Loading Transfer Ribbon

Transfer ribbons come in several varieties and in some cases colors to match your application needs. Genuine Zebra® transfer ribbons are specifically designed for your printer and Zebra brand media. Using non-Zebra media or ribbons not approved for use in your Zebra® printer may damage your printer or printhead.

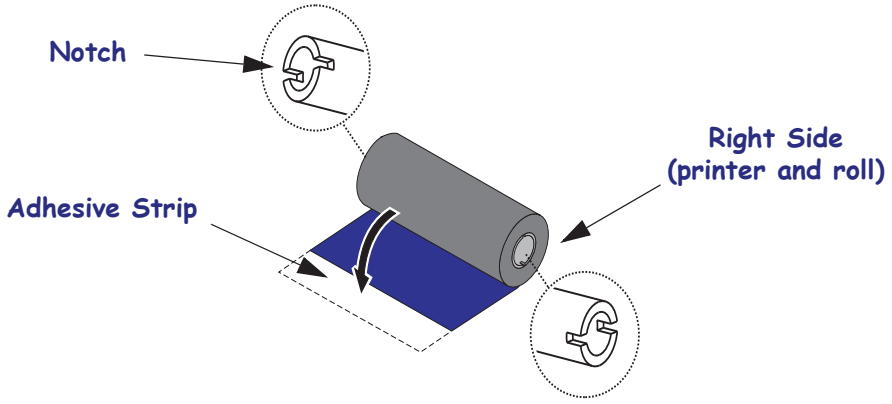
- The media and ribbon types should be matched to provide you with optimal print results.
- Always use ribbon that is wider than the media to protect the printhead from wear.
- For direct thermal printing, do not load ribbon in the printer.

Your printer needs to use Zebra® Uni-Ribbon™ (universal ribbon). Uni-Ribbons have a ribbon out trailer (reflector) to stop printing when empty. Zebra® Uni-Ribbon™ will work on older model Zebra® desktop printers too.

Uni-Ribbons are identified with a color coded leader.

- **Blue** - Performance Wax (5319)
- **Silver** - Premium Wax/Resin (3200)
- **Gold** - Performance Resin (5095) for synthetics (6 ips max. speed) and coated paper (4 ips max. speed)
- **Red** - Premium Resin (5100) for synthetics (4 ips max. speed)

Before following these steps, prepare the ribbon by removing its wrapping and pulling its adhesive strip free.

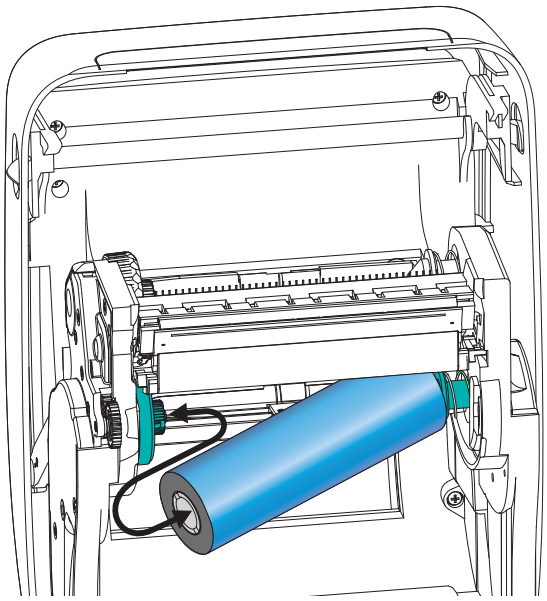


See *Ribbon Overview* on page 42 for more information on ribbon use.

Important • DO NOT USE early model desktop printer ribbon cores! The older ribbon cores can be identified by notches on only one side of the ribbon core. These older cores are too large and will cause take-up spool to bind.

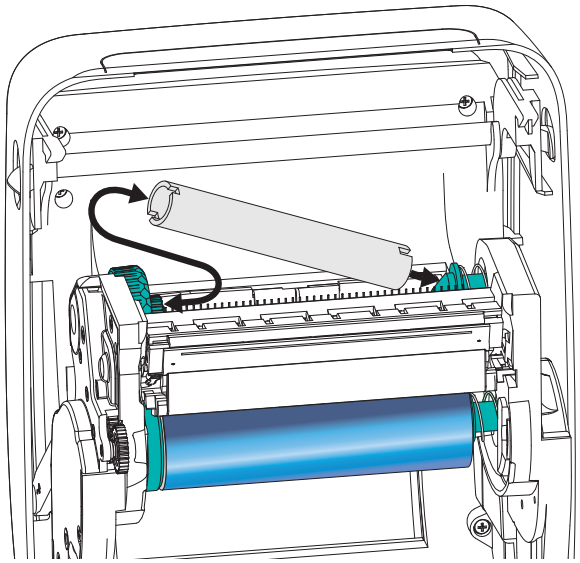
Note • DO NOT USE ribbon cores with damaged notches - rounded, frayed, smashed, etc. The core notches should be square to lock the core on the spindle or the core may slip causing ribbon wrinkle, poor end of ribbon sensing or other intermittent failures.

1. With the printer open, place a new ribbon roll on printer's lower ribbon supply spindles.



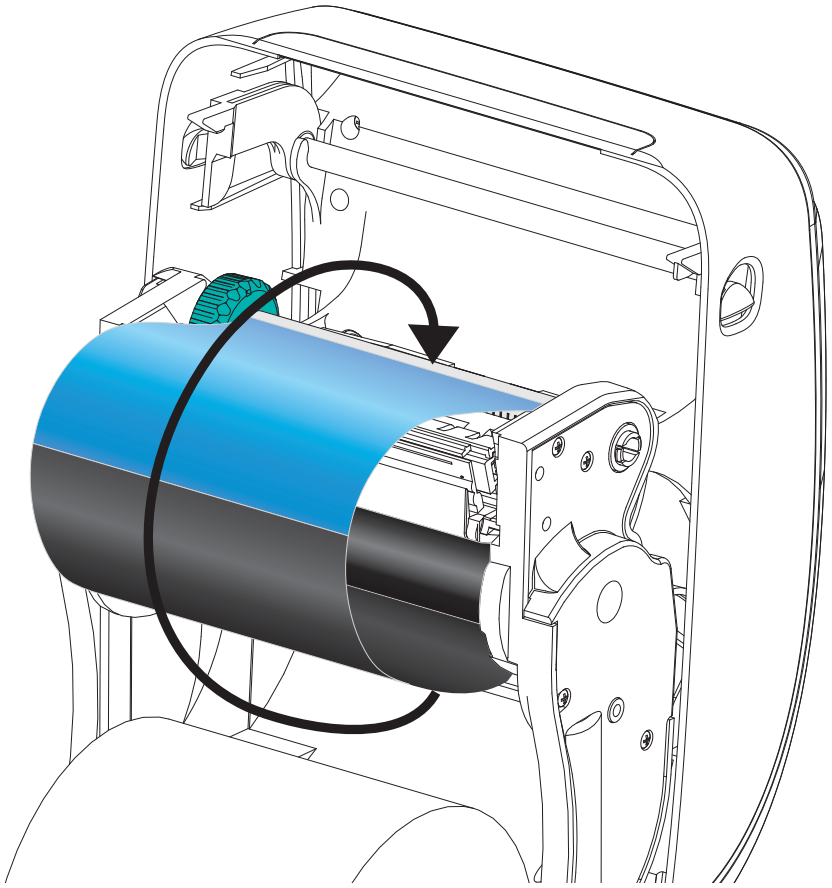
Rotate the roll until the notches align and lock into the left side of the supply hub.

2. Place an empty ribbon core on printer's take-up spindles. Rotate the ribbon core until the notches align and lock into the left side of the take-up hub.

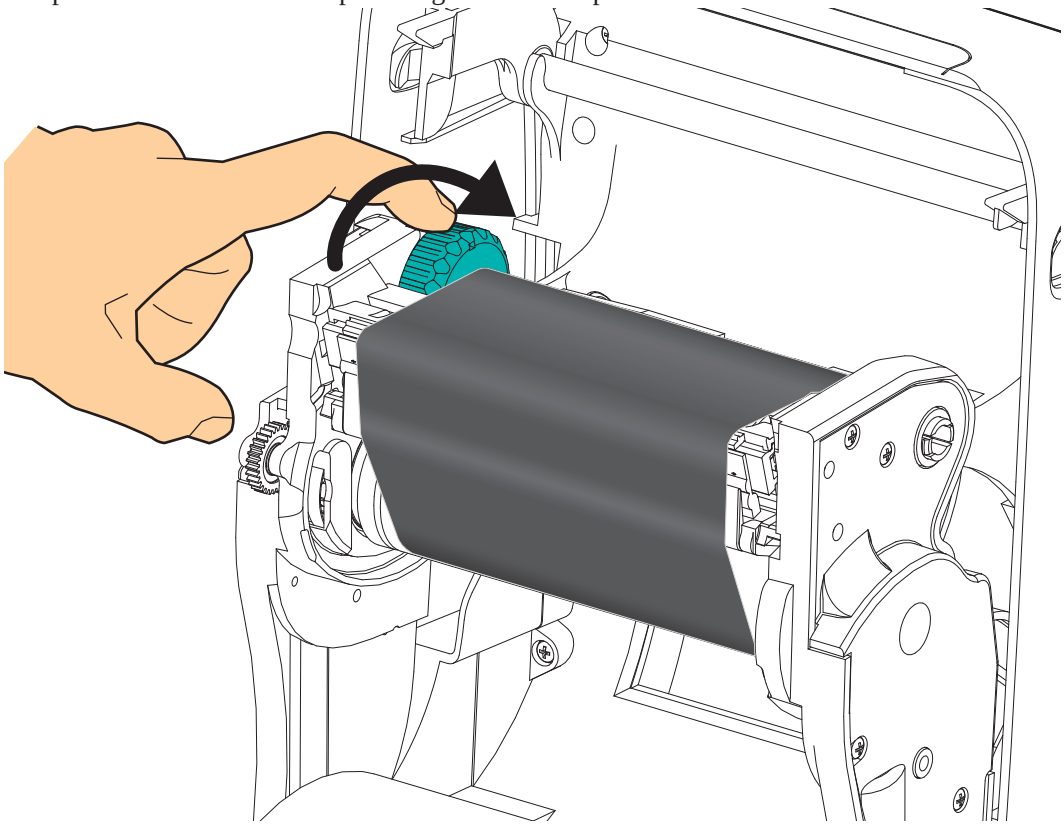


You can find your first ribbon take-up core in the packing box. Subsequently, use the empty supply core to take up the next roll of ribbon.

3. Pull the transfer ribbon's leader off the roll and attach it with the adhesive strip on the leader to the empty ribbon core on the supply spindle. Center the ribbon on the ribbon core.



4. Rotate the thumb wheel on the left side of the supply spindle towards the rear of the printer until the ribbon is pulled tight across the printhead.



5. Verify that the media is loaded and ready to print and then close the printer cover.

6. Press the Feed button to have the printer feed a minimum of 10 cm (4 inches) of media to remove slack and ribbon wrinkle, and to align the ribbon on the spindles.

7. Change the print mode setting from direct thermal printing to thermal transfer to set the printer's temperature profiles for thermal transfer media. This can be done with the printer driver, application software, or printer programming commands.

   - When controlling printer operations with ZPL programming, refer to the Media Type (**^MT**) ZPL II command (follow the instructions in the ZPL Programming Guide).
   - When controlling printer operations with EPL Page Mode, refer to the Options (**O**) EPL command (follow the instructions in the *EPL Page Mode Programmer's Guide*).

8. To verify the mode change from direct thermal printing to thermal transfer printing, use the *Printing a Test (Printer Configuration) Label* on page 23 to print a configuration label. The 'PRINT METHOD' should read 'THERMAL-TRANS' on the printer configuration status label.

   Your printer is now ready to print.

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.

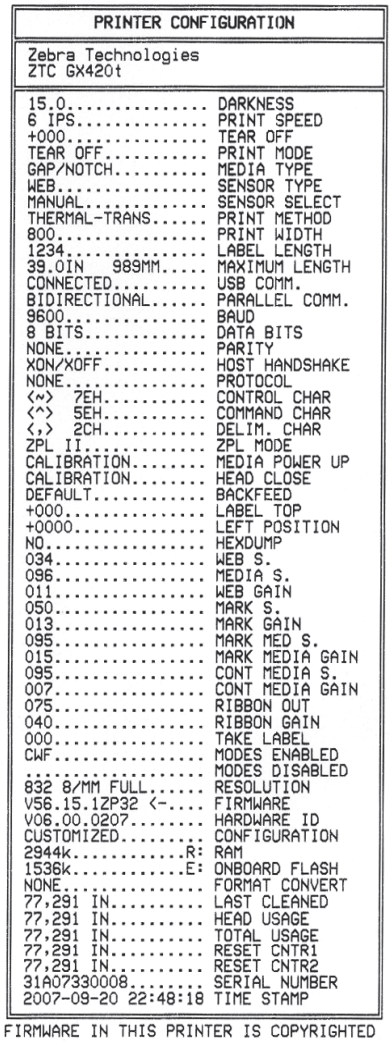
1. Make sure the media is properly loaded and the top cover of the printer is closed. Then, turn the printer power on if you have not already done so. If the printer initializes with the status light blinking green (pause mode), press the Feed button once to set the printer in Ready (to print) mode. See the *Troubleshooting* on page 95 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 *Getting Started* on page 13.



PRINTER CONFIGURATION

Zebra Technologies
ZTC GX420t

15.0.....	DARKNESS
6 IPS.....	PRINT SPEED
+000.....	TEAR OFF
TEAR OFF.....	PRINT MODE
GAP/NOTCH.....	MEDIA TYPE
WEB.....	SENSOR TYPE
MANUAL.....	SENSOR SELECT
THERMAL-TRANS.....	PRINT METHOD
800.....	PRINT WIDTH
1234.....	LABEL LENGTH
39.0IN 989MM.....	MAXIMUM LENGTH
CONNECTED.....	USB COMM.
BIDIRECTIONAL.....	PARALLEL COMM.
9600.....	BAUD
8 BITS.....	DATA BITS
NONE.....	PARITY
XON/XOFF.....	HOST HANDSHAKE
NONE.....	PROTOCOL
<~> 7EH.....	CONTROL CHAR
<^> 5EH.....	COMMAND CHAR
<,> 2CH.....	DELIM. CHAR
ZPL II.....	ZPL MODE
CALIBRATION.....	MEDIA POWER UP
CALIBRATION.....	HEAD CLOSE
DEFAULT.....	BACKFEED
+000.....	LABEL TOP
+0000.....	LEFT POSITION
NO.....	HEXDUMP
034.....	WEB S.
096.....	MEDIA S.
011.....	WEB GAIN
050.....	MARK S.
013.....	MARK GAIN
095.....	MARK MED S.
015.....	MARK MEDIA GAIN
095.....	CONT MEDIA S.
007.....	CONT MEDIA GAIN
075.....	RIBBON OUT
040.....	RIBBON GAIN
000.....	TAKE LABEL
CWF.....	MODES ENABLED
.....	MODES DISABLED
832 8/MM FULL.....	RESOLUTION
V56.15.1ZP32 <-....	FIRMWARE
V06.00.0207.....	HARDWARE ID
CUSTOMIZED.....	CONFIGURATION
2944k.....R:	RAM
1536k.....E:	ONBOARD FLASH
NONE.....	FORMAT CONVERT
77,291 IN.....	LAST CLEANED
77,291 IN.....	HEAD USAGE
77,291 IN.....	TOTAL USAGE
77,291 IN.....	RESET CNTR1
77,291 IN.....	RESET CNTR2
31A07330008.....	SERIAL NUMBER
2007-09-20 22:48:18	TIME STAMP

FIRMWARE IN THIS PRINTER IS COPYRIGHTED

Ribbon Overview

Ribbon is a thin film that is coated on one side with wax, resin, or wax resin, which is transferred to the media during the thermal transfer process. The media determines whether you need to use ribbon and how wide the ribbon must be. When ribbon is used, it must be as wide as or wider than the media being used. If the ribbon is narrower than the media, areas of the printhead are unprotected and subject to premature wear.

When to Use Ribbon

Thermal transfer media requires ribbon for printing while direct thermal media does not. Direct thermal media should never be used with ribbon. Bar codes and graphics can get distorted. To determine if ribbon must be used with a particular media, perform a media scratch test.

Coated Side of Ribbon

Ribbon can be wound with the coated side on the inside or outside. This printer can only use ribbon that is coated on the outside. If you are unsure which side of a particular roll of ribbon is coated, perform an adhesive test or a ribbon scratch test to determine which side is coated.

To determine which side of a ribbon is coated, complete these steps:

Ribbon Test with Adhesive

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

To perform an adhesive test, complete these steps:

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

4. Observe the results. Did flakes or particles of ink from the ribbon adhere to the label?

If ink from the ribbon...	Then...
Adhered to the label	The ribbon is coated on the **outside** and can be used with the G-Series printer.
Did not adhere to the label	The ribbon is coated on the **inside** and can not be used in the G-Series printer.

Ribbon Scratch Test

Perform the ribbon scratch test when labels are unavailable.

To perform a ribbon scratch test, complete these steps:

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

If the ribbon...	Then...
Left a mark on the paper	The ribbon is coated on the **outside** and can be used with the G-Series printer.
Did not leave a mark on the paper	The ribbon is coated on the **inside** and can not be used in the G-Series printer.