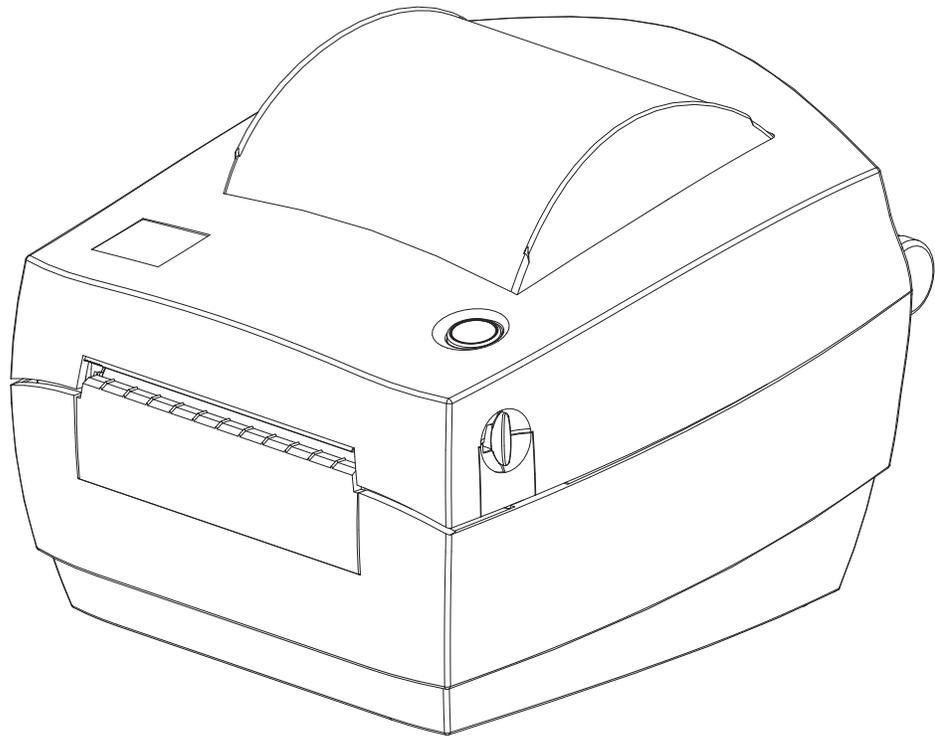


# ZD120

## Direct Thermal Printers



## User Guide



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### Publication Date

September 2019

# About

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## Introduction

This guide provides information about using the Zebra product and accessories, if applicable. Use this guide to install, operate, and physically support these printers.



**Important** • If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: [zebra.com/support](https://zebra.com/support).

### Other Online resources are available to support this printer include:

- “How To” videos
- ZD120 Product page links for printer specifications
- Printer supplies, parts, and software links
- Label Design Software
- Windows Printer Drivers
- Printer Firmware
- Knowledge base and support contacts
- Printer warranty and repair links

Use these links to get to your Online printer support resources:

- ZD120 Label Printer — [www.zebra.com/zd120-info](https://www.zebra.com/zd120-info)

## Zebra OneCare Printer Service and Support

For maximum productivity, we can help your business ensure its Zebra printers are Online and ready for business. See the descriptions of the Zebra OneCare service and support options available for your printers Online at this link: [www.zebra.com/zebraonecare](http://www.zebra.com/zebraonecare)

### Service Information

If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: [zebra.com/support](http://zebra.com/support).

When contacting support, please have the following information available:

- Serial number of the unit
- Model number or product name
- Software type and version number.

Zebra responds to calls by email, telephone or fax within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

---

## Document Conventions

The following graphic icons are used throughout the documentation set. These icons and their associated meanings are described below.



**Caution** • If the precaution is not heeded, the user could receive minor or moderate injury.



**Eye Injury Caution** • If the precaution is not taken, the user's eyes could be damaged. **EXAMPLE:** Wear protective eyewear when installing or removing E-rings, C-clips, snap rings, springs, and mounting buttons. These are under tension and could fly off.



**Electrical Shock Caution** • If the precaution is not taken, the user could receive an electrical shock. **EXAMPLE:** Turn OFF the printer and disconnect it from the power source before performing the following procedure.



**Hot Surface Caution** • If the precaution is not taken, the user could be burned. **EXAMPLE:** The printhead may be hot and could cause severe burns. Allow the printhead to cool.



**Product Damage Caution** • If the precaution is not taken, the product could be damaged. **EXAMPLE:** Unplugging the computer without properly shutting it down may corrupt the data on your hard drive.



**ESD Caution** • If the precaution is not taken, the product electronics could be damaged by an electrostatic discharge. **EXAMPLE:** Observe proper electrostatic safety precautions when handling static-sensitive components such as circuit boards and printhead.



**Important** • The text here indicates information that is important for the user to know. **EXAMPLE:** Run the setup.exe file for the product BEFORE connecting the product to your printer.



**Note** • The text here indicates information that is supplemental for the user to know and that is not required to complete a task. **EXAMPLE:** Refer to [zebra.com](http://zebra.com) for complete information on product warranties.

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# Introduction

This section describes what you get in your shipping box and provides an overview of printer features. This includes procedures that describe how to open and close the printer and report any problems.

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## ZD120 Direct Thermal Label Printers

The Zebra® ZD120 model is an entry level 102 mm (4 inch) desktop thermal label printers. The printers are designed to print from the ZebraDesigner drivers and label design software for personal computers running Microsoft operating systems.

The ZD120 printer features:

- The printers support print speeds\* up to 152.4 mm/s (millimeters per second or 6 ips - inches per second).
- OpenAccess™ design for simplified media loading.
- Color-coded operator controls and media guides.
- Easy printer operation with a single button and status light.
- ZebraDesigner Label Design Software and Printer Drivers for Windows Operating Systems.
- Supports die cut labels with widths from 50.8 mm to 102 mm (2 to 4 inches), see [Supported Print Media](#)
- Print Resolution - 8 dots per millimeter (or 203 dpi - dots per inch).

This user's guide provides all the information you need to operate your printer on a daily basis.

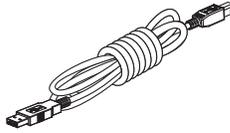
Your printer, when connected to a host computer, functions as a complete system for printing labels.

## What's in the Box?

Save the carton and all packing materials in case you need to ship or store the printer later. After unpacking, make sure you have all parts. Follow the procedures for inspecting the printer to familiarize yourself with printer parts so you can follow the instructions in this book.

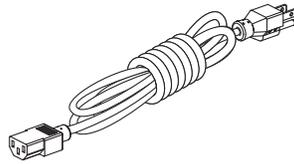
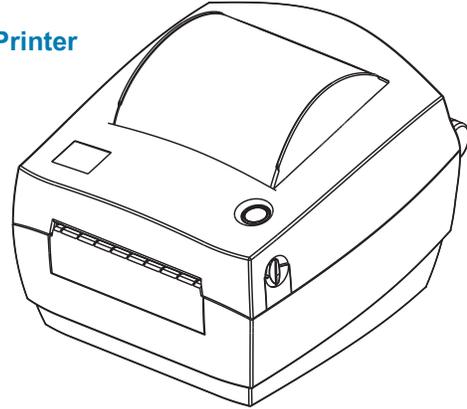


Documentation

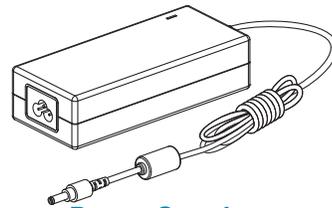


USB Cable

Printer



Power Cords varies by locale or region.  
Some come attached to the power supply.



Power Supply

## Unpack and Inspect the Printer

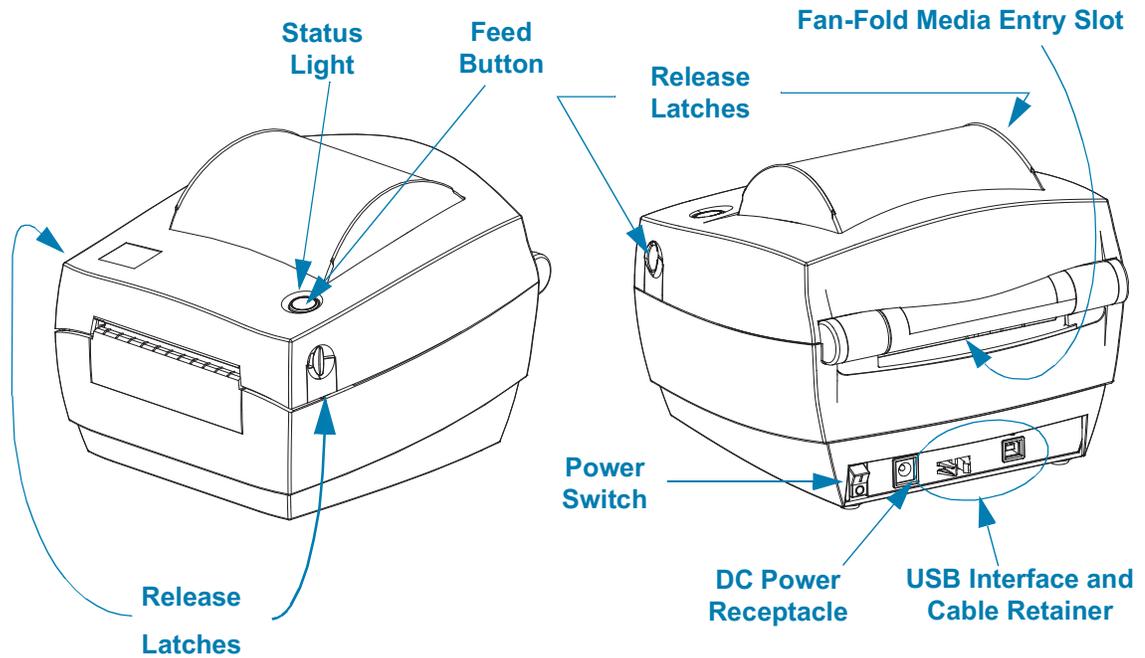
When you receive the printer, immediately unpack it and inspect for shipping damage.

- Save all packing materials.
- Check all exterior surfaces for damage.
- Open the printer and inspect the media compartment for damage to components.

If you discover shipping damage upon inspection:

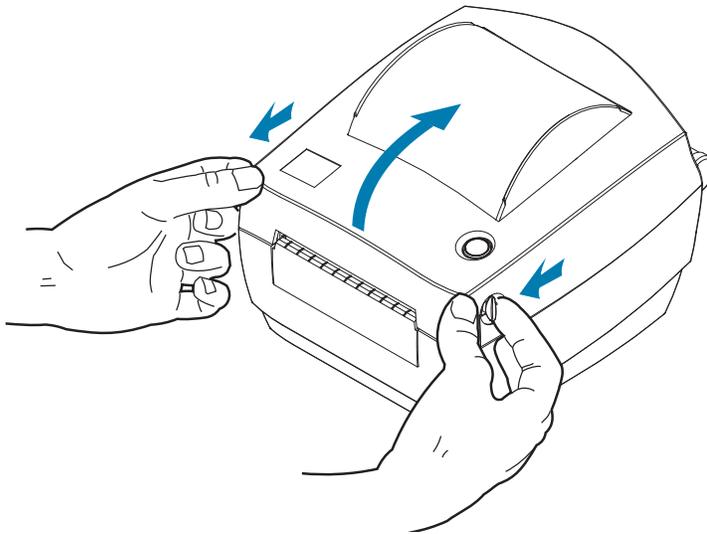
- Immediately notify the shipping company and file a damage report. Zebra Technologies Corporation is not responsible for any damage to the printer incurred during shipment, and will not cover the repair of this damage under its warranty policy.
- Keep all packaging material for shipping company inspection.
- Notify your authorized Zebra<sup>®</sup> reseller.

## Your Printer



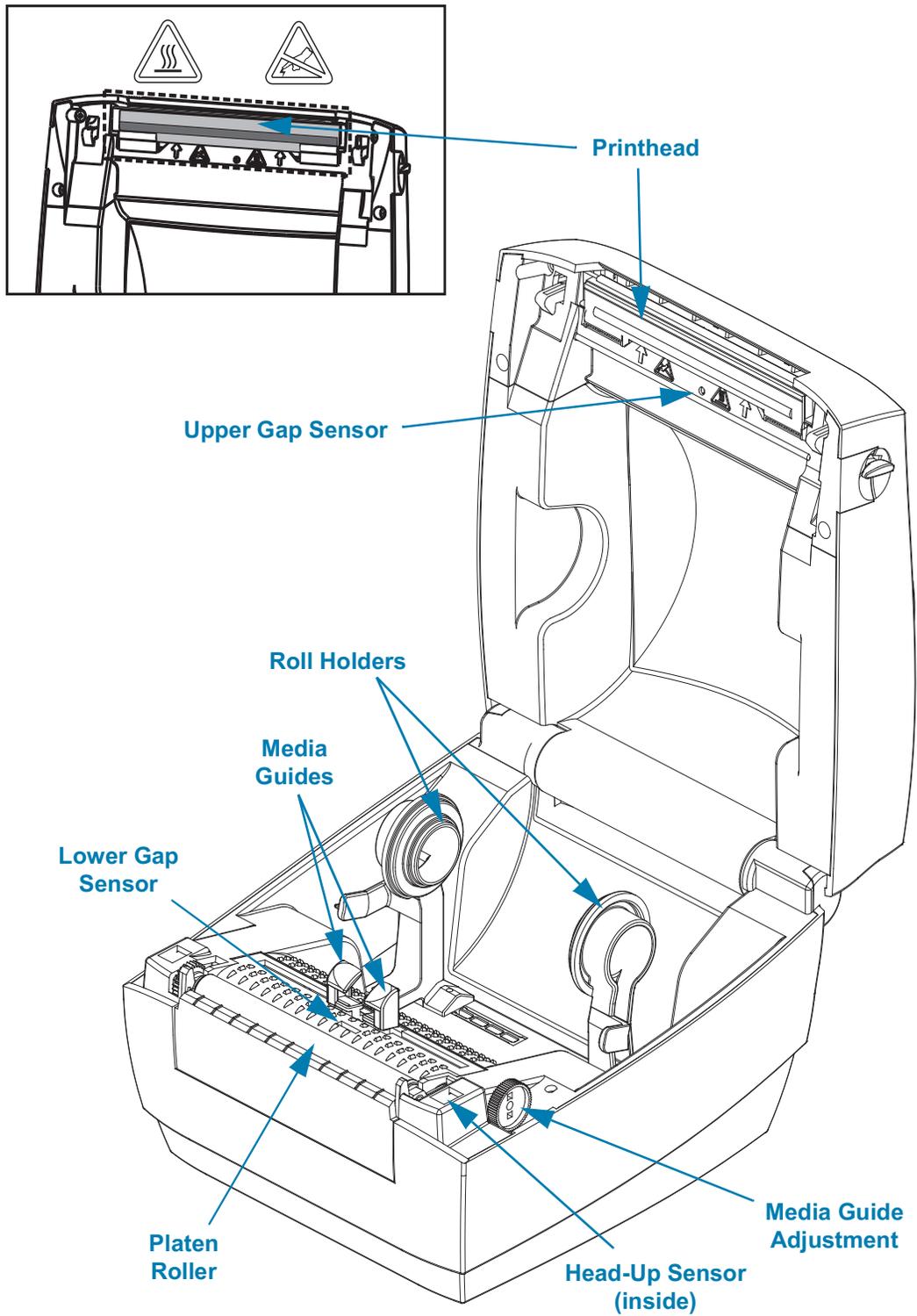
## Opening the printer

To access the media compartment, you must open the printer. Pull the release latches towards you and lift the cover. Check the media compartment for loose or damaged components.



**ESD Caution** • The discharge of electrostatic energy that accumulates on the surface of the human body or other surfaces can damage or destroy the printhead or electronic components used in this device. You must observe static-safe procedures when working with the printhead or the electronic components under the top cover.

## Printer Features



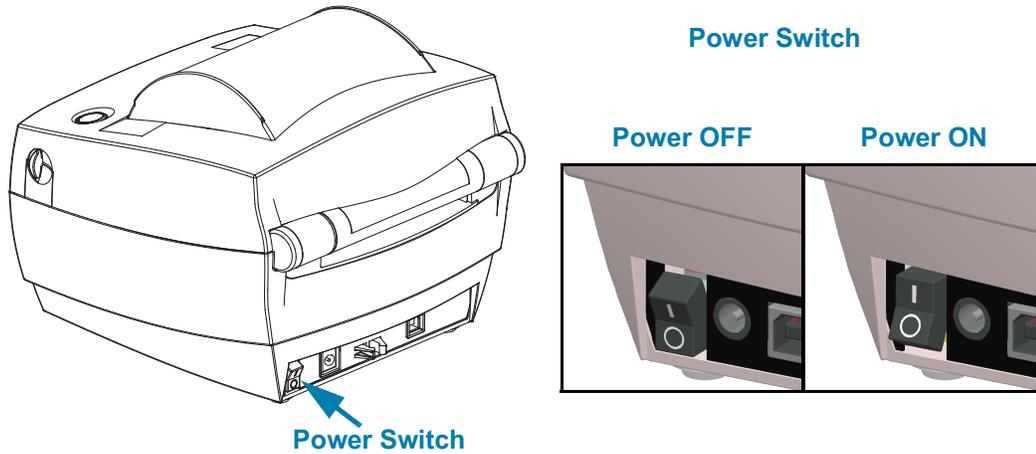
## Operator Controls

### Power Switch

- Press up to turn **ON** or down to turn **OFF** the printer.



**Product Damage Caution** • The printer power should be turned off before connecting or disconnecting the communications and power cables.

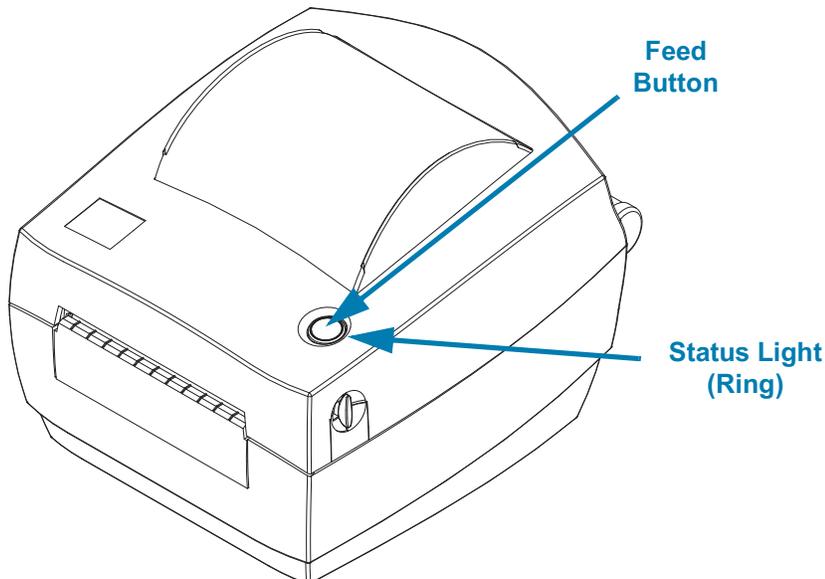


### Feed Button

- Tap the Feed button once to force the printer to feed one blank label.
- Press the Feed button to take the printer out of a "pause" condition. The printer is put into "pause" by either a programming command or an error condition.
- Press and hold the Feed button until the LED ring flashes once and release to print a Configuration Printout.

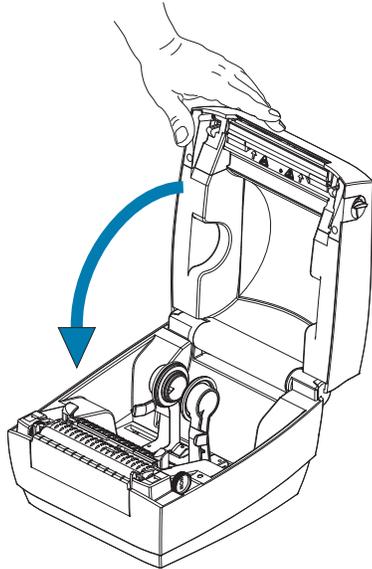
### Status Light

- Located on the top case next to the Feed button, the status light functions as a printer operational indicator (see [Status Light Descriptions](#)).

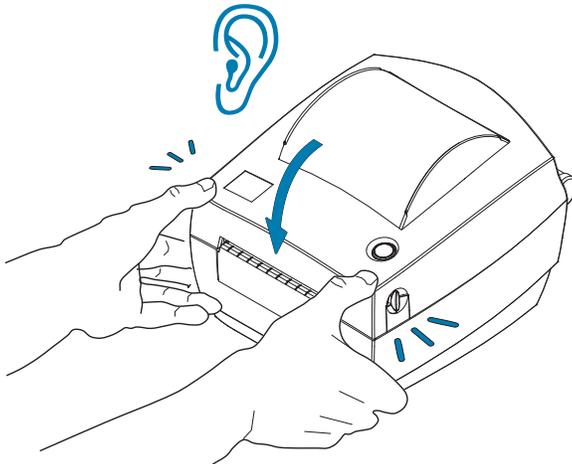


## Closing the printer

1. Lower the top cover.



2. Press down until the cover snaps closed.



# Getting Started

This section describes how to set up your printer for the first time and use the most common operating procedures for loading media.

## Attaching Power

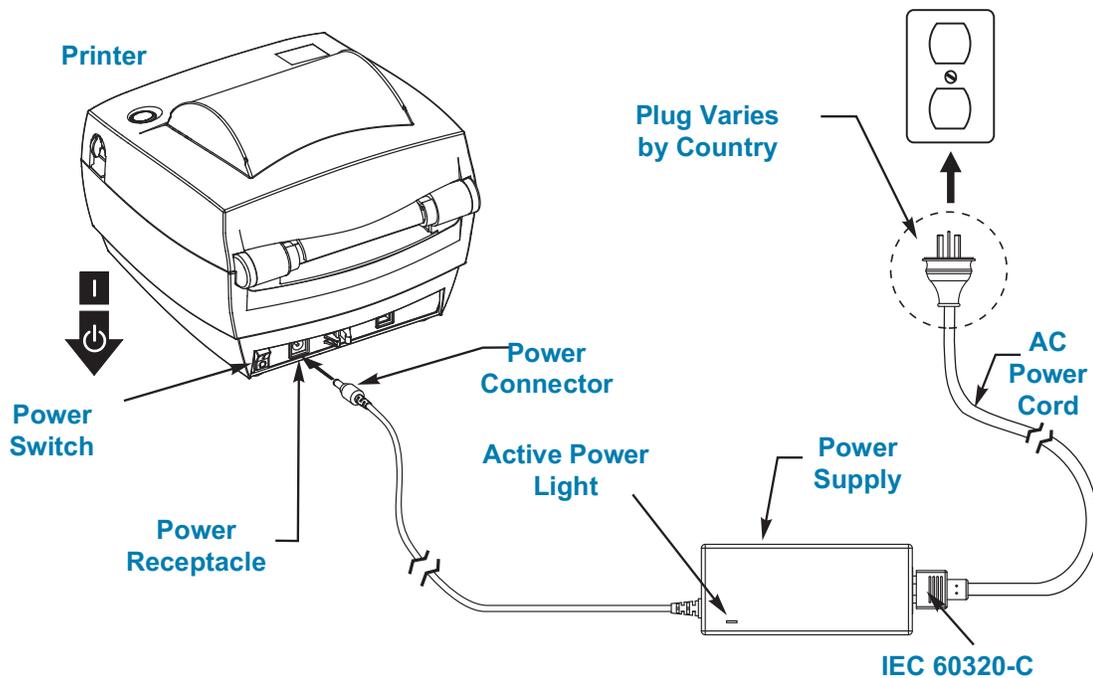


**Caution** • Never operate the printer and power supply in an area where they can get wet. Serious personal injury could result.



**Note** • Set up your printer so that you can handle the power cord easily if needed. Some processes for setup or troubleshooting issues may ask you to remove power. Separate the power cord from the power supply receptacle or AC electrical outlet to make certain the printer cannot carry electrical current.

1. Plug the power supply into the printer's DC power receptacle.
2. Insert the AC power cord into the power supply. Some locales have the power cord pre-attached.
3. Plug the other end of the AC power cord into an appropriate AC electrical outlet. Please note that AC outlet end of the power cord's plug type can vary by region.
4. The active power light on the power supply will illuminate green if power is on at the AC outlet.



**Important** • Ensure the appropriate power cord with a three (3) prong plug and an IEC 60320-C13 connector are used at all times. These power cords must bear the relevant certification mark of the country in which the product is being used.

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## Loading Roll Media

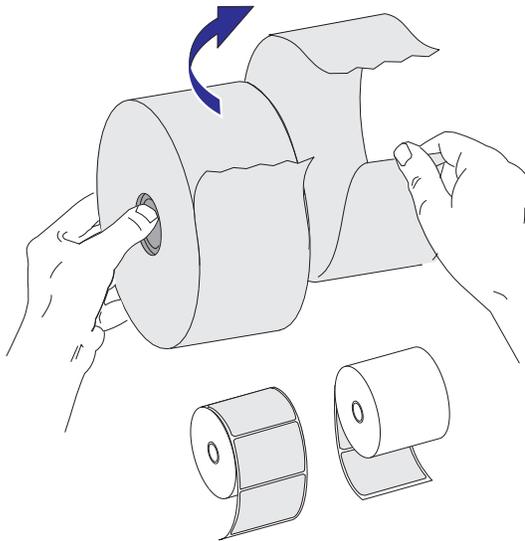
When you load media, you must place the roll onto the media hangers.

You must use the correct media for the type of printing you require.

## Preparing Media

Whether your roll media is inside or outside wound, you load it into the printer the same way.

- Remove the outside length of media. During shipment, handling, or storage, the roll may become dirty or dusty. Removing the outside length of media avoids dragging adhesive or dirty media between the printhead and platen.



## Thermal Printing



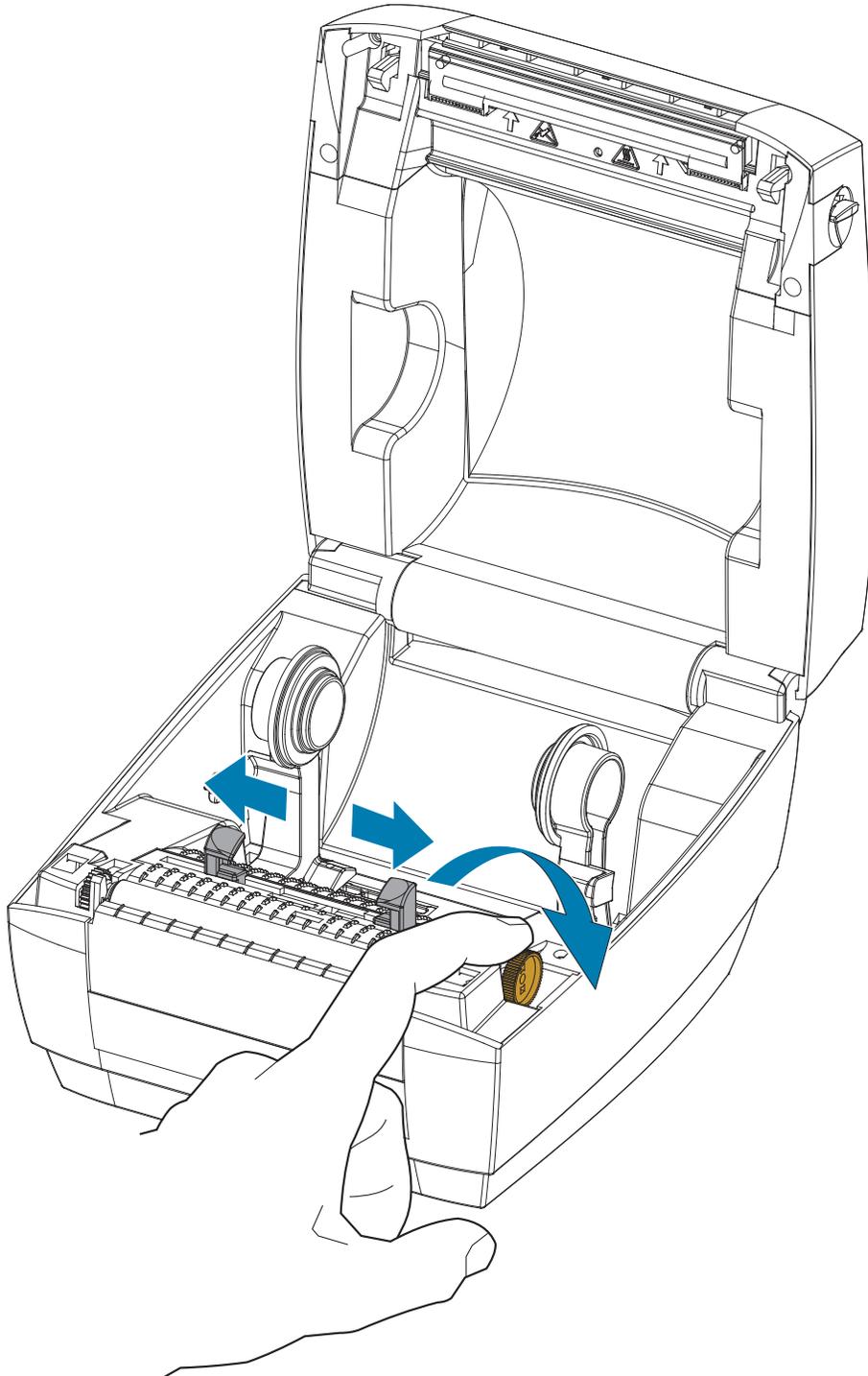
**Caution** • The printhead becomes hot while printing. To protect from damaging the printhead and risk of personal injury, avoid touching the printhead. Only use the cleaning pen to perform printhead maintenance.



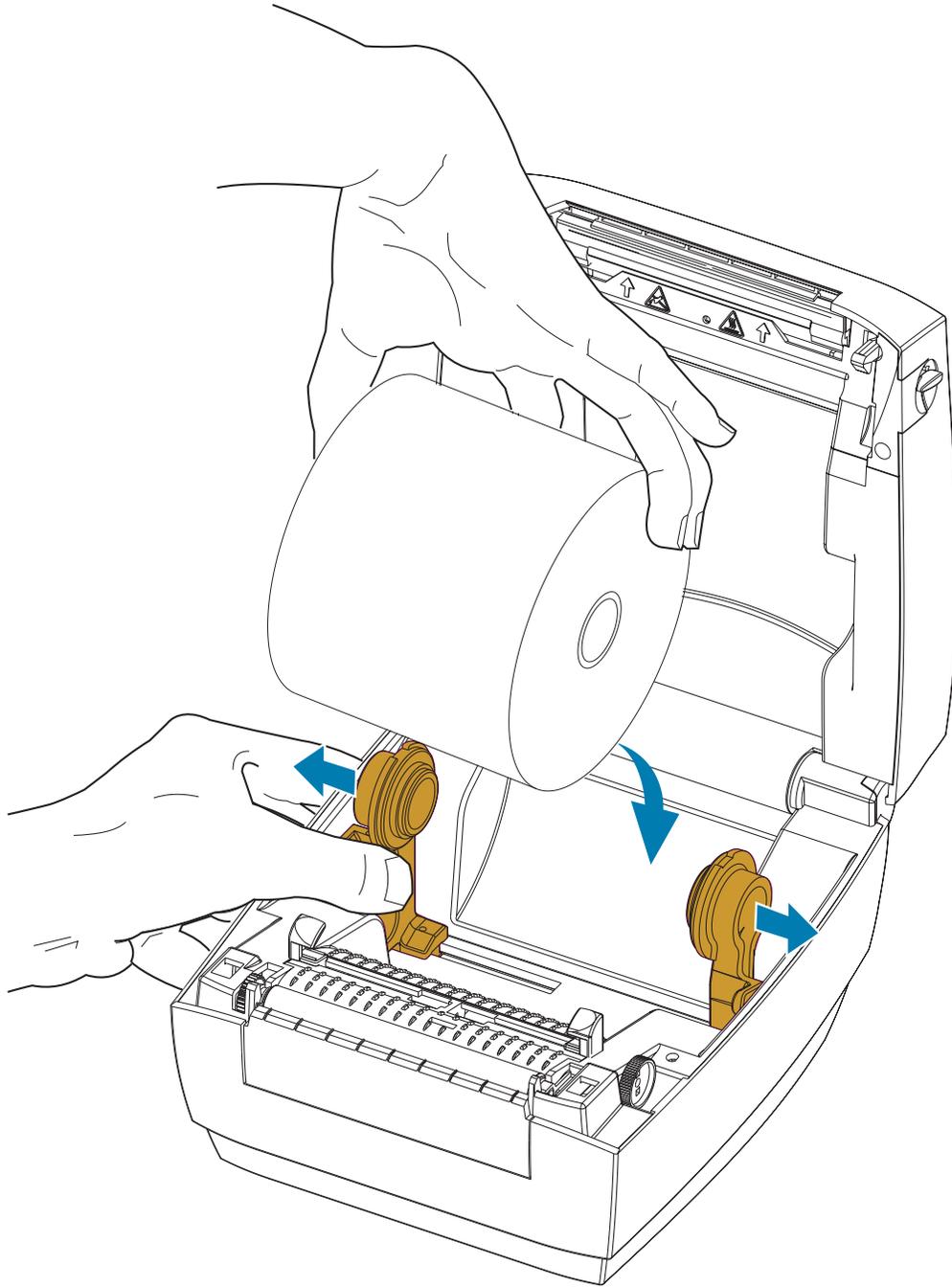
**ESD Caution** • The discharge of electrostatic energy that accumulates on the surface of the human body or other surfaces can damage or destroy the printhead or electronic components used in this device. You must observe static-safe procedures when working with the printhead or the electronic components under the top cover.

## Placing the Roll in the Media Compartment

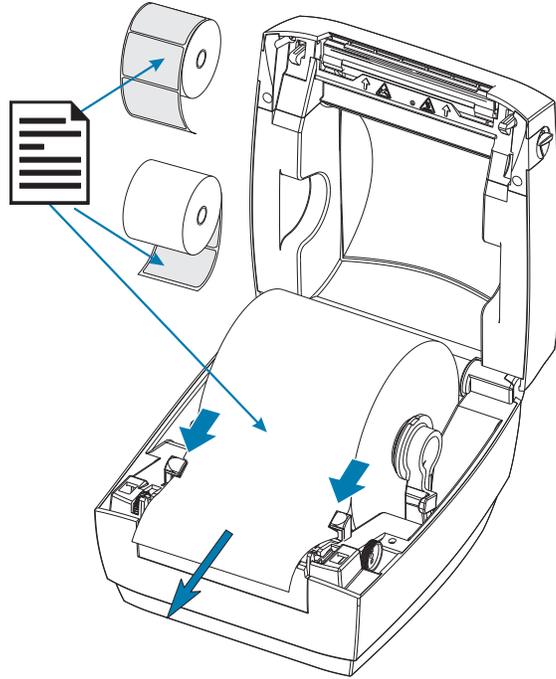
1. Open the printer. Remember that you need to pull the release latch levers toward the front of the printer.
2. Open the media guides by turning the media guide adjustment knob toward the rear of the printer.



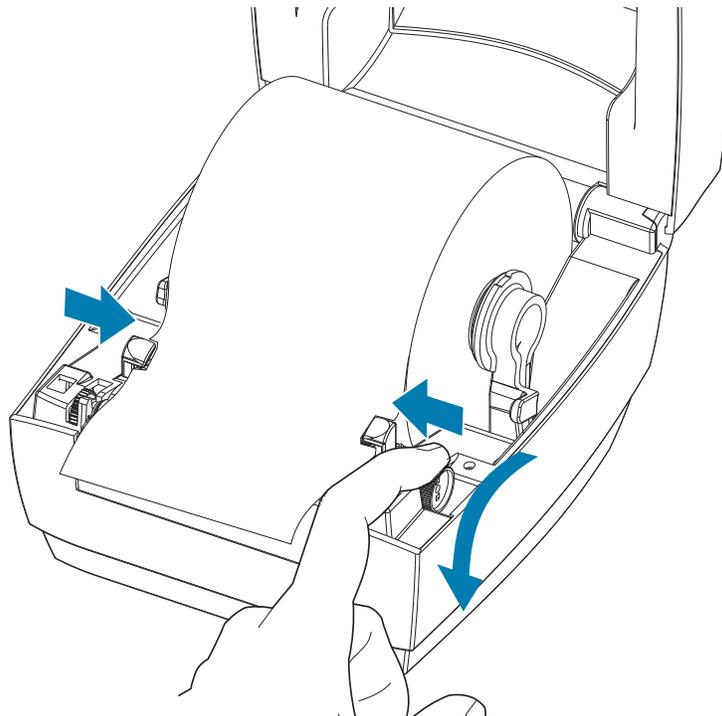
3. Pull the media roll holders open with your free hand and place the media roll on the roll holders and release. Orient the media roll so that its printing surface will face up as it passes over the platen (drive) roller.



4. Pull the media so that it extends out of the front of the printer. Thread the media under the media guides. Verify the roll turns freely. The roll must not sit in the bottom of the media compartment. Verify that the media's printing surface is facing up.



5. Close the media guides by turning the guide adjuster knob to the front. They should just touch, but not restrict, the edges of the media.



6. Close the printer. Press down until the cover snaps closed.

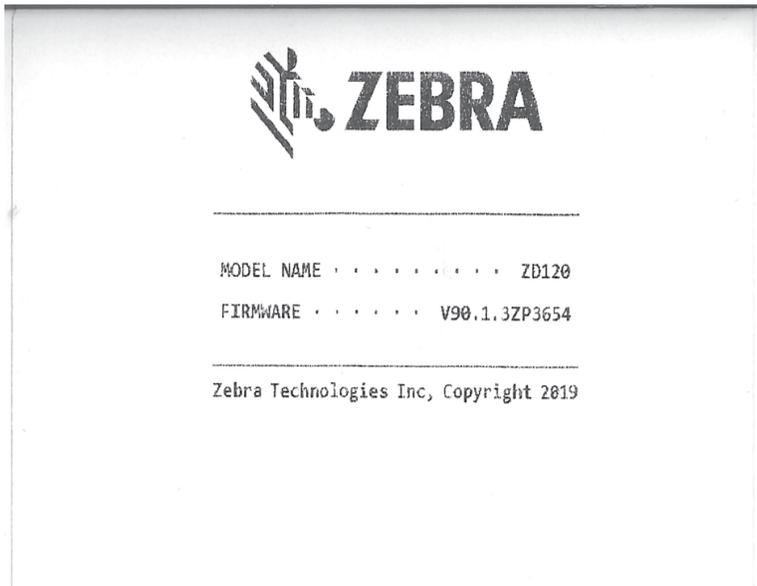
## Printing a Test (Printer Configuration) Label

**Before you connect the printer to your computer**, make sure that the printer is in proper working order.

You can do this by printing a configuration status label.

1. Make sure the media is properly loaded and the top cover of the printer is closed. Then, turn the printer power on if you have not already done so. If the printer initializes with the status light blinking green (pause mode), press the Feed button once to set the printer in Ready (to print) mode. See the [Troubleshooting](#) if the printer's status light does not turn solid green (Ready).
2. Press the Feed button two to three times to allow the printer to calibrate the printer for the installed media. The printer may feed several labels during this process.
3. When the status light is solid green, press and hold the Feed button until the status light flashes once.
4. Release the Feed button. A configuration label will print.

If you cannot get this label to print, refer to [Troubleshooting](#).



---

## Connecting your Printer to a Computer

The printer supports the Universal Serial Bus (USB) interface. The printer is a terminal device (not a host or hub) when using a USB interface. You can refer to the USB Specification for details regarding this interface.



**Product Damage Caution** • The printer power should be turned off before connecting or disconnecting the communications and power cables.

### Interface Cable Requirements

Data cables must be of fully shielded construction and fitted with metal or metalized connector shells. Shielded cables and connectors are required to prevent radiation and reception of electrical noise.

To minimize electrical noise pickup in the cable:

- Keep data cables as short as possible (6 foot [1.83 m] recommended).
- Do not tightly bundle the data cables with power cords.
- Do not tie the data cables to power wire conduits.



**Important** • This printer complies with FCC “Rules and Regulations,” Part 15, for Class B Equipment, using fully shielded data cables. Use of unshielded cables may increase radiated emissions above the Class B limits.



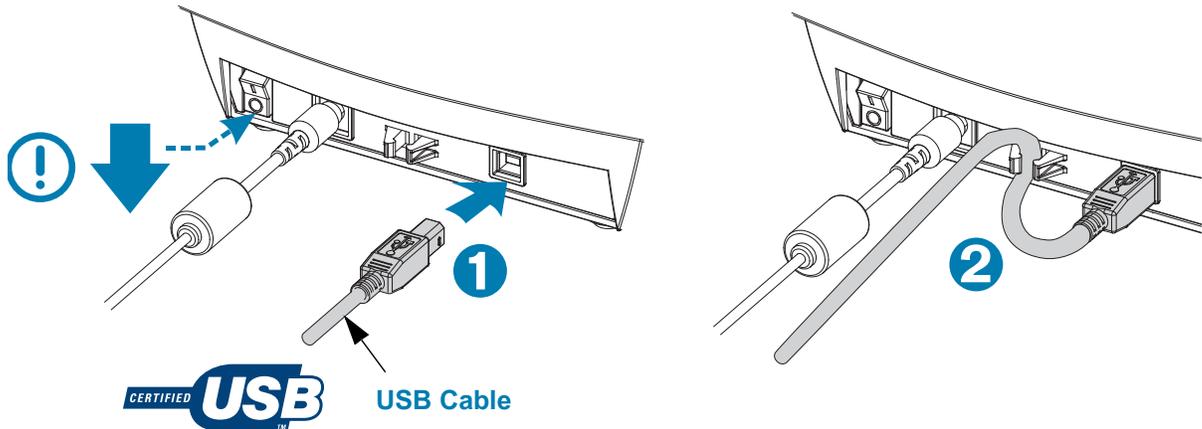
**Caution** • Never operate the printer and power supply in an area where they can get wet. Serious personal injury could result!



**Note** • Set up your printer so that you can handle the power cord easily if needed. Some processes for setup or troubleshooting issues may ask you to remove power. Separate the power cord from the power supply receptacle or AC electrical outlet to make certain the printer cannot carry electrical current.

## USB Interface Connection

Universal Serial Bus (version 2.0 compliant) provides a fast interface that is compatible with your existing PC hardware. USB's "plug and play" design makes installation easy. Multiple printers can share a single USB port/hub. When using a USB cable (not supplied with your printer), verify that the cable or cable packaging bears the "Certified USB™" mark (see below) to guarantee USB 2.0 compliance.



---

## Install ZebraDesigner Label Design and Print Software

This printer needs the ZebraDesigner software (and driver) for Windows to print labels with barcodes developed to print label format on your printer.

Download and install the Windows Driver and then ZebraDesigner Software for your printer model from the printer's support web page:

<http://www.zebra.com/zd120-info>

### After the Windows driver install has been started

1. Turn the printer ON to activate the USB interface when instructed by the driver installer. The PC begins the Windows driver install and link it to the printer's USB port.

### After ZebraDesigner has been Installed

2. ZebraDesigner will check for the newly installed ZD120 printer and its driver before the software will load on your Windows PC.
3. Open the ZebraDesigner version for the printer model.

# Print Operations

This section provides media and print handling, font and language support, and the setup of less common printer configurations.

## Long Term Printer In-activity or Storage

Overtime the printhead may stick to the platen (drive) roller. To prevent this, always store the printer with a piece of media (a label or paper) between the printhead and platen roller. Do not ship the printer with a roll of media installed or damage to the printer or media may result.

## Supported Print Media

This printer is designed to print on label rolls or fan-fold media ranging in size from 50.8 mm to 102 mm (2 inches to 4 inches) wide. The labels must be on liner backing (web) and have a at least 3 mm gap between the labels for optimal operation. The printers label gap default is set a little more than the 3 mm and adjusts to any differences in gap distance from roll to roll and label to label.

- The media width (including web) is 86mm - 107mm (2.0" - 4.21") including the roll core and media backing (or web).
- Direct Thermal Media only
- Maximum media length shall be 9" (228.6mm)
- Minimum media length shall be Tear - 1" (25.4mm)
- Inner core diameters shall be 1" (25.4mm) to 1.57" (40mm)
- Maximum media roll outside diameter shall be 5.00" (127mm)
- Media Thickness shall be 0.0055" (0.014 mm) - 0.007" (0.018 mm)
- Media Sensing: Gap, no support for black mark or black line detection
- Media Types: Roll-fed or fan-fold, die cut direct thermal labels. There is no support for tags, continuous media (receipt) or labels without gaps between labels.
- The printer typically uses roll media, but you can also use fan-fold.



**Important** • Zebra strongly recommends the use of Zebra-brand supplies for continuous high-quality printing. A wide range of label materials have been specifically engineered to enhance the printing capabilities of the printer and to prevent premature printhead wear. To purchase supplies, go to <http://www.zebra.com/supplies>

## Determining Thermal Media Types

Your printer only supports direct thermal. Some thermal printers require transfer ribbon (ink) for printing while direct thermal media does not. To determine if a particular media is direct thermal media, perform a media scratch test.

**To perform a media scratch test, complete these steps:**

1. Scratch the print surface of the media with a finger nail or pen cap. Press firmly and quickly while dragging it across the media surface. Direct thermal media is chemically treated to print (expose) when heat is applied. This test method uses friction heat to expose the media.
2. Did a black mark appear on the media?

If a black mark...	Then the media is...
Does not appear on the media	<b>Thermal transfer.</b> A ribbon is required. Your printer does not support this media.
Appears on the media	<b>Direct thermal.</b> No ribbon is required.

## Replacing Supplies

If labels run out while printing, leave the printer power on while reloading (data loss results if you turn off the printer). After you re-load media, press the Feed button to restart.

Always use high quality, approved labels. If adhesive backed labels are used that don't lay flat on the backing liner, the exposed edges may stick to the label guides and rollers inside the printer, causing the label to peel off from the liner and jam the printer.

---

## Adjusting the Print Quality

Print quality is influenced by the heat (density) setting of the printhead, the print speed, and the media in use. Experiment with these settings to find the optimal mix for your application.



**Note** • Media manufactures may have specific recommendations for speed settings for your printer and the media. Some media types may have lower maximum speeds than your printer's maximum speed.

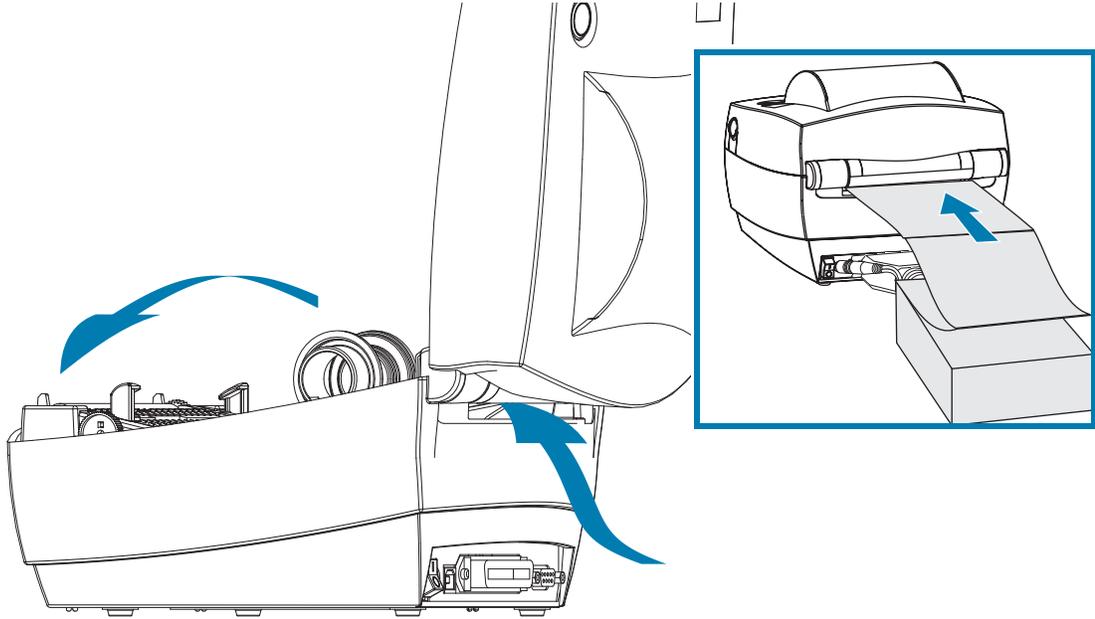
If you find that the print speed or darkness needs to be adjusted, use:

- The Windows printer driver or application software such as ZebraDesigner™.
- The printer does not save any settings.

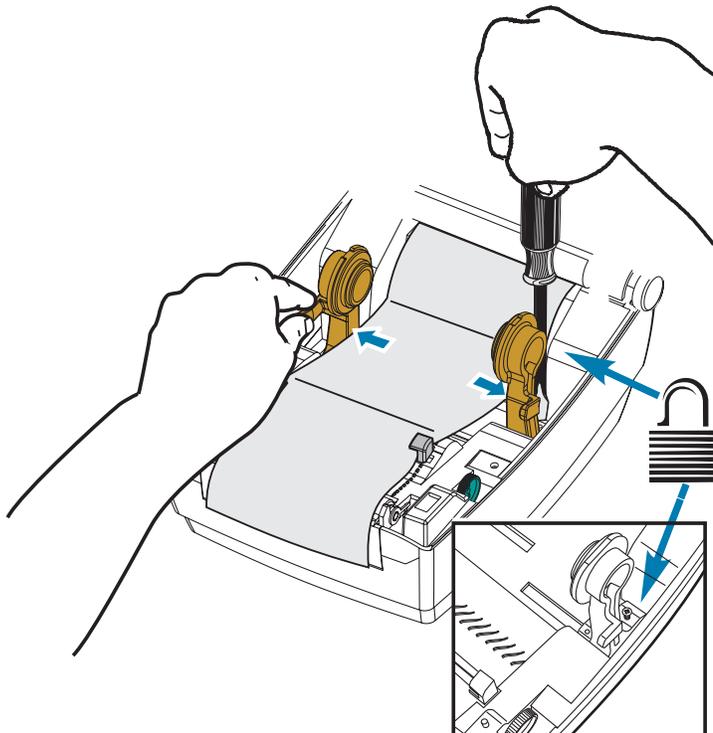
## Printing on Fan-Fold Media

Printing on fan-fold media requires you to adjust the media roll holders' stop position.

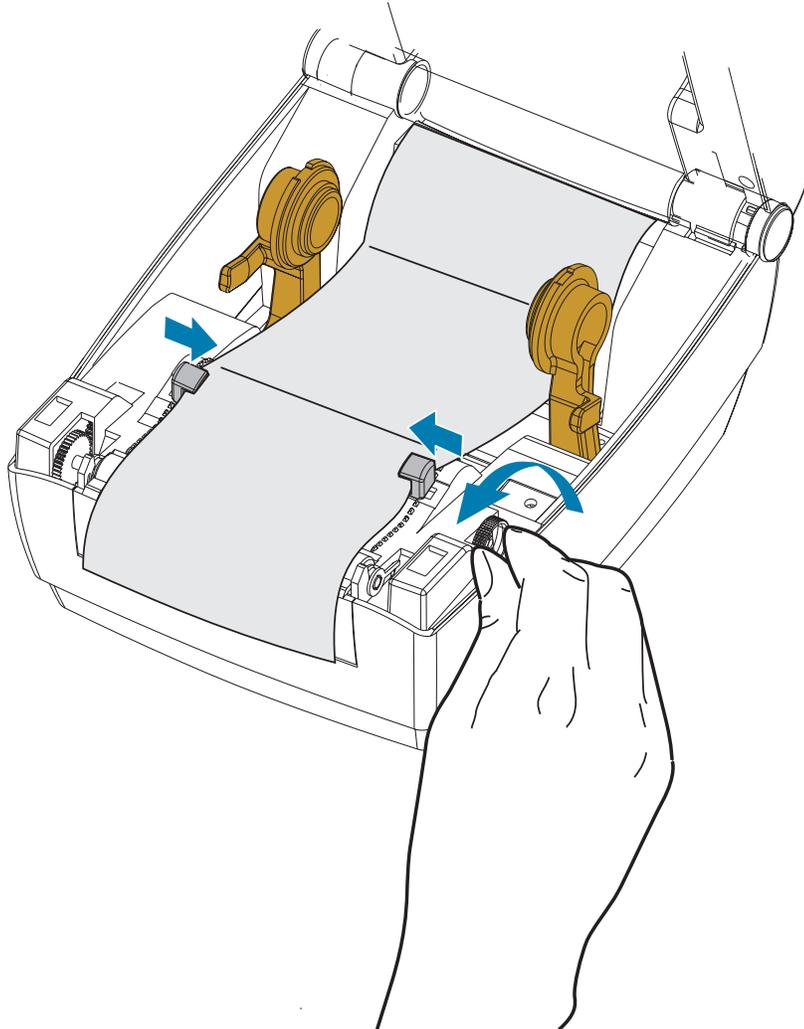
1. Open the top cover.



With a sample of your media, adjust the media roll holders to the width of the media. The hangers should just touch, but not restrict, the edges of the media. Tighten the screw using a small Phillips driver #1.



2. With a sample of your media, adjust the guides to the width of the media. The guides should just touch, but not restrict, the edges of the media.



3. Pull the media between the media guide and roll holders and out past the front of the printer.
4. Close the top cover.
5. **After printing or feeding several labels:** If the media does not track down the center (moves from side to side) or the sides of the media (liner, tag, paper, etc.) are frayed or damaged when exiting the printer, then the media guides or roll holders may need further adjustment.

---

## Printing with Externally Mounted Roll Media

The printer accommodates externally mounted roll media similar to the printer's support of fan-fold media. The printer requires the media roll and stand combination to have a low initial inertia to pull the media off the roll.

Zebra does not offer an external media holder option for the printer at this time.

### **Externally Mounted Roll Media Considerations:**

- The media ideally should enter the printer directly behind the printer through the fan-fold media slot in the rear of the printer. See [Printing on Fan-Fold Media](#) for media loading.
- Lower the print speed to decrease the chance of motor stalls. The roll typically has the highest inertia when trying to start the roll moving. Larger media roll diameters require the printer to have more torque applied to get the roll moving.
- The media should move smoothly and freely. The media should not slip, skip, jerk, bind and then move, etc. when mounted on your media stand.
- The printer should not touch the media roll.
- The printer should not slip or lift up off the operating surface.

# Maintenance

This section provides routine cleaning and maintenance procedures.

---

## Cleaning

When you clean the printer, use one of the following supplies that best suits your needs:

Cleaning Supplies	Quantity	Intended Purpose
Cleaning pens (105950-035)	Set of 12	Clean printhead
Cleaning swabs (105909-057)	Set of 25	Clean media path, guides and sensors

You can obtain cleaning supplies at: [www.zebra.com/parts](http://www.zebra.com/parts)

The cleaning process takes just a couple of minutes using the steps outlined below.

Area	Method	Interval
Printhead	Let the printhead to cool for a minute, then use a new cleaning pen to swab the dark line on the printhead. See <a href="#">Cleaning the Printhead</a>	After every roll of media.
Platen Roller	Remove the platen roller to clean. Clean the roller with 99% medical-grade alcohol and a cleaning swabs or lint-free cloth. See <a href="#">Platen Cleaning and Replacement</a>	As needed.
Media Path	Clean with 99% medical-grade alcohol and a fiber-free cleaning swab. See <a href="#">Media Path Cleaning Considerations</a>	
Exterior	Water-dampened cloth.	
Interior	Gently brush out printer.	



**Important** • Adhesives and media material can over time transfer onto the printer components along the media path including the platen and printhead. This build-up can accumulate dust and debris. Failure to clean the printhead, media path and platen roller could result in inadvertent loss of labels, label jams and possible damage to the printer.



**Important** • Using too much alcohol can result in contamination of the electronic components requiring a much longer drying time before the printer will function properly.

## Cleaning the Printhead

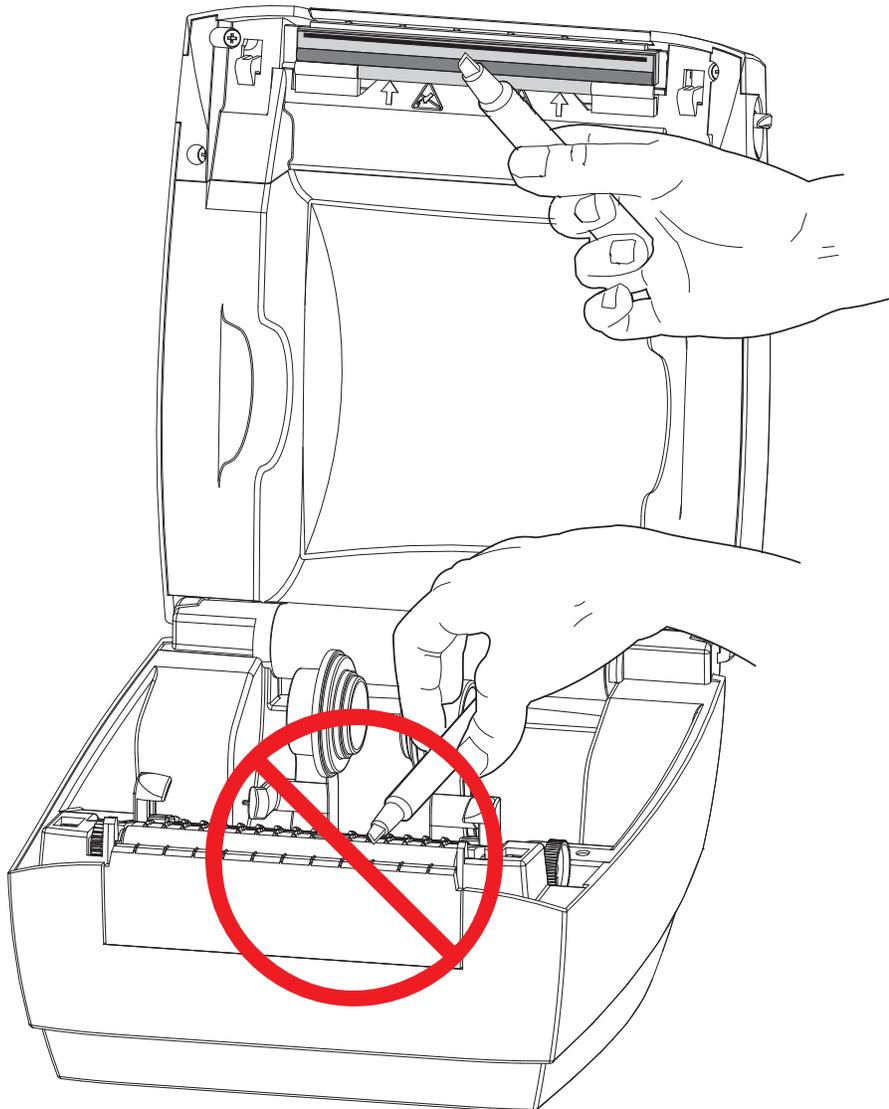
Always use a new cleaning pen on the printhead (an old pen carries contaminants from its previous uses that may damage the printhead).



**Caution** • The printhead becomes hot while printing. To protect from damaging the printhead and risk of personal injury, avoid touching the printhead. Only use the cleaning pen to perform printhead maintenance.

When you load new media, you can also clean the printhead.

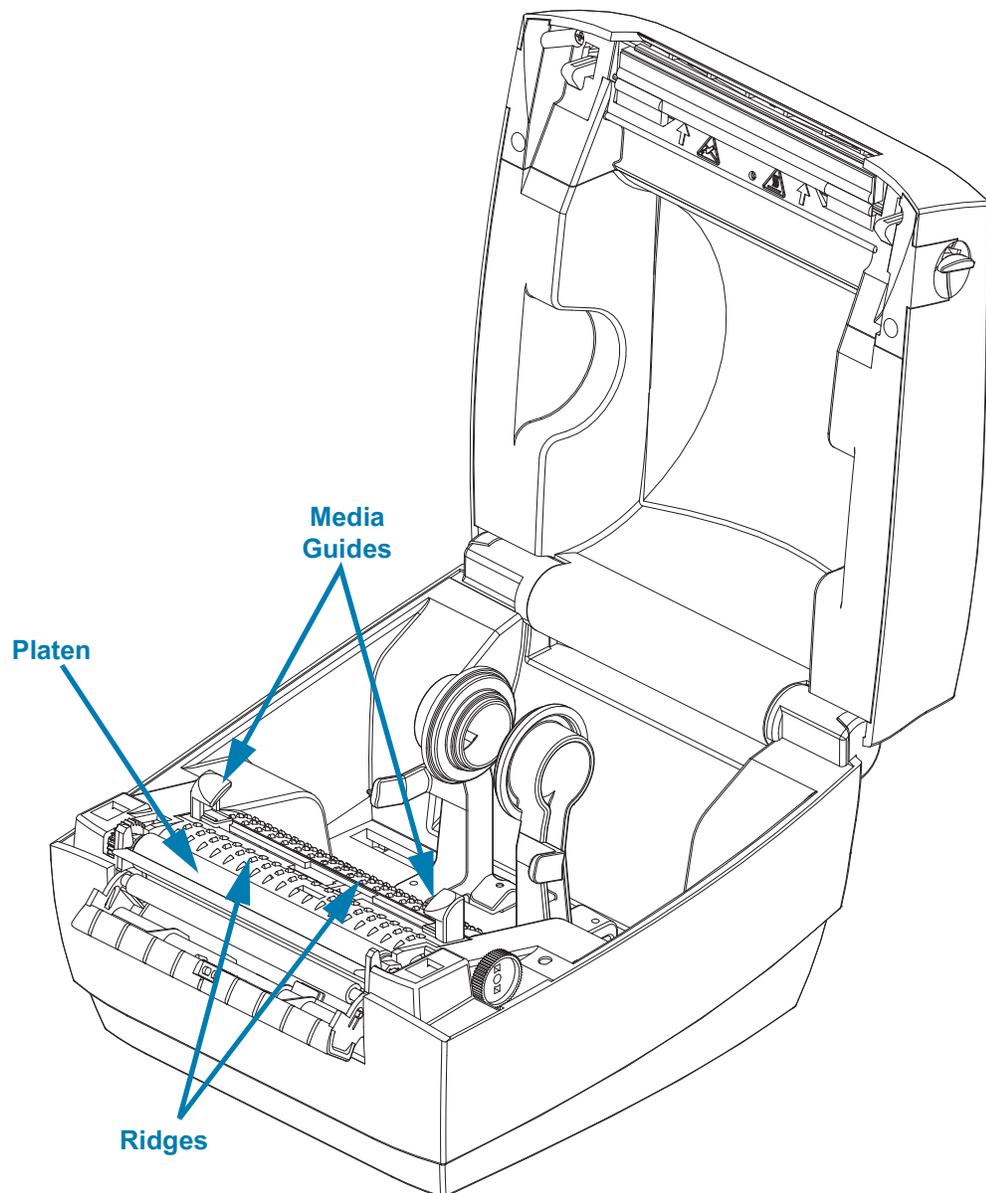
1. Rub the cleaning pen across the dark area of the printhead. Clean from the middle to the outside. This will move adhesive transferred from the edges of media to the printhead outside of media path.
2. Wait one minute before closing the printer.



## Media Path Cleaning Considerations

Use a cleaning swab to remove debris, dust or crust that has built-up on the holders, guides and media path surfaces.

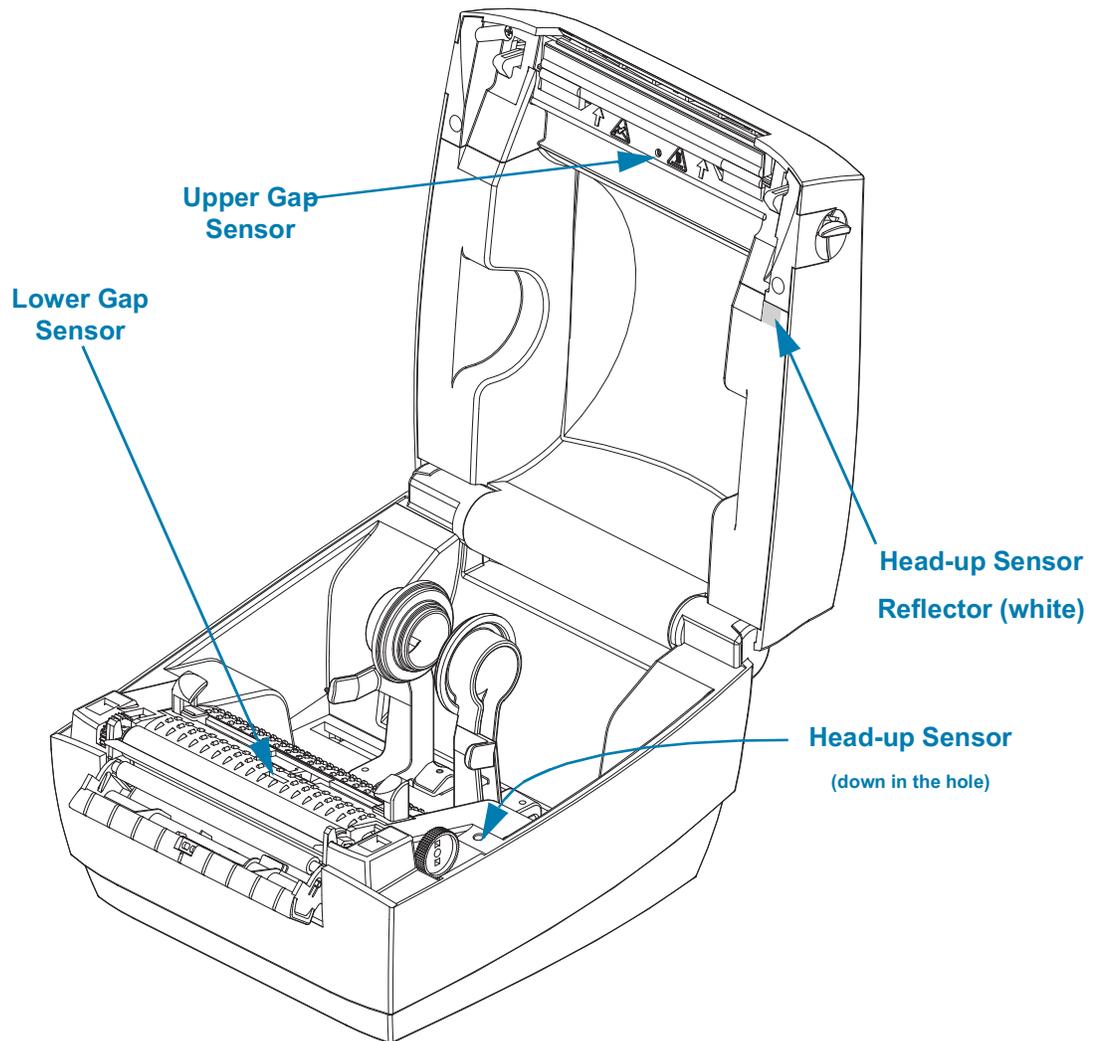
1. Use alcohol on a cleaning swab to soak debris to break up the adhesive.
2. Wipe the ridges to remove accumulated debris.
3. Wipe the inside edges of both edge guides to remove any built-up residue.
4. Wait one minute before closing the printer.
5. Discard the cleaning swab after use.



## Sensor Cleaning

**Media (Gap) Sensors** - Dust and debris can accumulate on the media sensors.

1. Gently brush away dust or use a can of compressed air; if necessary, use a dry swab to brush away dust. If adhesives or other contaminants remain, use an alcohol moistened swab to break it up.
2. Use a dry swab to remove any residue that may be left from the first cleaning.
3. Repeat steps 1 and 2 as required until all residue and streaks are removed from the sensor.



**Head-up Sensor** - Dust and contamination can accumulate on sensor optics and reflector.

1. Clean the dust and debris from the sensor optics (in the hole). Use a can of compressed air to blow out dust and debris.
2. Clean the Head-up Sensor's reflector (white square) on the inside of the upper cover. Use an alcohol moistened swab to gently remove dirt and grime from printer handling.

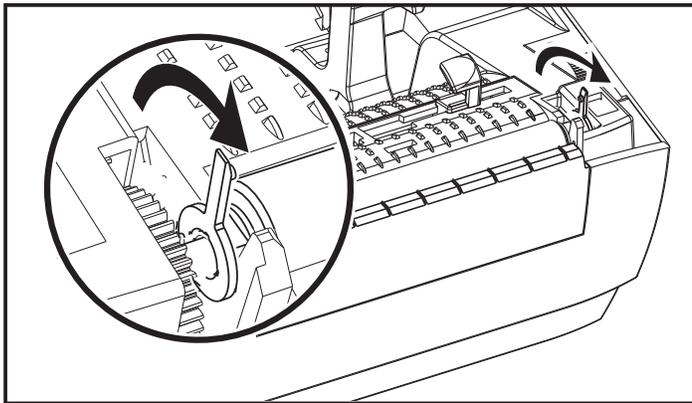
## Platen Cleaning and Replacement

The standard platen (drive roller) normally does not require cleaning. Paper and liner dust can accumulate without effecting print operations. Contaminates on the platen roller can damage the printhead or cause the media to slip or stick when printing. Adhesive, dirt, general dust, oils and other contaminates should be cleaned immediately off the platen.

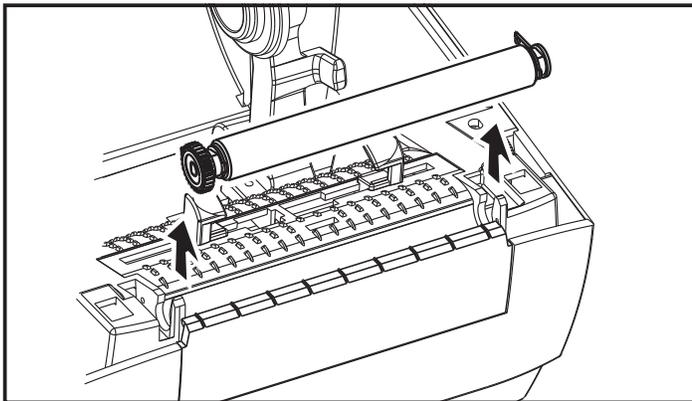
Clean the platen (and media path) whenever the printer has significantly poorer performance, print quality or media handling. The platen is the print surface and drive roller for your media. If sticking or jamming continues even after cleaning, you must replace the platen.

The platen can be cleaned with a fiber-free swab (such as a Texpad swab) or a lint free, clean, damp cloth very lightly moistened with medical grade alcohol (90% pure or better).

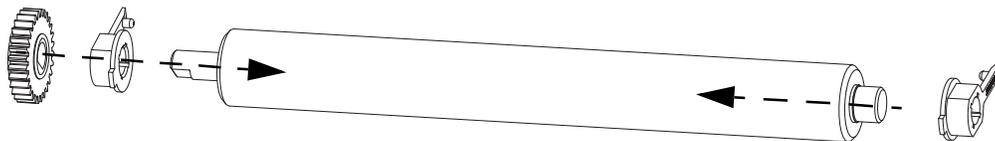
1. Open the cover (and dispenser door). Remove media from platen area.
2. Using a pointed stylus (such as tweezers, small slot-head screwdriver, or razor-knife), unhook the tabs on the right and left sides. Then rotate them forward.



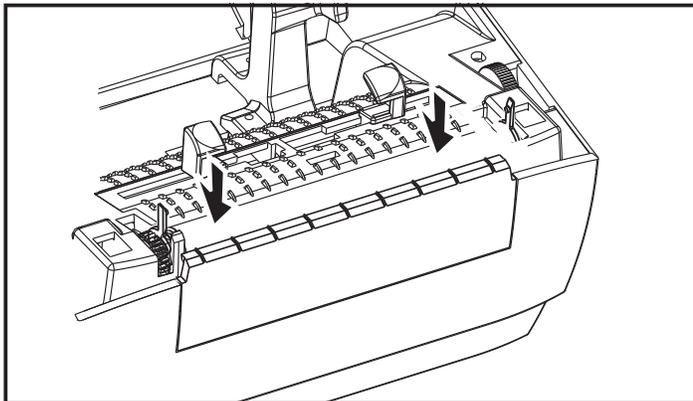
3. Lift the platen out of the printer's bottom frame.



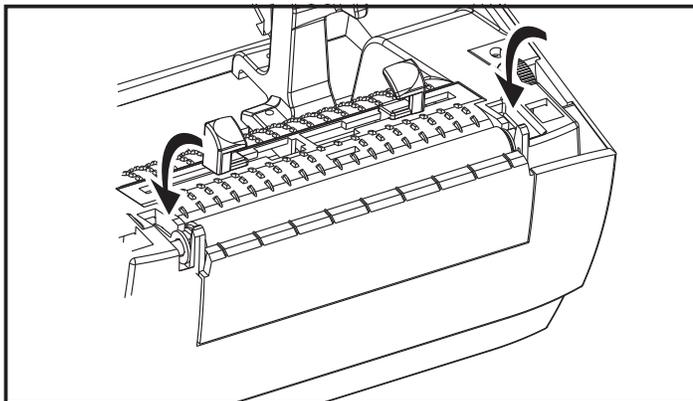
4. Clean the platen with the alcohol moistened swab. Clean from the center out until the all of the roller's surface has been cleaned. If there has been heavy adhesive build-up or you have been having labels catch and bind in the printer, then repeat cleaning with a new swab to remove residual diluted contaminates. Adhesives and oils, for example, may be thinned by the initial cleaning but not removed.
5. Install the platen in the printer. Discard the cleaning swabs after use - do not reuse.
6. Make sure the bearings and gear are on the shaft of the platen as shown.



7. Align the platen with the gear to the left and lower it into the printer's bottom frame.



8. Rotate the tabs back and snap them into place.



9. Allow the printer to dry for one minute before closing the dispenser door, media cover or loading labels.

## **Other Printer Maintenance**

There are no user level maintenance procedures beyond those detailed in this section. See the [Troubleshooting](#) for more information on diagnosing printer and print problems.

# Troubleshooting

This section provides information about printer error reporting that you might need for printer troubleshooting. Assorted diagnostic tests are included.

## Status Light Descriptions

What the Status Light is Telling You		
LED Status and Color	Printer Status	Resolution Number
Off	Off	1
Solid Green	On	2
Flashing Green	Normal Operation	3
Flashing Red	Stopped	4
Double Flashing Green	Paused	5
Flashing Amber	Paused	6
Alternately Flashing Green and Red	Needs Service	7
Rapid Red Flashing	Media Not Sensing Properly	8

## Status Light Error Resolutions

The following Status Error Light Resolution numbers correspond to the Status Light Description table above.

- 1. The printer is not receiving power.**
  - Have you turned on the printer power? Check power connections from the wall outlet to the power supply, and from the power supply to the printer. See [Loading Roll Media](#).
  - Disconnect the printer from the wall outlet for 30 seconds and then reconnect the printer to power.
- 2. The printer is on and in an idle state.**
  - No action necessary.
- 3. The printer is receiving data.**
  - When data transfer completes, the status LED turns green and the printer will resume operation.
- 4. The media path alert.**
  - **Media is Out** - Open the cover and verify media is out. Remove the empty label roll if using roll media. Replace the media. Follow the instructions for [Loading Roll Media](#) and then press the Feed button to resume printing.
  - **Cover not latched** - The cover (and printhead) is open. Open and close the top cover firmly and then press the Feed button to resume printing.
  - **Head Open Sensor needs cleaning** - The optical sensor and reflector are dirty. and need cleaning, see [Sensor Cleaning](#).
  - **Media is not being sensed** - The media sensors are blocked or dirty, and need cleaning, see [Sensor Cleaning](#).
- 5. The printer is paused.**
  - Press the Feed button to resume printing.

**6. The printhead is over temperature.**

- Printing will stop until the printhead cools to an acceptable printing temperature. When it does, the printer will automatically resume operation.

**7. FLASH memory is not programmed.**

- Return the printer to an authorized reseller.

**8 The label has not been detected as expected.**

- The expected label gap has not been detected in the correct area for the label size set by the printer driver. Verify the label length of the media in use matches the label length set in the printer driver or ZebraDesigner label's format.
- The printer has moved more than maximum label length allowed by the printer of 216 mm (8.5 inches) without detecting a label gap. The Gap Sensors may need cleaning. If clearing does not correct this error contact a service.

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## Print Quality Problems

### **No print on the label.**

- New Media: The media may not be direct thermal media. See the test procedure [Determining Thermal Media Types](#).
- Is the media loaded correctly? Follow the instructions for [Loading Roll Media](#) in the Getting Started section. To test if you have correctly loaded the labels and are able to print, see [Printing a Test \(Printer Configuration\) Label](#). If still not printing, contract your authorized Zebra Reseller or service provider.

### **The printed image does not look right.**

- The printhead is dirty. Clean the printhead.
- The printhead is under temperature.
- Adjust the print darkness and/or print speed.
  - The Windows printer driver can change these settings to optimize print quality.
- The media being used is incompatible with the printer. Be sure to use the recommended media for your application, and always use Zebra-approved labels.
- The printhead has worn out. The printhead is a consumable item and will wear out due to friction between the media and printhead. Using unapproved media may shorten life or damage your printhead. Contact your authorized Zebra Reseller or Service provider.
- The platen may need cleaning or replacement. The platen (driver) roller maybe losing traction due to:
  - Foreign objects attached to its surface,
  - The rubbery smooth surface has become polished and slippery.
  - There is damage to the normally smooth and flat print surface such as box knife cuts.

### **There are long tracks of missing print (blank vertical lines) on several labels.**

- The printhead is dirty. Clean the printhead.
- The printhead elements are damaged. Contract your authorized Zebra Reseller or Service provider.

### **The printing does not start at the top of the label or misprinting of one to three labels.**

- The media may not be threaded correctly. Follow the instructions for [Loading Roll Media](#) in the Getting Started section.
- Clean the Gap Sensor, see [Sensor Cleaning](#).

# Appendix: USB Interface

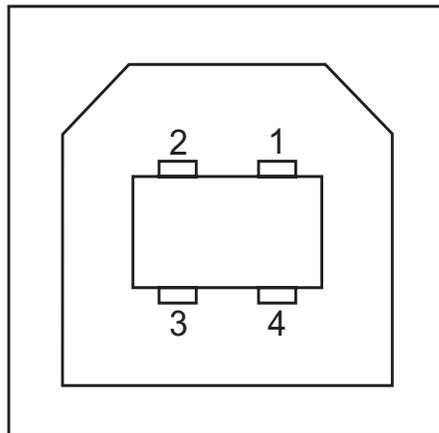
This section provides printer interface connection information.

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## Universal Serial Bus (USB) Interface

The figure below displays the cable wiring required to use the printer's USB interface.

The printer requires cable or cable packaging that bears the "Certified USB™" mark to guarantee USB 2.0 compliance.



Pin	Signal
1	Vbus - N/C
2	D-
3	D+
4	Ground
Shell	Shield / Drain Wire

For printer supported operating systems and drivers, see for visit the Zebra Web site at:

<http://www.zebra.com>

For information on the USB interface, go to the USB web site at:

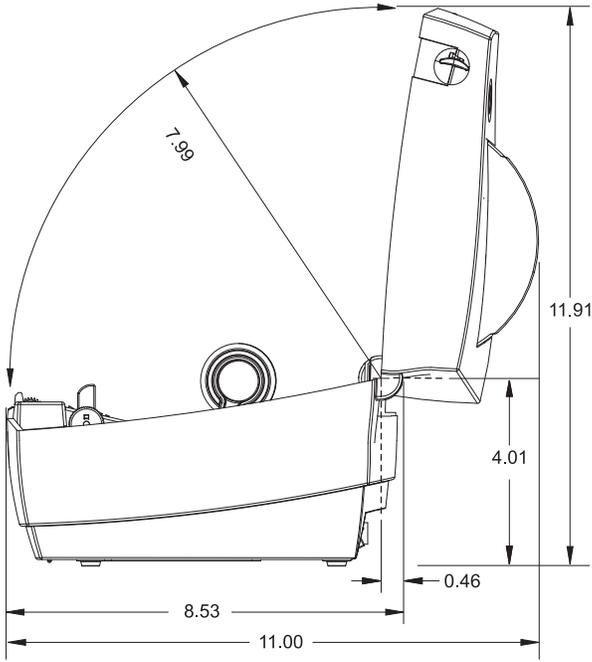
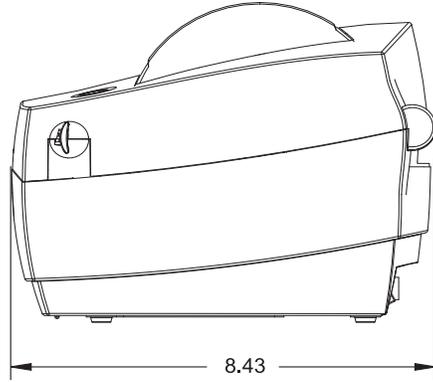
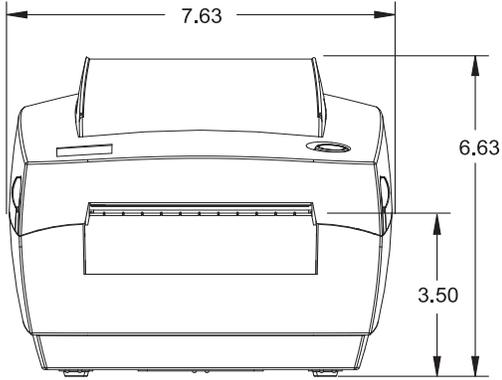
<http://www.usb.org>



# Appendix: Dimensions

This section provides external printer dimensions.

# External Printer Dimensions



All dimensions are in inches

