RFID Upgrade Kit

Installation Instructions

This kit includes the parts and documentation necessary to install the RFID upgrade kit in the following printers:

- ZM400™
- ZM600™

Read these instructions thoroughly before installing this kit.

Caution • A qualified service technician must perform this installation.

Important • You must have the proper firmware loaded in your printer for the main logic board (MLB) to recognize the RFID upgrade. Go to http://www.zebra.com and download the latest firmware for the RZ400/RZ600 printer.

28210L-001

Prepare for Installation

Parts List

Before proceeding, verify that your kit contains the items for your printer listed below.

**Table 1 • Parts List**

✓	Item	Qty	Part Number	Description
	Ref	1	**2729x-Rx**	RZxxx RFID Upgrade Kit
	1	1	*27197*	RZxxx RFID Reader Assembly
	2	4	**10461**	Nut, M2.5 $\times$ 0.45
	3	1	*21007*	RFID Reader Mounting Bracket
	4	4	*21020*	Spacers, 0.192 $\times$ 0.375 $\times$ 0.75
	5	2	**HW43482**	External Lock Washer, 4 mm (sold in quantities of 25)
	6	4	*21108*	Screw, M4 $\times$ 0.7 $\times$ 35
	7	1	*79704-1*	RZ400 End Cap
		1	*79706-1*	RZ600 End Cap
	8	1	*27282*	Coupler Cable Guide
	9	3	**HW78805**	Screw, M3 $\times$ 0.5 $\times$ 6 (sold in quantities of 50)
	10	1	**HW33822**	Flat Washer, 0.375 $\times$ 0.156 $\times$ 0.042 (sold in quantities of 100)
	11	1	**HW02324**	Cable Clamp, 0.125 in. (sold in quantities of 25)
	12	3	**HW44114**	Screw, M4.2 $\times$ 8 (sold in quantities of 50)
		1	**27278M**	RZ400 Coupler Assembly
	13	1	**27279M**	RZ600 Coupler Assembly
	14	2	*58923*	Screw, M3 $\times$ 0.5 $\times$ 10
	15	1	*34516-008*	Power Cable
	16	1	*27281-10.0*	Data Cable
	17	2	**HWQ06020**	Cable Tie, 0.09 $\times$ 3.62 (sold in quantities of 20)
	18	3	**HW45931**	Split Lock Washers, M4 (sold in quantities of 25)
	19	3	**HW10432**	Screw, M4 $\times$ 0.7 $\times$ 12 (sold in quantities of 25)
	20	3	*21109-1*	Standoff, M4 $\times$ 19
	21	1	*16055-007*	License Label
	22	1	*16055-034*	Agency Label

Bold = Part available for purchase.
Italic = Part not available for purchase; listed and shown for reference only.

Note • RFID installation hardware is available by ordering 27274M maintenance kit.

Figure 1 • Kit Contents
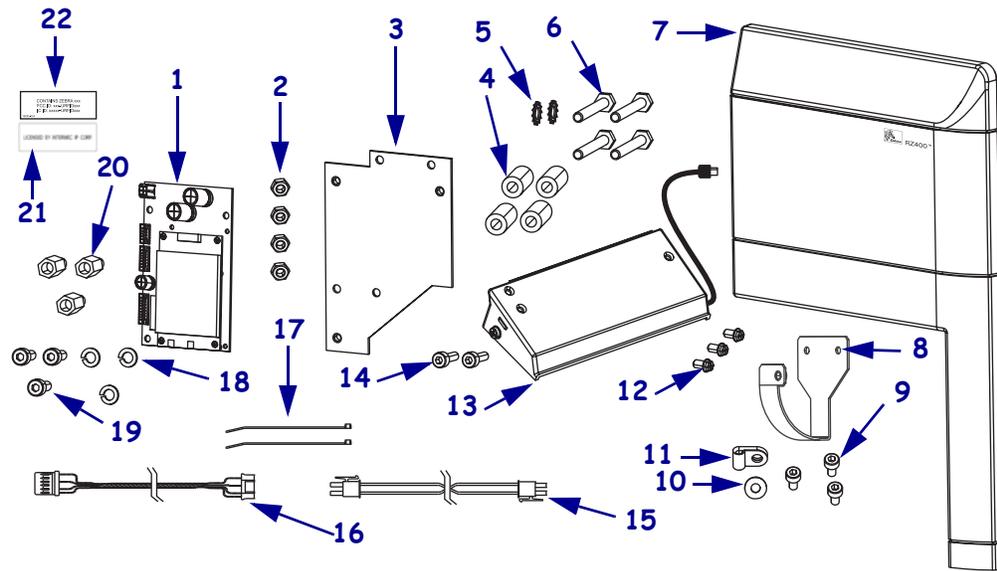
Reference Materials

- RZ400/600 User Guide CD
- ZM400/600 Maintenance Manual CD

Tools Required

Tools • You need these tools to complete this procedure:

❑ Phillips Screwdriver Set ❑ Metric Nut Driver Set
❑ Metric Hex Key (Allen wrench) Set ❑ Wire Cutters

Remove the Electronics Cover

1.

Caution • Turn off (**O**) the printer and disconnect it from the power source before performing the following procedure.

Turn off (**O**) the printer and disconnect the AC power cord and all data cables.

2.

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.

Remove the media and ribbon.

3. See Figure 2. Remove the screw and washer securing the electronics cover.
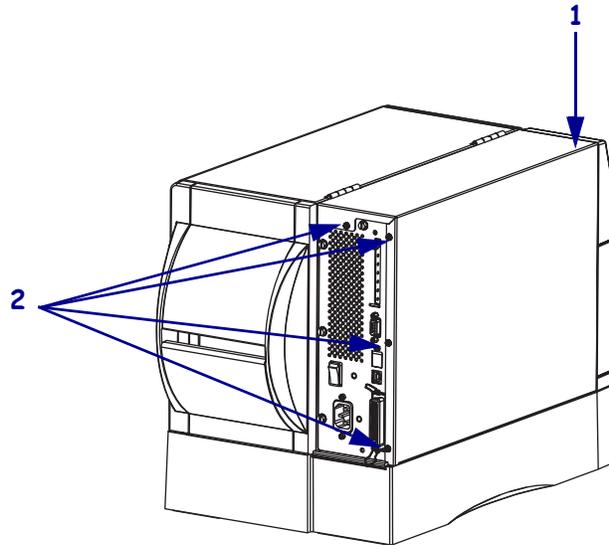
Figure 2 • Locate the Electronics Cover Mounting Screw
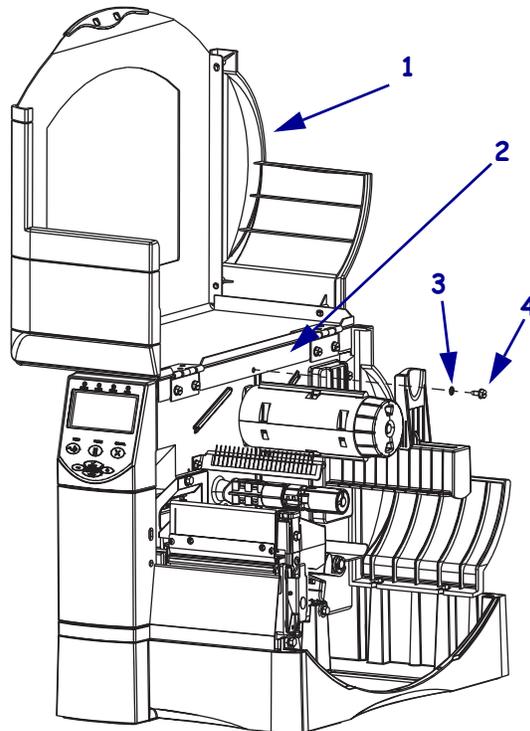
1	Media door
2	Electronics cover
3	Washer
4	Mounting screw

4. Close the media door.

5. See Figure 3. Remove the four mounting screws on the rear of the printer.
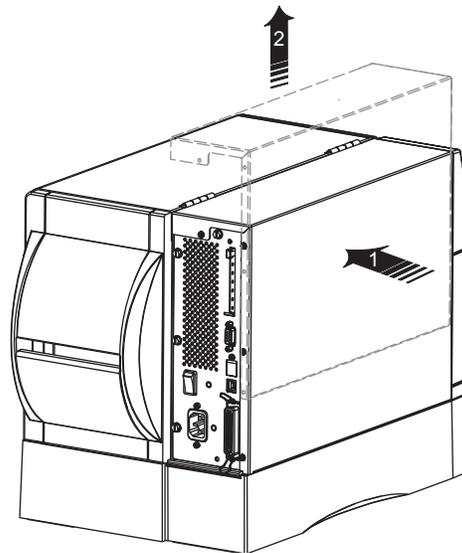
Figure 3 • Remove the Electronics Cover Mounting Screws

1	Electronics cover
2	Mounting screws (4)

6. See Figure 4. Remove the electronics cover by pressing in on the electronics cover with the palm of your hand, and then lifting up on the cover.

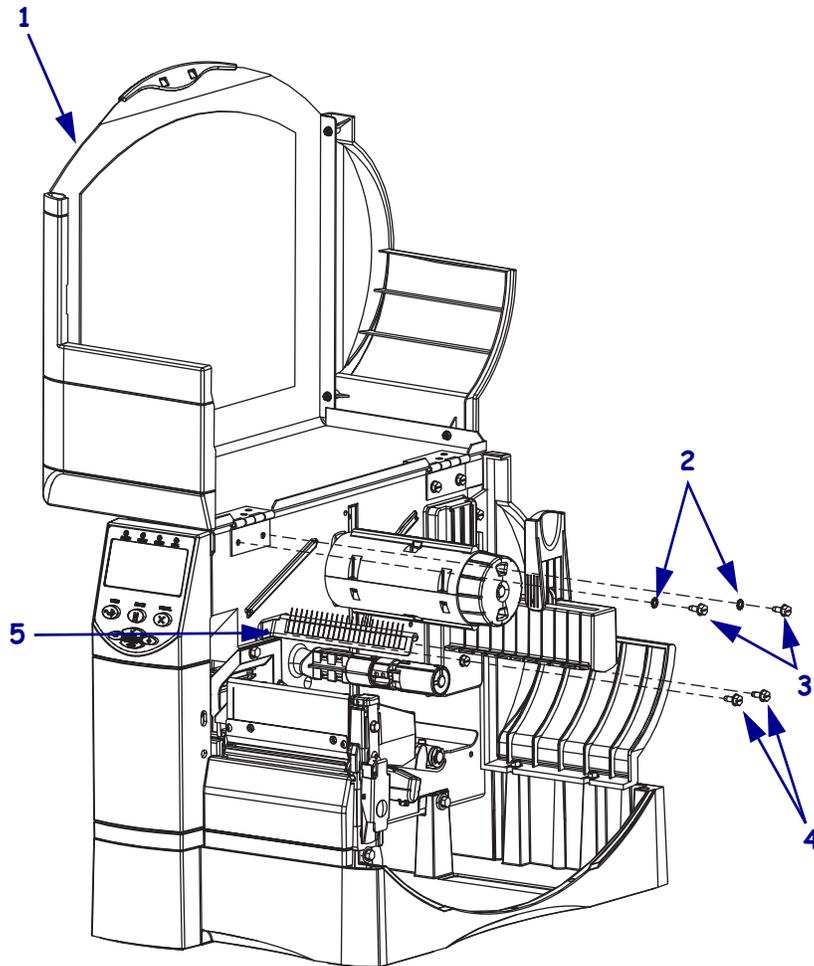**Figure 4 • Remove the Electronics Cover**

Install the RFID Reader

1. See Figure 5. Remove and discard the two front media door mounting screws and lock washers.

2. Remove and discard the two static brush mounting screws.

Figure 5 • Remove the Old Mounting Screws

1	Media door
2	Lock washers (2)
3	Media door front mounting screws (2)
4	Antistatic brush assembly mounting screws (2)
5	Antistatic brush assembly

3. See Figure 6. Install the new media door mounting screws and lock washers into the two front mounting holes.

Figure 6 • Install the New Mounting Screws
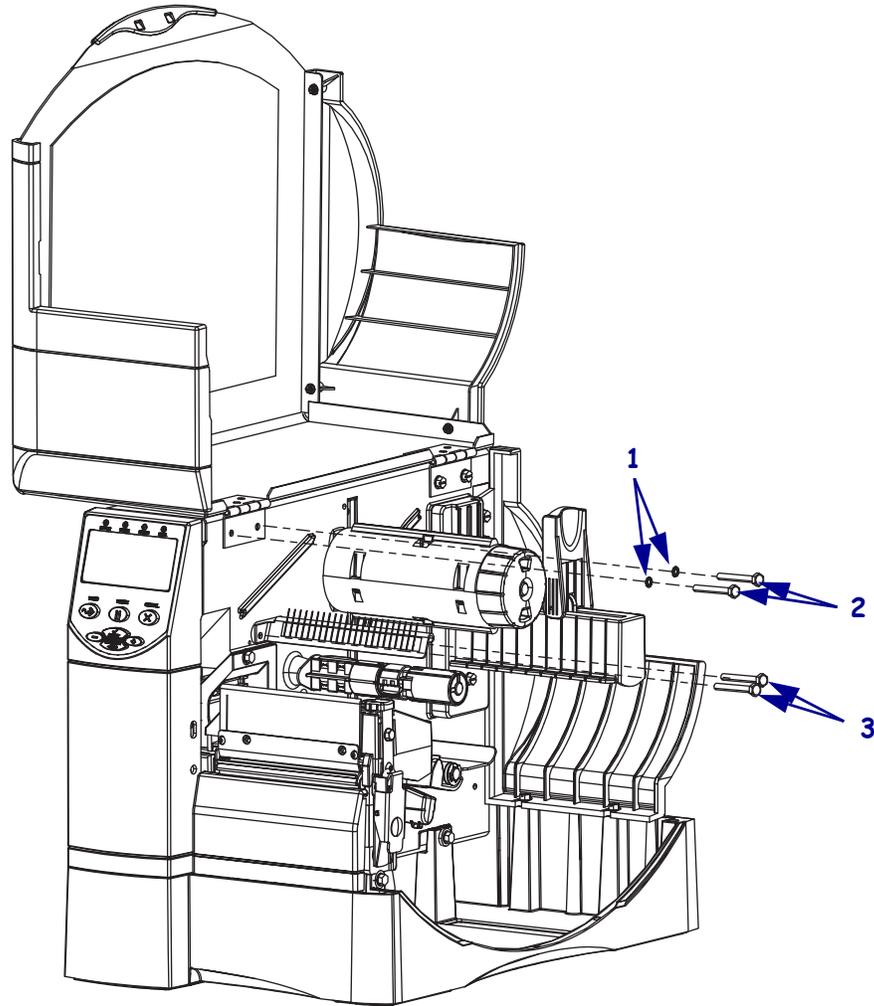
1	External lock washers (2)
2	Media door mounting screws(2)
3	Antistatic brush assembly mounting screws (2)

4. Align the antistatic brush assembly with the mounting holes and then install the two new mounting screws.

5. See Figure 7. Turn the printer around and then slide the four spacers onto the four screws just installed.
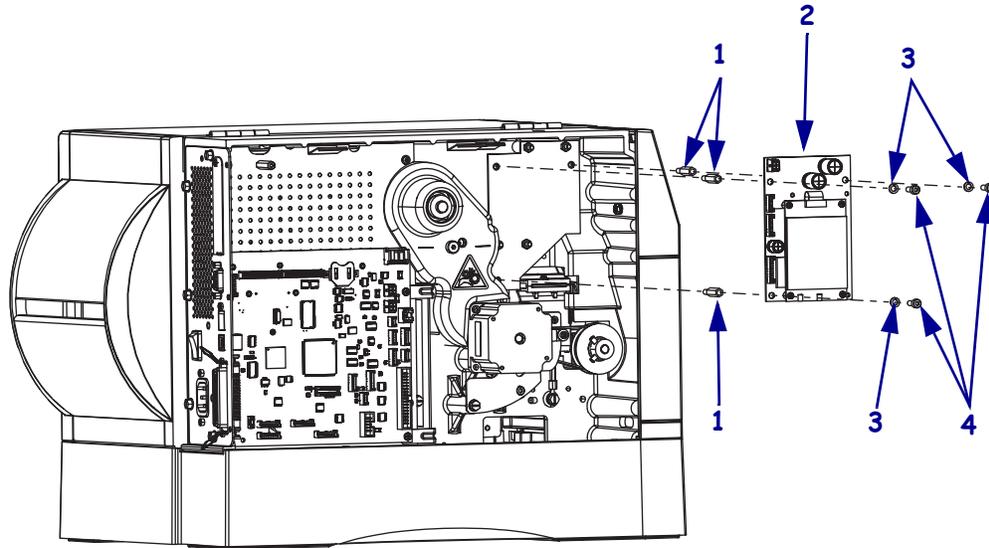
Figure 7 • Install the RFID Reader Mounting Bracket
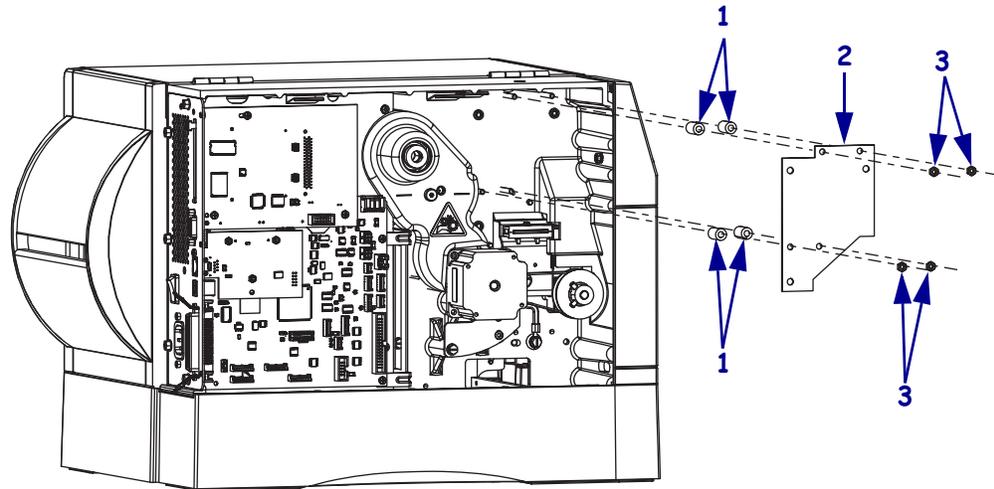
1	Spacers (4)
2	RFID mounting bracket
3	Mounting nuts (4)

6. Align the RFID reader mounting bracket with the four mounting screws and the slide it onto the four screws.

7. Install and tighten the four mounting nuts.

8. See Figure 9. Install and tighten the three standoffs.

**Figure 8 • Install the RFID Reader Board Assembly**

1	Standoffs (3)
2	RFID reader board assembly
3	Split washers (3)
4	Mounting screws (3)

9. Install one of the split lock washers onto one of the mounting screws.

10. Repeat step 9 for the remaining two mounting screws and split lock washers.

11. Align the RFID reader assembly mounting holes with the standoffs and then install, but do not tighten, the mounting screw and split lock washer through one of the RFID assembly mounting holes and into the corresponding standoff.

12. After all three mounting screws and split lock washers are started, tighten all three.

Install the Coupler Cable Guide and Cables

1. See Figure 9. Slide the bracket behind the drive belt, align the mounting holes in the bracket with the mounting holes in the printer and the install the two mounting screws.

Figure 9 • Install the Coupler Cable Guide Bracket
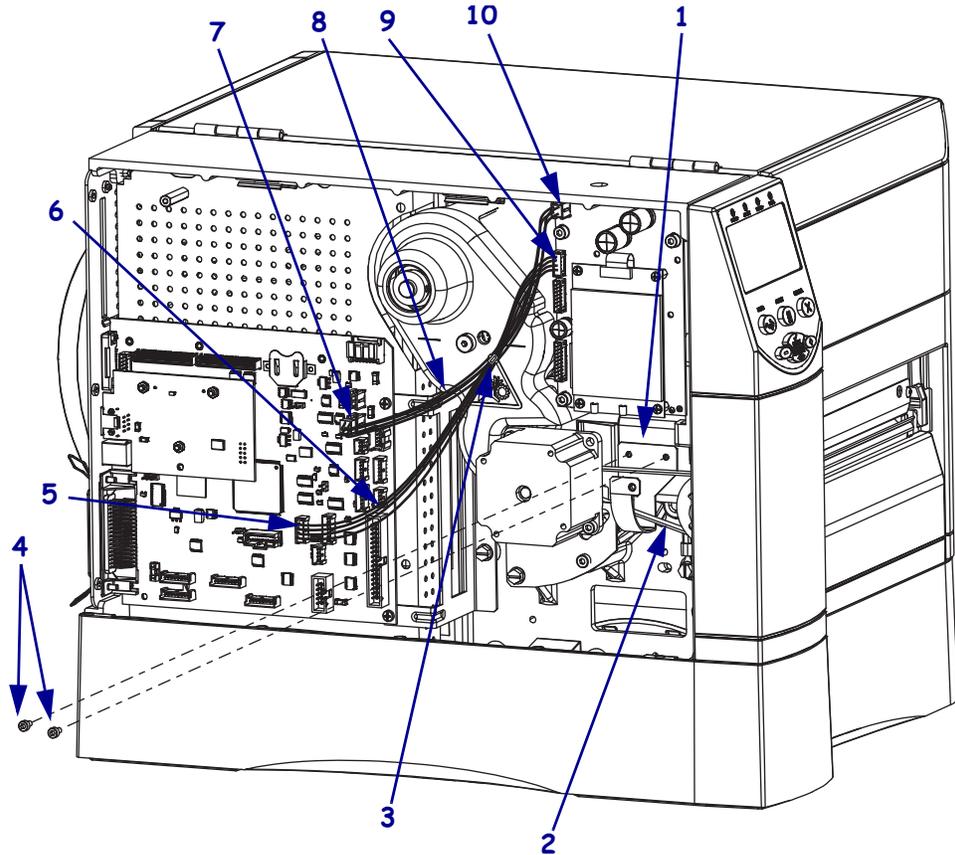
1	Coupler cable guide	**6**	Data cable
2	Drive belt	**7**	P28
3	Cable tie	**8**	Power cable
4	Mounting screws (2)	**9**	P1 HOST
5	P13 RFID	**10**	J1 PWR

2. Connect one end of the data cable to P13 on the main logic board and the other end to P1 HOST on the RFID reader assembly.

3. Connect one end of the power cable to P28 on the main logic board and the other end to J1 PWR on the RFID reader assembly.

4. Wrap a cable tie around the data and power cables at mid-point between the main logic board and the RFID reader assembly and pull it tight.

5. Which media handing option do you have installed?

| If you have a…	Then…
Cutter or Cutter/Rewind	Continue with *Remove the Cutter Module*.
Peel or Peel/Rewind	Go to *Remove the Peel Option* on page 12.
Tear	Go to *Remove the Front Cover* on page 13.

Remove the Cutter Module

1.

Caution • The cutter blade is sharp. Do not touch or rub the blade with your fingers.

See Figure 10. Turn the latch assembly 90 degrees to the left to gain access to the mounting screw and then remove the mounting screw.

Figure 10 • Remove the Cutter Option
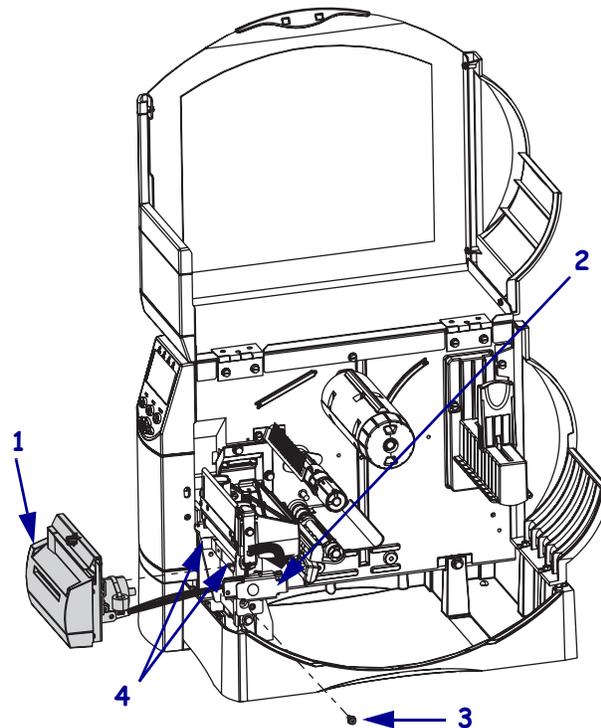
1	Cutter assembly
2	Latch assembly
3	Mounting screw
4	Platen assembly hooks

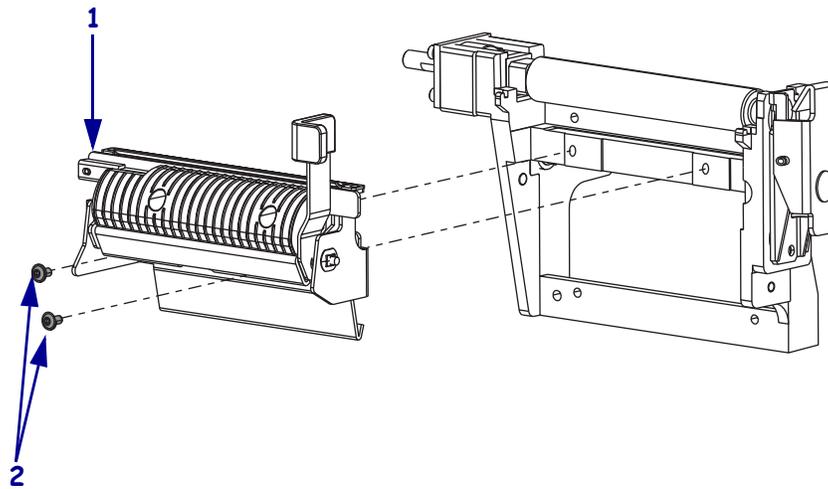2. Slide the cutter assembly to the left and lift.

Note • You may have to lift slightly higher on the left to clear the base.

3. Set the cutter assembly down.

4. Go to *Remove the Tear Bar* on page 14.

Remove the Peel Option

1. See Figure 11. Loosen the two mounting screws and remove the peel assembly.
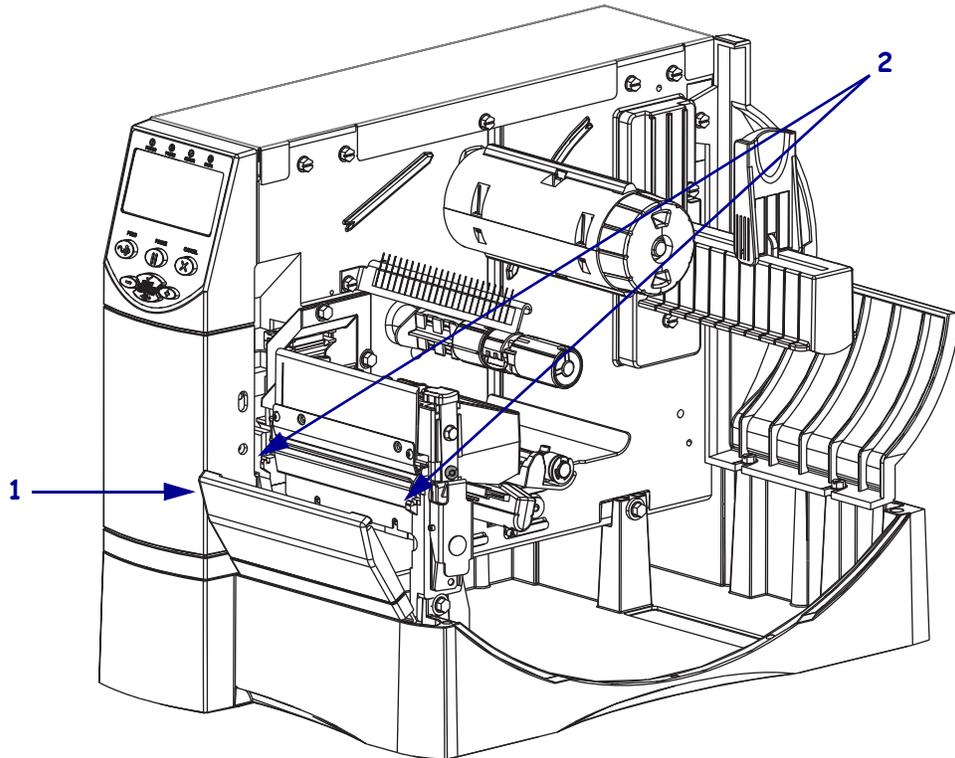
Figure 11 • Remove Peel Assembly

1	Peel assembly
2	Mounting screws (2)

2. Go to *Remove the Media Shelf* on page 15.

Remove the Front Cover

1. See Figure 12. Remove the front cover by prying out on the upper corners of the cover and then lifting it out of the printer.
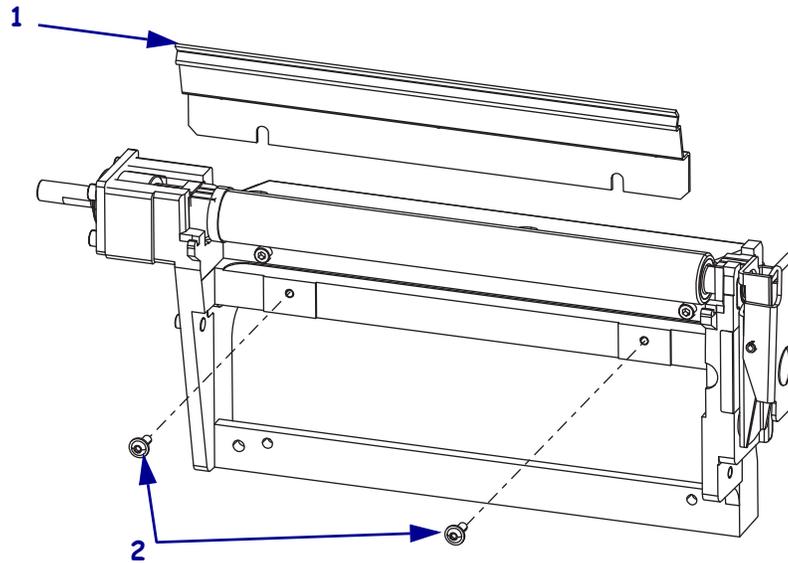
Figure 12 • Remove the Front Cover

1	Front cover
2	Mounting hooks

2. Continue with *Remove the Tear Bar*.

Remove the Tear Bar

1. See Figure 13. Remove the two tear bar mounting screws.
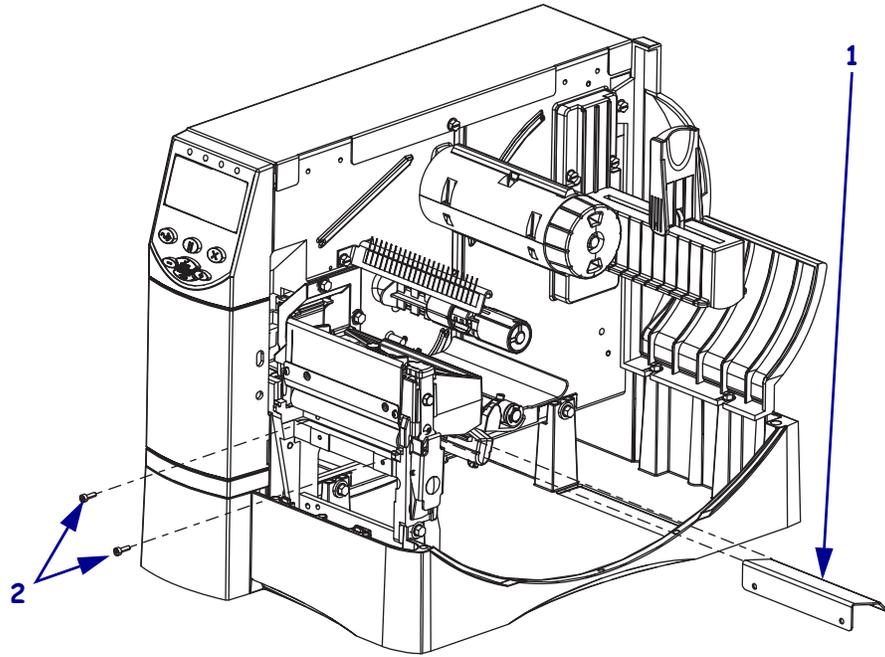
Figure 13 • Remove and Install the Tear Bar

1	Tear bar
2	Tear bar mounting screws (2)

2. Lift the tear bar out of the platen housing.

3. Continue with *Remove the Media Shelf*.

Remove the Media Shelf

1. See Figure 14. Remove and discard the two mounting screws.

**Figure 14 • Remove and Install the Media Shelf**

1	Media shelf
2	Mounting screws (2)

2. Slide the media shelf out of the printer and discard.

3. Continue with *Install the Coupler Assembly*.

Install the Coupler Assembly

1. See Figure 15. Slide the media guide out as far as possible.

2. Remove the coupler assembly from the kit.

3. See Figure 15. Turn the coupler assembly on its side as shown.

4. Guide the coupler cable through the access hole.
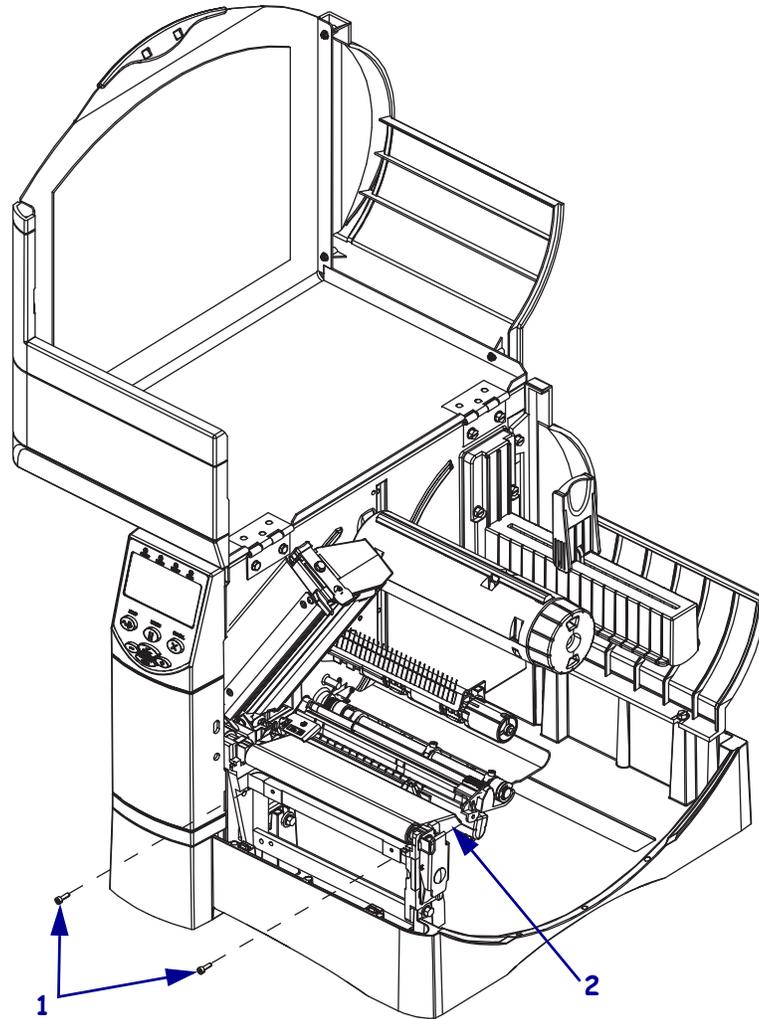
Figure 15 • Install the Coupler Assembly
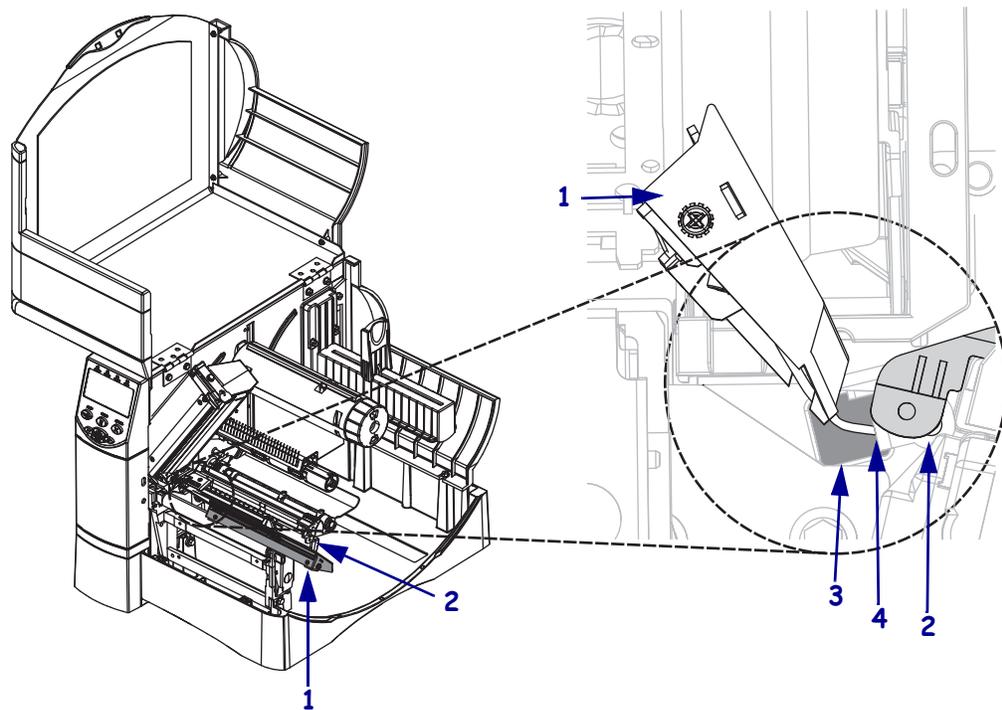
1	Coupler assembly
2	Media guide
3	Access hole
4	Coupler cable

5. Slide the coupler assembly into the printer.

6. See Figure 16. Align the mounting holes and then install the two mounting screws.
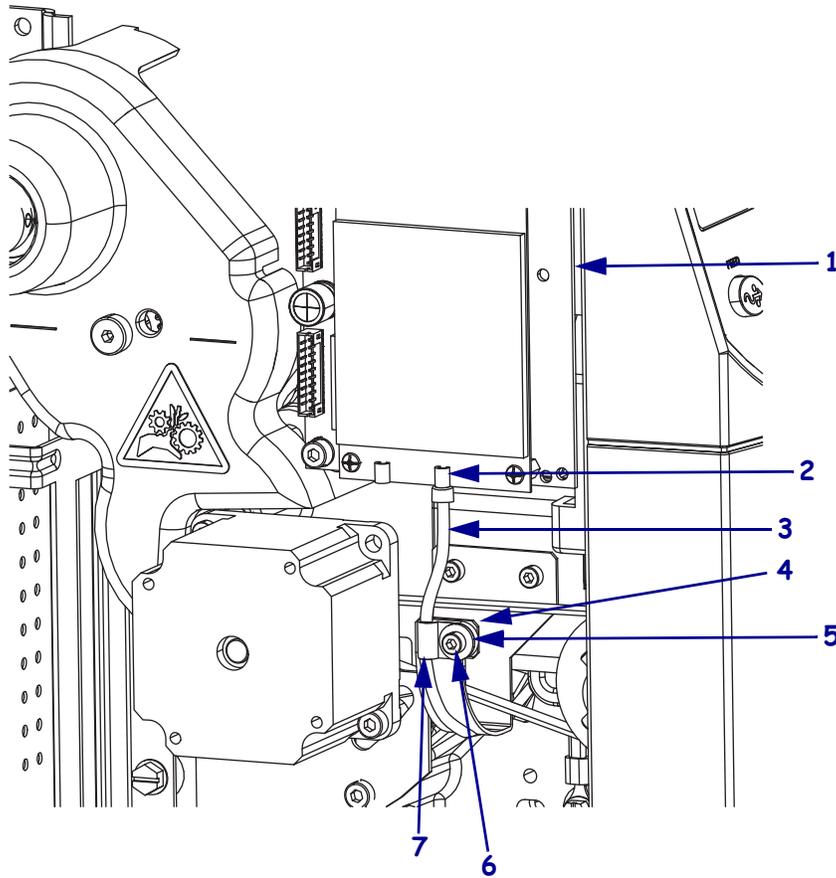
Figure 16 • Install the RFID Coupler Assembly

1	Mounting screws (2)
2	Coupler assembly

7. See Figure 17. Connect the coupler cable to J1 on the RFID reader board.

Figure 17 • Connect Coupler Cable to the RFID Reader Board

|	
1	RFID reader assembly
2	J1
3	Coupler cable
4	Coupler cable guide
5	Washer
6	Mounting screw
7	Cable clamp

8. Slide the cable clamp over the coupler cable and install it on the coupler cable guide bracket as shown with the flat washer and screw.

9. Continue with *Install the New Media Door Front End Cap*.

Install the New Media Door Front End Cap

1. See Figure 18. Remove the front end cap on the media door by removing and discarding the three mounting screws.

Figure 18 • Remove the Front Media Door End Cap
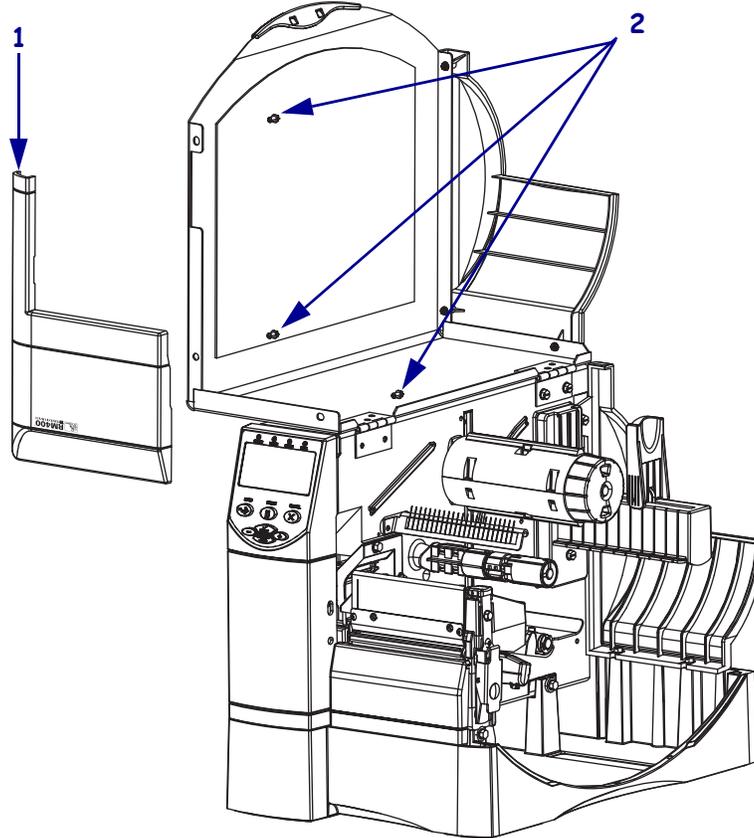
1	Front media door end cap
2	Mounting screws (3)

2. Remove the new end cap and mounting screws from the kit.

3. See Figure 18. Align the new end cap with the media door and install the three mounting screws.

4. Which media handing option do you have installed?

| If you have a…	Then…
Cutter or Cutter/Rewind	**a.** Go to *Reinstall the Tear Bar* on page 21. Reinstall the tear bar. **b.** Continue with *Reinstall the Cutter Module*.
Peel or Peel/Rewind	Go to *Reinstall the Peel Assembly* on page 24.
Tear	Go to *Reinstall the Tear Bar* on page 21.

Reinstall the Cutter Module

1. See Figure 10 on page 11. Reinstall the cutter assembly on the hooks of the platen housing.

2. Hold the cutter assembly as far to the left as possible, and align the larger part of the step slot with the hooks on the platen housing.

3. Slide the cutter assembly onto the hooks and then push down and slide the assembly to the right.

4. Using the cutter mounting screw removed earlier, secure the cutter assembly onto the platen assembly.

   The mounting tab on the cutter fits behind and attaches to the platen assembly.

5. Turn the latch assembly counterclockwise until it snaps in place.

6. Go to *Reinstall the Electronics Cover* on page 25.

Reinstall the Tear Bar

**1.** See Figure 19. Install the tear bar into the platen housing. Do not tighten the mounting screws at this time.

Figure 19 • Install the Tear Bar
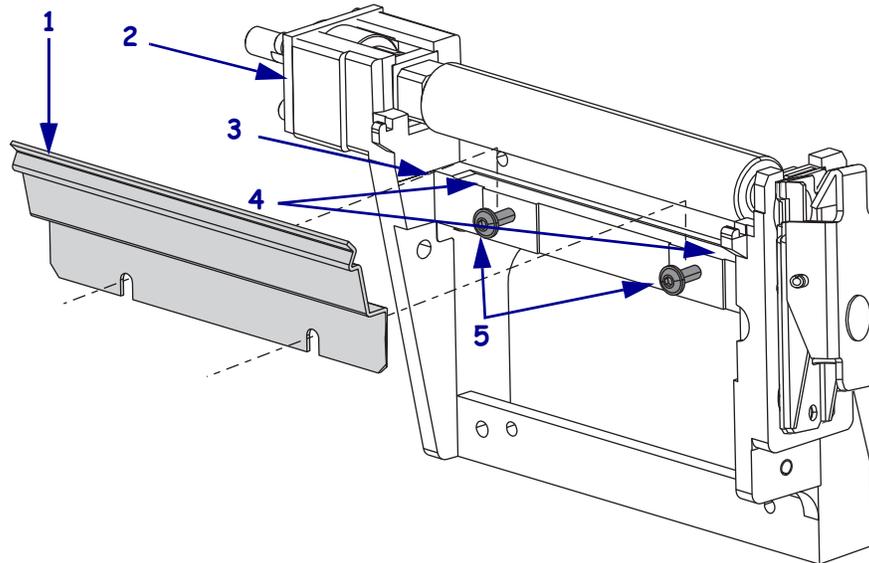
1	Tear bar
2	Platen housing
3	Horizontal mounting bar
4	Rest the pems on top of the horizontal mounting bar.
5	Mounting screws (2)

2. Lift the tear bar up slightly. See Figure 20. Push the tear-off bar back against the horizontal mounting bar of the platen housing and then back down until the pems are resting on the mounting bar.

Figure 20 • Locate the Pems

Pems
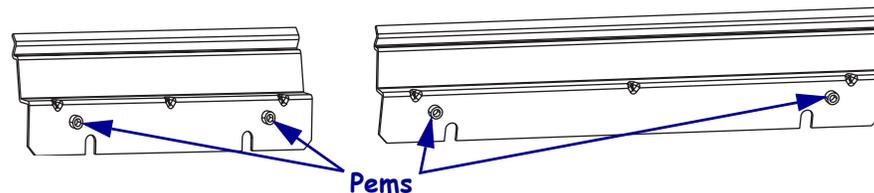
**3.** Tighten the mounting screws while keeping pressure down on the tear bar.

4. Which media handling option do you have installed?

If you have a…	Then…
Cutter or Cutter/Rewind	Go to *Reinstall the Cutter Module* on page 20
Tear	Continue with *Reinstall the Front Cover*.

Reinstall the Front Cover

1. See Figure 2. Hook the lower tabs of the lower front panel over the front of the base.

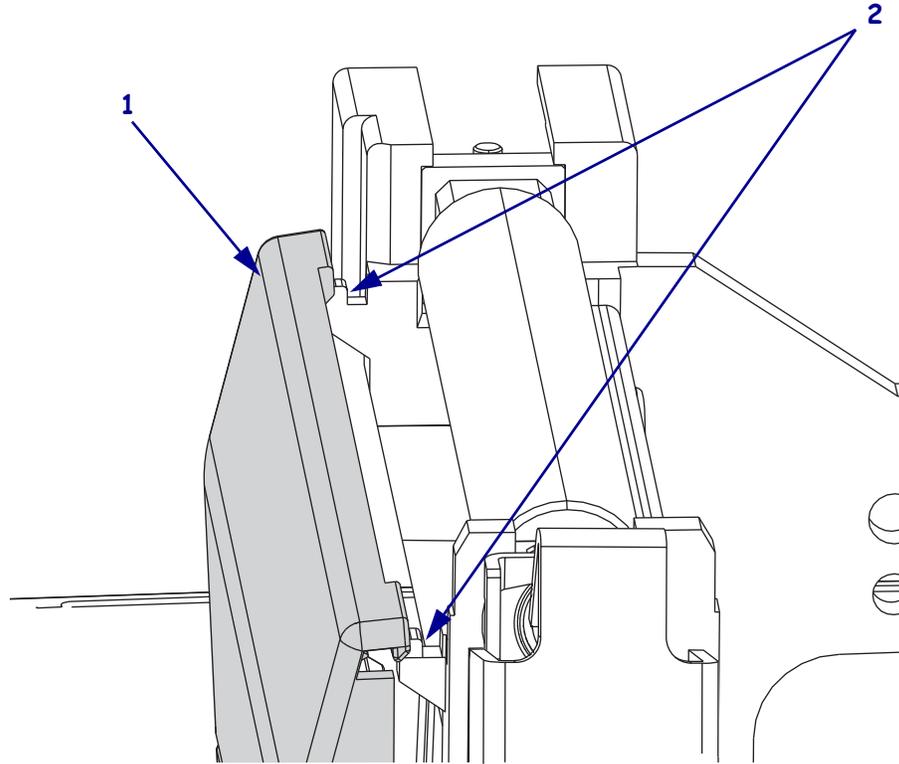**2.** Align the two notches in the lower front panel with the two guideposts on the base.

Figure 21 • Hook the Lower Tabs
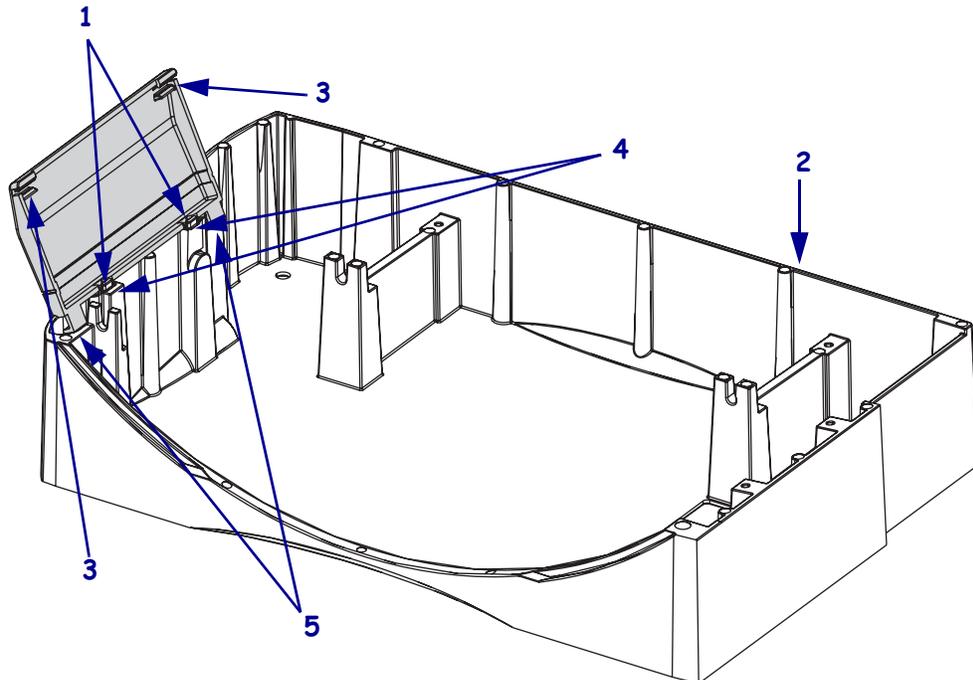
1	Notches (2)
2	Base
3	Upper tabs (2)
4	Guide posts (2)
5	Lower tabs (2)

3. See Figure 22. Tip the lower front panel up and snap the upper tabs onto the two mounting hooks.

Figure 22 • Snap to the Mounting Hooks

1	Lower front panel
2	Mounting hooks

4. Go to *Reinstall the Electronics Cover* on page 25.

Reinstall the Peel Assembly

1. See Figure 23. Install the two mounting screws from the kit, using the hex key (Allen wrench) supplied, into the tear bar mounting screw holes. Tighten them to within 1/4 in. of the platen housing.
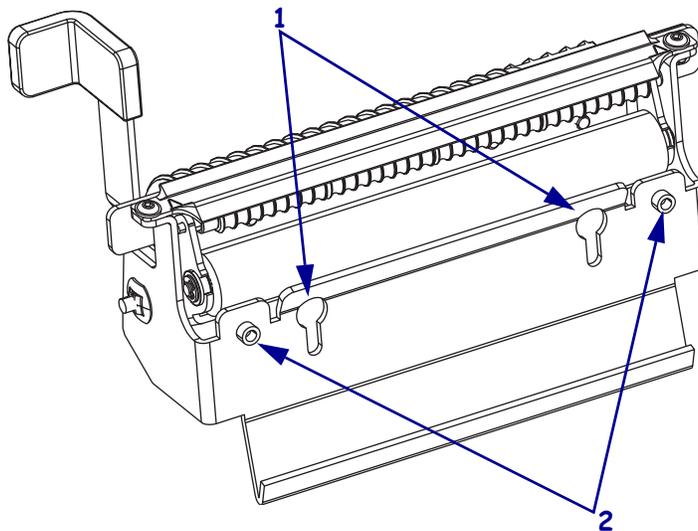
Figure 23 • Install Peel Assembly
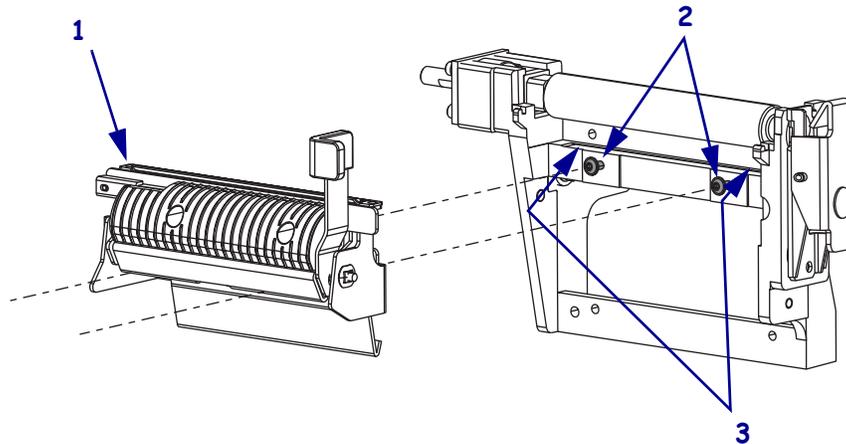
1	Peel assembly
2	Mounting screws (2)
3	Rest pems on housing here.

2. See Figure 24. Notice the pems and the mounting slots.

**Figure 24 • Rear View of Peel Assembly**

1	Mounting slots (2)
2	Pems (2)

3. See Figure 23 on page 24. Install the peel assembly with the pems to the rear and the opening in the mounting slot to the top.

   a. Insert the mounting slot opening over the two screws and lift up on the assembly.

   b. Now push the assembly back against the vertical surface of the platen housing then down, so that the pems are resting on the horizontal surface of the platen housing.

4. Maintain a slight pressure downward on the peel assembly, to keep the pems on the horizontal surface, and tighten the mounting screws.

5. Continue with *Reinstall the Electronics Cover*.

Reinstall the Electronics Cover

1. See Figure 25. Install the electronics cover by aligning it and sliding down, ensuring the lower flanges are inside the base and the upper flanges are between the main frame and the media door.

Figure 25 • Locate the Upper and Lower Flanges
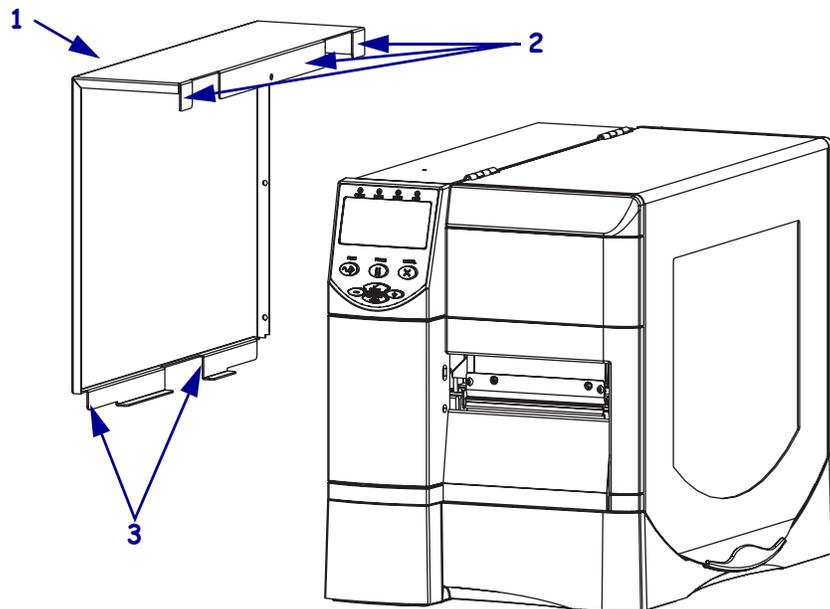
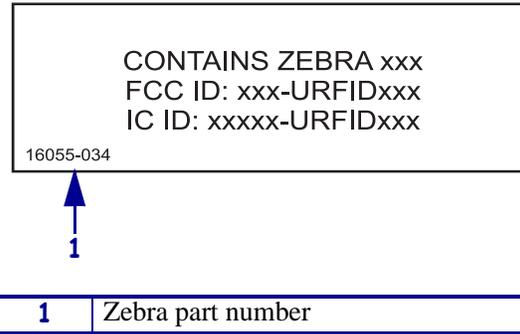| 1	Electronics cover
2	Upper flanges (3)
3	Lower flanges (2)

2. See Figure 4 on page 5. Install the four mounting screws.

3. See Figure 2 on page 4. Open the media door.

4. Install the electronics cover mounting screw and lock washer.

Attach Labels

1. See Figure 26. Examine the labels included with the kit.

There may be several labels included with your kit.

Figure 26 • Sample Label

CONTAINS ZEBRA xxx
FCC ID: xxx-URFIDxxx
IC ID: xxxxx-URFIDxxx

16055-034

| 1 | Zebra part number |

2. Do you have the wireless option install?

| If…	Then…
Yes	**Note •** Do not remove the plastic label with part number 39545-xxx affixed inside the media compartment of your printer.
No	Continue with step 3.

Note • Do not remove the printer model or the configuration labels. The model plate and configuration labels contain essential user information.

3. Remove the backing from the new agency label for your specific printer.

4. See Figure 27. Affix the agency label in the area to the left of the model plate.

Figure 27 • Attach Label
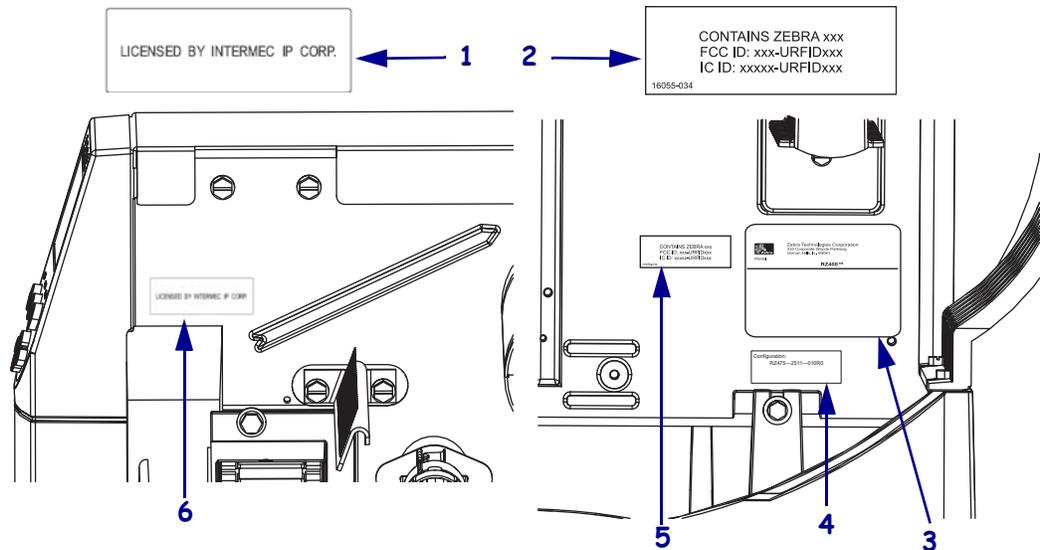
1	License label
2	Agency label
3	Printer model plate (Do not remove)
4	Printer configuration label (Do not remove)
5	Locate the agency label here
6	Locate the license label here

5. Remove the backing from the license label and affix it above the printhead as shown.

6. Discard any additional labels included in the kit.

7.

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

Reinstall the media and ribbon.

8. Reinstall the data cables and AC power cord.

9. Turn on (**I**) the printer.

Confirm RFID Upgrade

1. After the Power On Self Test (POST) is completed, press SETUP/EXIT and then press PREVIOUS (◄) twice.

2. RFID TAG DATA will be displayed on the first line of the LCD display, if the upgrade was installed properly.

Compliance Information

FCC Compliance Statement

This device complies with Part 15 rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.

The user is cautioned that any changes or modifications not expressly approved by Zebra Technologies Corporation could void the user's authority to operate the equipment. To ensure compliance, this printer must be used with Shielded Communication Cables.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Canadian DOC Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.