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VMIVME-7452

VMEbus Floppy/Hard Disk Module

Installation Guide

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INSTALLATION OF THE VMIVME-7452 VMEbus FLOPPY/HARD DISK MODULE

The VMIVME-7452 is designed to be used in conjunction with VMIC's line of VMEbus-compatible PC / AT CPU boards and with the VMIPMC-5588 Reflective Memory board. It includes features designed specifically for use with the VMIVME-7589 and the VMIVME-7587 / VMIPMC-5588 combination.

A labeled diagram of the VMIVME-7452 is included and will be repeatedly referenced throughout this installation guide.

Contents

Three separate procedures are outlined in this installation guide, these include:

1. Connect the VMIVME-7452 to a VMEbus-based CPU
2. Connect the VMIVME-7452 to a VMIVME-7587 / VMIPMC-5588 combination.
3. Connect the VMIVME-7452 to a VMIVME-7589

WARNING

Do not power up the VMIVME-7452 without it being connected to the CPU board in one of the hardware configurations shown on the following pages. Powering up an unconnected module will cause the loss of any software configuration on the VMIVME-7452 hard disk.

Note

When removing the CPU board and the VMIVME-7452, first eject the VMIVME-7452, then eject the CPU board and slide both boards out simultaneously.

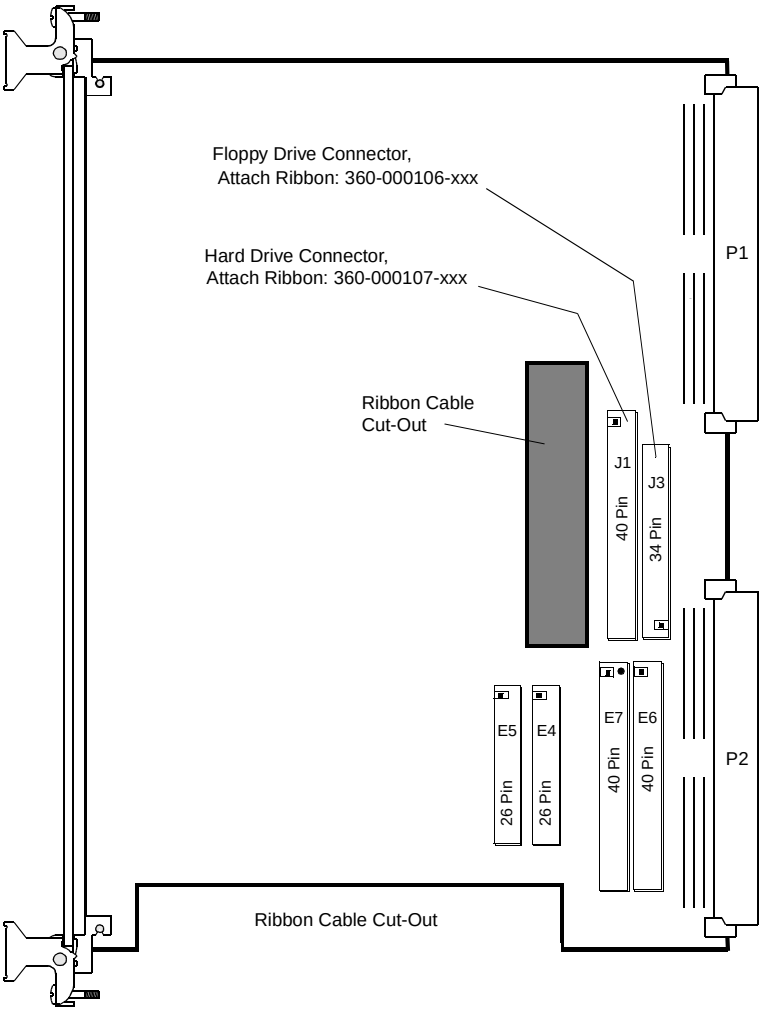


Figure 1 VMIVME-7452 Board Layout

Procedure 1.0 Connect the VMIVME-7452 to a VMEbus-Based CPU

1. Place the CPU board, front panel end down, perpendicular to the solder side of the VMIVME-7452 as illustrated in Figure 2.
2. Connect the 34-pin female floppy drive ribbon cable extending from the solder side cut-out of the VMIVME-7452 to the 34-pin male connector on the CPU board.
3. Connect the 40-pin female hard drive ribbon cable extending from the solder side cut-out of the VMIVME-7452 to the 40-pin male connector on the CPU board.

Note

Ensure that the red edge of the floppy and hard drive cables correspond to pin 1 of the floppy and hard drive connectors on the VMEbus-based CPU. For example, Figure 4 on page 6 illustrates the location of pin 1 on the floppy and drive connectors for the VMIVME-7587 product.

4. Rotate the CPU board so that it is parallel to the VMIVME-7452 with front panels side by side.
5. Using caution so as not to stress any pins on the CPU board, slide both boards into the VMEbus chassis card guides. Insert the CPU board into the backplane first, then insert the VMIVME-7452 into the backplane. This insertion order is important to ensure that the drive cables will have sufficient slack.

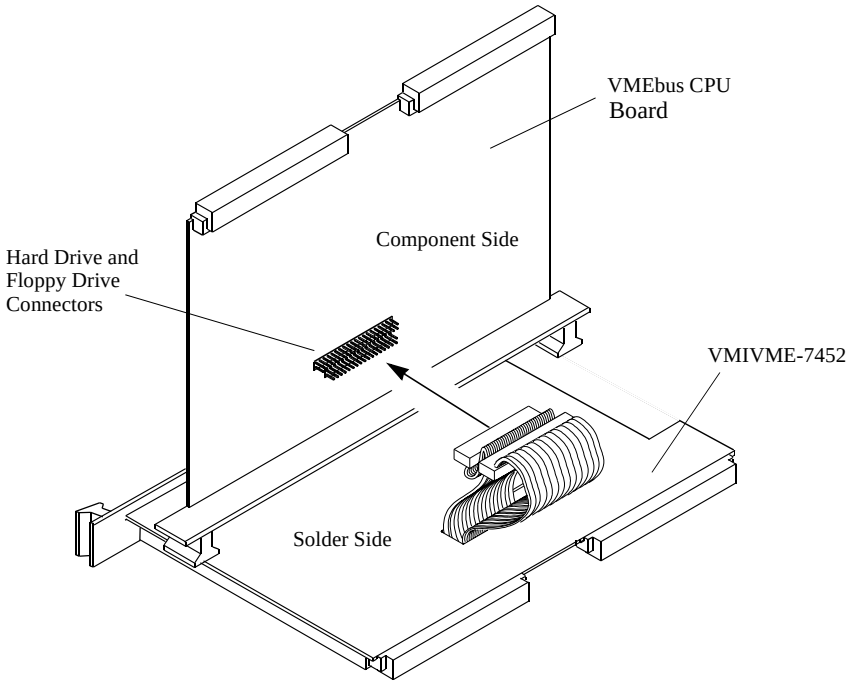


Figure 2 Illustration of Connecting a VMIVME-7452 to a VMIC CPU Board

Procedure 2.0 Connect the VMIVME-7452 to a VMIVME-7587/ VMIPMC-5588 Combination

The VMIVME-7452 is designed with a cut-out in the bottom of the board to accommodate the VMIVME-7587/VMIPMC-5588 connection. This cut-out is illustrated at the bottom VMIVME-7452 diagram in Figure 1 on page 2. The proper sequence of the three boards along with the VMIPMC-5588 mezzanine attachment is illustrated in Figure 3 on page 5 and in Figure 4 on page 6.

The connector cables 360-000106-ABC and 360-000107-ABC provided with the VMIVME-7452 are used with the VMIVME-7587 in this configuration.

Note

When removing the CPU board and the VMIVME-7452, be sure to eject the VMIVME-7452 first, then eject the CPU board. Slide both boards out simultaneously.

When connecting the VMIVME-7452 to a VMIVME-7587 CPU and a VMIPMC-5588, proceed with the following:

1. Install the stand-offs onto the I/O board of the two-board VMIVME-7587.

   Four stand-offs support and separate the VMIPMC-5588 from the VMIVME-7587 I/O board. The locations of the stand-offs are shown in Figure 4 on page 6. The permanent or slightly larger end of the stand-off fits into the mezzanine card and not the VMIVME-7587. These stand-offs remain with the mezzanine even after disassembly.
2. Place the CPU board and the VMIVME-7452 vertically side by side as illustrated in Figure 3.

Note

Ensure that the red edge of the floppy and hard drive cables correspond to pin 1 of the floppy and hard drive connectors on the VMIVME-7587. Figure 4 on page 6 illustrates the location of pin 1 on the floppy and drive connectors of the VMIVME-7587.

3. Connect the 34-pin female floppy drive ribbon cable extending from the solder side slot of the VMIVME-7452 to the 34-pin J4 floppy drive connector on the component side of the CPU board.
4. Connect the 40-pin female hard drive ribbon cable extending from the solder side slot of the VMIVME-7452 to the 40-pin J3 IDE connector on the component side of the CPU board.
5. Place the VMIPMC-5588 beside the VMIVME-7452 with the mezzanine card cable running under the VMIVME-7452 through the cut-out provided on the bottom of the board.

   Connect the mezzanine card to the J7 and J8 connectors and to the four stand-offs installed in step one on the VMIVME-7587.

6. Using caution so as not to stress any pins on the CPU board, slide both boards into the VMEbus chassis card guides. Insert the CPU board into the backplane first, then insert the VMIVME-7452 into the backplane.
7. Finally, insert the VMIPMC-5588 into the backplane. This insertion order ensures that the drive cables have sufficient slack.

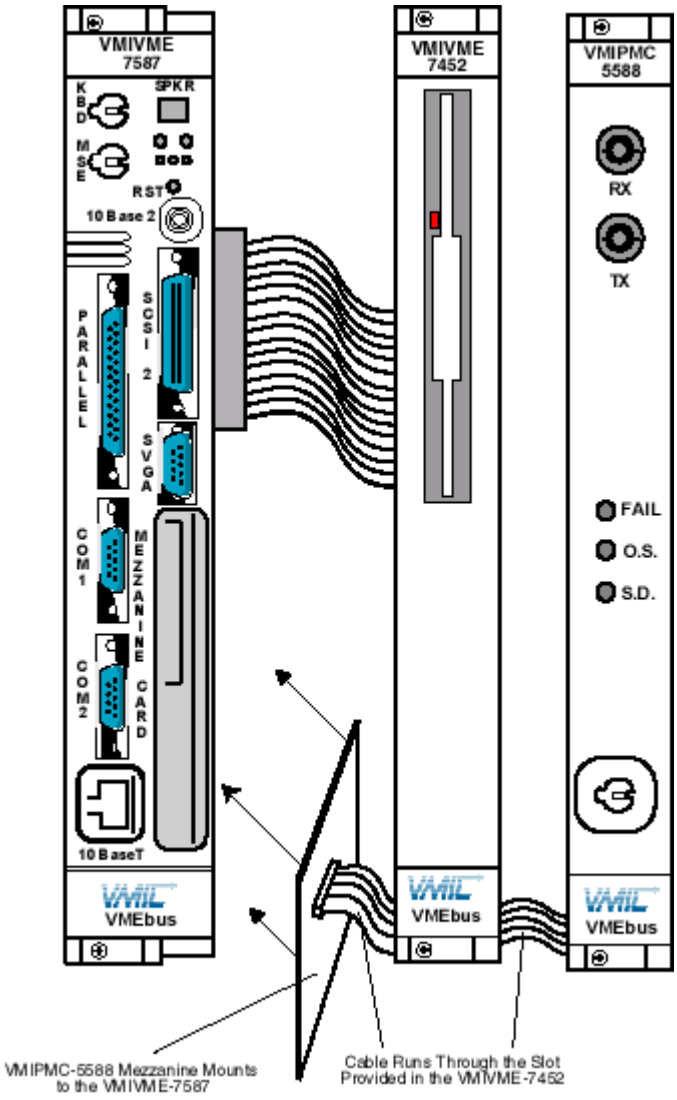


Figure 3 Connecting a VMIVME-7587 and a VMIVME-7452 to a VMIPMC-5588

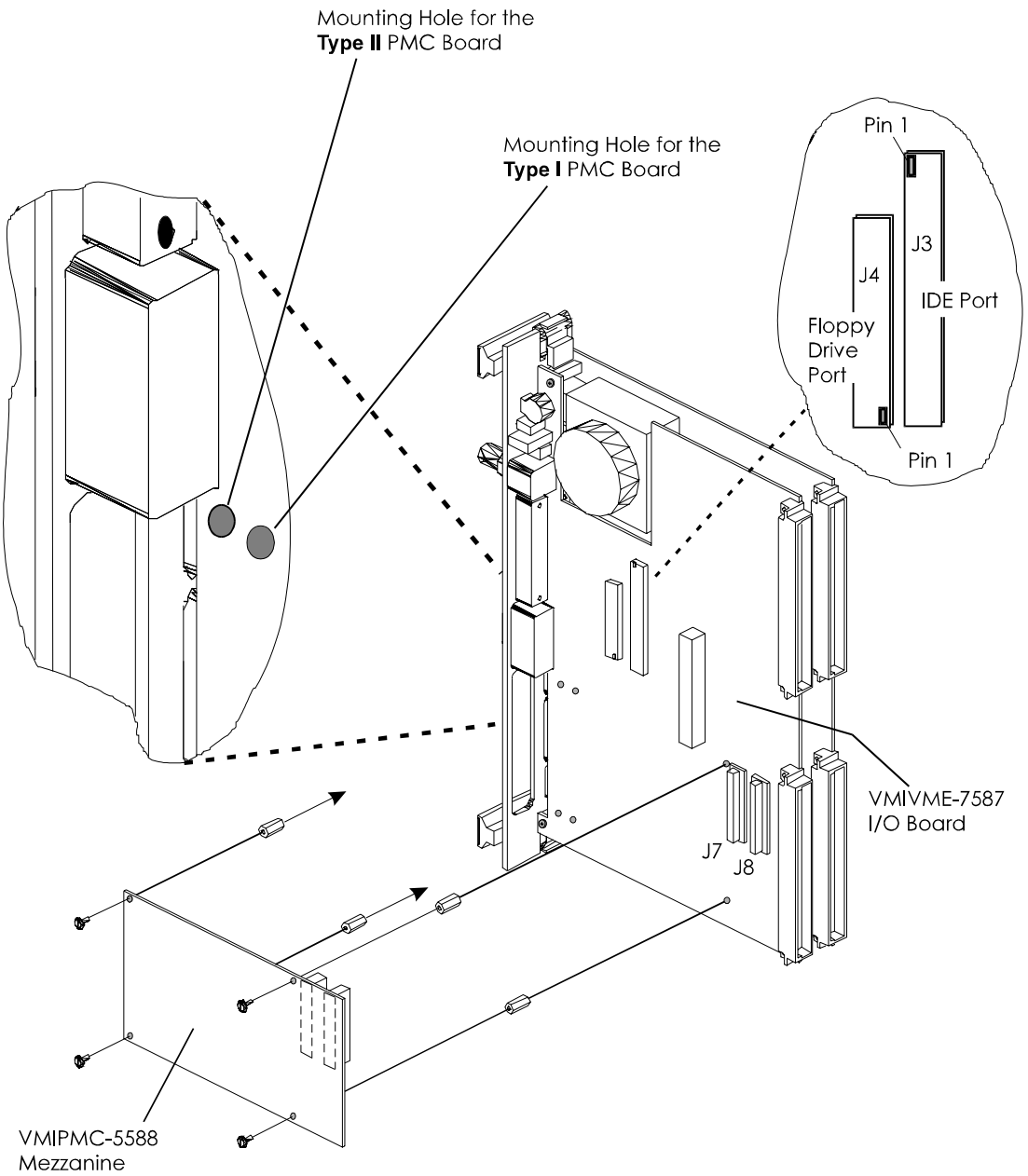


Figure 4 Stand-Off Locations for the VMIPMC-5588 Mezzanine and Pin 1 Locations for the Floppy and Hard Drive Connectors

Procedure 3.0 Connect the VMIVME-7452 to a VMIVME-7589

The VMIVME-7589 offers the user two configurations for use with a VMIVME-7452. The user can use the board-to-board cable configuration described in Procedure 1.0 on page 3 of this installation guide, or the user can utilize the P2 connector and the backplane for connecting the VMIVME-7589 to the VMIVME-7452.

Procedure 3.0 should be followed when using the P2 connector and backplane for the VMIVME-7452 with a VMIVME-7589 CPU board. To utilize the P2 cable configuration, a P2 backplane which supports I/O cabling from the rear must be used along with connector cable 360-010004-ABC.

P2 connection to the VMIVME-7589 involves the following:

1. Check the J12 jumper located on the VMIVME-7589 (Figure 5). The jumper should be installed on pins 2 and 3 in order to use the P2 connector.



The jumper should be installed on pins 1 and 2 if the drive is to be used with the board-to-board cables described in Procedure 1.0. The board-to-board connection involves connectors J10 and J13 in Figure 5.

2. Insert the VMIVME-7589 into the desired slot.
3. Install the jumper blocks on the VMIVME-7452. Install the two 40-position jumper blocks, 321-000287-020, onto E6 and E7. Install the two 26-position jumper blocks, 321-000287-013, onto E4 and E5.
4. Insert the VMIVME-7452 into the desired slot.
5. Install the P2 cable 360-010004-ABC onto the back of the chassis backplane. The cable must be placed on the rear P2 pins of the same slots as the VMIVME-7589 and the VMIVME-7452.

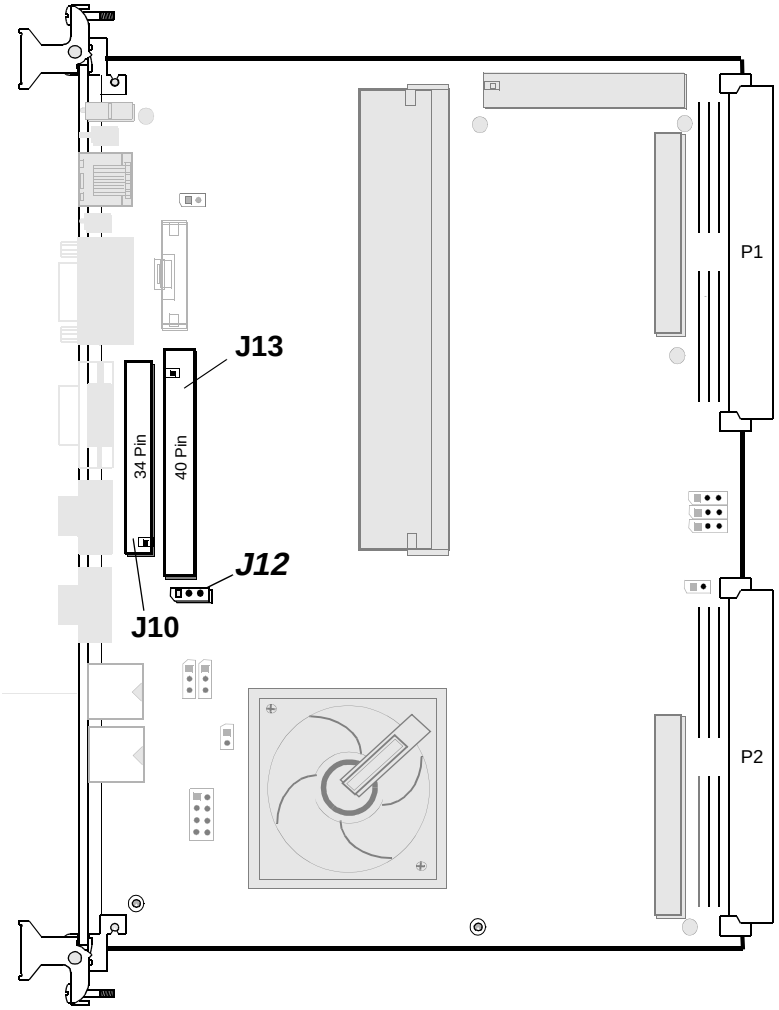


Figure 5 VMIVME-7589 CPU Board

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