hp media center pc

hardware

user's guide



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Safety Information

Before you get started, please read this important safety information about your **HP Media Center PC.**

This product has not been evaluated for connection to an "IT" power system (an AC distribution system with no direct connection to earth, according to IEC 60950).



AC Power Safety Warnings

The power supply is preset for the country/region in which you purchased the PC. If you move to another country/region, please make sure you check its voltage requirements before plugging your PC into an AC power outlet.

Install the computer near an AC outlet. The AC power cord is your PC's main AC disconnecting device and must be easily accessible at all times. For your safety, the power cord provided with your system has a grounded plug. Always use the power cord with a properly grounded wall

outlet to avoid the risk of electrical shock.

To reduce the possibility of an electric shock from the telephone network, plug your computer into the AC outlet before connecting it to the telephone line. Also, disconnect the telephone line before unplugging your computer from the AC power outlet.

Your system is provided with a voltage select switch for use in a 115 or 230 VAC power system. The voltage select switch has been pre-set to the correct voltage setting for use in the particular country/region where it was initially sold.

Changing the voltage select switch to the incorrect position can damage your PC and void any implied warranty.

Always disconnect the modem cord from the telephone system before installing or removing your computer cover.

Do not operate the computer with the cover removed.

The power supply is not user-serviceable. To prevent damage to the power supply, have a qualified person repair or replace it. All other components are userserviceable.

Electrostatic discharge (ESD) can damage disk drives, add-in cards, and other components. If an ESD station is not available, wear a wrist strap attached to a metal part of the computer. Place cards on a conductive foam pad or inside the card wrapper, if possible, but never on the card wrapper.

The PC is heavy; be sure to use ergonomically correct lifting procedures when moving the computer.

Safety and Comfort

Follow the steps in the setup poster to set up the computer.

After assembling but before using the computer, make sure the computer and your work area are properly set up to maintain your comfort and productivity. Refer to *Working in Comfort* in the Help and Support Center for important ergonomic information. Just click **Start**, **Help and Support**, **My HP Pavilion PC**, and then click **Working in Comfort**.

You can find important ergonomic information on the Internet. Just type http://www.hp.com/ergo into your Web browser address box, and then press Enter on the keyboard.



Help and Support

HP provides many kinds of information and help for your PC.

- HP Utility programs in the hp pavilion pc tools folder.
- The Help and Support Center is an onscreen Help area where you can find information from HP and Microsoft about using the PC and its components.

Go to the Help and Support Center when you want to read about your computer, view tutorials, run tests, or get troubleshooting help by using the Internet.

The Help and Support Center also gives you access to the latest news and updates for your PC.

- The HP Web site provides a place where you can get supplemental information about HP computers and products and contact HP Support.
- HP Customer Care provides HP Help over the telephone.

Review the following pages to learn more about each of these types of help.

HP Utility Programs

HP provides special utility programs in the hp pavilion pc tools folder that display support information, and initiate application or system recovery.

To find these programs, click **Start**, choose **All Programs**, choose **Hewlett-Packard**, choose **hp pavilion pc tools**, and select a program or folder.

Help and Support Center

Press Help (the ? button) on the keyboard to open Help and Support.

Or

Click **Start** on the taskbar, and then click **Help and Support**.

- 2 In Help and Support, click My HP Pavilion PC. Click a title and read the topic. This area is a library of helpful information about your PC.
- 3 In Help and Support, click HP Instant Support. Click Request Help and follow the onscreen instructions to run a test or submit a problem to HP Instant Support.







HP Web Site and HP Support

Connect to the Internet: Open your Web browser, or press Connect on your keyboard.



- 2 Type http://www.hp.com into your Web browser address box and press Enter on your keyboard.
- 3 Select your country/region from the drop-down list, and click the arrow to the right of the list (scroll down to see the box).
- 4 Click the **support** link.

HP Customer Care

You can get help over the telephone from HP.

See the Support Guide, included with the computer documentation, for the terms of your HP warranty coverage, for license information, and for support telephone numbers and addresses.



Table of Contents

Welcome1
How to Use This Guide2
Where Can I Find
Information?3
Inventory 4 PC and Main Components 4
Media Center Components
2.1 Speaker System Components
Setting Up My PC5
Checklist 5
Front of PC
Back of PC
Connecting the Monitor
Connecting the Printer or Scanner 8
Connecting to the Internet Through a
Modem/Telephone Connection
Connecting to the Internet Through a Network Port (LAN)
Connecting the Remote Sensor
Connecting the Signal Source
Optional Connections12
Using the TV Cables
Connecting the TV
Connecting the TV Signal Source When
You Have an Existing Setup 14
Wall to Cable TV Set-top Box or Satellite Box
to VCR to TV Using Coaxial Cable 15
Wall to Cable TV Set-top Box or Satellite Box
to VCR and TV Using S-video Cable or Composite Video Cable Between the Box
and the VCR or TV

Connecting Your Speakers	17
PC Audio Connectors	
2.1 Speaker System	
5.1 Speaker System	
Adjusting the Volume	
Microphone	. 20
Headphones	. 20
Starting My PC	
Starting the PC for the First Time	
Selecting an ISP	22
HP Desktop	23
Enabling TV Out Image	
Opening Media Center	
Software Programs	
Turning Off the PC	. 28
Manual Standby Mode	. 29
Manual Hibernation Mode	. 30
Automatic Standby or Hibernation Mode	. 31
Using the PC Hardware	33
Keyboard	
Keyboard Functions	
Mouse	
Remote Control	
Remote Control Buttons Overview	
CD and DVD Drives	
DVD-ROM Drive	
cd writer plus	
dvd writer	
dvd/cd writer plus (Combo) Drive	
Opening the RecordNow program	
Diskette (Floppy) Drive	. 43
6-In-1 Memory Card Reader	. 44

Jpgrading and Servicing	45
reparing the Computer	45
emoving the Side Panels	
eplacing the Side Panels	46
ocating Components in the PC Chassis	47
emoving the Fan Duct	48
eplacing the Fan Duct	
accessing the Optical Drives	
emoving the Optical Drive	
nstalling a New Optical Drive	
eplacing and Adding Drives	
Adding Memory	
emoving Add-In Cards	58
eplacing Add-In Cards	58
roubleshooting	59
Restore and Recovery	65
ecovery System	
ecovery CDs	
Ising Application Recovery and	
System Recovery	66
ndex	71

Welcome

Thank you for purchasing the HP Media Center PC.

HP has combined the features of the HP Pavilion home PC with the Microsoft® Windows® XP Media Center Edition operating system to create a powerful entertainment center for you.

This PC includes an impressive sound system, a DVD+RW/+R player, a 6-In-1 memory card reader, and powerful 3-D graphics capability. It is simple and easy to use. It allows you to assemble your music, videos, and pictures, and to enjoy them with a click of the remote control.

The built-in TV capabilities include a Television Program Guide which gets updated over the Internet. And whether you are recording TV programs or sharing a digital photo album, you can do all your entertaining using the powerful remote control.

You will find yourself quickly at ease and in full control using the HP Media Center PC.

PC features and contents may vary by model.



How to Use This Guide



A note describes important information you need.



A warning describes information you need to avoid possible personal injury or damage to equipment or data.

Read and follow all warnings.

This guide will help you get started using your new PC right away.

- Read "Safety Information" at the beginning of this book
- 2 Identify the items included with your computer. Refer to information shown in "Inventory."
- 3 Follow the setup poster to connect your computer. Refer to "Setting Up My PC."
- 4 Read "Starting My PC" to learn how to turn on your PC and what to do next.
- 5 Read the remaining sections of this guide for information about using your PC.

Where Can I Find Information?

HP provides you with printed documentation, onscreen information, troubleshooting help and tests you can run from HP Instant Support, and help over the telephone from HP Support. Here is where to find information:

Setup poster, in the computer box, shows how to connect your computer. For additional information and setup alternatives, refer to "Setting Up My PC."

Help and Support is onscreen Help. Press

keyboard, or click **Start** on the taskbar, and then click **Help and Support**. In Help and Support, click **My HP Pavilion PC** to read Help topics, or click **HP Instant Support** to run tests or get

troubleshooting help

by using the Internet.

Help (the ? button) on the

Warranty and

Support information is in the *Support Guide*. This document, included with the computer documentation, lists the terms of your PC warranty coverage, license information, and support contact numbers and addresses. You can get help over the telephone from HP.

Regulatory and Safety

information, including operating specifications for the PC, is in the Support Guide.

Upgrading and Servicing information, including information about accessing internal parts of the computer

about accessing internal parts of the computer chassis, is in "Upgrading and Servicing."

Program Help for many software programs is available within the program. Open the program and click the Help button or select Help

from the menu.

Record Support information for your PC here. (To open the HP Pavilion Support Information window, press the Ctrl key, the Alt key, and the s key at the same time.)

Product name:	HP Media Center PC
Model number:	
Service ID:	
Data of purchase:	

Online Information

for your PC is available at the HP Web site. Press the HP button on your keyboard, or type http://www.myhpclub.com into your Web browser address box, and then press Enter on the keyboard.

Microsoft Windows XP Media Center

program lets you use a remote control to watch or record TV programs, view video, play music and movies, and view slide shows with music. Microsoft and HP provide printed books in the computer box about the program. The Media Center program also includes Help topics about using the program.



Always try using your onscreen Help, including HP Instant Support, before contacting your reseller.

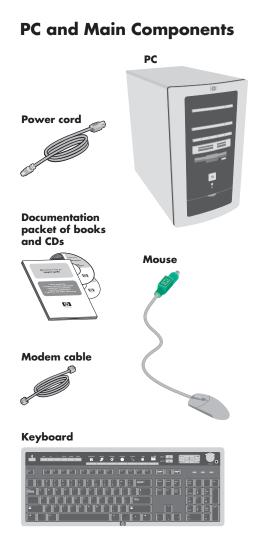
Troubleshooting help

and information can help you solve a problem with your PC. For help with general and miscellaneous problems, refer to "Troubleshooting."

Problems with software programs

may be caused by corruption or damage to an individual program (application or software driver) or to part of the system operating software. You can reinstall the software; refer to "Using Application Recovery and System Recovery."

Inventory





2.1 Speaker System **Components** (not included with all models) 2.1 Subwoofer (power cord attached) For 5.1 speaker system installation, 0 E 0 refer to "Connecting Your Speakers." 2.1 Speakers 2.1 Speaker cables

Setting Up My PC

Follow the steps in the setup poster to set up the computer. Connect the keyboard, mouse, speaker system, and remote sensor to the connections on the back of the PC. Match the colors.

Your connector locations and system components may vary.

The following pages identify the location of components and connectors on your PC and provide some setup alternatives.

Checklist

The following items are not provided with your PC. Be sure you have them on hand if you need them for your setup:

- Monitor (required)
- TV
- Internet Service Provider (ISP), selected during initial setup (required for Media Center features, such as the TV programming guide)
- Coaxial cable splitter
- S-video cable(s), to connect your TV if it requires s-video
- Audio Y-cable, to connect to a stereo system



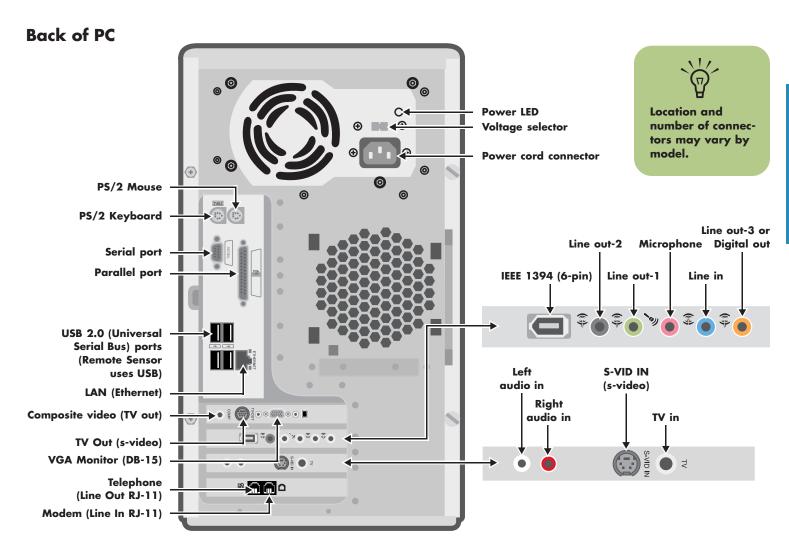
Be sure to:

- Connect the keyboard, mouse, and remote sensor.
- Connect the monitor (not included) and the optional TV (not included).
- Connect the speakers.
- Connect the TV antenna, cable, or satellite signal source.

- Connect the modem to the telephone line and connect a network cable (not provided) if one is needed.
- Turn on the monitor, the PC, and then turn on the speaker system.
- Follow the onscreen instructions, including selecting an ISP using Easy Internet Sign-up.

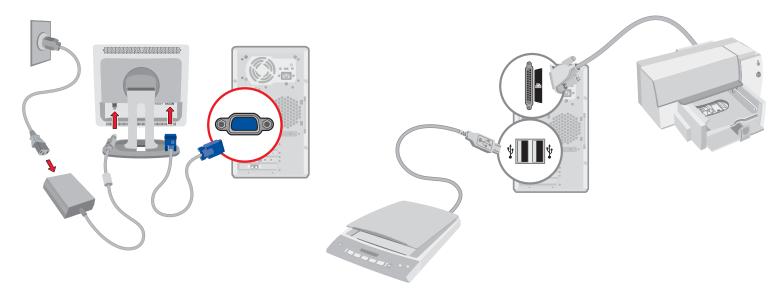
- Set up the Media Center (see "Opening Media Center").
- Enable the (optional)
 TV; refer to "Enabling
 TV Out Image."
- After you've completed the initial startup and registration, connect optional devices one at a time, such as a printer or scanner.

Front of PC 1st Optical (CD or DVD+RW/+R) drive Eject button 2nd Optical (CD or DVD+RW/+R) drive Eject button Mode buttons 6-In-1 memory card reader Diskette (floppy) drive Eject button Front ports: IEEE 1394 (6-pin) USB 2.0 On button with power indicator light Hard disk activity indicator light



Connecting the Monitor

Connect your monitor to the PC. The monitor is not included with the PC. Refer to the documentation that came with your monitor.



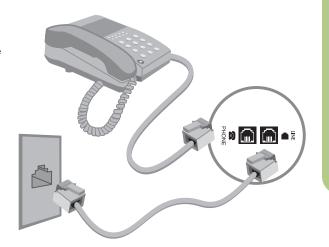
Connecting the Printer or Scanner

Connect peripheral devices to the PC one at a time. The printer or scanner is not included with the PC. Refer to the documentation that came with your device.

Connecting to the Internet Through a Modem/Telephone Connection

Connect the telephone line to the modem, which is inside the computer.

- Plug the modem cable (provided in the computer box) into the computer modem connector and to your telephone line wall jack connector.
- Optionally, you can plug a telephone cable into the computer telephone connector and into a telephone. (Telephone and cable are not provided.)





With a telephone connected to the modem, you can make regular (voice) telephone calls when you are not using the modem — even if the PC is turned off.

Connecting to the Internet Through a Network Port (LAN)

The network interface adapter (also called a network interface card, or NIC) connects to an Ethernet (10BaseT) or Fast Ethernet (100BaseT) network hub. Connect this adapter in your PC to your LAN (local area network) hub or any broadband connection.

- Plug a network cable into the Ethernet (RJ-45) port on the back of the PC.
- 2 Plug the other end of the network cable into a 10BaseT or 100BaseT port on the network hub.

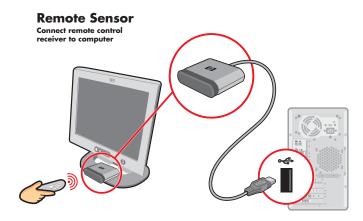
The green LED (light-emitting diode) indicates a valid connection.

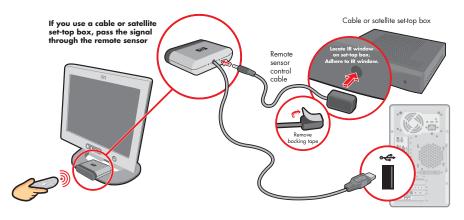


RJ-45 port



Do not plug a network cable into a telephone wall jack or a telephone cable into a network port. This can damage your PC.





Connecting the Remote Sensor

The remote sensor is a small device that connects to the PC and allows the remote control to work with the Media Center program.

If you have a cable TV set-top box, satellite, or other set-top box that controls your TV signal, connect the remote sensor control cable to the remote sensor and position the end of it over the remote receiver on your cable box. For information on using the control cable in an existing setup, see "Optional Connections."

- Plug the remote sensor cable into a USB connector on the back of the PC.
- Place the remote sensor so that you can easily point at it with the remote control. (An ideal spot would be on top of the monitor or desk.)
- 3 If needed, plug the remote sensor control cable into the back of the remote sensor. Position the end of the control cable over the remote IR receiver window on your cable TV set-top box. Remove the paper from the backing tape on the end of the cable. Press the end of the cable into place over the IR window on your box.

Connecting the Signal Source

This section describes connecting the signal source for TV.

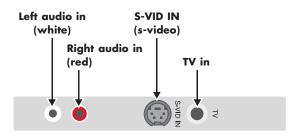
Connect the signal source for the TV by using the TV (in) coaxial connector or the S-VID IN (s-video) connector:

Plug the connector of a coaxial cable from your TV antenna or from your TV cable (wall or set-top box) into the TV connector on the back of the PC, and then turn the connector to tighten it.

Or

Plug a cable into the S-VID IN connector on the back of the PC: use an s-video cable (not provided) or use the s-video to composite video adapter cable and the composite video cable. Plug the other end of the cable into your set-top box, VCR, or other device that is providing the signal source for the TV.

You can also plug audio cables (not provided) from your set-top box or VCR into the Audio in right (red) connector and the Audio in left (white) connector on the back of the PC.





Optional Connections

Connecting the TV is optional and not required to enjoy Media Center.

Using the TV Cables

Your PC comes with the following cables for the TV signal:



 One coaxial cable (10 feet). Use a coaxial cable for a BNC connector, such as the TV source signal.



One s-video to composite video adapter cable (2 inches). Connect this adapter to an s-video connector, and then attach a composite video cable to the adapter.

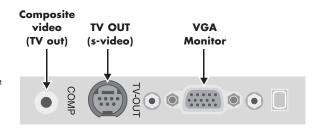


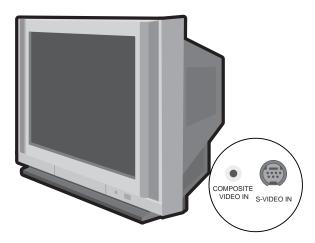
 One composite video cable (6 feet). Use this cable to connect a composite video connector on the back of the PC, such as COMP for the TV out signal, to your TV.

You may need other or additional cables, depending on your TV and your TV signal source. For example, when your TV has an s-video connector, you may want to use an s-video cable to connect the TV OUT on the PC to your TV. An s-video cable provides separate color and black-and-white image signals, and delivers a sharper image than a composite video cable does.

Connecting the TV

- Plug a cable into the TV OUT s-video connector or the COMP composite video connector an the back of the PC. Choose the cable type your TV needs.
- PC. Choose the cable type your TV needs.
- 2 Plug the other end of the cable into the TV IN connector on your TV.
- 3 Turn on the TV and select the TV IN video source; refer to the documentation for your TV set.
- 4 Be sure to enable the image for the TV; see "Enabling TV Out Image."



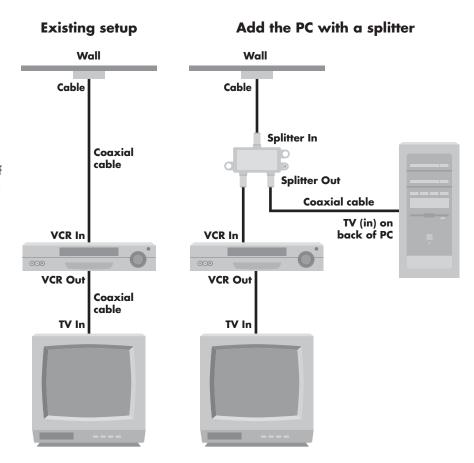


Connecting the TV Signal Source When You Have an Existing Setup

This section describes how to connect the PC to an existing setup for your TV signal source.

Wall to VCR to TV using coaxial cable

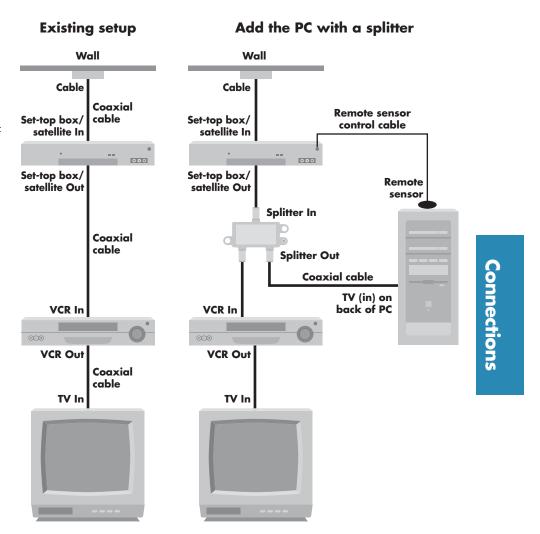
Remove the coaxial cable at the input to the VCR, and connect it to the input of a coaxial cable signal splitter (not included; available at electronics stores). Connect two coaxial cables to the splitter outputs. Connect one of these cables to the input of the VCR and the other one to the TV connector on the back of the PC.



Wall to Cable TV Set-top Box or Satellite Box to VCR to TV Using Coaxial Cable

Remove the coaxial cable at the input to the VCR, and connect it to the input of a coaxial cable signal splitter (not included; available at electronics stores). Connect two coaxial cables to the splitter outputs. Connect one of these cables to the input of the VCR and the other one to the TV connector on the back of the PC.

Be sure to connect the remote sensor control cable and position it on your set-top box or satellite box. This allows the PC to change the channel on the box. See "Connecting the Remote Sensor."



Wall to Cable TV Set-top Box or Satellite Box to VCR and TV Using S-video Cable or Composite Video Cable Between the Box and the VCR or TV

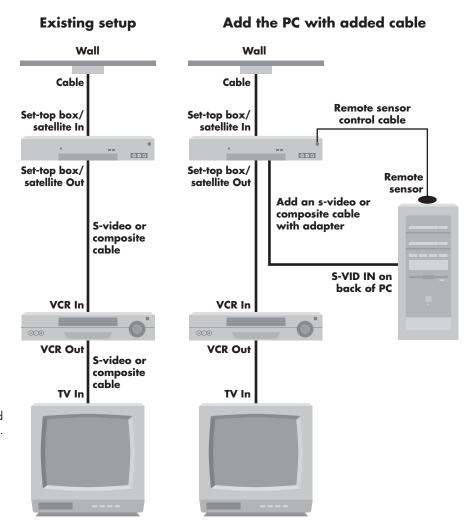
- Do not detach any cables from your existing setup.
- 2 Connect an additional cable:

Using s-video cable (not included): connect an additional s-video cable to a second output on the set-top box or satellite box. Plug the other end of the cable into the S-VID IN connector on the back of the PC.

Or

Using composite video cable: connect an additional composite video cable to a second output on the set-top box or satellite box. Connect the other end of the cable to the s-video to composite video adapter cable; connect the adapter to the S-VID IN connector on the back of the PC.

- 3 When using a composite video cable, you can also plug audio cables (not provided) from your satellite or set-top box or VCR into the Audio in right (red) and Audio in left (white) connectors on the back of the PC.
- 4 Be sure to connect the remote sensor control cable and position it on your set-top box or satellite box. This allows the PC to change the channel on the box. See "Connecting the Remote Sensor."



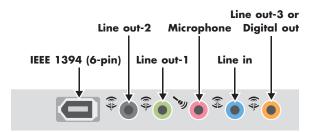
Speakers

Connecting Your Speakers

Speaker systems are not included in all PC models. Always turn on the PC before you turn on the speaker system.

The 2.1 speaker system and the 5.1 speaker system are powered by the sound card that has a suite of software applications from Creative. Creative PlayCenter 3 is an integrated player for multiple media formats you can use to create various audio formats. Sound Blaster Audigy allows you to set up and audition various audio devices.

To access these programs, click Start, All Programs, Creative, and then click Creative PlayCenter 3 or click Sound Blaster Audigy. Then, to learn more about the programs, choose Creative PlayCenter Help or choose User's Guide in Sound Blaster Audigy.



PC Audio Connectors

The audio connectors on the back of the PC include analog and digital outputs as well as a microphone and an audio input.

Mic (pink) connects to a microphone.

Line in (blue) connects to an analog audio device for sound input to the PC.

Line out-1 (lime green) connects to an active stereo or multi-channel speaker system such as the 2.1 speaker system; refer to "2.1 Speaker System" to set up the speakers.

Line out-1 (lime green) for front speakers, **Line out-2** (black) for rear speakers, and **Line out-3** (orange) for center and subwoofer speakers connect to an active multi-channel six speaker system such as the 5.1 speaker system; refer to "5.1 Speaker System" for more information.

Digital out (Line out-3, orange) connects to a digital device such as a stereo system with digital input.

To enable Digital out:

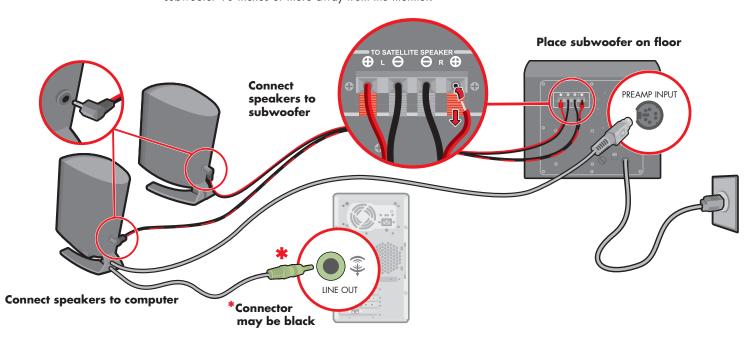
Select digital speaker output in AudioHQ Speaker setting: Click **Start**, **All Programs**, **Creative**, **Sound Blaster Audigy**, and then click **Creative AudioHQ**. Double-click **Speaker**. The Surround Mixer window opens. Select **Digital Output Only** so that a check mark appears in the box.



When Digital
Output Only is
selected, the
analog Line out-2
and Line out-3 do
not receive any
signals.

2.1 Speaker System

- Put the rubber feet on the bottom of the speakers.
- 2 Place the two speakers on the left and right of your monitor or TV.
- 3 Place the subwoofer on the floor beneath your computer desk or TV. Do not block the side or front of the subwoofer, and allow for ventilation to reach the rear of the subwoofer. Do not place the subwoofer by the computer monitor; to avoid interference, place the subwoofer 10 inches or more away from the monitor.
- 4 Refer to the setup poster for connecting the 2.1 speaker system.
- 5 You can test the speaker system. Click **Start**, **All Programs**, **Creative**, **Sound Blaster Audigy**, and then click **AudioHQ**. Double-click **Speaker**. The Surround Mixer window opens. In the *Speaker box*, be sure **2 Speaker** shows, or select it from the drop-down menu. Click **Test** to test the speakers.



5.1 Speaker System

Because your 5.1 speaker system may vary, to set up your speakers, please refer to the instruction package included with the 5.1 speaker system box.

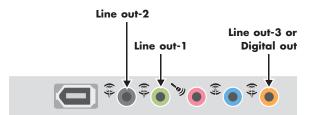
To connect the 5.1 speaker system, refer to the table listing connector information.

5.1 Plug (color)

Connects to back of PC (color)

Front speakers (green)
Rear speakers (black)
Center/subwoofer (orange)

Line out-2 (black)
Line out-3 (orange)



Be sure to select the 5.1 speakers by doing the following:

- Select speakers in the Windows Control Panel:
 Click Start on the taskbar, choose Control Panel.
 Click Sounds, Speech and Audio Devices, and then click Sounds and Audio Devices. The Sounds and Audio Devices Properties window opens.
 Click Volume tab and under the Speaker settings click Advanced button. On the Speakers tab, in the Speaker setup: box select 5.1 surround sound speakers from the drop-down menu. Click Apply, and then click OK.
- 2 Select speakers for DVD Audio in the Media Center: Open Media Center (see "Opening Media Center"). Select **Settings**, **TV/DVD**, **DVD**, and **Audio** (wait for the properties window to open). On the *iviaudio* tab click **6 speaker mode** (**5.1 channel**), select **Apply**, and then select **OK**.
- 3 Select speakers in AudioHQ Speaker setting: Click Start, All Programs, Creative, Sound Blaster Audigy, and then click Creative AudioHQ. Double-click Speaker. The Surround Mixer window opens. In the Speaker box, select 5.1 Speakers from the drop-down menu.

You can also test the speakers; open the Creative AudioHQ Surround Mixer window (see step 3) and click **Test**.

Adjusting the Volume

Adjust the volume for the speaker sound level any of these ways:

- Turn the Volume knob on the keyboard.
- Double-click the **Volume** icon on the taskbar, and then adjust the volume.



- Adjust the Volume Controls within a program, such as the Volume buttons on the Media Center navigation bar or on the remote control.
- Adjust the 2.1 speaker system Volume knobs on the main speaker.
- Adjust the 5.1 speaker system Volume knobs on the control tower.

Microphone

Your PC comes with a microphone connector on the back of the PC.

Using the microphone

The microphone connector is pink and is labeled with a microphone icon. It is already set up to work as soon as you plug in your microphone.

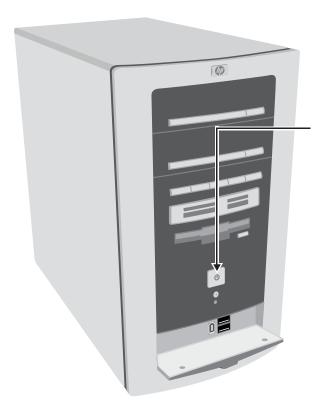
Headphones

You can connect headphones to Line out-1 (lime green) on the back of the PC, or to the 2.1 speaker system or the 5.1 speaker system.

For the 2.1 speaker system, look for the headphones connector on the right side of the main speaker. When headphones are plugged in, the sound to the speakers and the subwoofer is muted.

For the 5.1 speaker system, look for the headphones connector on the right side of the control tower. If the control tower displays *HP*, the headphones are enabled; the sound to the speakers and the subwoofer is muted. Push and hold the On button on the control tower for several seconds to enable sound from the speakers. Press the On button briefly to enable the headphones.

Starting My PC



Starting the PC for the First Time

After you've completed connecting the components of your PC by using the setup poster steps, you are ready to turn on the computer.

- Press the Power button on the monitor.
- 2 Press the On button on the front of the PC.
- 3 Follow the onscreen instructions for the initial Microsoft Windows setup.
- 4 When you see the Register with HP screen, enter your information, completing all of the required boxes.
 Then click **Next** to go to the next screen.





Read "Safety Information" at the beginning of this book before you turn on the computer.



Register with HP:

- Be notified of changes and updates to the PC.
- Get assistance with your technical support needs.

Selecting an ISP

As part of the startup screens, you can select an Internet Service Provider (ISP). Before you can connect to the Internet, you need to sign up with an ISP. You need an Internet connection to use some of the Media Center features.

Easy Internet Sign-up helps you sign up for a new Internet account, set up an existing account, or configure Internet access using a LAN (local area network), cable modem, or DSL (digital subscriber line).

Open Easy Internet Sign-up:

■ Double-click the **easy Internet sign-up** icon on the desktop.



Or

 Click Start on the taskbar, choose All Programs, and click easy Internet sign-up.

The Easy Internet Sign-up screen appears. Follow the onscreen instructions.





Welcome to easy Internet sign-up!

Get connected to the Internet quickly and easily.

Sign-up for Internet access from a full selection of hp recommended service providers.

Come back often to see the latest service options and offers in your area.



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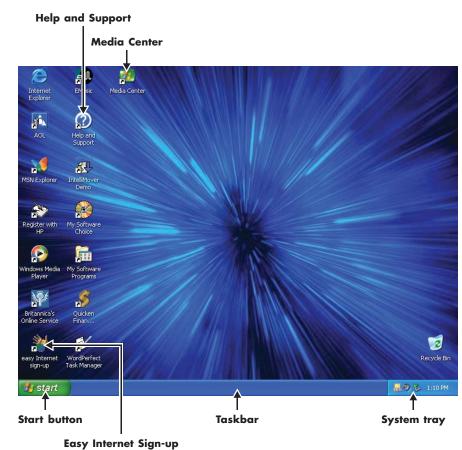
HP Desktop

The HP desktop has shortcut icons that make it easy to find the things you need. Click the icon to find out more information about its program.

The screen on your computer may not match the screen pictured here.

Click the **Start** button to open the Start menu. Use this menu to:

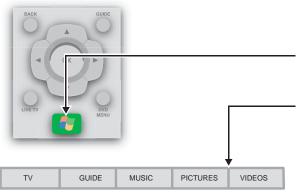
- Open Media Center by clicking Start on the taskbar, All Programs, Accessories, Media Center, and then click Media Center again.
- Select programs or documents.
- Open the Help and Support Center.
- Start a search.
- Run a program.
- Open the Control Panel to view or change settings.
- Access the Log Off button to end your current computer session and to switch between users.
- Access the Turn Off Computer button to turn off the computer or to restart it.



Enabling TV Out Image

You must enable the TV out image in order to view Media Center using your TV. Skip these steps if you are not using a television.

- Check that the TV is connected to the PC. See "Connecting the TV." Turn on the TV.
- 2 If you have Media Center open, close it.
- **3** Right-click an empty part of the PC desktop and click **Properties**.
- 4 Click **Settings** tab.
- 5 Click the **Advanced** button.
- 6 Click **nView** tab.
- **7** Click the **Clone** option.
- 8 Click the **Detect Displays** button. You will see two images (view windows) appear in nView.
- 9 Click the **OK** button.





Opening Media Center

Open Media Center:

■ Press the **Start** button on the remote control.

Or

■ Press a Mode button on the front of the PC.

Or

■ Click the **Media Center** icon on the desktop.



Or

■ Click Start start on the taskbar, choose All Programs, Accessories, Media Center, and then click Media Center again.

To find Help in Media Center, press F1 on the keyboard or move the mouse to show the Media Center navigation bar and click Help (the ? button).

To learn more about Media Center, refer to the printed books about Media Center, included in the computer box.



After you've completed registering, install any software programs that may have come on CDs or DVDs included in the computer box.

Software Programs

HP provides software programs and offers to help you use and enjoy your new computer. To open a program, click its icon on the desktop (select programs) or click **Start**, choose **All Programs**, and then click the folder or program name. Programs and offers may change.

InterVideo WinDVD lets you watch DVD movies and video using an interactive menu. Media Center uses this program.

Windows Media Player, from Microsoft, lets you play, save, and organize your music and audio files. Media Center uses this program. HP includes a 30-day trial use of the InterVideo MP3 XPack plug-in for Windows Media Player that allows you to create MP3 format files.

RecordNow lets you write (record) audio or data files to recordable discs.

Encyclopedia Britannica 2002 On-line is a link to the Encyclopedia Britannica Web site and includes a one-year free subscription provided by HP.

www.myhpclub.com/sw24 is a special Web site for HP Pavilion home PC owners. You will find fun projects, important product notices, support updates, tips, and special offers from HP; just press the HP button on the keyboard or enter the address in your Internet Web browser.

GameChannel is a Web site where you can play cool 3-D games from WildTangent. It provides the best online game console available today, and the games are updated all the time.

ArcSoft ShowBiz lets you transfer and edit full-motion video from a variety of sources. You choose video clips, arrange them, and then add titles, scene transitions, music narration, special effects, backgrounds, and more.

HP Picture Toolkit appears within the My Pictures folder and provides easy access to software and services exclusively from HP:

- Greeting Card Creator creates cards to print and share
- Photo Impression edits photos
- Funhouse combines your photo with fun backgrounds
- HP Print Creator creates album pages of photos for printing
- HP Memories Disc Creator combines photos with sound to store on CD and watch on a home DVD player or PC

MyDVD lets you organize your own videos with menus, and by using the hp dvd writer drive (select models), create a DVD disc to watch in a home DVD player.

Detto IntelliMover is a demonstration video for the data transfer program that moves your e-mail, files, folders, preferences, and settings between PCs. Click the link to the Web site http://www.detto.com/hp to purchase the data migration kit (the program and a special data cable).

Acrobat Reader 5.0 displays documents that are in the Adobe Portable Document Format (PDF). You can navigate through the document and print all or part of it.

WordPerfect Productivity Pack provides
WordPerfect 10, a word processing program, and
Quattro Pro 10, a spreadsheet program, along with
a task manager that makes choosing templates easy.
For example, you could choose fax in the task manager
program and it would open the word processor program
and present a blank fax form for you to complete.

Quicken Financial Center displays information about Quicken tools that are available on your PC and on the Web. You can click Start Quicken On Your Computer to use the New User Edition program that is available on your PC. If you have existing Quicken files that you want to use, purchase Quicken Deluxe from the Quicken Web site.

Symantec/NAV2002 is the Symantec Norton AntiVirus™ program that scans for viruses and protects your PC by removing them. Symantec offers free virus definition updates through your Internet connection for 90 days after your PC purchase. You can purchase a subscription service for updates after your initial free period expires.

@Backup is a flash demonstration video and a Web site about this convenient way to use the Internet to move large amounts of information between PCs. You can purchase the service from the Web site.



If you are using Media Center to record television programs, put the PC into standby mode (instead of turning it off or using hibernation) so that the PC can "wake" at the proper time to record TV programs.

Turning Off the PC

Turn off the PC by using the following steps:

Close any open software programs. To close programs, click X in the upper-right corner of each window.
 Click Start on the taskbar.
 Click Turn Off Computer at the bottom of the

4 Click Turn Off. -

5 Turn off the monitor.



start

Log Off Turn Off Computer

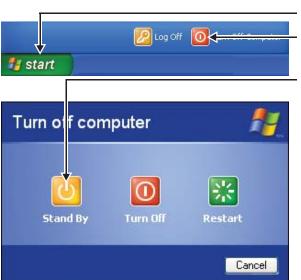


Before turning off the PC, remove media from all drives: CD, DVD, diskette, and the 6-In-1 memory card reader. Media left in a drive may cause an error when you turn on the PC.

Manual Standby Mode

Press the Standby button on the keyboard or the **Standby** button on the remote control, or briefly press the On button on the front of the PC. The screen goes dark, and the computer goes into standby mode. The On button on the front of the PC has a power indicator light that flashes when the PC is in standby.





)|

- Click **Start** on the taskbar.
- 2 Click Turn Off Computer at the bottom of the menu.
- 3 Click Stand By.

When you want to use the computer again, to make the screen display reappear just as you left it, do one of the following:

- On the front of the PC, briefly press the On button.
- On the keyboard, press the Esc key or the Standby button
- On the remote control, press and hold the **Standby** button for 1 or 2 seconds and then, when the screen display appears, press the **Start** button.

If the computer does not work properly when you wake it from standby, reset the PC by pressing and holding the On button on the front of the PC for approximately 5 seconds until the computer turns off. Then turn the computer back on.

Manual Hibernation Mode

When you press Shift, the Stand By button changes to Hibernate. If Hibernate is not present, you first need to set up your PC for hibernation by setting the Power Options in the Control Panel.



Do not use hibernate if you have scheduled TV recordings in Media Center. Hibernation differs from standby. When the PC enters standby, it is still active and able to respond to scheduled activities. When the PC enters hibernation, it copies everything currently displayed and on the desktop to the hard disk and then turns itself off.

Click **Start** on the taskbar. -

2 Click **Turn Off Computer** at the bottom of the menu.

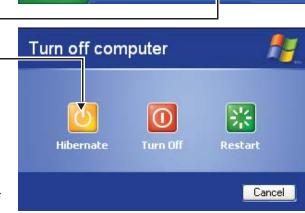
3 Press the Shift key on the keyboard and click **Hibernate**. The PC saves everything that is in

computer memory to the hard disk, turns off the

monitor and the hard disk, and then turns itself off.

4 When you want to use the computer again, press the On button on the front of the PC. The PC returns everything (programs, folders, and documents) to the screen.

If the computer does not work properly when you wake it from hibernation, restart the PC.

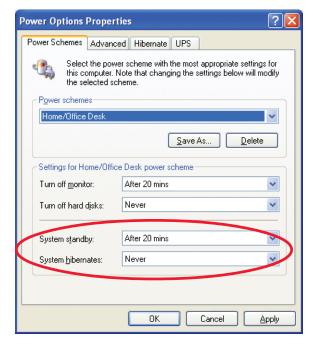


🤰 start

Log Off

Turn Off Computer

Automatic Standby or Hibernation Mode



To automatically put the computer into standby or hibernation mode when the PC is idle, modify the power management settings:

- Click **Start** on the taskbar.
- 2 Click Control Panel.
- 3 Click **Performance and Maintenance**, if it is present.
- 4 Double-click Power Options.
- 5 Click the **Hibernate** tab, select the *Enable* hibernation check box, and then click **Apply**.
- Click the **Power Schemes** tab to set the timers for standby or hibernation. In the Power Schemes box, select a power scheme from the drop-down list. Choose the timers:
 - To turn on auto-standby for the computer, click a time (such as **After 20 mins**) in the System standby list.
 - To turn on auto-hibernate, click a time (such as **After 1 hour**) in the System hibernates list.
- 7 Click OK.



If both standby and hibernation timers are set, the system hibernates timer must be set for a longer time than the system standby timer.



Do not use auto-hibernate if you have scheduled TV recordings in Media Center; instead, set System hibernates to Never.

Using the PC Hardware

Keyboard

The keyboard has an arrangement of standard keys and special buttons.

Alphanumeric keys are the main keys found on a standard typewriter.

the F1 through F12 keys located above the main keys. F1 opens a Help window for the software program being used. F3 opens a search window. Other function key operations may depend on the software program you are using.

- C Arrow keys are controls for up, down, right and left. You can use these keys instead of the mouse to move the cursor in a Web site, in a document, or in a game.
- Numeric keys are locked when the Num Lock LED (light-emitting diode) on the keyboard is lit.

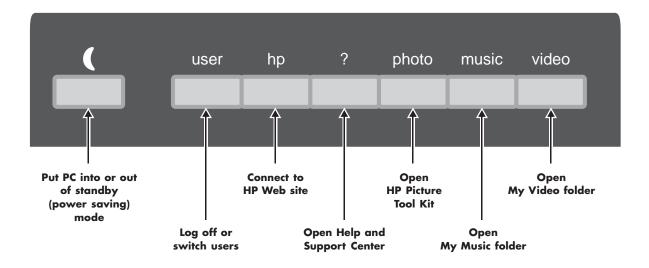
When locked, the numeric keys are the number keys and arithmetic function keys found on a basic calculator. When the Num Lock LED on the keyboard is off, the numeric keys are directional keys used during games or to move the cursor.

E Special buttons are at the top of the keyboard. These buttons operate the CD or DVD player, connect you to the Internet, or provide quick access to specific functions. See "Keyboard Functions" for descriptions of these buttons.



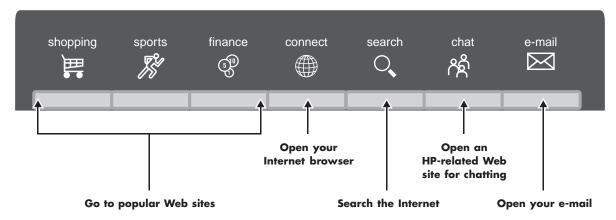
Keyboard Functions

Access buttons



Internet buttons

(back-lit display)



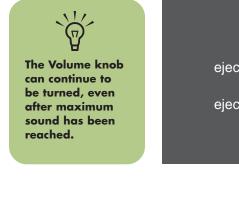
Configure the keyboard buttons

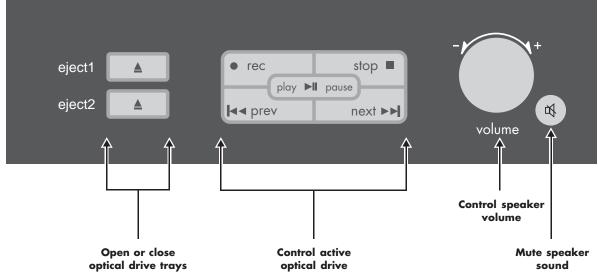
- Click **Start** on the taskbar.
- 2 Choose Control Panel.
- 3 Click Printers and Other Hardware, if it is present.
- 4 Double-click **Keyboard**.

- 5 In the Keyboard Properties window that opens, click the **Buttons** tab.
- 6 Double-click the button you want to change. The button configuration window opens.
- Choose the button capability from the drop-down list. Enter the Display label and Address information. (For a Web site, enter the complete Web site URL in the Address box.)
- 8 Click OK.

- 9 On the Buttons tab, click **Apply**.
- Repeat steps 6 through 9 for other buttons.
- Click **OK** when you are finished.

Optical drive and Volume buttons





Mouse

Your PC includes an optical scrolling mouse. When you move the mouse, it uses light and an optical sensor, instead of a roller ball, to sense movement. Use the optical mouse on an opaque surface.

Using the mouse buttons

Like an ordinary mouse, the scrolling mouse has two buttons on the top: the left button, called the primary button, and the right button, called the secondary button.

Click the left mouse button to position the cursor or to select an item. Click the right mouse button to display a menu of commands available for the item you clicked.

Dragging and dropping

You can click and drag an item to move it.

- Left-click the item, and then press and hold down the left mouse button.
- 2 Move the mouse to position the cursor; the item is dragged along.
- 3 Release the button to drop the item into place.

If you press and hold down the right mouse button when you click and drag, a menu appears when you release the button to drop the item. The menu lets you move, copy, or create a shortcut for the item.

Changing for left-handed use

You can change the configuration of the primary and secondary mouse buttons for left-handed use. Refer to "Reverse your mouse buttons" in the onscreen Help and Support Center.

Scrolling

Use the wheel button in the middle of the mouse to scroll or select items. You can use the scrolling mouse to scroll, to autoscroll, or to pan.

To scroll:

- Click the left mouse button to place the cursor in a document.
- 2 To scroll toward the beginning of the document, roll the mouse wheel up (away from you). To scroll toward the end of a document, roll the wheel down (toward you).

To autoscroll:

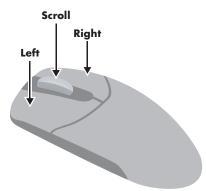
- Place the cursor in the document next to the text where you want to begin scrolling and press the wheel button once. An autoscroll icon appears.
- 2 To begin autoscrolling, move the mouse in the direction you want to scroll. The farther you move the pointer from the starting point, the faster the document scrolls.
- 3 To stop autoscrolling, press the wheel button again.

To pan:

- Place the cursor in the document. Press and hold down the mouse wheel button.
- 2 Slowly move the mouse in the direction you want to scroll.
 The farther you move the pointer from the starting point, the faster the document pans.
- 3 To stop panning, release the wheel button.



The optical mouse cannot work on a glass, translucent, or reflective surface.

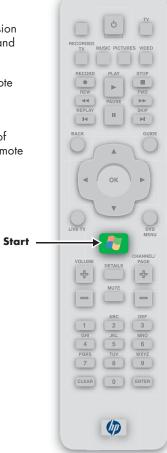


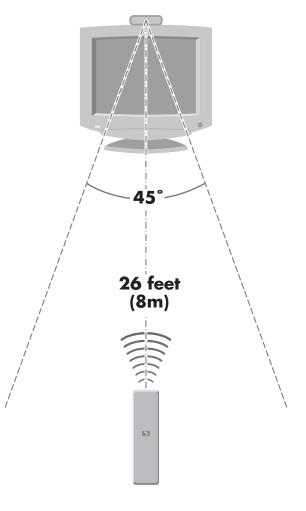
Remote Control

Use the remote control to open the Media Center program and use it to view television, record television programs, play previously recorded TV programs, and play music, movies, or video.

To use the remote control, simply point it at the remote sensor and press the **Start** button.

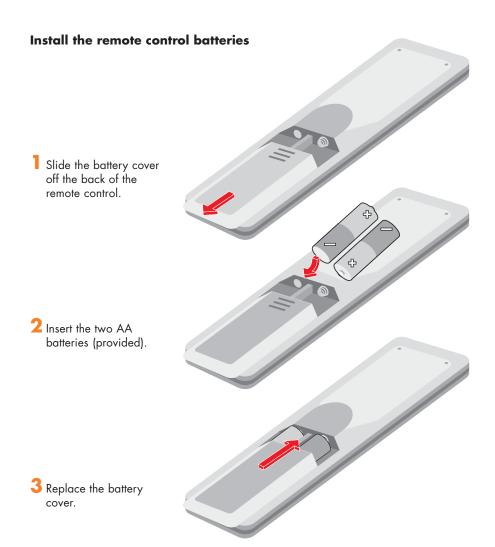
Use the remote control at a maximum distance of 26 feet from the remote sensor and at a maximum of 22.5 degrees (45 degrees total) off center of the remote sensor.







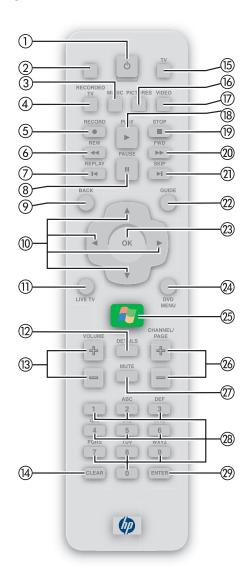
Refer to the Media Center books included in the computer box for information on using Media Center and the remote control.





Remote Control Buttons Overview

- (1) **Standby** O puts the PC into a power reduced state called standby. An LED located under the Standby button blinks when the remote control is transmitting a signal to the remote sensor. You must press **Standby** for 1–2 seconds.
- (2) This button has no function.
- (3) Music opens My Music window.
- (4) Recorded TV opens Recorded TV window.
- (5) **Record** records selected television program and stores it on the hard disk.
- (6) **REW (Rewind)** moves the media backward.
- (7) **Replay** moves media backward, one music track or one DVD chapter at a time.
- (8) **Pause** pauses audio or video track, or pauses live or recorded TV programs.
- Back returns PC to the previous window within Media Center.
- (1) Arrow buttons move cursor to navigate within all Media Center windows.
- (1) **Live TV** is a shortcut to the full screen view of live TV. It also moves to the current point in live TV program after pausing live TV.
- (2) **Details** displays available information about TV program.
- (3) **Volume** increases (+) and decreases (-) computer sound.
- (4) **Clear** deletes selection and works as the backspace button does on a keyboard.



- (5) **TV** opens My TV window.
- (6) Pictures opens My Pictures window.
- 17 Video opens My Videos window.
- (18) Play plays selected media.
- (9) Stop stops media currently playing or recording.
- (2) FWD (Fast forward) moves media forward.
- ② **Skip** moves media forward, for example one music track or one DVD chapter.
- ② Guide opens Television Program Guide to display available TV channels and programs to watch and record.
- ② OK selects desired action or window option. It acts as the Enter key. If watching TV in full screen mode, pressing OK switches back to the previous channel watched. Press again to toggle back. It acts the same way as a jump button on some TV remote controls.
- (24) DVD Menu opens main menu on a DVD movie if DVD is already playing and if a menu is available.
- **Start** opens Media Center to the main Start menu.
- (a) Channel/Page up (+) and down (-) changes TV channel or moves page up and down, depending on available options.
- (27) Mute turns computer sound off.
- (28) O to 9 changes channels or enters text into Media Center search or text box.
- Enter selects desired action or window option.

CD and **DVD** Drives

Your PC comes with one or two of the following optical drives:

- CD-RW
- DVD-ROM
- DVD+RW/+R
- combo (DVD/CD-RW)

A CD-RW drive may be labeled *cd writer plus*. A DVD+RW/+R drive may be labeled *dvd writer*. The combo drive may be labeled *dvd/cd writer plus*.

Handling a CD or DVD

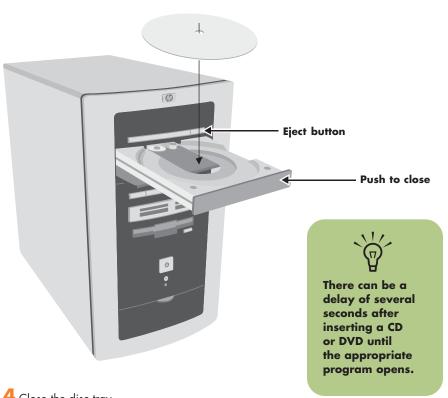
To avoid damaging CDs or DVDs, follow these guidelines:

- Return the disc to the case when you are finished using it.
- Handle the disc by its outside edges or center hole only.

- Do not touch the unlabeled side of a CD or place the unlabeled side down on your desk. Doing so could scratch the surface of the CD.
- Store CDs at room temperature.

Inserting a CD or DVD

- Make sure the computer is on. (If the PC is in standby mode, the On button light flashes; press the Esc key on the keyboard to wake the PC.)
- 2 Press the Eject button on the drive to eject the tray. (Or, press the Eject button for the drive on the keyboard.)
- 3 Holding on to the disc edges only, gently place the disc in the tray with the label facing up.



4 Close the disc tray by gently pushing the tray into the computer. (Or, press the Eject button for the drive on the keyboard.)

DVD-ROM Drive

The DVD-ROM drive can play movie DVDs and music CDs, read data DVDs and CDs, and run CD-based and DVD-based software programs.

Using the DVD-ROM drive

When you insert a disc into the DVD-ROM drive, the computer automatically detects the type of disc.

- If you insert a software program or data CD or DVD, it is available for use.
- If you insert a music CD, a program opens so you can play the CD.
- If you insert a DVD movie, a program opens so you can play the DVD.

cd writer plus

The cd writer plus is a CD-RW drive. It can play music CDs, read data CDs, run CD-based software, create, or write, music and data CDs, and copy CDs.

Using the cd writer plus

When you insert a disc into the drive, the computer automatically detects the type of disc.

- If you insert a software program or data CD, it is available for use.
- If you insert a music CD, a program opens so you can play the CD.
- If you insert a blank recordable disc (CD-R or CD-RW), you can use RecordNow to copy files to your blank CD.

dvd writer

The dvd writer is a DVD+RW/+R drive. It can play movie DVDs and music CDs, read data CDs and DVDs, and record files to DVD+RW, DVD+R, CD-R, and CD-RW discs.

Using the dvd writer

Important: There are two types of DVD rewritable discs: DVD-RW and DVD+RW. DVD-RW discs do not work in the DVD+RW drive.

When you insert a disc into the dvd writer drive, the computer automatically detects the type of disc.

- If you insert a software program or data CD or DVD, it is available for use.
- If you insert a music CD, a program opens so you can play the CD.
- If you insert a DVD movie, a program opens so you can play the DVD.
- If you insert a blank recordable disc (DVD+RW, DVD+R, CD-R, or CD-RW), you can use the software programs provided with the drive to copy files to your blank disc.

dvd/cd writer plus (Combo) Drive

The dvd/cd writer plus is a DVD/CD-RW drive. It can play music CDs, read data DVDs and CDs, run CD-based and DVD-based software programs, create, or write, music and data CDs, copy CDs, and play DVD movies.

Using the combo drive

When you insert a disc into the combo drive, the computer automatically detects the type of disc.

- If you insert a software program or data CD, it is available for use.
- If you insert a music CD, a program opens so you can play the CD.
- If you insert a DVD movie, a program opens so you can play the DVD.
- If you insert a blank recordable disc (CD-R or CD-RW), you can use RecordNow to copy files to your blank CD.

Opening the RecordNow program

RecordNow is a program that copies and creates CDs and DVDs using your cd writer or dvd writer drives.

- Click **Start** on the taskbar.
- 2 Choose All Programs.
- 3 Click **RecordNow**.
- 4 Click **RecordNow** again.

For information about recording onto CDs, refer to the Help menu in the RecordNow program.

Diskette (Floppy) Drive

The diskette (floppy disk) drive can read and write diskettes.

Using the diskette drive

Insert the diskette into the drive until it locks in place. Make sure you insert the diskette with the round metal disk face down and the arrow on the top pointing into the drive.

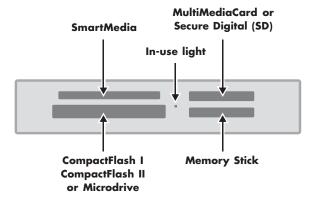
You can copy files from or to the diskette.

When you are done, check that the light on the drive is not lit, indicating that the PC is not writing to the diskette, and then press the Eject button on the PC and remove the diskette.





You can place media in one or more of the card reader slots and access each media independently. Each drive has its own drive letter.





Do not try to insert or remove media when the In-use light is lit. Doing so may cause data loss.



6-In-1 Memory Card Reader

The 6-In-1 memory card reader (select models) can read and write six types of memory media.

Using the 6-In-1 memory card reader

- Insert the media into the card slot on the reader until it stops and locks into place.
- 2 The light on the reader lights and the computer automatically detects the media.
- 3 The computer opens a program so you can access the media contents. You can copy files from or to the media.
- 4 When you are done, check that the light on the drive is not lit, indicating that the PC is not writing to the media, and then remove the media.



Upgrading

Upgrading and Servicing

You can upgrade or replace several components in your computer yourself. Review this chapter for the procedures on accessing and installing parts of your computer.

Preparing the Computer

Read the following items before attempting to open or service the computer:

- These procedures assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
- HP recommends that you use an antistatic wrist strap and a conductive foam pad when working on the computer.



Read "Safety Information" on page iii.



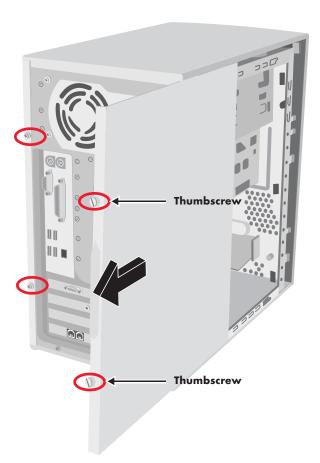
Always disconnect the modem cord from the telephone system, and then disconnect the PC from the power source before removing your computer cover. Failure to do so before you open the PC or do any procedures can result in personal injury, or equipment damage.

Removing the Side Panels

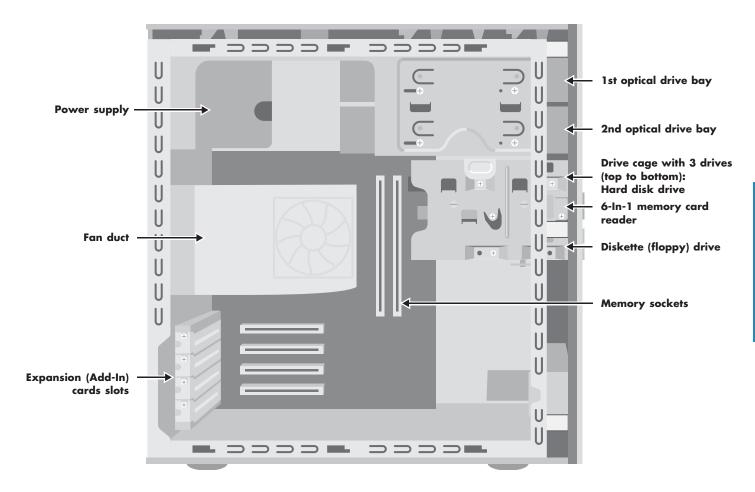
- Loosen the two thumbscrews on the right side of the back panel. (You may need a flathead screwdriver. These screws do not detach; they'll stay on the side panel loosely until you tighten them again.)
- 2 Pull the panel toward you until it stops. Lift the panel off the chassis and set it aside.
- 3 If you are replacing an optical drive, remove the other side panel in the same manner. Note that the screws on this panel detach and are loose from the panel.
- 4 Gently lay the computer on its side. (Skip this step if replacing an optical drive.)

Replacing the Side Panels

- To replace the side panel, align the notches on the panel with the holes on the chassis, slide the side panel forward until it locks in place, and then tighten the thumbscrews on the side panel.
- 2 Repeat for the other side panel if it was removed.
- 3 Reconnect (in this order) the power cord, the modem/telephone cable, and then all other cables.



Locating Components in the PC Chassis



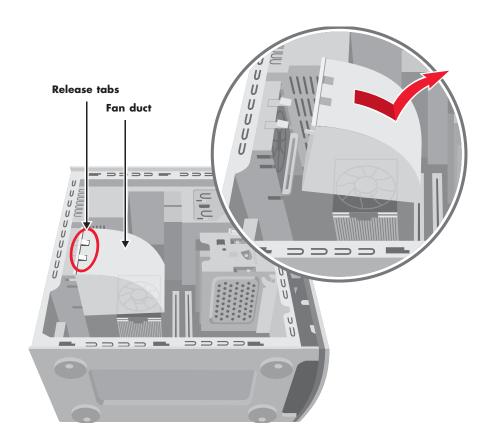
Removing the Fan Duct

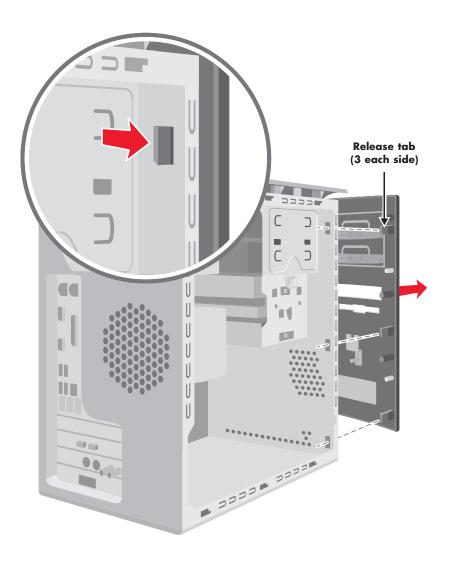
Remove the fan duct when replacing memory, an optical drive, or the drive cage.

- To disengage the fan duct, push down the two tabs. You can push with your fingers or a pen.
- 2 Rotate the fan duct down and out to remove it from the chassis.

Replacing the Fan Duct

- To replace the fan duct, hold the fan duct at a 45-degree angle, and align the bottom of the duct with the slot on the fan holder.
- 2 Rotate the fan duct into position. Make sure it is securely locked.





Accessing the Optical Drives

To access the optical drives, you remove the side panels, the front panel, and the fan duct.

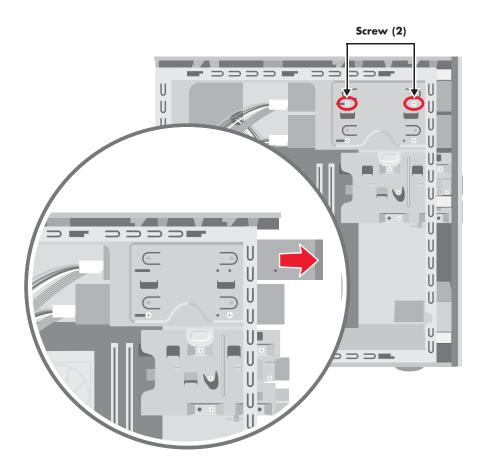
- Remove both side panels. (See page 46.)
- 2 To release the front panel, locate the three small tabs on each side of the chassis. Press each tab away from the center of the chassis. Press the top pair, the middle pair, the bottom pair, and then remove the panel. Reverse this step to replace the front panel.
- 3 Remove the fan duct. (See page 48.)

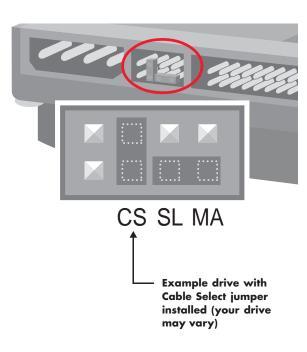
Removing the Optical Drive

Your computer comes with one or two optical drives (CD, DVD, or combo) which you can replace or upgrade. These drives are located in the two fixed bays at the top of the chassis.

When you are removing the top optical drive, to have better access to the back of the drive, remove the two screws on both optical drives and push both drives part way out through the front of the computer.

- Locate the two screws on the optical drive and remove them. Push the drive partway out through the front of the computer.
- 2 Remove the cables attached to the back of the drive you want to replace. Make note of each connection and the plug orientation before disconnecting the cables.
- 3 Pull the drive out through the front of the computer.





Installing a New Optical Drive

- Make sure the jumper on the new drive is in the CS (Cable Select) position. Slide the new optical drive through the front of the computer. Don't slide the drive in all the way you need room to attach the cables.
- 2 Connect the cables to the back of the drive.
- 3 Push the drive all the way in, align the screw holes, and insert the screws.
- 4 Replace the fan duct (see page 48), the front panel (see page 49), and the side panels (see page 46).



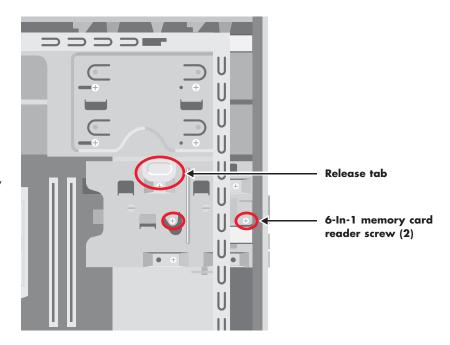
A jumper is a small plastic connector or wire which electrically connects two pins in order to define a configuration setting.

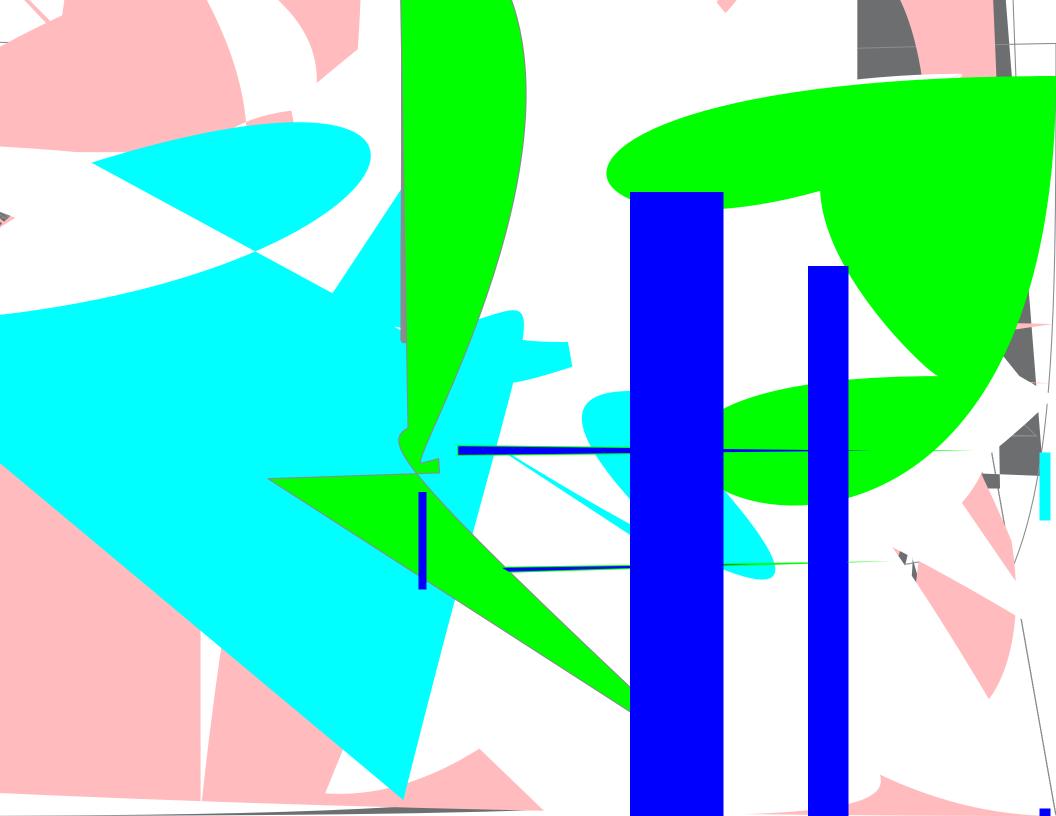
Replacing and Adding Drives

You can replace the drives that are located in the removable drive cage: hard disk drive, 6-ln-1 memory card reader (select models), and diskette (floppy) drive. On PCs with no 6-ln-1 memory card reader, you can add a second hard drive by installing it into the drive cage.

Removing the drive cage

- Remove the fan duct. (See page 48.)
- 2 Remove the cables from the back of the drives that are in the removable drive cage. Make note of each connection and the plug orientation before disconnecting the cables.
- 3 If you do not have a 6-ln-1 memory card reader, skip to step 5. If you have a 6-ln-1 memory card reader, continue with step 4.
- 4 Remove the two screws that secure the 6-ln-1 memory card reader in the drive cage. From the front of the chassis, push the reader into the drive cage.
- 5 Push down on the drive cage release tab, and hold it down as you rotate the cage up and lift it out of the chassis. Cover the front of the cage as you lift it out so that the 6-In-1 memory card reader does not slide out.





Removing and replacing the preinstalled hard drive

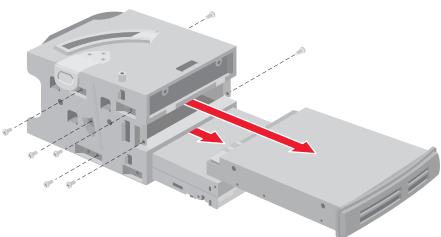
You must remove the hard drive from the chassis if you want to replace it with a higher capacity drive or if you want to safeguard your data when sending the computer out to be repaired.

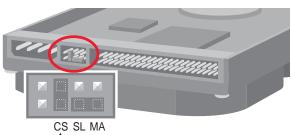
- Remove the drive cage. (See page 52.)
- 2 Remove the three screws that secure the hard drive in the drive cage: two screws on the latch side of the drive cage and one screw on the opposite side.
- 3 Pull the hard drive out, and store the drive and screws in a safe location.
- 4 To replace the hard drive, reverse these steps. Make sure the jumper on the new hard drive is in the CS (Cable Select) position. (See figure on page 51).

Removing and replacing the diskette drive or the 6-In-1 memory card reader

To ensure that the drive fits properly into the chassis, be sure to purchase the replacement drive from HP.

- Remove the drive cage. (See page 52.)
- 2 Remove the two screws that secure the diskette drive in the drive cage: one screw on each side of the drive cage. (The screws for the 6-In-1 memory card reader were removed when the drive cage was removed.)
- 3 Pull the drive out of the drive cage. Slide the replacement drive into the drive cage.
- 4 For the diskette drive, attach the screws: one on each side of the drive cage. (The screws for the 6-In-1 memory card reader are replaced when the drive cage is replaced.)
- **5** Replace the drive cage. (See page 53.)





Example drive with Cable Select jumper installed (your drive may vary)



Installing a second hard drive

If your PC model does not have a 6-In-1 memory card reader, the bottom slot of the drive cage is empty and can accommodate an additional 3.5-inch hard drive.

- Remove the drive cage. (See page 52.)
- 2 Make sure the jumper on the new hard drive is in the CS (Cable Select) position. Slide the new drive into the empty slot in the drive cage until the screw holes align.
- 3 Install the two screws.
- 4 Replace the drive cage. (See page 53.)
- 5 Attach the power cable to the back of the drive.
- 6 Attach the connector marked *Master* on the IDE ribbon cable to the back of the preinstalled hard drive. After the preinstalled hard drive connection is attached, twist the remaining part of the cable, marked *Slave* on that same IDE ribbon cable, and connect it to the second hard drive.
- 7 If necessary, connect the IDE cable connector marked *Motherboard* or *CPU board* to the motherboard.



A jumper is a small plastic connector or wire which electrically connects two pins in order to define a configuration setting.

256 MB memory configurations vary depending on your computer model. 256 MB and 512 MB DIMM memory modules are not compatible with all computer models.

Adding Memory

The motherboard contains sockets for either DIMMs (dual in-line memory modules) or DDR (double data rate) DIMMs, depending on which PC model you have.

To determine which type of memory module your PC uses, go to the HP Web site by typing http://www.hp.com into your Web browser address box and pressing Enter on your keyboard. Click the support link. Search for your PC model number, and then search for upgrading memory to find out your system configuration and memory requirements.

The motherboard contains 168-pin DIMM sockets or 184-pin DDR DIMM sockets. The exact number of sockets depends on which model you have.

DIMMs

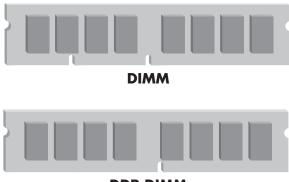
DIMMs must be 168-pin unbuffered SDRAM (synchronous dynamic random access memory), compliant with the Intel® PC SDRAM Unbuffered DIMM Specification. The PC comes with one or more memory modules, but you can replace existing memory modules with higher capacity ones. You can install 64 MB, 128 MB, 256 MB, or 512 MB memory modules in the PC.

DDR DIMMs

DDR DIMMs must be 184-pin unbuffered DDR SDRAM. The PC comes with one or more memory modules, but you can replace existing memory modules with higher capacity ones. You can install 64 MB, 128 MB, 256 MB, or 512 MB memory modules in the PC.



type of memory module could damage the PC.



DDR DIMM

Removing a memory module

- Remove the fan duct. (See page 48.)
- 2 Locate the memory sockets on the motherboard. Move any cabling out of the way, if necessary.
- 3 Push down the two retaining clips on the ends of the socket until the memory module pops out of the socket
- 4 Holding the memory module by its top edge or side edges only, lift it away from the socket. Store it in antistatic packaging.

Installing a memory module

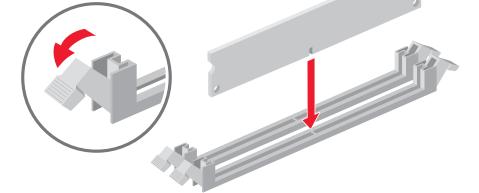
- Push down the two retaining clips on the ends of the memory socket.
- 2 Holding the new memory module by its top edge or side edges only, remove it from the antistatic packaging.
- 3 Position the memory module in alignment with the socket (the one or two small notches on the lower edge of the module fit into the raised bumps in the socket). Push straight down on top of the memory module until it is fully seated in the socket. The socket retaining clips automatically lock it into position when the memory module is fully seated.
- 4 Replace the fan duct. (See page 48.)



Do not pull the memory module out of the socket. Use the retaining clips to eject the module.



Avoid touching the memory chips or the gold contacts on the module.





Be careful of the sharp edges on the expansion slot cover.



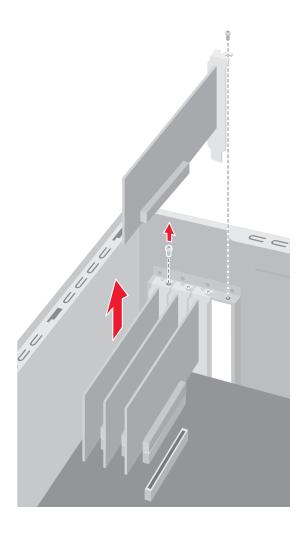
Do not overload the PC by installing add-in cards that draw excessive current. The chassis is designed to provide 2 amps (average) of +5 V power for each board or card in the chassis. The total +5 V current draw in a fully loaded chassis (one with all add-in card slots filled) must not exceed the total number of slots multiplied by 2 amps.

Removing Add-In Cards

- Disconnect any external and internal cables attached to the card.
- 2 Loosen the screw on the bracket of the card you are replacing.
- 3 Hold the metal bracket and the far top corner of the card. Carefully remove the card by pulling the card straight out of the expansion slot.

Replacing Add-In Cards

- Insert the new card into the slot and push straight down. Make sure the card is properly seated.
- 2 Attach the screw to secure the card you have replaced.
- 3 Connect any internal cables to the card.



Troubleshooting

For help on general and miscellaneous problems you may be experiencing with the PC, refer to the following pages for possible solutions. Look up the description of the problem and try the solution listed. For more detailed information, press the Help button on your keyboard, or click **Start** on the taskbar and select **Help and Support**.

Problem

My computer won't turn on at all.

Solution

- When you press the On button on the front of the computer, the following events should happen:
 - 1 The keyboard indicator lights flash.
 - 2 The light next to the diskette drive flashes.
 - **3** The hard disk spins or the diskette drive makes a noise.
 - **4** The computer makes one beep indicating it is operating properly.
- If the computer doesn't go through the previous procedure, check the following:
 - 1 The power cord and all cables are securely plugged into the computer.
 - 2 The power cord is plugged into a grounded outlet. Check to see whether the outlet works by plugging another item into it.
 - **3** The monitor is connected to the computer, plugged in, and turned on.



Your system is provided with a voltage select switch for use in a 115 or 230 VAC power system. The voltage select switch has been pre-set to the correct voltage setting for use in the particular country/region where it was initially sold. Chanaina the voltage select switch to the incorrect position can damage your PC and void any implied warranty.

Problem	Solution		
I installed a new printer or other device, and it won't work.	■ Be sure that you installed the device drivers that came with the new device.		
	 You may need an updated driver for Windows XP. For non-HP peripherals, contact the vendor directly. For HP peripherals, visit the HP Web site. Refer to your Support Guide for details. 		
The computer (or part of it) doesn't seem to be working.	■ When the computer is in standby mode (the On button power indicator light is flashing), moving the mouse will not wake it. Instead, press the Standby button on the keyboard or the Standby button on the remote control.		
	Try restarting the computer as follows:		
	1 Click Start on the taskbar.		
	2 Click Turn Off Computer.		
	3 Click Restart.		
	If the computer shows no response to mouse or keyboard actions, reset the computer:		
Using the On	1 Press and hold the On button until the computer turns off.		
button to reset the PC is not	2 Wait a few seconds, and turn the computer back on.		
recommended and should be used only as a last resort.	A software program, software driver, or the operating system software may be corrupted, erased, or damaged. You can use application recovery or system recovery to reinstall the software. Refer to "Using Application Recovery and System Recovery."		

(continued)

Problem	Solution
The computer (or part of it) doesn't seem to be working. (continued)	It's possible that a voltage spike, power outage, or brownout has occurred. Symptoms of voltage spikes include a flickering video display, unexpected computer startups, and the computer not responding to your commands. A voltage spike can occasionally corrupt or destroy files, so it is a good idea to consistently make backup copies of your data files. Prevent voltage spikes by installing a surge suppressor made for use with computers between the power outlet and the computer power cord.
The computer doesn't make any sound.	■ Press the Mute button on the keyboard to see if the Mute feature is turned on.
	Use the keyboard controls to increase the volume.
	 Click the Volume icon on the taskbar. Increase the volume, and make sure the Mute box is not checked.
	If your speakers have a power button, check whether it is turned on and whether the power supply is connected to the power source.
	■ Check the speaker connections.
	Remove the headphone connection.
When I push one of the special or	Check the button configuration. To configure the button:
multimedia buttons on the keyboard, nothing happens.	1 Click Start on the taskbar.
	2 Click Control Panel.
	3 Click Printers and Other Hardware, if it is present.

4 Double-click **Keyboard**.

Problem	Solution
When I push one of the special or	5 In the Keyboard Properties window that opens, click the Buttons tab.
multimedia buttons on the keyboard, nothing happens. (continued)	6 Double-click the button you want to change. The button configuration window opens.
	7 Choose the button capability from the drop-down list. Enter the Display label and the Address information. (For a Web site, enter the complete Web site URL in the Address box.)
	8 Click OK.
	9 On the Buttons tab, click Apply .
	10 Repeat steps 6 through 9 for each button you want to configure.
	11 Click OK when you are finished configuring the keyboard.
My keyboard doesn't work even though the computer and monitor seem to work.	■ If the PC beeps repeatedly or if nothing happens when you press keys, it's possible that the keyboard is connected improperly.
	USB keyboards only: Make sure the keyboard is firmly connected to the USB port on the back or front of the computer. Try unplugging and replugging the keyboard cable.
	PS/2 keyboards only: Check that the cable connector pins are straight. Make sure the keyboard is connected to the keyboard port, not to the mouse port. If you need to reconnect these two cables, turn the computer off, reconnect the cables, and then turn the computer back on.
	■ Try restarting the computer: Click Start , select Turn Off Computer , and click Restart . If that doesn't work, press and hold the computer On button until the computer turns off (approximately five seconds). Then turn the computer back on.

Problem	Solution
The monitor doesn't work, even though the computer appears to.	lacksquare Make sure the monitor is turned on $-$ it has its own power button.
	Adjust the brightness and contrast controls on the monitor.
	■ Check the connection of the power cord into the monitor.
	Check the cable connection between the monitor and the computer. The cable connectors must be pushed in all the way.
	Make sure the monitor power cord is plugged into a grounded outlet. Check to see whether the outlet works by plugging another item into it. (If the light on the front of the monitor is lit, the monitor is getting power.)
The mouse doesn't work, even though everything else does.	If nothing happens when you move the mouse, it's possible that the mouse is connected improperly.
	USB mouse only: Make sure the mouse is firmly connected to the USB port. Try unplugging and replugging the mouse cable.
	PS/2 mouse only: Check that the cable connector pins are straight. Make sure the mouse is connected to the mouse port, not to the keyboard port. To reconnect these two cables, turn the computer off, reconnect the cables, and then turn the computer back on.

(continued)

Problem	Solution		
The mouse doesn't work, even though everything else does. (continued)	If the pointer doesn't move on the screen when you move the mouse, clean the mouse. For an optical mouse, wipe the light sensor lens on the bottom of the mouse with a lint-free cloth. For a roller ball mouse:		
	1 Remove the mouse ball by unscrewing the bottom of the mouse.		
	2 Clean the mouse ball with a damp cloth (not paper).		
	3 Use your finger to move the rollers in the mouse ball housing and remove lint and dust.		
	4 Replace the mouse ball and screw on the cover.		
	The computer might have stopped. Reset the computer by pressing and holding the computer On button until the computer turns off (approximately 5 seconds). Then turn the computer back on.		
I am using a TV with Media Center, but I cannot see anything.	 Check that the TV is connected to the PC; see "Connecting the TV" on page 13. Check that the TV out image is enabled; see "Enabling TV Out Image" on page 24. 		
USB Hub Power Exceeded error.	Change the USB power support under Global Preferences on the Buttons tab of the Control Panel Keyboard settings.		
I cannot remove a CD or DVD.	You cannot remove a CD or DVD after you have turned off the computer. Turn on the computer and press the Eject button to extend the tray.		

Restore and Recovery

Use the Restore and Recovery programs to repair your software.

Recovery System

The recovery process from the hard drive (either application or operating system) offers the following advantages:

- **Selective:** Ensures that the recovery data is matched to the particular PC model. You can easily recover only the application or system software you need.
- **Nondestructive:** By recovering only the software you need, you preserve user data and files.
- Fast: Recovering only the necessary software components, the recovery process is shorter and faster from the hard drive.

Recovery CDs

HP PCs with Windows XP feature a *recovery* partition included on the hard disk drive, thus eliminating the need for recovery CDs that may get lost or damaged.

If you have concerns completing a recovery procedure in "Using Application Recovery and System Recovery," contact HP for help.



To contact HP for help with recovery, call HP Customer Care at 208-323-2551, or go to http:// www.hp.com/ cposupport/

Please refer to the Support Guide, included in the computer box, for Support telephone numbers, addresses, and Web site information.

Using Application Recovery and System Recovery



Before using the HP System Recovery or Application Recovery programs, use system restore.



The system recovery image is in a partition area of the hard drive; this disk space is not available for your use.

System restore

If software on your hard drive gets erased or damaged, first use the Microsoft system restore feature in Windows XP to restore the computer system and program settings. System restore returns the computer settings to a selected restore point without affecting user programs or document files. For more information, type System Restore into the Search box in Help and Support.

Freeing up space on your hard disk drive

The PC comes with a hard disk drive. Depending on your model, the hard disk drive has 20 gigabytes (GB) to more than 160 GB of total disk space. The PC comes with preloaded software programs and a partition within the hard disk drive that takes up a certain amount of space on the hard disk drive.

The partition:

- Houses a backup version of the operating system and the programs included with the PC.
- Takes up about 5 GB of hard disk space, reducing the total amount of space available for your use.
- Replaces the need for system and application recovery CDs.

Use the following procedures to:

- View the amount of used and free disk space through the System Tools Disk Management program.
- Uninstall unneeded programs.
- Use the Disk Cleanup utility.
- Reinstall programs that came with the PC.

Displaying hard disk space

To view the amount of space on the hard disk:

- Click **Start** on the taskbar.
- 2 Click Control Panel.
- 3 Click Performance and Maintenance, if it is present.
- 4 Double-click Administrative Tools.
- 5 Double-click **Computer Management**. The Computer Management window opens.
- **6** Double-click **Storage**.
- **7** Double-click **Disk Management (Local)**.

Information displays for each drive on your PC. You may need to scroll the window to the right to see the capacity and the free space sizes.

Increasing available hard disk space

You can free up space on the hard disk by uninstalling programs or by using the Disk Cleanup utility to remove unneeded files.

To uninstall programs:

- Click Start.
- 2 Click Control Panel.
- 3 Double-click **Add or Remove Programs**, if it is present.
- 4 Click the program, and then click the **Change/ Remove** button.
- 5 Click **OK** when the confirmation window opens.
- 6 Repeat steps 4 and 5 for each program you want to remove.
- 7 Click Close.

To use the Disk Cleanup utility:

- Click Start.
- 2 Choose All Programs.
- 3 Choose Accessories.
- 4 Choose System Tools.
- 5 Click **Disk Cleanup**. Wait for the calculations to complete.
- **6** Select the files you want to delete and click **OK**, and then click **Yes**.

Application recovery

If an individual application or software driver accidentally gets erased or damaged, you can reinstall the software by using the HP Application Recovery program. Do not use application recovery to reinstall software programs that came on CDs or DVDs included in the computer box. Reinstall these programs directly from the CDs or DVDs.

- 6 Repeat steps 3 through 5 to install other drivers or applications.
- When you have finished recovering applications or drivers, close the application recovery program. Then click **Start**, click **Turn Off Computer**, and click **Restart** to restart the PC.

To start application recovery:

- Close all applications and folders.
- 2 Click Start, choose All Programs, choose Hewlett-Packard, choose hp pavilion pc tools, and click hp application recovery. The recovery box opens.
- 3 Click Application Installation or Driver Installation, and then click Next.
- 4 Select the driver or application program to install, and then click **Install**.
- 5 Follow the onscreen instructions.





Do not skip the last step! You must restart the computer when you are finished recovering applications or drivers.

System recovery

When other methods of repairing your system software (like system restore or application recovery) fail, you may want to use the HP PC System Recovery program as a last resort to reinstall the software.

The system recovery program uses a special recovery partition on the hard disk that stores an image of the original operating system software and application software. This disk space is not available for your use.

In the unlikely event that you replace the hard drive or somehow damage the data in the special recovery partition on the hard drive, you must contact HP Support for help. For the HP Customer Care telephone number, see the note on page 65 or refer to the Support Guide, included in the computer box.



To start system recovery:

- Turn off the PC. Disconnect all peripheral devices from the PC except the monitor, the keyboard, and the mouse. Turn on the PC.
- 2 Do one of the following:
 - If the computer responds: click Start, choose All Programs, choose Hewlett-Packard, choose hp pavilion pc tools, and click hp pc system recovery. Continue with step 3.
 - If the computer does not respond, press and hold the On button until the computer turns off. Continue with step 5.
- 3 Wait until the System Recovery box appears asking Do you really want to start HP PC System Recovery?
- 4 Click **Yes** to continue the recovery process. Continue with step 7.
- 5 Wait a few seconds and then press the On button to turn on the PC.
- During the startup, do the following to enter the program: When the blue screen with the HP Invent logo appears, press the F10 key on the keyboard. (You have only a few seconds to press the F10 key before the normal startup process continues.)
- 7 Follow the onscreen instructions.
- 8 Complete the computer startup, and finish the registration process. Then reconnect all peripheral devices.



The HP
Media Center PC
System Recovery
program will
delete any data
or programs that
you installed
after purchase.
Be sure to back
up any data that
you want to keep
onto a removable
disc.



When you replace the hard disk drive, you can no longer play any previously recorded TV programs.

Important information about recorded TV programs

When you replace the hard disk drive, you lose any files or software that you created, saved, or installed on the PC. Because of this, you also lose a special code that Microsoft includes in the files of recorded TV programs. Without the code, Media Center will not play TV programs previously recorded to disk, or copied to DVD or to other media.

Index

6-In-1 memory card reader locating 6 replacing or adding 52–53 using 44 A accessing optical drives 49 add-in cards locating 47 removing and replacing 58 adding memory 56 adjusting volume 20 application recovery, using 68 applications 26–27 audio cables, connecting 11 audio out analog 17 digital 17 audio out connectors on PC 17 autoscrolling with mouse 37 B batteries installing in remote control 39 type for remote control 39 buttons Eject (CD or DVD) 41 Eject (diskette drive) 6 Internet 35 Mode 6 Mute 36 On 21	buttons (continued) optical drive 36 remote control 40 Volume 36 C Cable Select jumper, defined 51 cables for TV connection 12 CD can't remove from drive 64 handling 41 inserting 41 recording onto 43 CD drive installing 51 removing 50 cd writer plus drive installing 51 using 42 computer audio connectors 17 back of PC 7 box contents 4 front of PC 6 getting help 3 getting started 2 keyboard buttons not working 61 keyboard not working 62 new device not working 60 no sound 61 not working 59, 60	computer (continued) opening chassis 46 part of PC not working 60 resources 3 restarting from standby 60 setting up iv turning off 28 turning on 21 using PC hardware 33 won't turn on 59 working on safely 45 configure special keyboard buttons 35 connecting audio cables 11 cables to TV 12 headphones 20 microphone 20 monitor 8 PC to TV 12 printer 8 remote sensor 10 scanner 8 set-top box 11 signal source 11 speakers 18 to existing TV setup 14 to Internet 9 VCR 11 connections, optional 12 connectors, location of 7 Control Panel, opening 23	DDR DIMM requirements 56 desktop 23 digital audio out 17 digital out connector 17 Disk Cleanup utility 67 diskette drive Eject button 6 replacing or adding 52–53 using 43 drives 6-In-1 memory card reader 44, 52 cd writer plus 42, 51 diskette 43, 52 dvd writer 42, 50, 51 DVD-ROM 42, 50, 51 dvd/cd writer plus (combo) 43, 50 hard disk 52 locating 47 optical drives 49 DVD can't remove from drive 64 handling 41 inserting 41 DVD drive installing 51 removing 50 using 42
--	---	--	---

dvd writer drive installing 51 removing 50 using 42 DVD+RW/+R drive. See dvd writer drive dvd/cd writer plus (combo) drive installing 51 removing 50 using 43 DVD/CD-RW drive, using 43 E Easy Internet Sign-up 22 Eject button CD or DVD drive 41 diskette drive 6 error, USB Hub Power Exceeded 64 F fan duct locating 47 removing and replacing 48 finding information 3 floppy drive. See diskette drive: using front port location 6	hard disk drive displaying available space 66 freeing up space 66 increasing available space 67 recovery partition 66 replacing or adding 52–53 hardware not provided with PC 5 headphones, connecting 20 Help and Support 3 Help and Support icon 23 help with computer 3 hibernation mode automatic 31 manual 30 HP desktop 23 HP Instant Support 3 HP, registering computer with 21 HP software 26–27 Installing 6-In-1 memory card reader 54 CD drive 51 diskette drive 54 DVD drive 51	installing (continued) dvd/cd writer plus (combo) drive 51 hard disk drive 52 installing batteries in remote control 39 Internet buttons 35 Internet, connecting to 9 Internet Service Provider, selecting 22 inventory 4 K keyboard Internet buttons 35 keys 33 not working 62 special buttons 34 keyboard buttons not working 61 L LAN, connecting to Internet through 9 M Media Center opening through Start menu 23 opening with remote control 38 Media Center Help 25	memory adding 56 determining module type 56 locating 47 memory card reader, using 44 memory modules, removing and replacing 57 microphone, connecting 20 Mode button 6 modem/telephone, connecting to Internet through 9 monitor connecting 8 not working 63 mouse autoscrolling with 37 changing for left-handed use 37 not working 63 optical 37 panning with 37 scrolling with 37 scrolling with 37 using 37 Mute button 36 O On button 21 On button light flashing 41 online help 3 opening computer chassis 46 Media Center 25, 38
---	--	--	--

DVD drive 50 automatic 31 error 64 manual 29 using computer hardware 33	operating system, backup version 66 optical drive buttons 36 optical drives accessing 49 removing and installing 50 P panning with mouse 37 ports, location of 7 power management settings 31 printer connecting 8 not working 60 problems. See troubleshooting R recording onto CDs 43 RecordNow program 43 registration information 21 remote control buttons 40 installing batteries 39 range 38 using 38 remote sensor, connecting 10 removing 6-In-1 memory card reader 54 CD drive 50 diskette drive 54 DVD drive 50			VCR, connecting 11 video display flickering 61 volume, adjusting 20 Volume buttons 36 W warnings add-in cards overloading PC 58 installing memory module 57 recovering system 66 removing memory module 57 safety iii using wrong memory type 56 voltage select switch 59 warranty 3
---	--	--	--	--