



CHAPTER 2

Checking the Basics

If your system is not working as expected, begin troubleshooting using the procedures in this chapter. This chapter guides you through some initial checks and procedures that can solve basic computer problems. It can also direct you to the appropriate section in this guide for detailed troubleshooting information and procedures to solve more complex problems



NOTE: When you see the question "Is the problem resolved?" in a troubleshooting procedure, perform the operation that caused the problem.

Backing Up Files

If the system is behaving erratically, back up the files immediately. See the documentation that came with the operating system for instructions on how to back up the files.

Basic Checks

The following procedure leads you through the checks necessary to solve some basic computer problems:

1. Was an alert message issued by the server management application?

Yes. Refer to your server management documentation for information on the message.

No. Go to step 2.

2. Is the computer wet or damaged?

Yes. Go to Chapter 7, "Checking Inside the Computer."

No. Go to step 3.

3. Perform the steps in “Checking Connections and Switches” found next in this chapter.

Is the problem resolved?

Yes. The power to the computer system was faulty, or the connections to the computer system were loose. You have fixed the problem.

No. Go to step 4.

4. Follow the procedures described in “Look and Listen” later in this chapter.

Did the computer system complete the boot routine?

Yes. Go to step 5.

No. A serious malfunction may have occurred. Go to Chapter 10, “Getting Help.”

5. Did you receive a system message or beep code?

Yes. Go to Chapter 3, “Messages and Codes.”

No. Go to step 6.

6. Verify the settings in the “The System Setup Program” later in this chapter.

Is the problem resolved?

Yes. The system configuration information was incorrect. You have fixed the problem.

No. Go to step 7.

7. Run the Dell Diagnostics as described in Chapter 5, “Running the Dell Diagnostics.”

Checking Connections and Switches

Improperly set switches and controls and loose or improperly connected cables are the most likely source of problems for the computer, monitor, or other peripherals (such as a printer, keyboard, mouse, or other external equipment). A quick check of all the switches, controls, and cable connections can easily solve these problems. Figure 2-1, shows the back-panel connections on the computer. Figure 2-2, shows the front-panel controls and indicators on the computer.

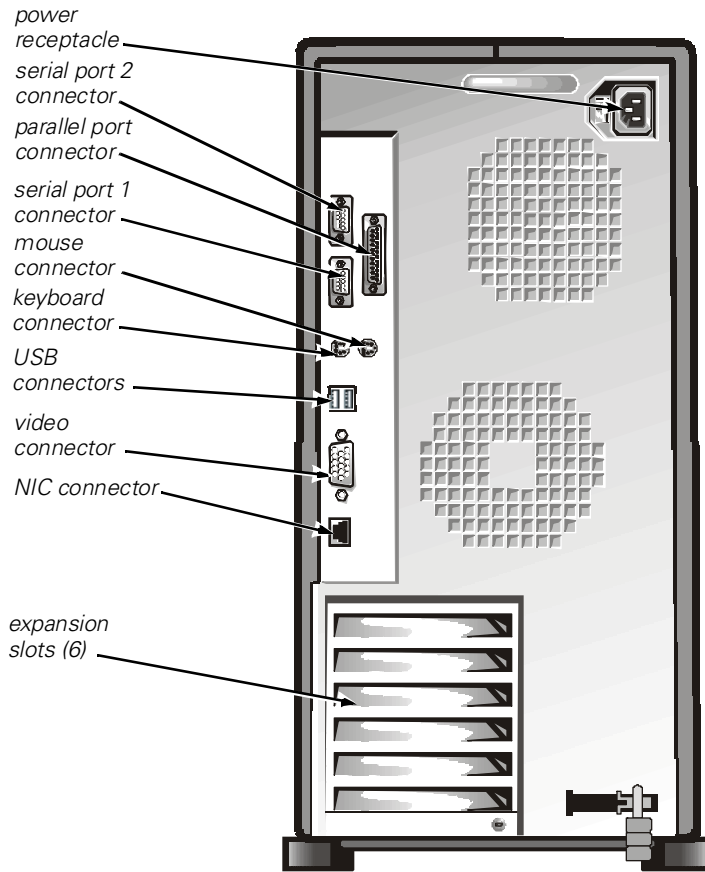


Figure 2-1. Back-Panel Features

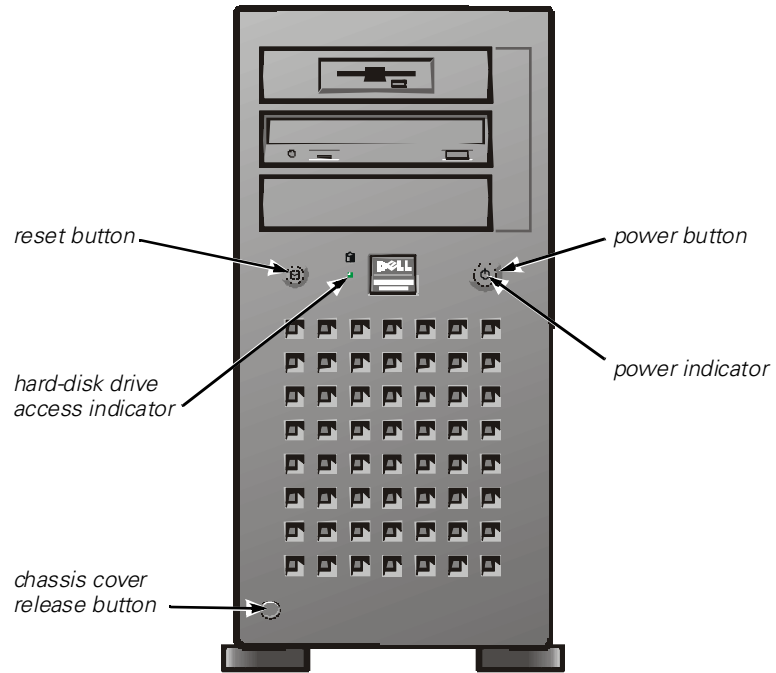


Figure 2-2. Front-Panel Features

Complete the following procedure to check all the connections and switches:

1. Turn off the system, including any attached peripherals (such as the monitor, keyboard, printer, external drives, scanners, and plotters). Disconnect all the AC power cables from their electrical outlets.
2. If the computer is connected to a power strip, turn the power strip off and then on again.

Is the power strip receiving power?

Yes. Go to step 5.

No. Go to step 3.

3. Plug the power strip into another electrical outlet.

Is the power strip receiving power?

Yes. The original electrical outlet probably does not function. Use a different electrical outlet.

No. Go to step 4.

4. Plug a lamp that you know works into the electrical outlet.
Does the lamp receive power?
Yes. The power strip is probably not functioning properly. Use another power strip.
No. Go to step 5.
5. Reconnect the system to the electrical outlet or power strip.
Make sure that all connections fit tightly together.
6. Turn on the system.
Is the problem resolved?
Yes. The connections were loose. You have fixed the problem.
No. Go to step 7.
7. Is the monitor operating properly?
Yes. Go to step 8.
No. Go to "Troubleshooting the Monitor" in Chapter 6.
8. Is the keyboard operating properly?
Yes. Go to step 9.
No. Go to "Troubleshooting the Keyboard" in Chapter 6.
9. Are the mouse and printer operating properly?
Yes. Continue with the next section, "Look and Listen."
No. Go to "Troubleshooting the Basic I/O Functions" in Chapter 6.

Look and Listen

Looking at and listening to the system are important in determining the source of a problem. Look and listen for the indications described in Table 2-1.

Table 2-1. Boot Routine Indications

Look/Listen for:	Action
An error message	See Chapter 3, "Messages and Codes."
Alert messages from the server management software	The server management software has detected a problem inside the computer. See the information on alert log message in your server management documentation.

Table 2-1. Boot Routine Indications (continued)

Look/Listen for:	Action
The monitor's power indicator	Most monitors have a power indicator (usually on the front bezel). If the monitor's power indicator does not come on, see "Troubleshooting the Monitor" in Chapter 6.
The keyboard indicators	Most keyboards have one or more indicators (usually in the upper-right corner). Press the <Num Lock> key, the <Caps Lock> key, or the <Scroll Lock> key to toggle their respective keyboard indicators on and off. If the indicators do not light up, see "Troubleshooting the Keyboard" in Chapter 6.
The diskette-drive access indicator	The diskette-drive access indicator should quickly flash on and off when you access data on the diskette drive. If the diskette-drive access indicator does not light up, see "Troubleshooting the Diskette Drive Subsystem" in Chapter 7.
The hard-disk drive activity indicators	The hard-disk drive activity indicators should quickly flash on and off when you access data on the hard-disk drives. On a system running the Microsoft® Windows NT® operating system, you can test the drive by opening Windows Explorer and clicking the icon for drive C. If the hard-disk drive access indicator does not come on, see "Troubleshooting SCSI Hard-Disk Drives" in Chapter 7.

NOTE: For the full name of an abbreviation or acronym used in this table, see the abbreviations and acronyms list at the end of this guide.

Table 2-1. Boot Routine Indications (continued)

Look/Listen for:	Action
A series of beeps	See Chapter 3, "Messages and Codes."
An unfamiliar constant scraping or grinding sound when you access a drive	Make sure the sound is not caused by the application program you are running. The sound could be caused by a hardware malfunction. See Chapter 10, "Getting Help" for instructions on obtaining technical assistance from Dell.
The absence of a familiar sound	When you turn on the system, you should hear the hard-disk drives spin up, and the system try to access the start-up files from the hard-disk drive, the diskette drive, or the CD-ROM drive. See Chapter 5, "Running the Dell Diagnostics." If the system does not boot, see Chapter 10, "Getting Help."

NOTE: For the full name of an abbreviation or acronym used in this table, see the abbreviations and acronyms list at the end of this guide.

If you have not resolved the problem after looking at and listening to the computer, continue with the instructions in the following section "The System Setup Program."

The System Setup Program

You can easily correct certain system problems by verifying the correct settings in the System Setup program. When you boot the system, the system checks the system configuration information and compares it with the current hardware configuration. If the system hardware configuration does not match the information recorded by the System Setup program, an error message may appear on the screen.

This problem can happen if you changed the system's hardware configuration and forgot to run the System Setup program. To correct this problem, enter the System Setup program, correct the corresponding System Setup setting, and reboot the system. For detailed instructions on using the System Setup program, see your *User's Guide*.

