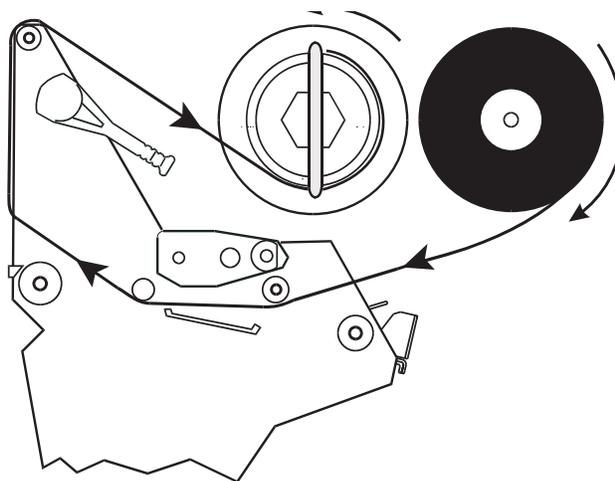


Load Ribbon

Always use ribbon that is wider than the media to protect the printhead from wear. Ribbon must be coated on the outside (see [Coated Side of Ribbon on page 35](#) to determine which side of a ribbon is coated). For direct thermal printing, do not load ribbon in the printer.

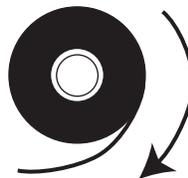
Figure 15 • Ribbon Path



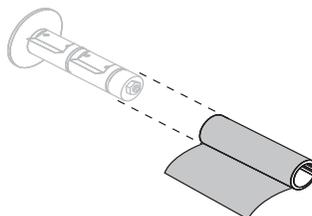
Caution • While performing any tasks near an open printhead, remove all rings, watches, hanging necklaces, identification badges, or other metallic objects that could touch the printhead. You are not required to turn off the printer power when working near an open printhead, but Zebra recommends it as a precaution. If you turn off the power, you will lose all temporary settings, such as label formats, and you must reload them before you resume printing.

To load ribbon, complete these steps:

1. Hold the ribbon with the loose end unrolling clockwise.

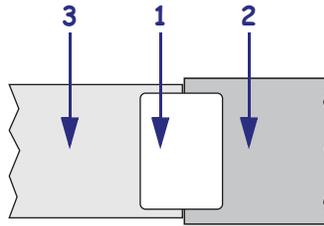


2. Place the roll of ribbon on the ribbon supply spindle and push it all the way back.

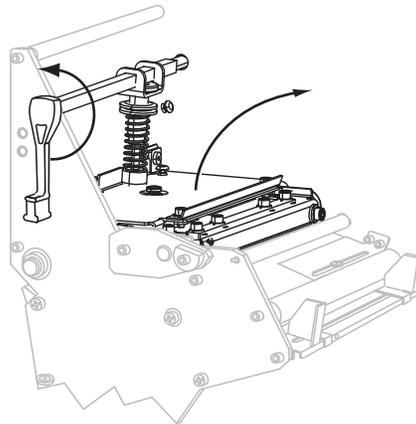


3. A ribbon leader makes ribbon loading and unloading easier. Does your roll of ribbon have paper or something else attached to the end to serve as a ribbon leader?

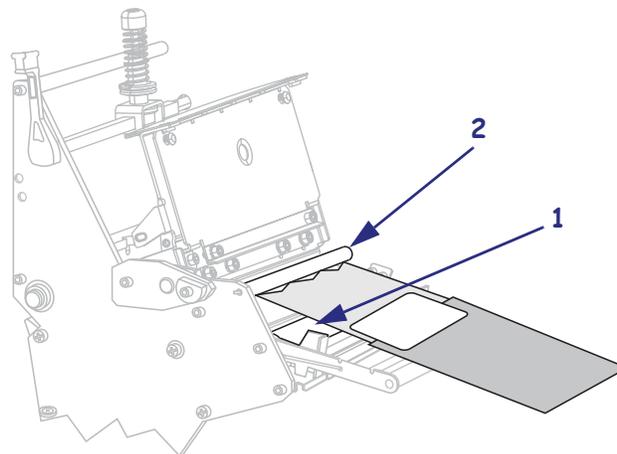
If...	Then...
Yes	Continue with the next step.
No	<p>a. Tear off a strip of media (labels and liner) about 6–12 in. (150–305 mm) long from the roll.</p> <p>b. Peel a label from the media strip.</p> <p>c. Use this label (1) to attach the end of the ribbon (2) to the media strip (3). The media strip acts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



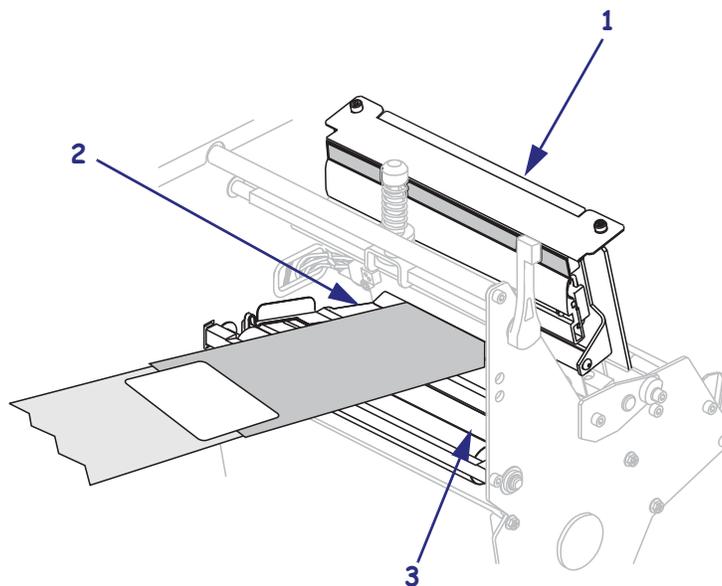
4. Open the printhead assembly by rotating the printhead-open lever counter-clockwise.



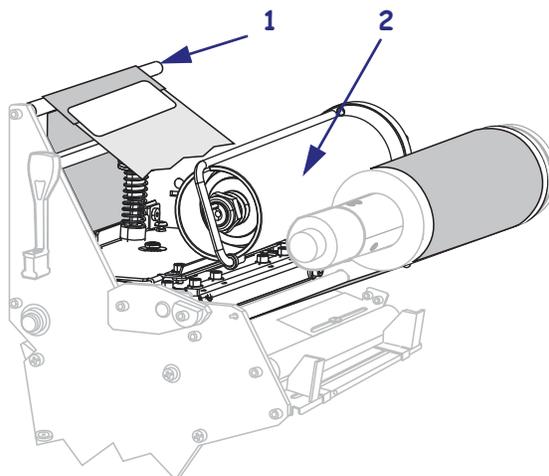
5. Thread the ribbon leader and attached ribbon over the lower roller (1) and under the upper roller (2).



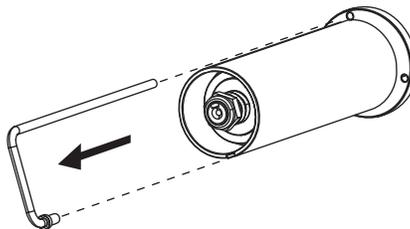
6. Push the ribbon leader forward until it passes under the printhead assembly (1), over the snap plate (2), and then over the platen roller (3).



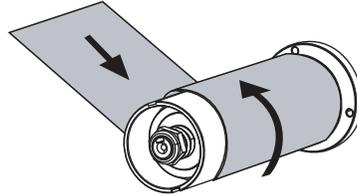
7. Bring the ribbon leader over the upper ribbon roller (1) and toward the ribbon take-up spindle (2).



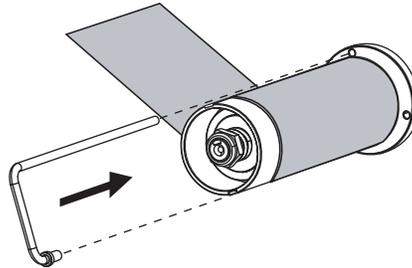
8. Remove the hook from the ribbon take-up spindle.



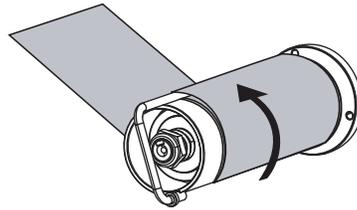
9. Wind the ribbon leader and the attached ribbon counterclockwise around the ribbon take-up spindle.



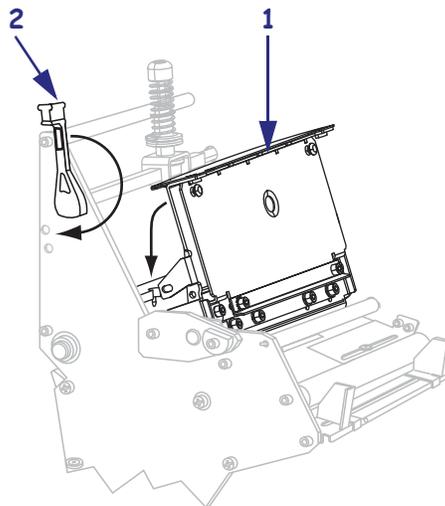
10. Reinstall the hook. The short end of the hook fits into the notch on the ribbon take-up spindle. The long end of the hook fits into the groove on the opposite side of the notch.



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



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

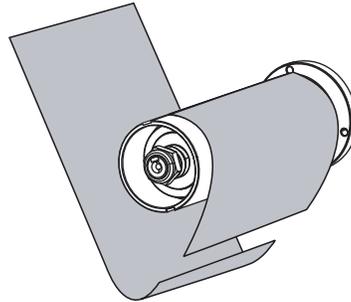


Remove Used Ribbon

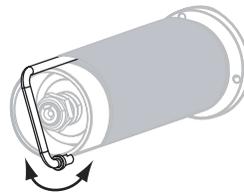
Remove used ribbon from the ribbon take-up spindle each time you change the roll of ribbon.

To remove used ribbon, complete these steps:

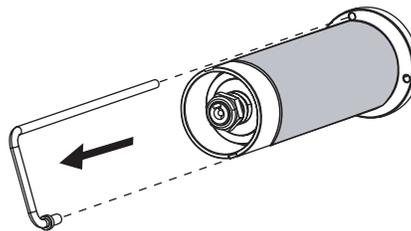
1. If the ribbon has not run out, cut or break it before the ribbon take-up spindle.



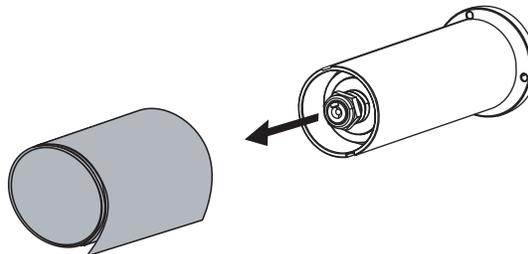
2. Push the hook until it slips out of the groove in the ribbon take-up spindle. Move the hook back and forth to loosen the ribbon.



3. Remove the loosened hook from the ribbon take-up spindle.



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



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. To determine if ribbon must be used with a particular media, perform a media scratch test.

To perform a media scratch test, complete these steps:

1. Scratch the print surface of the media rapidly with your fingernail.
2. Did a black mark appear on the media?

If a black mark...	Then the media is...
Does not appear on the media	Thermal transfer. A ribbon is required.
Appears on the media	Direct thermal. No ribbon is required.

Coated Side of Ribbon

Ribbon can be wound with the coated side on the inside or outside (Figure 8). 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.

Figure 8 • Ribbon Coated on Outside or Inside



Adhesive Test

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 in this printer.
Did not adhere to the label	The ribbon is coated on the inside and cannot be used in this printer. To verify this, repeat the test on the other surface of the roll of ribbon.

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 outer surface.
Did not leave a mark on the paper	The ribbon is coated on the inner surface and cannot be used in this printer. To verify this, repeat the test on the other surface of the roll of ribbon.