Printhead Assembly Maintenance Kit

Installation Instructions

This procedure is for installing the Printhead Assembly. Maintenance Kit into the following printers:

- Z4M™/Z6M™
- Z4Mplus™/Z6Mplus™
- R4Mplus™
- S4M™

Read these instructions thoroughly before performing this procedure.

Prepare for Installation

Parts List

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

Table 1 • Kit Parts List

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>G79056M</td>
<td>Z4M, Z4Mplus, and R4M printhead kit 203 dpi</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>G79057M</td>
<td>Z4M and Z4Mplus printhead kit 300 dpi</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>G41400M</td>
<td>S4M printhead kit 203 dpi</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>G41401M</td>
<td>S4M printhead kit 300 dpi</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>G79058M</td>
<td>Z6M and Z6Mplus printhead kit 203 dpi</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>G79059M</td>
<td>Z6M and Z6Mplus printhead kit 300 dpi</td>
</tr>
</tbody>
</table>

**Bold** = Part available for purchase.

**Italic** = Part not available for purchase, listed and shown for reference only.

Figure 1 • Kit Contents
Reference Materials

The following manuals and CDs may be helpful references while performing this procedure.

- S4M User Guide
- S4M User Guide CD
- S4M Maintenance Manual
- S4M Maintenance Manual CD
- Z4M/Z6M User Guide
- Z4M/Z6M Maintenance Manual
- Z4Mplus/Z6Mplus User Guide
- Z4Mplus/Z6Mplus Maintenance Manual
- Z Series User CD
- Z Series Maintenance Manual CD

Tools Required

Tools • You need these tools to complete this procedure:

- Phillips Screwdriver Set
- Antistatic Wriststrap and Mat
- 47362* Zebra Preventive Maintenance Kit
- Metric Nutdriver Set

* In place of the Preventive Maintenance Kit, you may use clean swabs and a solution containing isopropyl alcohol (≥ 90%) with deionized water (≤10%).

What type of printer do you have?

<table>
<thead>
<tr>
<th>If you have a...</th>
<th>Then...</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4M or Z Series printer</td>
<td>Continue with Remove the Z Series and S4M Printhead on page 3.</td>
</tr>
<tr>
<td>R4Mplus printer</td>
<td>Go to Remove the R4Mplus Electronics Cover on page 6.</td>
</tr>
</tbody>
</table>
Remove the Z Series and S4M Printhead

1. **Caution** • Observe proper electrostatic safety precautions when handling static-sensitive components such as circuit boards and printheads.

   Connect yourself to an antistatic device.

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

3. **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.

   Open the media door and remove media and ribbon.

4. See Figure 2. Note the current printhead pressure dial settings, and then rotate the two printhead pressure dials to position #1.

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**Figure 2 • Printhead Pressure Knobs**

<table>
<thead>
<tr>
<th>Z4M/Z4Mplus/S4M</th>
<th>Z4M/Z6Mplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

- 1: Position #1
- 2: Position #4
- 3: Thumbscrew
- 4: Printhead pressure dial (2)
5. See Figure 3. Remove the printhead thumbscrew.

6. **Caution** • The printhead may be hot and could cause severe burns. Allow the printhead to cool.

Unlatch the print mechanism and lift and latch it in the open position.

**Figure 3 • Printhead Assembly Mounting and Connections**

1. Thumbscrew
2. Printhead pressure dials (2)
3. Print mechanism assembly
4. Printhead connectors (2)
5. Printhead fork assembly
6. Locating holes (2)
7. Ribbon guide plate

7. Slide the printhead fork assembly out of the print mechanism.

8. With the cable connectors exposed, carefully disconnect the two printhead cables from the printhead assembly. Remove and discard the old printhead assembly.
Install the New Z Series and S4M Printhead

1. **Caution** • An improperly connected printhead data or power cable may cause the printhead to generate excessive heat and/or a false HEAD COLD message to display while the printhead is hot enough to cause severe burns. Allow the printhead to cool.

   Connect the printhead cables to the new printhead fork assembly and then carefully slide the assembly into the print mechanism.

2. **Important** • When mounting the printhead fork assembly onto the print mechanism, visually inspect and ensure the following:
   - the cables are in their channels at the back of their carrier assembly
   - the power cable is under data cable
   - they are not binding on the print mechanism

3. Ensure the two locating protrusions on the print mechanism mounting plate snap into the locating holes on the printhead fork assembly.

4. Try to move the printhead fork assembly back and forth to make sure that it is engaged; the assembly should not move. If the assembly moves, repeat step 2.

   **Important** • The printhead must be properly engaged with the ribbon guide plate to ensure proper print quality.

5. Secure the printhead to the mechanism with the previously removed thumbscrew and close the print mechanism.

6. Rotate the two printhead pressure dials to the desired position for your daily printing, as noted in step 4 on page 3.

   **Caution** • Do not use sharp objects to clean the printhead or platen roller.

   Clean the printhead and platen roller using Zebra Preventive Maintenance Kit (47362).

7. Reinstall media and ribbon and close the media door.

8. Reconnect the AC power cord and data cables.

9. Turn on (I) the printer.
Remove the R4Mplus Electronics Cover

1. **Caution** • Observe proper electrostatic safety precautions when handling static-sensitive components such as circuit boards and printheads.

Connect yourself to an antistatic device.

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

3. Open the media door and remove media and ribbon.

4. Refer to Figure 4. Remove the electronics cover mounting screw and lock washer.

**Figure 4 • Remove Electronics Cover**

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<table>
<thead>
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<tbody>
<tr>
<td>1</td>
<td>Electronics cover</td>
</tr>
<tr>
<td>2</td>
<td>Upper flange</td>
</tr>
<tr>
<td>3</td>
<td>Media door</td>
</tr>
<tr>
<td>4</td>
<td>Lock washer</td>
</tr>
<tr>
<td>5</td>
<td>Mounting screw</td>
</tr>
<tr>
<td>6</td>
<td>Lower flange</td>
</tr>
</tbody>
</table>
5. See Figure 5. Remove the electronics cover by pressing in on the electronics cover with the palm of your hand, then lifting up on the cover to remove it.

Figure 5 • Remove and Install the Electronics Cover
Remove the R4Mplus Old Printhead

1. See Figure 6. Open the media door. Note the current printhead pressure dial settings, and then rotate the two printhead pressure dials to position #1.

Figure 6 • Top View of Print Mechanism

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>Position #1</td>
</tr>
<tr>
<td>2</td>
<td>Position #4</td>
</tr>
<tr>
<td>3</td>
<td>Thumbscrew</td>
</tr>
<tr>
<td>4</td>
<td>Printhead Pressure dial (2)</td>
</tr>
</tbody>
</table>
2. **Caution** • The printhead may be hot and could cause severe burns. Allow the printhead to cool.

See Figure 7. Remove the printhead thumbscrew.

**Figure 7 • Remove and Install the Printhead**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Thumbscrew</td>
</tr>
<tr>
<td>2</td>
<td>Printhead pressure dial (2)</td>
</tr>
<tr>
<td>3</td>
<td>Print mechanism assembly</td>
</tr>
<tr>
<td>4</td>
<td>Printhead connectors (2)</td>
</tr>
<tr>
<td>5</td>
<td>Printhead fork assembly</td>
</tr>
<tr>
<td>6</td>
<td>Printhead lower guide</td>
</tr>
<tr>
<td>7</td>
<td>Lower guide release tab</td>
</tr>
<tr>
<td>8</td>
<td>Antenna</td>
</tr>
<tr>
<td>9</td>
<td>Locating holes (2)</td>
</tr>
<tr>
<td>10</td>
<td>Mounting plate</td>
</tr>
</tbody>
</table>
3. **Caution** • Be sure that the printhead is fully open and latched in the open position.

Unlatch the print mechanism; lift and latch it in the open position.

4. Slide the printhead fork assembly out of the print mechanism.

5. With the cable connectors exposed, carefully disconnect the two printhead cables from the printhead assembly.

6. See Figure 8 on page 11. Disconnect the antenna assembly from the Reader PC board assembly. Feed the antenna wire through the deflector’s cable clamp, and through the hole in the frame. Remove and discard the old printhead.

7. See Figure 7 on page 9. Use a small flat blade screwdriver and gently pry out the release tab and then remove the printhead lower guide.
Install the New R4Mplus Printhead

1. Remove the new printhead lower guide and snap the printhead lower guide with antenna to the bottom of the new printhead.

2. See Figure 8. Place the antenna wire through the hole in the frame, through the deflector’s cable clamp, and connect the antenna lead into the reader board assembly.

**Note** • Ensure that the antenna lead is plugged into the right side of the reader board. If the antenna lead is plugged into the wrong port, the unit will not work, and the reader board assembly will be damaged.

*Figure 8 • Connect the Antenna Lead*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main frame</td>
</tr>
<tr>
<td>2</td>
<td>Reader PCB assembly</td>
</tr>
<tr>
<td>3</td>
<td>Antenna lead</td>
</tr>
<tr>
<td>4</td>
<td>Deflector</td>
</tr>
<tr>
<td>5</td>
<td>Base</td>
</tr>
</tbody>
</table>
3. Connect the printhead cables to the printhead fork assembly, and carefully slide the assembly into the print mechanism.

**Important** • When mounting the printhead fork assembly onto the print mechanism, visually inspect and ensure the following:
• the cables are in their channels at the back of their carrier assembly
• the power cable is under data cable
• the antenna wire out to the side
• they are not binding on the print mechanism

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4. Ensure the two locating protrusions on the print mechanism mounting plate snap into the locating holes on the printhead fork assembly. Move the assembly back and forth to be sure that it is engaged. There should be little movement.

5. Secure the printhead to the mechanism with the previously removed thumbscrew and close the print mechanism.

6. Rotate the two printhead pressure dials to the desired position for your daily printing.

7. **Caution** • Do not use sharp objects to clean the printhead or platen roller.

Clean the printhead and platen roller using Zebra Preventive Maintenance Kit (47362).

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**Reinstall the R4Mplus Electronics Cover**

1. See Figure 5 on page 7. Reinstall the electronics cover by aligning it and sliding down, ensuring the lower tabs are inside the base and the upper flange is between the main frame and the media door.

2. Install the four mounting screws on the back of the printer.

3. See Figure 4 on page 6. Reopen the media door and install the mounting screw and washer.

4. Reinstall media and ribbon and close the media door.

5. Reconnect AC power cord and data cables.

6. Turn on (I) the printer.