PM23c | PM43 | PM43c
DUART Interface Board

Installation Instructions
Install the DUART Interface Option Board

Use these instructions to install the DUART interface option board in Intermec PM23c, PM43, and PM43c printers.

You will find these items in the shipping box:

![DUART interface option board](image)

You will need the following tools to install the DUART interface option board:

- T20 Torx screwdrivers
- Small wrench

To install the DUART interface option board, you need to open the printer and physically install the board in the printer.

**This board must only be installed by an authorized service technician.**

Follow standard ESD guidelines to avoid damaging the equipment you are servicing.

**Follow ESD Procedures**

Before you begin, turn off the printer and disconnect the power cord and communication cables.

**Caution**

The electronic compartment contains wires and components with dangerous voltage. Make sure that the printer is switched off and the power cord is disconnected before the cover is removed.

**Warning**
Open the Printer

You need to remove both the media cover and the electronics cover to install the DUART interface option board.

To remove the media cover

1. Open the media cover.

2. Use the small wrench to loosen the nut that secures the media cover latches in place.

3. Slide the latches counterclockwise into the open position.

4. Close the media cover and lift it off the hinges.

5. Put the media cover aside on a soft cloth to avoid scratches.
To remove the electronics cover

1 Use a T20 Torx screwdriver to remove the two screws that secure the electronics cover to the inside of the printer base.

2 Use a T20 Torx screwdriver to remove the two screws located on the outside of the electronics cover.

3 Remove the electronics cover, and put the cover aside on a soft cloth to avoid scratches.
To install the DUART interface option board

1. On the back of the printer, remove the two screws that secure the cover plate to the printer, and remove the cover plate.

2. Attach the spacer screw to the center of the printer main board.

3. Insert the DUART interface option board into the printer and use the T20 Torx screwdriver to secure the board assembly to the printer with the two Torx screws removed in Step 1.
4 Use the T20 Torx screwdriver to secure the board assembly to the spacer screw with a Torx screw.

5 Insert the single or dual option board cable into the 80-pin connector on the printer main board.

6 Insert the other end of the option cable into the 80-pin connector on the DUART interface option board.

Note: You may need to use the dual option cable to connect to the main board depending on which slot you use for the DUART interface option board.
7 Install the jumpers and ICs on the board to configure each UART for the type of serial communication you want to use:

<table>
<thead>
<tr>
<th>To configure UARTA as:</th>
<th>Install these jumpers and ICs:</th>
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</thead>
</table>
| RS-232                 | 1 Install a jumper on P4 so that the A is in the middle of the jumper.  
                          | 2 Install IC, 360-028-001 (MAX238) on SKT3 with pin 1 located where the arrow points to SKT3 toward the bottom of the board. |
| RS-422                 | 1 Install jumpers on P5 and P6.  
                          | 2 Install IC, 360-027-001 (MAX1490), across sockets SKT1 and SKT4 with pin 1 located where the arrow is pointing to SKT1 toward the bottom of the board. |
| RS-485                 | 1 Install a jumper on P3.  
                          | 2 (Optionally) Install a jumper on P6 if this printer is going to be connected to the end of the cable.  
<pre><code>                      | 3 Install IC, 360-026-001 (MAX1480), across SKT2 and SKT5 with pin 1 located where the arrow is pointing to SKT2 toward the bottom of the board. |
</code></pre>
<table>
<thead>
<tr>
<th>To configure UARTB as:</th>
<th>Install these jumpers and ICs:</th>
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</thead>
<tbody>
<tr>
<td><strong>RS-232</strong></td>
<td>1 Install a jumper on P8 so that the A is in the middle of the jumper.</td>
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<tr>
<td></td>
<td>2 Install IC, 360-028-001 (MAX238) on SKT6 with pin 1 located where the arrow points to SKT6 toward the bottom of the board.</td>
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<tr>
<td><strong>Non-isolated RS-422</strong></td>
<td>1 Install jumpers on P8 so that the B is in the middle of the jumper.</td>
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<tr>
<td></td>
<td>2 Install IC, 360-025-001 (DS8921), on SKT7 with pin 1 located where the arrow is pointing to SKT7 on the board.</td>
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<tr>
<td><strong>20 mA Current Loop</strong></td>
<td>1 Install a jumper on P7.</td>
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<td></td>
<td>2 For an <strong>active</strong> transmitter: Install one jumper at P11A, P11C, P12A, and P12C. For a <strong>passive</strong> transmitter: Install one jumper at P11B and P12B.</td>
</tr>
<tr>
<td></td>
<td>3 Install one IC, 360-013-001 (6N139), on sockets SKT8 and SKT9 with pin 1 located where the arrow is pointing to SKT8 and SKT9 on the board.</td>
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</tbody>
</table>

8 Replace the electronics cover.

9 Replace the media cover.