digital™

DIGITAL Server 1200 PowerGrade with Pentium® II Chip Upgrade

Installation Guide

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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 a different outlet than the receiver.
- 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.

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations and meets all requirements of the Australian/New Zealand Regulation AS3548.

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Conventions

Symbol	Meaning
	NOTE: Provides general information.
	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.

PowerGrade Option Warranty

This document is a supplement to the warranty information and terms provided with your DIGITAL Server.

PowerGrade Options Limited Warranty

PowerGrade option kits are qualified Digital Personal Computer Hardware Options that are warranted to be free from defects in material and workmanship under normal use. This Limited Warranty does not extend to any Product not purchased from Digital or from an Authorized Digital Reseller. This Limited Warranty also does not extend to any Product that has been damaged or rendered defective (a) by operation outside the usage parameters stated in section four entitled *Warranty Exclusions and Limitations of Liability* of the *Digital Personal Computers Warranty and Service Information* document; (b) as a result of accident, misuse or abuse; (c) as a result of service or installation by anyone other than Digital, an Authorized Digital Reseller, or an Authorized Digital Service Provider, or (d) by the use of parts not manufactured or sold by Digital.

Upon installation in the appropriate DIGITAL Server, the PowerGrade option will carry the longer of either a one year Return-to-Digital warranty or the remainder of the warranty period for the DIGITAL Server.

Warranty Exclusions and Limitations of Liability

Installation of a PowerGrade option requires handling and installing a CPU chip, which must be performed with extreme care to avoid product damage. Therefore, Digital recommends that the installation of this option be performed by an Authorized Digital Service Provider.

Please refer to the "Digital Personal Computers Warranty and Service Information" document provided with your DIGITAL Server for further information.

DIGITAL Server 1200 PowerGrade

with Pentium® II Chip Upgrade

Introduction

The Pentium II processor module comes with a single Pentium II processor installed. Installing a second Pentium II processor increases the capabilities of your server. This chapter describes the configuration guidelines that must be followed prior to upgrading as well as detailed procedures on removing and installing the Pentium II processor module.

Kit Contents

Table 1 Kit Contents

Item
Pentium® II 233 MHz /512KB CPU assembly
VRM module
Antistatic wrist strap
Installation Guide

Tools and Supplies Needed

- Phillips screwdriver, 1 pt.
- Antistatic wrist strap with grounding clip (supplied)

Processor Configuration Guidelines

You can upgrade your server to a dual Pentium II processor configuration. To upgrade, you must purchase and install the items supplied in the Pentium II processor upgrade kit. Contact your authorized DIGITAL sales representative for more information.

- Single processor configurations must have a termination card installed in the Slot socket not used. The termination card must be removed prior to installing a second processor.

DIGITAL recommends that dual processor configurations use Pentium II processors with identical stepping (manufacturing revision). Processors with different stepping might not function properly. Stepping information appears during the Power On Self Test (POST) for each processor. The processors IDs are also displayed with both IDs being identical.

Use only DIGITAL-supplied processor modules.

Use an antistatic wrist strap when servicing any part of the server.

Please refer to the README file on the ServerWORKS Quick Launch CD-ROM to view the latest processor compatibility information..

Processor Configurations

One Pentium II processor with 512 KB cache

Two Pentium II processors with 512 KB cache (each processor)

Processor Upgrade Procedure

To upgrade from a single Pentium II processor configuration to a dual Pentium II processor configuration:

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.

1. Shut down the operating system software.
2. Power down the server.
3. Disconnect all external devices, ac power, and monitor power.
4. Remove the side panel.
5. Place the antistatic wrist strap on your wrist and connect the grounding clip to a non-painted metal surface of the server's chassis.
6. Loosen the retaining bracket, remove the processor module, and then place it on an antistatic surface.

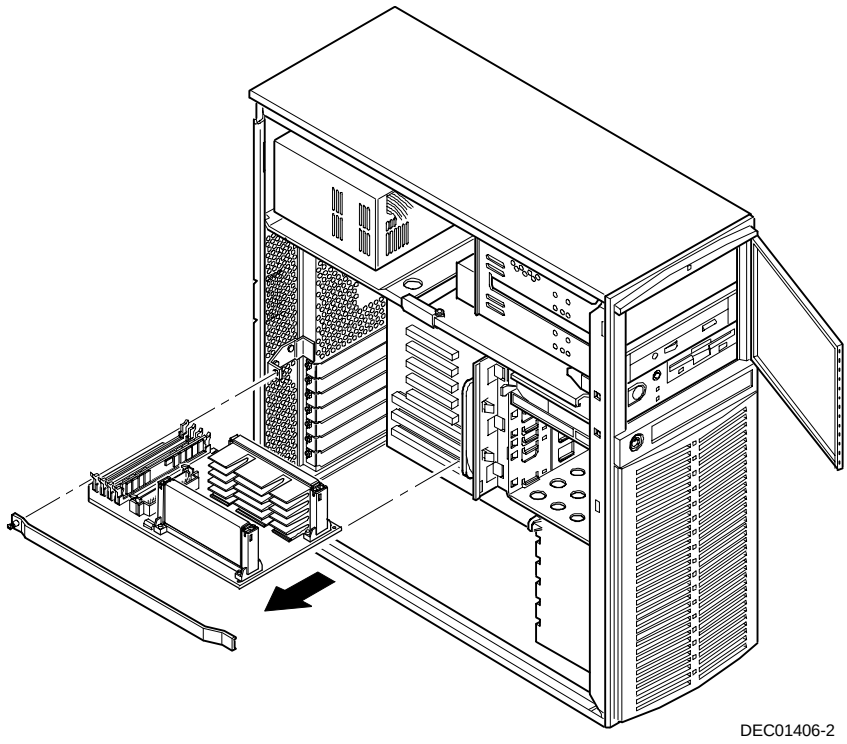

Figure 1 Removing a Processor Module

7. Remove the terminator card from the processor module. Grasp the terminator by each end and pull up.

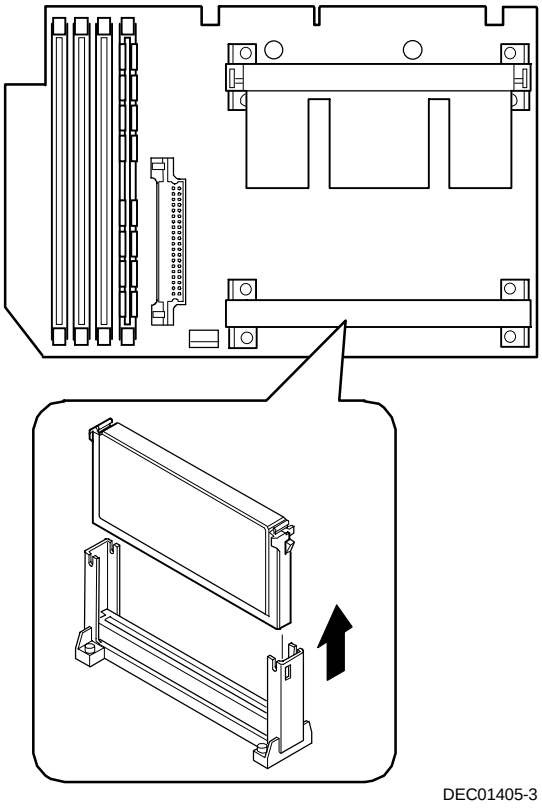

Figure 2 Removing the Terminator Module

8. Remove the new processor from its shipping container.
9. Insert the new processor into this slot.
10. Secure the new processor to its socket by pushing out on the two plastic tabs at each side.

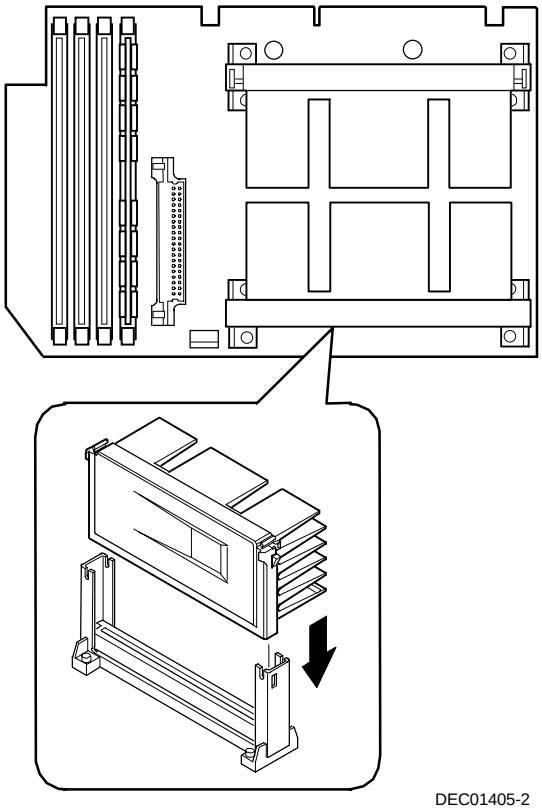

Figure 3 Installing the Second Processor

11. Set all appropriate switch settings on the processor module.

    Refer to the Processor Switch Settings section of this document.

12. Insert the VRM into the dedicated slot on the processor module.

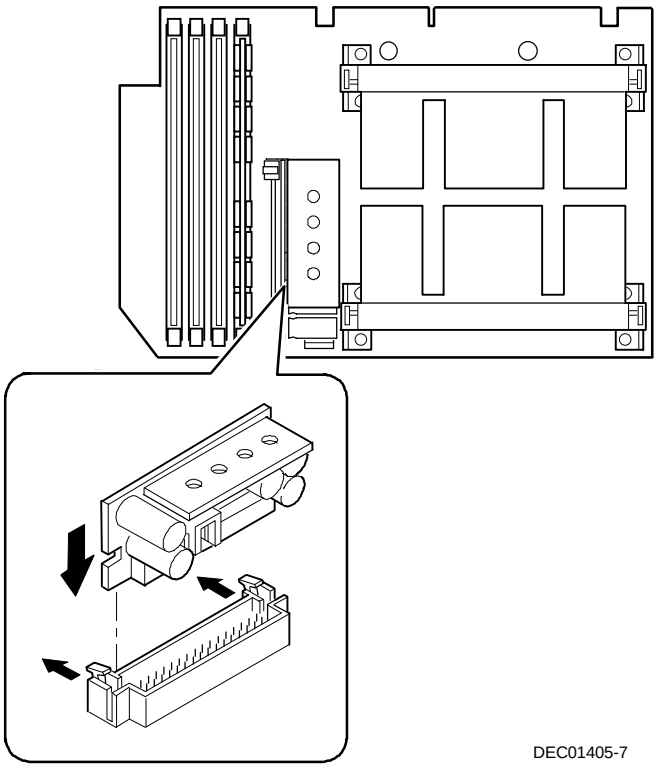

Figure 4 Installing the VRM Module

12. Install the processor module and then secure it to the chassis using the previously removed retaining bracket.

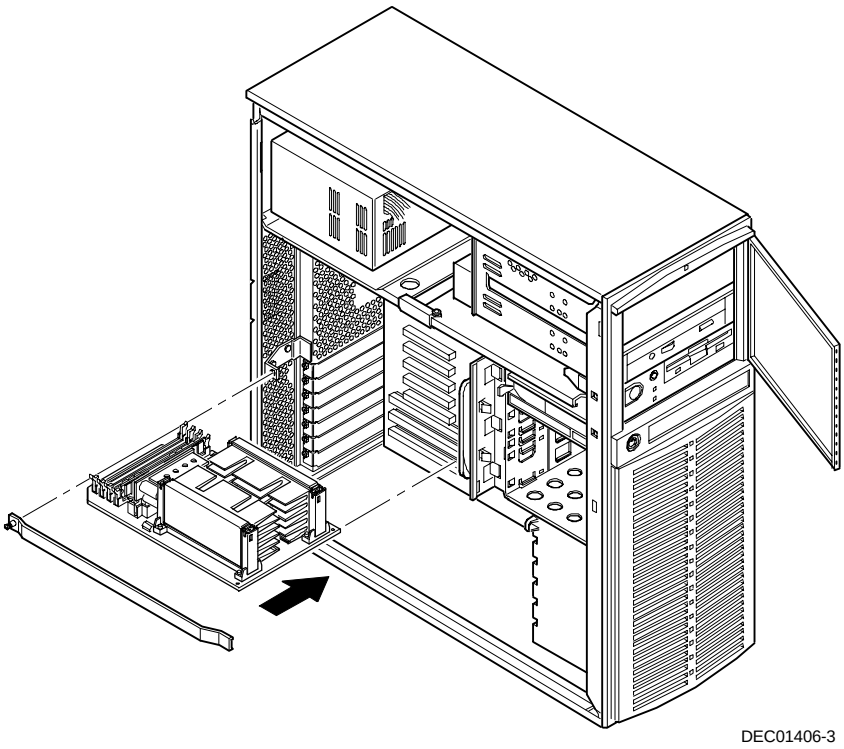

Figure 5 Installing the Processor Module

13. Replace the side panel.
14. Connect all external devices and restore power.

Processor Switch Settings

The following table provides the switch settings for a number of available Pentium II processors. The switches are set correctly for the Pentium II processor that came with the server you purchased. You only need to change the Pentium II processor switch settings, that is SW1, should you upgrade to another Pentium II processor. See Table 2 on next page.

CAUTION: Do not touch any electronic component unless you are safely grounded. Wear a grounded wrist strap or touch an exposed metal part of the server chassis. A static discharge from your fingers can result in permanent damage to electronic components.

Table 2 Processor Switch Settings

Processor Speed	SW1-1	SW1-2	SW1-3	SW1-4
233 MHz	UP	UP	DOWN	DOWN
266 MHz(1)	DOWN	DOWN	UP	DOWN
300 MHz(1)	UP	DOWN	UP	DOWN
333 MHz(1)	DOWN	UP	UP	DOWN
366 MHz(1)	UP	UP	UP	DOWN
400 MHz(1)	DOWN	DOWN	DOWN	UP
433 MHz(1)	UP	DOWN	DOWN	UP
466 MHz(1)	DOWN	UP	DOWN	UP
500 MHz(1)	UP	UP	DOWN	UP
533 MHz(1)	DOWN	DOWN	UP	UP

(1) The processor speed indicated above are anticipated future processor products. This does not constitute a promise of such a processor, but should it be made available some time in the future, these are the needed switch settings to support such a processor.

UP = switch open; DOWN = switch closed

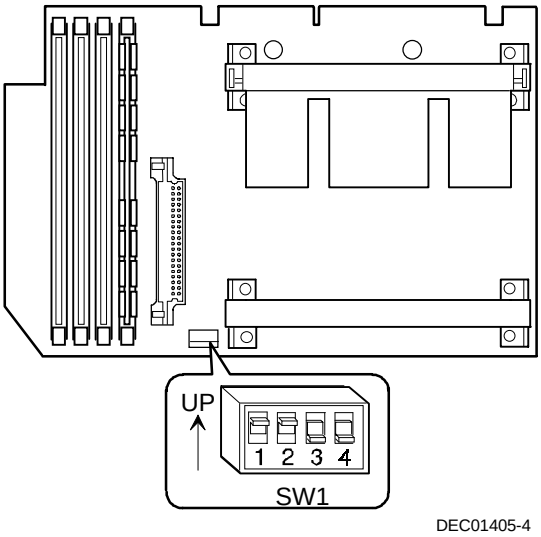

Figure 6 Pentium II Processor Switch Location

Bulletin Board Access

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

http://www.windows.digital.com

http://www.windows.digital.com/~ftp/00-index.htp

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 Authorized Digital Service Provider.