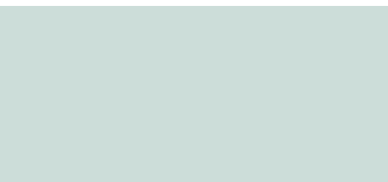
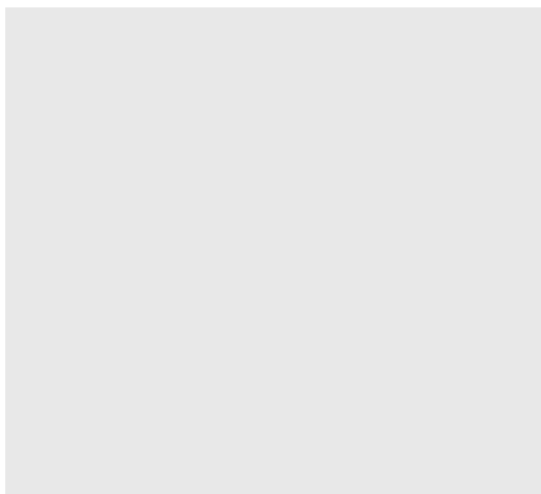




Your Gateway Computer E-4100 user's **guide**



Customizing

Troubleshooting



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Checking Out Your Gateway E-4100 Computer

1

This chapter introduces you to the basic features of your Gateway E-4100 computer. Read this chapter to learn:

- How to identify the features of your Gateway computer
- How to locate your computer's model and serial number
- How to locate the Microsoft Certificate of Authenticity
- How to locate the specifications for your computer
- What accessories are available for your computer



Identifying your computer case style

Use the following descriptions to identify your computer case style.

Gateway Mid Tower



The Gateway Mid Tower case has an access door on the front that covers the drive bays and other components.

For information on the Gateway Mid Tower case, see [“Gateway Mid Tower Front”](#) on page 3.

Gateway Micro Tower







The Gateway Micro Tower has a rotating base and does not have an access door.

For information on the Gateway Micro Tower case, see [“Gateway Micro Tower Front”](#) on page 8.

Gateway Mid Tower Front

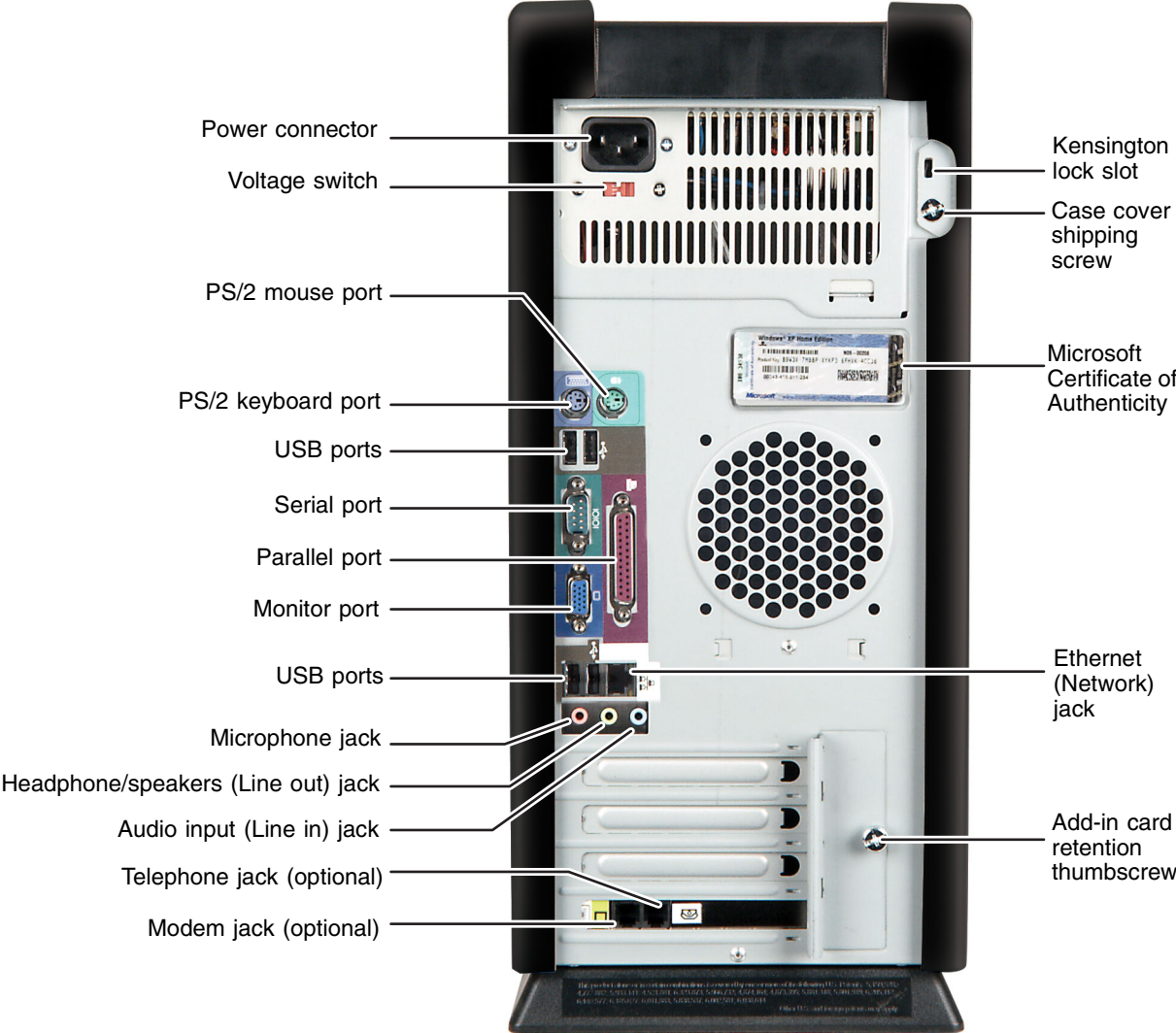
Your computer may contain any of the following components.
















Component	Icon	Description
CD/DVD/Recordable drive		Use this drive to listen to audio CDs, install games and programs, watch DVDs, and store large files onto recordable CDs and DVDs (depending on drive type). For more information, see “Using the CD or DVD drive” on page 42. This drive may be a CD, CD-RW, DVD, DVD+RW, or DVD-RAM/-RW/CD-RW drive. To identify your drive type and for more information about your drive, see “Identifying drive types” on page 42.
5.25-inch drive bay cover		Remove this cover to install an additional 5.25-inch drive.
3.5-inch drive bay cover		Remove this cover to install an additional 3.5-inch drive.
Diskette drive		Use this drive to store smaller files on diskettes. For more information, see “Using the diskette drive” on page 40.
Power button		Press this button to turn the power on or off. You can also configure the power button to operate in Standby/Resume mode or Hibernate mode. For more information on changing the power button setting, see “Changing power settings” on page 79.
Headphone jack (optional)		Plug headphones into this jack. This jack is color-coded lime green.
Microphone jack (optional)		Plug a microphone into this jack. This jack is color-coded red or pink.
CD/DVD eject button		Press this button to open the CD or DVD drive tray. For more information, see “Using the CD or DVD drive” on page 42.
USB ports	USB v2.0 	Plug USB (Universal Serial Bus) devices (such as a digital camera) into these ports.
Diskette eject button		Press this button to eject an inserted diskette. For more information, see “Using the diskette drive” on page 40.

Gateway Mid Tower Back

Your computer may contain any of the following components.

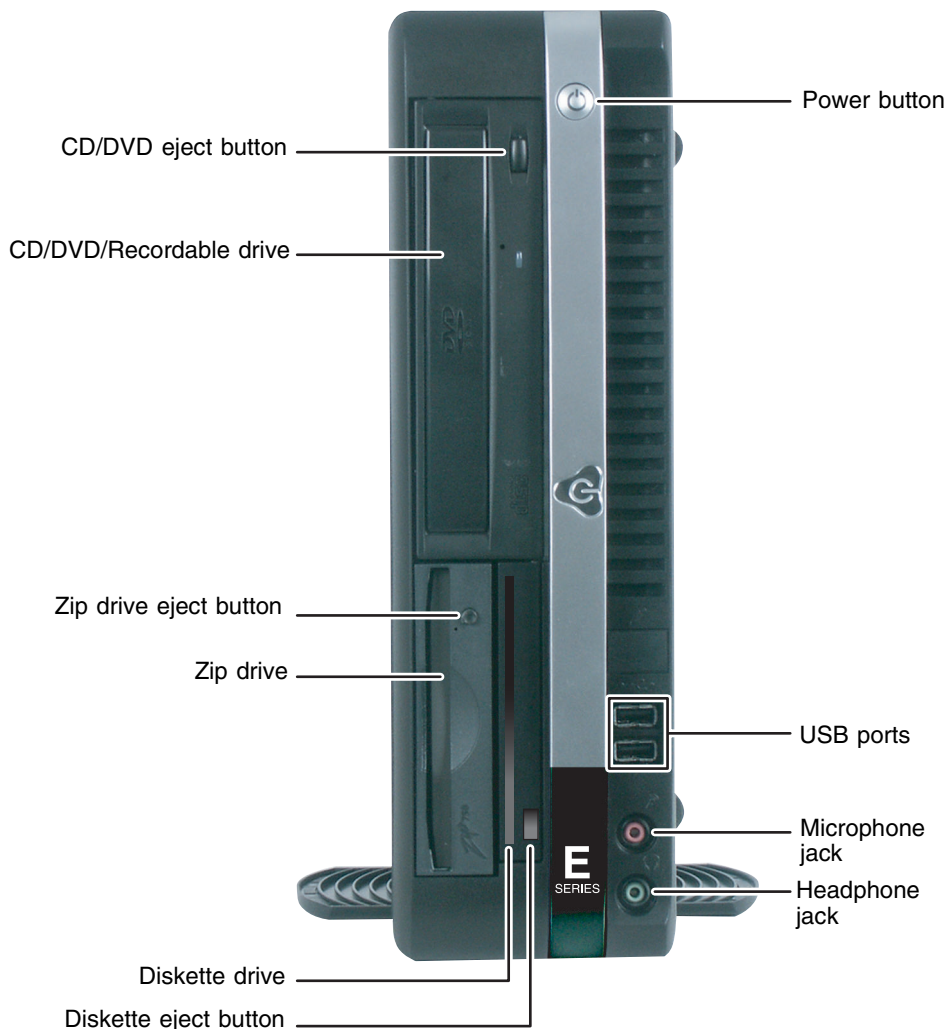






Component	Icon	Description
Power connector		Plug the power cable into this connector.
Voltage switch		<p>Before turning on your computer, make sure that this switch is in the correct position for the correct voltage. The switch is preset at the factory with the correct voltage for your area.</p> <p>In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.</p>
PS/2 mouse port		Plug a Personal System/2 [®] (PS/2) mouse into this port.
PS/2 keyboard port		Plug a PS/2 keyboard into this port.
USB ports	USB v2.0 	Plug USB (Universal Serial Bus) devices (such as a mouse, keyboard, or printer) into these ports.
Serial port		Plug a serial device (such as a digital camera) into this port.
Parallel port		Plug a parallel device (such as a printer) into this port.
Monitor port		Plug a monitor into this port.
Microphone jack		Plug a microphone into this jack. This jack is color-coded red or pink.
Headphone/speakers (Line out) jack		Plug powered, analog front speakers, an external amplifier, or headphones into this jack. This jack is color-coded green.
Audio input (Line in) jack		Plug an external audio input source (such as a stereo) into this jack so you can record sound on your computer. This jack is color-coded blue.
Telephone jack (optional)		If your modem has a telephone jack, plug the cable for a telephone into this jack.

Component	Icon	Description
Modem jack (optional)		Plug a modem cable into this jack.
Kensington™ lock slot		Secure your computer to an object by connecting a Kensington cable lock to this slot.
Case cover shipping screw		Remove this screw before opening the case.
Microsoft Certificate of Authenticity		The Microsoft Certificate of Authenticity (COA) contains your Windows product key.
Ethernet (Network) jack		Plug an Ethernet network cable or a device (such as a DSL or cable modem) into this jack.
Add-in card retention thumbscrew		Remove this screw when adding or replacing add-in cards.

Gateway Micro Tower Front

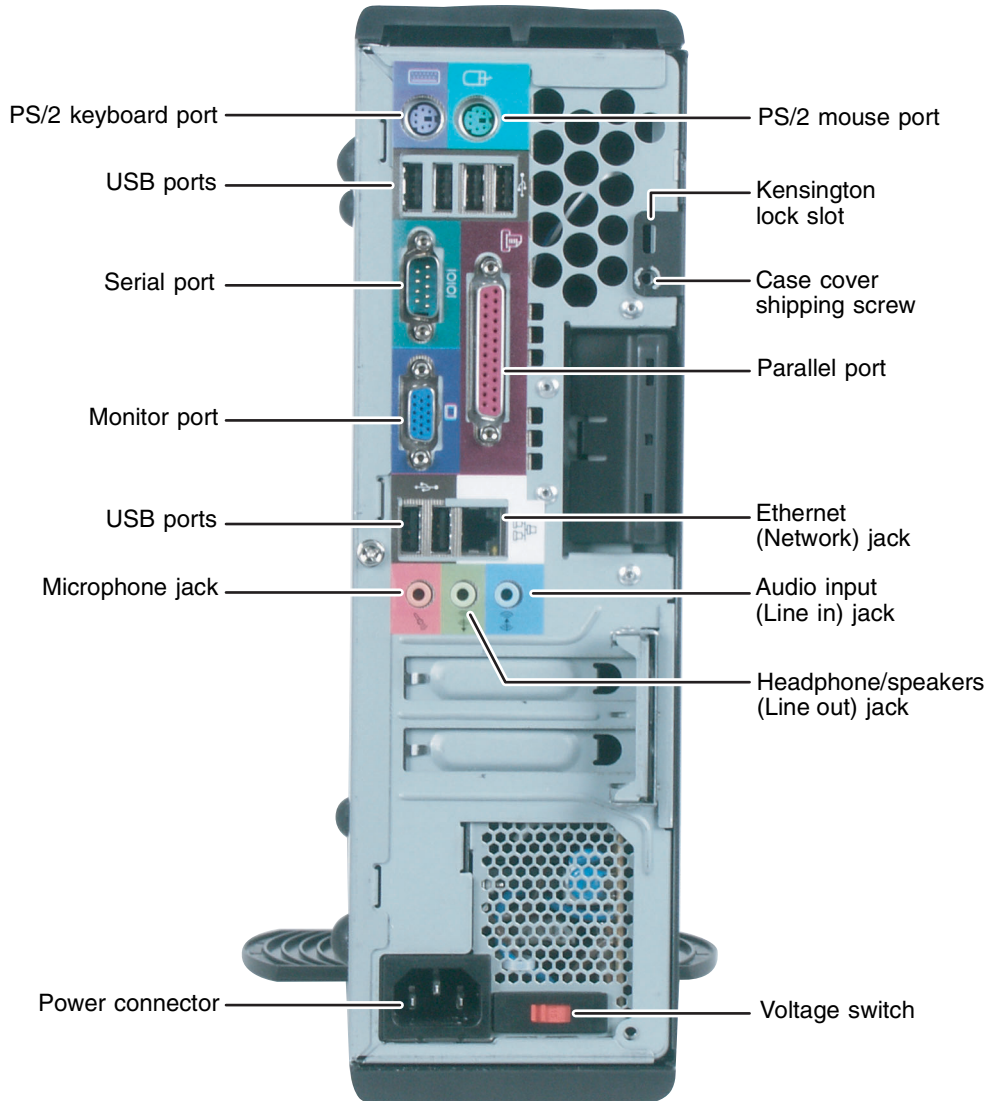
Your computer may contain any of the following components.















Component	Icon	Description
CD/DVD eject button		Press this button to open the CD or DVD drive tray. For more information, see “Using the CD or DVD drive” on page 42.
CD/DVD/Recordable drive		Use this drive to listen to audio CDs, install games and programs, watch DVDs, and store large files onto recordable CDs and DVDs (depending on drive type). For more information, see “Using the CD or DVD drive” on page 42. This drive may be a CD, CD-RW, DVD, DVD+RW, or DVD-RAM/-RW/CD-RW drive. To identify your drive type and for more information about your drive, see “Identifying drive types” on page 42.
Zip drive eject button		Press this button to eject an inserted Zip disk.
Zip drive		Use this drive to store larger files on Zip disks.
Diskette drive		Use this drive to store smaller files on diskettes. For more information, see “Using the diskette drive” on page 40.
Diskette eject button		Press this button to eject an inserted diskette. For more information, see “Using the diskette drive” on page 40.
Power button		Press this button to turn the power on or off. You can also configure the power button to operate in Standby/Resume mode or Hibernate mode. For more information on changing the power button setting, see “Changing power settings” on page 79.
USB ports	USB v2.0 	Plug USB (Universal Serial Bus) devices (such as a digital camera) into these ports.
Microphone jack		Plug a microphone into this jack. This jack is color-coded red or pink.
Headphone jack		Plug headphones into this jack. This jack is color-coded lime green.

Gateway Micro Tower Back

Your computer may contain any of the following components.

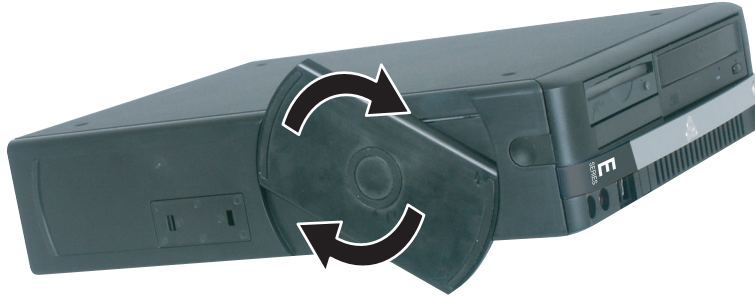


Component	Icon	Description
PS/2 keyboard port		Plug a PS/2 keyboard into this port.
USB ports	USB v2.0 	Plug USB (Universal Serial Bus) devices (such as a mouse, keyboard, or printer) into these ports.
Serial port		Plug a serial device (such as a digital camera) into this port.
Monitor port		Plug a monitor into this port.
Microphone jack		Plug a microphone into this jack. This jack is color-coded red or pink.
Power connector		Plug the power cable into this connector.
PS/2 mouse port		Plug a PS/2 mouse into this port.
Kensington™ lock slot		Secure your computer to an object by connecting a Kensington cable lock to this slot.
Case cover shipping screw		Remove this screw before opening the case.
Parallel port		Plug a parallel device (such as a printer) into this port.
Ethernet (Network) jack		Plug an Ethernet network cable or a device (such as a DSL or cable modem) into this jack.
Audio input (Line in) jack		Plug an external audio input source (such as a stereo) into this jack so you can record sound on your computer. This jack is color-coded blue.
Telephone jack (optional)		If your modem has a telephone jack, plug the cable for a telephone into this jack.

Component	Icon	Description
Headphone/speakers (Line out) jack	 _1	Plug powered, analog front speakers, an external amplifier, or headphones into this jack. This jack is color-coded green.
Voltage switch		<p>Before turning on your computer, make sure that this switch is in the correct position for the correct voltage. The switch is preset at the factory with the correct voltage for your area.</p> <p>In the United States, the utility power is supplied at a nominal 115 volts at 60 Hz. The power supply should always be set to this when your computer is operating in the United States. In other areas of the world, such as Europe, the utility power is supplied at 230 volts at 50 Hz. If your computer is operating in an environment such as this, the voltage switch should be moved to 230.</p>

Desktop to tower conversion

You can convert your Gateway Micro Tower case from desktop to tower configuration using the rotating foot included with your system.



Identifying your model

Important



The labels shown in this section are for informational purposes only. Label information varies by model, features ordered, and location.

Gateway model number

The label on the back of your computer case contains information that identifies your computer model. The label also contains your serial number. Gateway Technical Support will need this information if you call for assistance.



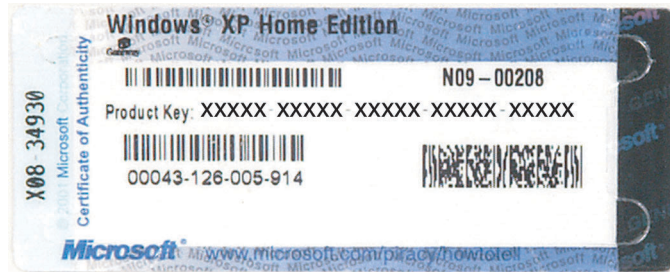
Gateway serial number

You can locate the Gateway serial number:

- Printed on a white sticker on the front or top of your computer case.
- Printed on the customer invoice that came with your computer. The invoice also contains your customer ID number.
- Displayed in HelpSpot in Windows XP. Click **Start, Help and Support**, then click **View product serial number**.

Microsoft Certificate of Authenticity

The Microsoft Certificate of Authenticity label found on the back or side of your computer case includes the product key code for your operating system.



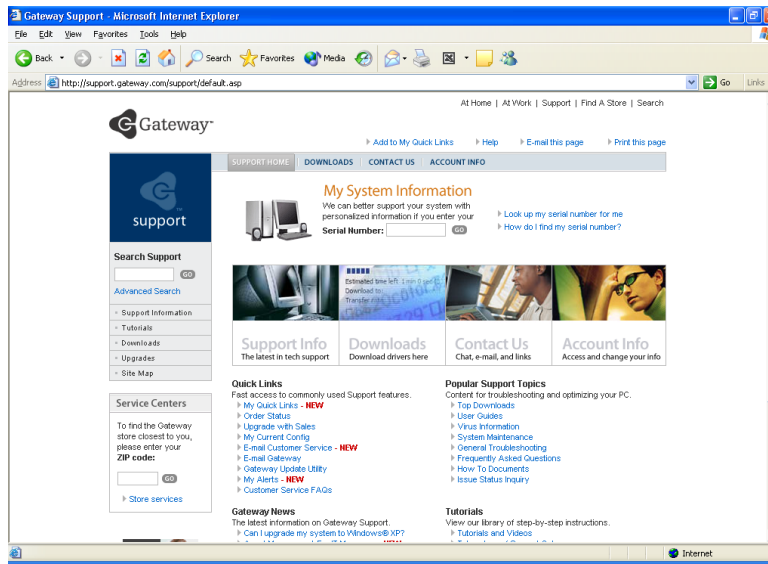
Finding your specifications

For more information about your computer, such as memory size, memory type, and hard drive size, go to the **My Computer Info** link in *HelpSpot* or visit Gateway's *eSupport* page at support.gateway.com. The *eSupport* page also has links to additional Gateway documentation and detailed specifications.

In Windows XP, view your computer's serial number or check your specifications by clicking **Start, Help and Support**, then clicking **My Computer Info**.



You can also find out more about your computer at the Gateway eSupport site. Visit support.gateway.com. For more information, see “Using eSupport” on page 37.



Accessories

Gateway offers various accessories that can help you make the most of using your computer. To order accessories, visit the *Accessory Superstore* at accessories.gateway.com.

Networking kit

With a networking kit, you can network (link) two or more computers. After you have set up a network, you can access the files, drives, and printers on linked computers, play multiplayer games, and even share one Internet connection.

Two types of networking kits are available. Wireless networking kits use radio frequency to link your computers wirelessly. Ethernet networking kits use network cabling to link your computers.

Imaging equipment

A digital camera lets you take pictures that you can view and edit on your computer.

A digital video camera lets you take videos and pictures that you can view and edit on your computer.

A scanner copies an image, such as a graphic or document, then stores the copy in a file.

You can attach your digital photographs or scanned images to e-mail messages or post them on a Web site.

Printers

You can attach almost any type of printer to your computer. The most common types are inkjet and laser printers, which print in color or in black and white.

Inkjet printers and cartridges are relatively inexpensive, but they are slower than laser printers. Using an inkjet color printer, you can print pictures, banners, and greeting cards, as well as documents.

Laser printers and cartridges are more expensive, but they usually print much faster than inkjet printers. Laser printers are better than inkjet printers when you are printing large documents.

Storage Devices

If you need additional storage space or you want to back up your files, you can add storage devices to your computer.

With a recordable CD or DVD drive, you can free up hard drive space by backing up files, then removing them from your hard drive. Writable CDs can hold as much as 700 MB of data. Writable DVDs can hold as much as 4.7 GB of data. For more information about using recordable drives, see [“Creating CDs and DVDs” on page 45](#).

Iomega Zip drives, like diskette drives, use disks to store data. Zip disks can store 100 MB, 250 MB, or 750 MB of data. You can use a Zip drive to back up files you do not use so you can remove them from your hard drive. Zip drives also provide an easy way to transfer files between computers (if both computers have internal Zip drives or if you have one external, portable Zip drive).

If you need to back up your entire system, you probably need a tape backup (TBU) drive. TBU drives, like tape recorders, use magnetic tape cartridges to store data. Tape drive cartridges can store 2 GB, 20 GB, 40 GB, 130 GB, or more of data.

If you want to increase your internal storage space, try adding a second hard drive or replacing your existing hard drive with a larger drive. For more information about installing a larger drive, see [“Adding or replacing a hard drive” on page 109](#) or [“Replacing the hard drive” on page 133](#).

Memory

Large programs, such as multimedia games or graphics programs, use a lot of memory. If your programs are running more slowly than you think they should, try adding more memory. For more information, see [“Installing memory” on page 144](#).

Uninterruptible power supplies

A standby, uninterruptible power supply (UPS) protects your computer from data loss during a total power failure. A UPS uses a battery to keep your computer running temporarily during a power failure so you can save your work and shut down your computer correctly. A UPS may also provide protection from power surges. For information, see [“Setting up an uninterruptible power supply” on page 84](#).

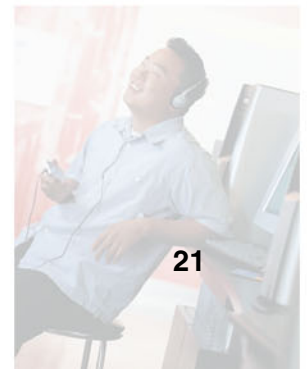
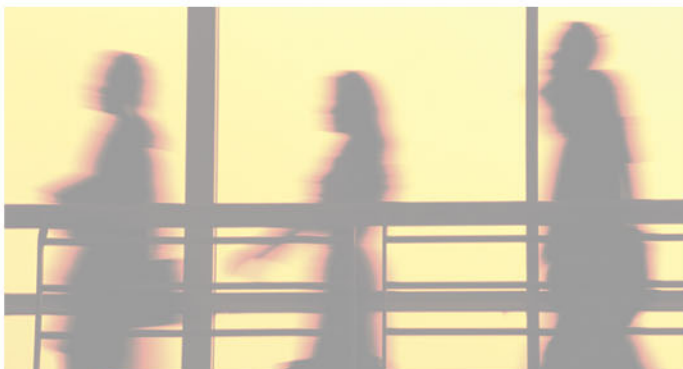


Setting Up Your Computer

2

This chapter provides basic information about your Gateway computer. Read this chapter to learn how to:

- Use your computer safely
- Start and turn off your computer
- Restart (reboot) your computer



Protecting from power source problems

During a power surge, the voltage level of electricity coming into your computer can increase to far above normal levels and cause data loss or system damage. Protect your computer and peripheral devices by connecting them to a *surge protector*, which absorbs voltage surges and prevents them from reaching your computer.

Warning



High voltages can enter your computer through both the power cord and the modem connection. Protect your computer by using a surge protector. If you have a telephone modem, use a surge protector that has a modem jack. If you have a cable modem, use a surge protector that has an antenna/cable TV jack. During an electrical storm, unplug both the surge protector and the modem.

An *uninterruptible power supply* (UPS) supplies battery power to your computer during a power failure. Although you cannot run your computer for an extended period of time with a UPS, a UPS lets you run your computer long enough to save your work and shut down your computer normally. For more information, see [“Setting up an uninterruptible power supply” on page 84](#).

Working safely

Before using your computer, read the following recommendations for setting up a safe and comfortable work area and avoiding discomfort and strain.



Reducing eye strain

Sunlight or bright indoor lighting should not reflect on the monitor screen or shine directly into your eyes.

- Position the computer desk and monitor so you can avoid glare on your screen and light shining directly into your eyes. Reduce glare by installing shades or curtains on windows, and by installing a glare screen filter on your monitor.
- Use soft, indirect lighting in your work area. Do not use your computer in a dark room.
- Avoid focusing your eyes on your computer screen for long periods of time. Look away from your computer occasionally, and try to focus on distant objects.

Setting up your computer desk and chair

When you are setting up your computer desk and chair, make sure that the desk is the appropriate height and the chair helps you maintain good posture.

- Select a flat surface for your computer desk.
- Adjust the height of the computer desk so your hands and arms are positioned parallel to the floor when you use the keyboard and mouse. If the desk is not adjustable or is too tall, consider using a keyboard drawer.
- Use an adjustable chair that is comfortable, distributes your weight evenly, and keeps your body relaxed.
- Position your chair so the keyboard is at or slightly below the level of your elbow. This position lets your shoulders relax while you type.
- Adjust the chair height, adjust the forward tilt of the seat, or use a footrest to distribute your weight evenly on the chair and relieve pressure on the back of your thighs.
- Adjust the back of the chair so it supports the lower curve of your spine. You can use a pillow or cushion to provide extra back support.

Setting up your computer and computer accessories

- Set up the monitor so the top is no higher than eye level, the monitor controls are within reach, and the screen is tilted to be perpendicular to your line of sight.
- Place your keyboard and mouse at a comfortable distance. You should be able to reach them without stretching.
- Set paper holders at the same height and distance as the monitor.

Sitting at your computer

- Avoid bending, arching, or angling your wrists. Make sure that they are in a relaxed position when you type.
- Do not slouch forward or lean far back. Sit with your back straight so your knees, hips, and elbows form right angles when you work.
- Take breaks to stand and stretch your legs.
- Avoid twisting your torso or neck.

Avoiding discomfort and injury from repetitive strain

- Vary your activities to avoid excessive repetition.
- Take breaks to change your position, stretch your muscles, and relieve your eyes.
- Find ways to break up the work day, and schedule a variety of tasks.

Starting your computer



To start your computer:

- 1 Connect the cables to your computer using the setup poster.
- 2 Turn on the monitor.
- 3 Turn on your computer and speakers.
- 4 If you are starting your computer for the first time, follow the on-screen instructions to set up your computer.
- 5 Turn on any peripheral devices, such as printers or scanners, and see the documentation that came with the device for setup instructions.



Turning off your computer

Tips & Tricks



When you turn off your computer, certain components in the power supply and system board remain energized. In order to remove all electrical power from your computer, unplug the power cord and modem cable from the wall outlets. We recommend disconnecting the power cord and modem cable when your computer will not be used for long periods.

▶ To turn off your computer in Windows XP:

- 1 Click **Start**, then click **Turn Off Computer**. The *Turn Off Computer* dialog box opens.
- 2 Click **Turn Off**. Windows shuts down and turns off your computer.

Important



If for some reason you cannot use the Turn Off Computer option in Windows to turn off your computer, press and hold the power button for about five seconds, then release it.



▶ To turn off your computer in Windows 2000:

- 1 Click **Start**, then click **Shut Down**. The *Shut Down Windows* dialog box opens.
- 2 Click the arrow button to open the **What do you want your computer to do** list, then click **Shut down**.
- 3 Click **OK**. Windows shuts down and turns off your computer.

Important



If for some reason you cannot use the Shut Down option in Windows to turn off your computer, press and hold the power button for about five seconds, then release it.



Restarting (rebooting) your computer

If your computer does not respond to keyboard or mouse input, you may have to close programs that are not responding. If closing unresponsive programs does not restore your computer to normal operation, you may have to restart (reboot) your computer.

To close unresponsive programs and restart your computer:

- 1** Press **CTRL+ALT+DEL**, then click **Task Manager**. The *Task Manager* window opens.
- 2** Click the **Applications** tab, then click the program that is not responding.
- 3** Click **End Task**.
- 4** If your computer does not respond, turn it off, wait ten seconds and turn it on again.

Important



If your computer does not turn off, press and hold the power button for about five seconds, then release it.



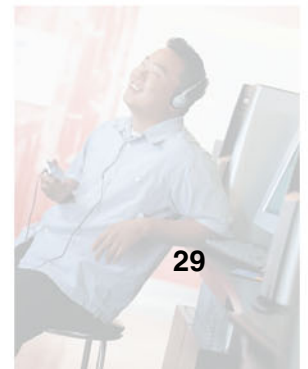
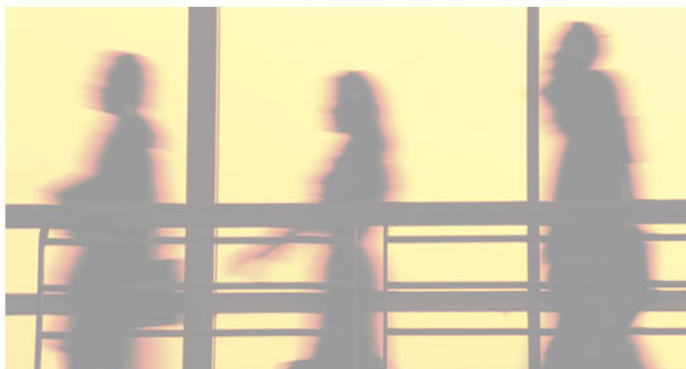


3

Getting Help

This chapter tells you about additional information resources available to help you use your computer. Read this chapter to learn how to access:

- HelpSpot™
- Do More With Gateway
- Online help
- Gateway Web site

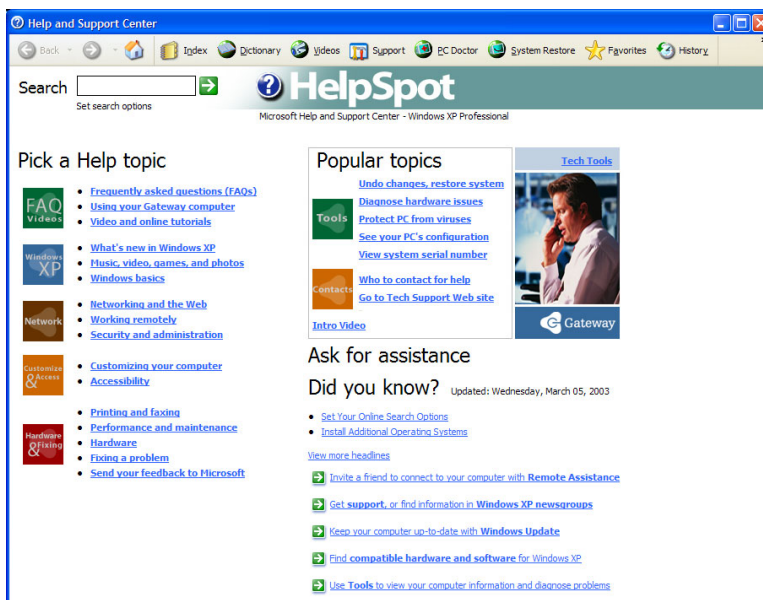


HelpSpot

Your computer may include *HelpSpot™*, an easily accessible collection of help information, troubleshooters, instructional videos, and automated support. Use HelpSpot to answer questions about Windows and to help you quickly discover and use the many features of your Gateway computer. HelpSpot also has an area called *Who to contact for help* that helps you find the right resource at Gateway to answer your questions or help solve your problems.

▶ To start HelpSpot in Windows XP:

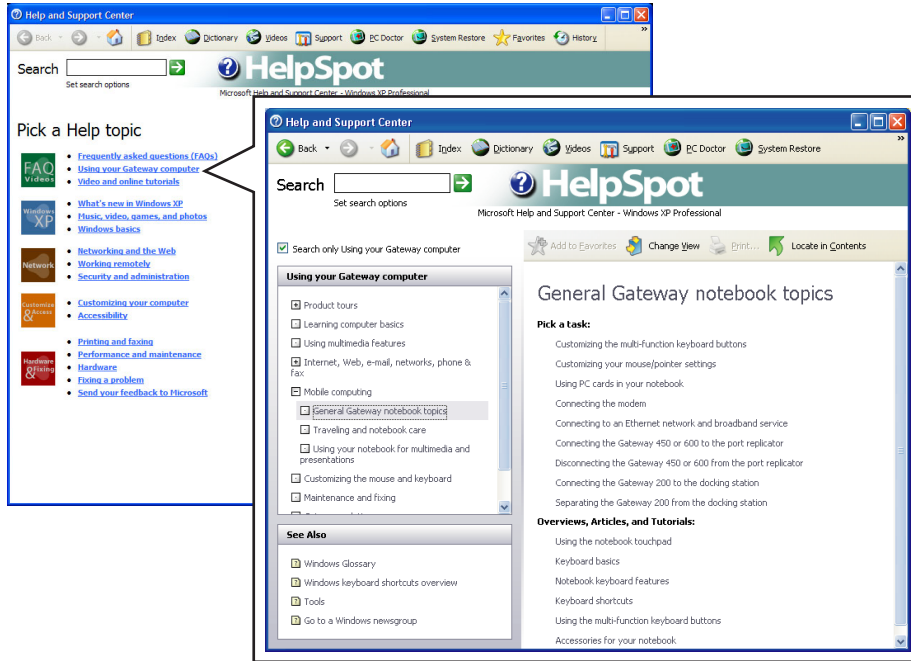
- Click **Start**, then click **Help and Support**. HelpSpot opens.




If this is the first time you have started HelpSpot, you may experience a brief wait while HelpSpot builds the help database, then HelpSpot displays an introductory video.

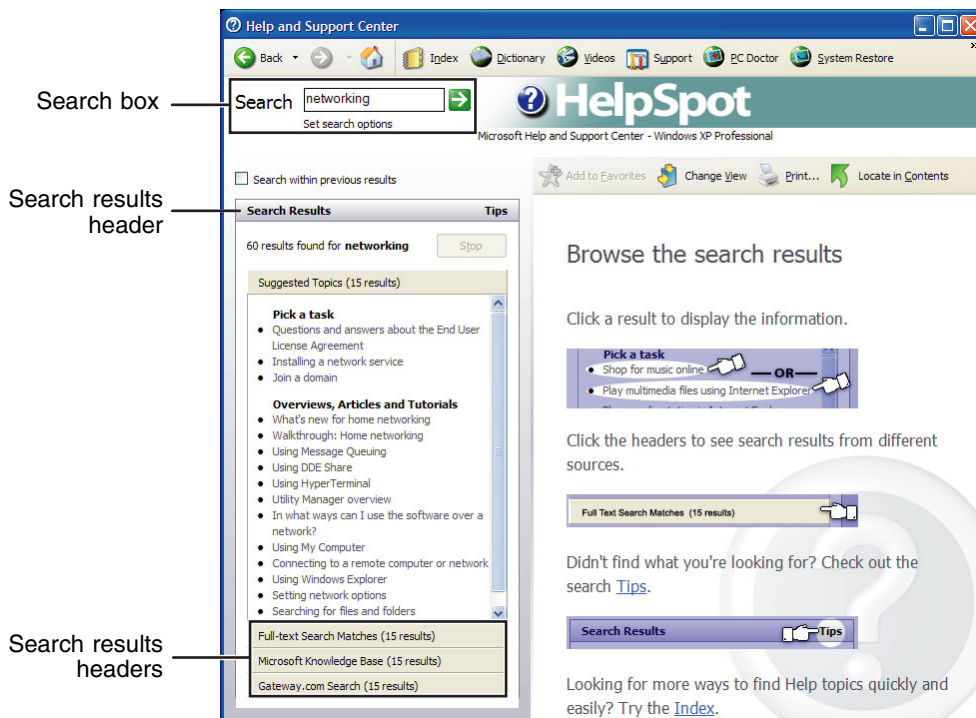


You can find help information by clicking a link, performing a search, or browsing the index. To learn about using your Gateway computer, your mouse, and other tasks, click the **Using your Gateway computer** link on the HelpSpot main page.



Searching for a topic

To search for a topic in HelpSpot, type a word or phrase (keyword) in the **Search** box located at the top of any HelpSpot screen, then click the arrow  button.



For each search, you receive the following search result types:

- Suggested Topics - These topics are located in HelpSpot and are relevant to your search topic.
- Full-text Search Matches - These topics are located in HelpSpot and contain the words you entered in the **Search** box.
- Microsoft Knowledge Base - These topics are located on the Microsoft Web site and contain the words you entered in the **Search** box. You must be connected to the Internet to search for and access these topics.
- Gateway.com Search - These topics are located on the Gateway Web site and contain the words you entered in the **Search** box. You must be connected to the Internet to search for and access these topics.

To view a list of your search results, click the results header for the type of results you want to view.

To view a topic, click the topic name in the **Search Results** list.

HelpSpot videos

HelpSpot contains several short videos to help introduce you to new concepts or show you how to perform various tasks.

To play a HelpSpot video:

- To watch a video in HelpSpot, click **Video and online tutorials** on the HelpSpot home page, then click a video title. The video plays.



Do More With Gateway

Your computer may include *Do More With Gateway*, a tool that provides additional information about using your Gateway computer for digital music, digital photography, digital video, gaming, and other programs. To access Do More With Gateway in Windows XP, click **Start**, then click **Do More With Gateway**. Click the topics listed on the left-side of the page to learn more about the software already installed on your computer, as well as, partnerships and special offers available through Gateway.



Online help

Many programs provide information online so you can research a topic or learn how to perform a task while you are using the program. You can access most online help information by selecting a topic from a **Help** menu or by clicking a **Help** button.

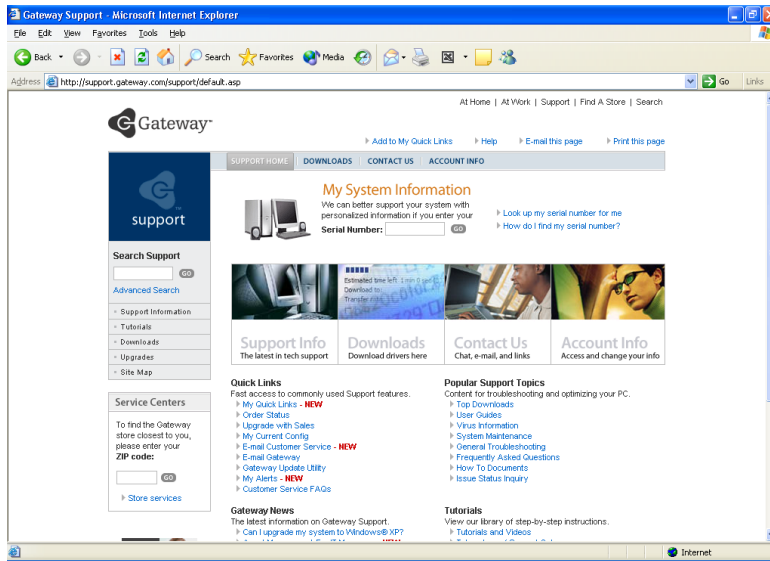


You can search for information by viewing the help contents, checking the index, searching for a topic or keyword, or browsing through the online help.



Gateway Web site

Gateway's online support is available 24 hours per day, 7 days per week and provides the most current drivers, product specifications, tutorials, and personalized information about your system. Visit the Gateway eSupport Web site at support.gateway.com.



Using eSupport

The eSupport site is divided into four major areas:

- Support Home
- Downloads
- Contact Us
- Account Info

Each of these areas is represented by a tab across the top of the Web page.

Support Home tab

To get specific information about your computer, type your serial number into the *My System Information* box, then click **GO**, or click **Look up my serial number for me**. For more information, see [“Finding your specifications” on page 16](#).

The *Support Information* link lets you access product documentation, specifications, and manuals. By entering your serial number, you get specific documents related to your system. You can also browse through the reference area to locate an article specific to the question you have.

The *Tutorials* link lets you access an extensive library of how-to articles and videos on topics such as making audio CDs and installing a hard drive.

Downloads tab

The *Downloads* tab provides the latest software updates for BIOS and driver upgrades. By entering your serial number you get drivers specific to your system. Click **All Downloads** to walk through a step-by-step wizard to locate your drivers.

Contact Us tab

The *Contact Us* tab contains links to technical support with a live technician, including chat and e-mail. Click **Call Us** to get a list of Gateway telephone numbers for both sales and support. For more information, see [“Telephone numbers” on page 181](#).

Account Info tab

The *Account Info* tab contains support for non-technical issues, like the status of your order or changing your account address.

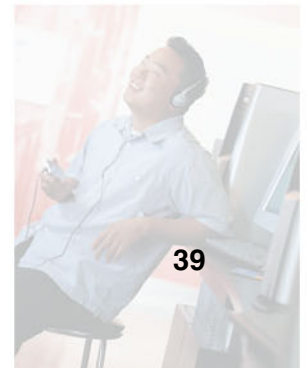
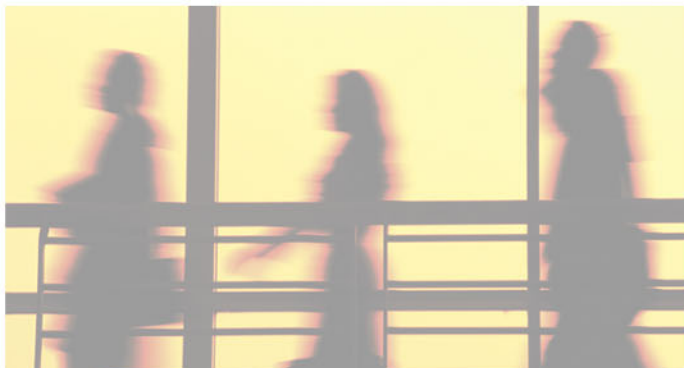


4

Using Drives and Multimedia

This chapter provides information on using the multimedia capabilities of your computer. Read this chapter to learn how to:

- Use the diskette drive
- Use the CD or DVD drive
- Record your own CDs and DVDs



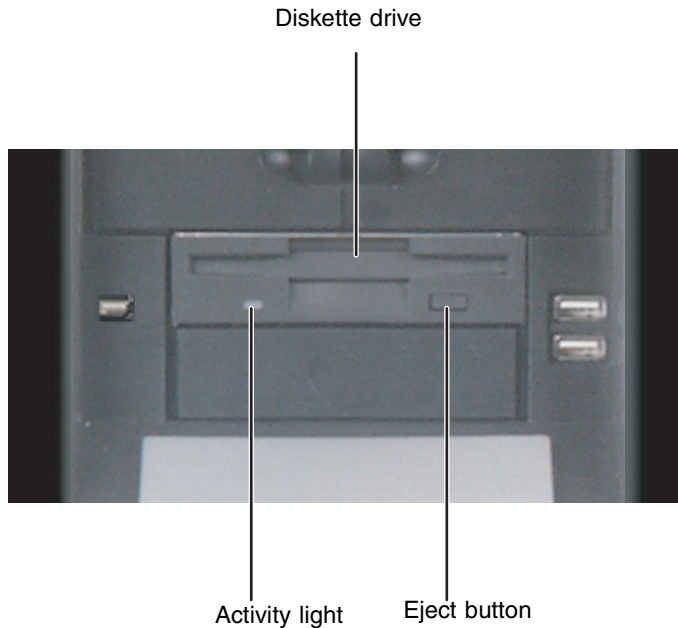
Using the diskette drive

The diskette drive uses 3.5-inch diskettes (sometimes called *floppy disks*). Diskettes are useful for storing files or transferring files to another computer.

Warning



Do not expose diskettes to water or magnetic fields. Exposure could damage the data on the diskette.



▶ **To use a diskette:**

- 1 Insert the arrow-marked end of a diskette into the diskette drive with the label side facing up. The diskette locks into the drive and the diskette eject button pops out.



- 2 To access a file on the diskette in Windows XP, click **Start**, then click **My Computer**. Double-click the drive letter (for example, the A: drive), then double-click the file name.

- OR -

To access a file on the diskette in Windows 2000, double-click the **My Computer** icon, the drive letter (for example, the A: drive), then double-click the file name.

- 3 To remove the diskette, make sure that the drive activity light is off, then press the diskette eject button.









Using the CD or DVD drive

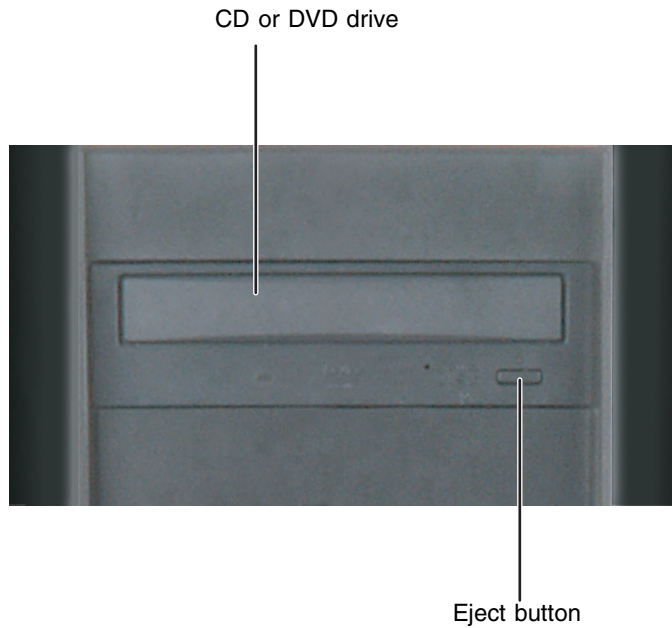
You can use your computer to enjoy a wide variety of multimedia features.

Identifying drive types

Look on the front of the drive for one or more of the following logos. Your drive may be a combo drive with multiple logos and multi-functionality.

If your drive has this logo...	Your drive type is a...	Use your drive to...
	CD drive	Install programs, play audio CDs, and access data.
 - OR - 	CD-RW drive	Install programs, play audio CDs, access data, and create CDs. You can only write to a CD-R disc once. You can write to and erase CD-RW discs multiple times. For more information, see “Creating CDs and DVDs” on page 45.
	DVD drive	Install programs, play audio CDs, play DVDs, and access data.
	DVD-RAM/-RW Drive	Install programs, play audio CDs, play DVDs, access data, and record video and data to DVD-RAM, DVD-R, or DVD-RW discs. For more information, see “Creating CDs and DVDs” on page 45.
	DVD+RW	Install programs, play audio CDs, play DVDs, access data, and record video and data to DVD+R, or DVD+RW discs. For more information, see “Creating CDs and DVDs” on page 45.

Inserting a CD or DVD



Important



Some music CDs have copy protection software. You may not be able to play these CDs on your computer.

To insert a CD or DVD:

- 1 Press the eject button next to the CD or DVD drive. The CD or DVD drive tray opens.
- 2 Place the disc in the tray with the label facing up.



Important



When you place a single-sided disc in the tray, make sure that the label side is facing up. If the disc has two playable sides, place the disc so the name of the side you want to play is facing up.

- 3 Press the eject button again. The CD or DVD drive tray closes.



Creating CDs and DVDs

You can use Nero Express to copy tracks from a music CD to your hard drive, copy or create data CDs and DVDs, create music CDs, create video DVDs, and more.

Important



We recommend that you do not use your computer for other tasks while creating CDs or DVDs.

Important



If you record copyrighted material on a CD or DVD, you need permission from the copyright owner. Otherwise, you may be violating copyright law and be subject to payment of damages and other remedies. If you are uncertain about your rights, contact your legal advisor.

Important



Some CDs have copy protection software. You cannot create MP3 files from these CDs and you may not be able to listen to these CDs on your computer.

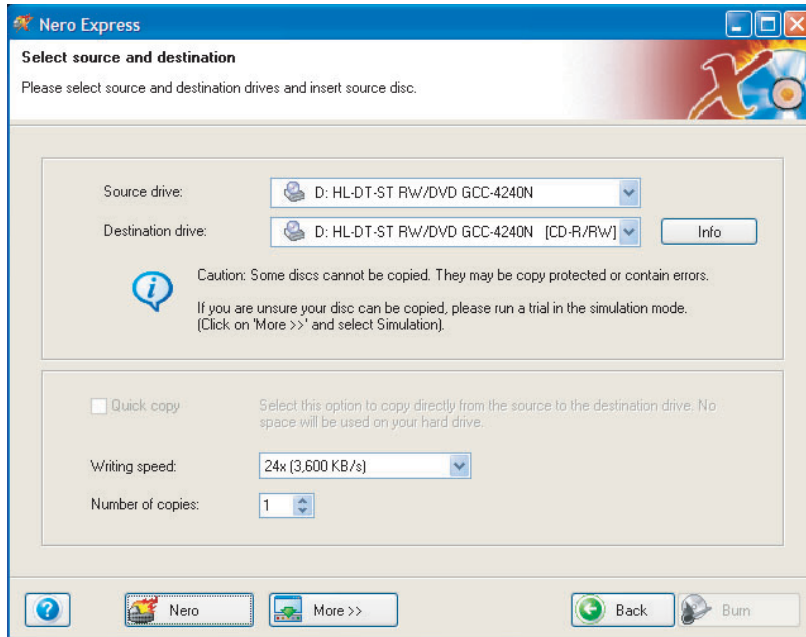
Copying a CD or DVD

▶ **To copy a music CD, data CD, or data DVD:**

- 1 Click **Start, All Programs, Burn a CD or Data DVD, Nero Programs**, then click **Nero Express**. Nero Express opens.

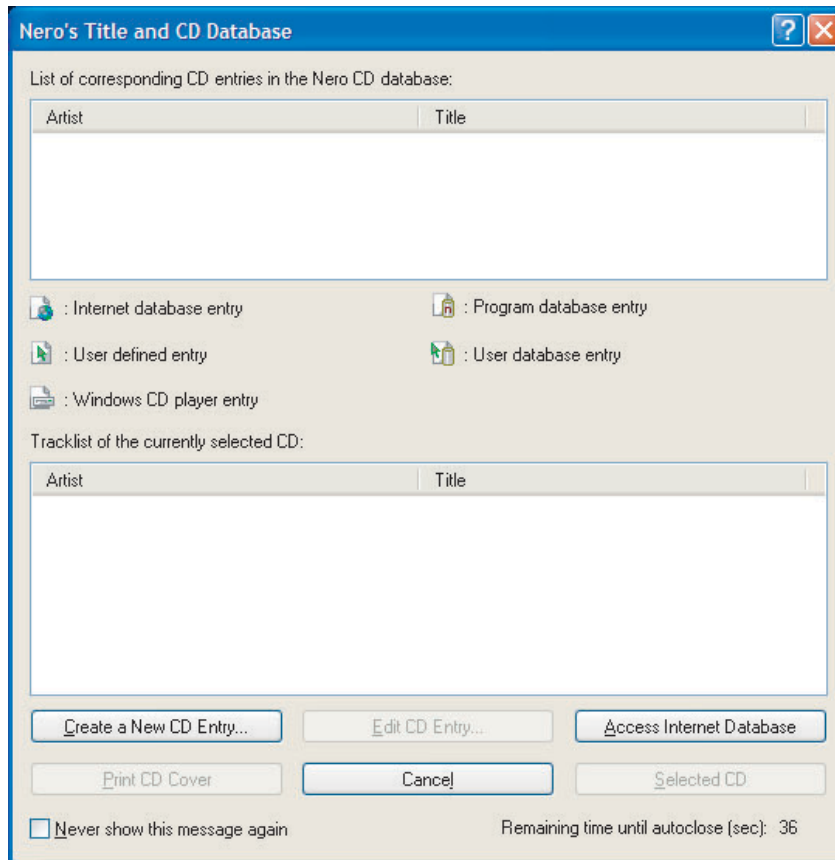


- 2 Click **Copy entire disc**. The *Select source and destination* screen opens.



- 3 Insert the music CD or data CD or DVD you want to copy into your recordable drive. If you have two drives, insert the disc in your non-recordable drive.
- 4 Click the arrow to open the **Source drive** list, then click the drive that contains your source disc.
- 5 Click the arrow to open the **Destination drive** list, then click your recordable drive.
- 6 If you have two CD or DVD drives, click to select the **Quick copy** check box.

- 7 Click **Burn**. The Nero's Title and CD Database dialog box opens.

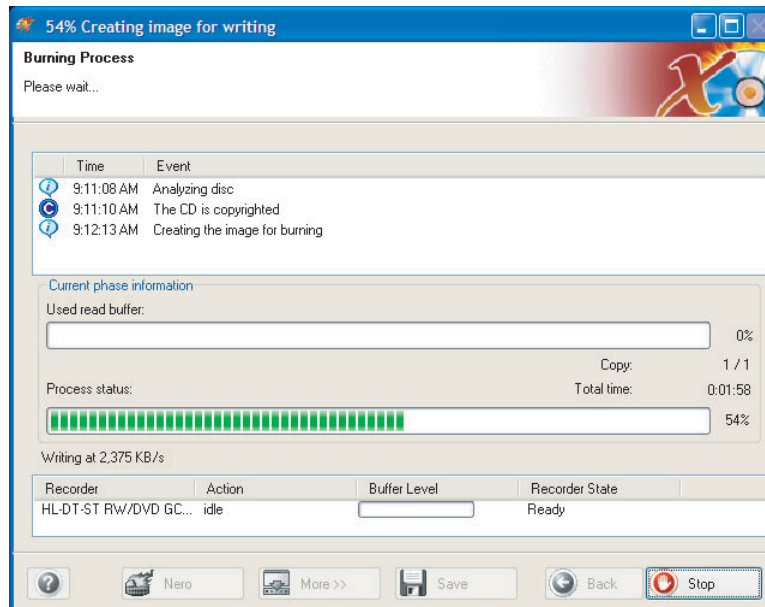


8 Wait until the dialog box closes.

- OR -

Click **Cancel**.

The *Burning Process* screen opens. If you are using one drive, Nero Express copies the tracks or files to your hard drive. If you are using two drives, Nero Express copies the tracks from the source disc to the blank, recordable disc.



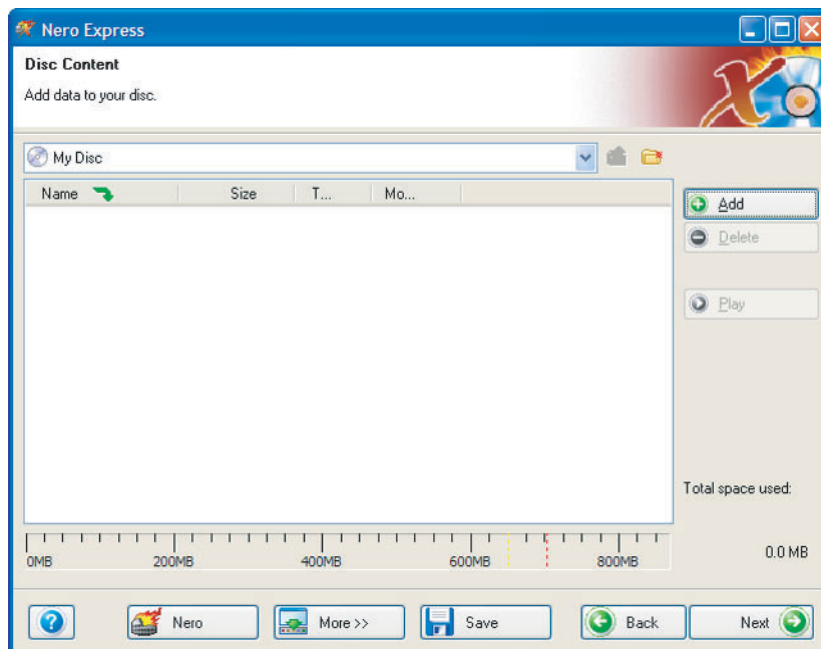
- 9 If you are using one drive, a message prompts you to insert a CD or DVD. Remove the source CD or DVD, insert a blank, writable CD or DVD, then wait for the message box to close. Nero Express copies the files from your hard drive to the writable CD or DVD.
- 10 When a message tells you that the recording is complete, click **OK**.
- 11 Click **Next** to return to the main Nero Express screen.
- 12 Click **Exit**.



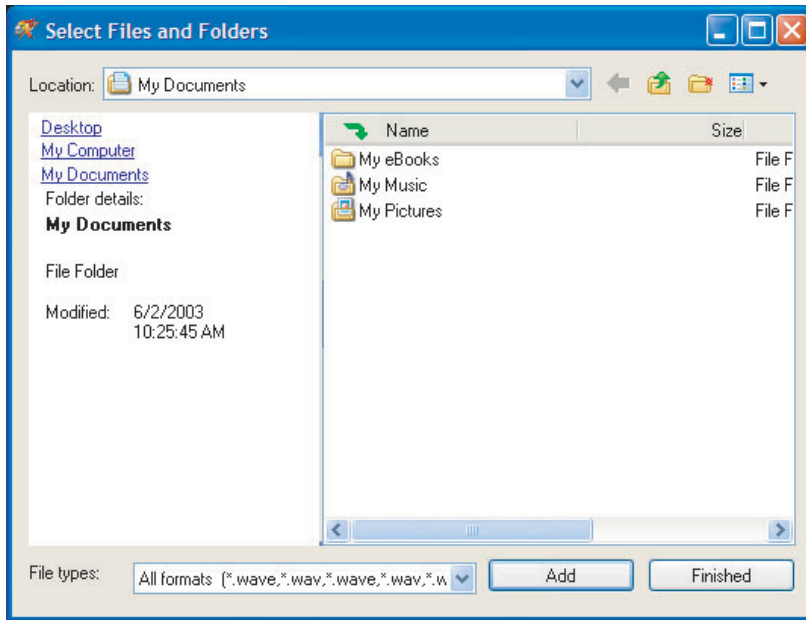
Creating a data CD or DVD

▶ To create a data CD or DVD:

- 1 Click **Start**, **All Programs**, **Burn a CD or Data DVD**, **Nero Programs**, then click **Nero Express**. Nero Express opens.
- 2 Insert a blank, writable CD or DVD into your recordable drive.
- 3 If a dialog box opens, click **Take no action**, then click **OK**.
- 4 Move your pointer over **Data**, then click **Data Disc**. The *Disc Content* screen opens.

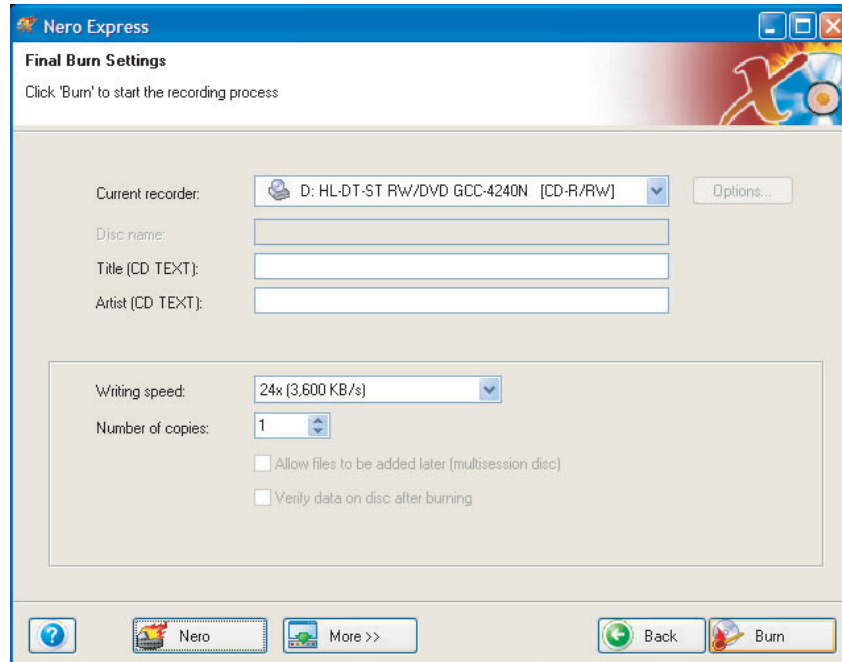


- 5 Click **Add**. The *Select Files and Folders* dialog box opens.



- 6 Browse to the folder that contains the files you want to add. You can click the arrow to open the **Location** list, then click a drive or folder, or you can click folders in the **Name** list. Press and hold the CTRL key to select multiple files.
- 7 Click **Add**. You can continue to select files and click **Add**.
- 8 After you select all your files, click **Finished**.

- 9 Click **Next**. The *Final Burn Settings* screen opens.



- 10 Click the arrow to open the **Current recorder** list, then click your recordable drive.
- 11 Click **Burn**. The *Burning Process* screen opens and Nero Express burns the files to the CD.
- 12 When a message tells you that the recording is complete, click **OK**.
- 13 Click **Next** to return the main Nero Express screen.
- 14 Click **Exit**.



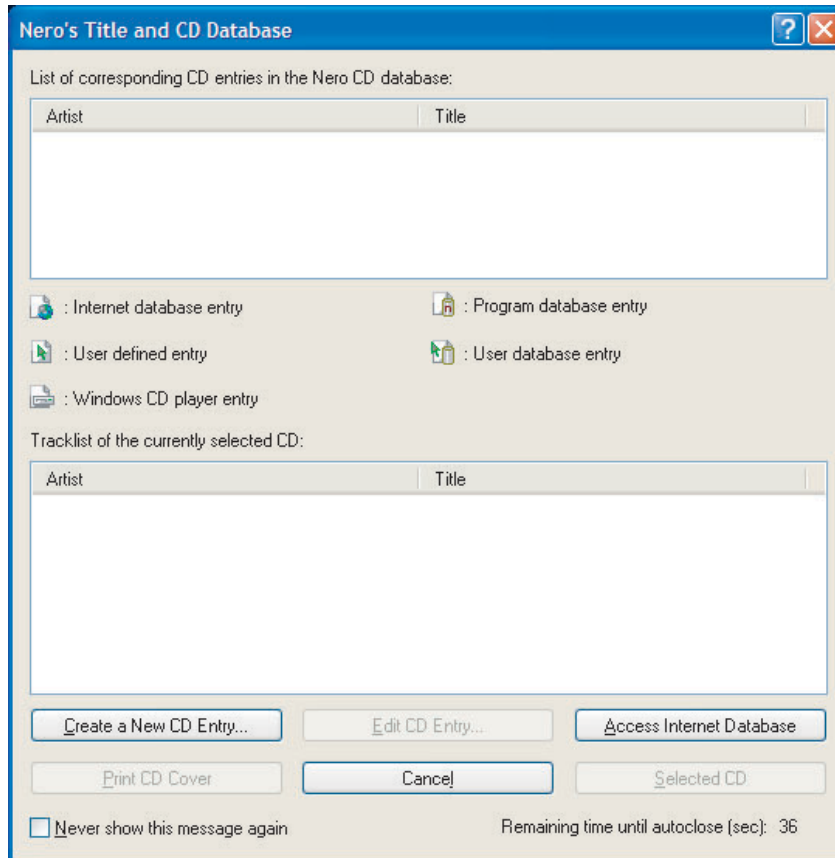
Copying music tracks

▶ To copy music CD tracks to your hard drive:

- 1 Click **Start, All Programs, Burn a CD or Data DVD, Nero Programs**, then click **Nero Express**. Nero Express opens.
- 2 Insert the music CD that has the tracks you want to copy into your CD drive.
- 3 If an *Audio CD* dialog box opens, click **Take no action**, then click **OK**.
- 4 Click **More**. The Nero Toolbar opens.



- 5 Click the **Save Tracks** icon. The *Nero's Title and CD Database* dialog box opens.

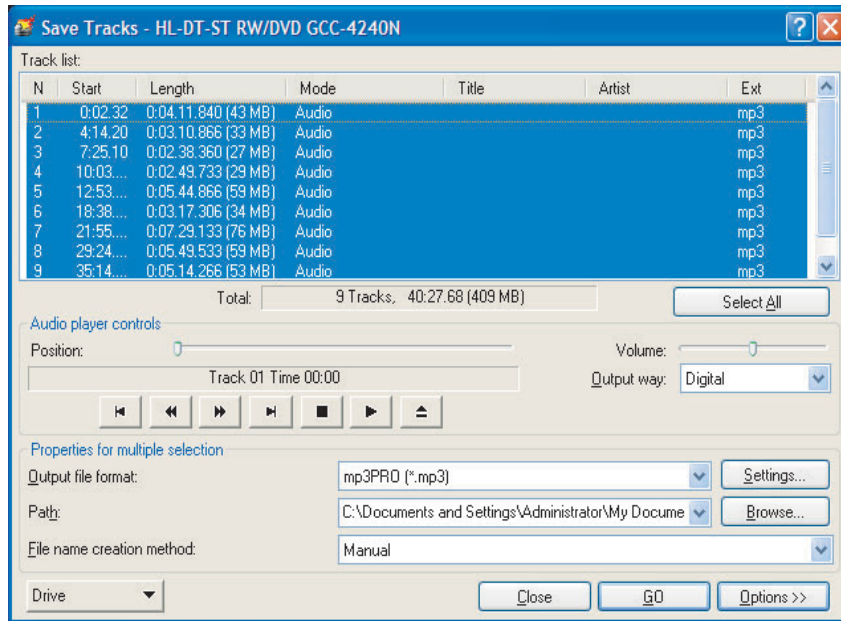


- 6 Wait until the dialog box closes.

- OR -

Click **Cancel**.

- 7 If a message box opens, click **OK**. The *Save Tracks* dialog box opens.



- 8 Click the arrow button to open the **Output file format** list, then click the format you want for the saved tracks.

- 9 To record all the tracks, click **GO**. The recording process begins.

- OR -

To record selected tracks, hold down the **CTRL** key, click the tracks you want, then click **GO**. The recording process begins.

- 10 After the recording is complete, click **Close**.



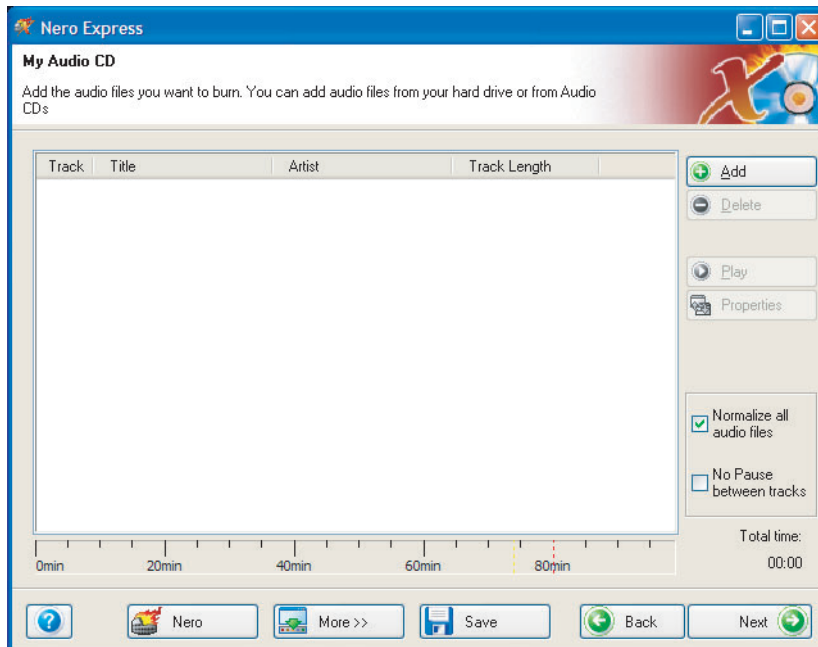
Creating a music CD



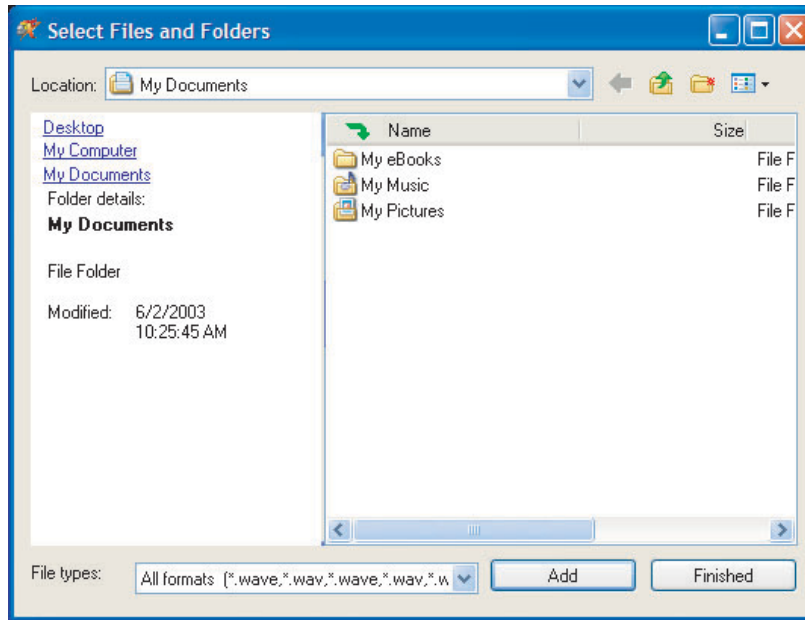
To create a music CD:

- 1** Click **Start, All Programs, Burn a CD or Data DVD, Nero Programs**, then click **Nero Express**. Nero Express opens.
- 2** Insert a blank, writable CD into your recordable drive.
- 3** If a dialog box opens, click **Take no action**, then click **OK**.
- 4** Move your pointer over **Music**, then click one of the following options:
 - **Audio CD** to create a music CD that will play on all CD players. Nero Express converts MP3 and WMA files to Audio CD format.
 - **Audio and Data CD** to create a CD that contains tracks and data files. You can play the music files in a CD player and you can view all files on your computer.
 - **MP3 Disc** to create a CD using MP3 files. You can play the CD on your computer or a player that supports MP3 files.
 - **WMA disc** to create a CD using WMA files. You can play the CD on your computer or a player that supports WMA files.

The screen you use to add files opens.

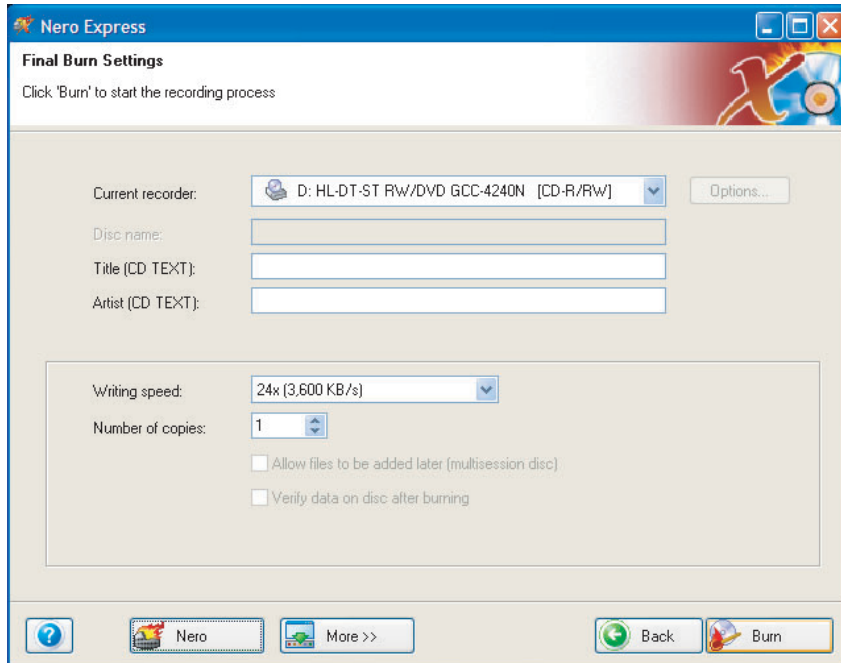


- 5 Click **Add**. The *Select Files and Folders* dialog box opens.



- 6 Browse to the folder that contains the files you want to add. You can click the arrow to open the **Location** list, then click a drive or folder, or you can click folders in the **Name** list. Press and hold the CTRL key to select multiple files.
- 7 Click **Add**. You can continue to select files and click **Add**.
- 8 After you select all your files, click **Finished**.

- 9 Click **Next**. The *Final Burn Settings* screen opens.



- 10 Click the arrow to open the **Current recorder** list, then click your recordable drive.
- 11 Click **Burn**. The *Burning Process* screen opens and Nero Express burns the files to the CD.
- 12 When a message tells you that the recording is complete, click **OK**.
- 13 Click **Next** to return the main Nero Express screen.
- 14 Click **Exit**.



Advanced features

In addition to Nero Express, you can use:

- **Nero BackItUp** to create a backup of files on your hard drive, then use BackItUp to restore the files you backed up in case of a hard drive failure, virus, or other problem.
- **Nero CD-DVD Speed** to test your CD and DVD drives for transfer rates, load and eject times, seek and access times, and more.
- **Nero Cover Designer** to create labels for your CDs and DVDs, covers for your CD and DVD cases, booklets to include with your CDs and DVDs, and more.
- **Nero DriveSpeed** to control CD or DVD drive read speed and spin down time.
- **Nero InfoTool** to find out about your drive capabilities and your computer configuration.

To use these programs, click **Start, All Programs, Burn a CD or Data DVD, Nero Programs**, then click the program you want.

For more information, see the online help in the programs and the online user's guides. To access the user's guides, click **Start, All Programs, Burn a CD or Data DVD, User's Guides**, then click the guide you want.

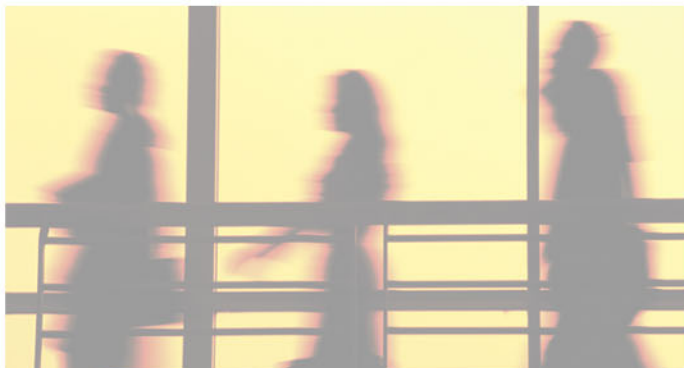


Maintaining Your Computer

5

This chapter provides basic information about maintaining your computer hardware and software. Read this chapter to learn how to:

- Care for your computer
- Protect your computer from viruses
- Manage hard drive space
- Back up files
- Clean your computer



Caring for your computer

To extend the life of your system:

- Be careful not to bump or drop your computer, and do not put any objects on top of it. The case, although strong, is not made to support extra weight.
- When transporting your computer, we recommend that you put it in the original packaging materials.
- Keep diskettes and your computer away from magnetic fields. Magnetic fields can erase data on both diskettes and hard drives.
- Avoid subjecting your computer to extreme temperature changes. The case can become brittle and easy to break in cold temperatures and can melt or warp in high temperatures. Damage due to either extreme is not covered by your warranty. As a general rule, your computer is safest at temperatures that are comfortable for you.
- Keep all liquids away from your computer. When spilled onto computer components, almost any liquid can result in extremely expensive repairs that are not covered under your warranty.
- Avoid dusty or dirty work environments. Dust and dirt can clog the internal mechanisms.

Use the following table to set up a regular maintenance schedule.

Maintenance task	Immediately after purchase	Monthly	When needed	See...
Check for viruses		X	X	page 63
Manage hard drive space			X	page 66
Clean up hard drives		X	X	page 67
Scan hard drive for errors		X	X	page 68
Defragment hard drive		X	X	page 70
Back up files		X	X	page 72
Clean computer			X	page 74

Protecting your computer from viruses

A *virus* is a program that attaches itself to a file on a computer, then spreads from one computer to another. Viruses can damage data or cause your computer to malfunction. Some viruses go undetected for a period of time because they are activated on a certain date.


Protect your computer from a virus by:

- Using the Norton® AntiVirus program to check files and programs that are on diskettes, attached to e-mail messages, or downloaded from the Internet.
- Checking all programs for viruses before installing them.
- Disabling macros on suspicious Microsoft Word and Excel files. These programs will warn you if a document that you are opening contains a macro that might have a virus.
- Periodically updating the Norton AntiVirus program to protect against the latest viruses.

Help and Support

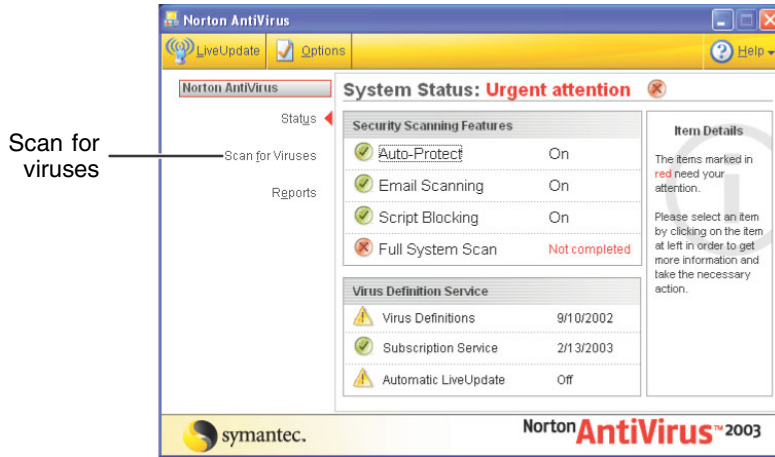


For more information about protecting your computer against viruses in Windows XP, click **Start**, then click **Help and Support**.

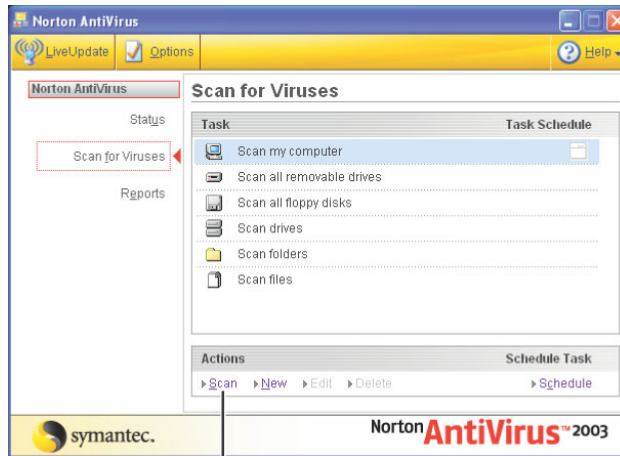
Type the keyword **viruses** in the HelpSpot **Search** box
Search , then click the arrow.

▶ **To scan for viruses:**

- 1 Click **Start, All Programs, Norton AntiVirus**, then click **Norton AntiVirus 2003**. Norton AntiVirus opens.



- 2 Click **Scan for Viruses**.



- 3 Click the type of scan you want to make in the Scan for Viruses area, then under Actions, click **Scan**.





To remove a virus:

- 1 If Norton AntiVirus finds a virus, follow all on-screen instructions to remove the virus.
- 2 Turn off your computer and leave it off for at least 30 seconds.
- 3 Turn on your computer and rescan for the virus.



To update Norton AntiVirus:

- 1 Make sure that you are connected to the Internet.
- 2 Click **Start, All Programs, Norton AntiVirus**, then click **LiveUpdate - Norton AntiVirus**. The LiveUpdate wizard opens.
- 3 Follow the on-screen instructions to update your Norton AntiVirus program with the latest virus protection files.
- 4 When the program has finished, click **Finish**.



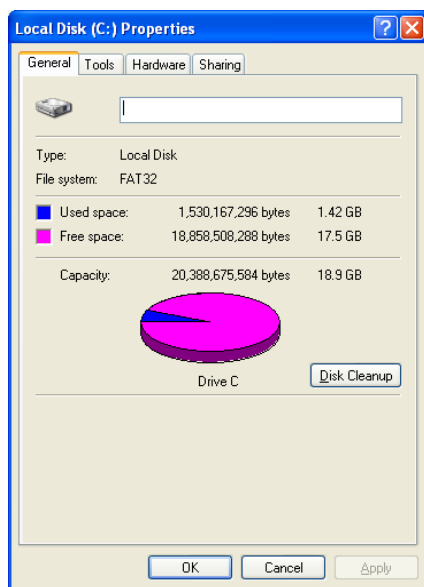
Managing hard drive space

Windows provides several utilities you can use to manage your hard drive.

Checking hard drive space

▶ To check hard drive space:

- 1 In Windows XP, click **Start**, then click **My Computer**. The *My Computer* window opens.
- OR -
In Windows 2000, double-click the **My Computer** icon. The *My Computer* window opens.
- 2 Right-click the drive that you want to check for available file space, then click **Properties**. Drive space information appears.



Using Disk Cleanup

Delete unnecessary files, such as temporary Windows files, to free hard drive space.

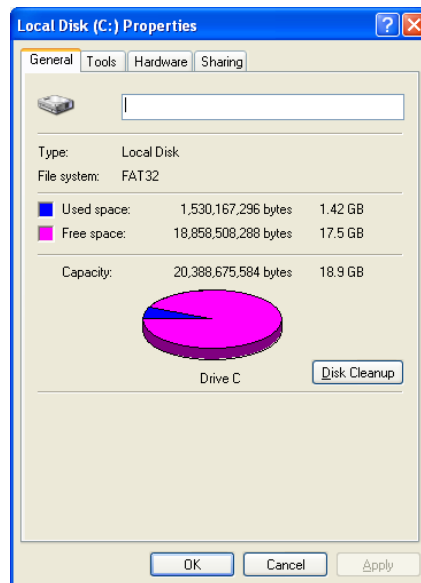
To use the Windows Disk Cleanup program:

1 In Windows XP, click **Start**, then click **My Computer**. The *My Computer* window opens.

- OR -

In Windows 2000, double-click the **My Computer** icon. The *My Computer* window opens.

2 Right-click the hard drive that you want to delete files from, for example Local Disk (C:), then click **Properties**. The *Properties* dialog box opens at the General tab.



3 Click **Disk Cleanup**. The *Disk Cleanup* dialog box opens.


- 4 Make sure that the check box beside each file type you want to delete is selected. For more information about file types you can delete, read the descriptions in the *Disk Cleanup* dialog box.
- 5 Click **OK**, then click **Yes**.



Help and Support



For more information about keeping the hard drive space free of unnecessary files in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **disk cleanup** in the HelpSpot **Search** box Search , then click the arrow.

Checking the hard drive for errors

The Error-checking program examines the hard drive for physical flaws and file and folder problems. This program corrects file and folder problems and marks flawed areas on the hard drive so Windows does not use them.

If you use your computer several hours every day, you probably want to run Error-checking once a week. If you use your computer less frequently, once a month may be adequate. Also use Error-checking if you encounter hard drive problems.



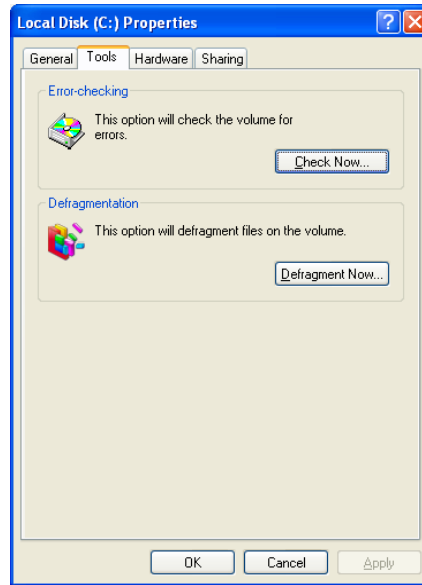
To check the hard drive for errors:

- 1 In Windows XP, click **Start**, then click **My Computer**. The *My Computer* window opens.

- OR -

In Windows 2000, double-click the **My Computer** icon. The *My Computer* window opens.
- 2 Right-click the hard drive that you want to check for errors, for example Local Disk (C:), then click **Properties**. The *Properties* dialog box opens.

- 3 Click the **Tools** tab.



- 4 Click **Check Now**.
- 5 Click the options you want to use, then click **Start**. For help, press **F1**. Windows checks the drive for errors. This process may take several minutes. After Windows has finished checking the drive for errors, it provides a summary of the problems that it found.
- 6 Correct any problems that are found by following the on-screen instructions.
- 7 Click **OK**.



Help and Support



For more information about checking the hard drive for errors in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **checking for disk errors** in the HelpSpot **Search** box Search , then click the arrow.

Defragmenting the hard drive

When working with files, sometimes Windows divides the file information into pieces and stores them in different places on the hard drive. This is called *fragmentation*, and it is normal. In order for your computer to use a file, Windows must search for the pieces of the file and put them back together. This process slows the hard drive performance.

The Disk Defragmenter program organizes the data on the drive so each file is stored as one unit rather than as multiple pieces scattered across different areas of the drive. Defragmenting the information stored on the drive can improve hard drive performance.

While the Disk Defragmenter program is running, do not use your keyboard or mouse because using them may continuously stop and restart the defragmenting process. Also, if you are connected to a network, log off before starting Disk Defragmenter. Network communication may stop the defragmentation process and cause it to start over.



To defragment the hard drive:

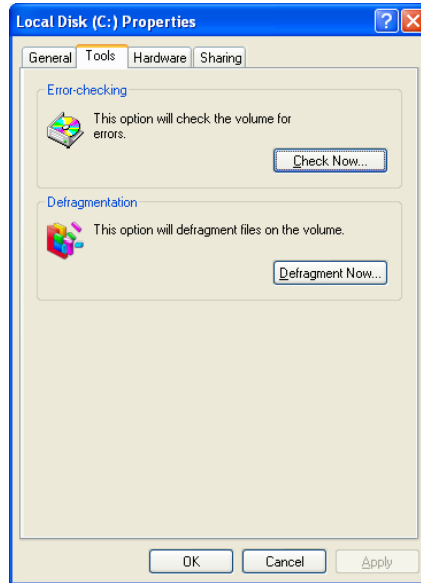
1 In Windows XP, click **Start**, then click **My Computer**. The *My Computer* window opens.

- OR -

In Windows 2000, double-click the **My Computer** icon. The *My Computer* window opens.

2 Right-click the hard drive that you want to defragment, for example Local Disk (C:), then click **Properties**. The *Properties* dialog box opens.

- 3 Click the **Tools** tab.




- 4 Click **Defragment Now**.
- 5 If Disk Defragmenter does not start automatically, click **Defragment** or **Start**.
Disk Defragmenter shows its progress on the computer display. When finished, Disk Defragmenter asks if you want to quit the program.
- 6 Click **Close** or **Yes**, then click the **X** in the top-right corner to close the *Disk Defragmenter* window.



Help and Support



For more information about defragmenting the hard drive in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **defragmenting** in the HelpSpot **Search** box Search , then click the arrow.

Backing up files


Backing up files and removing them from the hard drive frees space for new files on the hard drive. It also protects you from losing important information if the hard drive fails or you accidentally delete files.

You should back up your files regularly to a writable CD (if you have a recordable drive) or to diskettes. Use a backup device, such as a recordable drive or tape drive, to do a complete hard drive backup. For more information, see “[Creating CDs and DVDs](#)” on page 45. If you do not have a high-capacity backup device and you want to purchase one, you can contact Gateway’s Add-on Sales department or visit the Accessories Store at accessories.gateway.com.

Help and Support



For more information about backing up files in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **saving files** in the HelpSpot **Search** box Search , then click the arrow.

Using the Scheduled Task Wizard

The Scheduled Task Wizard lets you schedule maintenance tasks such as running Disk Defragmenter and Error-checking.

To start the Scheduled Task Wizard:

- 1 Click **Start, All Programs, Accessories, System Tools**, then click **Scheduled Tasks**. The *Scheduled Tasks* window opens.
- 2 Double-click the **Add Scheduled Task** icon. The Scheduled Task Wizard opens.



- 3 Click **Next**, then click the task or program you want to schedule and follow the on-screen instructions to customize the task.

Important




Your computer must be on during scheduled tasks. If your computer is off, scheduled tasks will not run.



Help and Support



For more information about using the Scheduled Tasks Wizard in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **Scheduled Task Wizard** in the HelpSpot **Search** box Search , then click the arrow.

Cleaning your computer

Keeping your computer clean and the vents free from dust helps keep your system performing at its best. You may want to gather these items and put together a computer cleaning kit:

- A soft, lint-free cloth
- Glass cleaner (not for use on LCD panels)
- An aerosol can of air that has a narrow, straw-like extension
- Isopropyl alcohol
- Cotton swabs
- A CD or DVD drive cleaning kit

Cleaning the exterior

Warning



When you shut down your computer, the power turns off, but some electrical current still flows through your computer. To avoid possible injury from electrical shock, unplug the power cord and modem cable from the wall outlets.

Tips & Tricks



When cleaning the case, do not use abrasive or solvent cleaners because they can damage the finish. Use soap and water or a dilution of water and isopropyl alcohol.

Always turn off your computer and other peripherals before cleaning any components.

Use a damp, lint-free cloth to clean your computer and other parts of your system. Do not use abrasive or solvent cleaners because they can damage the finish on components.

Your computer is cooled by air circulated through the vents on the case, so keep the vents free of dust. With your computer turned off and unplugged, brush the dust away from the vents with a damp cloth. Be careful not to drip any water into the vents. Do not attempt to clean dust from the inside your computer.

Cleaning the keyboard

You should clean the keyboard occasionally by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.

If you spill liquid on the keyboard, turn off your computer and turn the keyboard upside down. Let the liquid drain, then let the keyboard dry before trying to use it again. If the keyboard does not work after it dries, you may need to replace it.

Cleaning the monitor screen

If your monitor is a flat panel display, use a soft cloth and water to clean the monitor screen. Squirt a little water on the cloth (never directly on the screen), and wipe the screen with the cloth.

Warning



The monitor screen is made of specially coated glass and can be scratched or damaged by abrasive or ammonia-based glass cleaners.

- OR -

If your monitor is not a flat panel display, use a soft cloth and glass cleaner to clean the monitor screen. Squirt a little cleaner on the cloth (never directly on the screen), and wipe the screen with the cloth.

Cleaning the mouse

If the mouse pointer begins moving erratically across the computer screen or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.

Clean your optical mouse by wiping the bottom of the mouse with a damp lint-free cloth.



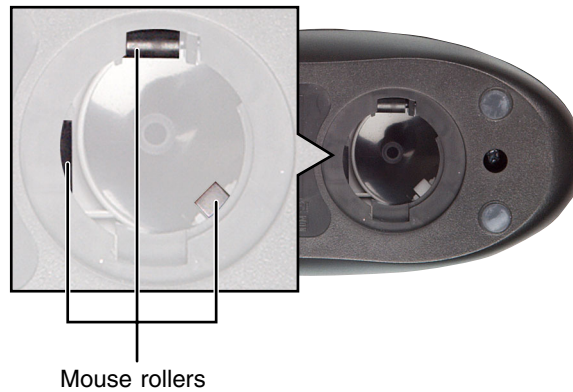
To clean your trackball mouse:

- 1 Turn the mouse upside down.
- 2 Rotate the retaining ring on the bottom of the mouse counter-clockwise, then remove the retaining ring and mouse ball.



- 3 Remove any dust, lint, or dirt from the mouse ball with a soft cloth.

- 4 Clean the mouse rollers with a cotton swab dipped in isopropyl alcohol.



- 5 Replace the mouse ball and lock the retaining ring into place.



Help and Support



For a video tutorial about cleaning the mouse in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **Video tutorials** in the HelpSpot **Search** box Search , then click the arrow.

Click **Cleaning the mouse**.

Power management

Computer equipment can account for a significant portion of energy use in the home and office environment. You may not want to shut down your computer each time you leave it, especially if you plan to be away for only a short time. Windows lets you use the following modes to conserve energy when the system is not in use:

- *Standby* – while your computer is in Standby mode, it switches to a low power state where devices, such as the monitor and drives, turn off and the entire system uses less power.

Always save your work before using Standby mode. In Standby mode, your computer reduces or turns off the power to most devices except memory. However, the information in the memory is not saved to the hard drive. If power is interrupted, the information is lost.

- *Hibernate* – (also called *save to disk*) writes all current memory (RAM) information to the hard drive, then turns your computer completely off. The next time you turn on your computer, it reads the memory information from the hard drive and opens the programs and documents that were open when you activated Hibernate mode. For more information, see [“Activating and using Hibernate mode” on page 83](#).

Using power saving modes

If your computer is...	...and you want to...	...then
On	Enter Standby mode	In Windows XP, click Start , Turn off computer , then click Standby . - OR - In Windows 2000, click Start , then click Shut Down . Click the arrow button to open the What do you want your computer to do list, then click Standby . Click OK .
On	Enter Hibernate mode (must be activated)	In Windows XP, click Start , then click Turn Off Computer . Press and hold SHIFT , then click Hibernate . - OR - In Windows 2000, click Start , then click Shut Down . Click the arrow button to open the What do you want your computer to do list, then click Hibernate . Click OK .
In Standby mode	Exit Standby mode	Move the mouse or press a key on your keyboard.
In Hibernate mode	Exit Hibernate mode	Press the power button.

Changing power settings

You can change power management settings, such as the power button function and power-saving timers, by changing power settings in Windows. You can also adjust power schemes and adjust advanced power settings.

Power schemes (groups of power settings) let you change power saving options such as when the monitor or hard drive is automatically turned off. You can select one of the defined power schemes or create a custom power scheme.

Advanced power settings let you assign different power saving modes to the power button.

Changing the power scheme

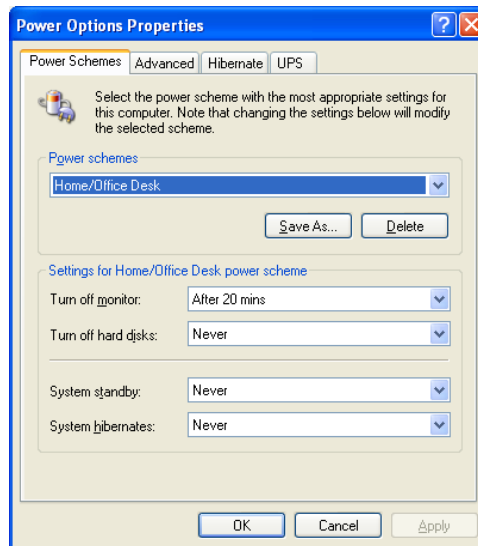
To change the power scheme:

1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 2000, click **Start, Settings**, then click **Control Panel**. The *Control Panel* window opens.

2 Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.



- 3 Click the arrow button to open the **Power Schemes** list, then click the power scheme you want.

- OR -

Click an arrow button to open the **System standby**, **Turn off monitor**, or **Turn off hard disks** list, then click the time you want. To save your custom power scheme, click **Save As** and type a name for the scheme.


- 4 Click **OK**.



Help and Support



For more information about changing the power scheme in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **power scheme** in the HelpSpot **Search** box Search , then click the arrow.

Changing advanced power settings



To change advanced power management settings:

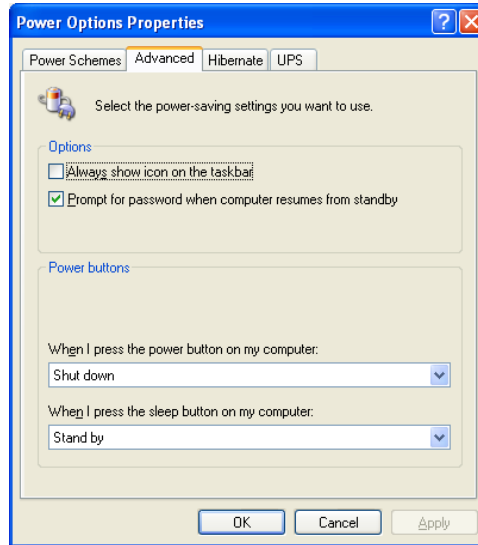
- 1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- 2 Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.

- 3 Click the **Advanced** tab.




- 4 Click the arrow button to open a **Power buttons** list, then click the power setting mode you want to use.
- 5 Click **OK**.



Help and Support



For more information about changing the power management settings in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **power management** in the HelpSpot **Search** box Search , then click the arrow.

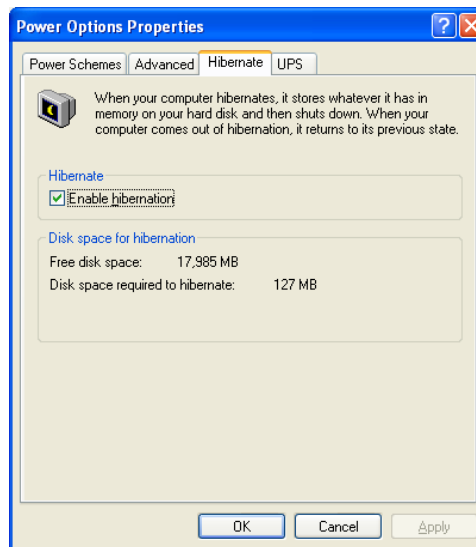
Activating and using Hibernate mode

▶ To activate Hibernate mode:

- 1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- 2 Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.
- 3 Click the **Hibernate** tab.



- 4 Click the **Enable hibernation** check box, then click **Apply**. Hibernate mode is now an option you can select in the Power Schemes and Advanced tabs and in the *Turn Off Computer* or *Shut Down Windows* dialog box.
- 5 Click **OK**.



To use Hibernate mode:

- As an automatic power savings mode:

Open the *Power Options Properties* dialog box, then click the **Power Schemes** tab. Click the arrow button to open a **System hibernates** list, then click the time you want to use.

-OR-

Open the *Power Options Properties* dialog box, then click the **Advanced** tab. Hibernate is now an option in the **Power buttons** lists.

- As a manually-selected power savings mode:

In Windows XP, click **Start**, then click **Turn Off Computer**. Press and hold **SHIFT**, then click **Hibernate**.

-OR-


In Windows 2000, click **Start**, then click **Shut Down**. Click the arrow button to open the **What do you want your computer to do** list, then click **Hibernate**. Click **OK**.



Help and Support



For more information about using Hibernate mode in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **hibernate** in the HelpSpot **Search** box
Search , then click the arrow.

Setting up an uninterruptible power supply

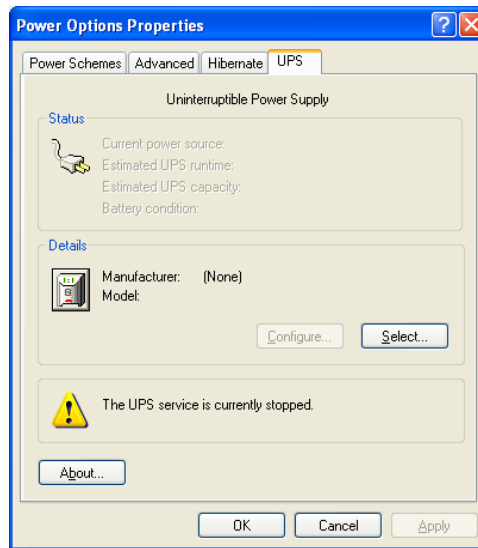
To install an uninterruptible power supply (UPS):

- 1 In Windows XP, click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Performance and Maintenance**.

- OR -

In Windows 2000, click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.

- 2 Click/Double-click the **Power Options** or **Power Management** icon. The *Power Options Properties* dialog box opens.
- 3 Click the **UPS** tab.




- 4 Click **Select**. The *UPS Selection* dialog box opens.
- 5 Click the manufacturer and model of the UPS device.
- 6 Click the serial port where the UPS device is attached.
- 7 Click **Finish**, then click **OK**.



Help and Support



For more information about setting up an uninterruptable power supply in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **uninterruptable power supply** in the HelpSpot **Search** box Search , then click the arrow.

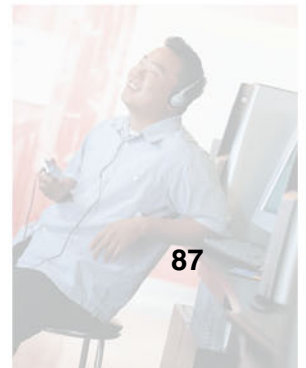
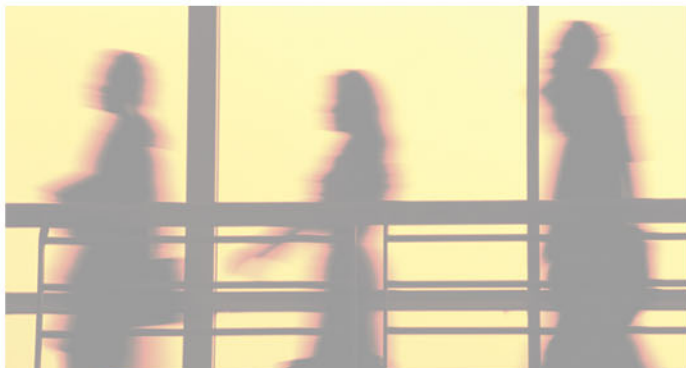


Restoring Software

6

Read this chapter to learn how to:

- Reinstall device drivers
- Update device drivers
- Reinstall programs
- Reinstall Windows




Using the Restoration CDs

Use the Gateway *Restoration CDs* to reinstall device drivers, your operating system, and other programs that were preinstalled at the factory.

Important



Before you try to fix a problem by reinstalling software from your Gateway *Restoration CDs*, make sure that you have tried these steps first:

- Use the diagnostics and troubleshooting tools found in HelpSpot. For more information about diagnostics and troubleshooting tools in Windows XP, click **Start**, then click **Help and Support**. Type the keyword **troubleshooting** in the HelpSpot **Search** box Search , then click the arrow.
- See the Troubleshooting section of this guide.

If these steps do not resolve the problem, use the Gateway *Restoration CDs* to reinstall device drivers or programs.

If reinstalling device drivers or programs does not resolve the problem, reinstall Windows.

Reinstalling device drivers

Device drivers are programs that control devices such as the computer display, CD or DVD drives, and modems. Drivers translate information between computer devices and programs.

Drivers for your original computer hardware are installed at Gateway. If you install a new device, you need to install the drivers provided by the device manufacturer.

You should reinstall device drivers:

- If directed to do so while troubleshooting
- If you see a message indicating that there is a problem with a device driver

If you need to reinstall device drivers because you are directed to do so while troubleshooting or if a message tells you that there is a problem with a device driver, reinstall the device drivers by following the instructions in [“To reinstall device drivers:” on page 89](#).

If you just reinstalled Windows XP or Windows 2000, the device drivers were automatically reinstalled.

If you are not comfortable with the procedures covered in this section, seek help from a more experienced computer user or a computer service technician.



To reinstall device drivers:

- 1** Insert the red *Drivers* CD into the CD or DVD drive.
- 2** If this is the first time you have inserted the CD, accept the End User License Agreement (EULA) by clicking **Yes, I accept it**, then clicking **Continue**.
- 3** If you are prompted to select your Gateway computer type, click **E-Series / Business Use**, then click **Continue**.
- 4** If you want to find driver locations for installation on another E-Series computer, go to [Step 8](#).

- OR -

To install device drivers on this computer, go to the next step.

5 Select a single device driver to reinstall.

- OR -

Click **Automatic Installation**, then select multiple device drivers to reinstall. (Grayed out drivers are not available for Automatic Installation. To select these drivers, click **Manual Installation**.)

6 Click **Install**.

7 Follow any additional on-screen instructions. Depending on the device driver you are reinstalling, you may only need to restart your computer to complete the installation. However, if a setup wizard opens when you restart your computer, follow the on-screen instructions.

8 To find driver locations for installation on another computer, click the **E-Series Drivers** tab, select your **E-Series Model** and **Operating System**, then click **Search**.


9 Browse the device types to find the driver location for your other E-Series computer, then install your driver on the other E-Series computer.



Help and Support



For more information about reinstalling device drivers in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **drivers** in the HelpSpot **Search** box
Search , then click the arrow.

Updating device drivers

The *Restoration CDs* contain a device driver update utility that works over the Internet. If you do not have an Internet service provider, the update utility works by direct-dialing the device driver update service.

To update device drivers:


- 1 Insert the red *Drivers* CD into the CD or DVD drive.
- 2 If this is the first time you have inserted the CD, accept the End User License Agreement (EULA) by clicking **Yes, I accept it**, then clicking **Continue**.
- 3 If you are prompted to select your Gateway computer type, click **E-Series / Business Use**, then click **Continue**.
- 4 Click the **Web Updates** tab.
- 5 Click **Check Now**. The *Connect* window opens.
- 6 Install available updated device drivers by following the on-screen instructions. Depending on the device driver you are updating, you may only need to restart your computer to complete the installation. However, if a setup wizard opens when you restart your computer, follow the on-screen instructions.



Help and Support



For more information about updating device drivers in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **updating drivers** in the HelpSpot **Search** box Search , then click the arrow.

Reinstalling programs

If you have problems running a program or if you have reinstalled your operating system, you can reinstall programs from the yellow *Applications* CD and other program CDs. If you are reinstalling programs from other program CDs, follow the installation instructions on each CD. If you want to **reinstall** a program, uninstall the old version first.



To reinstall programs from the Applications CD(s):

- 1** If you just reinstalled Windows, go to [Step 4](#). Otherwise, go to the next step.
- 2** In Windows XP, click **Start, Control Panel**, then click **Add or Remove Programs**.
- OR -
In Windows 2000, click **Start, Settings, Control Panel**, then double-click the **Add or Remove Programs** icon.
- 3** In the *Currently Installed Programs* list, click the program you want to uninstall, then click **Change/Remove** and follow the on-screen instructions.
- 4** Insert the yellow *Applications* CD into the CD or DVD drive.
- 5** If this is the first time you have inserted the CD, accept the End User License Agreement (EULA) by clicking **Yes, I accept it**, then clicking **Continue**.
- 6** If you are prompted to select your Gateway computer type, click **E-Series / Business Use**, then click **Continue**.
- 7** Select a single program to reinstall.
- OR -
Click **Automatic Installation**, then select multiple programs to reinstall. (Grayed out programs are not available for Automatic Installation. To select these programs, click **Manual Installation**.)

- 8 Click **Install**.
- 9 Follow any additional on-screen instructions. Depending on the programs you are reinstalling, you may only need to restart your computer to complete the installation. However, if a setup wizard opens when you restart your computer, follow the on-screen instructions.



Help and Support



For more information about reinstalling programs in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **installing programs** in the HelpSpot **Search** box Search , then click the arrow.

To reinstall Works Suite (including Word), games, or other programs from a CD:

- 1 If you just reinstalled Windows, go to [Step 4](#). Otherwise, go to the next step.
- 2 In Windows XP, click **Start**, **Control Panel**, then click **Add or Remove Programs**.
- OR -
In Windows 2000, click **Start**, **Settings**, **Control Panel**, then double-click the **Add or Remove Programs** icon.
- 3 In the *Currently Installed Programs* list, click the program you want to uninstall, then click **Change/Remove** and follow the on-screen instructions.
- 4 Insert the program CD into the CD or DVD drive.
- 5 Complete the program reinstallation by following the instructions included with the program CD.



Reinstalling Windows

If your computer is not working correctly, try the following options to correct the problem:

- Troubleshooting. For more information, see [“Troubleshooting” on page 159](#).
- Reinstalling device drivers. For more information, see [“Reinstalling device drivers” on page 89](#).

If the options above do not correct the problem, you can use the *Restoration CDs* to reinstall Windows and other software.

The *Restoration CDs* step you through reinstalling Windows XP or Windows 2000. If you are reinstalling Windows XP or Windows 2000, the *Restoration CDs* automatically reinstall the hardware device drivers and some programs as well. You can install any remaining programs by using the program CDs that came with your computer. To reinstall your programs, follow the instructions in [“Reinstalling programs” on page 92](#).

Important



If you are prompted for your Windows product key when you reinstall Windows, you can find the key on the *Microsoft Certificate of Authenticity* label located on the back or side of your computer case. For more information, see [“Microsoft Certificate of Authenticity” on page 15](#).



To reinstall Windows XP or Windows 2000, and the device drivers:

Caution



Back up your personal files before you use this option.

All files on your computer will be deleted!

- 1 Insert the red *Drivers* CD into the CD or DVD drive.
- 2 Restart your computer.
- 3 Select **2. Boot from CD-ROM**.
- 4 Select a language option.
- 5 Select **1. Delete all files (Automated Fdisk/Format)**.

- 6 Select **1. Continue deleting all files and restart.**
- 7 When prompted, press any key to continue.
- 8 Select **2. Boot from CD-ROM.**
- 9 Select a language option.
- 10 Select **2. Automated installation of Windows (XP or 2000).**
- 11 If your computer does not have any special hard drive (HDD) controllers, such as a RAID 0 controller, select **1. Normal installation of Windows (XP or 2000).**

- OR -

If your computer has special hard drive (HDD) controllers, such as a RAID 0 controller, select **2. Installation of Windows w/ special Hard Disk Drive (HDD) controller drivers.**
- 12 When prompted, remove the red CD and insert the blue *Operating System* CD into the CD or DVD drive, then press any key to continue.
- 13 When prompted, accept the *License Agreement* by pressing Y.
- 14 Wait while the setup program copies files to your hard drive. **When your computer restarts, do NOT press any key to boot from CD.**
- 15 Follow the on-screen instructions to set your **Regional and Language Options.**
- 16 If you are prompted to select your Gateway computer type, click **E-Series / Business Use**, then click **Continue.**
- 17 When prompted, insert the red *Drivers* CD, then click **OK.**
- 18 When prompted, insert the yellow *Applications* CD(s), then click **Continue.** The Gateway Application Loader automatically installs your drivers and programs. Your computer restarts several times during this process. Do **not** press any keys or buttons during this process unless prompted to do so.
- 19 When the Gateway Application Loader has finished, click **Close.**
- 20 Install additional programs by following the instructions in [“Reinstalling programs” on page 92.](#)





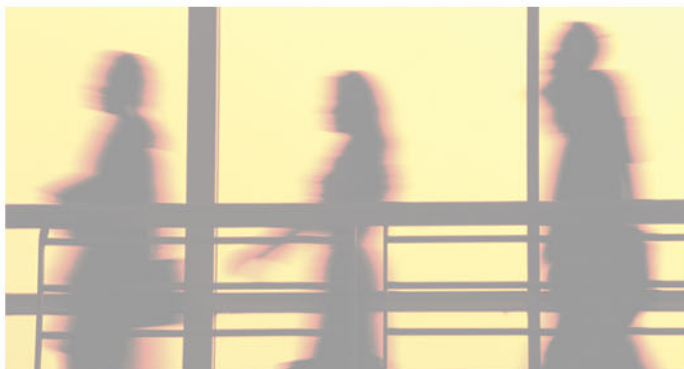
Upgrading Your Computer

7

This chapter provides information about upgrading and replacing components in your computer. Read this chapter to learn how to:

- Identify your case style
- Open the computer case
- Remove and install drives and components
- Remove and install add-in cards
- Remove and install system boards
- Add memory
- Change the battery

You must open the computer case to upgrade or replace components. If you are not comfortable with these procedures, get help from a more experienced computer user or computer service technician.



Tips & Tricks



When cleaning the case, do not use abrasive or solvent cleaners because they can damage the finish. Use soap and water or a dilution of water and isopropyl alcohol. For more information, see [“Cleaning your computer” on page 74](#).

Selecting a place to work

Work on your computer in an area that:

- Is clean (avoid dusty areas)
- Is a low-static environment (avoid carpeted areas)
- Has a stable surface on which to set your computer
- Has enough room to place all the computer parts
- Is near a grounded outlet so you can test your computer after installation
- Is near a telephone (in case you need help from Gateway Technical Support). The telephone must be directly connected to a telephone jack and cannot be connected to your computer

Gathering the tools you need

Some tools and supplies that you may need to work on your computer are:

- A Phillips screwdriver
- A flat-head screwdriver
- A notebook to take notes
- Small containers to store various types of screws
- A grounding wrist strap (available at most electronic stores)

Preventing static electricity discharge

The components inside your computer are extremely sensitive to static electricity, also known as *electrostatic discharge* (ESD).

Warning



ESD can permanently damage electrostatic discharge-sensitive components in your computer. Prevent ESD damage by following ESD guidelines every time you open the computer case.

Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer and unplug the power cord and modem and network cables before opening the case.

Before opening the computer case, follow these guidelines:

- Turn off your computer.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your computer.

Warning



To prevent risk of electric shock, do not insert any object into the vent holes of the power supply.

- Touch a bare metal surface on the back of the computer.
- Unplug the power cord and the modem and network cables.

Before working with computer components, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold expansion cards by their edges or their metal mounting brackets. Avoid touching the edge connectors and components on the cards. Never slide expansion cards or components over any surface.

Identifying your computer case style

Use the following descriptions to identify your computer case style.

Gateway Mid Tower



The Gateway Mid Tower case has an access door on the front that covers the drive bays and other components.

For information on the Gateway Mid Tower case, see [“Gateway Mid Tower Case”](#) on page 101.

Gateway Micro Tower



The Gateway Micro Tower has a rotating base and does not have an access door.

For information on the Gateway Micro Tower case, see [“Gateway Micro Tower Case”](#) on page 124.

Gateway Mid Tower Case

The Gateway Mid Tower case provides toolless access to internal components.

Tips & Tricks



When cleaning the case, do not use abrasive or solvent cleaners because they can damage the finish. Use soap and water or a dilution of 80% water and 20% isopropyl alcohol. For more information, see [“Cleaning your computer”](#) on page 74.

Opening the case

Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer, then unplug the power cord and modem cable before opening the case.

To open the computer case:

- 1 Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2 Follow the instructions in [“Preventing static electricity discharge”](#) on page 99.
- 3 Shut down your computer, then disconnect the power cord and modem, network, and all peripheral device cables.
- 4 Press the power button to drain any residual power from your computer.
- 5 If your case cover has a case cover shipping screw installed on the back of the case, remove the screw. For information about the location of the screw, see [“Gateway Mid Tower Back”](#) on page 5.

- 6 Push in on the cover release handle.



- 7 Pull the side panel away from the case.



Closing the case

▶ **To close the computer case:**

- 1 Make sure that all of the internal cables are arranged inside the case so they will not be pinched when you close the case.
- 2 Align the door tabs into the case notches.



- 3 Swing the side panel toward the case until the release handle locks.



- 4 If you removed a case cover shipping screw, replace the screw.
- 5 Reconnect the cables and power cord.



Adding or replacing a CD, DVD, or diskette drive

Use these instructions to add or replace 5.25-inch drives, such as CD or DVD drives, and 3.5-inch drives, such as diskette drives.

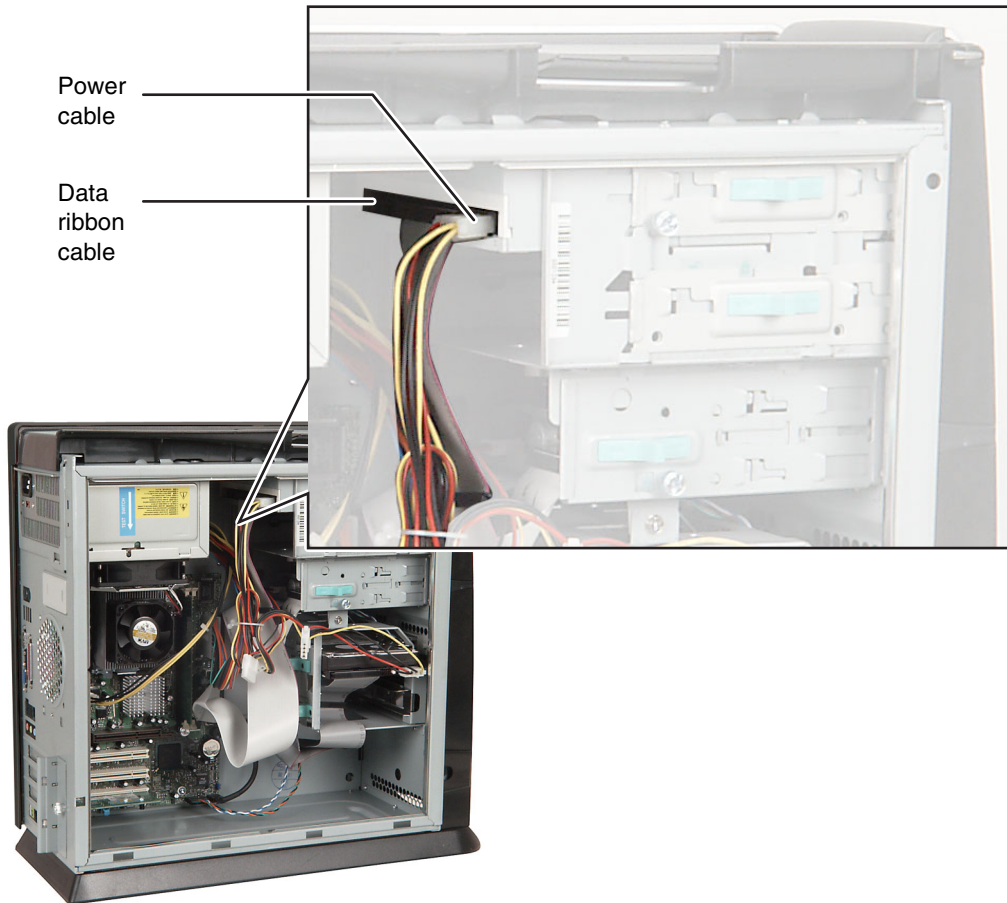
▶ To add or replace a CD, DVD, or diskette drive:

- 1 Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2 Open the case by following the instructions in [“Opening the case”](#) on page 101.

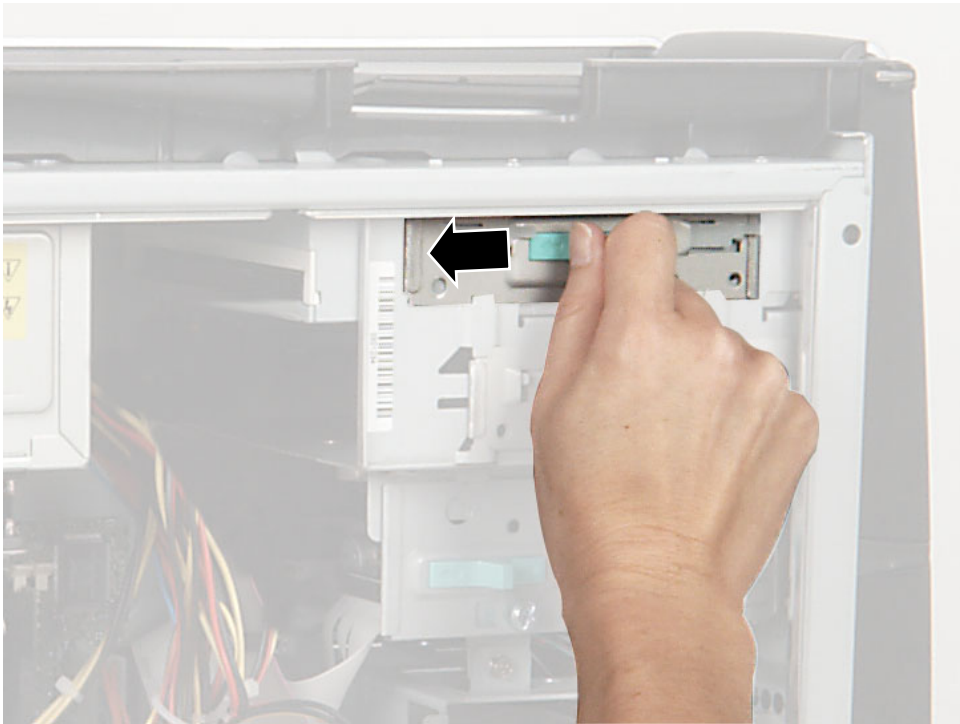
3 If you are adding a drive, locate an empty drive bay.

- OR -

If you are replacing a drive, disconnect the drive cables, noting their locations and orientation. (You will reconnect the cables after you install the new drive.) See the drive documentation for further instructions.



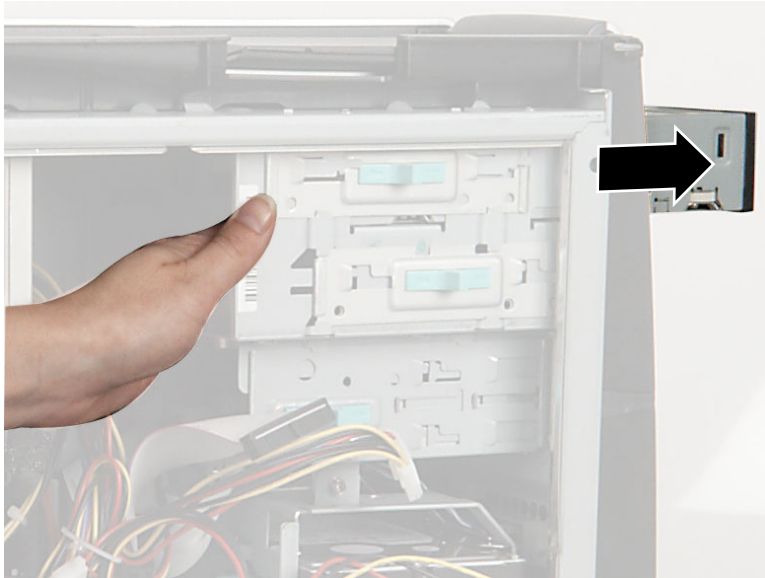
- 4 If there is a shipping screw installed next to the release lever, remove the screw, then slide the release lever toward the rear of the case.



- 5 If you are replacing a drive, slide the old drive forward and out of the drive bay.

- OR -

If you are adding a new drive, slide the drive bay cover forward and out of the drive bay.



- 6 If you are replacing a drive, set any jumpers on the new drive to match the old drive. See the drive documentation for further instructions.
- 7 Slide the new drive into the drive bay until it settles into the indentation and is flush with the front of the computer case, then slide the release lever toward the front of the case.
- 8 Reconnect the drive cables using your notes from Step 3. The red-striped edge of the data ribbon cable indicates Pin 1 and corresponds with Pin 1 on the drive (typically on the side closest to the power supply connection). See the drive documentation for further instructions.
- 9 Close the case by following the instructions in [“Closing the case” on page 104](#).

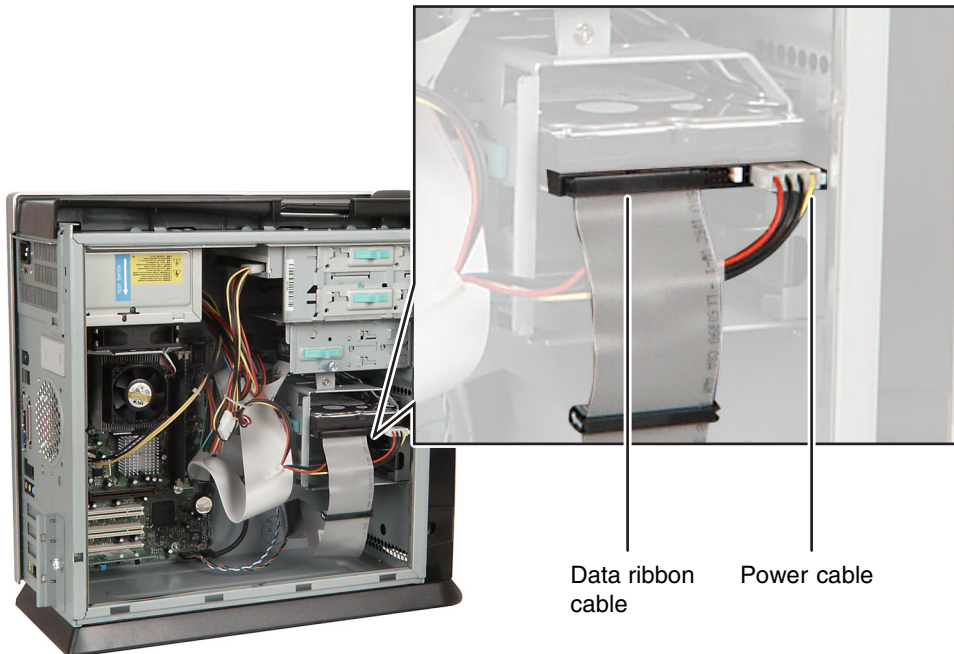


Adding or replacing a hard drive

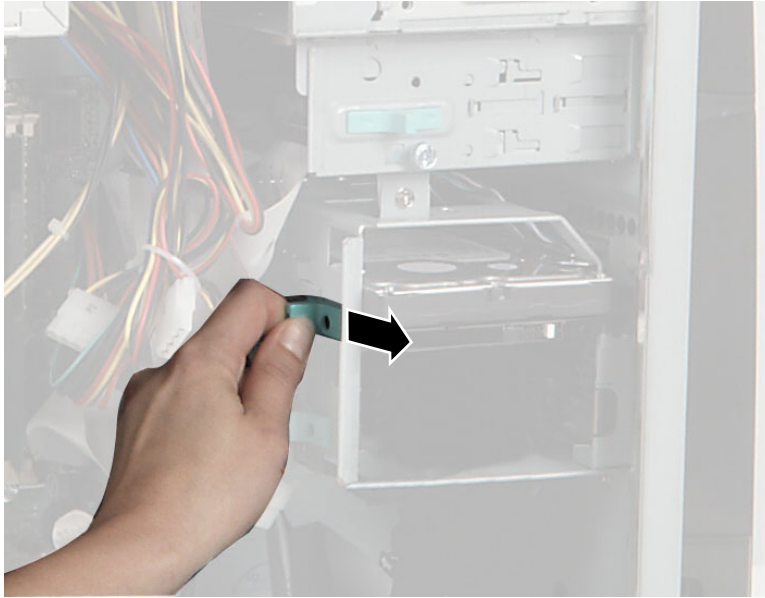
Use these instructions to add or replace hard drives.

▶ To replace a hard drive:

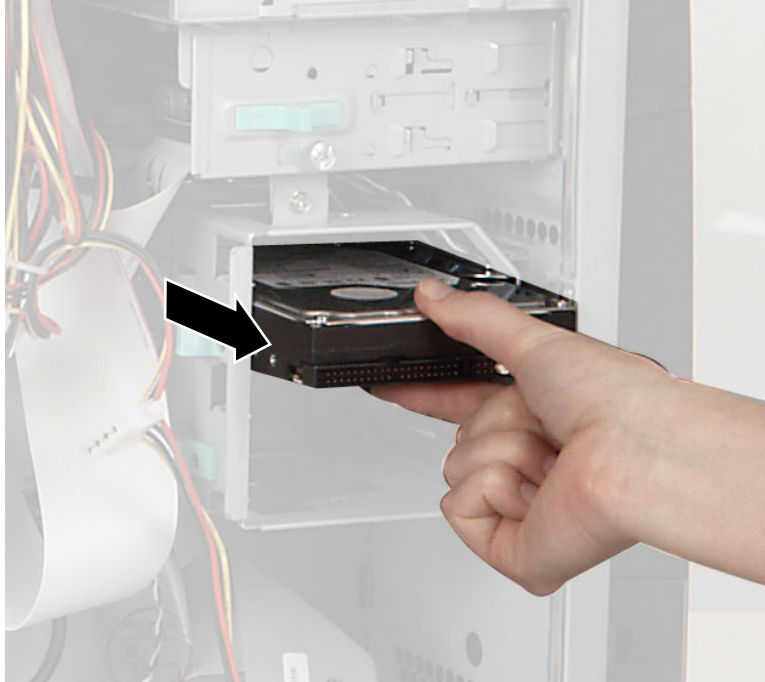
- 1 Identify your computer case style. For more information, see [“Identifying your computer case style” on page 100](#).
- 2 Open the case by following the instructions in [“Opening the case” on page 101](#).
- 3 Disconnect the drive cables, noting their locations and orientation. (You will reconnect the cables after you install the new drive.) See the drive documentation for further instructions.



- 4 Slide the release lever toward the open side of the case.



- 5 Slide the drive out of the drive bay.



- 6 Set any jumpers on the new drive to match the old drive. See the drive documentation for further instructions.
- 7 Slide the new drive in, then slide the release lever toward the inside of the case.
- 8 Reconnect the drive cables using your notes from Step 3. The red-striped edge of the data ribbon cable indicates Pin 1 and corresponds with Pin 1 on the drive (typically on the side closest to the power supply connection). See the drive documentation for further instructions.
- 9 Close the case by following the instructions in [“Closing the case” on page 104](#).

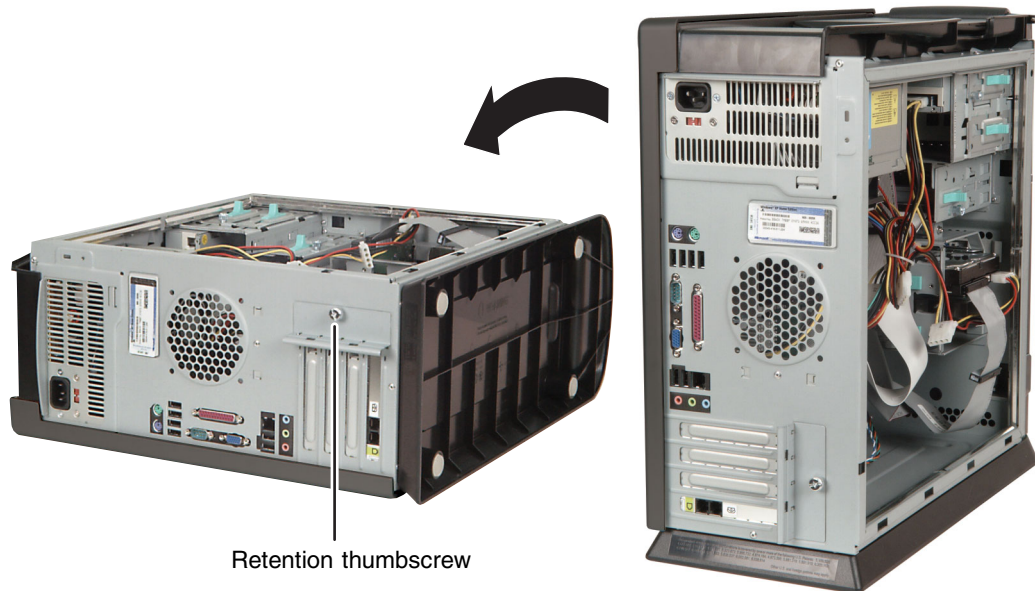


Adding or replacing add-in cards

An add-in card is a card used in the computer to add functionality to the system. Use the following instructions to replace, add, or reseat an add-in card.

▶ To replace, add, or reseat an add-in card:

- 1** Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2** Open the case by following the instructions in [“Opening the case”](#) on page 101.
- 3** For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.

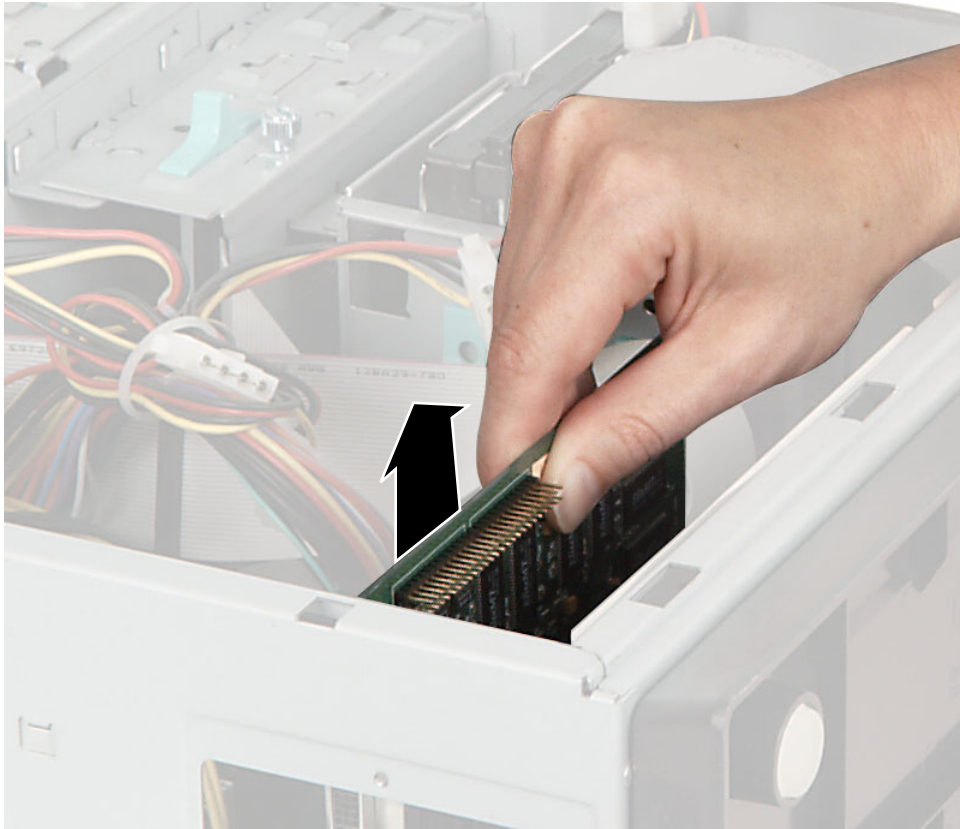


- 4** Disconnect any cables that are attached to the card, noting their locations and orientation. (You will reconnect the cables after you install the new card.) See the add-in card documentation for further instructions.

- 5 Remove the retention thumbscrew that secures the card retention cover to the case, then flip the add-in card retention cover open.



- 6 If you are replacing an add-in card, remove the old add-in card. You can slightly seesaw the card end-to-end to loosen the card, but do not bend the card sideways.



Warning



Do not touch the contacts on the bottom part of the add-in card. Touching the contacts can cause electrostatic damage to the card.

- 7** Install the new card into the add-in slot.
You can slightly seesaw the card end-to-end to help insert the card, but do not bend the card sideways.
- 8** Push the add-in card retention cover inward, then secure the add-in card retention cover with the retention thumbscrew.
- 9** If you disconnected any cables, reconnect the add-in card cables using your notes from Step 4. See the add-in card documentation for further instructions.
- 10** Close the case by following the instructions in [“Closing the case” on page 104](#).
- 11** See the documentation that came with the add-in card for any special software installation instructions.



Replacing the power supply



To replace the power supply:

- 1** Identify your computer case style. For more information, see [“Identifying your computer case style” on page 100](#).
- 2** Open the case by following the instructions in [“Opening the case” on page 101](#).

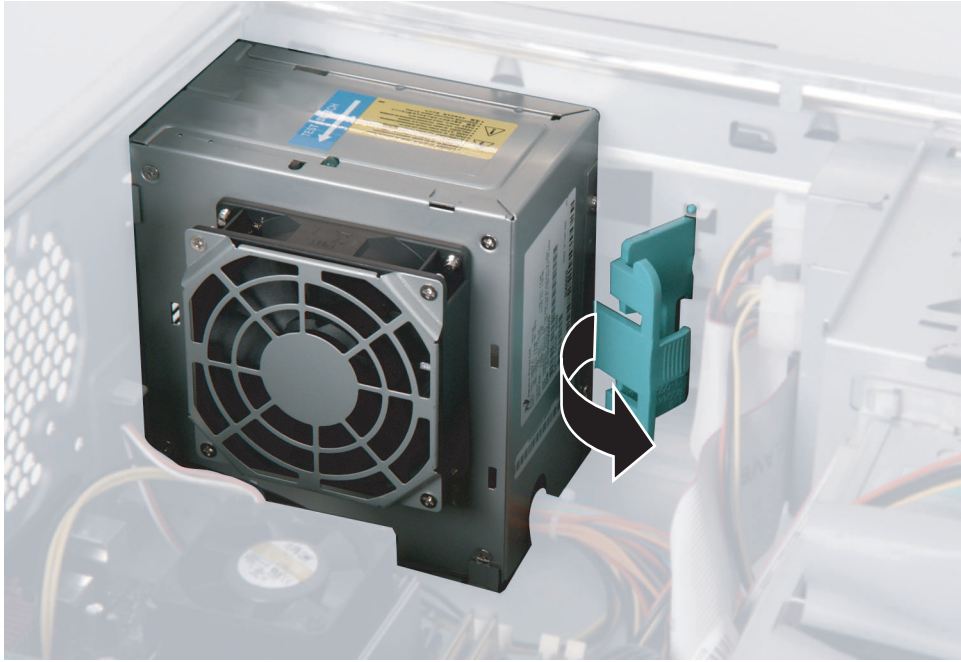
- 3 For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.



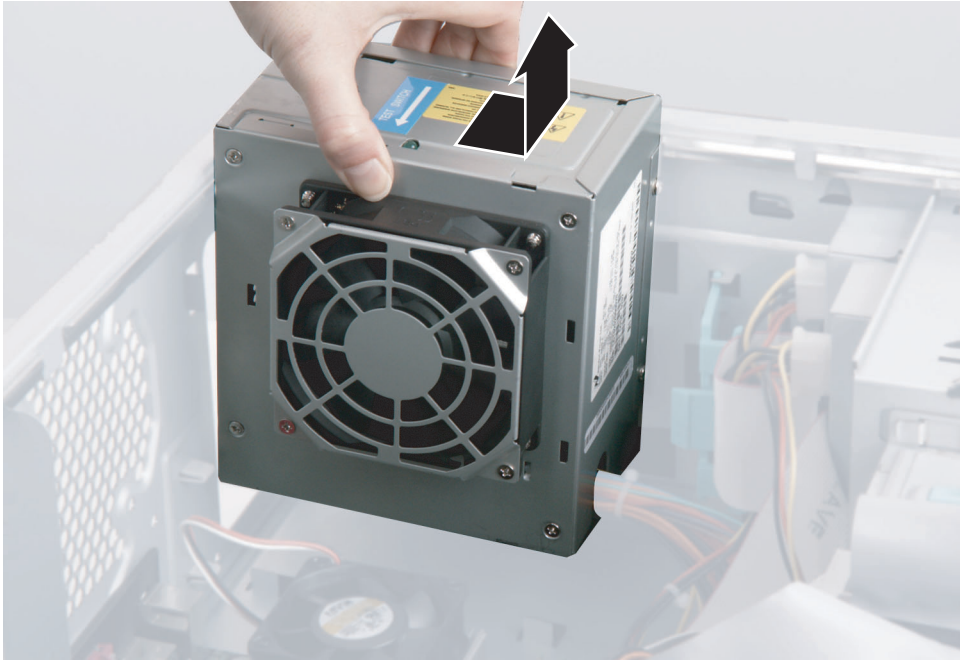
- 4 Disconnect the power supply cables from all components (such as, hard drives, CD/DVD/Recordable drives, and the system board), noting their locations and orientation. (You will reconnect the cables after you install the new power supply.)



- 5 Flip the power supply retention clip out.



- 6 Slide the power supply toward the front of the case, then up.



- 7 Install the new power supply into the case, then flip the power supply retention clip in until it locks into place.
- 8 Reconnect the power supply cables using your notes from Step 4. See the power supply documentation for further instructions.
- 9 Close the case by following the instructions in [“Closing the case” on page 104](#).



Replacing the system board

To replace the system board:

- 1 Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2 Open the case by following the instructions in [“Opening the case”](#) on page 101.
- 3 For more stability, place your computer on its side. To avoid scratching the case, place it on a towel or other non-abrasive surface.

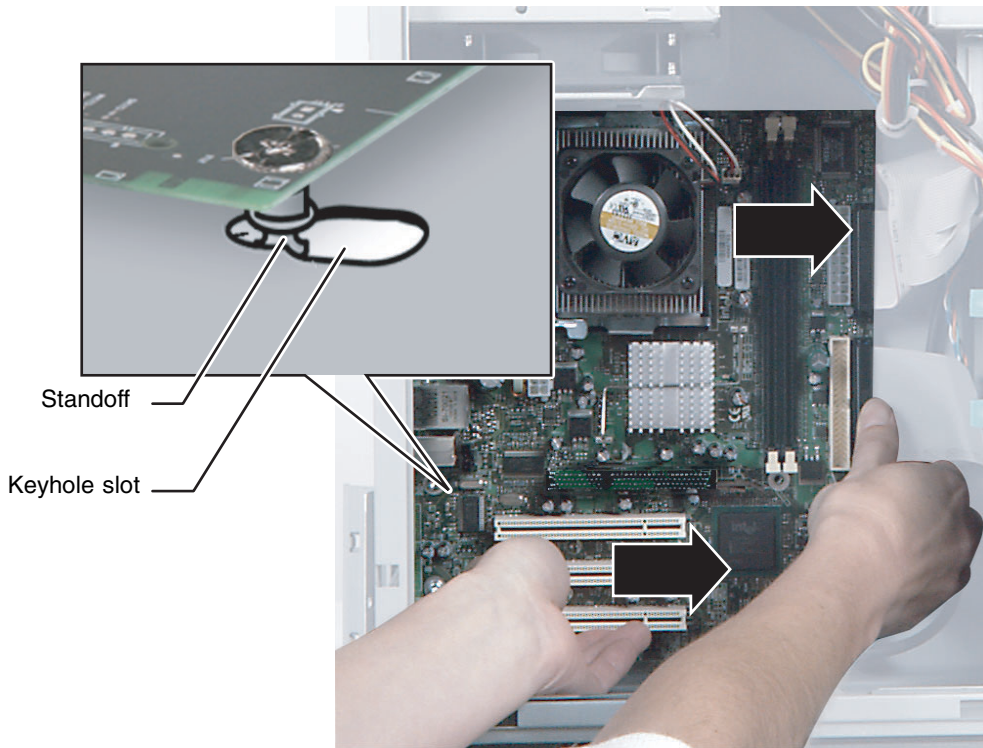


- 4 Remove all of the add-in cards by following the instructions in [“Adding or replacing add-in cards”](#) on page 112.
- 5 Disconnect the power and data cables from the system board, noting their locations and orientation. (You will reconnect the cables after you install the new board.)

- 6 Remove the thumbscrew using a screwdriver, coin, or your fingers.



- 7 Slide the system board toward the front of the case, then up and out of the case. The system board standoffs slide out of the keyhole slots.



- 8 Slide the new system board into the keyhole slots and lock it into place with the thumbscrew.

Important



The new system board must have special standoffs (*pem studs*) mounted on the bottom of the board. If necessary, use the standoffs from the original system board.

- 9** Reconnect the power and data cables using your notes from Step 5. See the system board documentation for further instructions.
- 10** Reinstall the add-in cards by following the instructions in [“Adding or replacing add-in cards” on page 112.](#)
- 11** Close the case by following the instructions in [“Closing the case” on page 104.](#)



Gateway Micro Tower Case

The Gateway Micro Tower case provides toolless access to internal components.

Tips & Tricks



When cleaning the case, do not use abrasive or solvent cleaners because they can damage the finish. Use soap and water or a dilution of 80% water and 20% isopropyl alcohol. For more information, see [“Cleaning your computer”](#) on page 74.

Opening the case

Warning



To avoid exposure to dangerous electrical voltages and moving parts, turn off your computer, then unplug the power cord and modem cable before opening the case.

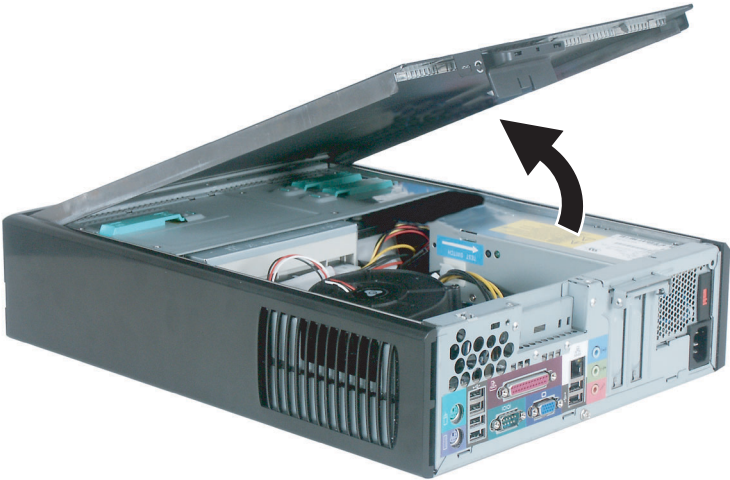
To open the Gateway Micro Tower case:

- 1** Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2** Follow the instructions in [“Preventing static electricity discharge”](#) on page 99.
- 3** Shut down your computer, then disconnect the power cord and modem, network, and all peripheral device cables.
- 4** Press the power button to drain any residual power from your computer.
- 5** If your case cover has a case cover shipping screw installed on the back of the case, remove the screw. For information about the location of the screw, see [“Gateway Micro Tower Back”](#) on page 10.
- 6** For more stability, place your computer on its side with the rubber feet resting on your workspace.

7 Pull up on the cover release handle.



8 Lift the side panel up.



- 9 Lift the side panel away from the case.



Closing the case

To close the Gateway Micro Tower case:

- 1** Make sure that all of the internal cables are arranged inside the case so they will not be pinched when you close the case.
- 2** Align the door tabs into the case notches.



- 3** Swing the side panel toward the case until the release handle locks.
- 4** If you removed the case cover shipping screw, replace the screw.
- 5** Reconnect the cables and power cord.



Adding or replacing a CD, DVD, or diskette drive

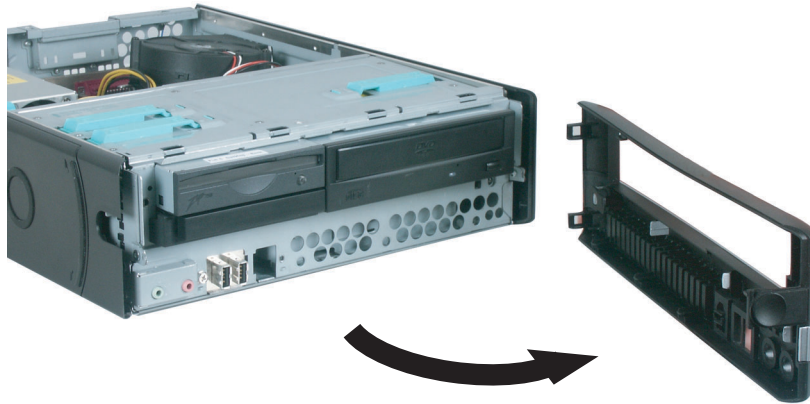
Use these instructions to add or replace 5.25-inch drives, such as CD or DVD drives, and 3.5-inch drives, such as diskette drives.

To add or replace a CD, DVD, or diskette drive:

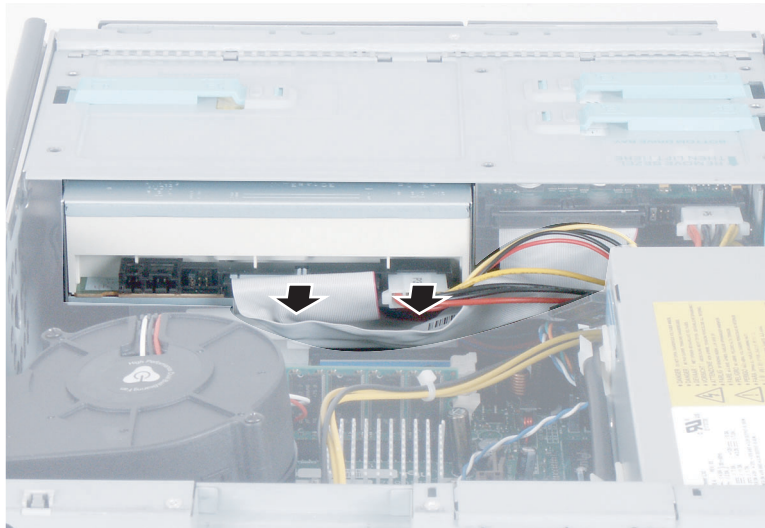
- 1 Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2 Open the case by following the instructions in [“Opening the case”](#) on page 124.
- 3 Push in on the bezel release tab.



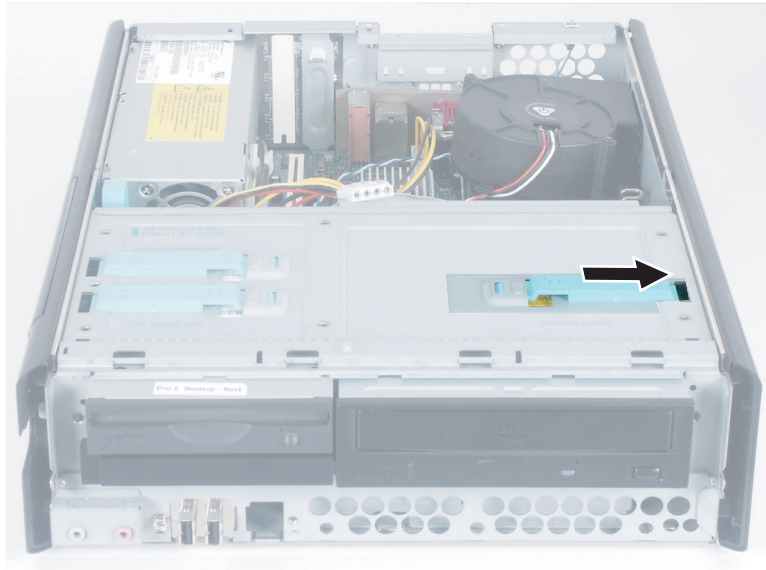
- 4 While pushing in on the bezel release tab (see Step 3), pull the left side of the bezel forward until the bezel release tab unlocks from the case, then swing the front bezel outward and to the right until the right-side bezel tabs unhook from the computer case.



- 5 If you are replacing a drive disconnect the drive cables, noting their locations and orientation. (You will reconnect the cables after you install the new drive.) See the drive documentation for further instructions.



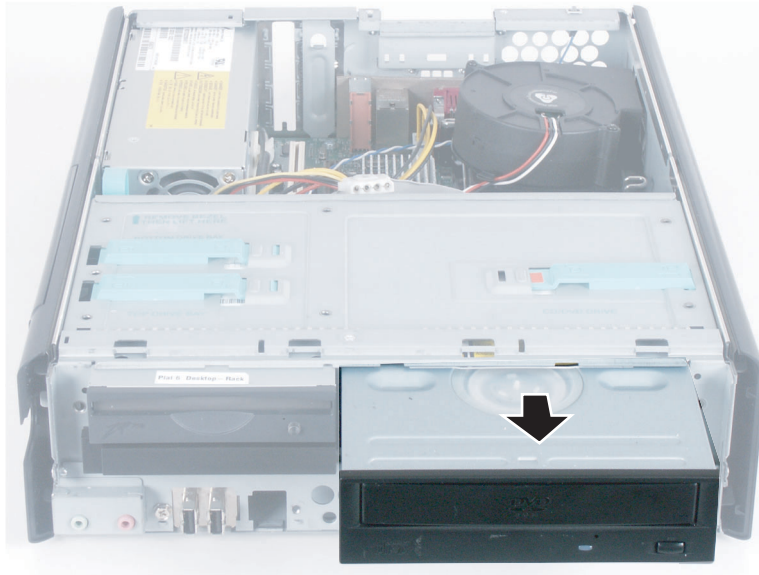
6 Unlock the release lever.



- 7** If you are replacing a drive, slide the old drive forward and out of the drive bay.

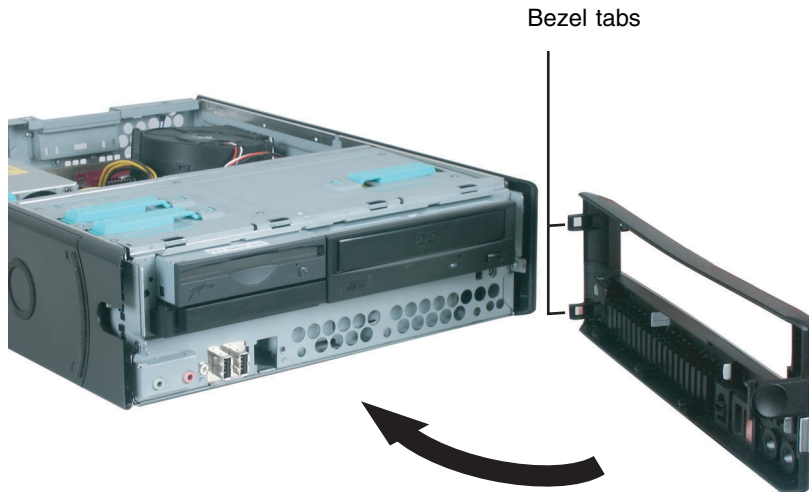
- OR -

If you are adding a new drive, slide the drive bay cover forward and out of the drive bay.



- 8** If you are replacing a drive, set any jumpers on the new drive to match the old drive. See the drive documentation for further instructions.
- 9** Slide the new drive into the drive bay until it settles into the indentation, then slide the release lever toward the front of the case.
- 10** Reconnect the drive cables using your notes from Step 5. The red-striped edge of the data ribbon cable indicates Pin 1 and corresponds with Pin 1 on the drive (typically on the side farthest from the power supply connection). See the drive documentation for further instructions.

- 11 Insert the right-side bezel tabs into the slots on the right side of the computer case, then swing the left side of the bezel in, towards the case, until the left-side bezel release tab locks into place.



- 12 Close the case by following the instructions in [“Closing the case”](#) on page 127.

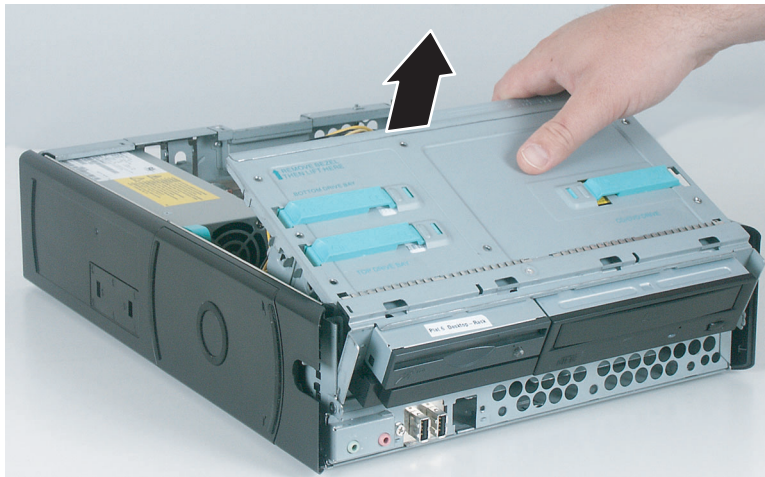


Replacing the hard drive

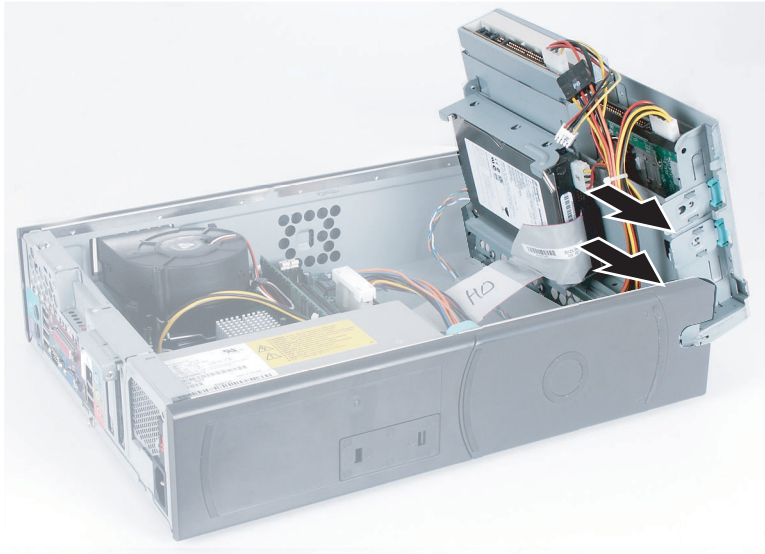
Use these instructions to replace the hard drive.

▶ To replace a hard drive:

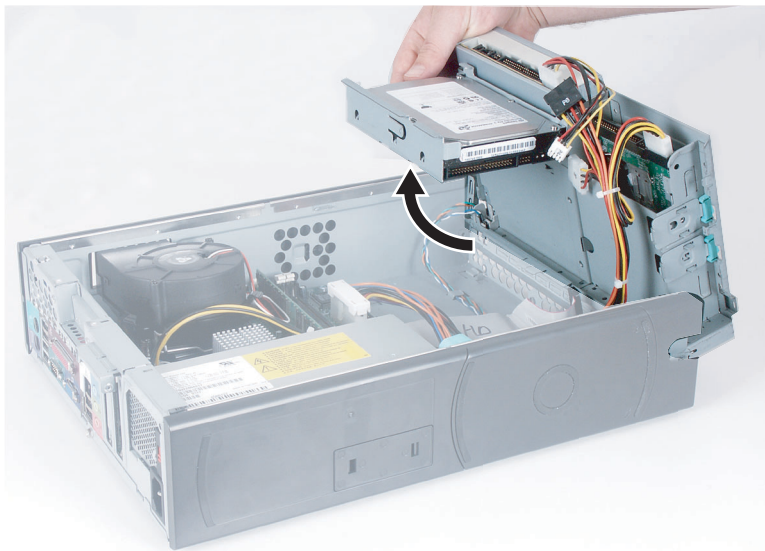
- 1** Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2** Open the case by following the instructions in [“Opening the case”](#) on page 124.
- 3** Remove the front bezel by following the instructions in [“Adding or replacing a CD, DVD, or diskette drive”](#) on page 128.
- 4** Lift up on the drive cage assembly.



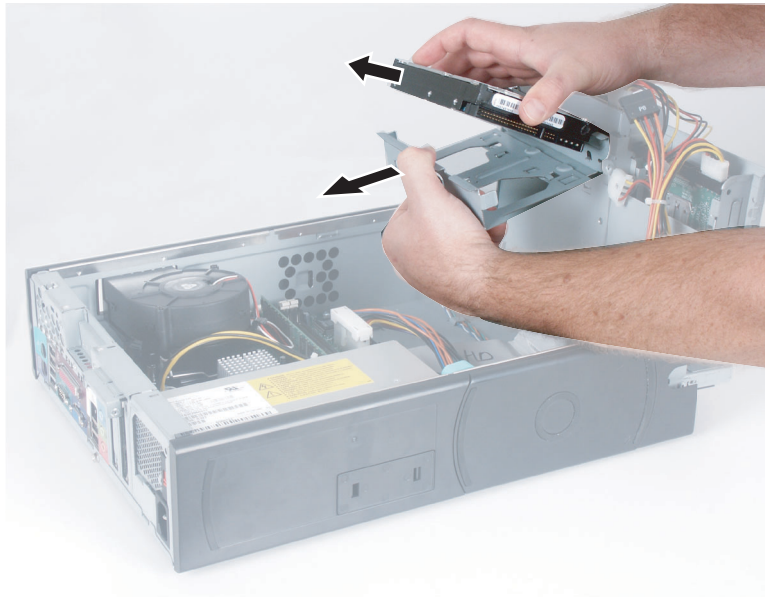
- 5 If you are replacing a drive, disconnect the drive cables, noting their locations and orientation. (You will reconnect the cables after you install the new drive.) See the drive documentation for further instructions.



- 6 Pivot the hard drive cage away from the drive cage assembly.



- 7 While pulling outward on the hard drive bracket, lift the old hard drive out of the hard drive cage.



- 8 Set any jumpers on the new drive to match the old drive. See the drive documentation for further instructions.
- 9 While pulling outward on the hard drive bracket, insert the edge of the new hard drive into the drive bracket, pivot the new drive into the bracket, then pivot the hard drive cage toward the drive cage assembly.
- 10 Reconnect the drive cables using your notes from Step 5. The red-striped edge of the data ribbon cable indicates Pin 1 and corresponds with Pin 1 on the drive (typically on the side farthest from the power supply connection). See the drive documentation for further instructions.
- 11 Close the case by following the instructions in [“Closing the case” on page 127](#).

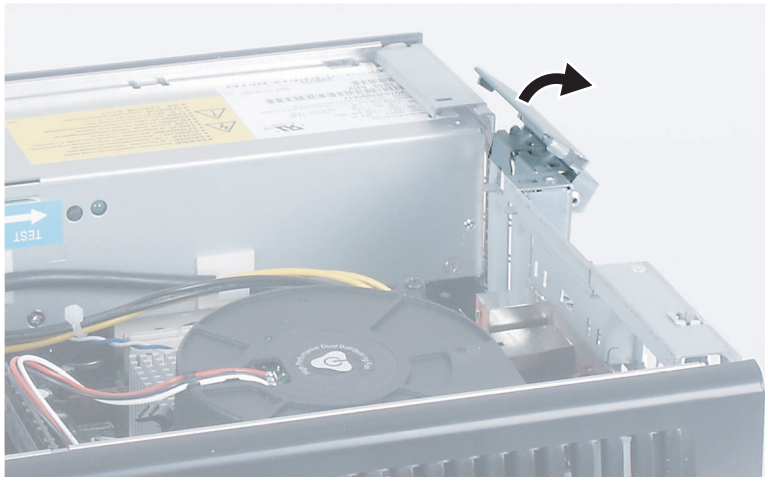


Adding or replacing add-in cards

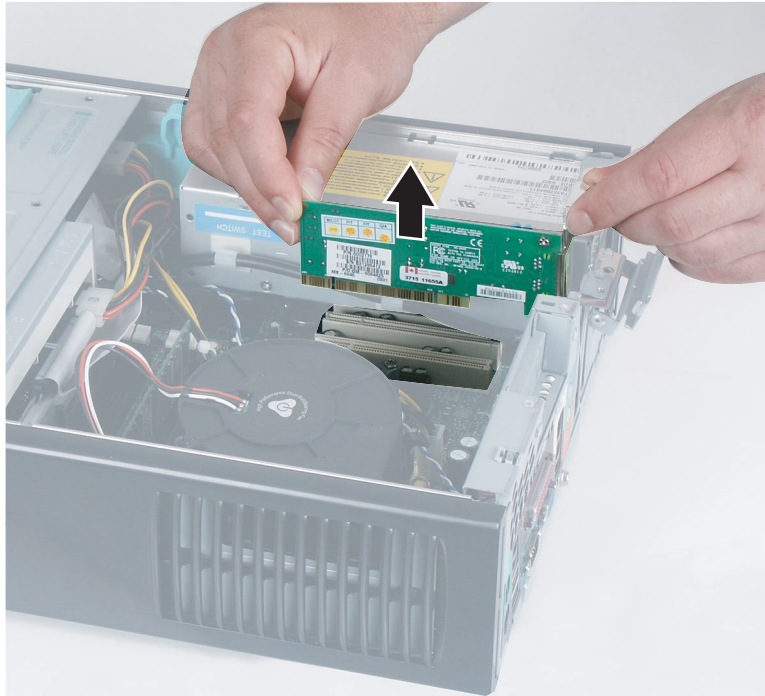
An add-in card is a card used in the computer to add functionality to the system. Use the following instructions to replace, add, or reseat an add-in card.

To replace, add, or reseat an add-in card:

- 1 Identify your computer case style. For more information, see [“Identifying your computer case style” on page 100](#).
- 2 Open the case by following the instructions in [“Opening the case” on page 124](#).
- 3 Disconnect any cables that are attached to the card, noting their locations and orientation. (You will reconnect the cables after you install the new card.) See the add-in card documentation for further instructions.
- 4 Swing the add-in card retention cover open.



- 5 If you are replacing an add-in card, remove the old add-in card. You can slightly seesaw the card end-to-end to loosen the card, but do not bend the card sideways.



Warning



Do not touch the contacts on the bottom part of the add-in card. Touching the contacts can cause electrostatic damage to the card.

- 6 Install the new card into the add-in slot.

You can slightly seesaw the card end-to-end to help insert the card, but do not bend the card sideways.

- 7 Push the add-in card retention cover inward.

- 8 If you disconnected any cables, reconnect the add-in card cables using your notes from Step 3. See the add-in card documentation for further instructions.

- 9 Close the case by following the instructions in [“Closing the case” on page 127](#).

- 10 See the documentation that came with the card for any special software installation instructions.

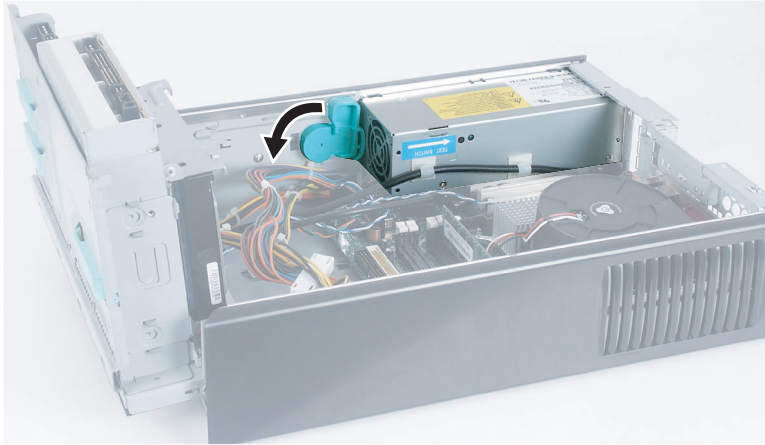


Replacing the power supply

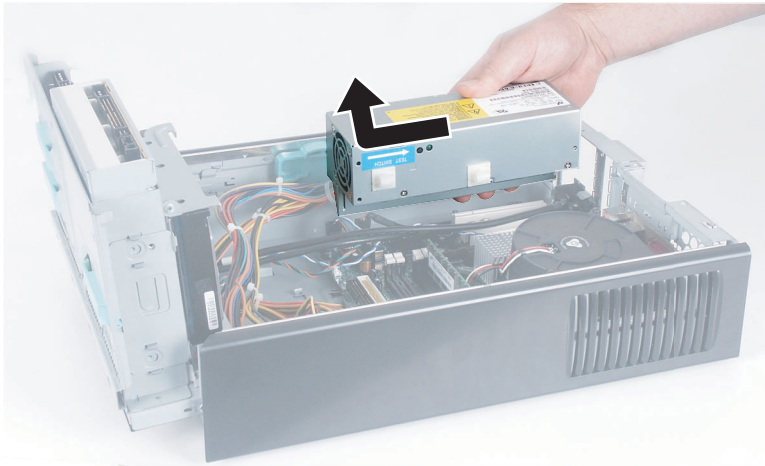
To replace a power supply:

- 1 Identify your computer case style. For more information, see [“Identifying your computer case style” on page 100](#).
- 2 Open the case by following the instructions in [“Opening the case” on page 124](#).
- 3 Remove the front bezel by following the instructions in [“Adding or replacing a CD, DVD, or diskette drive” on page 128](#).
- 4 Disconnect the power supply cables from all components (such as, hard drives, CD/DVD/Recordable drives, and the system board), noting their locations and orientation. (You will reconnect the cables after you install the new power supply.)

- 5 Rotate the power supply retention clip away from the power supply.



- 6 Slide the power supply toward the front of the case, then up.



- 7 Install the new power supply into the case, then rotate the power supply retention clip toward the power supply.

- 8 Reconnect the power supply cables using your notes from Step 4. See the power supply documentation for further instructions.
- 9 Close the case by following the instructions in [“Closing the case” on page 127](#).

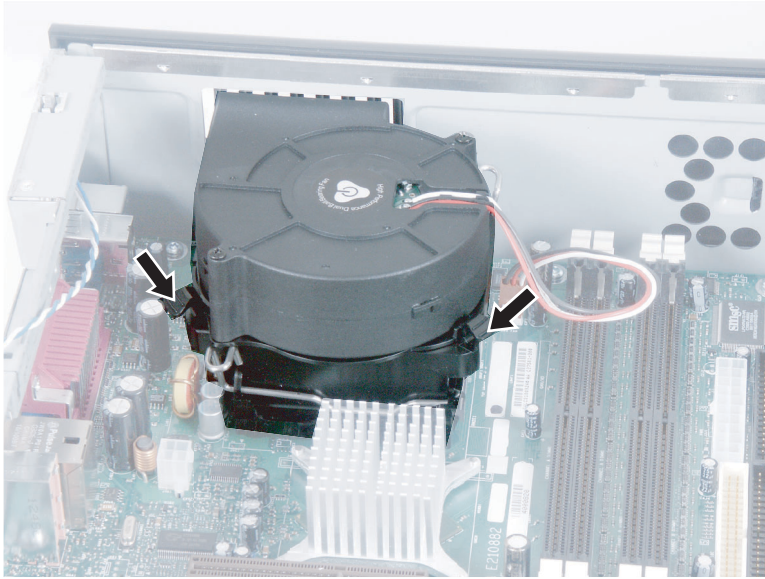


Replacing the system board

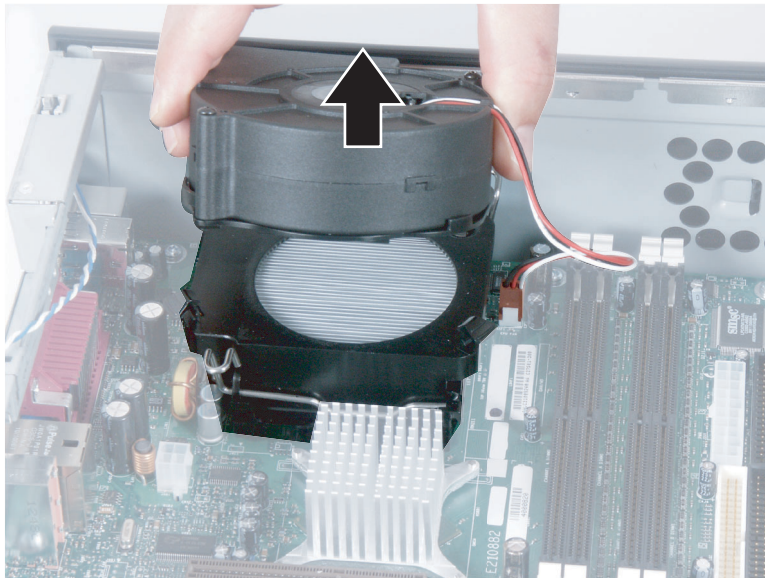
To replace the system board:

- 1 Identify your computer case style. For more information, see [“Identifying your computer case style” on page 100](#).
- 2 Open the case by following the instructions in [“Opening the case” on page 124](#).
- 3 Remove the front bezel by following the instructions in [“Adding or replacing a CD, DVD, or diskette drive” on page 128](#).
- 4 Remove all of the add-in cards by following the instructions in [“Adding or replacing add-in cards” on page 136](#).
- 5 Remove the power supply by following the instructions in [“Replacing the power supply” on page 138](#).

- 6 Press down on the two cooling fan release clips.

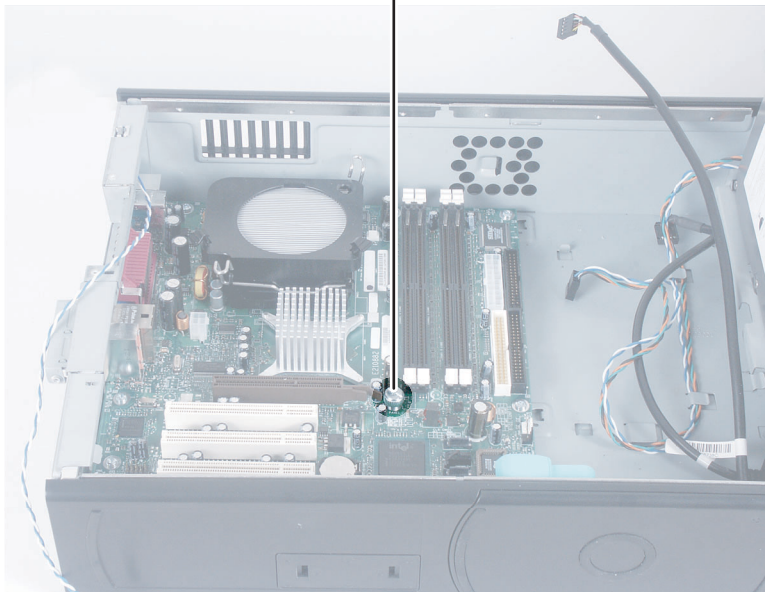


- 7 Lift up on the cooling fan, unplug the power cable from the system board, then remove the cooling fan.

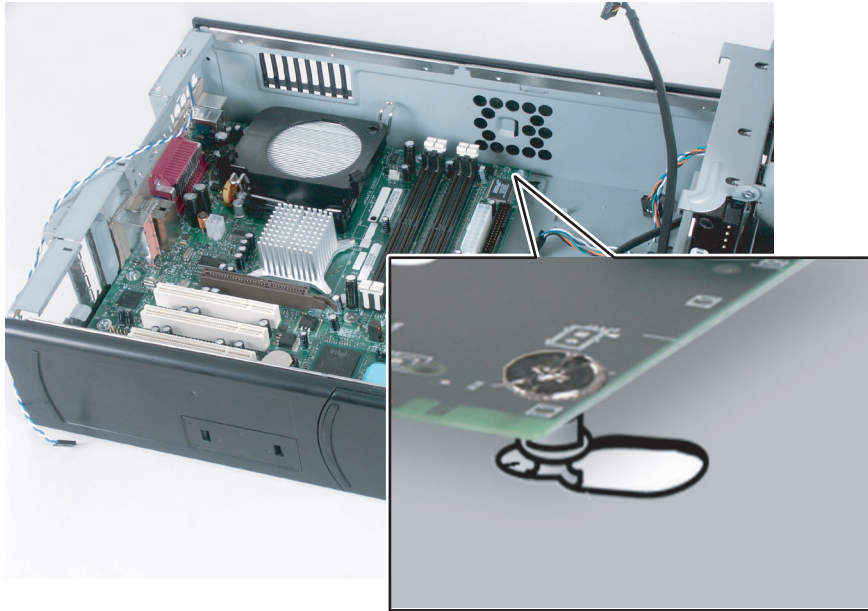


- 8 Remove the thumbscrew using a screwdriver, coin, or your fingers.

Thumbscrew
(approximate location)



- 9** Slide the system board toward the front of the case, then up and out of the case. The system board standoffs slide out of the keyhole slots.



- 10** Slide the new system board into the keyhole slots and lock it into place with the thumbscrew.

Important



The new system board must have special standoffs (*pem studs*) mounted on the bottom of the board. If necessary, use the standoffs from the original system board.

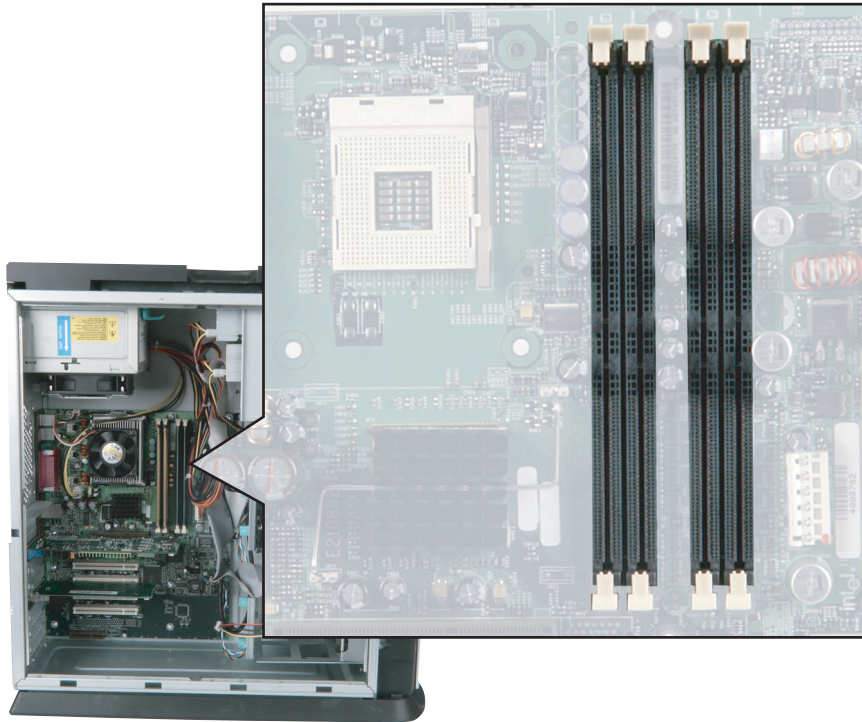
- 11** Reconnect the power and data cables using your notes from Step 4. See the system board documentation for further instructions.
- 12** Reinstall the add-in cards by following the instructions in [“Adding or replacing add-in cards” on page 136](#).
- 13** Close the case by following the instructions in [“Closing the case” on page 127](#).



Installing memory

When you upgrade the computer memory, make sure that you install the correct type of memory module for your computer. Your computer uses DIMM memory.

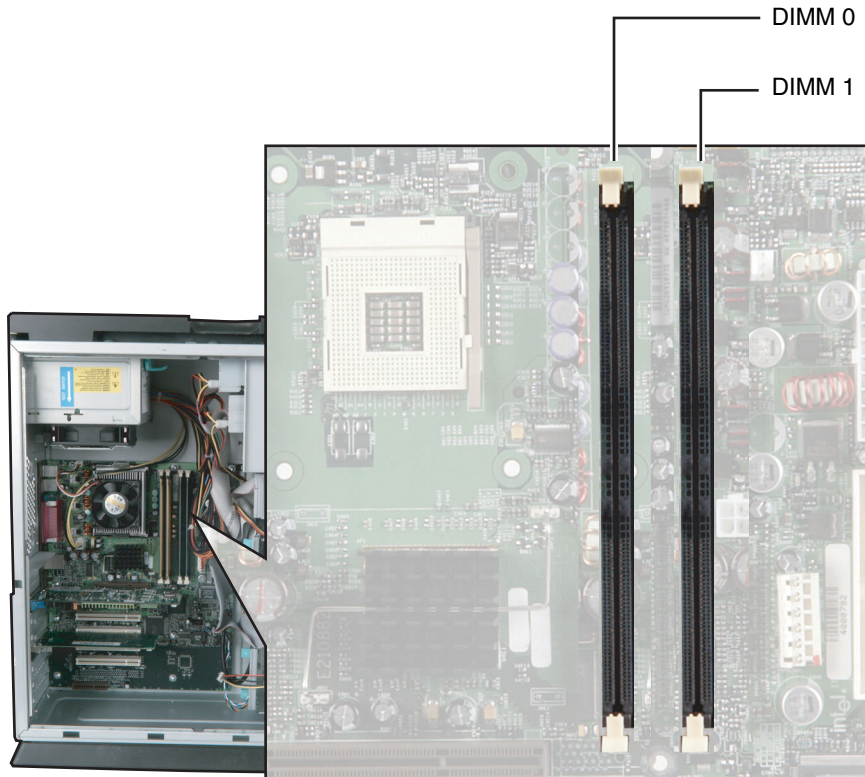
The following illustration shows the general location of the memory modules in the system board.



To install or replace DIMM memory:

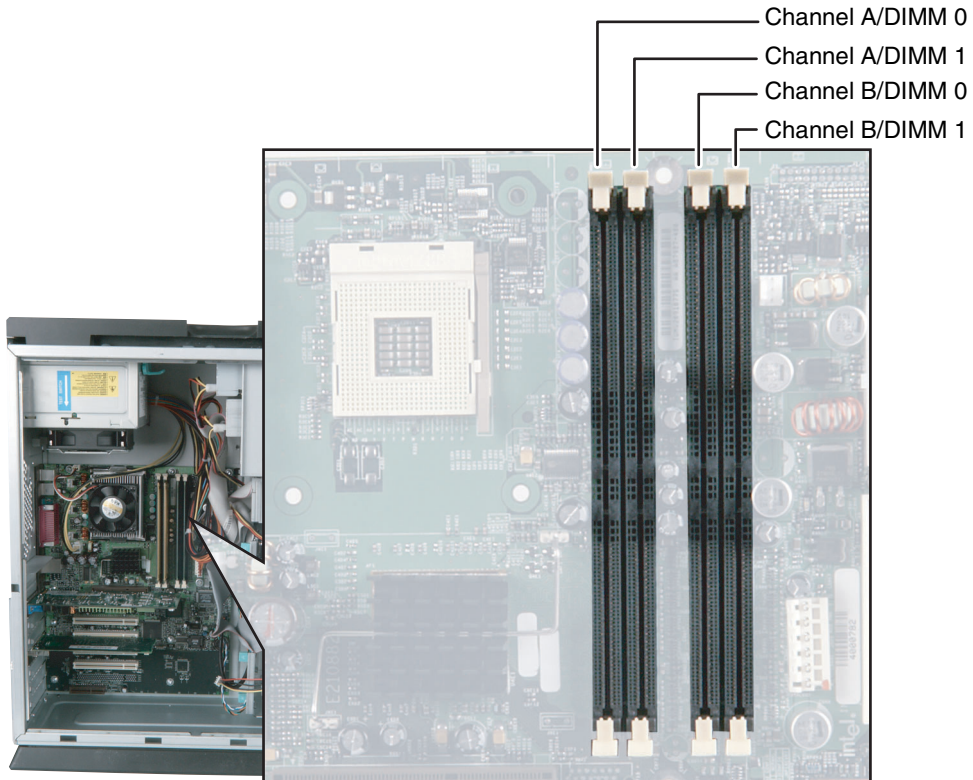
- 1 Identify your computer case style. For more information, see [“Identifying your computer case style”](#) on page 100.
- 2 Open the case by following the instructions for your case style.
- 3 Find the memory module banks on your system board.

- 4 If your system board has single-channel memory, fill the **DIMM 0** memory slot. When adding memory, fill the **DIMM 1** memory slot.

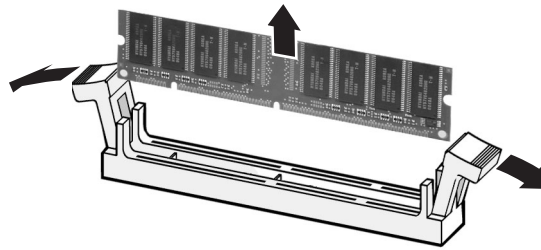


- OR -

If your system board has dual-channel memory, fill the **Channel A/DIMM 0** memory slot AND the **Channel B/DIMM 0** memory slot with *matching* DIMMs. Matching DIMMs are the same size, density, and technology. When adding memory, fill the **Channel A/DIMM 1** memory slot AND the **Channel B/DIMM 1** memory slot with *matching* DIMMs.



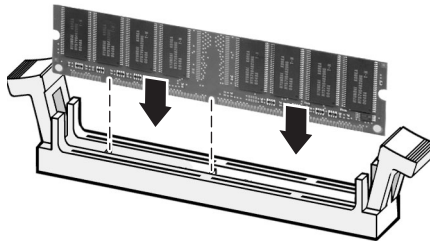
- 5 If you are removing a DIMM from the memory module bank, gently pull the plastic tabs away from the sides of the memory module and remove it.



- OR -

If you are adding a DIMM to an empty memory module bank, gently pull the plastic tabs away from the sides of the memory module bank.

- 6 Align the notches on the new DIMM with the notches on the memory module bank and press the module firmly into the bank. The tabs on the sides of the memory module should secure the memory module automatically. When the module is secure, you hear a click.



- 7 Close the case by following the instructions for your case style.
- 8 Reconnect the cables and the power cord.
- 9 Turn on your computer. Windows starts and the Windows desktop appears.
- 10 In Windows XP, click **Start**, **Control Panel**, then click **Performance and Maintenance** (if in Category view). Click/Double-click **System**. The amount of memory in your computer is shown at the bottom of the *System Properties* dialog box in the General tab.

- OR -

In Windows 2000, right-click the **My Computer** icon, then click **Properties**. The amount of memory in your computer is shown at the bottom of the *System Properties* dialog box in the General tab.



Replacing the system battery

If the computer clock does not keep time or the settings in the BIOS Setup utility are not saved when you turn off your computer, replace the system battery. Use a battery of the same size and voltage as the original battery that was in your computer.

Warning

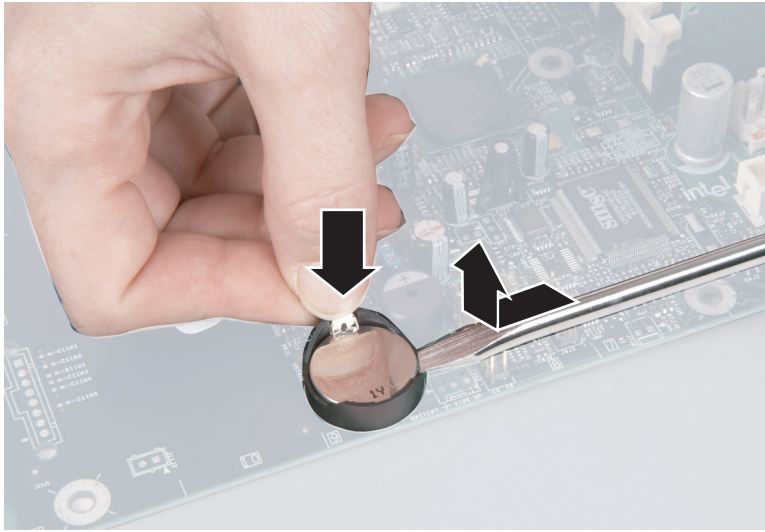
Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries following the manufacturer's instructions.

To replace the battery:

- 1** Open the BIOS Setup utility using the instructions in [“Using the BIOS Setup Utility” on page 151](#).
- 2** Write down all the values in the menus and submenus, then exit from the utility.
- 3** Shut down your computer.
- 4** Identify your computer case style. For more information, see [“Identifying your computer case style” on page 100](#).
- 5** Open the case by following the instructions for your case style.
- 6** Locate the old battery on the system board and note its orientation. You will need to install the new battery the same way.

- 7 While pushing down on the battery release tab, place the edge of a small flat-head screwdriver under the battery and lift the battery up until it pops out of the socket.



- 8 Make sure that the positive (+) side of the new battery is facing up, then press the battery into the socket until it snaps into place.
- 9 Close the case by following the instructions for your case style.
- 10 Reconnect all external cables and the power cord.
- 11 Turn on your computer.
- 12 Open the BIOS Setup utility.
- 13 In the BIOS Setup utility, restore any settings that you wrote down in [Step 2](#).
- 14 Save all your settings and exit the BIOS Setup utility.



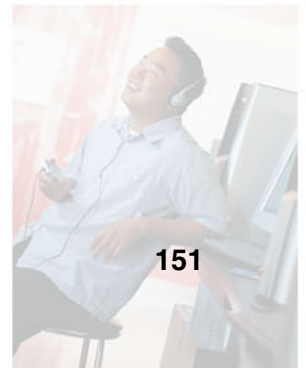
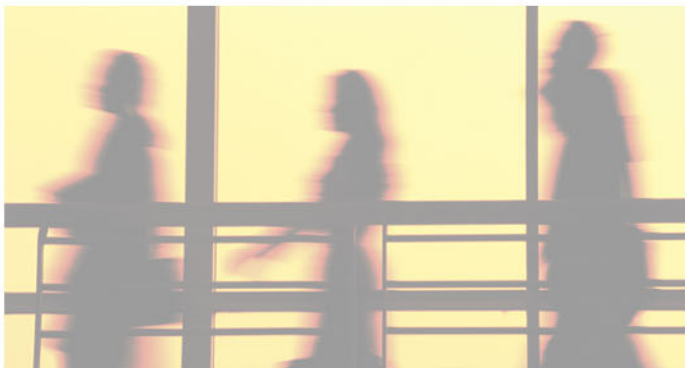


Using the BIOS Setup Utility

8

This chapter provides information about the BIOS Setup utility. Read this chapter to learn how to:

- Open the BIOS Setup utility
- Update the BIOS
- Set the BIOS configuration jumper



Opening the BIOS Setup utility

The BIOS Setup utility stores the basic settings for your computer. These settings include basic system hardware configuration, system resource settings, and password security. These settings are stored and saved even when the power is off.

Caution



The options in the BIOS Setup utility have been set at the factory for optimal performance. Changes to these settings will affect the performance of your computer.

Before changing any settings, write them down in case you need to restore them later.

▶ To open BIOS Setup utility:

- 1 Restart your computer.
- 2 While your computer is restarting, press and hold the **F1** key. The main menu of the BIOS Setup utility opens.



Important



Your computer starts very quickly. If your monitor requires time to warm up, you may not see the messages. If you are having problems, you may need to wait for the monitor to warm up, then restart your computer. If you are trying to enter the BIOS Setup utility, press **F1** before the monitor warms up.

The following illustration shows the main menu screen of a typical BIOS Setup utility. Your BIOS Setup utility may vary from the illustration below.

BIOS Setup Utility		
Main	Advanced	Security Power Boot Exit
BIOS Version	RG84510A.15A.0009.P03	Item Specific Help
Processor Type	Intel (R) Pentium (R)	Select the display language for the BIOS.
Processor Speed	3.0 GHz	
System Bus Speed	800 MHz	
System Memory Speed	400 MHz	
Cache RAM	512 KB	
Total Memory	127 MB	
Memory Bank 0	128 MB (DDR400)	
Memory Bank 1	Not Installed	←→ Select Menu
Language:	[English]	↑↓ Select Item
Memory Configuration:	[Non-ECC]	Tab Select Field
System Time:	[11:09:31]	Enter Select >Sub-Menu
System Date:	[07/04/2003]	F9 Setup Defaults
		F10 Save and Exit
		ESC Exit

Use the descriptions and the navigation keys displayed in the *Item Specific Help* area of the BIOS Setup utility screen to move through the BIOS menus and make selections. If available, press **F1** to get more help about options.

Updating the BIOS

If you need a new version of the BIOS, you can download the BIOS update from the technical support area on the Gateway Web site (support.gateway.com) and install the new version from a diskette.

To update the BIOS you need to perform the following tasks in sequence:

- 1 Write down any custom BIOS settings.
- 2 Create a bootable diskette.
- 3 Create the BIOS update diskette.
- 4 Update the BIOS.
- 5 Reconfigure any custom BIOS settings.

Follow the detailed instructions for updating the BIOS that are included in the self-extracting file that you can download from the technical support area of Gateway's Web site.

Setting the BIOS configuration jumper

The system board has a configuration jumper related to the BIOS. Place a jumper on specific pins to clear passwords or recover the BIOS. For more information on the location and use of the configuration jumper, see [“BIOS configuration jumper settings” on page 190](#).

Warning



Moving a jumper while the power is on can damage your computer. Always turn off your computer and unplug the power cord and modem cable before changing jumper settings.



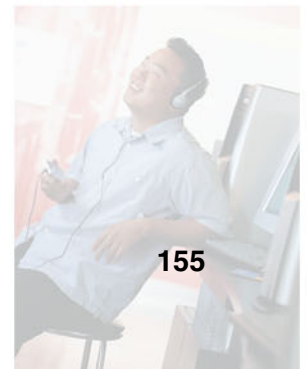
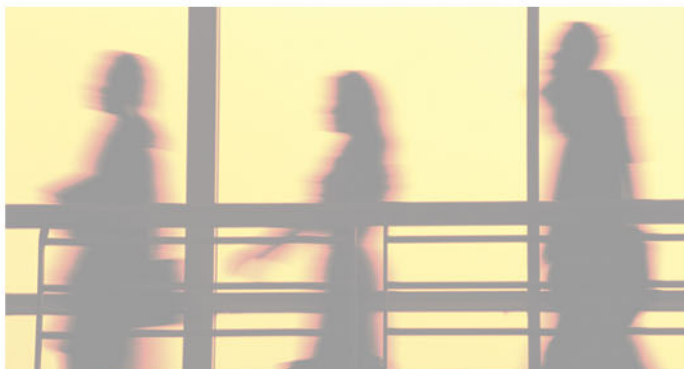
9

Troubleshooting

This chapter provides some solutions to common computer problems. Read this chapter to learn how to:

- Troubleshoot typical hardware and software problems
- Get telephone support
- Use automated troubleshooting systems
- Get tutoring and training

If the suggestions in this chapter do not correct the problem, see [“Getting Help” on page 29](#), for more information about how to get help.



Safety guidelines

While troubleshooting your computer, follow these safety guidelines:

- Never remove your computer case cover while your computer is turned on and while the modem cable and the power cord are connected.
- Do not attempt to open the monitor case. To do so is extremely dangerous. Even if the power is disconnected, energy stored in the monitor components can be dangerous. Also, opening the monitor voids the warranty.
- Make sure that you are correctly grounded before opening your computer case. For more information about preventing damage from static electricity, see [“Preventing static electricity discharge” on page 99](#).

Warning



To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

Instead, unplug your computer and contact a qualified computer technician.

First steps


Try these things first before going to the following sections:

- Make sure that the power cable is connected to your computer and an AC outlet and that the AC outlet is supplying power.
- If you use a power strip, make sure that it is turned on.
- If a peripheral device (such as the keyboard or mouse) does not work, make sure that all connections are secure.
- If you added or removed computer components before the problem started, review the procedures you performed and make sure that you followed each instruction.
- Make sure that your hard drive is not full.
- If an error message appears on the screen, write down the exact message. The message may help Gateway Technical Support in diagnosing and fixing the problem.
- If an error occurs in a program, see the program's printed documentation or the online help.

Help and Support



For more information about troubleshooting in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **troubleshooting** in the HelpSpot **Search** box Search , then click the arrow.

Software support tools

Your system *may* include the following support tool to help you diagnose and fix problems:

- *PC Doctor* is a comprehensive hardware diagnostic and system information tool that can test your computer and determine its configuration. PC Doctor provides 85 professional diagnostic tests directly from your computer.

This support tool is available from HelpSpot or by clicking **Start, All Programs**, then clicking **Gateway Utilities**.

Troubleshooting

Add-in cards

The computer does not recognize an add-in card

- Shut down and restart your computer.
- Make sure that you have installed the required software. For more information, see the documentation that came with your add-in card.
- Reseat the card. For more information, see [“Adding or replacing add-in cards” on page 112](#) or [“Adding or replacing add-in cards” on page 136](#).

CD or DVD drives

The computer does not recognize a disc or the CD, DVD, or recordable drive

- Make sure that the disc label is facing up, then try again.
- Try a different disc. Occasionally discs are flawed or become scratched and cannot be read by the CD or DVD drive.
- If you are trying to play a DVD, make sure that you have a DVD drive. To identify your drive type, see [“Identifying drive types” on page 42](#).
- Your computer may be experiencing some temporary memory problems. Shut down and restart your computer.
- Some music CDs have copy protection software. You may not be able to play these CDs on your computer.
- Clean the disc. For more information, see [“Cleaning CDs and DVDs” on page 161](#).
- Restart your computer, then enter the BIOS Setup utility by pressing and holding F1 while your computer restarts. Make sure that the IDE controllers are enabled. For more information on using the BIOS Setup utility, see [“Using the BIOS Setup Utility” on page 151](#).
- Make sure that the drive is configured correctly by following the instructions in the drive documentation.
- Open your computer case and make sure that the cables are connected correctly to the CD or DVD drive and the IDE connector on the system board or controller card.

- If you have a SCSI device in your system, check the cable connected to the SCSI card. If the CD or DVD drive is the last drive on the cable (the drive farthest from the card), make sure that the CD or DVD drive is terminated. For more information about SCSI device configurations, see the drive documentation or download the documentation from the Gateway Web site.
- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).

An Audio CD does not produce sound

- Make sure that the disc label is facing up, then try again.
- Some music CDs have copy protection software. You may not be able to play these CDs on your computer.
- Make sure that the volume controls are turned up.
- Make sure that the mute controls are turned off.
- Make sure that the speaker cables are connected correctly and securely.
- Shut down and restart your computer.
- Clean the disc. For more information, see [“Cleaning CDs and DVDs” on page 161](#).
- Reinstall the audio device drivers. For more information, see [“Reinstalling device drivers” on page 89](#).

A DVD movie will not play

- Make sure that you have a DVD drive. To identify your drive type, see [“Identifying drive types” on page 42](#).
- Make sure that the disc label is facing up, then try again.
- Try a different disc. Occasionally discs are flawed or become scratched and cannot be read by the DVD drive.
- Shut down and restart your computer.
- Clean the disc. For more information, see [“Cleaning CDs and DVDs” on page 161](#).
- Reinstall the DVD player program. For more information, see [“Reinstalling programs” on page 92](#).
- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).

- DVDs and DVD drives contain *regional codes* that help control DVD title exports and help reduce illegal disc distribution. To be able to play a DVD, the disc's regional code and your DVD drive's regional code must match.

The regional code on your DVD drive is determined by your computer's delivery address. The regional code for the United States and Canada is 1. The regional code for Mexico is 4. Your DVD drive's regional code must match the regional code for the disc. The regional code for the disc is on the disc, disc documentation, or disc packaging.

If the DVD movie does not play, the disc's regional code and your DVD drive's regional code may not match.

Cleaning CDs and DVDs

Clean discs by wiping from the center to the edge, not around in a circle, using a product, such as a soft cloth, made especially for cleaning CDs and DVDs.



Computer

The computer will not start

- Make sure that the power cord is connected to an AC power source and your computer is turned on.
- Open the computer case and make sure that the power supply cable is connected correctly to the system board.
- Open the computer case and make sure that the power button cable is connected correctly to the system board.

Diskette drive

The diskette drive is not recognized

- Shut down and restart your computer.
- Open the computer case and make sure that the cables are connected correctly to the diskette drive and the system board. The red-striped edge of the data ribbon cable indicates Pin 1 and corresponds with Pin 1 on the diskette drive (typically on the side farthest from the power supply connection). If necessary, reverse one end of the cable, so the red-striped edge of the data ribbon cable faces Pin 1 on the diskette drive. Make sure that the pins are not bent or misaligned. For more information, see [“Adding or replacing a CD, DVD, or diskette drive” on page 105](#) or [“Adding or replacing a CD, DVD, or diskette drive” on page 128](#).

You cannot save a file to diskette or you see the message “disk is full or write-protected”

- Make sure that the write-protection tab on the upper-right corner of the diskette is down (unprotected).
- The diskette may be full. Delete unnecessary files on the diskette and try again.
- Not all diskettes are IBM-compatible. Make sure that the diskette you are using is IBM-compatible.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.
- Run Error-checking on the diskette. For more information, see [“Checking the hard drive for errors” on page 68](#). If errors are detected and corrected, try using the diskette again.

You see a “Access Denied” or “Write protect” error message

- Move the write-protection tab in the upper-right corner of the diskette down (unprotected).
- The diskette may be full. Delete unnecessary files on the diskette and try again.
- Not all diskettes are IBM-compatible. Make sure that the diskette you are using is IBM-compatible.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.

You see a “Disk is full” error message

- Delete unnecessary files on the diskette.
- Try a different diskette. Occasionally diskettes are flawed and cannot be read by the diskette drive.
- Run Error checking on the diskette. For more information, see [“Checking the hard drive for errors” on page 68](#). If errors are detected and corrected, try using the diskette again.

You see a “Non-system disk” or “Disk error” error message

- Eject the diskette from the diskette drive, then press ENTER.
- Make sure that the diskette you are using is IBM-compatible.

The diskette drive LED is lit continuously

- Remove the diskette from the drive. If the light stays on, try restarting your computer.
- Open the computer case and make sure that the cables are connected correctly to the diskette drive and the system board. The red-striped edge of the data ribbon cable indicates Pin 1 and corresponds with Pin 1 on the diskette drive (typically on the side farthest from the power supply connection). If necessary, reverse one end of the cable, so the red-striped edge of the data ribbon cable faces Pin 1 on the diskette drive. Make sure that the pins are not bent or misaligned. For more information, see [“Adding or replacing a CD, DVD, or diskette drive” on page 105](#) or [“Adding or replacing a CD, DVD, or diskette drive” on page 128](#).

File management

A file was accidentally deleted

If the file was deleted at a DOS prompt or in Windows while holding down the SHIFT key, the file cannot be restored.

**To restore files that were deleted in Windows:**

- 1** Double-click the **Recycle Bin** icon.
- 2** Right-click the file you want to restore, then click **Restore**. The file is restored to the place where it was originally deleted from.

If the Recycle Bin was emptied before you tried to restore a file, the file cannot be restored.



Help and Support



For more information about restoring deleted files in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **System Restore** in the HelpSpot **Search** box Search , then click the arrow.

Hard drive

You see an “Insufficient disk space” error message

- Delete unnecessary files from the hard drive using Disk Cleanup. For more information, see [“Using Disk Cleanup” on page 67](#).
- Empty the Recycle Bin by right-clicking the **Recycle Bin** icon, then clicking **Empty Recycle Bin**.
- Save your files to a diskette or another drive. If the hard drive is full, copy any files not regularly used to diskettes or other backup media, then delete them from the hard drive.

Help and Support



For more information about file management in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **file management** in the HelpSpot **Search** box Search , then click the arrow.

You see a “Data error” message

This may be the result of a defective area on the hard drive. To fix hard drive problems, run the Error checking program. For more information, see [“Checking the hard drive for errors” on page 68](#).

The hard drive cannot be accessed, or you see a “General failure reading drive C” error message

- If a diskette is in the diskette drive, eject it and restart your computer.
- Press CTRL+ALT+DEL to restart your computer.

- Open the computer case and make sure that the cables are connected correctly to the hard drive and the system board. For more information about connecting the hard drive cables, see [“Adding or replacing a hard drive” on page 109](#) or [“Replacing the hard drive” on page 133](#).
- If your computer has been subjected to static electricity or physical shock, you may need to reinstall the operating system.

You see a “Non-system disk” or “disk error” error message

- Eject the diskette from the diskette drive, then press ENTER.

The computer does not recognize an IDE drive

- Make sure that the IDE connectors are enabled in the BIOS Setup utility. To enter the BIOS Setup utility, restart your computer, then press and hold F1 while your computer restarts.
- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).
- Open the computer case and make sure that the IDE cable is connected to the system board IDE connector and the hard drive connector. For more information, see [“Adding or replacing a hard drive” on page 109](#) or [“Replacing the hard drive” on page 133](#).

The computer does not recognize a SCSI drive

- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).
- Open the computer case and reseal the drive controller. Also make sure that the controller and power cables are connected to the drive. For more information, see [“Adding or replacing a hard drive” on page 109](#) or [“Replacing the hard drive” on page 133](#).
- Make sure that the last device on the SCSI cable is correctly terminated. For more information about SCSI device configurations, see the hard drive documentation or download the documentation from the Gateway Web site.
- Change the drive’s SCSI address to one that is not being used by your computer. For more information about SCSI device configurations, see your drive documentation.

Internet


You cannot connect to the Internet

- Make sure that your computer is connected to the telephone line and the telephone line has a dial tone. Use the setup poster to make sure that the connections have been made correctly.
- Make sure that no one else is using the telephone line.
- If you have the call waiting feature on your telephone line, make sure that it is disabled.
- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP technical support for help.
- Make sure that you do not have a problem with your modem. For more information, see [“Modem \(dial-up\)” on page 168](#).

Help and Support



For more information about troubleshooting Internet connections in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **troubleshooting connections** in the HelpSpot **Search** box , then click the arrow.

You see an “Unable to locate host” message and are unable to browse the Internet

This problem can occur when you have typed a URL (Web address) incorrectly, you have lost your Internet connection, or your ISP is having technical difficulties.

Double-check the URL or try a different URL. If the error message still appears, disconnect from the ISP connection and close your browser, then reconnect and open the browser. If you still get the error, your ISP may be having technical difficulties.

Connecting to a Web site takes too long

Many factors can affect Internet performance:

- The condition of the telephone lines in your residence or at your local telephone service
- The condition of the Internet computers to which you connect and the number of users accessing those computers

- The complexity of graphics and multimedia on Web pages
- Having multiple Web browsers open, performing multiple downloads, and having multiple programs open on your computer

People are sending you e-mail messages, but you have not received any mail

- Click the receive button in your e-mail program.
- Make sure that your account with your Internet service provider (ISP) is set up correctly. Contact your ISP for technical support.

Keyboard

The keyboard does not work

- Make sure that the keyboard cable is plugged in correctly. For more information, see the poster that came with your computer.
- Remove all extension cables and switch boxes.
- Clean the keyboard by using an aerosol can of air with a narrow, straw-like extension to remove dust and lint trapped under the keys.
- Try a keyboard that you know works to make sure that the keyboard port works.
- Reinstall the keyboard device driver. For more information, see [“Reinstalling device drivers” on page 89](#).

A keyboard character keeps repeating or you see a “keyboard stuck” or “key failure” error message

- Make sure that nothing is resting on the keyboard.
- Make sure that a key is not stuck. Press each key to loosen a key that might be stuck, then restart your computer.

Liquid spilled in the keyboard

If you spilled liquid in the keyboard, turn off your computer and unplug the keyboard. Clean the keyboard and turn it upside down to drain it. Let the keyboard dry before using it again. If the keyboard does not work after it dries, you may need to replace it.

Memory

You see a “memory error” message during startup

- Use PC Doctor or a third-party diagnostic program to help determine if a memory module is failing. If the memory module is failing, replace it. For more information, see [“Installing memory” on page 144](#).
- Check the memory module for correct seating and orientation. For more information, see [“Installing memory” on page 144](#).


You see a “Not enough memory” error message

- Close all programs, then restart your computer.

Help and Support



For more information about troubleshooting memory errors in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **memory error** in the HelpSpot **Search** box Search , then click the arrow.

Modem (dial-up)

Your modem does not dial or does not connect

- Make sure that the modem cable is plugged into the modem jack and not the Ethernet network jack. See [“Gateway Mid Tower Back” on page 5](#) or [“Gateway Micro Tower Back” on page 10](#).
- Make sure that your computer is connected to the telephone line and the telephone line has a dial tone. Use the setup poster to make sure that the connections have been made correctly.
- Make sure that the modem cable is less than 6 feet (1.8 meters) long.
- Remove any line splitters or surge protectors from your telephone line, then check for a dial tone by plugging a working telephone into the telephone wall jack.
- If you have additional telephone services such as call waiting, call messaging, or voice mail, make sure that all messages are cleared and call waiting is disabled before using the modem. Contact your telephone service to get the correct code to temporarily disable the service. Also make sure that the modem dialing properties are set correctly.

 **To check the dialing properties in Windows XP:**


- 1** Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
- 2** Click/Double-click the **Phone and Modem Options** icon, then click the **Dialing Rules** tab.
- 3** Click the location from which you are dialing, then click **Edit**.
- 4** Make sure that all settings are correct.



Help and Support



For more information about dialing properties in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **dialing** in the HelpSpot **Search** box
 Search , then click the arrow.

 **To check the dialing properties in Windows 2000:**

- 1** Click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- 2** Double-click the **Modems** icon, then click **Dialing Properties**. The *Dialing Properties* dialog box opens.
- 3** Make sure that all settings are correct.



- Disconnect any answering machine, fax machine, or printer that is on the same line as the modem. Do not connect these devices to the same telephone line as the modem.
- Make sure that you are not using a digital, rollover, or PBX line. These lines do not work with your modem.
- Check for line noise (scratchy, crackling, or popping sounds). Line noise is a common problem that can cause the modem to connect at a slower rate, abort downloads, or even disconnect. The faster the modem, the less line noise it can tolerate and still work correctly.

Listen to the line using your telephone. Dial a single number (such as 1). When the dial tone stops, listen for line noise. Wiggle the modem cable to see if that makes a difference. Make sure that the connectors are free from corrosion and all screws in the wall or telephone jack are secure.

You can also call your telephone service and have them check the telephone line for noise or low line levels.

- Try another telephone line (either a different telephone number in your house or a telephone line at a different location). If you can connect on this line, call your telephone service.
- Try connecting with the modem at a lower connection speed. If reducing the connection speed lets you connect, call your telephone service. The telephone line may be too noisy.

You cannot connect to the Internet

- Your ISP may be having technical difficulties. Contact your ISP technical support for help.
- See if the modem works with a different communications program. The problem may be with just one program.

Your 56K modem does not connect at 56K

Current FCC regulations restrict actual data transfer rates over public telephone lines to 53K. Other factors, such as line noise, telephone service provider equipment, or ISP limitations, may lower the speed even further.

If your system has a v.90 modem, the speed at which you can upload (send) data is limited to 33.6K. If your system has a v.92 modem, the speed at which you can upload data is limited to 48K. Your ISP may not support 48K uploads.

You can check modem connection speeds and dial-up network (DUN) connections by accessing the *gateway.your.way dial-up server*. The server also contains drivers, patches, and updates for current Gateway hardware and software.

The server provides a secure connection and is a stand-alone server. You cannot use it to access the Internet. The server cannot be accessed Mondays from 8:00 a.m. to 12:00 p.m. CT.

 **To access the gateway.your.way dial-up server:**

- 1** Insert the red *Drivers* CD into the CD or DVD drive.
- 2** Click **Help**, then click **Support Web Site**.
- 3** To check your modem connection speed, click the **Direct Dial** option. After your modem connects, move the mouse pointer over the **Dial-Up Networking** icon (located next to the clock on your taskbar). Your modem connection speed appears.



Your fax communications program only sends and receives faxes at 14,400 bps even though you have a 56K modem

Current fax technology only supports a maximum send and receive rate of 14,400 bps.

The modem is not recognized by the computer

- Make sure that the line connected to the modem is working and plugged into the appropriate jack on the modem. Use the setup poster to make sure that the connections have been made correctly.
- If the modem shares the telephone line with another device, make sure that the telephone line is not in use (for example, someone is on the telephone, or another modem is in use).
- Use the modem cable that came with your computer. Some telephone cables do not meet required cable standards and may cause problems with the modem connection.
- Shut down and restart your computer.
- Run Windows modem diagnostics.

 **To run modem diagnostics in Windows XP:**

- 1** Close all open programs.
- 2** Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
- 3** Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.

- 4 Click to select your modem, then click **Properties**. The *Modem Properties* dialog box opens.
- 5 Click the **Diagnostic** tab, then click **Query Modem**. If information about the modem appears, the modem passed diagnostics. If no modem information is available, if a white screen appears with no data, or if you get an error such as *port already open* or *the modem has failed to respond*, the modem did not pass diagnostics.



Help and Support



For more information about modem troubleshooting in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **modem troubleshooting** in the HelpSpot **Search** box , then click the arrow.



To run modem diagnostics in Windows 2000:

- 1 Close all open programs.
- 2 Click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- 3 Double-click the **Modems** icon. The *Modems Properties* dialog box opens.
- 4 Click the **Diagnostic** tab, click the COM port next to the name of the modem, then click **More Info**. The *Modem Info* dialog box opens.

If information about the modem appears, the modem passed diagnostics. If no modem information is available, if a white screen appears with no data, or if you get an error such as *port already open* or *the modem has failed to respond*, the modem did not pass diagnostics.



- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).
- Open your computer and reseal the modem. For more information, see [“Adding or replacing add-in cards” on page 112](#) or [“Adding or replacing add-in cards” on page 136](#).

The modem is noisy when it dials and connects

When your modem tries to connect to another modem, it begins *handshaking*. Handshaking is a digital “getting acquainted” conversation between the two modems that establishes connection speeds and communication protocols. You may hear unusual handshaking sounds when the modems first connect. If the handshaking sounds are too loud, you can turn down the modem volume.

To turn down the modem volume in Windows XP:

- 1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
- 2 Click/Double-click the **Phone and Modem Options** icon, then click the **Modems** tab.
- 3 Click the modem you want to adjust, then click **Properties**.
- 4 Click the **Modem** tab, then adjust the **Speaker volume** control.
- 5 Click **OK** twice to close the *Phone and Modem Options* dialog box.



To turn down the modem volume in Windows 2000:

- 1 Click **Start**, **Settings**, then click **Control Panel**. The *Control Panel* window opens.
- 2 Double-click the **Modems** icon. The *Modems Properties* dialog box opens.
- 3 Click the **General** tab, click the modem you want to adjust, then click **Properties**.
- 4 Adjust the **Speaker volume** control.
- 5 Click **OK**.



Monitor


The screen resolution is not correct

Change the screen resolution from the *Display Properties* dialog box.

Help and Support



For more information about changing the screen resolution in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **screen resolution** in the HelpSpot **Search** box Search , then click the arrow.

The computer is running but there is no picture

- Make sure that the monitor is plugged in and turned on. If the monitor is turned on, the power LED should be lit.
- Adjust the brightness and contrast controls to the center position.
- Make sure that the monitor cable is connected to the video port on the back of your computer.
- Check the port and cable for bent or damaged pins.
- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).
- Open your computer case and reseal the video card. For more information, see [“Adding or replacing add-in cards” on page 112](#) or [“Adding or replacing add-in cards” on page 136](#).
- Connect a monitor that you know works to your computer.

The color is not uniform

Make sure that the monitor warms up for at least 30 minutes before making a final judgment about color uniformity.

Make sure that:

- Non-shielded speakers are not placed too close to the monitor.
- The monitor is not positioned too close to another monitor, electric fan, fluorescent light, metal shelf, or laser printer.
- You demagnetize the screen using the monitor’s degauss feature. For more information on degauss, see your monitor’s documentation.

There is a horizontal line or wire visible across the monitor screen

Your monitor may use a thin *damper* wire, located approximately 1/3 of the way down from the upper screen edge and 1/3 of the way up from the lower screen edge, to stabilize the internal aperture grille. These wires are most obvious when the monitor displays a white background. The aperture grille

allows more light to pass through the screen for brighter colors and greater luminescence. The damper wire is a critical part of the overall monitor design and does not negatively affect the monitor's function.

The text on the display is dim or difficult to read

- Adjust the brightness and contrast controls.
- Use the monitor degauss feature (see your monitor documentation) or turn off your computer and monitor, leave them off for at least a half hour, then restart your computer.
- Change the display settings.
- Move the monitor away from sources of electrical interference, such as televisions, unshielded speakers, microwaves, fluorescent lights, and metal beams or shelves.

For more information about display types, see your monitor and video card documentation.

Mouse

The mouse does not work

- Make sure that the mouse cable is plugged in correctly.
- Shut down and restart your computer.
- Remove all extension cables and switch boxes.
- Try a mouse that you know works to make sure that the mouse port works.
- Reinstall the device driver. For more information, see [“Reinstalling device drivers” on page 89](#).

The mouse works erratically

If the mouse pointer begins moving erratically across the computer display or becomes difficult to control precisely, cleaning the mouse will likely improve its accuracy.

If you have an optical mouse, clean the mouse by wiping the bottom with a clean, damp cloth. Make sure that the optical sensor is clean and free of debris.

If you have a trackball mouse, see [“Cleaning the mouse” on page 76](#).

Help and Support



For a video tutorial about cleaning the mouse, click **Start**, **Help and Support**, **Video tutorials**, **Maintaining your computer**, then click **Cleaning the mouse**.

Power

My system is turned on but nothing is getting power

- If your computer is plugged into a surge protector, make sure that the surge protector is connected securely to an electrical outlet, switched on, and working correctly.
- Make sure that the electrical outlet is working by plugging a working device, such as a lamp, into the outlet, then turning it on to test the outlet.
- Make sure that all devices are connected securely to the surge protector and switched on correctly.

Printer

Printer will not turn on

- Make sure that the power cord is plugged into an AC power source.
- Make sure that the electrical outlet is working by plugging a working device, such as a lamp, into the outlet, then turning it on to test the outlet.

Printer is on but will not print

- Make sure that the printer is online. Many printers have an online/offline button that you may need to press.
- If the printer you want to print to is not the default printer, make sure that you have selected it in the printer setup.



To set a default printer in Windows XP:

- 1** Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
- 2** Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.

- 3 Right-click the name of the printer you want to be the default printer, then click **Set as Default Printer**.



To set a default printer in Windows 2000:

- 1 Click **Start, Settings**, then click **Printers**.
- 2 Right-click on the name of the printer you want to be the default printer, then click **Set as Default**.



- Make sure that the cable between the printer and your computer is connected securely to the correct port.
- Check the cable for bent or broken pins.
- Reinstall the printer driver. See the documentation that came with your printer for instructions on installing the printer driver.

You see a “Printer queue is full” error message

- Make sure that the printer is not set to work offline.

To make sure that the printer is not set to work offline in Windows XP:

- 1 Click **Start**, then click **Control Panel**. The *Control Panel* window opens. If your Control Panel is in Category View, click **Printers and Other Hardware**.
- 2 Click/Double-click the **Printers and Faxes** icon. The *Printers and Faxes* window opens.
- 3 Right-click the name of the printer you want to use. If the menu shows a check mark next to **Use Printer Offline**, click **Use Printer Offline** to clear the check mark.



Help and Support



For more information about printer troubleshooting in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **printer troubleshooter** in the HelpSpot **Search** box **Search** , then click the arrow.

 **To make sure that the printer is not set to work offline in Windows 2000:**

- 1 Click **Start**, **Settings**, then click **Printers**.
- 2 Right-click the name of the printer you want to use. If the menu shows a check mark next to **Use Printer Offline**, click **Use Printer Offline** to clear the check mark.



- Wait until files have been printed before sending additional files to the printer.
- If you print large files or many files at one time, you may want to add additional memory to the printer. See the printer documentation for more information about adding additional memory.

You see a “Printer is out of paper” error message

After adding paper, make sure that the printer is online. Many printers have an online/offline button that you need to press after adding paper.

Sound


You are not getting sound from the speakers

- Make sure that the speakers are turned on.
- Make sure that the volume controls are turned up.
- Make sure that mute controls are turned off.
- If you are using external speakers, see the speaker setup poster to check your speaker connections.

Help and Support



For more information about sound troubleshooting in Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **sound troubleshooter** in the HelpSpot **Search** box Search , then click the arrow.

Telephone support

Before calling Gateway Technical Support

If you have a technical problem with your computer, follow these recommendations before contacting Gateway Technical Support:

- Make sure that your computer is connected correctly to a grounded AC outlet that is supplying power. If you use a power strip, make sure that it is switched on.
- If a peripheral device, such as a keyboard or mouse, does not appear to work, make sure that all cables are plugged in securely.
- If you have recently installed hardware or software, make sure that you have installed it according to the instructions provided with it. If you did not purchase the hardware or software from Gateway, see the manufacturer's documentation and technical support resources.
- If you have "how to" questions about using a program, check:
 - Online Help
 - Printed documentation
 - The Microsoft Windows documentation
 - The program publisher's Web site
- See the troubleshooting section of this chapter.

Warning



To avoid bodily injury, do not attempt to troubleshoot your computer problem if:

- Power cords or plugs are damaged
- Liquid has been spilled into your computer
- Your computer was dropped
- The case was damaged

Instead, unplug your computer and contact a qualified computer technician.

- Have your client ID, serial number, and order number available, along with a detailed description of your problem, including the exact text of any error messages, and the steps you have taken.
- Make sure that your computer is nearby at the time of your call. The technician may have you follow appropriate troubleshooting steps.

Telephone support

Gateway offers a wide range of customer service, technical support, and information services.

Automated troubleshooting system

Service description	How to reach
Use an automated menu system and your telephone keypad to find answers to common problems.	800-846-2118 (US) 877-709-2945 (Canada)

Telephone numbers

You can access the following services through your telephone to get answers to your questions:

Resource	Service description	How to reach
Fax on demand support	Order a catalog of documents on common problems, then order documents by document numbers. The documents will be faxed to you.	800-846-4526 (US) 877-709-2951 (Canada)
Gateway's fee-based software tutorial service	Get tutorial assistance for software issues billed by the minute.	800-229-1103 (charged to your credit card) 900-555-4695 (charged to your telephone bill)
Gateway Technical Support	Talk to a Gateway Technical Support representative about a non-tutorial technical support question. (See "Before calling Gateway Technical Support" on page 180 before calling.) TDD Technical Support (for hearing impaired) is available: Weekdays 6:00 a.m. - 8:00 p.m. Central Time Weekends 6:00 a.m. - 5:00 p.m. Central Time	800-846-2301 (US) 800-846-3609 (Canada and Puerto Rico) 605-232-2191 (all other countries) 800-846-1778 (TDD)
America Online	Get support for your America Online ISP account.	800-827-6364 (US) 888-265-4357 (Canada)
CompuServe	Get support for your CompuServe ISP account.	800-848-8990 (US)
Sales, accounting, and warranty	Get information about available systems, pricing, orders, billing statements, warranty service, or other non-technical issues.	800-846-2000 (US) 888-888-2037 (Canada)

Tutoring and training

Gateway's Technical Support professionals cannot provide hardware and software training or tutorial services. Instead, Gateway recommends the following tutoring and training resources.

Self-help


If you have *how-to* questions about using your Gateway-supplied hardware or software, see the following resources:

- [“Getting Help” on page 29.](#)
- The printed or online documentation that came with your hardware or software. In many cases, additional product information and online documents for Gateway-supplied hardware can be found in our Web site's Documentation Library.
- This user's guide.
- The software publisher's Web site.
- The hardware manufacturer's Web site.

Help and Support



For more how-to information about Windows XP, click **Start**, then click **Help and Support**.

Type the keyword **practice** in the HelpSpot **Search** box
Search , then click the arrow.

Tutoring

For help on using hardware or software that came with your Gateway computer, contact Gateway's fee-based tutorial hotline:

- 800-229-1103 (rate charged per minute; charged to a major credit card)
- 900-555-4695 (rate charged per minute; charged to your telephone bill)

Training

Gateway provides the following in-person and computerized training:

Resource	Service description	For more information
In-Store Training at Gateway stores	Our friendly and knowledgeable software trainers can teach you how to use the Internet and the most popular software programs, including Microsoft Word, Excel, and PowerPoint.	www.gateway.com/country
Gateway Learning Libraries	A variety of courses and tutorials are available on CD. Select from several easy-to-use learning libraries.	www.gateway.com/training
Online Training from Learn@Gateway	More than 450 online courses are available from Learn@Gateway. All you have to do is go online and log in. You select the subject matter, and the learning format (self-paced tutorials or virtual classrooms), all from the comfort of your computer.	www.learnatgateway.com/



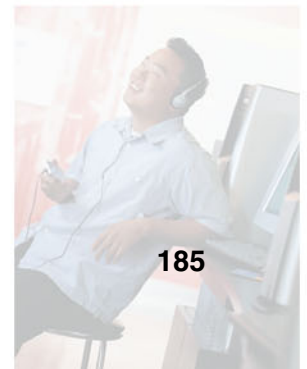
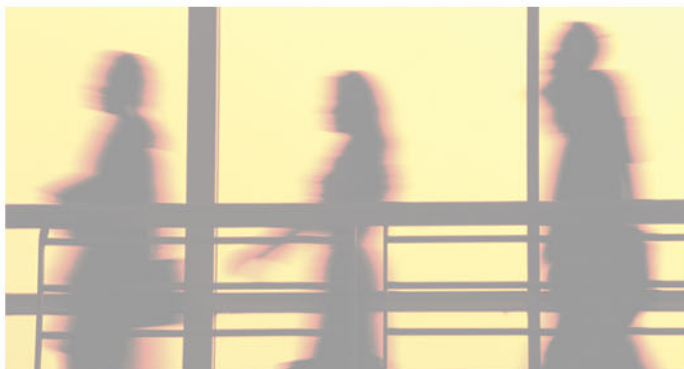
E-4100 Technical Reference

A

This Technical Reference covers information about your system board and its features.

Read this Technical Reference to learn about system board:

- Features
- Connectors and jumpers
- BIOS configuration jumper settings
- Specifications



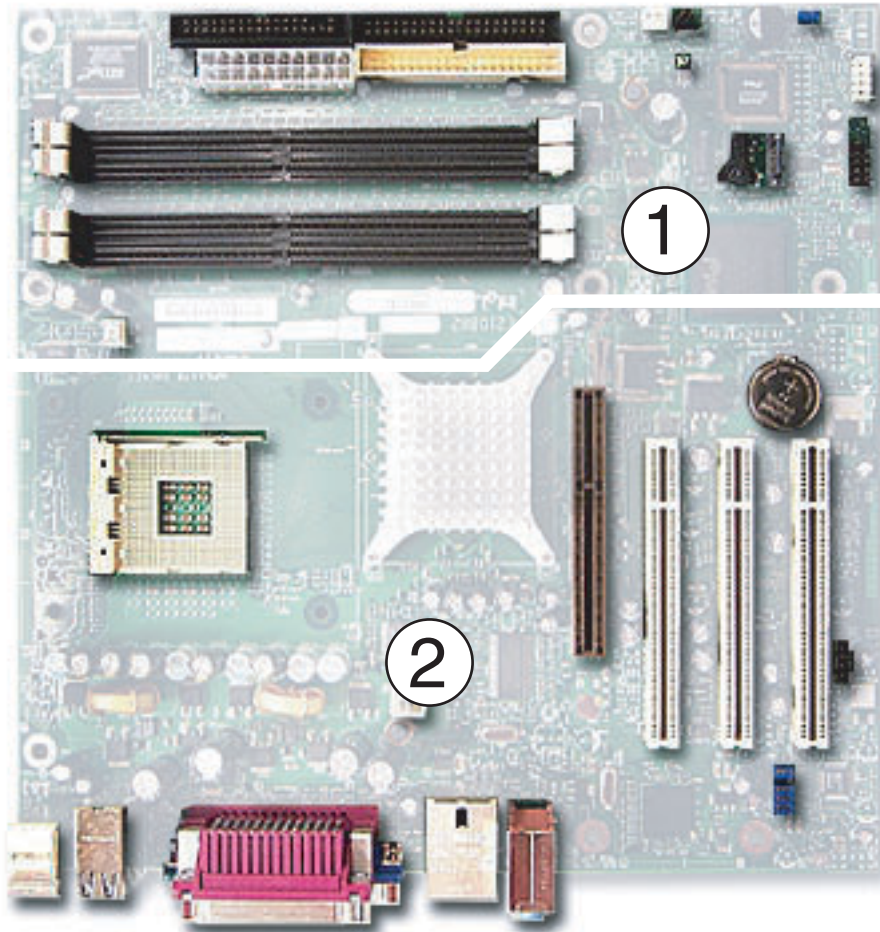
Features

The Intel® Midway Plus system board features:

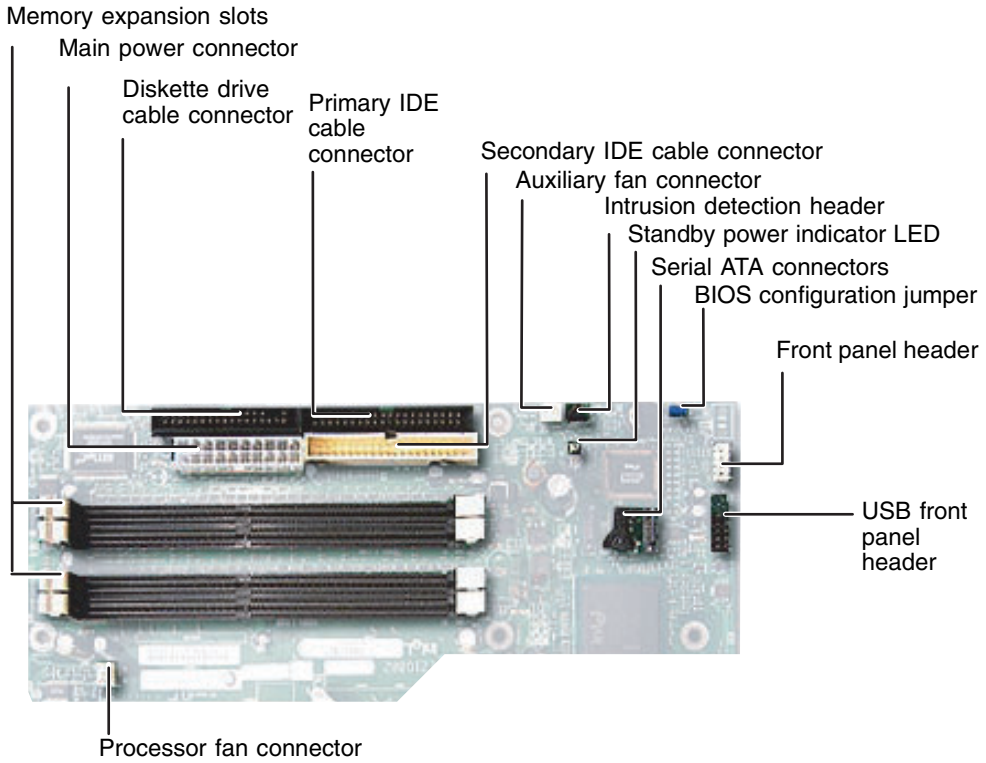
- Intel 865G Chipset
- Intel Extreme Graphics2 Controller
- Support for Intel Pentium® 4 Northwood 478-pin, 800-megahertz (MHz) Front Side Bus (FSB) processors
- Support for an Intel Celeron® processor in an mPGA478 socket with a 400-MHz system bus
- Support for up to 4 gigabytes (GB) of 400-MHz DDR SDRAM
- Memory configurations that can use Dual Channeling and Dynamic mode for optimizing the memory bandwidth
- Integrated Serial ATA IDE interface
- 10/100/1000 Ethernet LAN capability

System board layout

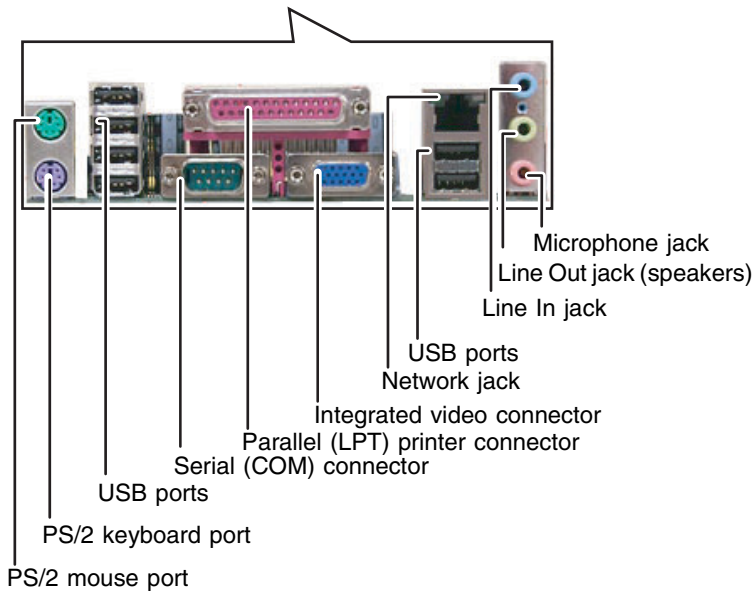
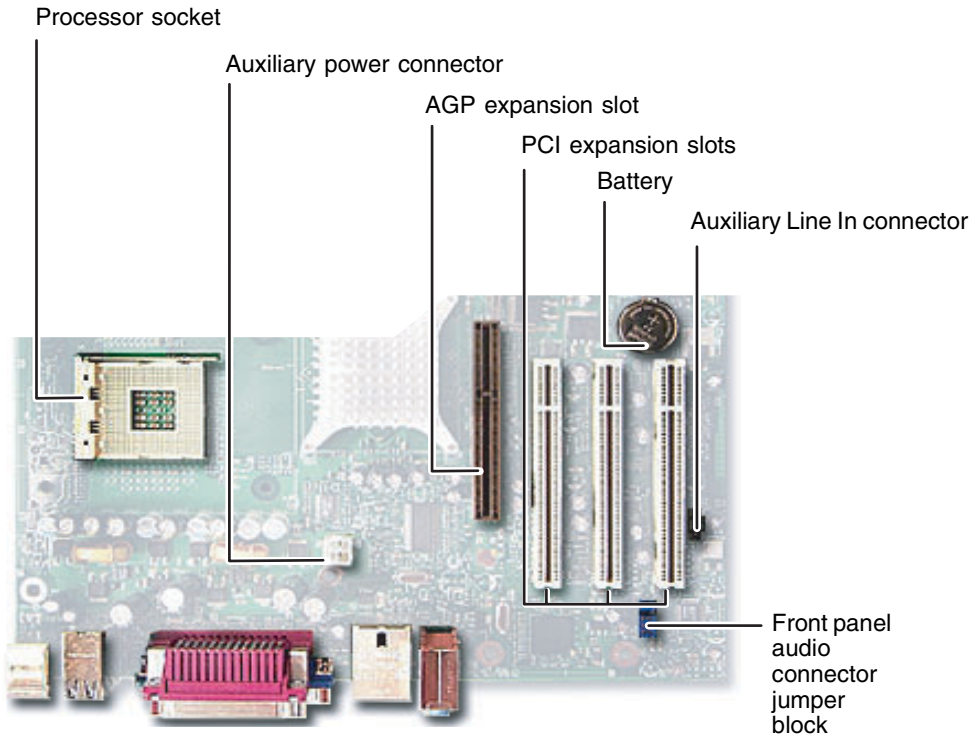
The following illustration shows the system board divided into two sections:



Section 1

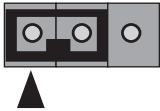
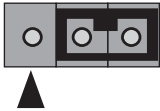
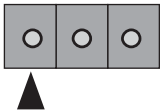


Section 2



BIOS configuration jumper settings

The BIOS configuration jumper lets you clear passwords or recover your BIOS if it becomes corrupted. For information about the location of this jumper, see [“Section 1” on page 188](#).

Setting	Jumper placement	When used
Normal		For normal operation. The BIOS uses current configuration information and passwords. (1-2 position)
Configure		For clearing passwords. The BIOS Setup utility runs automatically and the Maintenance menu is displayed. (2-3 position)
Recover		For recovering the BIOS configuration. A BIOS recovery diskette is required. (no jumper)

System board specifications

The following specifications are for the standard configuration. Your system may contain optional equipment. All specifications are subject to change without notice or obligation.

Form factor	microATX - 9.60 × 9.60 inches (243.84 × 243.84 mm)
Processor	<ul style="list-style-type: none"> ▪ Support for an Intel® Pentium® processor in an mPGA478 socket with a 400/533/800-MHz system bus ▪ Support for an Intel Celeron® processor in an mPGA478 socket with a 400-MHz system bus
Memory	<ul style="list-style-type: none"> ▪ Four 184-pin DDR SDRAM DIMM sockets ▪ Support for DDR 400, DDR 333, and DDR 266 ▪ Support for up to 4 GB of system memory
Chipset	<p>Intel 865G Chipset, consisting of:</p> <ul style="list-style-type: none"> ▪ Intel 82865G GMCH ▪ Intel 82801EB ICH5 ▪ 4-Mb FWH
Video	<ul style="list-style-type: none"> ▪ Intel Extreme Graphics 2 controller ▪ Universal 0.8 V / 1.5 V AGP 3.0 connector supporting 1X, 4X, and 8X AGP cards or an ADD card ▪ Integrated retention mechanism
Audio	AD1981B Integrated Digital Audio codec
USB	Support for USB 2.0 devices
Peripheral interfaces	<ul style="list-style-type: none"> ▪ Eight USB ports ▪ One serial port ▪ One parallel port ▪ Two serial ATA IDE interfaces ▪ Two parallel ATA IDE interfaces with UDMA 33, ATA-66/100 support ▪ One diskette drive interface ▪ PS/2 keyboard and mouse ports
Expansion capabilities	Three PCI bus add-in card connectors (SMBus routed to PCI bus connector 2)
I/O Control	SMSC LPC47M172 LPC Bus I/O controller

LAN	Gigabit (10/100/1000 Mbits/sec) LAN subsystem using the Intel 82547EI PLC device
BIOS	<ul style="list-style-type: none">▪ Intel/AMI BIOS (resident in the 4-Mb FWH)▪ Support for ACPI, Plug and Play, and SMBIOS
Instantly available PC technology	<ul style="list-style-type: none">▪ Support for PCI Local Bus Specification Revision 2.2▪ Suspend to RAM support▪ Wake on PCI, RS-232, front panel, PS/2 devices, and USB ports
Hardware Monitor Subsystem	<ul style="list-style-type: none">▪ Hardware monitoring and fan control ASIC▪ Voltage sense to detect out of range power supply voltages▪ Thermal sense to detect out of range thermal values▪ Three fan connectors▪ Three fan sense inputs used to monitor fan activity▪ Fan speed control

Many products for Gateway and its subsidiaries are custom engineered by our suppliers to Gateway specifications and may vary from similarly marketed products.



Safety, Regulatory, and Legal Information

B

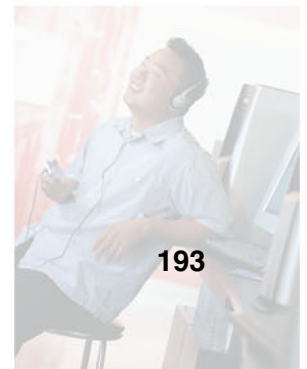
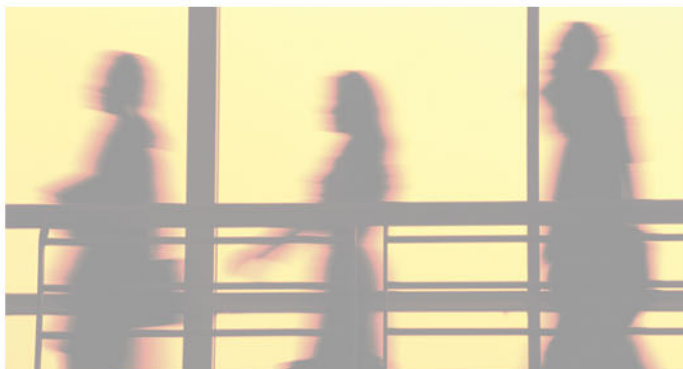
Important safety information

Your Gateway system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.

Warning



Always follow these instructions to help guard against personal injury and damage to your Gateway system.



Setting up your system

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only from the type of power source indicated on the rating label.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Some products are equipped with a three-wire power cord to make sure that the product is properly grounded when in use. The plug on this cord will fit only into a grounding-type outlet. This is a safety feature. If you are unable to insert the plug into an outlet, contact an electrician to install the appropriate outlet.
- If you use an extension cord with this system, make sure that the total ampere rating on the products plugged into the extension cord does not exceed the extension cord ampere rating.
- If your system is fitted with a TV Tuner, cable, or satellite receiver card, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and buildup of static charges.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to avoid eating and drinking near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturer's instructions.
- When the computer is turned off, a small amount of electrical current still flows through the computer. To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
 - The power cord or plug is damaged.
 - Liquid has been spilled into the system.
 - The system does not operate properly when the operating instructions are followed.
 - The system was dropped or the cabinet is damaged.
 - The system performance changes.

Replacement parts and accessories

Use only replacement parts and accessories recommended by Gateway.

Important



Do not use Gateway products in areas classified as hazardous locations. Such areas include patient care areas of medical and dental facilities, oxygen-laden environments, or industrial facilities.

Warning



To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.

Regulatory compliance statements

United States of America

Federal Communications Commission (FCC)

Unintentional emitter per FCC Part 15

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a different circuit from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Compliance Accessories: The accessories associated with this equipment are: shielded video cable when an external monitor is connected. These accessories are required to be used in order to ensure compliance with FCC rules.

FCC declaration of conformity

Responsible party:

Gateway Companies, Inc.
610 Gateway Drive, North Sioux City, SD 57049
(605) 232-2000 Fax: (605) 232-2023

Product:

- E-4100

For unique identification of the product configuration, please submit the 10-digit serial number found on the product to the responsible party.

This device complies with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution



Changes or modifications not expressly approved by Gateway could void the FCC compliance and negate your authority to operate the product.

Telecommunications per FCC part 68

(applicable to products fitted with USA modems)

Your modem complies with Part 68 of the Federal Communications Commission (FCC) rules. On the computer or modem card is a label that contains the FCC registration number and Ringer Equivalence Number (REN) for this device. If requested, this information must be provided to the telephone company.

An FCC-compliant telephone line cord with a modular plug is required for use with this device. The modem is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68-compliant. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices which may be connected to the telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.

If this device causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. The telephone company may request that you disconnect the equipment until the problem is resolved.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

This equipment cannot be used on telephone company-provided coin service. Connection to party line service is subject to state tariffs. Contact the state public utility commission or public service commission for information.

When programming or making test calls to emergency numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities in the off-peak hours such as early morning or late evenings.

The United States Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent, an identification of the business, other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. Refer to your fax communication software documentation for details on how to comply with the fax-branding requirement.

Canada

Industry Canada (IC)

Unintentional emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

Telecommunications per Industry Canada CS-03 (for products fitted with an IC-compliant modem)

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Warning



To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

The **Ringer Equivalence Number (REN)** assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

Laser safety statement

All Gateway systems equipped with CD and DVD drives comply with the appropriate safety standards, including IEC 825. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.

Warning



Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

California Proposition 65 Warning

Warning



This product contains chemicals, including lead, known to the State of California to cause cancer and/or birth defects or reproductive harm.

Television antenna connectors protection (for systems fitted with TV/cable TV tuner cards)

External television antenna grounding

If an outside antenna or cable system is to be connected to your Gateway PC, make sure that the antenna or cable system is electrically grounded to provide some protection against voltage surges and static charges.

Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Lightning protection

For added protection of any Gateway product during a lightning storm or when it is left unattended or unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system.

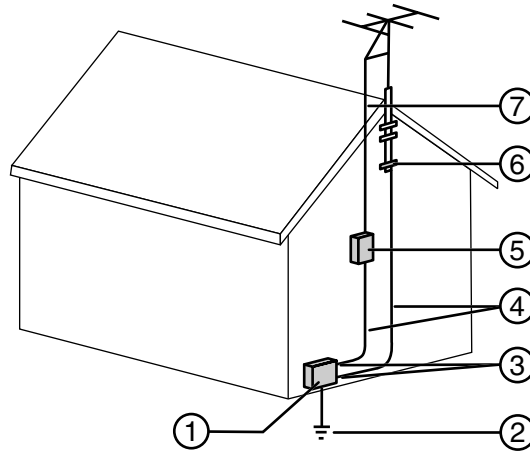
Power lines

Do not locate the antenna near overhead light or power circuits, or where it could fall into such power lines or circuits.

Warning



When installing or realigning an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits. Contact with them could be fatal.



Antenna and satellite grounding

Reference	Grounding component
1	Electric service equipment
2	Power service grounding electrode system (NEC Art 250, Part H)
3	Ground clamps
4	Grounding conductors (NEC Section 810-21)
5	Antenna discharge unit (NEC Section 810-20)
6	Ground clamp
7	Antenna lead-in wire

Notices

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14303 Gateway Place
Poway, CA 92064 USA

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Trademark Acknowledgments

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Macrovision statement

If your computer has a DVD drive and an analog TV Out port, the following paragraph applies:

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

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