Caution • Turn the AC power switch Off (**O**) and remove the power cord before performing this procedure.

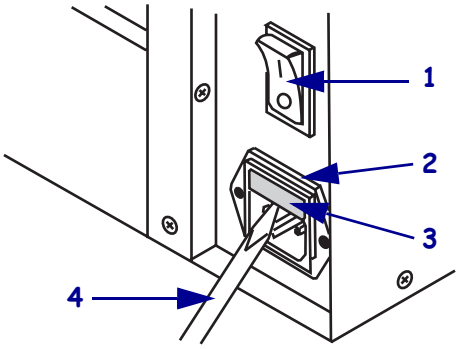
The printer uses a metric-style fuse (5 × 20 mm IEC) rated at F5A, 250 V. The AC power entry module comes with two approved fuses in the fuse holder: one is in-circuit, and the second is provided as a spare. The end caps of the fuse must bear the certification mark of a known international safety organization (see Figure 7 on page 11).

To replace a faulty fuse, complete these steps:

1. Use a small-blade screwdriver or similar tool to remove the fuse holder.

   The fuse holder is part of the AC power entry module at the rear of the printer (Figure 13).

Figure 13 • AC Power Entry Module

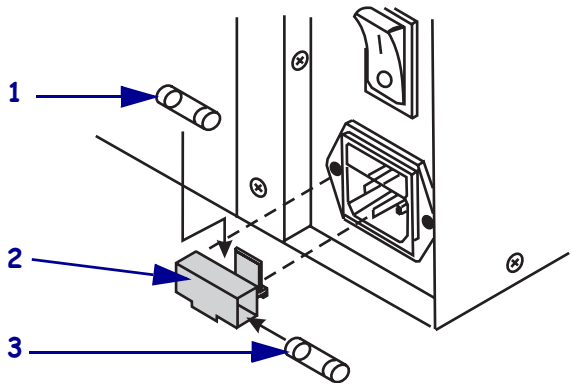


1	Power switch
2	Fuse holder
3	AC power entry module
4	Small-blade screwdriver

2. Remove the faulty fuse and install a new fuse in the in-circuit position (Figure 14).

Important • If you use the spare fuse, be sure to order a replacement fuse from an authorized Brady distributor. The spare fuse should be the exact type and rating as the original in-circuit fuse.

Figure 14 • Fuse Locations



1	In-circuit fuse
2	Fuse holder
3	Spare fuse

3. Snap the fuse holder back into the AC power entry module.
4. Reconnect the power cord, and turn the printer On (**I**).

Note • If the printer does not power on, an internal component failure may have occurred, and the printer requires servicing by an authorized service technician.

Notes • _____

_____

_____

_____

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_____

_____

_____

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