Digital Alpha VME 2100
READ ME FIRST

1 Software Compatibility

The Digital Alpha VME 2100 hardware is supported by the Digital UNIX operating system (formerly called DEC OSF/1) and the OpenVMS Alpha operating system, plus layered software. The layered software consists of a driver for the PCI to VME adapter hardware. The driver has dependencies on (1) the operating system version, and (2) the SRM (System Reference Manual) console firmware version. The following table lists the current operating system and software versions that are supported on your Digital Alpha VME 2100 system. Check with your Digital CSC before installing a different version of the operating system or SRM console firmware.

Operating System	Layered Software	Software Version
OpenVMS Alpha		6.2
	SRM Console	4.0
	EISA Configuration Utility	1.8
	Digital 2100 VME Adapter Driver, OpenVMS Alpha	2.0
Digital UNIX		3.2D
	SRM Console	4.3
	EISA Configuration Utility	1.8

2 Installing Digital UNIX

Your Digital Alpha VME 2100 system was shipped to you with the Digital UNIX operating system installed. If it is necessary to re-install the operating system software, follow these steps:

1. Install the Digital UNIX operating system following the installation instructions provided with your shipment.

2. Continue with site-specific software installation procedures.

3 Installing OpenVMS Alpha

Your Digital Alpha VME 2100 system was shipped to you with the OpenVMS Alpha operating system installed. If it is necessary to re-install the operating system software, follow these steps:

1. Install the OpenVMS Alpha operating system following the installation instructions provided with your shipment.

2. Install the Digital 2100 VME Adapter Driver following the installation instructions provided in the *Digital 2100 VME Adapter Driver, OpenVMS Installation* and *User Guide*.

3. Continue with site-specific software installation procedures.

4 Installing Console Firmware

Your Digital Alpha VME 2100 system was shipped to you with the console firmware installed. If it becomes necessary to re-install the console firmware you must follow these steps.

1. Remove the PCI-to-VME daughter board which is plugged into the system backplane:

    a. Power off the system.

    b. Unplug the system's power cord.

    c. Remove the back panel to gain access to the system backplane.

2. Remove the daughter board, shown in Figure 1, by removing the two Philips head screws at the bottom edge (on a Vertical Mount System) or forward edge (Drawer Mount System). One screw is securing a ground wire which connects to the main power ground bus bar. To remove the board, gently pry the board off the connectors. Work the board out a little at a time to release all four connectors at the same time–this prevents excessive bending of the board. Also, note the position of the jumper settings for J20 and J21, in case you disconnect one and have to replace it.

3. Replace the access panel, plug in the power cord, and power on the system.

4. Mount the Firmware CD, which is shipped with your Operating System Software kit. The instructions for reloading the SRM are located in the document subdirectory of the Firmware CD in the file ALPHA2100_Vxx_FW_RELNOTE.TXT, where *xx* is the version number of the SRM used with your operating system. This file is also on the disk as a PostScript (.PS) file.

5. Follow the instructions to load the SRM firmware.

6. When the console is installed, insert the ECU Diskette. Instructions for running the ECU are also located in the file ALPHA2100_Vxx_FW_RELNOTE.TXT.

7. Follow the instructions to run the ECU.

8. After the configuration is completed, power off the system and remove the power cord again. Remove the access panel.

9. Reinstall the daughter board. Be sure to fully seat the four connectors. This is best done by inserting the three (3) connectors at the same time. Be careful not to trap wires from the I/O connectors on the box between the board's connector and the connector on the System Backplane. This is particularly important with the vertical mount systems, as these wires tend to droop down.

    Inspect the jumpers on J20 and J21 and verify they are not missing. Secure the board with the two 6-32 screws, being sure to reconnect the ground line to one of the two screws holding the board in place.

10. Replace the access panel, plug in the power cord, and power on the system.

The firmware update is now complete and normal operation of the system can now proceed.

5 Running the EISA or RAID Configuration Utility (ECU or RCU)

If it becomes necessary to run the ECU (other than in the context of Section 4), or if you are installing a RAID controller such as a KZPSC option, follow these steps:

1. Remove the PCI-to-VME daughter board which is plugged into the system backplane:

    a. Power off the system.

    b. Unplug the system's power cord.

    c. Remove the back panel to gain access to the system backplane.

2. Remove the daughter board, shown in Figure 1, by removing the two Philips head screws at the bottom edge (on a Vertical Mount System) or forward edge (Drawer Mount System). One screw is securing a ground wire which connects to the main power ground bus bar. To remove the board, gently pry the board off the connectors. Work the board out a little at a time to release all four connectors at the same time–this prevents excessive bending of the board. Also, note the position of the jumper settings for J20 and J21, in case you disconnect one and have to replace it.

3. Replace the access panel, plug in the power cord, and power on the system.

4. Insert the diskette for the configuration utility you are using. Instructions for the RCU are in the RAID Controller Option Kit. Instructions for the ECU are located in the document subdirectory of the Firmware CD (shipped with the Operating System Software Kit) in the file ALPHA2100_Vxx_FW_RELNOTE.TXT, where *xx* is the version number of the SRM used with your operating system. This file is also on the disk as a PostScript (.PS) file.

5. Follow the configuration utility's instructions.

6. After the configuration is completed, power off the system and remove the power cord again. Remove the access panel.

7. Reinstall the daughter board, being sure to fully seat the four connectors. This is best done by inserting the three (3) connectors at the same time. Be careful not to trap wires from the I/O connectors on the box between the board's connector and the connector on the System Backplane. This is particularly important with the vertical mount systems, as these wires tend to droop down.

    Inspect the jumpers on J20 and J21 and verify they are not missing. Secure the board with the two 6-32 screws, being sure to reconnect the ground line to one of the two screws holding the board in place.

8. Replace the access panel, plug in the power cord, and power on the system.

The installation is now complete and normal operation of the system can now proceed.

6 PCI Address Space

Sometimes there is a need to use PCI devices that require large amounts of PCI address space on the Digital Alpha VME 2100 system. To accommodate this, the Digital Alpha VME 2100 system has jumpers on the VME daughter board which allow the PCI address space for the Digital Alpha VME 2100 to be reduced in size, providing the needed PCI address space for the devices.

Use the J20 and J21 jumpers on the VME daughter board to set the size of Base Address Register 4. This register specifies the base of a 64 MB naturally aligned block of PCI memory space used to access the VME bus. The address space is typically re-mapped through scatter gather RAM, onto the VME bus. The address space is aliased to the first 64 MB of the 512 MB VME address space and should be used to allow processor access through "sparse space."

A minimum of 8 MB and a maximum of 64 MB (default setting) can be allocated. A jumper must be installed on either position 1 or position 0 of each jumper. See the following figure to determine the correct jumper setting.

Figure 1: PCI to VME Daughter Board Jumpers
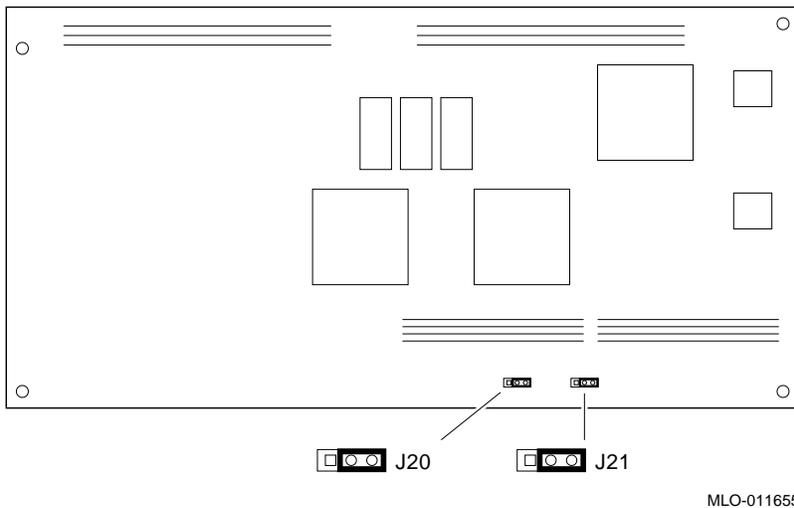
MLO-011655

Position	J20	J21	Jumper Setting
1	On	On	64 MB (default setting)
0	Off	Off	
1	Off	On	32 MB
0	On	Off	
1	On	Off	16 MB
0	Off	On	
1	Off	Off	8 MB
0	On	On	

4

7 *Errata—Digital Alpha VME 2100 Owner's Guide*

Please note the following changes in your *Digital Alpha VME 2100 Owner's Guide*, order number EK–DALPH–OG. A01. The section entitled "Vertical Mount System: Optional Front Bezel" (page 2-32), should be changed as follows:

1. First paragraph should read:

Your shipment contains an additional parts kit *only* if you ordered the optional front bezel. The parts in this kit are specific to the vertical rackmount chassis: four latch brackets and eight 4-40 flathead screws. The four latch brackets *must* be installed on the chassis before the chassis is installed in the RETMA or IEC cabinet.

2. Second paragraph:

Please ignore this paragraph. Shipments with no optional front bezel do not include the bezel parts kit.

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