Dell™ Dimension™ 4200

Hints, Notices, and Cautions

HINT: A HINT 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.

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the *Tell Me How* help file (click the **Start** button on the Microsoft® Windows® desktop, point to **Programs—**> **User's Guides**, and click **Tell Me How**).

System Codes and Messages
Dell™ Dimension™ 4200
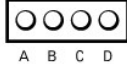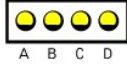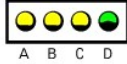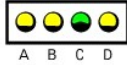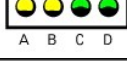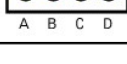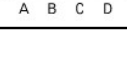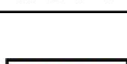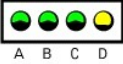
- Diagnostic Codes
- POST Beep Codes
- System Messages

Diagnostic Codes

Your computer is equipped with four diagnostic lights, which are labeled "A," "B," "C," and "D" on the back of the computer. Each of the four lights can be yellow, green, or off as shown in the following table. When the computer is turned on or restarted and it is functioning normally, the lights flash during POST. After the computer starts, the lights remain green to signify normal computer operation.

If a malfunction is detected and the computer fails to start, the lights display a code that identifies the problem. Write down the diagnostic code displayed and look it up in the following table.

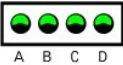| Diagnostic Code	Definition	Corrective Action
○○○○ A B C D	Power up default.	Make sure that the computer is connected to a known working electrical outlet, and then check whether the front-panel power light on the power button is on or off. If the power light is off, check the power supply. If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance. See "Safety Instructions," and then remove all cards. **If the computer still does not start, see** "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	System board is receiving power, but the BIOS is not executing.	Set the configuration jumper to Maintenance mode, and restart the computer. Exit and save changes in the system setup program. Turn off the computer and reset the configuration jumper to Normal mode, and then restart the computer. See "Safety Instructions," and then remove all cards and restart the computer to determine if a resource conflict exists. If a conflict exists, resolve the conflict. If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	Recovery mode from BIOS failure.	Set the configuration jumper to Maintenance mode and restart the computer. Exit and save changes in the system setup program. Turn off the computer and reset the configuration jumper to Normal mode, and then restart the computer. See "Safety Instructions," and then remove all cards and restart the computer to determine if a resource conflict exists. **If a conflict exists,** resolve the conflict. If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	Microprocessor has failed a BIOS test.	If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	Memory failed to be sized or enabled.	Reseat the memory modules. If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	PCI bus failure has occurred.	See "Safety Instructions," and then remove all cards and restart the computer to determine if a resource conflict exists. If a conflict exists, resolve the conflict. If the problem still persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	Video controller failed to initialize or respond.	If the computer has a video card, reseat the video card. If the problem persists or the computer has integrated video, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	IDE bus failure has occurred.	Reseat the drive cables. If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
●●●● A B C D	USB port or a device connected to it has failed initialization.	Disconnect the device from the USB connector. If the problem persists, see "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
	Other failure.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.

| | Computer has started and turned over control to the operating system. | No action is necessary. |

○ = yellow
● = green
○ = off

POST Beep Codes

If the monitor cannot display errors or problems, during POST the computer might emit a series of beeps, or beep code, that identifies the problem. The POST beep codes are listed below.

Beep Codes	Possible Cause	Corrective Action
1	A memory refresh failure occurred.	Reseat the memory modules.
2	Memory parity cannot be reset.	Reseat the memory modules.
3	A failure occurred in the first 64 KB of memory.	Reseat the memory modules.
4	The system timer is not operational.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
6	8042 Gate A20 cannot be toggled.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
7	An exception interrupt error occurred.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
8	A read/write error occurred in the display memory.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
10	A CMOS shutdown register test error occurred.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
11	An invalid BIOS is installed.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.

System Messages

Message	Possible Cause	Corrective Action
8042 Gate-A20 error	The keyboard controller failed its test.	If you receive this message after making changes in the system setup program, enter the program and restore the original value(s).
Address Line Short!	Error in the address decoding circuitry in the memory.	Reseat the memory modules.
C: Drive Error C: Drive Failure	The hard drive is not working or is not configured correctly.	Ensure that the drive is installed correctly in the computer and defined correctly in the system setup program.
Cache Memory Bad, Do Not Enable Cache	Cache memory is not operating.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
CH-2 Timer Error	An error is occurring on the timer on the system board.	See "Contacting Dell" in the *Solutions Guide* for instructions on obtaining technical assistance.
CMOS Battery State Low CMOS Checksum Failure CMOS System Options Not Set CMOS Display Type Mismatch CMOS Memory Size	The system configuration information in the system setup program is incorrect, or the battery charge may be low.	Enter the system setup program and verify the system configuration; then restart the computer.

Mismatch CMOS Time and Date Not Set		
Diskette Boot Failure	Drive A or B is present but has failed the BIOS POST.	Ensure that the drive is installed correctly in the computer and defined correctly in the system setup program. Check the interface cable at both ends.
DMA Error DMA 1 Error DMA 2 Error	Error in the DMA controller on the system board.	The keyboard or system board may need to be replaced.
FDD Controller Failure HDD Controller Failure	BIOS cannot communicate with the floppy drive or hard drive controller.	Ensure that the floppy drive or the hard drive is installed correctly in the computer and defined correctly in the system setup program. Check the interface cable at both ends.
INTR1 Error INTR2 Error	Interrupt channel on the system board failed to POST.	The keyboard or system board may need to be replaced.
Invalid Boot Diskette	The operating system cannot be located on drive A or drive C.	Enter the system setup program and confirm that drive A or drive C is properly identified.
Keyboard Error	The BIOS has detected a stuck key.	Make sure that nothing is resting on the keyboard; if a key appears to be stuck, carefully pry it up. If the problem persists, you may need to replace the keyboard.
KB/Interface Error	An error occurred with the keyboard connector.	Make sure that nothing is resting on the keyboard; if a key appears to be stuck, carefully pry it up. If the problem persists, you may need to replace the keyboard.
No ROM Basic	The operating system cannot be located on drive A or drive C.	Enter the system setup program and confirm that drive A or drive C is properly identified.

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Documentation
Dell™ Dimension™ 4200

- Printed Documentation
- Online Documentation

Printed Documentation

🔴 **You must right-click the link for a portable document format (PDF) file and save the file to your hard drive. Attempting to open large PDF files through your browser causes your system to freeze.**

To save PDF files (files with an extension of **.pdf**) to your hard drive, right-click the document title, click **Save Target As** in Microsoft® Internet Explorer or **Save Link A**s in Netscape Navigator, and specify a location on your hard drive.

Right-click only the following links:

Dell Dimension 4200 Solutions Guide (**.pdf**) (**6.93 MB**) — Provides information on adding upgrades, performing basic troubleshooting procedures, and reinstalling drivers. It also provides technical specifications.

📝 **HINT:** PDF files require Adobe™ Acrobat Reader, which can be downloaded from the Adobe World Wide Web site at **http://www.adobe.com/acr obat/**. To view a PDF file, launch Acrobat Reader. Click **File–> Open** and select the PDF file.

Online Documentation

The **Tell Me How** help file is already loaded on your hard drive when you receive your computer. To open the file, click the **Start** button on the Windows® desktop, point to **Programs—> User's Guides**, and then click **Tell Me How**.

🔴 **Compiled HTML Help files (files with an extension of .chm) require Microsoft Internet Explorer 4.0 or later.**

The **Tell Me How** help file allows you to search for information in multiple ways. You can quickly link to information on the following topics:

- Hardware and software features of your computer
- The Windows desktop, where you can change your wallpaper and screen saver, create shortcuts, and position icons
- Software access, installation, and removal
- Basic file management, such as finding, copying, deleting, and renaming files
- Tips on using your computer hardware

Downloading the *Tell Me How* Help File and Associated Files

1. Right-click the following link to the **hhactivex.dll** file: hhactivex.dll.
2. Click **Save Target As** in Microsoft Internet Explorer or **Save Link As** in Netscape Navigator, and specify **c:\windows\system**.
3. Click the **Start** button on the Microsoft Windows desktop, and then click **Run**.
4. Type `regsvr32 hhactivex.dll` and then press <Enter>.
5. Click **OK** when the installation is complete.
6. Right-click the following link to the file: *Dell Dimension 4200 System Tell Me How* (**.chm**) (**2362 KB**).
7. Click **Save Target As** in Microsoft Internet Explorer or **Save Link As** in Netscape Navigator, and specify a location on your hard drive.

Viewing the Tell Me How Help File

1. Click the **Start** button on the Windows desktop, point to **Programs**, and then click **Windows Explorer**.
2. Navigate to the directory in which you saved the **Tell Me How** help file.
3. Double-click the file (**tellhow.chm**).

Reinstalling Drivers and Utilities

Dell™ Dimension™ 4200

● Reinstalling Drivers

Reinstalling Drivers

⊘ **NOTICE:** The Dell support website, http://support.dell.com, and the Dell Dimension ResourceCD provide approved drivers for Dell™ computers. If you install drivers obtained from other sources, your computer might not work correctly.

Dell installed the following drivers on your computer:

- l Graphics driver — Enables the video controller.

- l Audio driver — Enables the sound controller.

- l Other drivers — Control devices, such as the modem, sound, and video cards that might be installed in your computer. For information on those drivers, click the **Start** button, point to **Programs**—> **User's Guides**, and click the appropriate guide from the list.

Sometimes you can fix a device problem by reinstalling its driver:

1. Save and close any open files and exit any open programs.

2. Insert the Dell Dimension *ResourceCD* into the CD drive.

   If this is your first time to use the *ResourceCD*, go to step 3. If not, go to step 6.

3. When the ResourceCD Installation program starts, follow the instructions on the screen.

4. When the **InstallShield Wizard Complete** window appears, remove the *ResourceCD* and click **Finish** to restart the computer.

5. When you see the Microsoft® Windows® desktop, reinsert the *ResourceCD* into the CD drive.

6. At the **Welcome Dell System Owner** screen, click **Next**.

   A message appears that says the *ResourceCD* is detecting hardware in your computer.

   The drivers that are used by your computer are automatically displayed in the **My Drivers—The ResourceCD has identified these components in your system** window.

7. Click the name of the driver that you want to reinstall and follow the prompts on the screen.

   If a particular driver is not listed, then that driver is not required by your operating system.

To view other contents on the *ResourceCD*:

1. Be sure your computer is selected in the **System Model** list.

2. Be sure your operating system is selected in the **Operating System** list.

3. Select the type of device in the **Device Type** list.

⊘ **NOTICE:** The Dell Dimension *ResourceCD* contains drivers for devices that are not part of your computer. Only reinstall the specific drivers for hardware included in your computer. Otherwise your computer might not work correctly.

4. Select a topic in the **Topic** list.

   If you select **Drivers** in the **Topic** list and a particular driver is not listed, then that driver is not required by your operating system.

Adding Parts
Dell™ Dimension™ 4200

Safety Instructions

Use the following safety guidelines to protect yourself and your computer. For comfort and efficiency, observe the ergonomic guidelines provided in "Sitting Comfortably at Your Computer" in the *Tell Me How* help file.

When Using Your Computer

⚠ **CAUTION: Do not operate your computer with any cover(s) (including the computer cover, filler brackets, front-panel inserts, and so on) removed.**

l To help avoid damaging your computer, be sure that the voltage selection switch is set to match the AC power available at your location:

    o 115 V/60 Hz in most of North and South America and some Far Eastern countries such as South Korea and Taiwan

    o 100 V/50 Hz in eastern Japan and 100 V/60 Hz in western Japan

    o 230 V/50 Hz in most of Europe, the Middle East, and the Far East
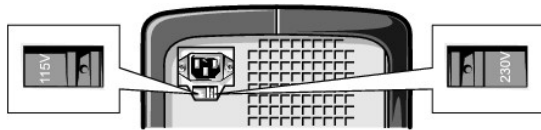
Also be sure that your monitor and attached devices are electrically rated to operate with the AC power available in your location.

l To help prevent damage to your computer when disconnecting a network cable from your computer, first unplug the cable from the computer network connector and then from the network wall jack. When reconnecting a network cable to your computer, first plug the network cable into the network wall jack and then into the computer network connector.

l To help avoid possible damage to the system board, wait 5 seconds after turning off the computer before disconnecting or connecting a non-USB device.

l To help prevent electric shock, plug the computer and device power cables into properly grounded power sources. These cables are equipped with 3-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a 3-wire cable with properly grounded plugs.

l To help protect your computer from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptable power supply.

l Be sure that nothing rests on your computer cables and that the cables are not located where they can be stepped on or tripped over.

l Do not spill food or liquids on your computer. If the computer gets wet, contact Dell.

l Do not push any objects into the openings of your computer. Doing so can cause fire or electric shock by shorting out interior components.

l Keep your computer away from radiators and heat sources. Also, do not block cooling vents. Avoid placing loose papers underneath your computer; do not place your computer in a closed-in wall unit or on a bed, sofa, or rug.

When Working Inside Your Computer

Before you remove the computer cover, perform the following steps in the sequence indicated.

⊘ **NOTICE:** Do not attempt to service the computer yourself, except as explained in this guide and elsewhere in Dell documentation. Always follow installation and service instructions closely.

1. Turn off your computer and all devices.

2. Ground yourself by touching an unpainted metal surface at the back of the computer before touching anything inside your computer.

While you work, periodically touch an unpainted metal surface on the computer to dissipate any static electricity that might harm internal components.

3. Disconnect any devices connected to the computer, including the monitor, from their electrical outlets to reduce the potential for personal injury or shock. Also, disconnect any telephone or telecommunication lines from the computer.

4. Disconnect the power cable from your computer, and then press the power button to ground the system board.

In addition, take note of these safety guidelines when appropriate:

l When you disconnect a cable, pull on its connector, not on the cable itself. As you pull connectors apart, keep them evenly aligned to avoid bending any pins. Also, before you connect a cable, make sure that both connectors are correctly oriented and aligned.

l Handle components and cards with care. Don't touch the components on a card. Hold a card by its edges or by its metal bracket.

⚠ CAUTION: There is a danger of a new battery exploding if it is incorrectly installed. Replace the battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer instructions.

Protecting Against Electrostatic Discharge

To prevent static damage, discharge static electricity from your body before you touch anything inside your computer and periodically while you work inside the computer. You can do so by touching an unpainted metal surface on the back of the computer.

You can also take the following steps to prevent static damage:

l Do not remove items from their antistatic packing material until you are ready to install them in your computer. Just before unwrapping the antistatic packaging, be sure to discharge static electricity from your body.

l When transporting a sensitive component, first place it in an antistatic container or packaging.

Shutting Down the Computer

⬤ NOTICE: To prevent data loss, you must perform the Windows shutdown procedure.

Windows Millennium Edition (Me) and Windows 2000

1. Save and exit any programs and files you have open.

2. Click the **Start** button, and then click **Shut Down**.

3. Click the pull-down menu under **What do you want the computer to do?**.

4. Click **Shut down** and then click **OK**.

   The computer automatically turns off after the shutdown process finishes.

5. Turn off your monitor and any other devices connected to power.

Reattaching the Front Door and Hinge Arms

To prevent damage to your computer, the front door is designed to "break away" if it is lifted up too far. If the front door breaks away, you might need to reattach both the front door and the hinge arms.

Reattaching the Front Door

1. Shut down the computer.

2. Lower the hinge arms to the vertical position.

3. Align the two clips on the inside of the front door with the two hinge arms.

4. Press inward on the front door until it clips to both hinge arms.
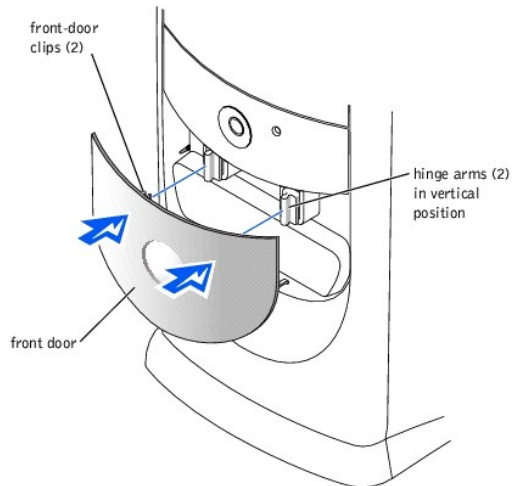
Reattaching the Hinge Arms

1. Shut down the computer.

2. Remove the front door, if attached.

   The front door snaps off of the two hinge arms.

3. Lift both hinge arms to the horizontal position. Then pull the arms toward you until they snap into place.

🚫 **NOTICE:** Using excessive force to pull the hinge arms into place may damage the arms or the front panel.

   If the hinge arms do not snap back into place on the first attempt, slightly reposition the arms and try again.
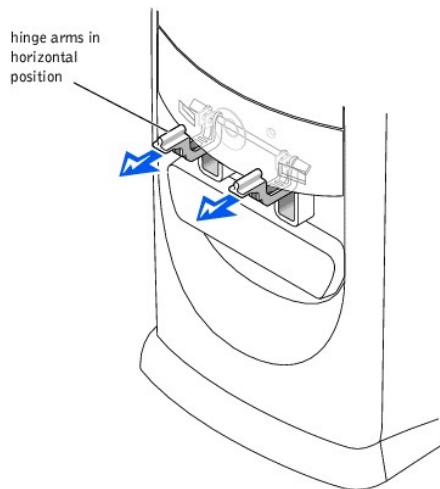
4. After the hinge arms clip into place, lower and raise the arms two or three times to align them.

5. Reattach the front door as described in "Reattaching the Front Door."

Opening the Computer Cover

⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Lay the computer on its side so that the arrow on the bottom of the computer points up.

NOTICE: Ensure that there is sufficient space to support the open cover—at least 30 cm (1 ft) of desk top space.

5. Press the two release buttons and lift the cover.

computer cover*

drive cables

power cables

fan shroud assembly

power supply

hard drive

system board

filler brackets for empty card-cage slots (4)

arrow

release buttons (2)

* Depending on the types of drives installed in your computer, the cover may not open as widely as shown in the figure.

Adding Cards

CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."

CAUTION: To guard against electrical shock, always unplug your computer from the electrical outlet before opening the cover.

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. To raise the securing lever, press the tab until it is free from the latch and then lift the lever.

6. Insert the card into the connector.
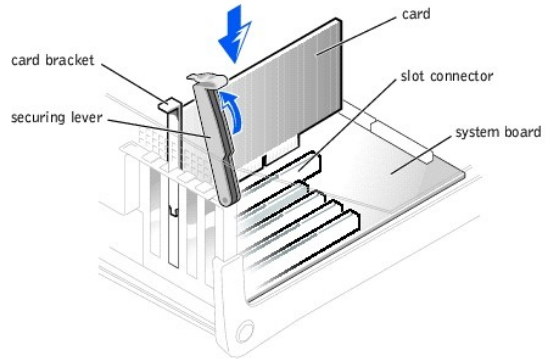
7. Ensure that the card is fully seated in the connector.
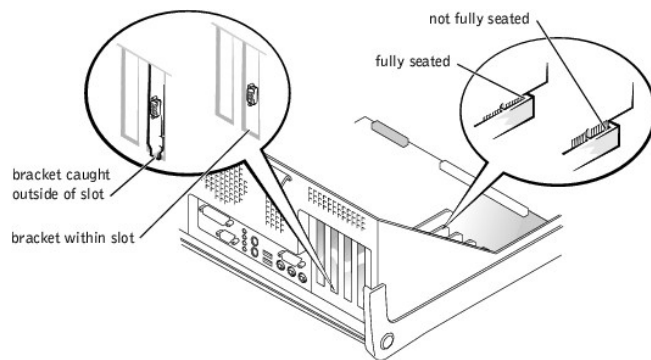
8. Lower the plastic securing lever.

9. Connect any cables that should be attached to the card.

    See the card documentation for information about the card cable connections.

10. Close the computer cover.

11. Connect your computer and devices to their electrical outlets, and turn them on.

⊖ **NOTICE:** To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

12. Install any drivers required for the card as described in the card documentation.

Removing Cards

⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

⊖ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. If necessary, disconnect any cables connected to the card.

6. To raise the securing lever, press the tab until it is free from the latch and then lift the lever.
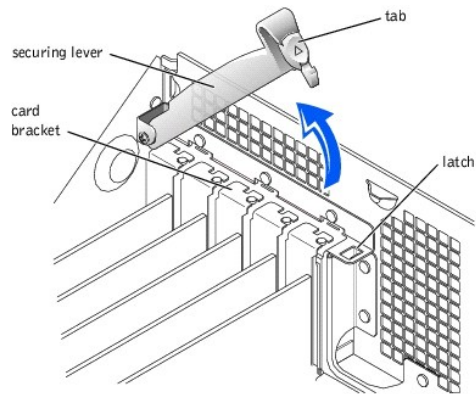
7. To remove the card, grasp the card by the top corners and lift it out.

   If the card is difficult to remove, gently ease the card back and forth to remove it from the connector.
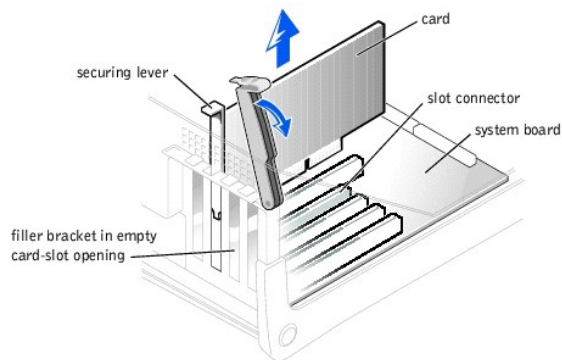
HINT: Installing filler brackets over empty card- slot openings is necessary to maintain Federal Communications Commission (FCC) certification of the computer. The brackets also keep dust and dirt out of your computer.

8. If you are not replacing the card, install a filler bracket in the empty card-slot opening.

   If you are adding a card, see "Adding Cards."

9. Lower the securing lever.

10. Close the computer cover.

11. Connect your computer and devices to their electrical outlets, and turn them on.

NOTICE: To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

Adding Memory

CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."

You can increase your computer memory by installing memory modules on the system board. For information on the type of memory supported by your computer, see "Memory" in "Technical Specifications."

HINT: Memory purchased from Dell is covered under your computer warranty.

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. If necessary, remove a memory module:

   a. Press out the securing clip at each end of the memory module connector.

   b. Grasp the module and pull up.

      If the module is difficult to remove, gently ease the module back and forth to remove it from the connector.

6. To insert a module, press out the securing clip at each end of the memory module connector.
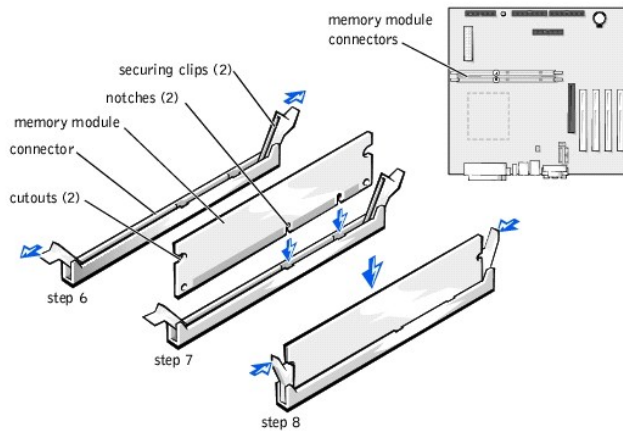
7. Align the notches on the bottom of the module with the crossbars in the connector.

⊖ **NOTICE:** To avoid breaking the memory module, do not press near the middle of the module.

8. Insert the module straight down into the connector, ensuring that it fits into the vertical guides at each end of the connector. Press firmly on the ends of the module until it snaps into place.

   If you insert the module correctly, the securing clips snap into the cutouts at each end of the module.

9. Close the computer cover.

10. Connect your computer and devices to their electrical outlets, and turn them on.

⊖ **NOTICE:** To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

11. Right-click the **My Computer** icon and then click **Properties**.

12. Click the **General** tab.

13. To verify that the memory is installed correctly, check the amount of memory (RAM) listed.

Replacing an AGP Card

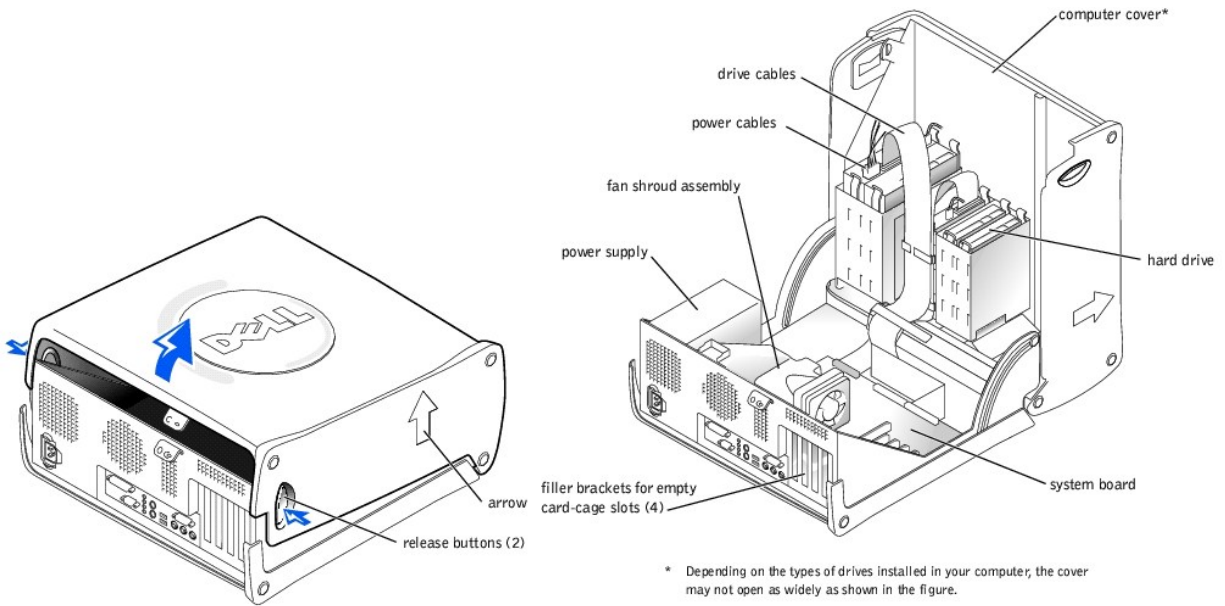⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

⊖ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. Press the card clip lever on the side of the AGP card to release the card from the slot connector, and remove the card.
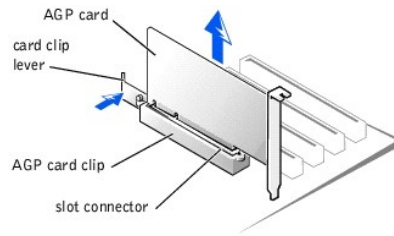
6. To replace the AGP card, gently press it down into the slot connector until it clicks into place. Press the card clip lever while inserting the card into the slot connector.

Adding a Second Hard Drive

⚠️ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

Your computer includes one hard drive. To add a second hard drive:

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

🚫 **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Unpack the drive and prepare it for installation.

   See the drive documentation to ensure that the drive is set up for your computer.

5. Open the computer cover.

📝 **HINT:** Two sets of rails are attached to the inside of the computer cover. Use the two longer rails on 5.25-inch drives. Use the shorter rails for 3.5- inch drives. Rails for a second hard drive are attached inside the hard- drive bay.

6. Remove the two green plastic rails from the inside of the hard-drive bay.

   These rails are not attached to the inside of the hard-drive cage with screws. To remove the rails, gently pull the rails up and out of the bay.

7. Attach the rails to the hard drive using the two screws attached to the rails.

   Ensure that the rail tabs are positioned at the back of the hard drive.

8. Gently slide the hard drive into the bay until you hear a click.
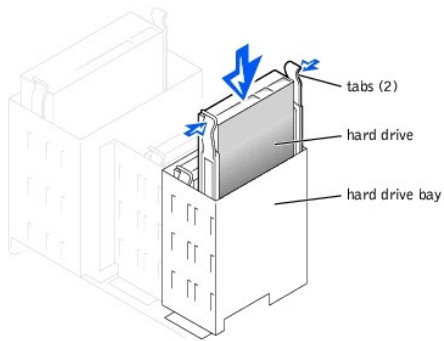
9. Connect a power cable to the drive.

🔵 **NOTICE:** Match the colored strip on the cable with pin 1 on the drive.

10. Locate the extra connector on the drive cable that is attached to your first hard drive, and attach the connector to the second hard drive.

📝 **HINT:** Your computer uses cable-select drive cables. This means that the device connected to the end connector of the drive cable is the master device and the device connected to the middle connector is the slave device. Be sure the jumper setting on the new device is set for "cable select" (see the documentation that came with the drive for information).
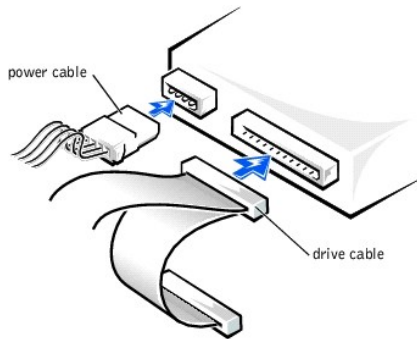
11. Close the computer cover.

12. Connect your computer and devices to their electrical outlets, and turn them on.

🔵 **NOTICE:** To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

13. See the drive documentation for instructions on installing any software required for drive operation.

Adding Other Drives

⚠️ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

📝 **HINT:** Drives sold by Dell come with their own operating software and documentation. After you install a drive, refer to the documentation that came with the drive for instructions on installing and using the drive software.

🔵 **NOTICE:** To avoid possibly damaging the drive by electrostatic discharge (ESD), ground yourself by periodically touching an unpainted metal surface on the back of the computer.

Your computer includes a floppy drive and a CD or DVD drive. You can add other devices, such as a Zip drive, a CD-RW drive, or a tape drive.

5.25-Inch Devices

⚠️ **CAUTION: Before you begin any of the procedures in this section, follow the safety instructions on "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

🔵 **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Unpack the drive and prepare it for installation.

See the drive documentation to ensure that the drive is set up for your computer.

📝 **HINT:** Two sets of rails are attached to the inside of the computer cover. Use the two longer rails on 5.25-inch drives. Use the shorter rails on 3.5- inch drives. Rails for a second hard drive are attached inside the hard- drive bay.

5. Remove the two longer, green plastic rails from the inside of the computer cover.

These rails are not attached to the computer cover with screws. To remove the rails, gently ease the rails up and down.

6. Attach the rails to the drive using the screws supplied with the drive.

Ensure that the rail tabs are positioned at the back of the drive.

7. Open the computer cover.

8. To remove the drive-bay cover panel, carefully press the panel out from the inside of the computer.
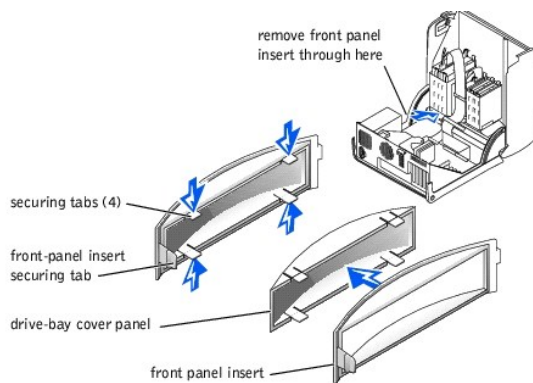
9. Gently slide the drive into the bay until you hear a click.
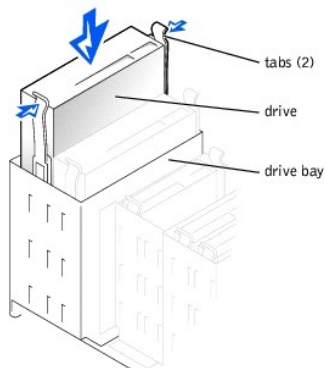
10. Connect a power cable to the drive.

11. See the drive documentation for instructions on connecting a drive cable to the drive and system board.

📝 **HINT:** Your computer uses cable-select drive cables. This means that the device connected to the end connector of the drive cable is the master device and the device connected to the middle connector is the slave device. Be sure the jumper setting on the new device is set for "cable select" (see the documentation that came with the drive for information).
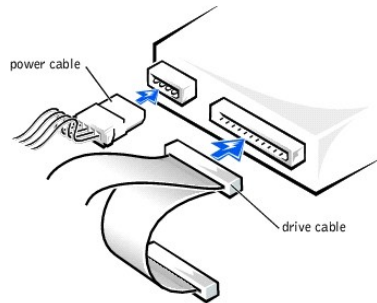
12. Connect your computer and devices to their electrical outlets, and turn them on.

⊘ **NOTICE:** To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

13. See the drive documentation for instructions on installing any software required for drive operation.

3.5-Inch Devices

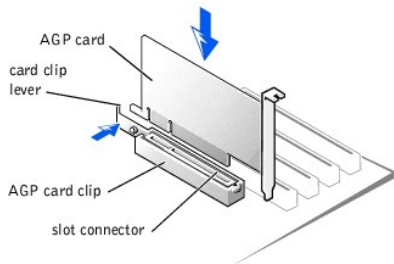⚠️ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

⊘ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Unpack the drive and prepare it for installation.

   See the drive documentation to ensure that the drive is setup for your computer.

5. Open the computer cover.

6. To remove the drive-bay cover panel, carefully press the panel out from the inside of the computer.

7. To remove the drive-bay cover panel insert, press the four tabs and pull the insert away from the panel.
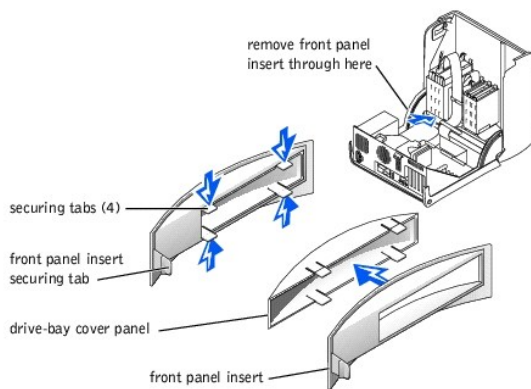
📝 **HINT:** Two sets of rails are attached to the inside of the computer cover. Use the two longer rails on 5.25-inch drives. Use the shorter rails for 3.5- inch drives. Rails for a second hard drive are attached inside the hard- drive cage.

8. Remove the two shorter, green plastic rails from the inside of the computer cover.

   These rails are not attached to the computer cover with screws. To remove the rails, firmly pull the rails from the drive cage.

9. Attach the rails to the drive using the screws supplied with the drive.

   Ensure that the rail tabs are positioned at the back of the drive.

10. Gently slide the drive into the bay until you hear a click.

tabs (2)
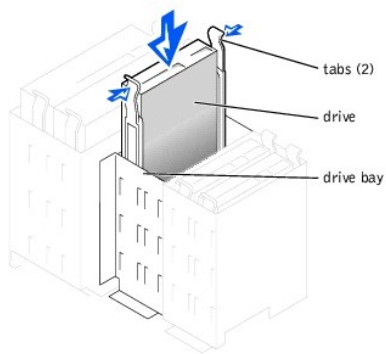
drive

drive bay

11. Carefully replace the drive bay cover.

     You do not need to replace the cover insert.

12. Connect a power cable to the drive.

13. See the drive documentation for instructions on connecting a drive cable to the drive.

📝 **HINT:** Your computer uses cable-select drive cables. This means that the device connected to the end connector of the drive cable is the master device and the device connected to the middle connector is the slave device. Be sure the jumper setting on the new device is set for "cable select" (see the documentation that came with the drive for information).

power cable
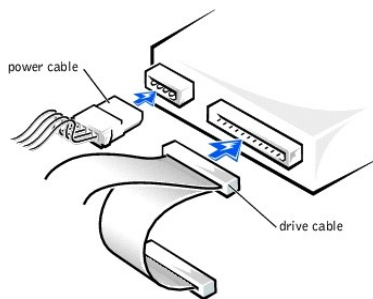
drive cable

14. Connect your computer and devices to their electrical outlets, and turn them on.

⊘ **NOTICE:** To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

15. Install any drivers required for the drive as described in the drive documentation.

Replacing the Microprocessor

⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

⊘ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. Remove the memory moduleclosest to the microprocessor.

6. Remove the fan shroud assembly from over the microprocessor and heat sink assembly.

7. Remove the heat sink:

     a. Pull down on the toggle clip lever until you can unhook the ends of the clip from the tabs on each side of the ZIF socket.

     b. Remove the clip from the socket.

c. Lift the heat sink away from the microprocessor.

clip

ZIF socket tabs (2)

heat sink

toggle clip lever
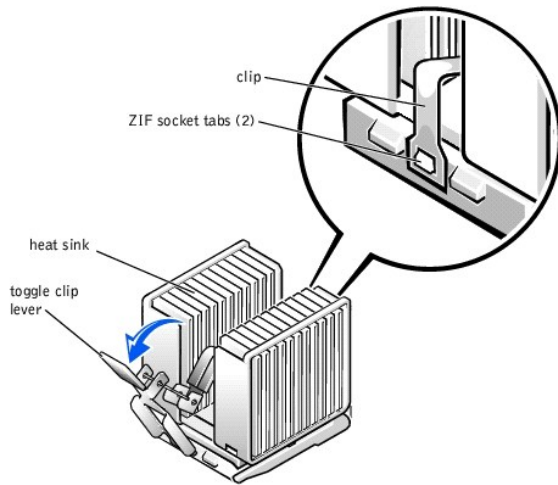
8. Remove the microprocessor package from the socket.

NOTICE: Be careful not to bend any of the pins when you remove the microprocessor package from the ZIF socket. Bending the package pins can permanently damage the microprocessor.

The ZIF socket has a lever-type handle that secures and releases the microprocessor package from the ZIF socket.

a. Pull the socket release lever straight up until the microprocessor package releases.

b. Remove the microprocessor package from the socket.

Leave the release lever extended so that the socket is ready for the new microprocessor package.

microprocessor package

release lever

ZIF socket
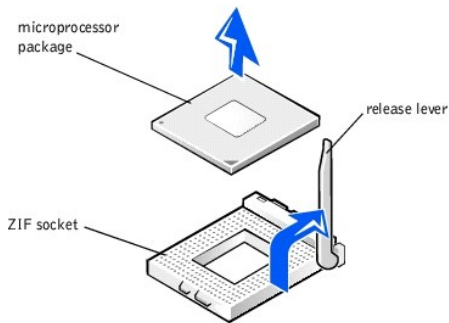
NOTICE: If you are replacing the microprocessor, do not reuse the old heat sink. Doing so can cause the microprocessor to overheat because of an inadequate amount of thermal compound between the heat sink assembly and the microprocessor package.

NOTICE: You must position the microprocessor package correctly in the ZIF socket to avoid permanent damage to the microprocessor and the computer when you turn on the system.

9. Install the microprocessor package in the ZIF socket:

a. If the release lever on the ZIF socket is not all the way out, move it to that position now.

b. Align pin 1 (the beveled corner) of the microprocessor package and pin 1 of the ZIF socket.
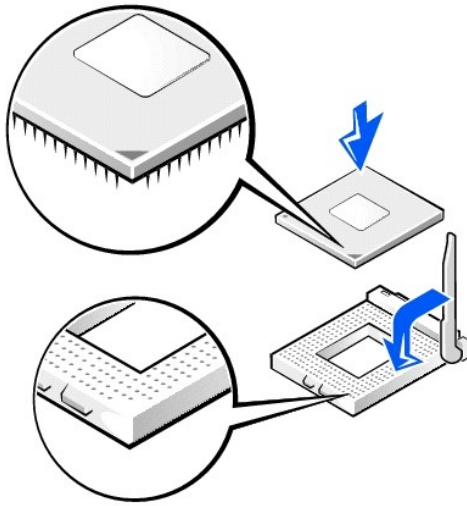
    c. Set the microprocessor package lightly in the socket, making sure that all the pins are headed into the correct holes.

       Because the system uses a ZIF socket, there is no need to use force (which could bend the pins if the microprocessor package is misaligned).

    d. When the microprocessor package is positioned correctly, press it with minimal pressure to fully seat it in the ZIF socket.

    e. When the microprocessor package is fully seated, pivot the release lever back toward the system board until it snaps into place, securing the microprocessor package.

10. Replace the heat sink assembly:

    a. If you are installing a new heat sink assembly, remove the plastic cover that is attached to the bottom of the new heat sink assembly.

    b. Place the heat sink assembly on top of the microprocessor package.

    c. Orient the metal retaining clip as shown in the first illustration in this procedure, and hook the ends of the clip over the tabs on the top edge of the ZIF socket.

    d. Pull up on the toggle clip lever until it is vertical.

11. Replace the memory module.

12. Replace the fan shroud assembly over the microprocessor and heat sink assembly.

If you are installing a microprocessor replacement kit from Dell, return the original heat sink assembly and microprocessor package to Dell in the same package in which your replacement kit was sent. Your microprocessor replacement kit should include a replacement microprocessor heat sink and one replacement securing clip.

Replacing the Fan

⚠ CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

⊖ NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. Remove the fan shroud assembly.

6. Disconnect the cooling fan power cable from the CPU FAN connector on the system board.

7. Pull down on the lower rim of the shroud to release the fan.

shroud

fan
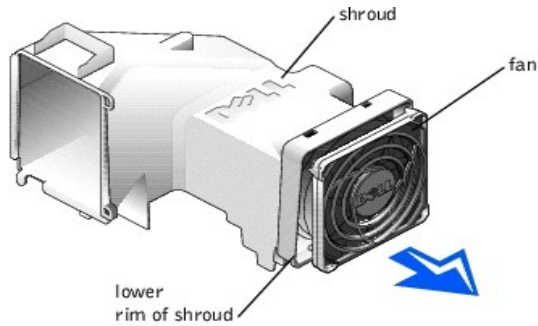
lower
rim of shroud

8. Orient the new fan so that its power cable is at the bottom.

9. Insert the top of the fan into the upper rim of the shroud, and then press the bottom of the fan into the lower rim of the shroud until it snaps into place.

10. Reconnect the fan power cable from the CPU FAN connector on the system board.

11. Replace the fan shroud assembly over the microprocessor and heat sink assembly.

Removing the Front I/O Panel

⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

⊘ **NOTICE:** To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. Disconnect the control panel cable from the control panel connector. Disconnect the I/O cable from the connector on the system board.
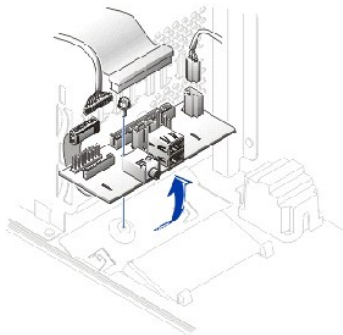
Note the routing of the control panel cable as you remove it from the computer so that you can replace it correctly.

6. Remove all cables that are connected to the front I/O panel.

7. From inside the computer cover, remove the mounting screw that secures the front I/O panel to the computer.

8. Remove the front I/O panel from the computer.

Removing and Replacing the Power Supply

Removing the Power Supply

⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

5. Disconnect the AC power cable from the back of the power supply.
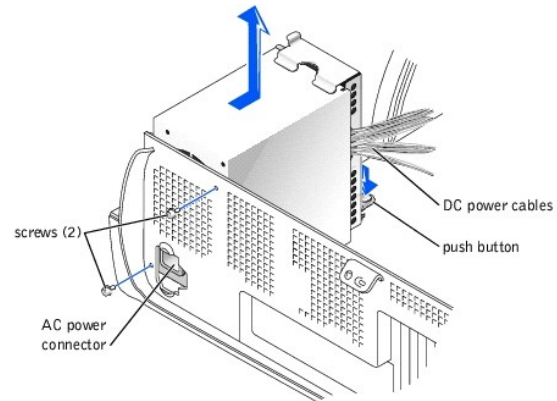
6. Disconnect the DC power cables from the system board and the drives.
   Note the routing of the DC power cables underneath the tabs in the computer frame as you remove them from the system board and drives. It is important to route these cables properly when you replace them to prevent them from being pinched or crimped.

7. Remove the two screws that secure the power supply to the back of the computer.

8. Press the "PUSH" button located on the floor of the computer.

9. Slide the power supply toward the front of the system approximately 1 inch.

10. Lift the power supply up and out of the computer.

Replacing the Power Supply

1. Slide the power supply into place.

2. Replace the two screws that secure the power supply to the back of the computer.

3. Reconnect the DC power cables.

4. Connect the AC power cable to the connector.

Removing and Replacing the System Board

Removing the System Board

CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."

1. Shut down the computer.

2. Turn off any attached devices and disconnect them from their electrical outlets.

NOTICE: To disconnect a network cable, first unplug the cable from your computer and then unplug it from the network wall jack.

3. Disconnect the power cable from your computer, and then press the power button to ground the system board.

4. Open the computer cover.

system board and
metal tray assembly

tab
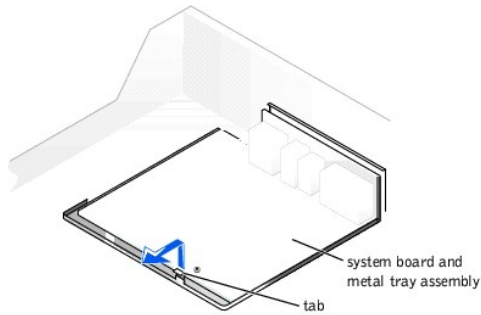
NOTICE: The system board and the metal tray are attached and are removed as one piece.

5. Remove or move any components that restrict access to the system board.

6. Disconnect all cables from the system board.

   Before you remove the existing system board, visually compare the replacement system board to the existing system board to make sure that you have the correct part.

7. Pull up on the tab and slide the system board toward the front of the computer; lift it up and away.

8. Place the system board that you just removed next to the replacement system board.

Replacing the System Board

1. Transfer components from the existing system board to the replacement system board:

   a. Remove the memory modules and install them on the replacement board.

⚠ **CAUTION: The microprocessor package and heat sink assembly can get hot. To avoid burns, be sure that the package and assembly have had sufficient time to cool before you touch them.**

   b. Remove the fan/heat sink assembly and microprocessor package from the existing system board and transfer it to the replacement system board.

2. Configure the settings of the replacement system board.

   Set the jumper on the replacement system board so it is identical to the one on the existing board.

NOTICE: Some components and connectors on the replacement system board may be in different locations than the corresponding connectors on the existing system board.

3. Orient the replacement board by aligning the notches on the bottom to the tabs on the computer frame floor.

4. Slide the board toward the back of the computer until it clicks into place.

5. Replace any components and cables that you removed from the system board.

6. Reconnect all cables to their connectors at the back of the computer, closing the computer cover, and reconnect the computer and devices to their power sources and turn them on.

Closing the Computer Cover

1. Ensure that all cables are connected, and fold cables out of the way.

2. Ensure that no tools or extra parts are left inside the computer.

3. Pivot the cover down and ensure that the release buttons click into place.

NOTICE: To connect a network cable, first plug the cable in to the network wall jack and then plug it in to the computer.

4. Connect your computer and devices to their electrical outlets, and turn them on.

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Dell™ Dimension™ 4200

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Accessing Help Files

To access the *Tell Me How* help file
1. Click the **Start** button, point to **Programs**, point to **User's Guides**, and then click **Tell Me How**.
To access Windows Me Help
1. Click the **Start** button and then click **Help**. 2. Type a word or phrase that describes your problem in the **Search** box and then click **Go**. 3. Click the topic that describes your problem and then click **Display**. 4. Follow the instructions shown on the screen.
To access Windows 2000 Help
1. Click the **Start** button and then click **Help**. 2. Click the **Search** tab. 3. Type a word or phrase that describes your problem and then click **List Topics**. 4. Click the topic that describes your problem and then click **Display**. 5. Follow the instructions shown on the screen.

Power Problems

HINT: See the *Tell Me How* help file for information on the standby mode.

Check the power light— When the power light is lit or blinking, the computer has power. If the power light is blinking, the computer is in standby mode—press a key on the keyboard or move the mouse. If the power light is off, the computer is either not turned on or is not receiving electrical power.
Test the electrical outlet— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.
Check the power cable connection— Be sure that the power cable is firmly inserted into the electrical outlet and the computer power connector.
Connect the computer directly to an electrical outlet— Bypass power protection devices, power strips, and the extension cable to verify that the computer turns on.
Swap the computer and monitor power cables— Swap the computer and monitor power cables to determine if the power cable is defective.
Check for interference— Electrical appliances on the same circuit or operating near the computer can cause interference. Other causes of interference: power extension cables, keyboard and mouse extension cables, too many devices on a power strip, or multiple power strips connected to the same electrical outlet.
Check the Power Properties— See the *Tell Me How* help file or search for the keyword standby in *Windows Help*.

Start-Up Error Messages

Operating system not found— Contact Dell for technical assistance. See "Contacting Dell" in the Dell *Solutions Guide* for contact information.
Insert bootable media— The operating system is trying to boot to a nonbootable floppy disk or CD. Insert a bootable floppy disk or CD.
Non-system disk error— A floppy disk is in the floppy drive. Remove the floppy disk and restart the computer.

Video and Monitor Problems

If the screen is blank

> **HINT:** See the documentation that came with your monitor for fault indications and troubleshooting procedures specific to your monitor.

Check the video cable connection— Check for bent pins (most video cable connectors have missing pins, but not bent pins). Ensure that the video cable is connected as shown on the Start Here sheet for your computer.
Press the monitor power button— Be sure that you firmly pressed the monitor power button.
Check the power light— When the power light is lit or blinking, the monitor has power. If the power light is blinking, press a key on the keyboard or move the mouse.
Test the electrical outlet— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.
Swap the computer and monitor power cables— Swap the computer and monitor power cables to determine if the power cable is defective.
Test the video extension cable (if used)— If you are using a video extension cable and removing the cable solves the problem, the cable is defective.
Test the monitor— If another monitor is available, connect it to the computer.
Check the back panel lights— If all four lights below the serial connector are not green, contact Dell for technical assistance. See "Contacting Dell" in the Dell *Solutions Guide* for contact information.
Check the Power Properties— See the *Tell Me How* help file or search for the keyword standby in *Windows Help*.

If the screen is difficult to read

Adjust the contrast and brightness— See the documentation that came with your monitor for instructions on adjusting the contrast and brightness.
Move the subwoofer away from the monitor— If your speaker system includes a subwoofer, ensure that the subwoofer is at least 2 ft (60 cm) away from the monitor.
Move the monitor away from external power sources— Fans, fluorescent lights, halogen lamps, and other electrical devices can cause the screen image to appear "shaky." Turn off nearby devices to check for interference.
Rotate the monitor to face a different direction— Eliminate sunlight glare, which can cause poor picture quality.
Degauss (demagnetize) the monitor— See the documentation that came with your monitor.
Run the monitor self-test— See the documentation that came with your monitor.
Restore the recommended settings— Restore the original resolution and refresh rate settings. See the *Tell Me How* help file for instructions.
Check for additional adjustments— See the documentation that came with your monitor for any additional adjustments that your monitor may require.
Adjust the Windows display settings— Click the Start button, point to Settings, and click Control Panel. Double-click the Display icon and then click the Settings tab. Try different settings for Colors and Screen area.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Sound and Speaker Problems

> **HINT:** The volume control in some MP3 players overrides the Windows volume setting. If you have been listening to MP3 songs, make sure that you did not turn the player volume down or off.

Ensure that the subwoofer and the speakers are turned on— See the setup diagram supplied with the speakers.
Adjust the speaker controls— Adjust the volume, bass, or treble controls to eliminate distortion.
Verify the speaker cable connections— Ensure that the speakers are connected as shown on the Start Here sheet for your computer and the setup diagram supplied with the speakers.
Be sure that headphones are not connected to the front-panel headphone jack— Sound from the speakers is automatically disabled when headphones are connected to the computer's front-panel headphone jack.
Adjust the Windows volume control— Double-click the yellow speaker icon in the lower-right corner of your screen. Be sure that the volume is turned up and that the sound is not muted.
Move the subwoofer away from the monitor— If your speaker system includes a subwoofer, ensure that the subwoofer is at least 2 ft (60 cm) away from the monitor.
Test the speakers— If you are using Windows 2000, plug the speaker audio cable into the headphone jack of the CD or DVD drive. Ensure that the headphone volume control is turned up. Play a music CD.
Run the speaker diagnostics— Some speaker systems have self-contained diagnostics. See the speaker documentation for diagnostics instructions.
Eliminate possible interference— Turn off nearby fans, fluorescent lights, or halogen lamps to check for interference.
Test the electrical outlet— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.
Reinstall the Sound (audio) driver— See "Reinstalling Drivers."
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Printer Problems

📝 **HINT:** If you need technical assistance for your printer, call the printer's manufacturer (see the documentation that came with the printer for the correct phone number). Dell does not cover the printer's warranty.

If you cannot print to a parallel port printer

Verify the printer cable connections— Ensure that the printer cable is connected as described in "Connecting a Printer" in the Dell *Solutions Guide*.
Ensure that the printer is turned on— See the documentation supplied with the printer.
Verify that the printer is recognized by Windows 1. Click the **Start** button, point to **Settings**, and then click **Printers**.   If the printer is listed, right-click the printer icon, click **Properties,** and then select the **Details** tab. 2. Ensure that the **Print to the following port:** setting is **LPT1 (Printer Port)**.
Test the electrical outlet— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.
Reinstall the printer driver— See "Installing the Printer Driver" in the Dell *Solutions Guide*.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

If you cannot print to a USB printer

Verify the printer cable connections— Ensure that the printer cable is connected as described in "Connecting a Printer" in the Dell *Solutions Guide*.
Ensure that the printer is turned on— See the documentation supplied with the printer.
Verify that the printer is recognized by Windows 1. Click the **Start** button, point to **Settings**, and then click **Printers**.   If the printer is listed, right-click the printer icon, click **Properties,** and then select the **Details** tab in Windows Me or the **Port** tab in Windows 2000. 2. Ensure that the **Print to the following port:** setting is **USB**.
Test the electrical outlet— Ensure that the electrical outlet is working by testing it with another device, such as a lamp.
Reinstall the printer driver— See "Installing the Printer Driver" in the Dell *Solutions Guide*.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Scanner Problems

📝 **HINT:** If you need technical assistance for your scanner, call the scanner's manufacturer (see the documentation that came with the scanner for the correct phone number). Dell does not cover the scanner's warranty.

Check the power cable connection— Ensure that the scanner power cable is firmly connected to a working electrical power source and that the scanner is turned on.
Check the scanner cable connection— Ensure that the scanner cable is firmly connected to the computer and to the scanner.
Unlock the scanner— Ensure that your scanner is unlocked if it has a locking tab or button.
Reinstall the scanner driver— Reinstall the scanner driver. See the scanner documentation for instructions.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Modem Problems

📝 **HINT:** Connect the modem to an analog telephone jack only. The modem does not operate while it is connected to a digital telephone network.

Check the connection— Verify that the telephone line is connected to the green jack on the modem. (The green line-in jack has either a LINE IN label or a connector-shaped icon next to it.) Make sure you hear a click when you insert the telephone line connector.
Check the telephone jack— Disconnect the telephone line from the modem and connect it to a telephone. Listen for a dial tone.
Connect the modem directly to the telephone wall jack— If you have other telephone devices sharing the line, such as an answering machine, fax machine, surge protector, or line splitter, then bypass them and connect the modem directly to the telephone wall jack with the telephone line.

Check the telephone line— Try using a different telephone line. If you are using a line that is 10 ft (3 m) or more in length, try a shorter one.

Verify that the modem is communicating with Windows
 	
  1. Click the Start button, point to Settings, and click Control Panel.
  2. In the Control Panel, double-click Modems.
 	
     If there are multiple entries for the same modem or modems listed that are not installed, delete the entries and restart the computer.
 	
  3. Click the Diagnostics tab.
  4. Click the COM port for your modem.
  5. Click More Info to verify that the modem is communicating with Windows.
 	
     If all commands receive responses, the modem is operating properly.

Be sure that you have subscribed to an Internet service provider— Contact an Internet service provider to subscribe.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Mouse Problems

Connect a USB mouse only to the USB connectors on the back of the computer— The USB connectors on the front of the computer are intended only for devices such as digital cameras and gaming joysticks. Connecting a USB mouse to the front of the computer may cause erratic operation, and an error message may appear when the computer is turned on or restarted.

If you connected the mouse before turning on the computer, reconnect the mouse cable
 	
  1. Press <Ctrl><Esc> to display the Start menu.
  2. Use the keyboard arrow keys to highlight **Shut Down** and then press the <Enter> key.
  3. After the computer turns off, reconnect the mouse cable as shown on the *Start Here* sheet for your computer.
  4. Start the computer.

If you connected the mouse after turning on the computer, remove the power cable, and then reconnect the mouse cable— If the mouse is connected after the power is turned on, the mouse will appear to be nonfunctional. To make the mouse function properly:
 	
  1. While your computer is on, remove the power cable from the back of the computer.
  2. Connect the mouse to the computer.
  3. Reconnect the power cable.
  4. Turn on your computer.
 	
Pressing the power button does not clear the computer's settings and does not restore mouse functionality.

Check the mouse settings— Click the **Start** button, point to **Settings**, select **Control Panel**, and then double-click the **Mouse** icon. Try adjusting the settings.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Keyboard Problems

Connect a USB keyboard only to the USB connectors on the back of the computer— The USB connectors on the front of the computer are intended only for devices such as digital cameras and gaming joysticks. Connecting a USB keyboard to the front of the computer may cause erratic operation, and an error message may appear when the computer is turned on or restarted.
Reconnect the keyboard cable— Shut down the computer (see "Turning Off the Computer" in the Dell *Solutions Guide*), reconnect the keyboard cable as shown on the *Start Here* sheet for your computer, and then restart the computer.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Drive Problems

If you cannot save a file to a floppy disk

HINT: See the *Tell Me How* help file for information on saving files to a floppy disk. To access help files, see "Accessing Help Files."

Ensure that Windows recognizes the drive— Double-click the My Computer icon. If the floppy drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.
Test the drive with another floppy disk— Insert another floppy disk to eliminate the possibility that the original floppy disk is defective.
Cannot save files to a floppy disk— Ensure that the floppy disk is not full or write-protected (locked). See the following illustration.
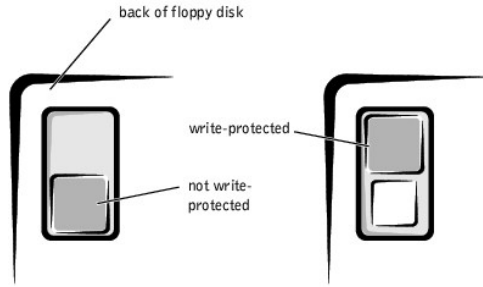
If you cannot play a music CD or install a program from a CD

🖉 **HINT:** High-speed CD drive vibration is normal and may cause noise. This does not indicate a defect in the drive or the CD.

Ensure that Windows recognizes the drive— Double-click the My Computer icon. If the CD drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.
Test the drive with another CD— Insert another CD to eliminate the possibility that the original CD is defective.
Clean the disc— See the *Tell Me How* help file for instructions.
Adjust the Windows volume control— Double-click the yellow speaker icon in the lower-right corner of your screen. Be sure that the volume is turned up and that the sound is not muted.
If headphones are connected to the front-panel headphone jack, check for sound from the headphones— Sound from the speakers is automatically disabled when headphones are connected to the computer's front-panel headphone jack.
Check the speakers and subwoofer— See "Sound and Speaker Problems."

If you cannot play a DVD movie

🖉 **HINT:** Because of different worldwide file types, not all DVD titles work in all DVD drives.

Ensure that Windows recognizes the drive— Double-click the My Computer icon. If the DVD drive is not listed, perform a full scan with your antivirus software to check for and remove viruses. Viruses can sometimes prevent Windows from recognizing the drive.
Test the drive with another DVD— Insert another DVD to eliminate the possibility that the original DVD is defective.
Clean the disc— See the *Tell Me How* help file for instructions. See "Accessing Help Files."

If the CD-RW drive stops writing

🖉 **HINT:** If you disable standby mode to write to a CD-RW drive, remember to reenable standby mode when you finish writing to the CD.

Turn off Standby in Windows before writing to a CD-RW disc— See the *Tell Me How* help file or search for the keyword standby in *Windows Help*.
Change the write speed to a slower rate— The CD-RW drive must receive a steady stream of data when writing. If the stream is interrupted, an error occurs. Closing all programs before writing to the CD-RW may also alleviate the problem.

If you have a hard drive problem

Run ScanDisk— For Windows Me, click the **Start** button, point to **Programs**—> **Accessories**—> **System Tools**, and then click **ScanDisk**. For Windows 2000:   1. Double-click the **My Computer** icon on the Windows desktop.   2. Select the drive that you want to scan for errors.   3. Click **Properties** in the **File** menu.   4. Click the **Tools** tab.   5. Under **Error-checking**, click **Check Now**.   6. Click **Start**.   7. Click **Yes** to start ScanDisk the next time the computer is restarted.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Network Problems

Check the network cable connector— Ensure that the network cable connector is firmly connected to the connector on the computer and the network wall jack as shown on the *Start Here* sheet for your computer.
Check the network lights on the back of the computer— A green light indicates a 10 Mbps network connection, and an orange light indicates a 100 Mbps network connection. The light blinks amber when there is any network traffic. If the light is dark, try replacing the network cable.
Restart the computer— Try to log on to the network again.
Contact your network administrator— Verify that your network settings are correct and that the network is functioning.
Check for interrupt request conflicts— See "Resolving Software and Hardware Incompatibilities."

Microsoft® Windows® Error Messages

***x:* is not accessible. The device is not ready—** Insert a disk into the drive and try again.
A filename cannot contain any of the following characters: \ / : * ? " < > |— Do not use these characters in filenames.
Not enough memory or resources. Close some programs and try again— You have too many programs open. Close all windows and open the program that you want to use. In some cases, you might have to restart your computer to restore computer resources. If so, try running the program that you want to use first.
The file being copied is too large for the destination drive— The file that you are trying to copy is too large to fit on the disk. Try copying the file to a blank disk or use a larger capacity disk.

A required .DLL file was not found— The program that you are trying to open is missing an essential file. To remove and then reinstall the program:
 	
  1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
  2. Double-click the **Add/Remove Programs** icon.
  3. Select the program that you want to remove.
  4. Click **Add/Remove** and follow the prompts on the screen.
  5. See the program documentation for installation instructions.

General Program Problems

A program crashes

See the software documentation— Many software manufacturers maintain websites with information that may help you to solve the problem.

A program stops responding

Press <Ctrl><Alt><Del>— For Windows Me, select the program that is no longer responding in the **Close Program** window. Then click the **End Task** button. For Windows 2000, click **Task Manager**, and select the program that is no longer responding in the **Task** window. Then click the **End Task** button.

A program error causes the system to lock up

  HINT: ScanDisk may run when you restart the computer. Follow the instructions on the screen.

Turn the computer off— If your computer locks up and you are unable to get a response by pressing a key on your keyboard or moving your mouse, press the power button for at least 8 to 10 seconds until the computer turns off. Then press the power button again to turn on the computer. You might lose data if you are unable to perform a Microsoft Windows shutdown.

A solid blue screen appears

  HINT: ScanDisk may run when you restart the computer. Follow the instructions on the screen.

Turn the computer off— If your computer locks up and you are unable to get a response by pressing a key on your keyboard or moving your mouse, press the power button for at least 8 to 10 seconds until the computer turns off. Then press the power button again to turn on the computer. The solid blue screen appears because you were not able to perform a proper Windows shutdown. You might lose data if you are unable to perform a Microsoft Windows shutdown.

Internet Connection Problems

If you have a problem with your Internet connection

Review "Modem Problems"— See "Modem Problems".

Turn off call waiting (catch-phone)— See your telephone directory for instructions on deactivating this feature. Then adjust the dial-up networking connection properties. For Windows Me: 1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.   2. Double-click the **Modems** icon.   3. In the **Modems Properties** window, click the **Dialing Properties** button.   4. Ensure that **To disable call waiting, dial:** is checked and then select the proper code according to the information in your telephone directory.   5. Click the **Apply** button and then click the **OK** button.   6. Close the **Modems Properties** window.   7. Close the **Control Panel.**   For Windows 2000:   1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.   2. Double-click the **Phone and Modems Options** icon.   3. In the **Locations** window, select the location for which you want to disable call waiting, and then click **Edit**.   4. Ensure that **To disable call waiting, dial:** is checked and then select the proper code according to the information in your telephone directory.   5. Click **Apply** and then click **OK**.   6. Close the **Phone and Modems Options** window.   7. Close the **Control Panel.**

Be sure that you have subscribed to an Internet service provider— Contact an Internet service provider to subscribe.

E-Mail Problems

Ensure that you are connected to the Internet— With the Outlook Express e-mail program open, click **File**. If **Work Offline** has a check next to it, click the check to remove it and connect to the Internet.

Resolving Other Technical Problems

Go to the Dell support website— Go to **http://support.dell.com** for help with general usage, installation, and troubleshooting questions.
E-mail Dell— Go to **http://support.dell.com** and then click **E-Mail Dell** in the **Communicate** list. Send an e-mail message to Dell about your problem; you can expect to receive an e-mail message from Dell within hours.
Call Dell— If you cannot solve your problem using the Dell support website or e-mail service, call Dell for technical assistance. See "Contacting Dell" in the Dell *Solutions Guide* for the correct number to call.

Reinstalling Drivers

NOTICE: The Dell support website, http://support.dell.com, and the Dell Dimension ResourceCD provide approved drivers for Dell™ computers. If you install drivers obtained from other sources, your computer might not work correctly.

Dell installed the following drivers on your computer:

- l Graphics driver — Enables the video controller.

- l Audio driver — Enables the sound controller.

- l Other drivers — Control devices, such as the modem, sound, and video cards that might be installed in your computer. For information on those drivers, click the **Start** button, point to **Programs**—> **User's Guides**, and click the appropriate guide from the list.

Sometimes you can fix a device problem by reinstalling its driver:

1. From the Windows desktop, insert the *Dell Dimension ResourceCD* into the CD or DVD drive.

   If this is your first time to use the *ResourceCD*, go to step 2. If not, go to step 5.

2. When the ResourceCD Installation program starts, follow the prompts on the screen.

3. When the InstallShield Wizard Complete window appears, remove the ResourceCD and click Finish to restart the computer.

4. When you see the Windows desktop, reinsert the ResourceCD into the CD or DVD drive.

5. At the Welcome Dell System Owner screen, click Next.

HINT: The *ResourceCD* displays drivers only for hardware that Dell installed at the time of purchase. If you installed any additional hardware, those drivers may not be displayed by the *ResourceCD.* If those drivers are not displayed, exit the ResourceCD program and refer to the documentation and drivers that came with that product.

   A message appears that says the *ResourceCD* is detecting hardware in your computer.

   The drivers that are used by your computer are automatically displayed in the My Drivers—The ResourceCD has identified these components in your

system window.

6. Click the driver that you want to reinstall and follow the instructions on the screen.

   If a particular driver is not listed, then that driver is not required by your operating system.

To view other contents on the *ResourceCD*:

1. Verify that your computer is selected in the System Model list.

2. Verify that your operating system is selected in the Operating System list.

3. Select the type of device in the Device Type list.

⬤ **NOTICE:** The ResourceCD contains drivers for devices that are not part of your computer. Only reinstall the specific drivers for hardware included in your computer. Otherwise, your computer might not work correctly.

4. Select a topic in the Topic list.

   If you select **Drivers** in the **Topic** list and a particular driver is not listed, then that driver is not required by your operating system.

Resolving Software and Hardware Incompatibilities

Windows Millennium Edition (Me) and Windows 2000 IRQ conflicts occur if a device either is not detected during the operating system setup or is detected but incorrectly configured.

Windows Me

To check for conflicts on a computer running Windows Me:

1. Click the **Start** button, point to **Settings**, and click **Control Panel**.

2. In the **Control Panel**, double-click **System**.

3. Click the **Device Manager** tab.

4. In the **Device Manager** list, check for conflicts with the other devices.

   Conflicts are indicated by a yellow exclamation point (!) beside the conflicting device or a red X if the device has been disabled.

5. Double-click any conflicting device listed to bring up the **Properties** window so you can determine what needs to be reconfigured or removed from the **Device Manager**.

   Resolve these conflicts before checking specific devices.

6. Double-click the malfunctioning device type in the **Device Manager** list.

7. Double-click the icon for the specific device in the expanded list.

   The **Properties** window appears.

   If there is an IRQ conflict, the **Device** status area in the **Properties** window reports what expansion cards or devices are sharing the device's IRQ.

8. Resolve any IRQ conflicts.

You can also use the Windows Me Hardware Troubleshooter. To use the troubleshooter, click the **Start** button and click **Help**. Click **Troubleshooting** in the **What would you like help with?** list, click **Hardware & system device problems**, click **Hardware, memory, & others**, and then click **Hardware Troubleshooter**. In the **Hardware Troubleshooter** list, click **I need to resolve a hardware conflict on my computer**, and then click **Next**.

Windows 2000

To check for conflicts on a computer running Windows 2000:

1. Click the **Start** button, point to **Settings**, and click **Control Panel**.

2. In the **Control Panel**, double-click **System**.

3. Click the **Hardware** tab.

4. Click **Device Manager**.

5. Click **View**, and then click **Resources by connection**.

6. Double-click **Interrupt request (IRQ)** to view the IRQ assignments.

   Conflicts are indicated by a yellow exclamation point (!) beside the conflicting device or a red X if the device has been disabled.

7. Double-click any conflicting device listed to bring up the **Properties** window so you can determine what needs to be reconfigured or removed from the **Device Manager**. Resolve these conflicts before checking specific devices.

8. Double-click the malfunctioning device type in the **Device Manager** list.

9. Double-click the icon for the specific device in the expanded list.

   The **Properties** window appears.

If there is an IRQ conflict, the **Device status** area in the **Properties** window reports what expansion cards or devices are sharing the device's IRQ.

10. Resolve the IRQ conflicts.

You can also use the Windows 2000 Hardware Troubleshooter. To use the troubleshooter, click the **Start** button and click **Help**. Click **Troubleshooting and Maintenance** on the **Contents** tab, click **Windows 2000 troubleshooters**, and then click **Hardware**. In the **Hardware Troubleshooter** list, click **I need to resolve a hardware conflict on my computer**, and then click **Next**.

Using Windows Me System Restore

The Windows Me System Restore feature allows you to return your computer to an earlier operating state if changes to the computer's hardware or software (including new hardware or program installations), or other system settings have left the computer in an undesirable operating state. You can also undo the last restoration, or choose a restoration point prior to the last restoration, to change the computer's restored operating state to a different one.

System Restore automatically creates system checkpoints for every 10 hours that the computer remains turned on and for every 24 hours of real time. You can also manually create your own checkpoints by creating restore points.

System Restore does not cause you to lose personal files stored in the **My Documents** folder, data files, or e-mail messages after restoring the computer to an earlier time. If you restore the computer to a point before you installed a program, the program's data files won't be lost, but you will have to reinstall the actual program again.

System Restore is enabled on your new computer. However, if you reinstall Windows Me with less than 200 MB of free hard-disk space available, System Restore is automatically disabled. To see if System Restore is enabled:

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.

2. Double-click the **System** icon.

3. Click the **Performance** tab.

4. Click **File System**.

5. Click the **Troubleshooting** tab, and make sure **Disable System Restore** is not checked.

Before proceeding with any System Restore function, Dell recommends that you thoroughly read Microsoft's information about using System Restore. To access this information:

1. Turn on your computer.

2. Click the **Start** button, point to **Programs—> Accessories—> System Tools**, and then click **System Restore**.

3. Click the **Help** icon in the upper-right corner of the **Welcome to System Restore** screen.

Creating a Restore Point

1. Turn on your computer.

2. Click the **Start** button, point to **Programs—> Accessories—> System Tools**, and then click **System Restore**.

3. Click **Create a restore point**.

4. Click **Next**.

5. Type a name for your new restore point in the **Restore point description** field.

   The present date and time are automatically added to your restore point.

6. Click **Next**.

7. Click **OK**.

Restoring the Computer to an Earlier Time

1. Turn on your computer.

NOTICE: Before restoring the computer to an earlier time, save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

2. Click the **Start** button, point to **Programs—> Accessories—> System Tools**, and then click **System Restore**.

3. Be sure **Restore my computer to an earlier time** is selected, and then click **Next**.

4. Click a calendar date to which you want to restore your computer.

   The **Choose a Restore Point** screen provides a calendar that allows you to see and select restore points. All calendar dates with available restore points appear in bold.

5. Select a restore point, and then click **Next**.

   If a calendar date has only one restore point, then that restore point is automatically selected. If two are more restore points are available, click the restore point that you want to use.

NOTICE: Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

6. A message with instructions to save and close all open files and exit all programs appears—click **OK**.

7. Click **Next**.

8. The **Restoration In Progress** screen appears, and then the computer automatically restarts.

9. After the computer restarts, click **OK**.

Undoing the Last System Restore

1. Turn on your computer.

⊘ **NOTICE:** Before undoing the last system restore, save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

2. Click the **Start** button, point to **Programs**—> **Accessories**—> **System Tools**, and then click **System Restore**.

3. Click **Undo my last restoration**.

4. Click **Next**.

⊘ **NOTICE:** Save and close all open files and exit all open programs. Do not alter, open, or delete any files or programs until the system restoration is complete.

A message with instructions to save and close all open files and exit all programs appears.

5. Click **OK**.

6. Click **Next**.

7. The **Undoing Last Restoration** screen appears, and then the computer automatically restarts.

8. After the computer restarts, click **OK**.

Reinstalling Windows Me

Before reinstalling the Windows Me operating system to correct a problem, try correcting the problem by performing a Windows Me system restore.

⊘ **NOTICE:** The operating system CD provides options for reinstalling your Windows Me operating system. The options can potentially overwrite files installed by Dell and possibly affect programs installed on your hard drive. Therefore, Dell does not recommend that you reinstall your operating system unless instructed to do so by a Dell technical support representative.

⊘ **NOTICE:** To prevent conflicts with Windows Me, you must disable any virus protection software installed on your computer before you reinstall Windows Me.

1. Turn on the computer and enter the system setup program as directed by a Dell technical support representative. See "Contacting Dell" in the Dell *Solutions Guide* for the correct number to call.

2. In the system setup program **Boot** menu, write down the boot sequence, and then change it so that the CD or DVD drive boots first. Then place the operating system CD in the CD or DVD drive and close the drive tray.

3. Exit the system setup program.

4. Select Boot From CD-ROM, and then press <Enter>.

If you wait too long to make this selection, the computer automatically boots from the hard drive. If this occurs, allow the computer to boot completely, and then restart it and try again.

5. Select Start Windows Setup from CD-ROM, and then press <Enter>.

6. Press <Enter> again.

7. Select **Continue Setup and replace your current operating system**, and then press <Enter>.

8. Press <Enter> again.

ScanDisk automatically starts and checks your hard drive.

9. Click **Next** in the **Welcome to Windows Me** window.

10. Select the directory in which Windows resides.

If c:\windows (recommended) is displayed, select it, and then click **Next**.

If c:\windows.000 (recommended) is displayed, click Other, change c:\windows.000 to c:\windows, and then click Next.

11. Ensure that **Typical** is selected, and then click **Next**.

12. Specify a computer name, workgroup, and computer description, if desired, and then click **Next**.

13. Select a country in the Country/Region window, and then click **Next.**

14. Specify a time zone in the Establish Time Zone window, and then click Next.

15. Click Finish.

Windows Setup installs necessary files, and then restarts the computer.

16. Select Boot From Hard Drive, and then press <Enter>.

17. In the **User Information** window, type your name and, if applicable, company name, and then click **Next**.

The **Name** field must be completed; the **Company Name** field is optional.

The **License Agreement** window appears.

18. Click **I accept the Agreement**, and then click **Next**.

19. Type the Windows product key in the fields provided, and then click **Next**.

The product key is the bar code number found on the Microsoft Windows label, which is located behind the front-panel connector door as shown on the *Start Here* sheet for your computer.

20. Click Finish.

Windows Setup installs additional files, and then restarts the computer.

21. Select **Boot From Hard Drive**, and then press <Enter>.

Windows Setup installs additional files, and then restarts the computer.

22. Select Boot From Hard Drive, and then press <Enter>.

23. Enter a password in the Enter Network Password window, if desired, and then click Next.

24. Remove the *operating system CD* from the CD or DVD drive.

25. Enter the system setup program as directed by a Dell technical support representative.

26. In the system setup program **Boot** menu, change the boot sequence back to the original boot sequence. Then, exit the system setup program.

Reinstalling Windows 2000

1. Insert the *operating system CD* into the CD or DVD drive.

2. Shut down the computer.

3. Start the computer.

4. Press any key when the **Press any key to boot from CD** message appears on the screen.

5. When the **Windows 2000 Setup** screen appears, ensure that the **To setup Win2000 now, press ENTER** option is highlighted. Then press <Enter>.

6. Read the information in the **License Agreement** screen, and then press <F8> to continue.

7. When the **Windows 2000 Professional Setup** screen appears, use the arrow keys to select the Windows 2000 partition option that you want. To continue, press the key specified in the partition option that you chose.

8. When the **Windows 2000 Professional Setup** screen reappears, use the arrow keys to select the type of filing system that you want Windows 2000 to use, and then press <Enter>.

9. Press <Enter> again to restart your computer.

10. Click **Next** when the **Welcome to the Windows 2000 Setup Wizard** screen appears.

11. When the **Regional Settings** screen appears, select the settings for your locale, and then click **Next**.

12. Enter your name and organization in the **Personalize Your Software** screen, and then click **Next**.

13. Type the Windows product key in the fields provided, and then click **Next**.

The product key is the bar code number found on the Microsoft Windows label, which is located behind the front-panel connector door as shown on the *Start Here* sheet for your computer.

14. When the **Computer Name and Administrator Password** screen appears, enter a name for your computer and a password, if desired. Then click **Next**.

15. Enter the date and time in the **Date and Time Settings** screen, and then click **Next**.

Windows 2000 now begins to install its components and configure the computer.

16. When the **Completing the Windows 2000 Setup Wizard** screen appears, remove the CD from the drive, and then click **Finish**.

The computer automatically restarts.

Technical Specifications
Dell™ Dimension™ 4200

Microprocessor	
Microprocessor type	Intel® Pentium® III processor that runs at 866 or 933 MHz or 1.0 GHz internally and 133 MHz externally, or Celeron™ processor that runs at 800 MHz or 1.0 or 1.1 GHz internally and 100 MHz externally

System Information	
Chip set	815E (ICH2) with support for 66-MHz, 100-MHz, and 133-MHz front-side bus
DMA channels	eight
Interrupt levels	16
BIOS chip	4 Mb (512 KB)

Expansion Bus	
Bus types	4 PCI (version 2.2), 1 AGP 4X
Bus speed	PCI: 33 MHz AGP: 66 MHz
PCI connectors	four
PCI connector size	124 pins
PCI connector data width (maximum)	32 bits
AGP connectors	one
AGP connector size	128 pins
AGP connector data width (maximum)	32 bits

Memory	
Architecture	non-ECC PC133 SDRAM
Memory connectors	two; gold contacts
Memory capacities	64 MB, 128 MB, and 256 MB (non-ECC)
Minimum memory	64 MB (non-ECC)
Maximum memory	512 MB (non-ECC)
Frequency	133 MHz
Voltage	3.3 V
Data bus width	64 bits

Drives	
Externally accessible	two 5.25-inch bays two 3.5-inch bays
Internally accessible	two 1-inch–high IDE hard drive bays
Available devices	ATA-100 Ultra DMA hard drive, CD-RW drive, DVD drive, and DVD/CD-RW combo drive, internal Zip drive

Ports and Connectors	
Externally accessible (back panel):	
Serial Data Terminal Equipment (DTE)	9-pin connector; 16550C-compatible
Parallel	25-hole connector (bidirectional)
Video	15-hole VGA connector

Audio (SoundBlaster Pro/16 compatibility)*	three miniature connectors for line in, line out, and microphone
PS/2	6-pin mini-DIN connector or USB connector
USB	two USB-1.1–compliant connectors
Present only on computers with integrated audio capabilities	
Externally accessible (front panel):	
Headphone	line-out connector
USB	two USB-1.1–compliant connectors
Internally accessible:	
Primary EIDE channel	two IDE devices, 40-pin connector
Secondary EIDE channel	two IDE devices, 40-pin connector
Floppy drive	34-pin connector

Video*	
Video type	AGP 4X
	integrated (815E) video option with 4-MB memory upgrade option
Present only on computers with integrated video capabilities	

Controls and Lights	
Power control	push button
Power lights	green light on power button
	blinking green in sleep state
	solid green in power-on state
Dell™ Solution Center control	push button with green light
Hard-drive access light	green light
Optical-drive access light	green light
Diagnostic code lights	four yellow and/or green lights located on back panel

Power	
DC power supply:	
Wattage	200 W
Heat dissipation	534 BTU (fully-loaded computer without monitor)
Voltage (switch-selectable on back panel)	90 to 135 V at 60 Hz; 180 to 265 V at 50 Hz; 100 V at 50 to 60 Hz for Japanese computers
Backup battery	3-V CR2032 lithium-ion coin cell

Physical	
Horizontal height x width x depth	42.5 x 18.1 x 44.7 cm (16.7 x 7.13 x 17.6 inches)
Weight	12.7 kg (28 lb)

Environmental	
Temperature:	
Operating	10º to 35ºC (50º to 95ºF)*
Storage	–40º to 65ºC (–40º to 149ºF)
Relative humidity	20% to 80% (noncondensing)
Maximum vibration:	
Operating	0.25 G at 3 to 200 Hz at 1/2 octave/min
Storage	0.5 G at 3 to 200 Hz at 1/2 octave/min
Maximum shock:	
Operating	left side (for mini-tower orientation) and bottom half-sine pulse with a change in velocity of 50.8 cm/sec (20 inches/sec)
Storage	27-G faired-square wave with a velocity change of 508 cm/sec (200 inches/sec)
Altitude:	
Operating	–16 to 3048 m (–50 to 10,000 ft)*
Storage	–16 to 10,600 m (–50 to 35,000 ft)

At 35°C (95°F), the maximum operating altitude is 914 m (3000 ft).

System Setup Program

Dell™ Dimension™ 4200

Overview

Each time you turn on or restart your computer system, the computer compares the hardware installed in the computer to the hardware listed in the configuration information stored in NVRAM on the system board. If the computer detects a discrepancy between the two, it generates error messages that identify the incorrect configuration settings. The computer then prompts you to enter the system setup program to correct the setting.

You can use the system setup program as follows:

l   To change the system configuration information after you add, change, or remove any hardware in your computer

l   To set or change user-selectable options—for example, the user password

Dell recommends that you write down the system setup program screen information for future reference.

The system setup screens are organized as follows:

l   At the top is a menu bar for accessing the main program screens.

l   The box on the left side of each screen lists options that define the installed hardware in the computer. Fields beside the options contain settings or values. You can change those that are enclosed in brackets. Values that are grayed out contain status information reported by the system.

l   The box on the right side of each screen displays help information for the option with a currently highlighted field.

l   The lower-right area lists keys and their functions for the currently displayed screen.

The menu bar provides access to the following screens:

l   **Main** screen — Provides settings for the basic computer configuration

l   **Advanced** screen — Provides detailed settings for some computer features

l   **Security** screen — Provides indications and settings for system password and setup password

l   **Power** screen — Provides settings for system power management features

l   **Boot** screen — Provides information about which device boots the computer

l   **Exit** screen — Provides selections for saving and loading the configurations and options

In addition to these screens, options identified by a right arrow provide access to submenus.

Entering the System Setup Program

1.   Turn on (or restart) your computer.

2.   When the blue Dell™ logo appears, press <Del>.

   If you wait too long and the operating system begins to load into memory, let the system complete the load operation. Then shut down the computer and try again.

Main Screen

```
                    Dell  Dimension  4200  Setup

     Main    Advanced    Security    Power    Boot    Exit

   BIOS Version          Axx
                                                Item Specific Help
   Processor Type        Intel® Celeron™
   Processor Speed       800 MHz
   System Bus Frequency  100 MHz

   Cache RAM             128 KB
   Service Tag           12ABC

   Total Memory          64 MB
   Memory Bank 0         64 MB [PC133]
   Memory Bank 1         Not Installed
                                           ↔      Select Menu
   System Time:          00:00:00         ↑↓     Select Item
   System Date:          MO/DY/YR         Enter   Select ▶ Submenu
                                          F9      Setup Defaults
                                          F10     Save and Exit
                                          ESC     Exit
                                          F1      Help
```

Option	Function
BIOS Version	Displays the version of the BIOS being used.
Processor Type	Displays the type of microprocessor installed.
Processor Speed	Displays the internal speed of the microprocessor.
System Bus Frequency	Displays the external speed of the microprocessor.
Cache RAM	Displays the cache random access memory.
Service Tag	Displays the service tag for the computer.
Total Memory	Displays the total computer memory.
Memory Bank 0	Displays the memory size and type in memory bank 0.
Memory Bank 1	Displays the memory size and type in memory bank 1.
Processor Serial Number	Displays the serial number of an Intel® Pentium® microprocessor when set to **Enabled**. **Disabled** (default) turns off this feature.
System Time	Resets the time on the computer's internal clock.
System Date	Resets the time on the computer's internal calendar.

Advanced Screen

```
                    Dell  Dimension  4200  Setup

   Main      Advanced     Security     Power     Boot     Exit

  ┌─────────────────────────────────────────────┬──────────────────────────┐
  │                                             │    Item Specific Help    │
  │  Setup Warning                              │                          │
  │                                             │                          │
  │  Setting items on this menu to incorrect values │                      │
  │  may cause your system to malfunction       │                          │
  │                                             │                          │
  │                                             │                          │
  │  ▶  Boot Configuration                      │                          │
  │  ▶  Peripheral Configuration                │                          │
  │  ▶  IDE Configuration                       │                          │
  │  ▶  Diskette Configuration                  ├──────────────────────────┤
  │  ▶  Event Log Configuration                 │  ←→     Select Menu      │
  │  ▶  Video Configuration                     │  ↑↓     Select Item      │
  │                                             │  Enter  Select ▶ Submenu │
  │                                             │  F9     Setup Defaults   │
  │                                             │  F10    Save and Exit    │
  │                                             │  ESC    Exit             │
  │                                             │  F1     Help             │
  └─────────────────────────────────────────────┴──────────────────────────┘
```

Option	Function
Boot Configuration	Displays the **Boot Configuration** submenu.
Peripheral Configuration	Displays the **Peripheral Configuration** submenu.
IDE Configuration	Displays the **IDE Configuration** submenu.
Diskette Configuration	Displays the **Diskette Configuration** submenu.
Event Log Configuration	Displays the **Event Log Configuration** submenu.
Video Configuration	Displays the **Video Configuration** submenu.

Boot Configuration Submenu

```
                    Dell  Dimension  4200  Setup

            Advanced

  ┌─────────────────────────────────────────────┬──────────────────────────┐
  │  Plug and Play OS       [No]                │    Item Specific Help    │
  │  Reset Conf Data        [No]                │                          │
  │  Numlock                [On]                │                          │
  │                                             │                          │
  │                                             │                          │
  │                                             │                          │
  │                                             │                          │
  │                                             │                          │
  │                                             ├──────────────────────────┤
  │                                             │  ←→     Select Menu      │
  │                                             │  ↑↓     Select Item      │
  │                                             │  Enter  Select ▶ Submenu │
  │                                             │  F9     Setup Defaults   │
  │                                             │  F10    Save and Exit    │
  │                                             │  ESC    Exit             │
  │                                             │  F1     Help             │
  └─────────────────────────────────────────────┴──────────────────────────┘
```

Option	Function
Plug and Play OS	Determines whether the computer is configured to support Plug and Play devices from the operating system or from the system BIOS. Leave this option set to **Yes** so the operating system handles all Plug and Play operation. Be sure that this option is set to **No** before running Dell Diagnostics. Otherwise, some diagnostics may incorrectly fail.

	The system setup program automatically checks the configuration of a Simple Boot Flag-compatible operating system at POST. Depending on its configuration, the system setup program may automatically set this option to **No** or **Yes**.
Reset Config Data	Permits resetting Plug and Play configuration data to default values. **Yes** resets the data; **No** (default) retains the current Plug and Play settings. If set to **Yes**, configuration data reverts to default values the next time the computer boots. This option automatically reverts back to the **No** setting.
Numlock	Selects power-on state for Numlock.

Peripheral Configuration Submenu


```
              Dell Dimension 4200 Setup

         Advanced

   Serial Port A:        [Auto]              Item Specific Help
   Parallel Port:        [Auto]
     Mode:               [Bi-Directional]

   Onboard Audio Device  [Enabled]
   Legacy USB Support     [Disabled]




                                         ←→    Select Menu
                                         ↑↓    Select Item
                                         Enter Select ▶ Submenu
                                         F9    Setup Defaults
                                         F10   Save and Exit
                                         ESC   Exit
                                         F1    Help
```

Option	Function
Serial Port A	Configures the serial port. Set this option to **Auto** (default), **Enabled**, or **Disabled**. Depending on the port setting, you can set the following additional options: l **Base I/O Address** If the port is set to **Enabled**, available I/O addresses are **3F8**, **3E8**, **2F8**, and **2E8**. l **Interrupt** If the port is set to **Enabled**, available interrupts are **IRQ3** and **IRQ4**.
Parallel Port	Configures the parallel port. Set this option to **Auto** (default), **Enabled**, or **Disabled**. Depending on the port setting, you can set the following additional options: l **Mode** If the port is set to **Auto** or **Enabled**, available modes are **Output Only**, **Bi-Directional** (default), **ECP**, and **EPP**. See the device manufacturer's documentation for information on which mode to use before changing this setting. l **Base I/O Address** If the port is set to **Enabled**, available I/O addresses are **378** (default), **278**, and **228**. l **Interrupt** If the port is set to **Enabled**, available interrupts are **7** and **5**.
Onboard Audio Device	Sets the integrated audio controller to either **Enabled** (default) or **Disabled**.
Legacy USB Support	Set to **Enabled** (default) to allow support for legacy USB. Set to **Disabled** if legacy USB support is not desired.

IDE Configuration Submenu

```
                    Dell Dimension 4200 Setup
┌─────────────────────────────────────────────────────────────────────┐
│        Advanced                                                       │
├───────────────────────────────────────────┬───────────────────────────┤
│   IDE Controller          [Both]          │     Item Specific Help    │
│   PCI IDE Bus Master      [Enabled]       │                           │
│                                           │                           │
│ ▶ Primary IDE Master      [WDC WD204BA]   │                           │
│ ▶ Primary IDE Slave       [Not Installed] │                           │
│ ▶ Secondary IDE Master    [CRD-8480C]     │                           │
│ ▶ Secondary IDE Slave     [Not Installed] │                           │
│                                           │                           │
│                                           ├───────────────────────────┤
│                                           │  ↔        Select Menu     │
│                                           │  ↑↓       Select Item     │
│                                           │  Enter  Select ▶ Submenu  │
│                                           │  F9       Setup Defaults  │
│                                           │  F10      Save and Exit   │
│                                           │  ESC      Exit            │
│                                           │  F1       Help            │
└───────────────────────────────────────────┴───────────────────────────┘
```

Option	Function
IDE Controller	Configures the integrated primary and secondary IDE controllers and detects the types of drives attached to them. If set to **Primary**, **Secondary**, or **Both** (default), the designated controller(s) are enabled, and the types of drives attached are displayed. If set to either **Primary** or **Secondary**, the other controller is not enabled and the IRQ it normally uses becomes available. If set to **Disabled**, the system cannot detect any drives attached to the controllers and displays **None** for all four IDE drive options.
PCI IDE Bus Master	Set to **Disabled** to disable the computer's PCI IDE Bus Master functions. Set **Enabled** (default) to enable the features.
Primary IDE Master	Identifies the first drive attached to the primary IDE interface, usually the boot hard drive. See "Primary IDE Master Submenu."
Primary IDE Slave	Identifies the second drive attached to the primary IDE interface, usually a second hard drive. The format of this submenu is the same as the one described in "Primary IDE Master Submenu."
Secondary IDE Master	Identifies the first drive attached to the secondary IDE interface, if there is one. The format of this submenu is the same as the one described in "Primary IDE Master Submenu."
Secondary IDE Slave	Identifies the second drive attached to the secondary IDE interface, usually a CD, CD-RW, or DVD drive. The format of this submenu is the same as the one described in "Primary IDE Master Submenu."

Primary IDE Master Submenu

```
                    Dell Dimension 4200 Setup
┌─────────────────────────────────────────────────────────────────────┐
│        Advanced                                                       │
├───────────────────────────────────────────┬───────────────────────────┤
│ Primary IDE Master                        │     Item Specific Help    │
│                                           │                           │
│ Drive Installed      [WDC WD200BB-75AUA1] │                           │
│ Type:                [Auto]               │                           │
│ Maximum Capacity     [20021 MB]           │                           │
│                                           │                           │
│ Configuration Options Selected By BIOS    │                           │
│                                           │                           │
│ LBA Mode Control     [Enabled]            │                           │
│ Multi-Sector Transfers [16 Sectors]       │                           │
│ PIO Mode             [Mode 4]             ├───────────────────────────┤
│ Ultra DMA            [Mode 5]             │  ↔        Select Menu     │
│ Cable Detected       [80 Conductor]       │  ↑↓       Select Item     │
│                                           │  Enter  Select ▶ Submenu  │
│ NOTE: The actual performance of the drive │  F9       Setup Defaults  │
│ is dependent upon the operating system and│  F10      Save and Exit   │
│ IDE drivers.                              │  ESC      Exit            │
│                                           │  F1       Help            │
└───────────────────────────────────────────┴───────────────────────────┘
```

Option	Function
Drive Installed	Displays the primary IDE device type.
Type	Specifies the type of hard drive. Settings for this option are **User**, **Auto**, **CD-ROM**, **ATAPI Removable**, **Other ATAPI**, **IDE Removable**, and **None**.
Maximum Capacity	Displays the maximum capacity of the primary IDE device.
LBA Mode Control	Displays whether LBA mode control is enabled or not on the primary IDE device.
Multi-Sector Transfers	Displays the multi-sector transfer setting of the primary IDE device.
PIO Mode	Displays the PIO mode setting of the primary IDE device.
Ultra DMA	Displays the ultra DMA setting of the primary IDE device.
Cable Detected	Displays the type of cable connected to the primary IDE device.

Diskette Configuration Submenu

```
               Dell  Dimension  4200  Setup

          Advanced

   Diskette Configuration                      Item Specific Help

   Diskette Controller:     [Enabled]

   Diskette A:              [1.44/1.25 MB 3 1/2"]

   Diskette Write Protect: [Disabled]


                                        ←→    Select Menu
                                        ↑↓    Select Item
                                        Enter  Select ▶ Submenu
                                        F9    Setup Defaults
                                        F10   Save and Exit
                                        ESC   Exit
                                        F1    Help
```

Option	Function
Diskette Controller	Configures the floppy drive interface. Options are **Enabled** (default) and **Disabled**.
Diskette A	Selects the floppy drive type from **Not Installed**, **360 KB 5 1/4"**, **1.2 MB 5 1/4"**, **720 KB 3 1/2"**, **1.44/1.25 MB 3 1/2"**, or **2.88 MB 3 1/2"**.
Diskette Write Protect	Protects a floppy disk from being written to when set to **Enabled**. When this option is set to **Disabled** (default), the floppy disk is not protected unless the write-protect tab is in place.

Event Log Configuration Submenu

```
                        Dell Dimension 4200 Setup

        ┌──────────────┐
        │  Advanced    │
        └──────────────┘

  ┌─────────────────────────────────────┬──────────────────────────────┐
  │                                     │                              │
  │  Event Log Configuration            │    Item Specific Help        │
  │                                     │                              │
  │                                     │                              │
  │  Event Log          [Space Available]│                              │
  │  Event Log Validity    [Valid]      │                              │
  │                                     │                              │
  │  View Event Log                     │                              │
  │                                     │                              │
  │  Clear All Event Logs  [No]         │                              │
  │  Event Logging      [Enabled]       │                              │
  │                                     ├──────────────────────────────┤
  │  Mark Events As Read   [Enter]      │  ↔      Select Menu          │
  │                                     │  ↑↓     Select Item          │
  │                                     │  Enter  Select ▶ Submenu     │
  │                                     │  F9     Setup Defaults       │
  │                                     │  F10    Save and Exit        │
  │                                     │  ESC    Exit                 │
  │                                     │  F1     Help                 │
  └─────────────────────────────────────┴──────────────────────────────┘
```

Option	Function
Event Log	Displays the space available for the event log.
Event Log Validity	Displays the validity of the event log.
View Event Log	Press <Enter> to view the event log.
Clear All Event Logs	Clears all event logs when the computer restarts if set to **Yes**. Retains the event log information if set to **No** (default).
Event Logging	Enables or disables event logging.
Mark Events As Read	Press <Enter>, and then select **Yes** or **No** to mark DMI events as either read or unread.

Video Configuration Submenu

```
                        Dell Dimension 4200 Setup

        ┌──────────────┐
        │  Advanced    │
        └──────────────┘

  ┌─────────────────────────────────────┬──────────────────────────────┐
  │                                     │                              │
  │  Video Configuration                │    Item Specific Help        │
  │                                     │                              │
  │  Primary Video Adapter   [AGP]      │                              │
  │                                     │                              │
  │  AGP Hardware Detected    Integrated│                              │
  │                                     │                              │
  │  NOTE: The actual performance of the│                              │
  │  video hardware is dependent upon   │                              │
  │  the operating system and video     │                              │
  │  drivers.                           │                              │
  │                                     ├──────────────────────────────┤
  │                                     │  ↔      Select Menu          │
  │                                     │  ↑↓     Select Item          │
  │                                     │  Enter  Select ▶ Submenu     │
  │                                     │  F9     Setup Defaults       │
  │                                     │  F10    Save and Exit        │
  │                                     │  ESC    Exit                 │
  │                                     │  F1     Help                 │
  └─────────────────────────────────────┴──────────────────────────────┘
```

Option	Function
Primary Video Adapter	Supports the Windows® 2000 multiple-monitor feature. Select **AGP** (default) to specify the integrated AGP video controller as the primary video adapter. Select **PCI** to specify a PCI video card as the primary video adapter.
AGP Hardware Detected	Displays the type of AGP hardware detected by the computer.

Security Screen

```
                    Dell  Dimension  4200  Setup

    Main      Advanced    Security    Power    Boot    Exit

   Security                                    Item Specific Help

   Supervisor Password Is:      Not Installed
   User Password Is:            Not Installed

   Set Supervisor Password    [Enter]
   Set User Password          [Enter]



                                          ←→      Select Menu
                                          ↑↓      Select Item
                                          Enter   Select ▶ Submenu
                                          F9      Setup Defaults
                                          F10     Save and Exit
                                          ESC     Exit
                                          F1      Help
```

Option	Function
Supervisor Password Is	Indicates whether a supervisor password has been assigned.
User Password Is	Indicates whether a user password has been assigned.
Set Supervisor Password	Sets and confirms a supervisor password. If a supervisor password is set, a **User Access Level** option appears that enables you to set the user access level as **Full** (default), **Limited**, **No Access**, or **View Only**.
Set User Password	Sets and confirms a user password.

Power Screen

```
                    Dell  Dimension  4200  Setup

    Main      Advanced    Security    Power    Boot    Exit

   ACPI Suspend State         [S3 State]        Item Specific Help
   Restore on AC/Power Loss   [Last State]

   The options below are not related to ACPI
   and may be ignored when shutting down using
   an ACPI OS.

   Wake on PME                [Stay Off]



                                          ←→      Select Menu
                                          ↑↓      Select Item
                                          Enter   Select ▶ Submenu
                                          F9      Setup Defaults
                                          F10     Save and Exit
                                          ESC     Exit
                                          F1      Help
```

Option	Function

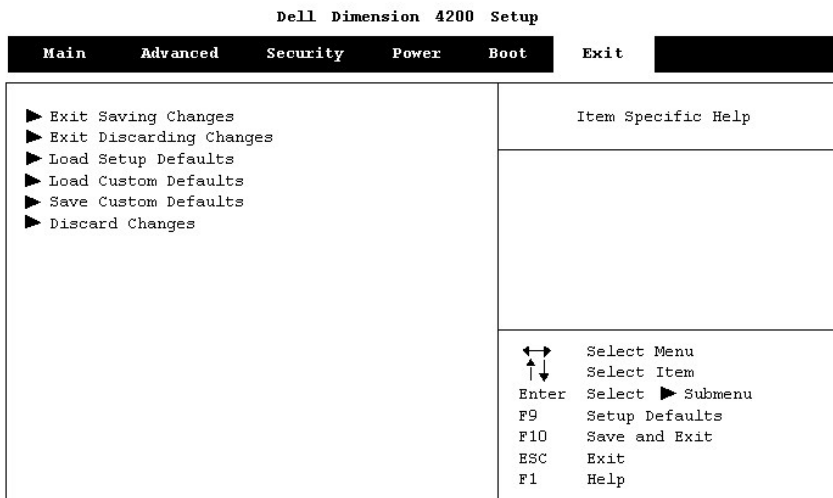|	
ACPI Suspend State	Determines the ACPI suspend state. Options are **State 1** and **State 3** (default).

Restore on AC/Power Loss	Determines what state the computer enters when AC power is restored after a power loss. Settings are as follows:
	
	l **Last State** (default)
	
	    Computer returns to the state it was in when power was lost.
	
	l **Stay Off**
	
	    Computer stays off when power is restored; you must press the power button to turn on the computer.
	
	l **Power On**
	
	    Computer turns on when power is restored.

Wake on PME	Determines what state the computer enters when a PCI Power Management Enable wake-up event occurs. Settings are **Power On** and **Stay Off** (default).

Boot Screen

```
                    Dell Dimension 4200 Setup

    Main      Advanced     Security     Power    Boot    Exit

  Quiet Boot                [Enabled]              Item Specific Help
  Quick Boot                [Enabled]

  Boot Device Priority
  Hard Disk Drives
  Removable Devices
  ATAPI CD-ROM Drives




                                          ←→      Select Menu
                                          ↑↓      Select Item
                                          Enter   Select ▶ Submenu
                                          F9      Setup Defaults
                                          F10     Save and Exit
                                          ESC     Exit
                                          F1      Help
```

Option	Function
Quiet Boot	**Enabled** (default) displays the Dell logo during POST. **Disabled** displays the normal POST messages.
Quick Boot	When set to **Enabled**, this option shortens POST by eliminating some tests. If set to **Disabled** (default), all POST tests occur. The system setup program automatically checks the configuration of a Simple Boot Flag-compatible operating system at POST. Depending on its configuration, the system setup program may automatically set this option to **Enabled** or **Disabled**.

Exit Screen

```
                    Dell  Dimension  4200  Setup

    Main      Advanced     Security     Power     Boot      Exit

   ▶ Exit Saving Changes                        Item Specific Help
   ▶ Exit Discarding Changes
   ▶ Load Setup Defaults
   ▶ Load Custom Defaults
   ▶ Save Custom Defaults
   ▶ Discard Changes



                                          ←→     Select Menu
                                          ↑↓     Select Item
                                          Enter  Select ▶ Submenu
                                          F9     Setup Defaults
                                          F10    Save and Exit
                                          ESC    Exit
                                          F1     Help
```

Option	Function
Exit Saving Changes	Saves any changes you have made, exits the system setup program, and restarts the computer.
Exit Discarding Changes	Discards any changes you have made, exits the system setup program, and restarts the computer.
Load Setup Defaults	Discards any changes you have made and reverts all options to their defaults, but does not exit the system setup program.
Load Custom Defaults	Discards any changes you have made and reverts all options to their defaults, but does not exit the system setup program.
Save Custom Defaults	Saves any changes you have made, but does not exit the system setup program.
Discard Changes	Discards any changes you have made and reverts all options to their last saved settings, but does not exit the system setup program.

Clearing NVRAM

To clear NVRAM for all devices and restart the computer:

1. Enter the system setup program.

2. Press the right-arrow key to move to the **Advanced** menu.

3. Select the **Boot Configuration** submenu by pressing <Enter>.

4. Press the down-arrow key to highlight **Reset Config Data**. Then change the setting to **Yes** (see "Boot Configuration Submenu").

5. Press <F10> to exit the program and restart the computer.

Enabling the Processor Serial Number

The Intel® Pentium® microprocessor includes a processor serial number feature designed to provide additional user security and manageability benefits. By default, this feature is disabled on Dell computers to protect your privacy. However, it can be enabled through the **Processor Serial Number** option in the system setup program.

🅞 NOTICE: Do not change this setting by any means other than the system setup program. Otherwise, your computer may become unusable.

1. Enter the system setup program.

2. When the Main screen appears, press the down-arrow key to highlight the **Processor Serial Number** option, and then press <Enter>.

3. Select **Enabled** from the menu, and then press <Enter>.

4. Use the right-arrow key to highlight **Exit**, and then press <Enter>.

5. When prompted to confirm the changes you made, press <Enter>.

6. The computer restarts with the processor serial number feature enabled.

📝 HINT: The processor serial number feature remains enabled until you disable it in the system setup program.

To disable the processor serial number feature, repeat steps 1 through 5, selecting **Disabled** in step 3.

Technical Overview

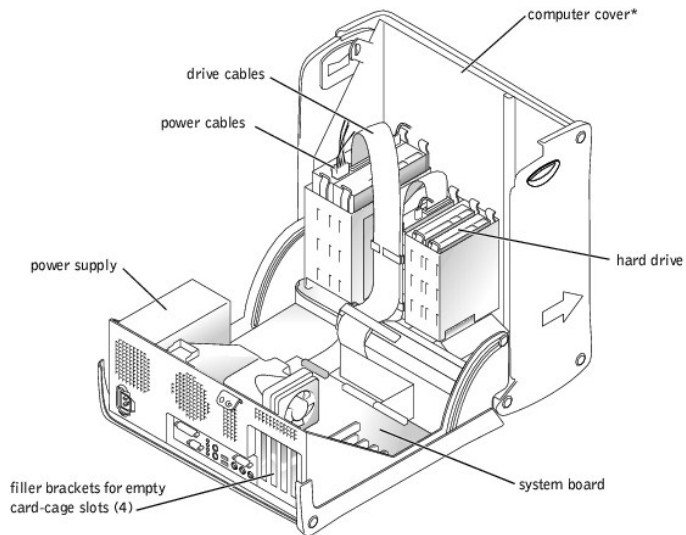**Dell™ Dimension™ 4200**

- Internal View
- System Board Connectors and Sockets
- System Board Configuration Jumper
- Socketed Microprocessor
- Power Supply
- DC Power Connectors
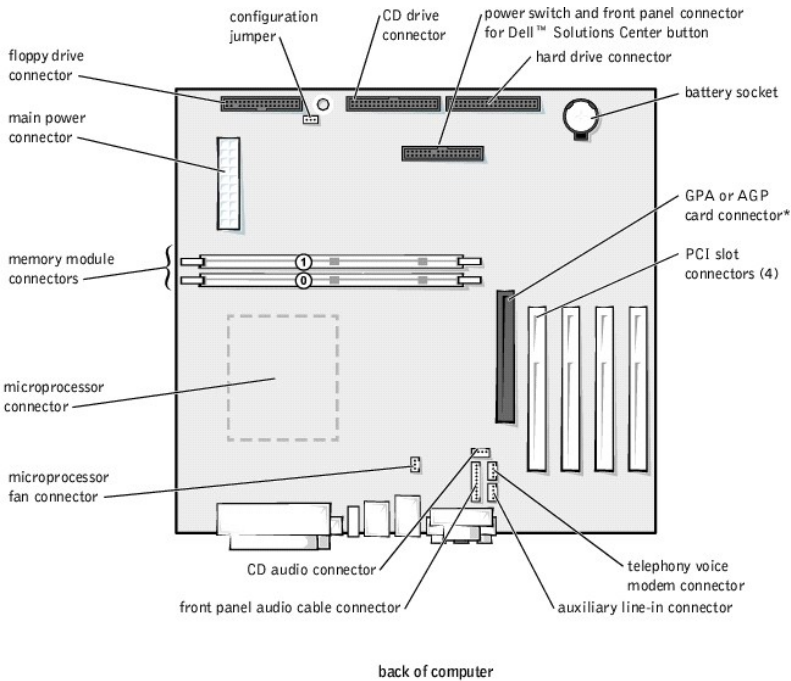- IDE Interface Cable Connections for Dell-Installed Drives

Internal View

⚠ **CAUTION: Before you begin any of the procedures in this section, see "Safety Instructions."**

⊘ **NOTICE:** Be careful when opening the computer cover to ensure that you do not inadvertently disconnect cables from the system board.

computer cover*

drive cables

power cables

power supply

hard drive

filler brackets for empty
card-cage slots (4)

system board

* Depending on the types of drives installed in your computer, the cover
may not open as widely as shown in the figure.

System Board Connectors and Sockets

configuration jumper — CD drive connector — power switch and front panel connector for Dell™ Solutions Center button

floppy drive connector

hard drive connector

main power connector

battery socket

GPA or AGP card connector*

memory module connectors

PCI slot connectors (4)

microprocessor connector

microprocessor fan connector

CD audio connector

telephony voice modem connector

front panel audio cable connector

auxiliary line-in connector

back of computer

* Accommodates an optional graphics performance accelerator (GPA) card on computers with integrated AGP or an AGP video card on computers without integrated AGP

System Board Configuration Jumper

The following table describes the configuration jumper settings. The configuration jumper is located on the system board.

🚫 **NOTICE:** Entering Maintenance mode returns all settings in the system setup settings to their defaults. Dell strongly recommends that you record or print all current settings before entering this mode so that you can correct them when the computer is reset to Normal mode.

Jumper Setting	Jumper	Description
Pins 1-2 **jumpered** (Normal mode)		In Normal mode, system setup settings and installed passwords are retained when the computer starts up. In this mode, an automatic recovery is attempted if the BIOS detects that any of its main blocks are corrupted.
Pins 2-3 jumpered (Maintenance mode)		Starting the computer with the jumper set in Maintenance mode automatically starts the system setup program, adds the **Maintenance** option to the menu bar, and displays the **Maintenance** screen. This screen provides the following option. **Clear All Passwords** — Disables a forgotten password so that you can access the computer and/or assign new passwords. For the complete password procedure, see "Clearing Forgotten Passwords" in the appendix of the *Solutions Guide*.

Socketed Microprocessor
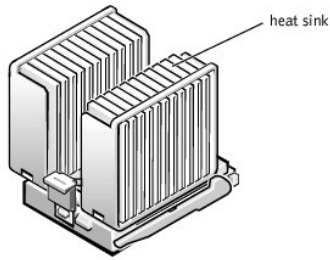
heat sink

The socketed microprocessor, shown above with the heat sink attached, contains a 370-pin microprocessor chip. The microprocessor includes the following features:

- An Intel® microprocessor:

  - Intel Pentium® III microprocessor with integrated 32-KB primary (L1) cache with secondary (L2) cache of 256-KB Advanced Transfer Cache that resides in the processor's core and runs at the processor's internal clock speed, or

  - Intel Celeron® microprocessor with integrated 32-KB primary (L1) cache with secondary (L2) cache of 128-KB SRAM that resides in the processor's core and runs at the processor's internal clock speed

- Associated circuitry

The socketed microprocessor inserts into the ZIF connector mounted on the system board. A clip secures the heat sink to the connector.

Power Supply

The 200-W power supply can operate from an AC power source of 115 VAC at 60 Hz or 230 VAC at 50 Hz. The power supply provides the DC operating voltages and currents listed in the following table.

Output Voltage	Minimum Current (A)	Maximum Current (A)[1]	Peak Current (A)[2]
+12 VDC	1.0	10.0[4]	12.0
+5 VDC	4.0	22.0[4]	12.0
+3.3 VDC	1.0/0.0[3]	14.0[4]	12.0
−12 VDC	0.0	1.0	12.0
+5 VFP	0.0	2.0	12.0

When the current load is outside of the ranges listed, but within each specified output current range, the +5-V, +12-V, and +3.3-V outputs are allowed to regulate at +/−10% of nominal DC voltages.

[1]Maximum continuous total DC output cannot exceed 200 W. Maximum continuous combined load on +5-VDC and +3.3-VDC outputs cannot exceed 135 W.

[2]Peak +12-VDC output power (up to 12 A) does not exceed 15 seconds in duration. In this condition, the tolerance on the +12-V output is allowed to be +/−10%.

[3]In system applications where +3.3 VDC is not used, these values may be 0A without affecting the regulation on the other outputs.
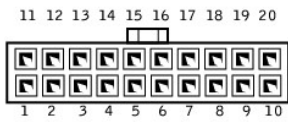
[4]The required full load combinations are adjusted such that the total output power is less than or equal to 200 W.

DC Power Connectors

Power Supply DC Connector Pin Assignments
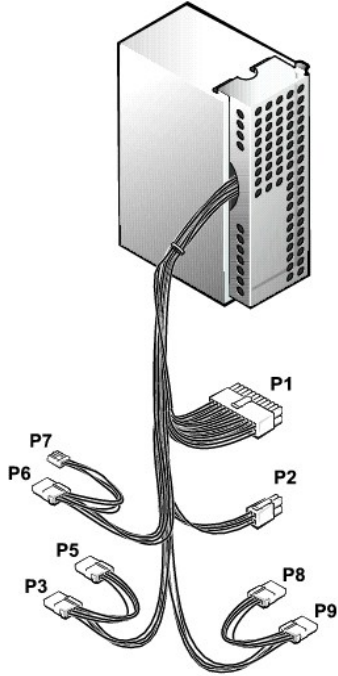
DC Power Connector P1

Pin Number	Signal name	10-AWG Wire
1	+3.3 VDC	Orange
2	+3.3 VDC	Orange
3	COM	Black
4	+5 VDC	Red
5	COM	Black
6	+5 VDC	Red
7	COM	Black
8	POK	Gray
9	+5 VFP	Purple
10	+12 VDC	Yellow
11	+3.3 VDC[1]	Orange
12	−12 VDC	Blue
13	COM	Black
14	PS ON	Green
15	COM	Black
16	COM	Black
17	COM	Black
18	+5 VDC	N/C
19	+5 VCD	Red
20	+5 VCD	Red
[1]Sense connector		

DC Power Connector P2 (Not Used on Dimension 4200)

Pin Number	Signal Name	10-AWG Wire
1	COM	Black
2	COM	Black
3	+12 VDC	Yellow
4	+12 VDC	Yellow

DC Power Connectors P3, P5, P6, P8, and P9
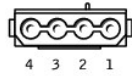
Pin Number	Signal Name	10-AWG Wire
1	+12 VCD	Yellow
2	COM	Black
3	COM	Black
4	+5 VDC	Red

DC Power Connector P7
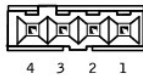
Pin Number	Signal Name	10-AWG Wire
1	+5 VCD	Red
2	COM	Black
3	COM	Black
4	+12 VDC	Yellow

IDE Interface Cable Connections for Dell-Installed Drives

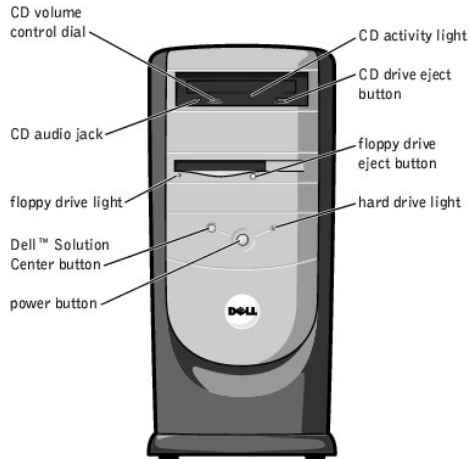| IDE Channel IDE	Connector Location	Dell-Installed Drive
Primary IDE master	End connector on PRI IDE connector cable	Hard drive
Secondary IDE master	End connector on cable SEC IDE connector	CD or DVD drive
Secondary IDE slave	Middle connector on SEC IDE connector cable	CD-RW drive

Controls and Lights
Dell™ Dimension™ 4200

- Front View
- Back View

Front View

CD Activity Light

The CD activity light is on when the computer reads data from the CD drive.

CD Drive Eject Button

Press this button to eject your CD from the CD drive.

Floppy Drive Eject Button

Press this button to eject a disk from the floppy drive.

Hard Drive Light

The hard drive light is on when the computer reads data from or writes data to your hard drive.

Power Button

Press the power button to turn on the computer.

⬤ **NOTICE:** To turn off your computer, perform a Windows® shutdown rather than pressing the power button. Otherwise, you may lose data.

▨ **HINT:** To launch the Dell Solution Center, the computer must be turned on and functioning properly.

Dell Solution Center Button

Press this button to launch the Dell Solution Center, where you can find support and educational tools that Dell has installed on your computer.
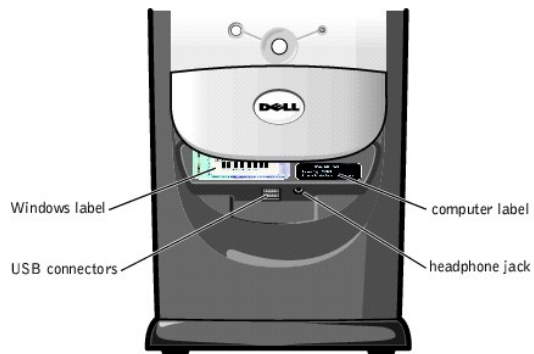
Floppy Drive Light

The floppy drive light is on when the computer reads data from or writes data to the floppy drive.

CD Audio Jack

Use the CD audio jack to attach headphones to the CD drive.

CD Volume Control Dial

Move the dial to adjust the volume of your audio CD.

Computer Label

HINT: Express Service may not be available in some countries.

This label lists your computer's service tag and your Express Service Code (if applicable). If you call Dell technical support, use your Express Service Code to route the call directly to the correct support personnel. The Dell technical support staff will ask for your service tag.

Headphone Jack

Use the headphone jack to attach headphones and most speakers for listening to all sounds in your computer including your CD player and system sounds such as beeps.
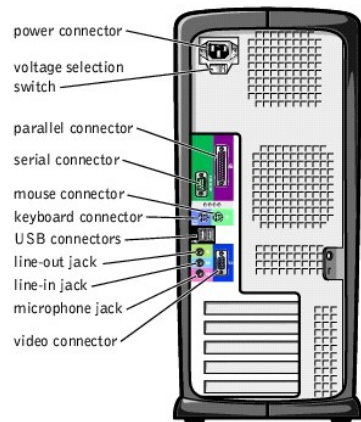
USB Connectors

HINT: If you attach a USB device that was not included in your original computer order, you may need to install a specific driver to make the device work. Check the documentation that came with the device or contact the USB device manufacturer for more information.

For quick connections, Dell recommends using the front USB connectors for USB devices such as digital cameras, gaming controllers, and scanners. Use the back-panel USB connectors for USB mouse and keyboard connections.

Windows Label

This Microsoft® Windows label provides the product key for your copy of Windows. You will need this information if you ever reinstall Windows.

Back View

Power Connector

Plug one end of your computer power cable into the power connector, and plug the other end into an electrical outlet.

Voltage Selection Switch

The voltage selection switch must be set to match the AC power available at your location. The switch should be set for 115 V in most of North and South America and some Far Eastern countries such as Japan, South Korea, and Taiwan. For most of Europe, the Middle East, and the Far East, the switch should be set for 230 V.

Parallel Connector

Connect a parallel device, such as a printer, to the parallel connector. If you have a USB printer, plug it into a USB connector.

Serial Connector

Connect a serial device, like a handheld device, to the serial connector.

Mouse Connector

Plug a standard mouse into the green mouse connector. If you have a USB mouse, plug it into a back-panel USB connector.

Keyboard Connector

If you have a standard keyboard, plug the keyboard into the purple keyboard connector. If you have a USB keyboard, plug it into a back-panel USB connector.

USB Connectors

HINT: If you attach a USB device that was not included in your original computer order, you may need to install a specific driver to make the device work. Check the documentation that came with the device or contact the USB device manufacturer for more information.

For quick connections, Dell recommends using the front USB connectors for USB devices such as digital cameras, gaming controllers, and scanners. Use the back-panel USB connectors for USB mouse and keyboard connections.

Line-Out Jack

Use the green line-out jack (available on computers with integrated sound) to attach headphones and most speakers with integrated amplifiers.

On computers with a sound card, the line-out jack is on the card.

Line-In Jack

Use the blue line-in jack (available on computers with integrated sound) to attach a record/playback device such as a cassette player, CD player, or VCR.

On computers with a sound card, the line-in jack is on the card.

Microphone Jack

Use the pink microphone jack (available on computers with integrated sound) to attach a personal computer microphone for voice or musical input into a sound or telephony program.

On computers with a sound card, the microphone jack is on the card.

Video Connector

Plug the cable from your monitor into the blue video connector.

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Dell™ Dimension™ 4200

- Hints, Notices, and Cautions
- Abbreviations and Acronyms

Hints, Notices, and Cautions

HINT: A HINT 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.

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the *Tell Me How* help file (click the **Start** button on the Microsoft® Windows® desktop, point to **Programs**—> **User's Guides**, and click **Tell Me How**).