Prioris™ ZX5000 Series Server Powergrade Kit

Installation Guide

Order Number: ER−PCA6U−AA. B01

Digital Equipment Corporation

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FCC Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Any changes or modification made to this equipment may void the user's authority to operate this equipment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception; however, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Re-orient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.

- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

DO NOT attempt to modify this equipment. If modified, the FCC may void your authority to operate this equipment.

Canadian Department of Communications Statement

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

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Conventions

Symbol	Meaning
	NOTE: Provides general information.
	CAUTION: Provides information to prevent damage to equipment.
	WARNING: Indicates the presence of a hazard that can cause personal injury if the hazard is not avoided.

NOTE: You may lose data if you have not backed up your system. If you do not wish to install this kit yourself, contact Digital Customer Service. For a nominal fee, a Customer Service Technician can install it for you.

Introduction

Thank you for purchasing a Prioris™ ZX5000 Series Server Powergrade Kit. The Powergrade kit contains all the components and instructions required to upgrade your CPU configuration to either one or two *Intel® Pentium®* CPUs operating at either 133 MHz or 166 MHz. The instructions to install a memory upgrade kit are also included.

Tool Needed

- Phillips screwdriver, 1 pt.

Kit Contents

The Prioris ZX Powergrade kits and memory upgrade kits contents are shown below. For a quad processor upgrade, use two FR-PCA6-AB (133 MHz) or FR-PCA6U-AD (166 MHz) Powergrade kits.

Powergrade Kit: FR-	PCA6U-AA	PCA6U-AB	PCA6U-AC	PCA6U-AD
CPU board with 1 *Pentium®* 133 MHz (P5133) CPU*	✓			
CPU board with 2 *Pentium®* 133 MHz (P5133) CPUs*		✓		
CPU board with 1 *Pentium®* 166 MHz (P5166) CPU*			✓	
CPU board with 2 *Pentium®* 166 MHz (P5166) CPUs*				✓
PCB retainer assembly	✓	✓	✓	✓
Prioris ZX medallion (product name)	✓	✓	✓	✓

Memory Upgrade Kit	FR-PCA6U-MA
Memory module (for memory > 384 MB)	✔
PCB retainer assembly	✔

Update Your BIOS

A diskette containing the required BIOS (Basic Input-Output System) software may be included with the Powergrade kit. BIOS is software that is in a nonvolatile read-only memory (ROM) chip, which is on the main logic board of your computer. The BIOS has several functions, including initializing hardware and booting the operating system when the computer is turned on.

If a BIOS diskette is included, you **must** install the new BIOS before installing your Powergrade kit. When updating the BIOS, you must remove any video option card. This will enable the onboard VGA.

> **NOTE:** At this time, the BIOS for the 166 MHz CPU is the same as that of the 133 MHz CPU, so a BIOS update is not needed. Continue with the Powergrade Installation, page 4.

Power Down the Server

1. Turn off your server.

2. Disconnect any external devices, the **ac power cord**, and the monitor power cord.

3. Unlock the security lock at the back of the server.

4. Remove the left side panel by sliding it toward the rear of the system.

> **WARNING:** You might injure yourself or damage your server if you attempt to remove the side panel before unplugging the ac and monitor power cords.

5. Remove any Video Option card if installed.

Check the Jumpers and Switch Settings

Make sure that the following jumpers and switches are enabled:

J7C1	Program Boot Block	Change jumper so it is on pins 2 and 3 (The illustration shows the default settings, pins 1 and 2.)
J7D2	Boot Block	Change jumper so it is on pins 2 and 3.
S8C1 SW3	Enable flash write	Enabled (On) (Figure 1)
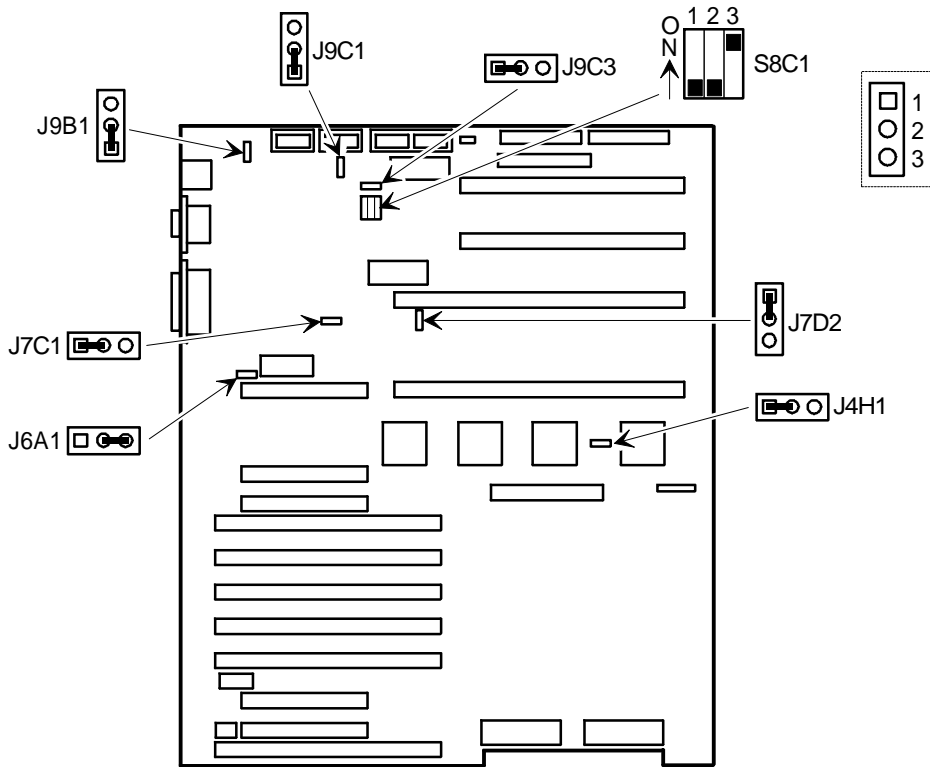
DEC00726-6

Figure 1. Main Logic Board Jumper and Switch Locations

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Replace the Panel and Reconnect the Cables

1. Install the left side panel.

    > **NOTE:** The server will not power up with the side panel removed.

2. Connect the cables, the monitor power cord, and the server power cord to the back of the server.

Power Up the Server and Update Your BIOS

1. Turn on your server and allow the POST to complete.

2. Insert the startup utilities diskette.

3. At the MS-DOS prompt, change the directory to A:\UPGRADE and type:
    `PHLASH`

4. Press Enter to continue. PHLASH automatically updates your server's BIOS, and after the flashing process completes, the server automatically reboots itself.

5. Remove the startup utilities diskette.

Powergrade Installation

Power Down the Server

1. Turn off your server.

2. Disconnect any external devices, the **ac power cord**, and the monitor power cord.

3. Unlock the security lock at the back of the server.

4. Remove the left side panel by sliding it toward the rear of the system.

Upgrading the CPU Module

If you are replacing your existing CPU module to have a faster CPU in slot 1, use the following procedure:

1. Using a Phillips screwdriver, unscrew and remove the CPU module retaining bracket (Figure 2).

2. Carefully remove the old CPU module from the main logic board and place it on an antistatic surface.
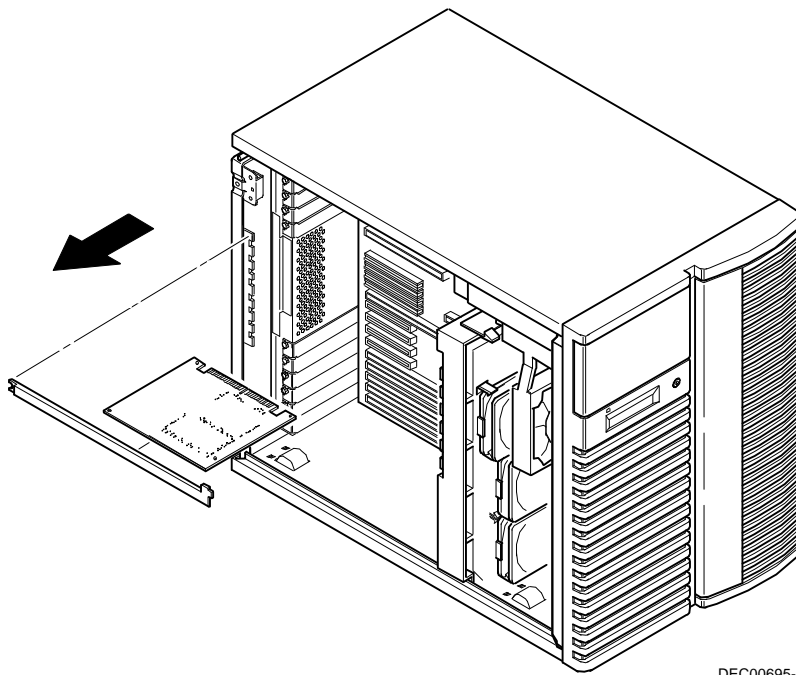
DEC00695-2

Figure 2. Removing the Old CPU Module

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3. Install the new CPU module into the upper CPU slot on the main logic board (Figure 3).

4. Secure the CPU module to the main logic board using the previously removed retaining bracket, screw, and a Phillips screwdriver.
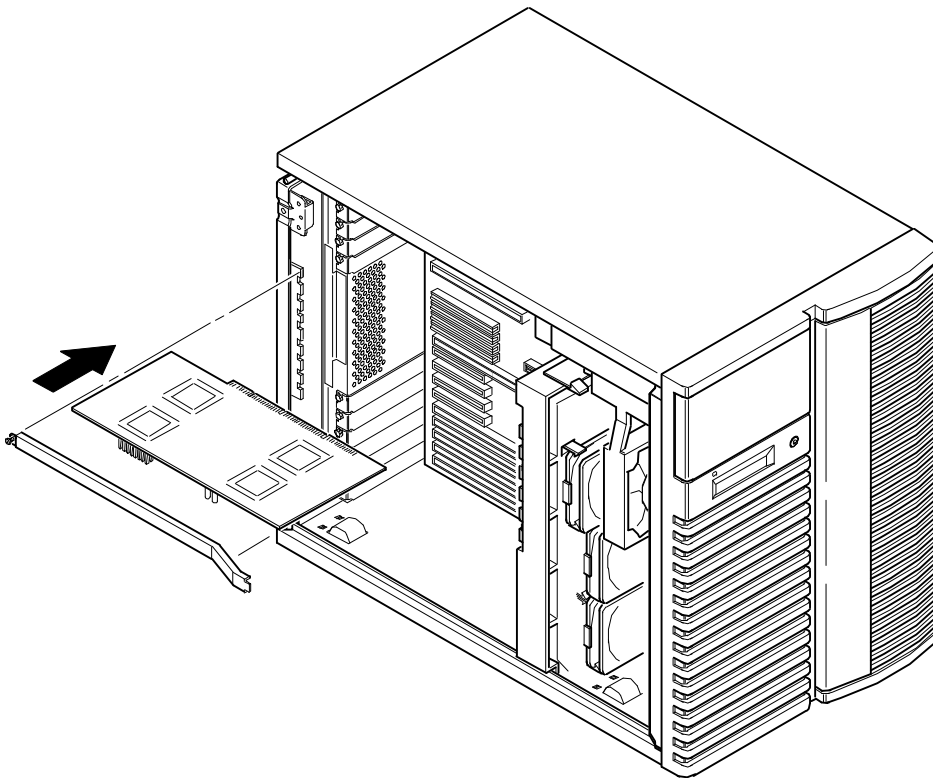
DEC00695-8

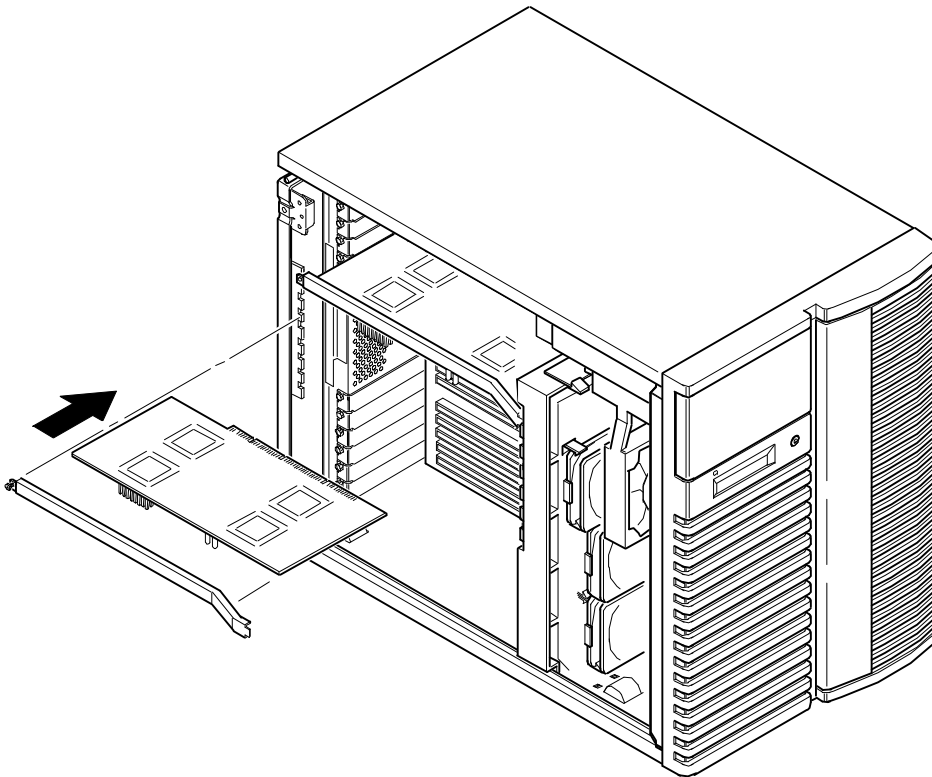**Figure 3. Installing a New CPU Module**

Installing a Second CPU Module

If you are installing a second CPU module, use the following procedure:

1. Install the second CPU module in the lower CPU slot on the main logic board (Figure 4).

2. Secure this CPU module to the main logic board using the retaining bracket from the Powergrade kit.

DEC00695-7

Figure 4. Installing a Second CPU Module

Installing a New Memory Module

If you are installing a memory module, install it in memory module Slot 2 (located right under memory module slot 1).

Use the label, located on the inside of the side panel, to determine the slot location.

NOTE: Completely fill the primary memory module (Memory Module 1) before installing a second memory module (Memory Module 2). The SIMM's height must not exceed **one inch**; taller SIMMs will interfere with the adjacent CPU module or memory module.

Install the New Medallion

Install the new medallion (product nameplate). This nameplate is press-fit into the left-front door. Replace the nameplate to identify your server to service personnel. To replace the nameplate:

1. On the inside of the door, push out the old nameplate by carefully pressing on the two green plastic posts with the Phillips screwdriver.

2. Press the new nameplate into place.

Replace the Panel and Reconnect the Cables

1. Install the left side panel and lock the server.

NOTE: The server will not power up with the side panel removed.

2. Connect the cables, the monitor power cord, and the server power cord to the back of the server.

Run the System Configuration Utility (SCU)

The SCU enables you to check or change your server's configuration. Run the SCU to configure your server for the new CPU chip or module.

To start and run the SCU:

1. Insert your Prioris SCU diskette into drive A and turn on your server. The diskette should boot automatically from the diskette.

2. When the SCU title appears, press any key to continue. Afterwards, follow the instructions on your screen to access the SCU main menu.

3. From the main menu, press the up or down arrow to highlight an item and then press Enter to select it. Press F1 at any time for help about a selection.

4. From the main menu select `Configure Computer` and then `View and Edit Details`.

5. Select `Save` and `Exit` to configure your server for the CPU module.

6. When complete, remove the SCU diskette from drive A and reboot your server.

    Refer to Chapter 2, "Server Utilities," in your computer user's guide for any additional information on running the SCU.

Troubleshooting

Using a Crisis Recovery Diskette if Necessary

If your Powergrade kit includes a Crisis Recovery diskette, it is used <u>only</u> if your computer's BIOS fails or if a BIOS upgrade is unsuccessful.

NOTES: At this time, a BIOS upgrade is not needed, so a Crisis Recovery diskette is not included in the Powergrade kit.

When using a Crisis Recovery diskette, you must remove any video option card to enable the onboard VGA.

To use a Crisis Recovery diskette, insert it into drive A and reboot the computer.

Accessing the Bulletin Board

For future reference, you can access product information and software updates using the Internet at:

http://www.pc.digital.com

http://www.pc.digital.com/~ftp

You can also access software updates through Digital's Bulletin Board Service (BBS) by calling in the United States **508-496-8800**.

The BBS is **not** a source for technical support. For advice, please call your local Digital Service Representative.