



## CHAPTER 2

# Checking the Basics

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

Before you start any of the procedures in this chapter, read “Safety First—For You and Your System,” in Chapter 7.

You need your system’s *User’s Guide* to perform the procedures in this chapter.



*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 on the hard-disk drives 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 system problems:

1. Perform the steps in the next section, “Checking Connectors and Switches.”

Is the problem resolved?

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

**No.** Go to step 2.

2. If a keyboard and monitor are not connected to the system, shut down the system, connect a monitor and keyboard, and restart the system.

Did you receive a system message or beep code?

**Yes.** See Chapter 3, "Messages and Codes."

**No.** Go to step 3.

3. Did the system complete the boot routine?

**Yes.** Go to step 4.

**No.** A serious malfunction may have occurred. See Chapter 10, "Getting Help," for information on additional resources Dell provides to help you when you have a problem with your system.

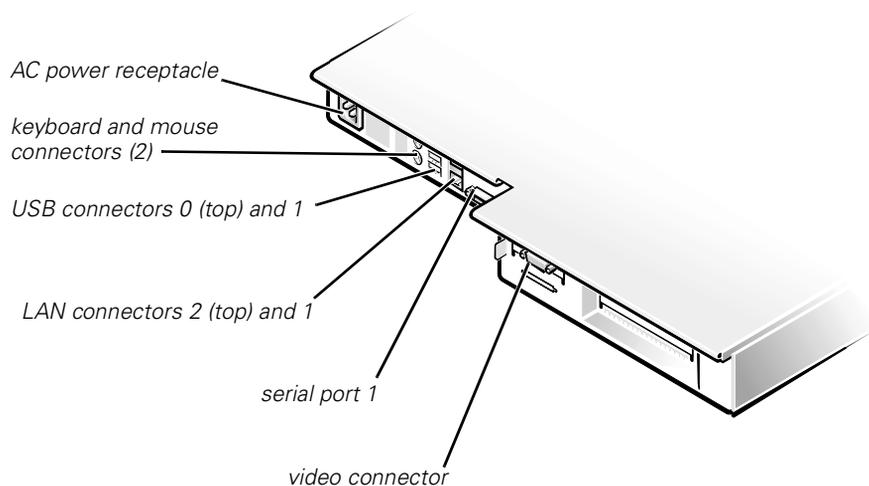
4. Run the Dell Diagnostics. See Chapter 5, "Running the Dell Diagnostics."

If you need additional assistance, see Chapter 10, "Getting Help," for information on additional resources Dell provides to help you when you have a problem with your system.

## Checking Connectors and Switches

Loose or improperly connected cables are the most likely sources of problems for your system. A check of all the cable connections can solve these problems.

Figure 2-1 shows the system's back-panel connectors.



**Figure 2-1. Back-Panel Connectors**

To check the external connections to your system, perform the following steps:

1. If the system is connected to a power strip (or power distribution unit), switch the power strip off and then on again.

Is the power strip receiving power?

**Yes.** Go to step 4.

**No.** Go to step 2.

2. Plug the power strip into a different 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 3.

3. Plug a different device into the electrical outlet.

Does the device receive power?

**Yes.** The power strip is probably not functioning properly. Use another power strip.

**No.** Locate a working electrical outlet. Go to step 4.

4. Reconnect the system to the electrical outlet or power strip.

Make sure that all connections fit tightly together.

5. Power on the system.

Is the problem resolved?

**Yes.** The connections were loose or there was a problem with the electrical outlet or power strip. You have fixed the problem.

**No.** Go to step 6.

6. Power off the system and all attached devices. Disconnect all the AC power cables from their electrical outlets.

7. Reseat all power cables connected to the system, peripheral devices, and electrical outlets.

8. Reseat the keyboard and mouse interface cable connectors, if present, in the proper connectors on the back of the system (see Figure 2-1).

9. Reconnect the video-interface cable connectors, if present, to the video connector on the back of the system (see Figure 2-1) and to the connector on the back of the monitor.

*NOTE: On some monitors, the video interface cable is permanently attached.*



10. Check the network connections as instructed in “Troubleshooting the Integrated NICs” in Chapter 6.
11. Power on the system and all attached devices.

Is the problem resolved?

**Yes.** You have fixed the problem.

**No.** See Chapter 10, “Getting Help,” for information on additional resources Dell provides to help you when you have a problem with your system.
12. Is the monitor operating properly?

**Yes.** Go to step 14.

**No.** Go to “Troubleshooting the Monitor” in Chapter 6, “Checking the Equipment.”
13. Is the keyboard operating properly?

**Yes.** Go to step 15.

**No.** Go to “Troubleshooting the Keyboard” in Chapter 6, “Checking the Equipment.”
14. Is the mouse operating properly?

**Yes.** Continue with “Look and Listen,” the next section in this chapter.

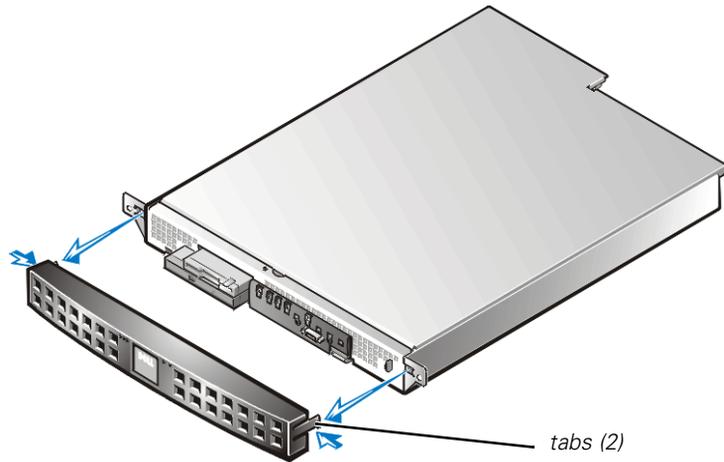
**No.** Go to “Troubleshooting the Basic I/O Functions” in Chapter 6, “Checking the Equipment.”

## **Look and Listen**

The front panel of your system contains switches, indicator lights, and diskette and CD-ROM drives. To view the front panel, you must remove the optional front bezel from the system.

### **Removing the Optional Front Bezel**

To remove the front bezel, press the retention tab on each end of the bezel and remove the bezel from the chassis (see Figure 2-2).



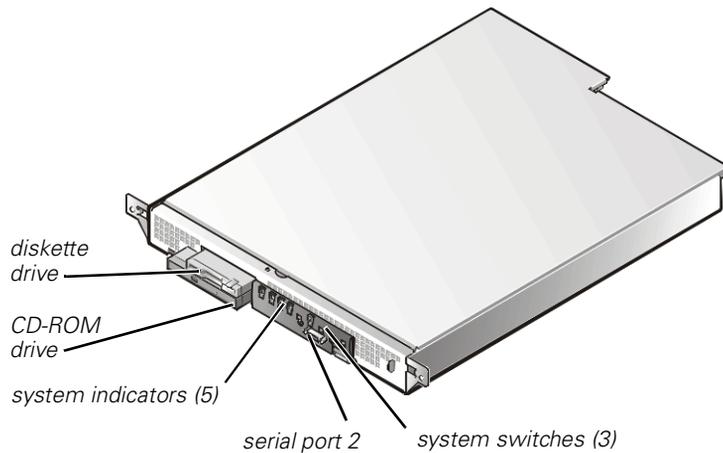
**Figure 2-2. Removing the Optional Front Bezel**

Figure 2-3 shows the main features on the system front panel, and Figure 2-4 shows the front-panel indicators. For a description of these indicators, see Table 2-1.

Figure 2-6 shows the location of the three switches on the system front panel, and Table 2-2 describes the function of these switches.

### **Front-Panel Features**

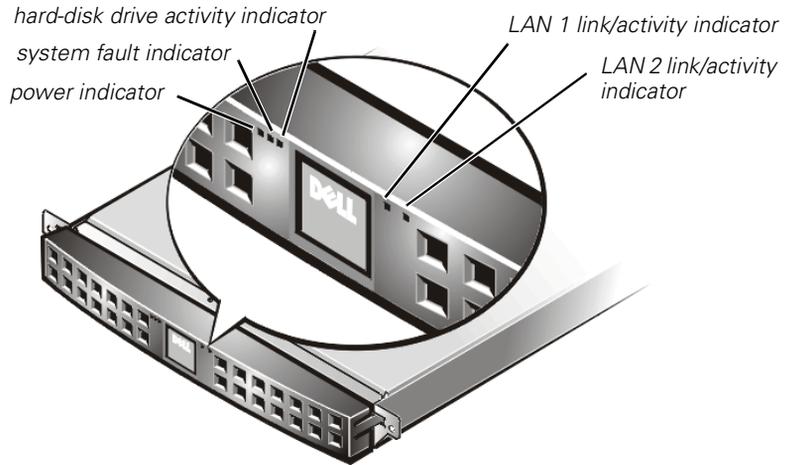
Figure 2-3 shows the main features on the system front panel.



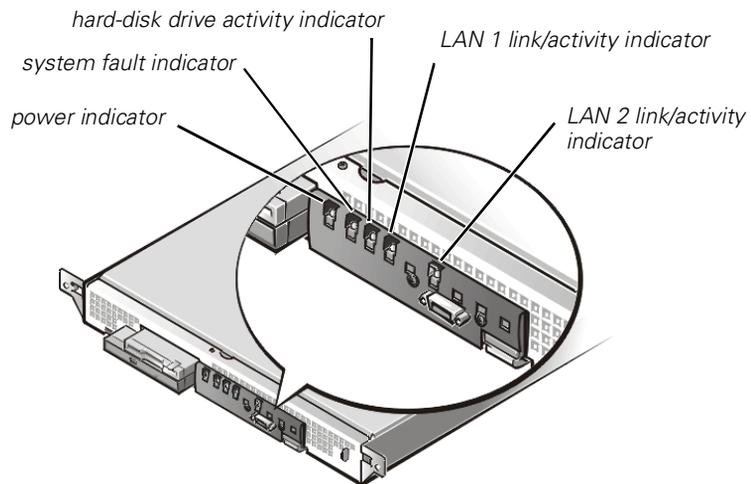
**Figure 2-3. Front-Panel Features**

## System Indicators

While troubleshooting your system, you might need to check the status of the indicators on the system's front panel, shown in Figure 2-4 and Figure 2-5.



**Figure 2-4. Front-Panel Indicators**



**Figure 2-5. Front-Panel Indicators (Bezel Removed)**

Table 2-1 describes the appearance and function of the front-panel indicators.

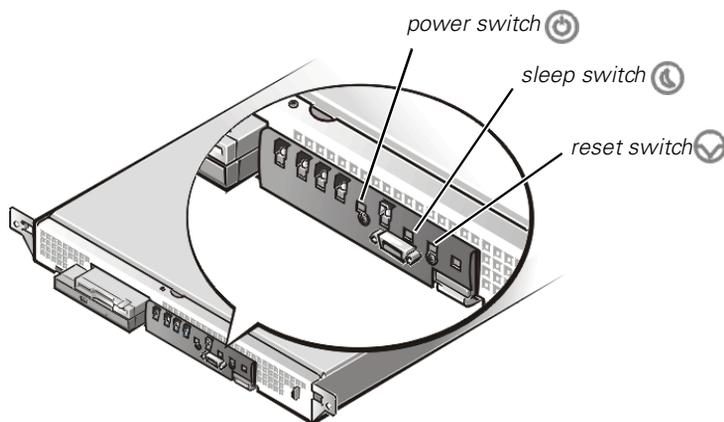
**Table 2-1. Front-Panel Indicators**

Indicator	Color	Function
Power	Green	Lights up when the system is connected to an AC power source; blinks when the system is in sleep mode
System fault	Amber	Blinks during system startup, or when a system fault is detected
Hard-disk drive activity	Green	Blinks when hard-disk drive activity occurs
LAN 1 link/activity	Amber	Lights up when the LAN 1 connector is linked to an Ethernet port; blinks when activity occurs on this channel.
LAN 2 link/activity	Amber	Lights up when the LAN 2 connector is linked to an Ethernet port; blinks when activity occurs on this channel.

### System Switches

Figure 2-6 shows the location of the three switches on the system front panel. To activate a switch, press the corresponding icon on the front panel as shown in Figure 2-6.

**NOTICE: To prevent accidental system lockup, system reset, or false error messages, do not press areas of the front panel other than the three switch locations shown in Figure 2-6. Reserved test switches are located in other areas of the front panel.**



**Figure 2-6. Front-Panel Switches**

Table 2-2 describes the function of the three front-panel switches.

**Table 2-2. Front-Panel Switches**

Switch	Function
Power switch	Powers the system on or off.  <i>NOTE: To power off the system, press and hold this switch for at least 4 seconds.</i>
Sleep switch	Places the system in sleep mode.
Reset switch	Reboots the system. If the system locks up and you cannot shut down the system normally, press the reset switch.

## System Setup Program



*NOTE: You must connect a keyboard and monitor to perform this procedure.*

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. See "Using the System Setup Program," in the *User's Guide* for detailed instructions on using the System Setup program.