ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Abaco Systems / VMIC VMIVME-7455-000* at our website: ***Click HERE***

VMIVME-7455
Single-Slot VMEbus CD-ROM Drive Module

Installation Guide

12090 South Memorial Parkway
Huntsville, Alabama 35803-3308, USA
(256) 880-0444 ◆ (800) 322-3616 ◆ Fax: (256) 882-0859

522-007455-000 Rev. A
October 05, 1999

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



12090 South Memorial Parkway
Huntsville, Alabama 35803-3308, USA
(256) 880-0444 ◆ (800) 322-3616 ◆ Fax: (256) 882-0859

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

COPYRIGHT AND TRADEMARKS

© Copyright 1999. The information in this document has been carefully checked and is believed to be entirely reliable. While all reasonable efforts to ensure accuracy have been taken in the preparation of this manual, VMIC assumes no responsibility resulting from omissions or errors in this manual, or from the use of information contained herein.

VMIC reserves the right to make any changes, without notice, to this or any of VMIC's products to improve reliability, performance, function, or design.

VMIC does not assume any liability arising out of the application or use of any product or circuit described herein; nor does VMIC convey any license under its patent rights or the rights of others.

For warranty and repair policies, refer to VMIC's Standard Conditions of Sale.

AMXbus, BITMODULE, COSMODULE, DMAbus, Instant OPC wizard logo, IOWorks Access, IOWorks Foundation, IOWorks man figure, IOWorks Manager, IOWorks Server, MAGICWARE, MEGAMODULE, PLC ACCELERATOR (ACCELERATION), Quick Link, RTnet, Soft Logic Link, SRTbus, TESTCAL, "The Next Generation PLC", The PLC Connection, TURBOMODULE, UCLIO, UIOD, UPLC, Visual Soft Logic Control(ler), *VMEaccess*, *VMEmanager*, *VMEmonitor*, VMEnet, VMEnet II, and *VMEprobe* are trademarks. The I/O Experts, The I/O Systems Experts, The Soft Logic Experts, and The Total Solutions Provider are service marks of VMIC.


(I/O man figure)



(Instant OPC wizard logo)


(IOWorks man figure)





The I/O man figure, IOWorks, UIOC, Visual IOWorks, and *WinUIOC* are registered trademarks of VMIC.

ActiveX is a trademark. Microsoft, Microsoft Access, MS-DOS, Visual Basic, Visual C++, Win32, Windows, Windows NT, and XENIX are registered trademarks of Microsoft Corporation.

MMX is a trademark and Celeron is a registered trademark of Intel Corporation.

PICMG and CompactPCI are registered trademarks of PCI Industrial Computer Manufacturers' Group.

Other registered trademarks are the property of their respective owners.

VMIC

All Rights Reserved

This document shall not be duplicated, nor its contents used for any purpose, unless granted express written permission from VMIC.



12090 South Memorial Parkway
Huntsville, Alabama 35803-3308, USA
(256) 880-0444 ◆ (800) 322-3616 ◆ Fax: (256) 882-0859

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installation Procedures

Contents

Installation of the VMIVME-7455 with the VMIVME-7589, or the VMIVME-7589A 9
Installation of the VMIVME-7455 with the VMIVME-7591, VMIVME-7592, or the VMIVME-7695. 11
Installation of the VMIVME-7455 with the VMIVME-7696 12
Board P1 Connector Pinout 14
Board P2 Connector Pinout 15

Introduction

The VMIVME-7455 is designed to interface with VMIC's PC / AT family of CPU products. A 6U single-slot VMEbus passive board, that contains a 24x Multisession photo CD-ROM drive, compatible with CD-I, Video CD, Enhanced CD, and CD PLUS. CPU boards connect to the VMIVME-7455 by way of the P2 connector on the VMEbus backplane. The VMIVME-7455 is also compatible with VMIC's VMIVME-7452 Single-Slot VMEbus Floppy / Hard Disk Module with Flash Memory. A diagram of the VMIVME-7455 is shown in Figure 1 on page 6.

Three separate procedures are outlined in this installation guide:

1. Installation of the VMIVME-7455 with the VMIVME-7589, or -7589A CPU.
2. Installation of the VMIVME-7455 with the VMIVME-7591, -7592, or the -7695*.
3. Installation of the VMIVME-7455 with the VMIVME-7696 CPU.



*The VMIVME-7695 (VME64) is only compatible with the VMIVME-7455 if used in a standard VMEbus chassis with the shrouded P2 96-pin backplane connectors.



The VMIVME-7455 is factory configured and supported only as a IDE Slave device.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

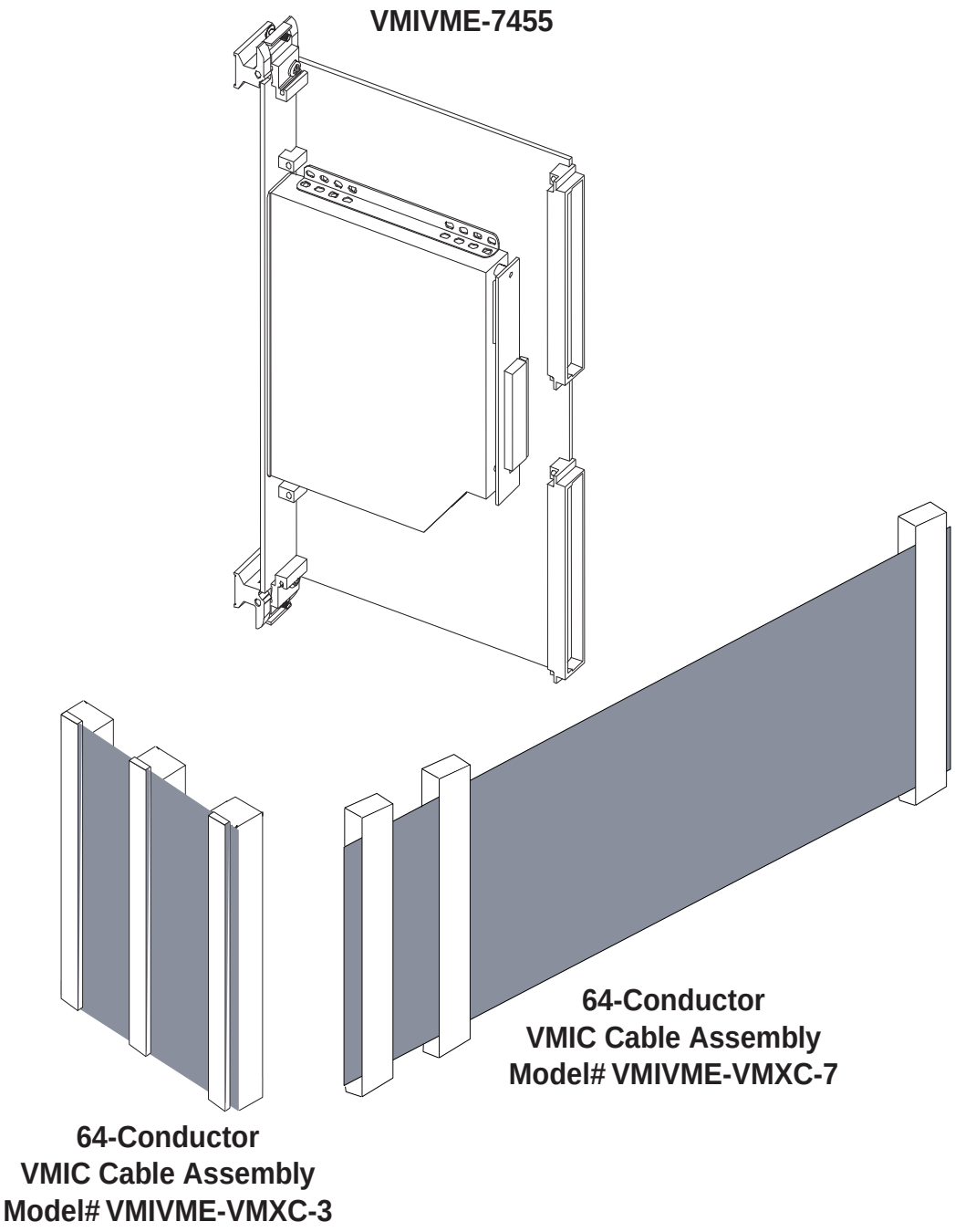


Figure 1 VMIVME-7455 and Cables

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

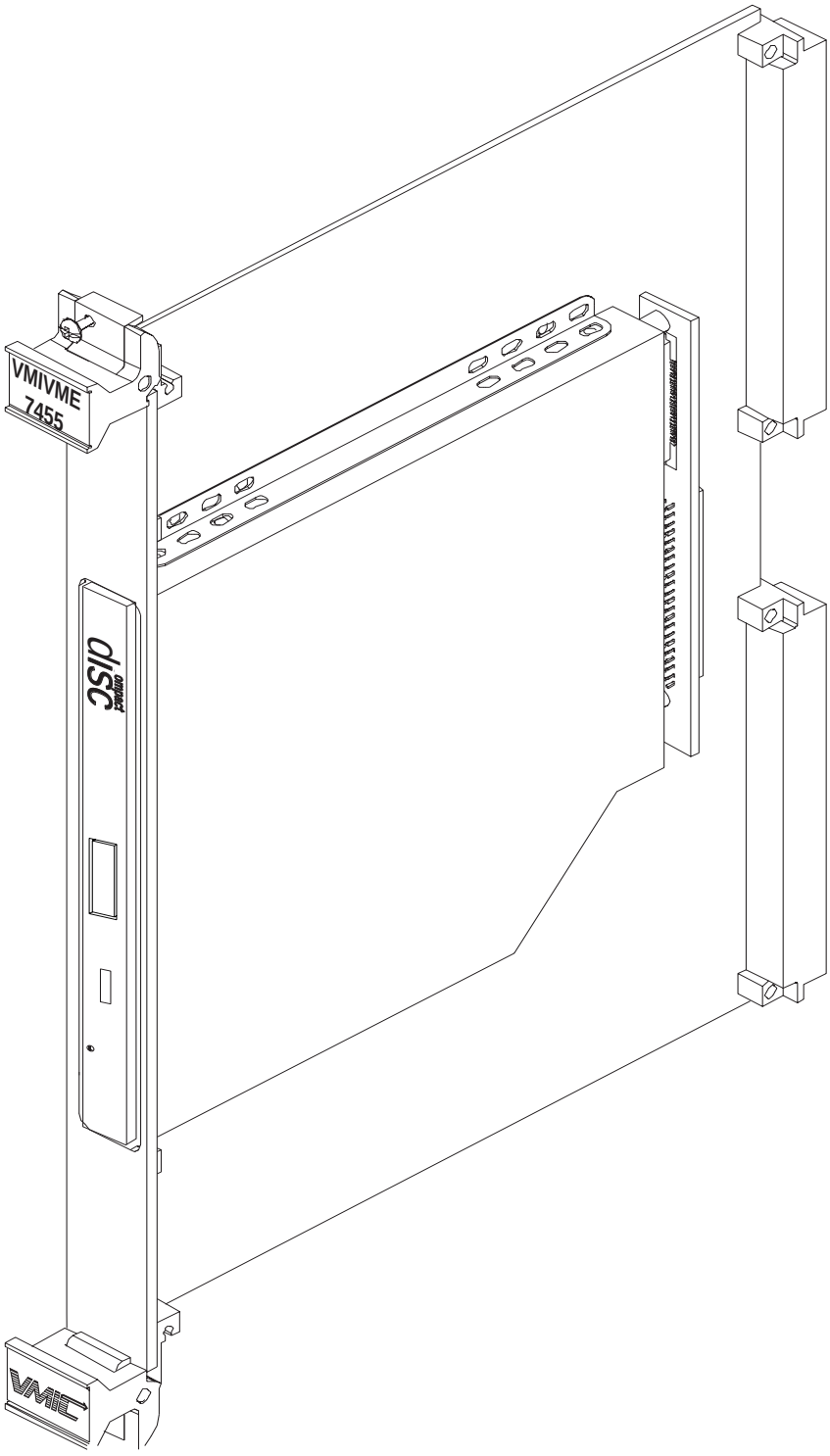
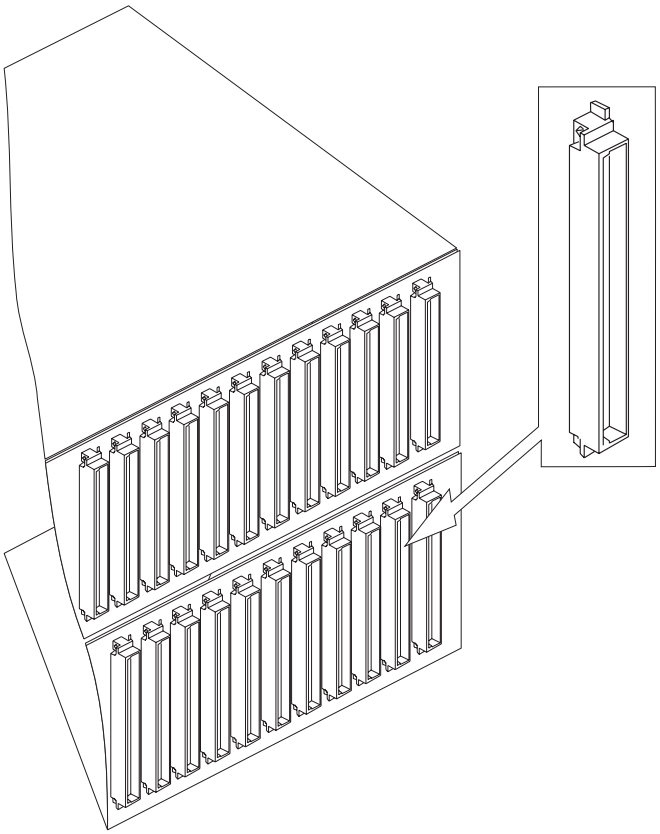


Figure 2 VMIVME-7455 Board Layout

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The VMIVME-7455 utilizes the P2 connectors on the VMEbus Backplane rear I/O for the routing of all signals. All IDE signals are routed from the CPU to the VMIVME-7455 by way of 64-conductor cable assemblies, using flat ribbon cables (see figure below for a typical VMEbus backplane and shrouded connectors). See “Board P2 Connector Pinout” on page 15 for the P2 connector.



Note

VMIC recommends the use of backplanes with the shrouded type backplane connectors. The shrouded connectors provide stability and the proper pin alignment.

Figure 3 VMEbus Chassis with Shrouded Connectors

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installation of the VMIVME-7455 with the VMIVME-7589, or the VMIVME-7589A

The VMIVME-7455 receives and passes IDE signals by way of the P2 connector, routed through the backplane from the following CPUs: VMIVME-7589 and VMIVME-7589A. To utilize the P2 configuration, a backplane which supports I/O cabling from the rear must be used, along with a 64-conductor cable assembly (**VMIC Model Number VMIVME-VMXC-3**), see Figure 4 below. Figure 5 on page 10 is an illustration of the installation. The cable is supplied with the VMIVME-7455. Figure 4 shows the cable used with the VMIVME-7589, or the VMIVME-7589A.

When installing the VMIVME-7589, or the -7589A with the VMIVME-7455, and the optional VMIVME-7452, the boards must be installed in consecutive slots. Under certain conditions the system may require a longer cable, this cable is available as (**VMIC Model Number VMIVME-VMXC-7**), see Figure 7 on page 12.

The P2 connection to the VMIVME-7589, or the VMIVME-7589A involves the following board configuration:

1. Ensure that jumper J12 on the VMIVME-7589, or the VMIVME-7589A is configured to route the signals to the P2 connector. A jumper shunt should be installed on pins 2 and 3, to utilize the P2 connector. Refer to the Product Manuals for the jumper configuration.
2. Insert the CPU into the desired slot.
3. Insert the VMIVME-7455 into the desired slot.
4. Install the 64-conductor cable assembly onto the rear of the backplane. The cable must be connected to the rear I/O shrouded P2 connectors of both slots. One occupied by the VMIVME-7589, or the VMIVME-7589A and the other connected to the VMIVME-7455 P2 connector.

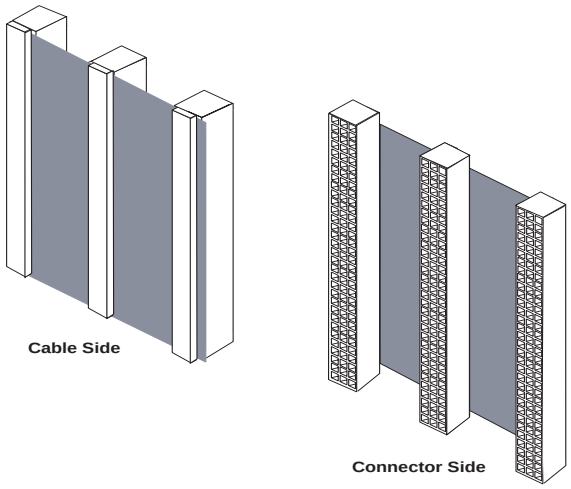


Figure 4 64-Conductor Cable Assembly (Model No. VMIVME-VMXC-3)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

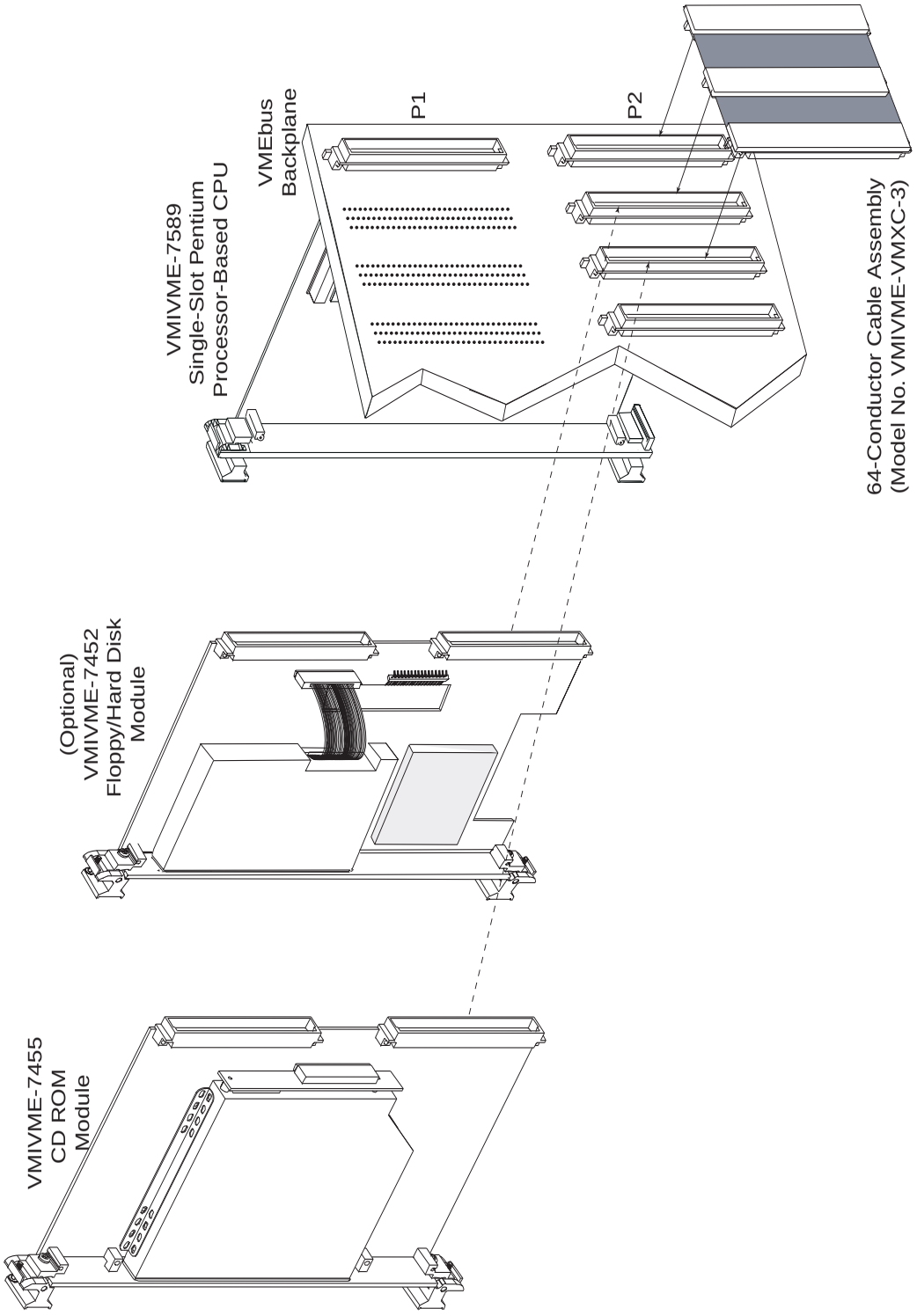


Figure 5 Installation of the VMIVME-7455 with VMIC's VMIVME-7589, -7589A CPU Products, and the Optional VMIVME-7452

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installation of the VMIVME-7455 with the VMIVME-7591, VMIVME-7592, or the VMIVME-7695

The installation of the VMIVME-7455 with the VMIVME-7591, -7592, or the -7695 is similar to the installation on the previous pages. The only exception is that the VMIVME-7695 is a VME64 compatible product. It is recommended that the VMIVME-7455 and the VMIVME-7695 be used in a standard VMEbus chassis. However, if it is a requirement to use a VME64 chassis, the VME64 backplane uses 160-pin 5 row connectors, of which only the center three rows of the backplane pins are utilized for signals, power, and ground. Therefore, when installing the VMIVME-7455 in a VME64 chassis, care must be taken to ensure the correct alignment. Use the 64-conductor cable assembly as identified in Figure 4 on page 9 to connect the CPU board to the CD ROM and the optional VMIVME-7452 through the backplane. The same 64-conductor cable assembly should be used for both the VMEbus and VME64 backplanes. The interface cable part number is **VMIC Model Number VMIVME-VMXC-3**.

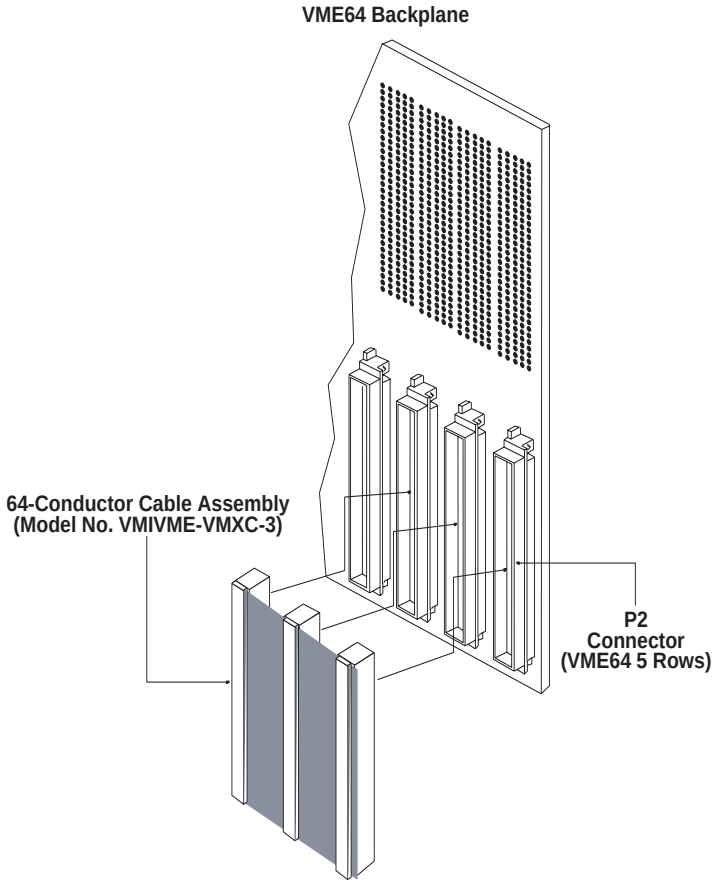


Figure 6 VME64 Backplane with 64-Conductor Cable Assembly

When placing the cable on the backplane ensure that only the center three rows of the VME64 shrouded connector are used.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installation of the VMIVME-7455 with the VMIVME-7696

The VMIVME-7696 is a two board set that offers P2 I/O connections for the SCSI, IDE and Floppy interfaces. The VMIVME-7696 SCSI signals are located on the Daughter card 'P2 connector', with the IDE and Floppy interface on the Motherboard 'P2 connector'. The VMIVME-7696 is compatible with VMIC's VMIACC-0561 (VMEbus P2 transition board), for routing the SCSI signals to a standard 68-pin Ultra-SCSI-2 connector. The VMIVME-7696 utilizes **VMIC Model Number VMIVME-VMXC-7** which is a different cable from the one used by other CPU products. The added length between the connector intended for the CPU's motherboard and the middle connector allows routing of the cable when the VMIACC-0561 is installed. The following is the procedure used to install the VMIVME-7696 and the VMIVME-7455:

1. Insert the VMIVME-7696 CPU board into the desired slot of the VMEbus chassis.
2. Insert the VMIVME-7455 and the optional VMIVME-7452 into the desired slots of the VMEbus chassis.
3. Connect the 64-conductor cable assembly to the extended pins of the P2 connectors located on the rear of the backplane.

    3a. The cable must be installed into the slot occupied by the CPU's motherboard.

    3b. The other end of the cable must be installed into the slot occupied by the VMIVME-7455.

    3c. If a VMIVME-7452 is to be used, install the connector located in the middle of the 64-conductor cable assembly into the corresponding slot.

Figure 8 on page 13 illustrates the installation of the VMIVME-7696 with the VMIVME-7455, and the optional VMIVME-7452.

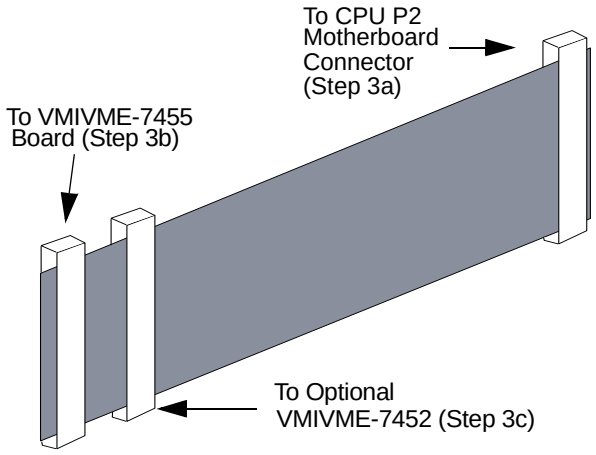


Figure 7 64-Conductor Cable Assembly (Model No. VMIVME-VMXC-7)

Note

The VMIVME-7696, -7455, and the -7452 do not have to be in consecutive slots in the VMEbus chassis.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

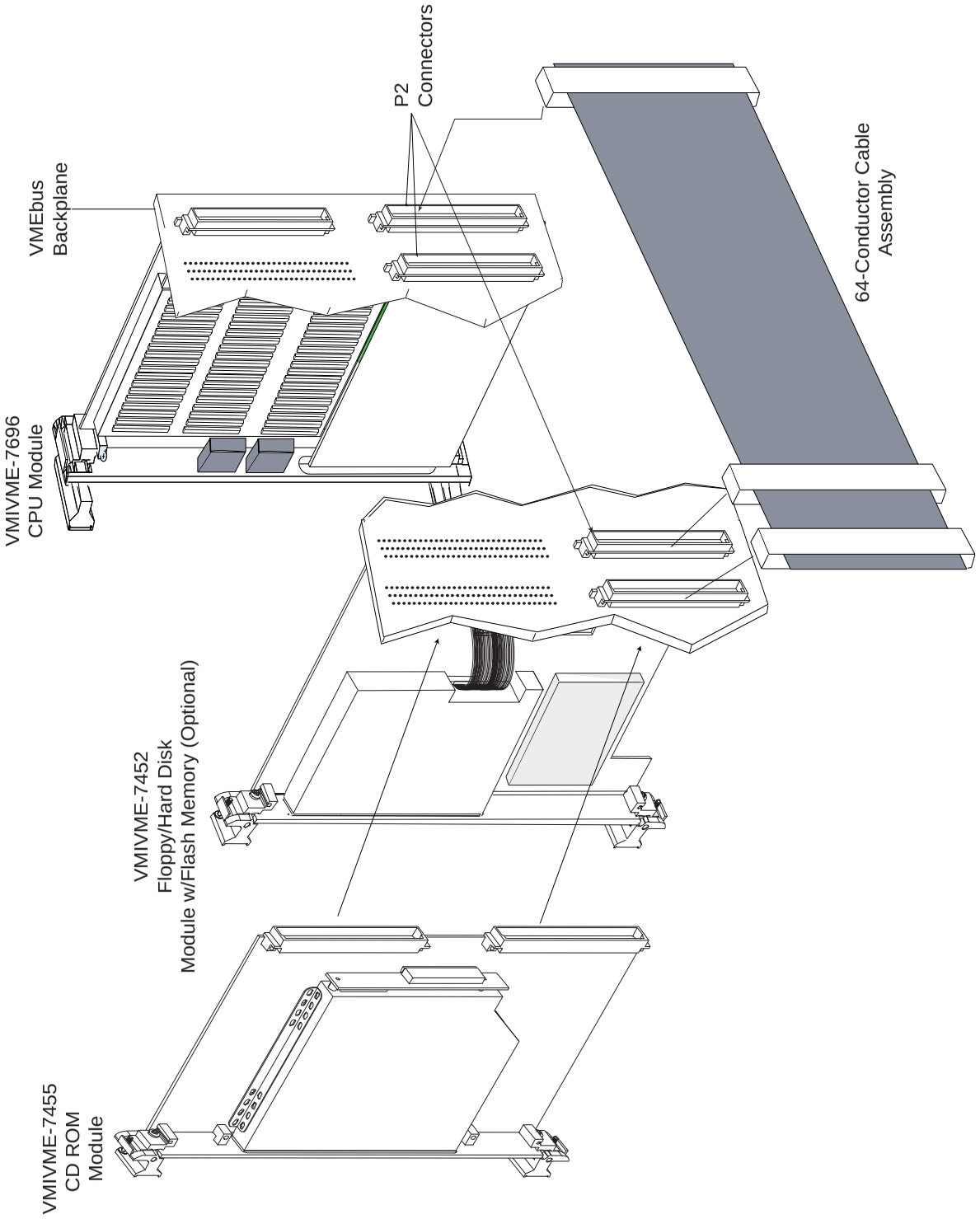


Figure 8 Connecting a VMIVME-7455 to a VMIVME-7696 with the Optional VMIVME-7452

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Board P1 Connector Pinout

Pin No.	Row C	Row B	Row A
1	N/C	N/C	N/C
2	N/C	N/C	N/C
3	N/C	N/C	N/C
4	N/C	BG0OUT*	N/C
5	N/C	BG0IN*	N/C
6	N/C	BG1OUT*	N/C
7	N/C	BG1IN*	N/C
8	N/C	BG2OUT*	N/C
9	GND	BG2IN*	GND
10	N/C	BG3OUT*	N/C
11	N/C	BG3IN*	GND
12	N/C	N/C	N/C
13	N/C	N/C	N/C
14	N/C	N/C	N/C
15	N/C	N/C	GND
16	N/C	N/C	N/C
17	N/C	N/C	GND
18	N/C	N/C	N/C
19	N/C	N/C	GND
20	N/C	GND	N/C
21	N/C	N/C	IACKOUT*
22	N/C	N/C	IACKIN*
23	N/C	GND	N/C
24	N/C	N/C	N/C
25	N/C	N/C	N/C
26	N/C	N/C	N/C
27	N/C	N/C	N/C
28	N/C	N/C	N/C
29	N/C	N/C	N/C
30	N/C	N/C	N/C
31	N/C	N/C	N/C
32	+5 V	+5 V	+5 V

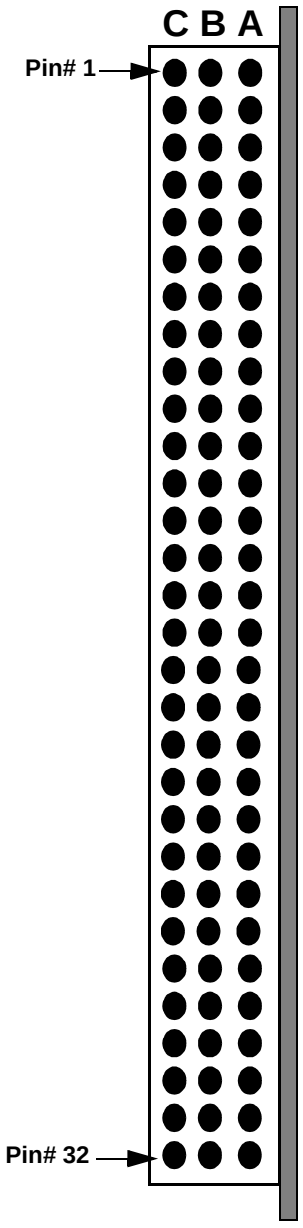


Figure 9 P1 Connector and Pinout

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Board P2 Connector Pinout

Pin No.	Row C	Row B	Row A
1	RESET*	+5 V	GND
2	DD7	GND	DD8
3	DD6	N/C	DD9
4	DD5	N/C	DD10
5	DD4	N/C	DD11
6	DD3	N/C	DD12
7	DD2	N/C	DD13
8	DD1	N/C	DD14
9	DD0	N/C	DD15
10	IOCS16*	N/C	DMARQ*
11	GND	N/C	DIOW*
12	GND	GND	DIOR*
13	GND	+5 V	IORDY
14	CSEL	N/C	GND
15	DMACK*	N/C	GND
16	INTRQ	N/C	GND
17	DA2	N/C	DA1
18	DA0	N/C	CS0*
19	CS1*	N/C	DASP*
20	N/C	N/C	N/C
21	N/C	N/C	GND
22	N/C	GND	N/C
23	N/C	N/C	GND
24	N/C	N/C	GND
25	N/C	N/C	GND
26	N/C	N/C	GND
27	N/C	N/C	GND
28	N/C	N/C	GND
29	N/C	N/C	N/C
30	N/C	N/C	GND
31	N/C	GND	+5 V
32	N/C	+5 V	+5 V

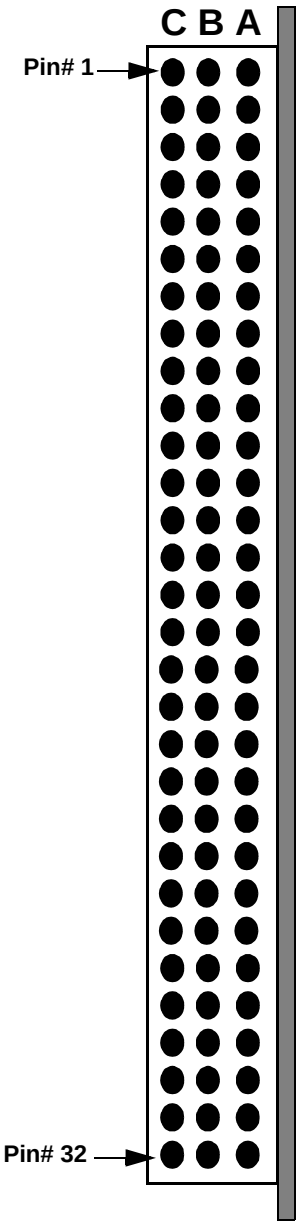


Figure 10 P2 Connector and Pinout

Note

Use only the 96 position, 64-conductor ribbon cables

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Maintenance

Maintenance

This section provides information relative to the care and maintenance of VMIC's products. If the products malfunction, verify the following:

- Software
- System configuration
- Electrical connections
- Jumper or configuration options
- Boards are fully inserted into their proper connector location
- Connector pins are clean and free from contamination
- No components of adjacent boards are disturbed when inserting or removing the board from the chassis
- Quality of cables and I/O connections

If products must be returned, contact VMIC for a Return Material Authorization (RMA) Number. **This RMA Number must be obtained prior to any return**.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Maintenance Prints

User level repairs are not recommended. The appendix to this manual contains drawings and diagrams for reference purposes only.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP