



# ZD410



## Desktop Printers

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## User's Guide

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# 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	Order 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 find access to cleaning supplies at <http://www.zebra.com/supplies>.

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

Printer Part	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 cleaning from the center to the outside edges of the printhead. See <a href="#">Cleaning the Printhead on page 110</a>	Clean the printhead after every 5 rolls printed
Platen roller	Before cleaning, remove the platen roller by releasing both the left and right platen bearings. Clean the roller thoroughly with 99% medical-grade alcohol and a cleaning swab or lint-free cloth. See <a href="#">Platen Cleaning and Replacement on page 114</a>	As needed.
Peel bar	Clean it thoroughly with 99% medical-grade alcohol and a fiber-free cleaning swab. Let alcohol evaporate completely.	
Media path		
Cutter Option	The cutter blade mechanism does not require maintenance cleaning. DO NOT clean the blade or mechanism with solvents or WD-40. This blade has a special coating to resist adhesives and wear.	
Exterior	Water-dampened cloth. See the 'Guide To Disinfecting and Cleaning Zebra® Healthcare Printers' on the Zebra Web site for the latest information on tested and approved cleaning materials, and cleaning methods.	As needed. Healthcare printers - cleaning frequency is set by medical policies and practices of your institution or governing agencies.
Interior	Gently brush out printer.	



**Caution** • Adhesives and small pieces of media 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

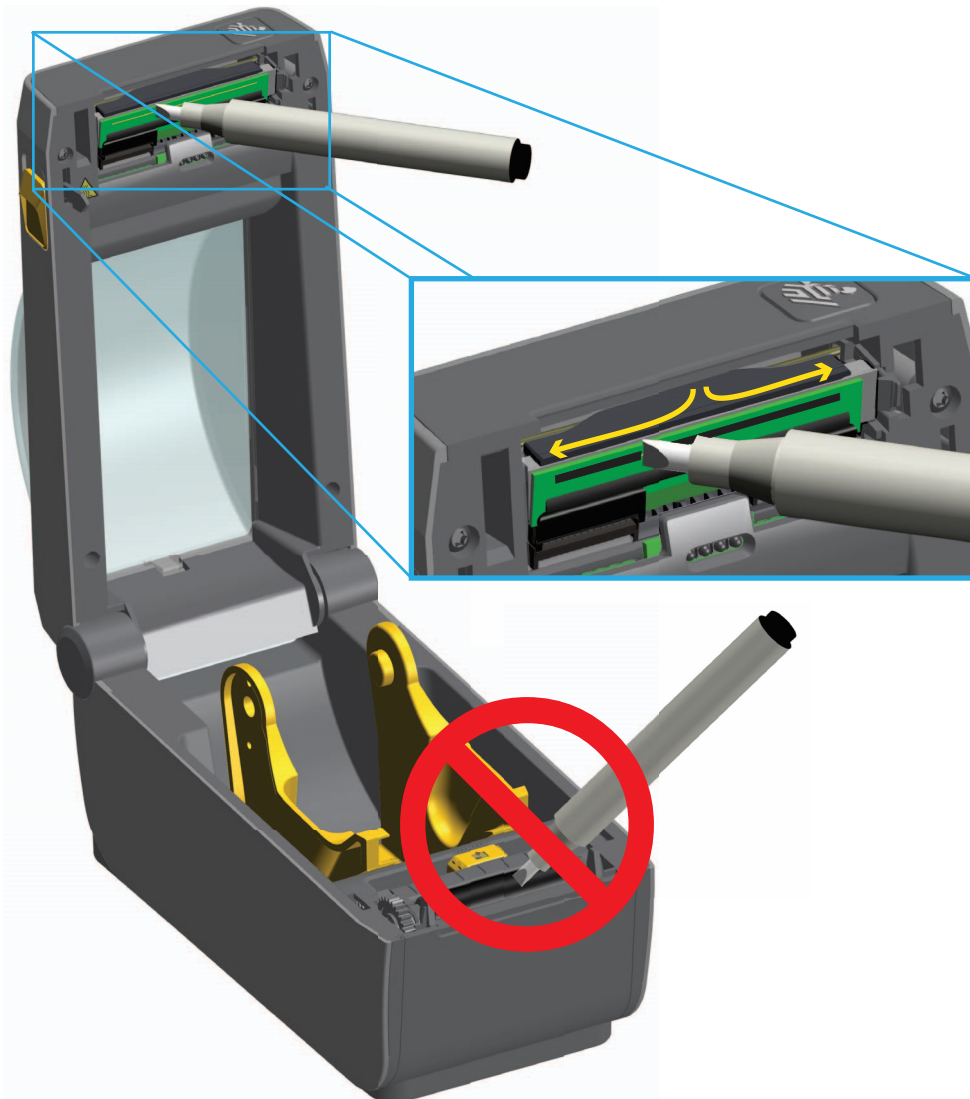
Always use a new cleaning pen on the printhead (an old pen carries contaminants from its previous use that may damage the printhead).



**Caution** • The printhead becomes hot while printing. To protect from damaging the printhead and risk of personal injury, avoid touching the printhead. Use only the cleaning pen to perform 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 outside of media path.
2. Wait one minute before closing the printer.

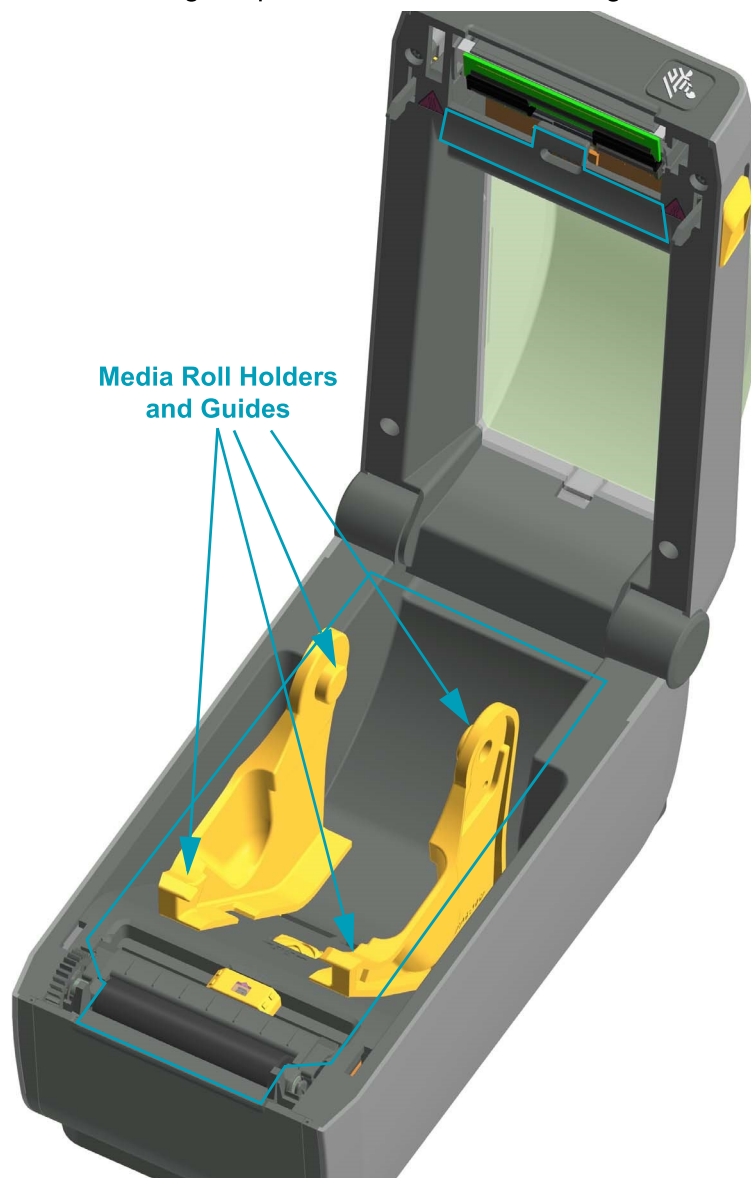


## Media Path Cleaning

Use a cleaning swab and or a lint free cloth to remove debris, dust or crust that has built-up on the holders, guides and media path surfaces. Lightly moisten the swab or cloth with 99% solution medical-grade alcohol. For hard to clean areas, use extra alcohol on a cleaning swab to soak the debris to break up any adhesive that may have accumulated on surfaces in the media compartment.

**Do not clean the printhead, movable sensor, or platen as part of this process.**

1. Wipe the inside areas (outlined in blue) of the media compartment.
2. Wipe the inside surfaces of the roll holders and the underside of the media guides with a swab.
3. Wipe the movable sensor slide channel (but not sensor). Move the sensor to get to all areas.
4. Wait one minute before closing the printer. Discard the cleaning swab after use.



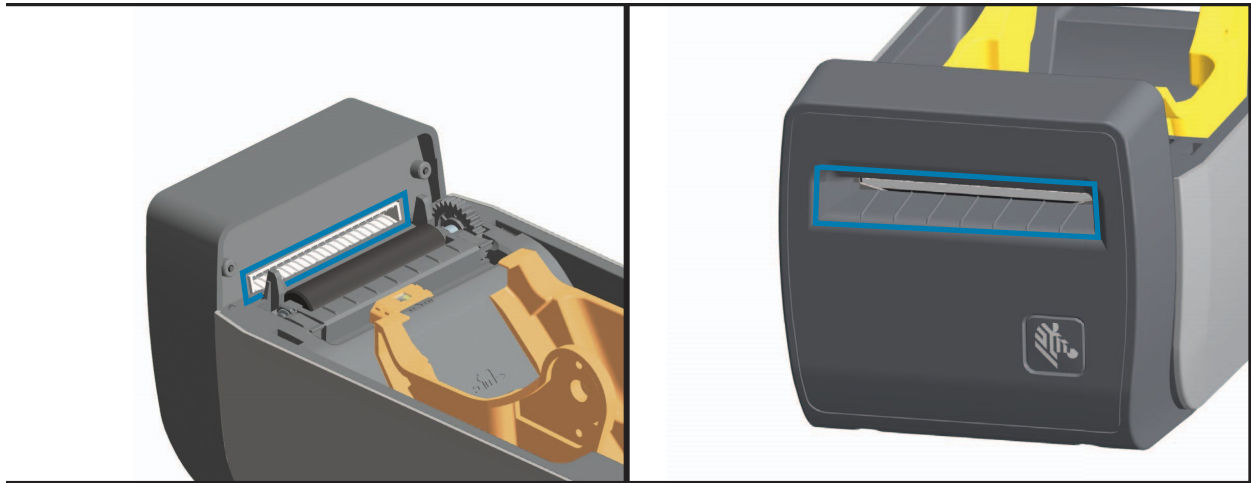
## Cleaning the Cutter and Label Dispenser Options

This is a continuation of cleaning the media path for either option if it is installed on your printer.

### Cutter

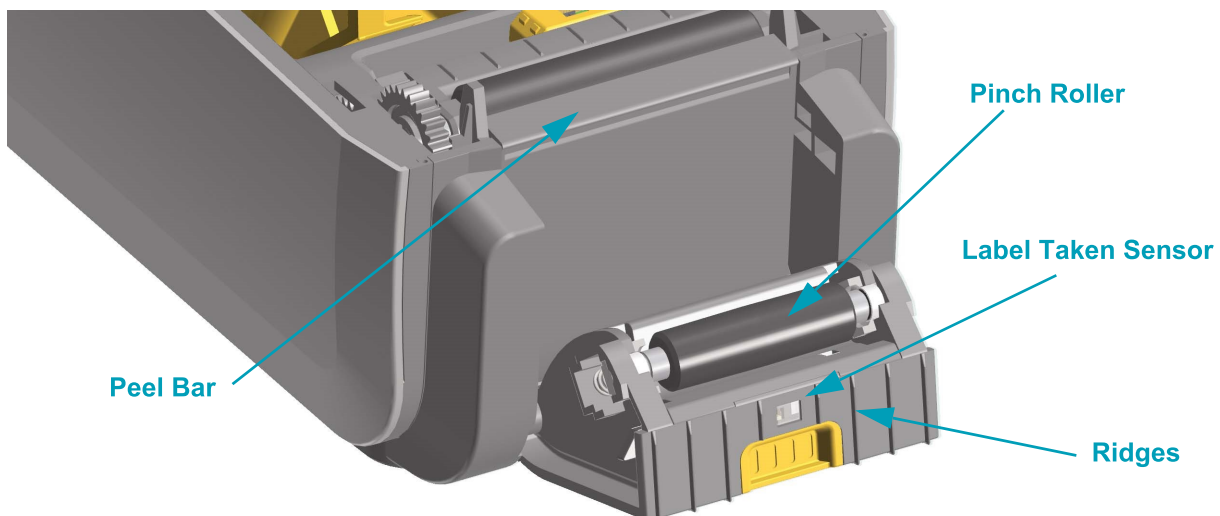
The media path surfaces can be cleaned but not the internal cutter blades or mechanism.

1. Wipe the ridges and the plastic surfaces of the media entry (inside) and exit slot (outside) of the cutter. Clean inside the areas outlined in blue.
2. Repeat as necessary to remove any adhesive or contaminate residue after it dries.



### Label Dispenser

1. Open the door and clean the peel bar, inner surfaces and ridges on the door.
2. Wipe the roller while rotating it. Discard the swab or cloth and clean again to remove residue.
3. Clean the sensor window. The window should be clear of streaks and residue.



## Sensor Cleaning

Dust can accumulate on the media sensors. Do not use an air compressor to remove dust. Compressors add moisture, fine grit, and lubricant which can contaminate your printer.

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.





## Platen Cleaning and Replacement

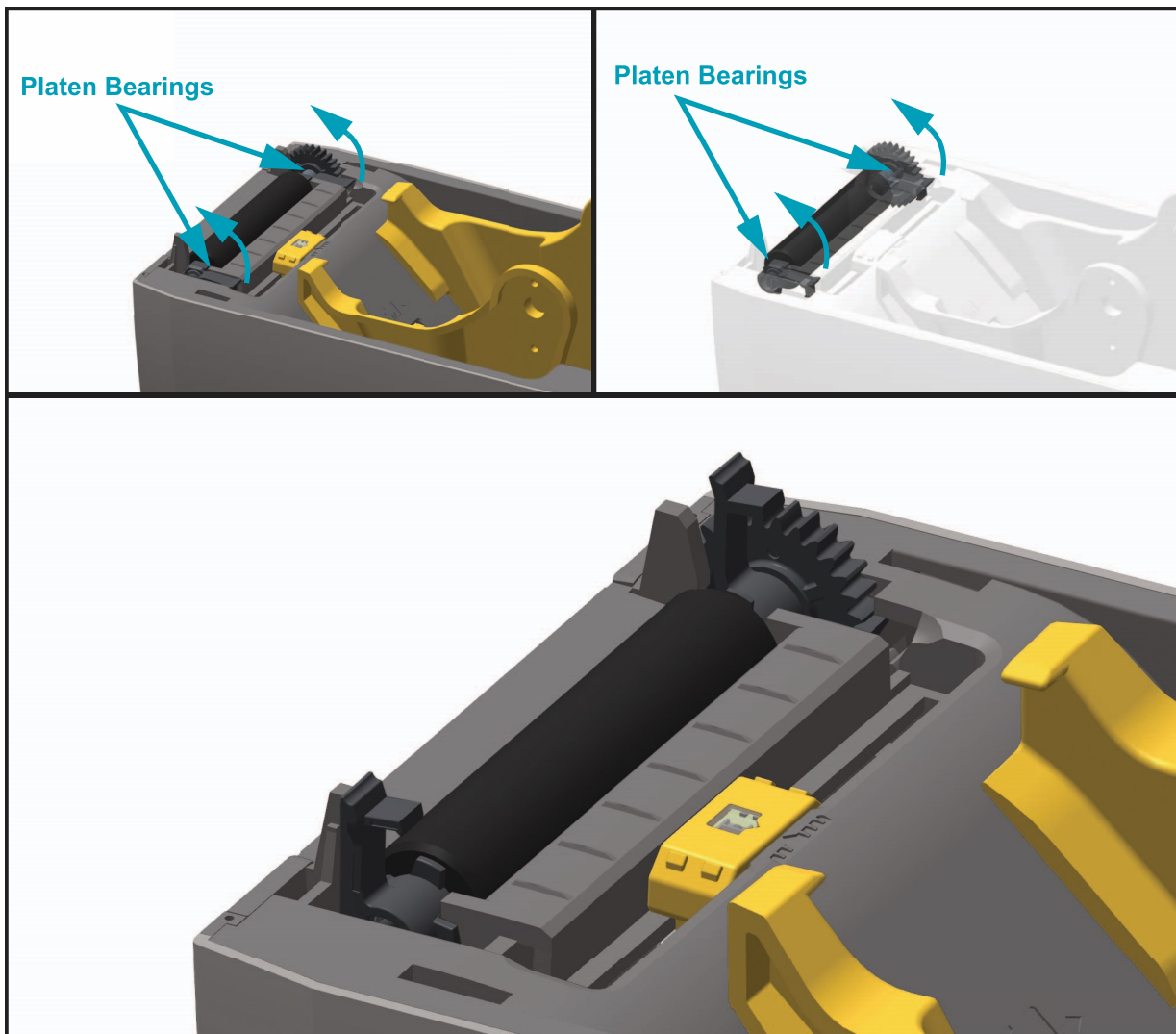
The platen (drive roller) normally does not require cleaning. Paper and liner dust can accumulate without affecting print operations.

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 contaminants 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.

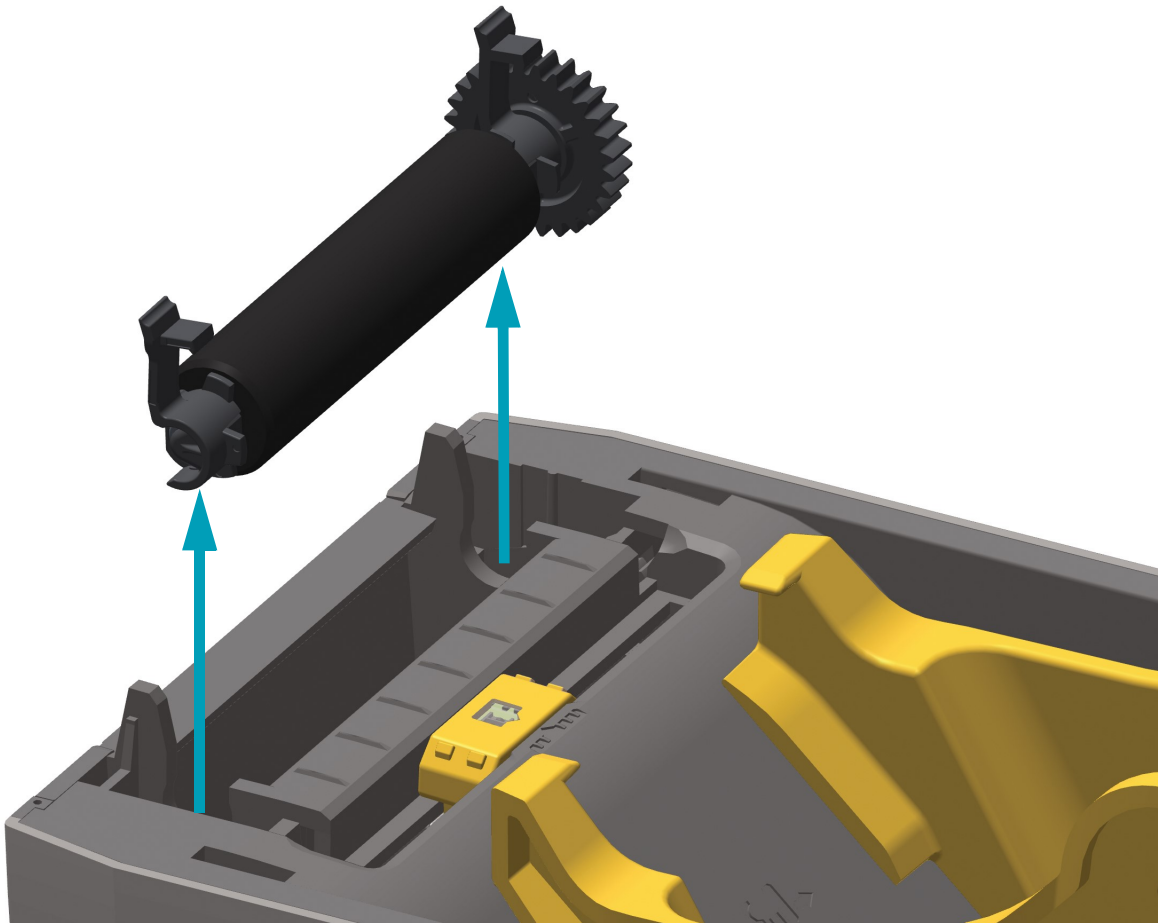
The platen can be cleaned with a fiber-free swab (such as a Texpad swab) or a lint free, clean, damp cloth very lightly moistened with medical grade alcohol (90% pure or better).

1. Open the cover (and dispenser door if the dispenser is installed). Remove media from platen area.
2. Pull the platen bearing latch release tabs on the right and left sides towards the front of the printer and rotate them up.

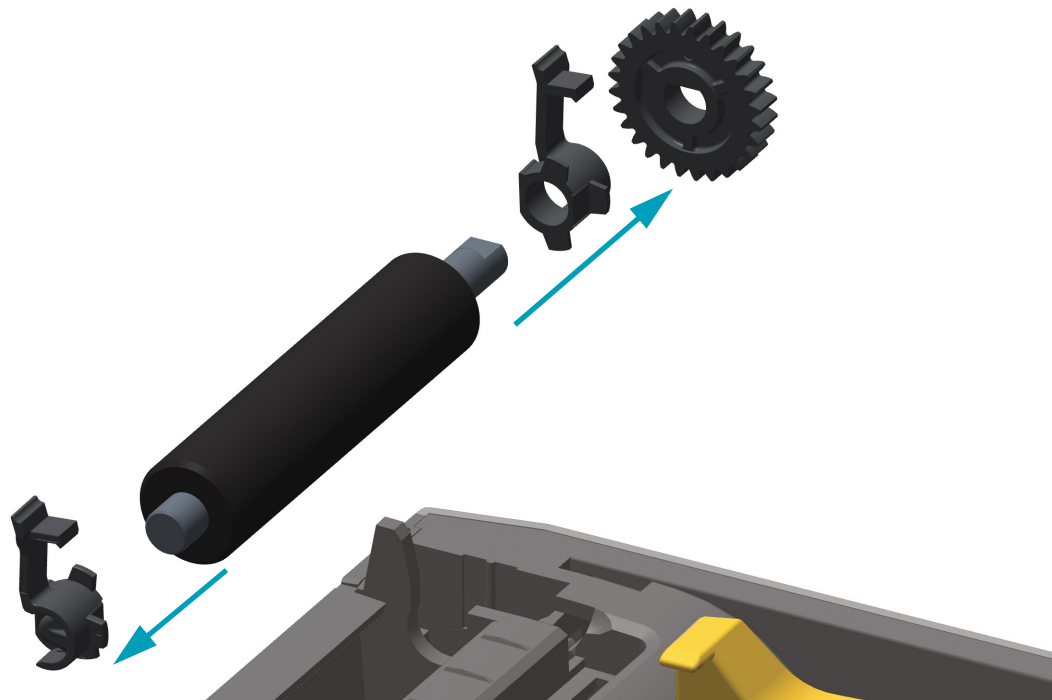




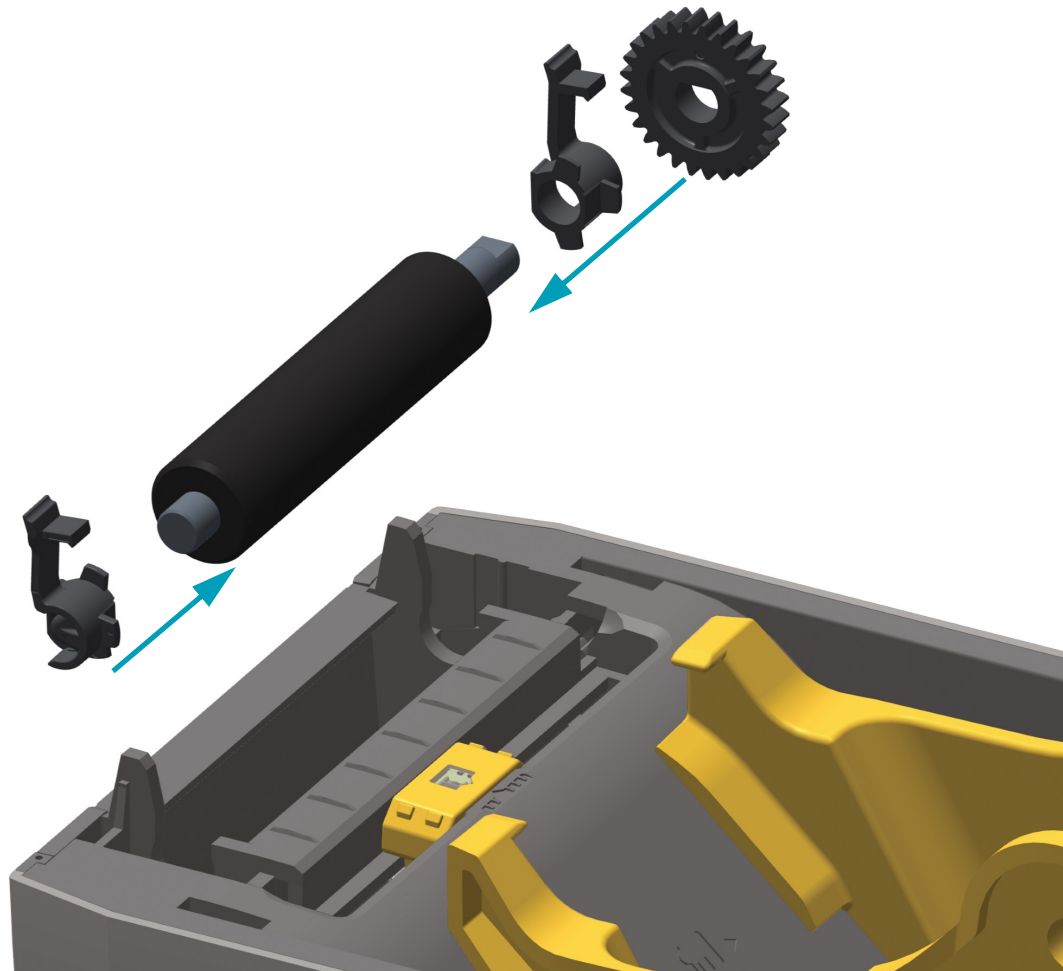
3. Lift the platen out of the printer's bottom frame.



4. Slide the gear and the two (2) bearings off the shaft of the platen roller.



5. Clean the platen with the alcohol moistened swab. Clean from the center out. Repeat this process until all of the roller surface has been cleaned. If there has been heavy adhesive build-up or label jam, repeat with a new swab to remove residual contaminants. Adhesives and oils, for example, may be thinned by the initial cleaning but not completely removed.
6. Discard the cleaning swabs after use - do not reuse.
7. Make sure the bearings and drive gear are on the shaft of the platen roller.



8. Align the platen with the gear to the left and lower it into the printer's bottom frame.
9. Rotate the platen bearing latch release tabs down on the right and left sides towards the rear of the printer and snap them into place.

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 on page 80](#) for more information on diagnosing printer and print problems.

## RTC Battery

The RTC (Real-Time Clock) battery is not operator replaceable. See a Zebra authorized service technician to replace the battery. The battery has been rated for up to ten (10) years of operation.



**Caution** • The printer has a three volt lithium battery. You can discern a low or flat battery if the printer provides a consistently delayed date stamp. Battery replacement must be performed by a qualified service technician. Only use a Zebra approved replacement battery.



**Important** • Recycle batteries according to local your guidelines and regulations. Wrap the battery when disposing (or storing) to avoid a short circuit.

**DO NOT** short circuit the battery. Short circuiting the battery may result in heat generation, fire or bursting.

**DO NOT** heat, disassemble or dispose of battery in fire.

## Fuses

There are no replaceable fuses in the ZD410 printer or power supply.

## Replacing the Printhead

If you need to replace the printhead, read the procedure and review the removal and installation steps before actually replacing the printhead.



**Caution** • Prepare your work area by protecting against static discharge. Your work area must be static-safe and include a properly grounded conductive cushioned mat to hold the printer and a conductive wrist strap for yourself.

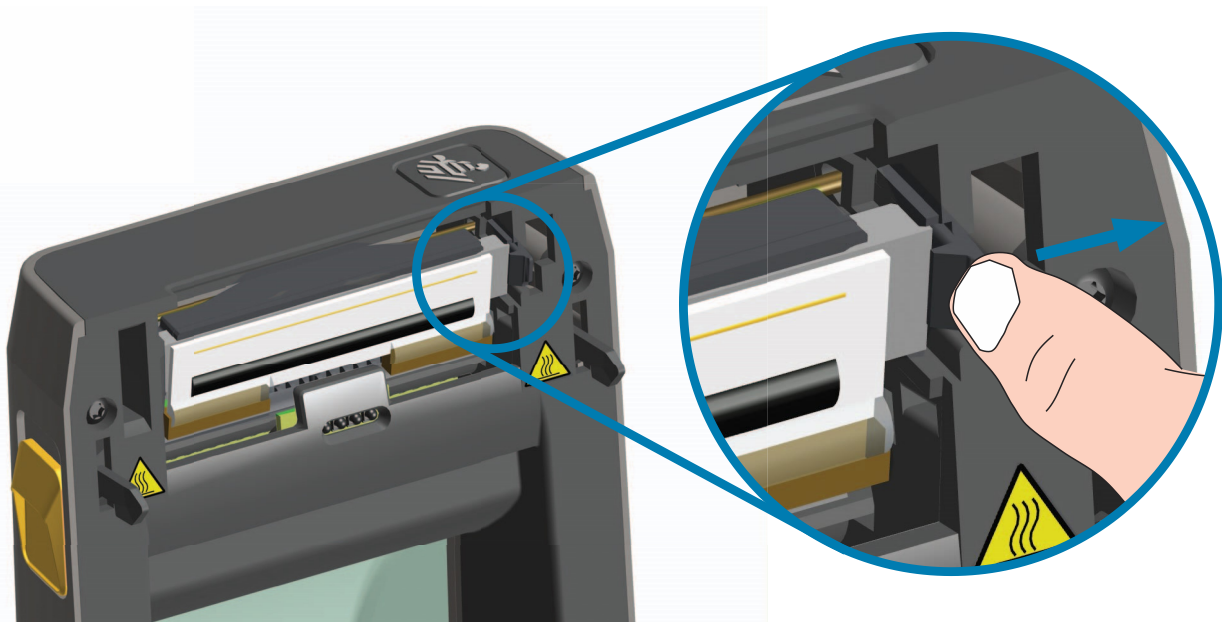


**Caution** • Turn the printer power off and unplug the power cord before replacing the printhead.

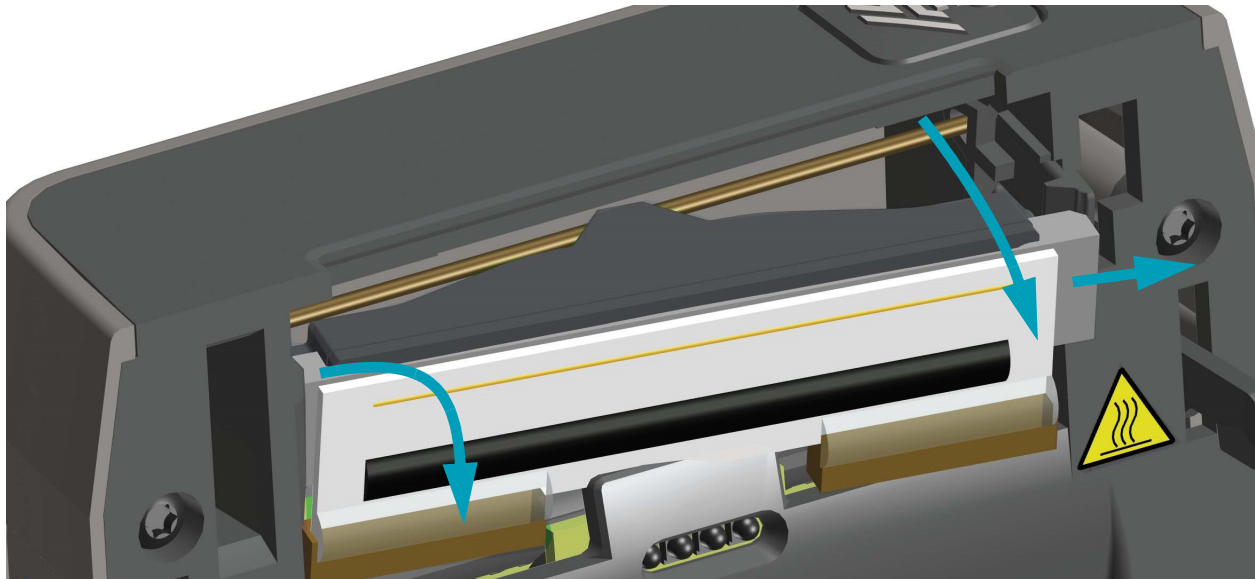
Before following the steps in this procedure, open the printer by pulling the release latches forward then lifting the top cover.

### Printhead Removal

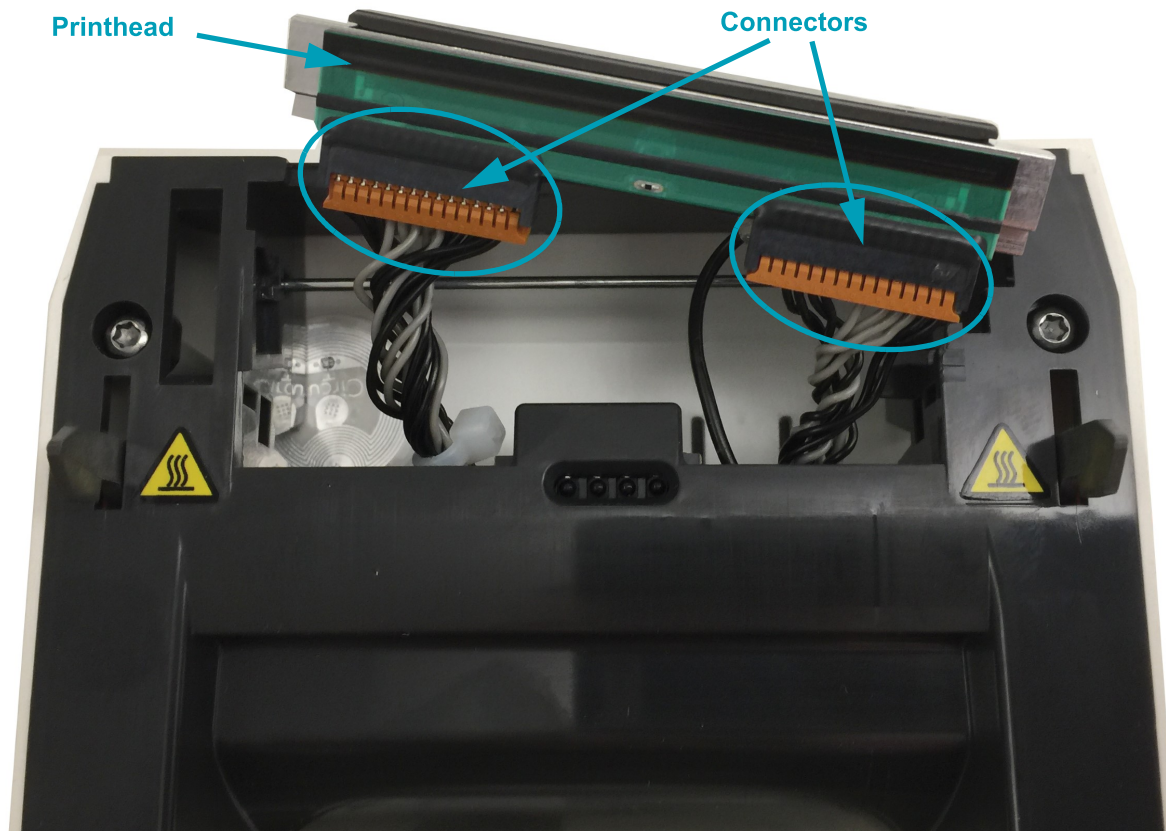
1. Turn the printer OFF. Open the printer.
2. Pull the printhead release latch on the right side of the printhead to the outside of the printer to release the printhead.



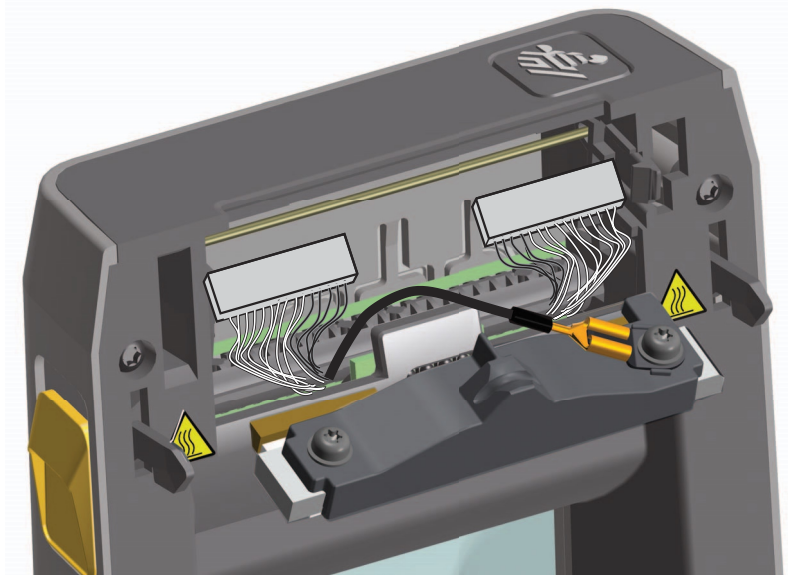
3. Swing the loose right side of the printhead out of the printer. Pull it to the right a little to get the left side of the printhead clear. Pull the printhead free to gain access to its attached cables.



4. Gently but firmly pull the two printhead cable bundle connectors off of the printhead.



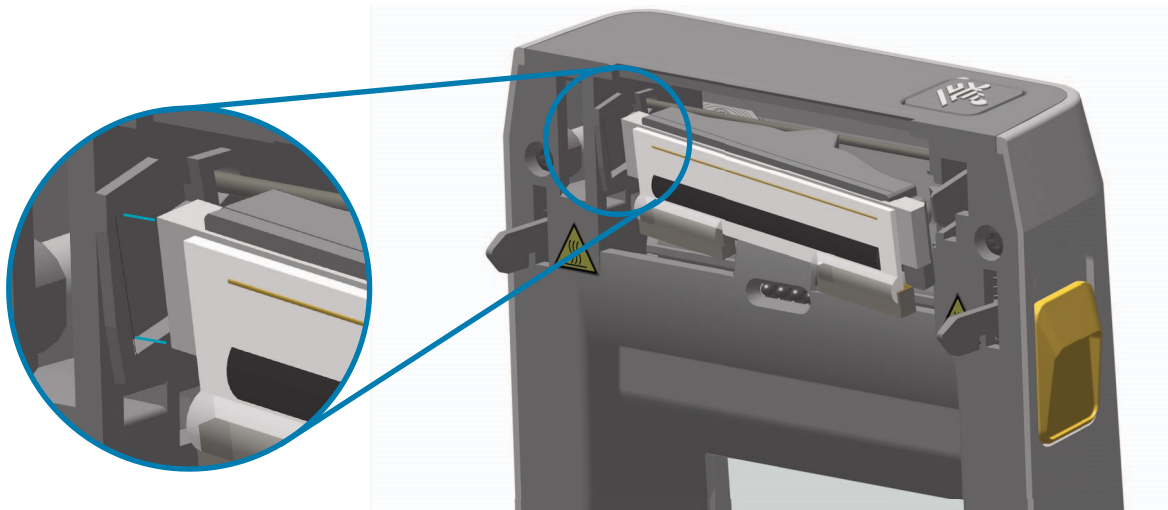
5. Gently but firmly pull the single black ground wire off the back side of the printhead.



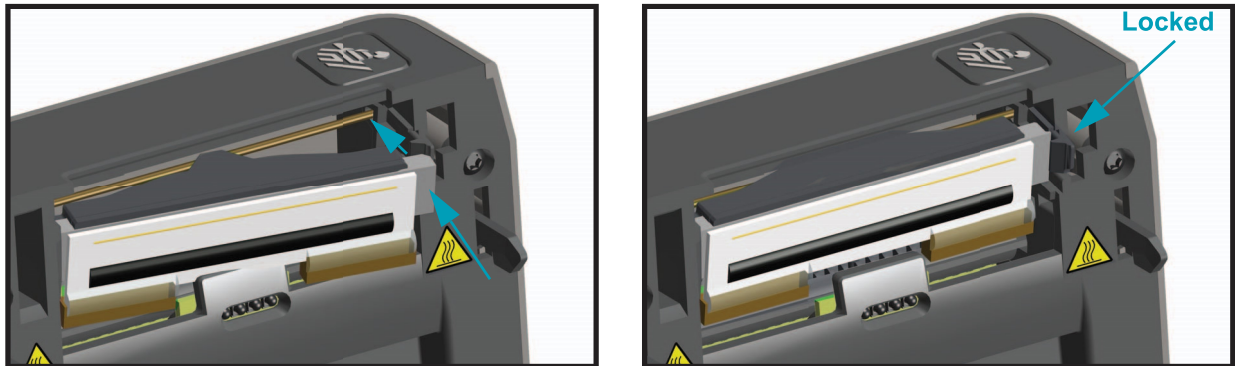


## Replacing the Printhead

1. Push the right side printhead cable connector into the printhead. The connector is keyed to only insert one way.
2. Connect the single black ground wire spade lug connector onto the spade lug attached to the backside of the printhead.
3. Push the left side printhead cable connector onto the printhead.
4. Check that the ground wire and wire bundles are still connected to the printhead.
5. Insert the left side of the printhead assembly into the recessed area.



6. Push the right side of the printhead into the printer until the latch locks the right side of the printhead into the printer.



7. Verify that the printhead moves freely into the printer when pressure is applied and remains locked when pressure is released.
8. Clean the printhead by using a new cleaning pen to wipe body oils (finger prints) and debris off the printhead. Clean from the center of the printhead to the outside. See [Cleaning the Printhead on page 110](#).
9. Reload media. Turn on the printer and print a status report to ensure proper function. See [Test Printing with the Configuration Report on page 38](#).