

Dell™ Systems

Power Supply Upgrade Installation Guide

电源设备升级安装指南

Guide d'installation pour la mise à niveau d'un module d'alimentation

Installationsanleitung für Netzteile (Upgrade)

電源アップグレード取り付けガイド

전원 공급 장치 업그레이드 설치 안내서

Guía de instalación para la ampliación de la fuente de alimentación



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Notes, Notices, and Cautions



NOTE: A NOTE indicates important information that helps you make better use of your computer.



NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

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To upgrade your system from a single power supply configuration to a redundant configuration with two power supplies, you must remove the nonredundant power supply and install a power distribution board (PDB) and two hot-plug power supplies.

Remove the Nonredundant Power Supply

 **CAUTION:** Only trained service technicians are authorized to remove the system cover and access any of the components inside the system. See the *System Information Guide* for complete information about safety precautions, working inside the computer, and protecting against electrostatic discharge.

- 1 Turn off the system, including any attached peripherals, and disconnect the system from the electrical outlet.
- 2 Remove the bezel (see "Removing the Bezel" in your *Installation and Troubleshooting Guide*).
- 3 Remove the cover (see "Removing the Cover" in your *Installation and Troubleshooting Guide*).
- 4 Lay the system on its right side.
- 5 If your system has an optional SCSI backplane, disconnect the power cable from the backplane.
- 6 If your system has IDE hard drives or non-hot plug SCSI hard drives installed, disconnect the 10-pin connector labeled P3 from the cable harness connected to the hard drives.
- 7 Remove the two screws securing the CD drive to the chassis and slide the drive forward slightly to improve access to the power connector on the back of the diskette drive.

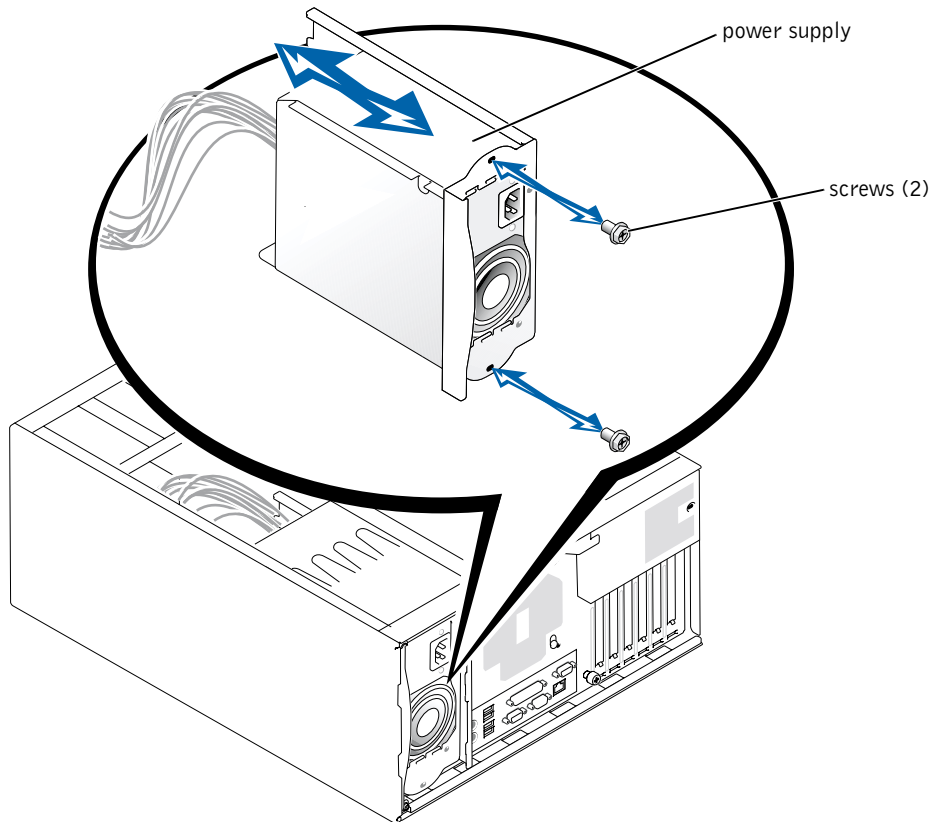
You may also need to move the tape drive. For more information, see "5.25-inch Drives" in your *Installation and Troubleshooting Guide*.

- 8 Disconnect the power cables from the diskette drive, CD drive, and tape drive.
- 9 Disconnect the power cables from the two power connectors on the system board labeled P1 and P2.

To locate system board connectors, see "Jumpers and Connectors" in your *Installation and Troubleshooting Guide*.

- 10 At the back of the system chassis, remove the two hex-head screws that secure the power supply to the chassis (see Figure 1-1).
- 11 Carefully slide the power supply out of the system.

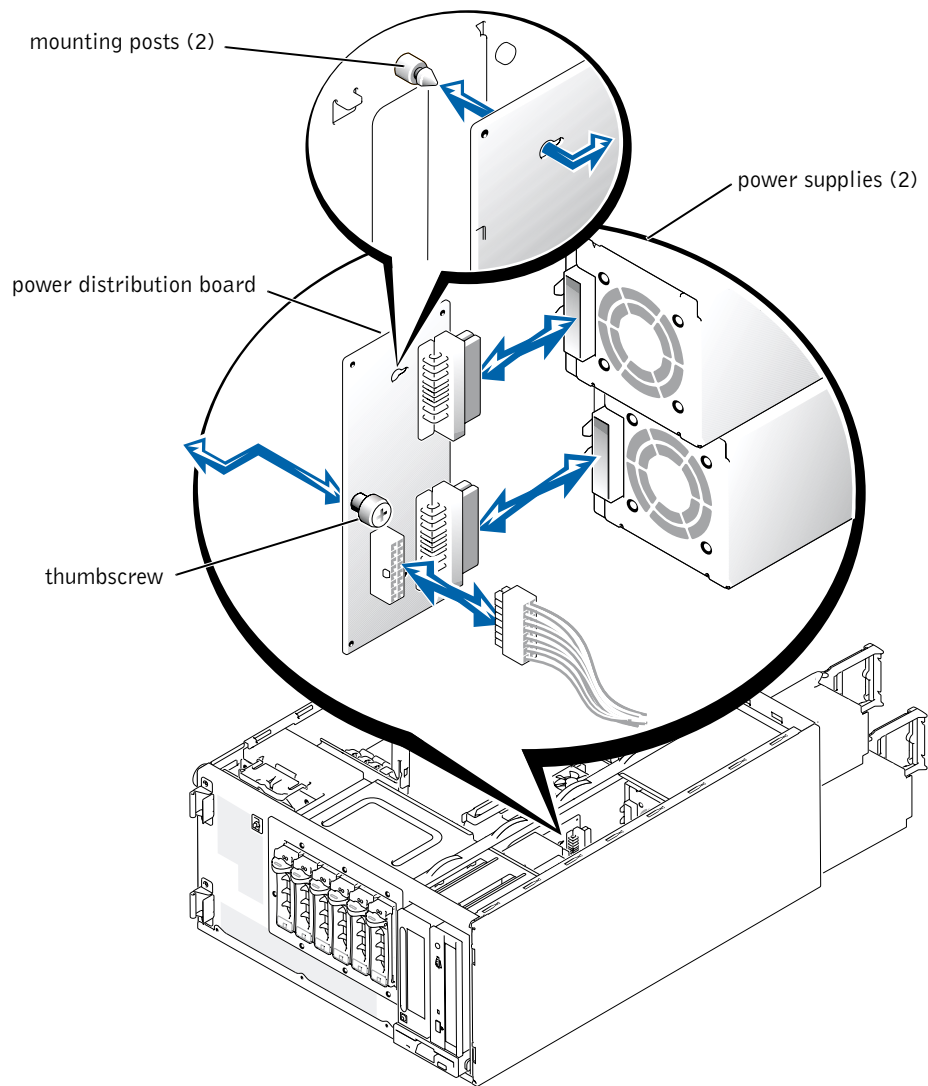
Figure 1-1. Removing the Nonredundant Power Supply



Install the Power Distribution Board

- 1 Carefully insert the PDB into the chassis with the two power supply connectors facing toward the back of the chassis (see Figure 1-2).
- 2 Fit the PDB onto the two mounting posts on the chassis.
- 3 Slide the PDB toward the front of the system.
- 4 Secure the PDB with the thumbscrew.

Figure 1-2. Installing the Power Distribution Board



- 5 Connect the four power cables to the PDB:
 - a Connect the 16-pin connector labeled PDB to the 16-pin connector on the top of the PDB.
 - b Connect the small 5-pin connector labeled PDB CON to the 5-pin connector on the underside of the PDB.
 - c Connect the 24-pin connector labeled P1 to the 24-pin connector on the underside of the PDB.
 - d Connect the 8-pin connector labeled P2 to the 8-pin connector on the underside of the PDB.
- 6 Connect the power cables attached to the top of the PDB to the following components in the system:
 - a Connect the small 4-pin connector labeled P7 to the power connector on the diskette drive.
 - b Connect the 4-pin connectors labeled P4 and P5 to the CD drive and tape drive (if installed).
 - c *If IDE hard drives or non-hot plug SCSI hard drives are installed, connect the 10-pin connector labeled P3 to the Y-cable harness attached to the drives.*
 - d *If a SCSI backplane board is installed, connect the 10-pin connector labeled P3 to the 10-pin power connector on the SCSI backplane board.*

For more information, see "Installing Drives" in your *Installation and Troubleshooting Guide*.

- 7 Connect the power cables attached to the underside of the PDB to the following components in the system:
 - a Connect the small 5-pin connector labeled PDB CONN to the connector on the system board labeled PDB CONN.
 - b Connect the 24-pin connector labeled P1 to the system board connector labeled P1.
 - c Connect the 8-pin connector labeled P2 to the system board connector labeled P2.

For the location of these system board connectors, see "Jumpers and Connectors" in your *Installation and Troubleshooting Guide*.

- 8 Slide the CD drive back into the 5.25-inch drive bay and reinstall the two screws securing the drive to the chassis.

If you moved the tape drive, reinstall it now.

- 9 Install the cover (see "Installing the Cover" in your *Installation and Troubleshooting Guide*).
- 10 Stand the system upright.
- 11 Install the bezel (see "Installing the Bezel" in your *Installation and Troubleshooting Guide*).

Install the Redundant Power Supplies

- 1 Slide one of the new power supplies into the chassis (see Figure 1-3).
- 2 When the power supply is fully inserted, rotate the power supply handle upward to lock the power supply in place (see Figure 1-3).


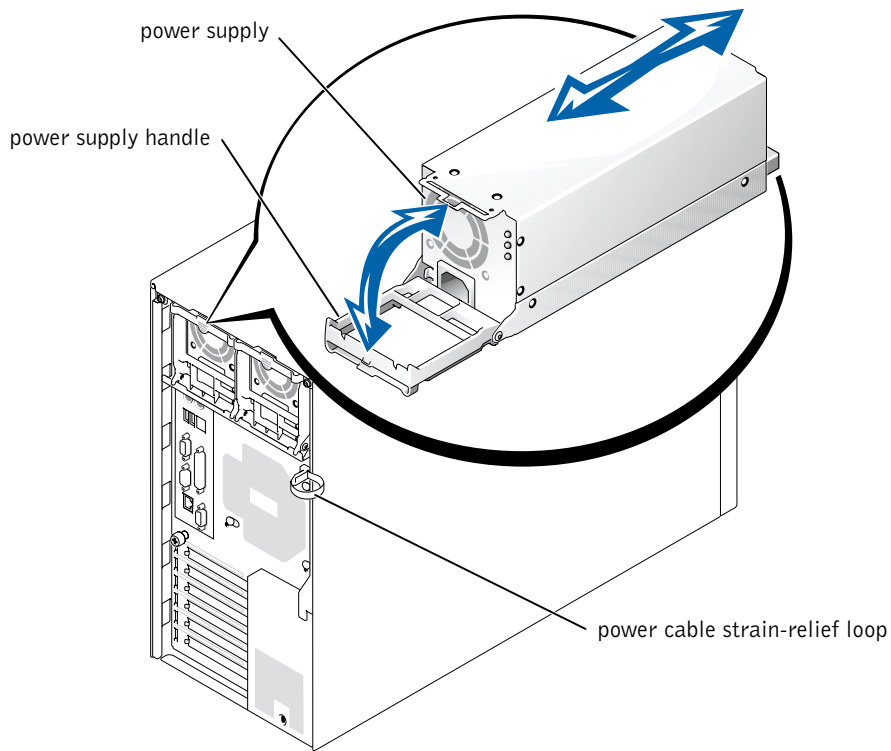
 **NOTE:** The power supply will not function until the handle is fully closed.

Figure 1-3. Installing a Redundant Power Supply



- 3** Plug the power cable into the power supply, making sure that the cable passes through the power cable strain-relief loop.
- 4** Repeat step 1 through step 3 to install the second new power supply.
- 5** Connect the power cables to the electrical outlet.