

Dell™ PowerEdge™ 840 Systems

Getting Started With Your System

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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Model MVT01

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System Features

This section describes the major hardware and software features of your system. It also provides information about other documents you may need when setting up your system and how to obtain technical assistance.

Major hardware and software features of your system include:

- One of the following processors:
 - One Intel® Core™ 2 Duo
 - One Intel Celeron® D, 300 sequence
 - One Intel Pentium® 4, 600 sequence



NOTE: Use the System Setup program to view processor information. See "Using the System Setup Program" in your *Hardware Owner's Manual*.

- A minimum of 512 MB of 533- or 667-MHz DDRII SDRAM memory, upgradable to a maximum of 8 GB by installing combinations of 512-MB, 1-GB, or 2-GB unbuffered ECC memory modules in four memory module sockets on the system board, single or dual rank.
- The following expansion slots:
 - One PCIe x1 (3.3-V) slot
 - One PCIe x8 (3.3-V) slot
 - One 32-bit, 33-MHz PCI (5-V) slot
 - Two 64-bit, 133-MHz PCI-X (3.3-V) slots
- An integrated Gigabit Ethernet NIC, capable of supporting 10-Mbps, 100-Mbps, or 1000-Mbps data rates, with support for IPMI 1.5 and Wake-on-LAN.
- Four USB 2.0-compliant connectors (two on the front and two on the back) capable of supporting a diskette drive, CD-ROM drive, keyboard, mouse, or USB flash drive.
- An integrated ATI ES1000 SVGA video controller supporting True-color graphics in the following resolutions: 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, and 1600 x 1200.
- Systems management circuitry that monitors critical system voltages and fan speeds. The systems management circuitry works in conjunction with the systems management software.
- Standard baseboard management controller with serial access.
- Back-panel connectors include PS/2 mouse and keyboard, serial, video, two USB connectors, and one NIC connector.

- One 3.5-inch CD, DVD, or combination CD-RW/DVD in a peripheral drive bay.



NOTE: DVD devices are data only.

- Support for the following internal hard-drive configurations:
 - Up to four internal, 1-inch, SATA hard drives with integrated drive controllers.
 - Up to four internal, 1-inch, Serial-Attached SCSI (SAS) hard drives with an optional SAS controller card or backplane.



NOTE: Hot-plug capability is supported only when SATA or SAS drives are connected to the optional SAS controller card or backplane.

- Optional remote access controller (DRAC 4) for remote systems management. This option requires a dedicated PCI slot.
- One 420-W power supply.

For more information about specific features, see "Technical Specifications."

The following software is included with your system:

- A System Setup program for quickly viewing and changing system configuration information. For more information on this program, see "Using the System Setup Program" in the *Hardware Owner's Manual*.
- Enhanced security features, including a system password and a setup password, available through the System Setup program.
- System diagnostics for evaluating system components and devices. For information about using the system diagnostics, see "Running the System Diagnostics" in your *Hardware Owner's Manual*.
- Video drivers for displaying many popular application programs in high-resolution modes.
- SATA or SAS device drivers that allow the operating system to communicate with devices attached to the integrated SATA or SAS subsystem. For more information about these drivers, see "Installing Drives" in your *Hardware Owner's Manual*.
- Systems management software and documentation CDs.

Supported Operating Systems

Your system supports the following operating systems:

- Microsoft Windows Server™ 2003, Standard Edition and Web Edition
- Microsoft Windows Server 2003, Standard Edition 64-Bit
- Red Hat® Enterprise Linux ES (version 3) for Intel x86
- Red Hat Enterprise Linux ES (version 4) for Intel x86
- Red Hat Enterprise Linux ES (version 4) for Intel Extended Memory 64 Technology (Intel EM64T)
- SUSE® Linux Enterprise Server 9 (Service Pack 2 or later) for Intel EM64T
- SUSE Linux Enterprise Server 10 for Intel EM64T

Other Information You May Need



CAUTION: The *Product Information Guide* provides important safety and regulatory information. Warranty information may be included within this document or as a separate document.

- The *Hardware Owner's Manual* provides information about system features and describes how to troubleshoot the system and install or replace system components. The *Hardware Owner's Manual* is available on the CDs that came with your system or on support.dell.com.
- CDs included with your system provide documentation and tools for configuring and managing your system.
- Systems management software documentation describes the features, requirements, installation, and basic operation of the software.
- Operating system documentation describes how to install (if necessary), configure, and use the operating system software.
- Documentation for any components you purchased separately provides information necessary to configure and install these options.
- Updates are sometimes included with the system to describe changes to the system, software, and/or documentation.



NOTE: Always check for updates on support.dell.com and read the updates first because they often supersede information in other documents.

- Release notes or readme files may be included to provide last-minute updates to the system or documentation or advanced technical reference material intended for experienced users or technicians.

Obtaining Technical Assistance

If you do not understand a procedure in this guide or if the system does not perform as expected, see your *Hardware Owner's Manual*.

Dell Enterprise Training and Certification is available; see www.dell.com/training for more information. This service may not be offered in all locations.

Installation and Configuration

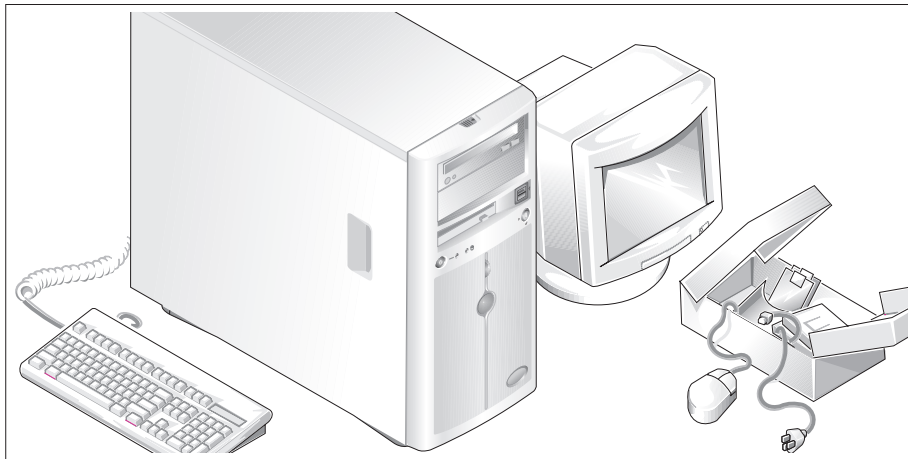
⚠ CAUTION: Before performing the following procedure, read and follow the safety instructions and important regulatory information in your *Product Information Guide*.

This section describes the steps to set up your system for the first time.

⚠ CAUTION: Installing the feet on a stand-alone tower system is necessary to provide a stable foundation for the system. Failure to install the feet poses the risk of having the system tip over, possibly causing bodily injury or damage to the system.

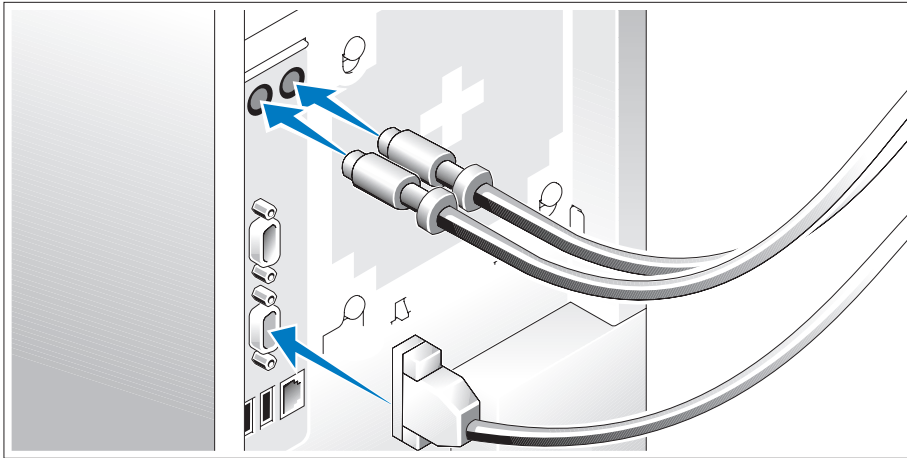
⚠ CAUTION: Whenever you need to lift the system, get others to assist you. To avoid injury, do not attempt to lift the system by yourself.

Unpacking the System



- 1** Unpack your system and identify each item.
Keep all shipping materials in case you need them later.
- 2** See the documentation included with your system on installing the system stabilizer feet.

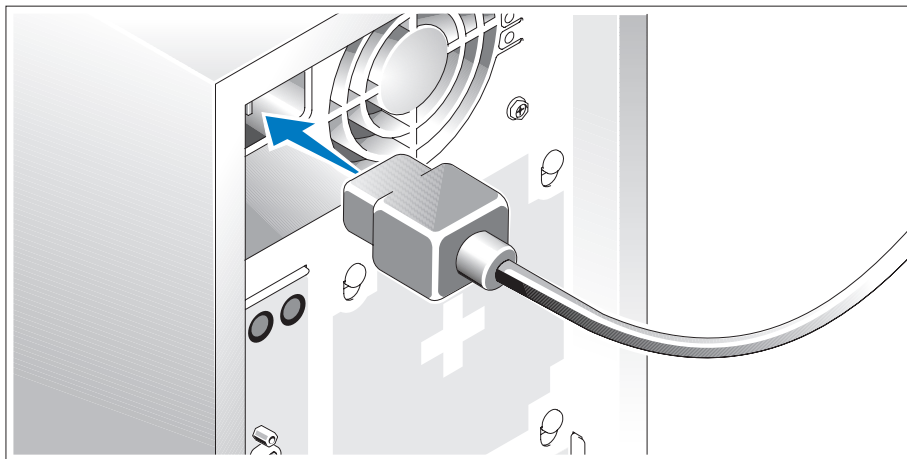
Connecting the Keyboard, Mouse, and Monitor



- 3 Connect the keyboard, mouse, and monitor (optional).

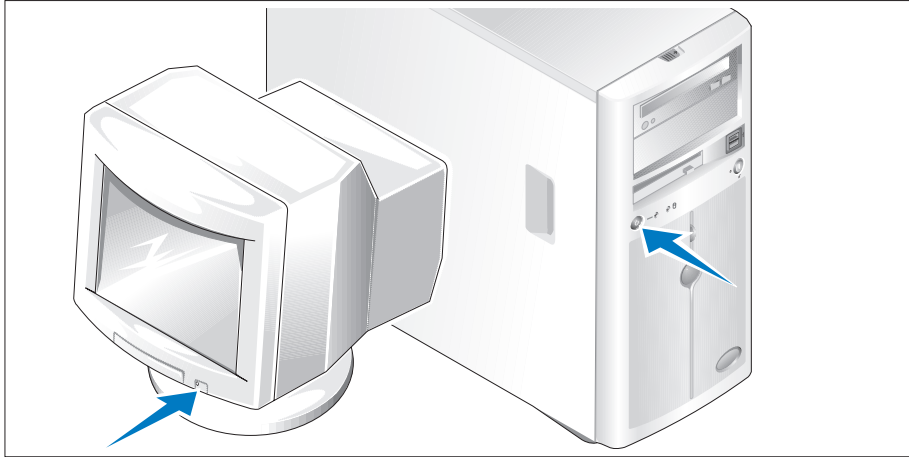
The connectors on the back of your system have icons indicating which cable to plug into each connector. Be sure to tighten the screws (if any) on the monitor's cable connector.

Connecting the Power



- 4 Connect the system's power cable(s) to the system.
- 5 Plug the other end of the cable into a grounded electrical outlet or a separate power source such as an uninterruptible power supply (UPS) or a power distribution unit (PDU).

Turning on the System



- 6 Turn on the system and monitor (optional).

Press the power button on the system and the monitor. The power indicators should light. Adjust the monitor's controls until the displayed image is satisfactory.

Complete the Operating System Setup

If you purchased a preinstalled operating system, see the operating system documentation that ships with your system. To install an operating system for the first time, see the *Quick Installation Guide*. Be sure the operating system is installed before installing hardware or software not purchased with the system.

Technical Specifications

Processor	
Processor type	One Intel® Core™ 2 Duo processor or One Intel Celeron® D, 300 sequence or One Intel Pentium® 4, 600 sequence
Expansion Buses	
Bus type	PCIe, PCI-X, PCI
Expansion slots	
PCIe	One 3.3-V, x1 One 3.3-V, x8
PCI-X	Two full-height, full-length, 3.3-V, 64-bit, 133-MHz
PCI	One 5-V, 32-bit, 33-MHz
Memory	
Architecture	72-bit ECC unbuffered DDR2 533/667 MHz SDRAM DIMMs, single- or dual-channel
Memory module sockets	Four 240-pin
Memory module capacities	512 MB, 1 GB, or 2 GB
Minimum RAM	512 MB (one 512-MB module)
Maximum RAM	8 GB
Drives	
Hard Drives	
SATA	Up to four internal, 1-inch-high (3.5-inch form factor) drives connected to integrated drive controller or RAID controller card (non-hot plug) or SAS backplane (hot plug)
SAS	Up to four internal, 1-inch-high (3.5-inch form factor) drives connected to optional SAS backplane (hot-plug) or SAS controller card (non-hot plug) NOTE: Mixing of SATA and SAS drives is not supported

Drives <i>(continued)</i>	
Optical drive	One IDE CD, DVD, or combination CD-RW/DVD NOTE: DVD devices are data only.
Diskette drive	One optional 3.5-inch, 1.44-MB
Tape drive	One optional IDE in optical drive bay
Connectors	
Externally accessible	
Back	
NIC	One RJ-45 (for integrated 1-Gigabit NIC)
PS/2-style keyboard	6-pin mini-DIN
PS/2-compatible mouse	6-pin mini-DIN
Serial	9-pin, DTE, 16550-compatible
USB	Two 4-pin, USB 2.0-compliant
Video	15-pin VGA
Front	
Video	15-pin VGA
USB	Two 4-pin, USB 2.0-compliant
Internally accessible	
IDE channel	40-pin
SATA channels	Two 7-pin
Video	
Video type	Integrated ATI ES1000 SVGA controller
Video memory	16 MB
Power	
AC power supply	
Wattage	420 W
Voltage	100–240 VAC, 50/60 Hz
Heat dissipation	2275 BTU/hr maximum

Power (continued)

Maximum inrush current	Under typical line conditions and over the entire system ambient operating range, the inrush current may reach 55 A for 10 ms or less or 25 A at 150 ms or less.
System battery	CR 2032 3.0-V lithium ion coin cell

Physical

Height	43.9 cm (17.3 in)
Width	19.8 cm (7.8 in)
Depth	50.0 cm (19.7 in)
Weight	19.1 kg (42 lb)

Environmental

NOTE: For additional information about environmental measurements for specific system configurations, see www.dell.com/environmental_datasheets.

Temperature

Operating	10° to 35°C (50° to 95°F)
Storage	–40° to 65°C (–40° to 149°F)

Relative humidity

Operating	20% to 80% (noncondensing)
Storage	5% to 95% (noncondensing)

Maximum vibration

Operating	0.26 G (half-sine wave) at a sweep of 3 to 200 MHz for 15 minutes
Storage	0.5 G at 3–200 Hz for 15 min

Maximum shock

Operating	Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 36 G for up to 2.6 ms
Storage	Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms

Altitude

Operating	–16 to 3048 m (–50 to 10,000 ft)
Storage	–16 to 10,668 m (–50 to 35,000 ft)