HP Media Center PC
Getting Started Guide

The only warranties for Hewlett-Packard products and services are set forth in the express statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

HP assumes no responsibility for the use or reliability of its software on equipment that is not furnished by HP.

This document contains proprietary information that is protected by copyright. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of HP.

Hewlett-Packard Company
P.O. Box 4010
Cupertino, CA 95015–4010
USA

Copyright © 2000–2006 Hewlett-Packard Development Company, L.P.

May be licensed in the United States by one or both of U.S. Patents Nos. 4,930,158 and 4,930,160 until August 28, 2008.

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation.

HP supports lawful use of technology and does not endorse or encourage the use of our products for purposes other than those permitted by copyright law.

The information in this document is subject to change without notice.

Table of Contents

Before Getting Started 1

PC Setup Tips 1
Choosing a PC setup location 1
Choosing a display 1
Using additional video cables 1
Using additional sound cables 1
Using a video game console 1
Important Safety Information About Your HP Media Center PC 2
Finding Guides on Your PC and on the Web 2
Onscreen guides 2
Online guides 2
Using the PC with Safety and Comfort 3
Using PC Help & Tools 3
Connecting to the Internet 3
Connecting to the Internet requirements 3
Configuring and Registering Norton Internet Security Software 4
Signing Up for Software Updates 5
Updates from HP 5
Automatic Updates 5
Getting messages 6
Turning off messages 6
Setting Up Accounts on Your New PC 7
Creating user accounts 7
Creating passwords 8
Installing Software and Hardware Devices 8
Transferring Files and Settings from Your Old PC to Your New PC 9
HP Products Work Better Together 9
Protecting the PC 9
Installing Software 10
Getting Help 10

Setting Up the PC 11

HP Media Center PC Front Connectors 11
HP Media Center PC Rear Connectors 12
Connecting a Digital Video Camera to the PC 15
Connecting to Other Devices 16

Connecting the Television Signal 17

Using TV Cables 17
Audio and Video Cables 17
Connecting the TV Signal Source 19
Connecting a dual tuner 20
Connecting the Remote Sensor 21
Connecting the TV Signal Source When You Have an Existing Setup 22
Wall to VCR to TV using coaxial cable 22
Wall to cable TV set-top box or satellite box to VCR to TV using coaxial cable 23
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 24
Using the TV as a Monitor 26
Cables for connecting the PC to a TV 26
Viewing the PC Image on Your TV Screen 26
Adjusting the Screen Resolution 26
Connecting the PC to a TV 27
Using the Media Center Setup Wizard for Optional Setup of Your TV Display 28
Changing the Display for a GeForce Graphics Card 29
Changing the Display for an ATI Graphics Card 29
Changing the Display for an ATI Catalyst Control Center Graphics Card 30
Viewing the PC image on the TV 30
Viewing the PC image on the TV using the GeForce graphics card 31
Viewing the PC image on the TV using the ATI graphics card 31
Enabling and disabling the TV option using the GeForce graphics card 32
Enabling and disabling the TV option using the ATI Displays graphics card 32
Enabling and disabling the TV option with ATI Catalyst Control Center 33
Disconnecting the TV 33
Changing Your Display Using Windows XP 34

Configuring Speaker and Sound Options.... 35
Sound Connector Types....35
Speaker Configurations....37
Speaker types....38
Connecting 2/2.1 (2 Speakers and a Subwoofer) Audio Speakers....39
Connecting 4.1 (4 Speakers and a Subwoofer) Audio Speakers....40
Connecting 5.1 (5 Speakers and a Subwoofer) Audio Speakers....41
Connecting 7.1 (7 Speakers and a Subwoofer) Audio Speakers....42
Connecting the PC to a Home Audio System....43
Y adapter cables....44
2.1 home stereo installation....44
5.1 home audio installation....45
5.1 home audio installation procedure....46
Connecting Digital Audio....47
Configuring Audio Output....48
Configuring Audio Output with Multi-channel Sound Manager....48
Enabling digital audio output with Multi-channel Sound Manager (optional)....49
Configuring Audio Output with Sound Effect Manager....50
The Sound Effect Manager control screens....50
Using the Audio Wizard in the Sound Effect Manager (type 6 connectors)....51
Retasking front-panel connectors....52
Disabling digital audio output with Sound Effect Manager (optional)....52
Configuring Audio Output with a Sound Card....53
Enabling digital audio output with a sound card (optional)....53
Disabling digital audio output with Sound Effect Manager (optional)....54
Configuring Audio Output with Realtek HD Sound Effect Manager....54
The Realtek HD Sound Effect Manager control screens....55
Configuring the Realtek HD Sound Effect Manager....55
Configuring sound for recording with the Realtek HD Sound Effect Manager....56
Retasking front panel audio connectors....56
Configuring Multi-streaming Audio....56
Audio output overview....57
Audio input overview....57
When to use multi-streaming audio....57
Setting up multi-streaming audio....58
Configuring Audio for Media Center....59
Configuring Audio for InterVideo WinDVD Player....60
Using Headphones....60
Using a 2.1 speaker system with headphones....60
Using a 5.1 to 7.1 speaker system with headphones....61
Selecting recording devices....61
Resolving Sound Issues....61
Using the Creative Sound Blaster X-Fi Sound Card....62
Connecting the speakers....62
Configuring the sound card software....63
Configuring the FlexiJack connector....63
Recording with the sound card....64
Sound Blaster X-Fi configuration modes....64
Using the Sound Blaster X-Fi documentation....65

Using the PC Hardware.....67
Using the Keyboard....67
Special Keyboard Buttons....67
Access buttons....67
Media control or playback buttons....68
Customizing the keyboard buttons....68
Using the Remote Control....69
Remote sensor is not receiving a signal from the remote control....70
Memory Card Reader....70
Formatting a memory card....71
Using the memory card reader....71
Understanding the activity light....71
Memory Insertion Guide....72
Troubleshooting the memory card reader....74
Safely Remove Hardware Utility....74
Using Your Storage or Docking Bay....75
Storing CDs, DVDs, or memory cards....75
Installing an HP camera docking station....75
Connecting the Wireless LAN....78

Index.....79

Before Getting Started

This guide can help you get started using your new HP Media Center PC. You may want to browse some of the other documentation that came with your HP Media Center PC.

1. Read the "Safety Information" section in the *Warranty and Support Guide* that came with your PC.
2. Identify the items included with your HP Media Center PC.
3. Follow the setup information that came with your PC to connect your display.
4. Read this guide for information about using your HP Media Center PC.

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

Read and follow all warnings.

A note describes important information.

PC Setup Tips

Choosing a PC setup location

If you intend to connect your PC to your TV, a set-top box, or a surround sound system, HP recommends that you choose a clear working area with easy access to the connectors of these devices. If your TV is wall-mounted, make sure that you have access to the rear ports on the TV before attempting to connect it to the PC.

Choosing a display

HP recommends using a PC monitor to initially set up the PC because it may be difficult to view text and images on a TV due to the higher resolution of Microsoft® Windows® XP. Some high resolutions may not be supported by some older or LCD displays. Also, high resolutions may result in a blank display if your display does not support it.

Using additional video cables

If you plan to connect your TV to the PC, you may need additional cables that are not included with your PC. HP Media Center PC models have different video output options, depending on your PC model. The options are: S-video, composite video, VGA, and DVI. For best video quality use DVI, then VGA, then S-video, followed by composite video. Check the documentation that came with your PC and TV to determine which cables you need. HP does not recommend video cable lengths over 1.5 meters (4.9 feet).

Using additional sound cables

If you plan to connect the PC audio to an amplifier or a TV, you may need additional sound cables that are not included with your PC. Your PC is able to output sound in several modes. Your PC has 3.5 mm female stereo headphone jacks for most outputs. Many amplifiers have RCA inputs. You need one 3.5 mm male-to-RCA stereo cable for stereo sound. You need three 3.5 mm male-to-RCA cables for surround sound. Check the documentation that came with your audio equipment for the best input method.

Using a video game console

If you are using a video game console device, HP recommends that you connect it directly to your display device using video signal switching hardware (not included) or connect it to a separate TV, rather than connecting it directly to the PC.

Please read the "Safety Information" section in the *Warranty and Support Guide* that came with your PC before installing and connecting your PC to the electrical power system.

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 the earth, according to IEC 60950).

Finding Guides on Your PC and on the Web

Onscreen guides

Onscreen guides are available in the User's Guides folder on your PC (select models only).

Click **Start** on the taskbar, choose **All Programs**, **User's Guides**, and then click an item to view.

Online guides

You can find guides and information for your PC using the Internet to access the Support Web site. Online manuals are associated with specific PC model numbers. Some models do not have online manuals.

1. Go to **http://www.hp.com/support** in your Web browser.
2. Select your country/region and language.
3. From the Support and Drivers page, click **See support and troubleshooting information**, enter the model number of your PC, and then click **Search**.
4. Click **Manuals**.
5. Locate the manual you want and do one of the following:
   - Click the title to display the file in Adobe Acrobat Reader (you can download it from the Manuals page if it is not currently installed on your PC).
   - Right-click the title, select **Save Target As**, specify a location on your PC where you want to save the file, rename the file (retaining the .pdf extension), and then click **Save**.

Using the PC with Safety and Comfort

Before you begin using the PC, arrange the PC and your work area to maintain your comfort and productivity. Refer to the *Safety & Comfort Guide* for important ergonomic information:

- Click **Start**, choose **All Programs**, choose **User's Guides**, and then click **Safety & Comfort Guide**.

  Or

- Type *http://www.hp.com/ergo* into your Web browser address box, and then press Enter on the keyboard.

To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup, posture, and health and work habits for PC users. It also provides important electrical and mechanical safety information.

Using PC Help & Tools

HP provides special utility programs in the PC Help & Tools folder that provide support information and initiate Application or System Recovery. To find these programs, click **Start**, choose **All Programs**, **PC Help & Tools**, and then select a program or folder to view.

Easy Internet Sign-up or Internet Services provides a list of Internet service providers; however, you may choose another ISP or transfer an existing account to this PC. To transfer existing accounts, follow the instructions provided by the ISP.

Connecting to the Internet

As part of the startup screens, you can select an Internet service provider (ISP). Before you can connect to the Internet, you must sign up with an ISP. You must have 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).

Connecting to the Internet requirements

- A PC.
- A dial-up modem or a cable or DSL modem for high-speed broadband connections. Contact your ISP for any specific software and hardware you may need.
- Internet service with an ISP.
- A Web browser.

A modem connector is included with select models only.

To set up and connect to the Internet:

1. Make sure the modem or other Internet access cable is connected.
2. Sign up with an ISP. If you already have an account with an ISP, skip this step and follow the instructions provided by the ISP. If Internet service was not set up during the initial setup of the PC, it can be set up now using the Easy Internet Sign-up or the Internet Services wizard (select models only).
3. Click **Start** on the taskbar, choose **All Programs**, **Online Services**, and then click **Easy Internet Sign-up** or **Internet Services**.
4. Follow the onscreen instructions to select an ISP and set up Internet service.
5. Connect to the Internet. You must connect through the ISP to connect to the Internet. Double-click the ISP-provided icon on the desktop.
6. Open your Web browser and browse the Web. You can use any Web browser; most PCs have Internet Explorer. Click **Start**, **All Programs**, and **Internet Explorer**.

Configuring and Registering Norton Internet Security Software

Norton Internet Security software is preinstalled on your PC and includes a complimentary 60-day subscription to protection updates. You can enable Symantec's LiveUpdate™ to obtain protection updates automatically whenever you are online.

When you first set up the PC, the Norton Internet Security Information Wizard helps you to configure and register your copy of Norton Internet Security.

Be sure to set up Norton Internet Security before you start surfing the Internet. Just click the **Norton Internet Security** icon after you've established an Internet service account, and a wizard will guide you through the simple setup process.

1. Double click the **Norton Internet Security** icon in the system tray to launch the Configuration Wizard.

2. Click **Next** and follow the instructions to:
   - Complete registration.
   - Schedule post-installation tasks including running LiveUpdate™, scanning for viruses, and scheduling weekly scans of local hard drives.
3. On the Summary page, click **Finish**.
4. When registration and initial setup is finished, Norton Internet Security automatically begins the post-installation tasks you selected.

For information about using and updating the Norton Internet Security software, click **Start**, **All Programs**, **Norton Internet Security**, and then click **Help and Support**.

Signing Up for Software Updates

Updates from HP

HP may send support information or special offers to your desktop (not available in all countries/regions). You must be connected to the Internet to receive these messages.

Messages arrive while you are connected to the Internet and display an alert or a notice on your desktop. You can view the messages as they arrive or read them later. Most Support updates delivered by Updates from HP messages are also available to you through the Support Web site under information for your PC model.

If you have turned off the Updates from HP feature, you will not receive these updates. To turn Updates from HP back on, click **Start**, choose **All Programs**, **PC Help & Tools**, **Updates from HP**.

Automatic Updates

Microsoft continually updates the Windows operating system. It is recommended that you check for, download, and install these updates at least monthly. Take advantage of the Automatic Updates feature, a convenient way to keep the operating system up to date. When you are connected to the Internet, Windows Update automatically notifies you through a pop-up message or icon in the notification area when critical updates are available. When you see the Windows Update message, allow the updates to download to the system. If you update the system weekly, or at least monthly, the time required for download is minimal.

To configure Automatic Updates:

- Click **Start**, **Control Panel**, **Other Control Panel Options**, and then **Automatic Updates**.

In the Automatic Updates window, select the desired configuration:

- **Automatic** (recommended) — This is the default setting, and it allows you to specify a day and time to automatically download and install recommended updates.
- Download updates for me, but let me choose when to install them.
- Notify me but don't automatically download or install them.

The **Turn off Automatic Updates** option makes the PC more vulnerable and is not recommended.

Getting messages

After you view or close a message, it will not automatically display again.

To read a previously received message, open Updates from HP:

1. Click **Start** on the taskbar.
2. Choose **All Programs**.
3. Choose **PC Help & Tools**.
4. Click **Updates from HP**. Updates from HP displays.

- If Updates from HP has been activated on your system, click **View messages** to view a list of previously received messages. To read a message, double-click the message title in the window. You can exit this window, and Updates from HP remains active.
- If Updates from HP has not been activated on your system, the screen contains an **Activate** button to activate the service. Click **Activate** to start the service and view a list of messages that may have been received previously.

Turning off messages

You cannot receive Updates from HP messages, including important information that may be critical to the operation of your PC, while the service is off.

To turn off the Updates from HP Service:

1. Click **Start** on the taskbar.
2. Choose **All Programs**.
3. Choose **PC Help & Tools**.
4. Click **Updates from HP**. Updates from HP displays.
5. Click **Choose preferences** and then **Deactivate** to deactivate the service. The service is turned off until you reactivate it.

Setting Up Accounts on Your New PC

User accounts allow you to set the privileges for each user of your PC. For example, you can set the software programs that each user is allowed to access. Follow the simple steps in this section when setting up your PC to create user accounts.

Creating user accounts

The information below describes the different account types in Windows XP and explains how to change account types.

Creating multiple user accounts on the same PC has certain advantages as well as some drawbacks.

- Advantages to multiple user accounts:
  - Ability to create individual user settings
  - Ability to limit access to software for certain users
- Drawbacks to multiple user accounts:
  - More memory (RAM) usage
  - Multiple Temporary Internet Files folders to remove during disk cleanup
  - More data to back up
  - Longer time to complete virus scan

Windows XP provides three types of user accounts:

- Administrative

  Allowed to change account types for other users, change passwords, change system-wide settings, and install Windows XP-compatible software and drivers.

- Limited

  Not allowed to change other user settings, or passwords. Limited account may not be able to install or run some software.

  Allowed to change the limited account picture, and create, edit, or delete the account password.

- Guest

  Not allowed to change other user settings or passwords.

  Users who log on to the PC using the guest account do not have access to password-protected files, folders, and settings.

Creating passwords

Passwords help protect your PC and information from unauthorized access and help ensure that information on the PC stays private and secure. Use the following list as a basic guide when choosing your password:

- Choose a password that is easy for you to remember but difficult for others to guess.
- Choose a long password (minimum of 6 characters).
- Use a combination of uppercase and lowercase letters, numbers, and symbols.
- Don't use personal information that others can easily figure out, such as your birthday, child's name, or phone number.
- Don't write down your password.

Installing Software and Hardware Devices

After you've completed registering, you may install any software programs that may have come on CDs or DVDs included in the PC box and are not preinstalled.

Only use licensed original software. Installing copied software may be illegal, may result in an unstable installation, or may infect your PC with a virus.

After you set up the PC, you may wish to install additional software programs or hardware devices. Keep in mind these important guidelines:

- Before installation, make a restore point using the Microsoft System Restore program.
- Click **Start**, **All Programs**, **PC Help & Tools**, and then **System Restore**.
- The restore point is a snapshot of your PC configuration. By using System Restore, you ensure that you have a point to return to before an issue occurred. For information about System Restore, refer to the Microsoft Web site at: **http://www.microsoft.com/worldwide**
- Choose software that is compatible with your PC — check the operating system, memory, and other requirements listed for the new software for compatibility with your PC.
- Install the new software according to the directions provided by the software manufacturer. Check the manufacturer's documentation or customer service information for help if you need it.
- For antivirus software, uninstall the existing software program before reinstalling it or installing a new antivirus program.

Transferring Files and Settings from Your Old PC to Your New PC

You can copy the old PC files to the new PC using media such as CD or DVD discs, Memory Sticks, or personal media drives. You can also copy certain settings such as Web browser Favorites and address books using Microsoft's Files and Settings Transfer Wizard.

For more information click **Start**, **All Programs**, and then **Help and Support**.

Search for *transfer wizard*, and select the overview article, "Files and Settings Transfer Wizard overview." This information describes a Microsoft solution for moving your files onto your new PC.

HP Products Work Better Together

HP computers include preloaded software for select HP All-In-One, camera, scanner, and printer peripheral products. Preloaded software simplifies and speeds product setup for HP peripherals.

Simply connect the HP peripheral product and turn it on, and your HP PC automatically configures it so it is ready to use.

Protecting the PC

HP provides a virus-scanning software program to help protect your PC (select models only).

The virus-scanning program manufacturer provides free virus scan updates through your Internet connection for an initial period after your PC purchase. You can purchase a subscription service for updates after the initial free period expires.

New types of viruses and spyware are invented all the time. Protect your PC by getting regular updates of your virus-scanning software from the program manufacturer.

If a software program or the operating system gets damaged, reinstall the software. See the *PC Troubleshooting and Maintenance Guide* that came with your PC for information about System Recovery, Application Recovery and System Restore. System Restore is a software that creates *restore points*, memory of the system file settings on the PC at a particular point in time.

When your PC has software problems, it is possible that a voltage spike, power outage, or brownout has occurred. Symptoms of voltage spikes include a flickering video display, unexpected PC startups, and the PC 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 PCs between the power outlet and the PC power cord.

After you've completed registering, you may install any software programs that may have come on CDs or DVDs included in the PC box and are not preinstalled.

Installing Software

After you turn on the PC the first time and restart it, you can install any software programs that came on CDs or DVDs included in the PC box and are not preinstalled (select models only).

You may wish to install additional software programs or hardware devices on your PC. Restart the PC after each installation.

Choose software that is compatible with your PC; check the operating system, memory, and other requirements listed for the new software for compatibility with your PC.

Install the new software according to the directions provided by the software manufacturer. Check the manufacturer's documentation or customer service information for help if you need it.

Getting Help

If you need more information about using or troubleshooting Media Center, refer to the Media Center online Help or Help and Support in the Start menu.

For help on general and miscellaneous problems you may be experiencing with the PC, refer to:

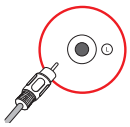
- The other troubleshooting documentation that came with your PC.
- The pages in this section.
- The topics in Help and Support. Press the Help button on your keyboard, or click **Start** on the taskbar and select **Help and Support**.

Setting Up the PC

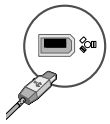
Follow the steps in the setup poster to set up the PC, and then read the topics in this section to find out more about the location of components and connectors on your PC, and to find out about some setup alternatives.

Most of the hardware devices such as the monitor, keyboard, printer, and mouse can be connected at the back of the PC. Some peripheral devices, such as a digital video camera, can be plugged into the connectors on the back or the front of the PC.

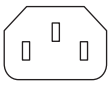
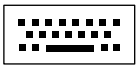
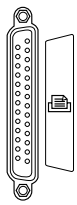
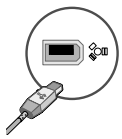
HP Media Center PC Front Connectors

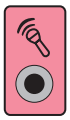
Connector	Icon/label	Description and function
	S-Video 2	Secondary S-video connector to connect your VCR, video camera, or other analog source to the PC.
	Composite Video 2	Secondary Composite video connector (yellow) to connect to a VCR, video camera, or other analog source to the PC.
	A/V In Audio 2 L	Secondary Left audio input connector (white). **NOTE:** This Audio In connector is connected to the TV tuner. You must use the Audio In connector, which is connected to the motherboard and located on the back of the PC, to record audio only. (Select models only.)
	A/V In Audio 2 R	Secondary Right audio input connector (red). **NOTE:** This Audio In connector is connected to the TV tuner. You must use the Audio In connector, which is connected to the motherboard and located on the back of the PC, to record audio only. (Select models only.)
		Headphones Out connector (green) to connect to headphones.
		Microphone In connector (pink) to connect to a microphone.

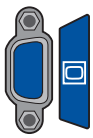
Location, availability, and number of connectors may vary.

Connector	Icon/label	Description and function (Continued)
		Universal Serial Bus (USB) 2.0 connector to connect to a mouse, keyboard, digital camera, or another device with a USB connector.
		FireWire® (IEEE 1394) connector to connect video cameras and other devices with very fast transfer rates. **NOTE:** You must use a 6-pin FireWire (IEEE 1394) transfer cable with this 6-pin connector.

HP Media Center PC Rear Connectors

Connector	Icon/label	Description and function
		Power connector
		Mouse connector to connect a mouse.
		Keyboard connector to connect a keyboard.
		Printer (parallel) connector to connect a parallel printer. (Select models only)
		Universal Serial Bus (USB) 2.0 connector to connect a mouse, keyboard, digital camera, or another device with a USB connector.
		FireWire (IEEE 1394) connector to connect video cameras and other devices with very fast transfer rates. **NOTE:** You must use a 6-pin FireWire (IEEE 1394) transfer cable with this 6-pin connector.

Connector	Icon/label	Description and function (Continued)
	ETHERNET	Ethernet LAN connector is a network interface adapter (also called a network interface card, or NIC) which connects to an Ethernet (10BaseT) or Fast Ethernet (100BaseT) network hub. Connect this adapter in your PC to your local area network (LAN) hub or any broadband connection. The green LED indicates a valid connection.
		Digital video output connector to connect a TV or monitor. (select models only) See the documentation that came with your display device.
		Microphone In (Mic) (pink) to connect to a microphone. The Mic connector also functions as a center/subwoofer Line Out when a multichannel audio configuration is activated.
	OUT	Audio Line Out (green) to connect front speakers.
	IN	Audio Line In (blue) connector to connect to an analog audio device such as a CD player for input into PC. The Audio Line In connector also functions as rear Line Out when a multichannel audio configuration is activated.
	Center	Line C/Sub (gold) connector to connect Center/Subwoofer speakers in a multichannel audio configuration.
	Rear	Line Rear (black) connector to connect rear speakers in a multichannel audio configuration.
	Side	Line Side (gray) connector to connect side speakers in an eight-speaker system (7.1).
	S-Video	S-video In connector to connect from a set-top box output connector.
	Composite Video	Composite Video In connector (yellow) to connect to a TV set-top box.

Connector	Icon/label	Description and function (Continued)
	A/V In Audio 1 L	Primary left audio input from set-top box connector (white). **NOTE:** Audio can be recorded by using this Audio In connector, which is connected to the motherboard. Some PC models include this primary left audio input connector on the front of the PC. (Select models only.)
	A/V In Audio 1 R	Primary right audio input from set-top box connector (red). **NOTE:** Audio can be recorded by using this Audio In connector which is connected to the motherboard. Some PC models include this primary right audio input connector on the front of the PC. (Select models only.)
	TV/Cable Ant	TV In (TV antenna or cable input from wall outlet with no set-top box).
	FM Ant	FM In (radio antenna input) connects to the FM antenna cable. Plug the FM radio antenna cable into the FM In port on the back of the PC on the TV tuner card. You may want to extend the ends of the cable to improve your FM radio signal reception.
		Modem (Line In RJ-11) (select models only). Plug the modem cable (provided in the PC box) into the computer modem connector on the back of the PC. Plug the other end to your telephone line wall jack connector.
	Analog Video	Analog Video Out: S-video or composite video (select models only) connects to a TV.
	VGA	Monitor/VGA (blue) display output connector connects to a VGA monitor.
	Digital Audio In and Out	Digital audio input (white) connects to a digital audio device with digital input (such as a home audio receiver/amplifier) or digital speakers (select models only). Digital audio output (red) connects to a digital audio device with digital output (select models only).
	Digital Audio Out	Digital Out (orange) connects to a digital audio device with digital input (such as a home audio receiver/amplifier) or digital speakers (select models only).

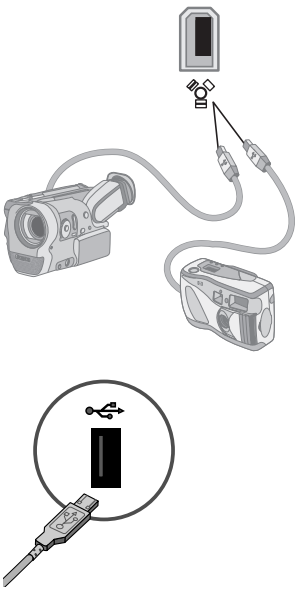
Connecting a Digital Video Camera to the PC

The following instructions only apply to digital cameras.

See the documentation that came with your digital camera or your digital video camera.

To connect a digital camera or a digital video camera:

1. Turn on the PC, and wait for Windows XP to start.
2. Connect the 6-pin video camera transfer cable into the camera and then into an open port on the front or back of the PC. Most digital video cameras use either the FireWire (IEEE 1394) or the USB port.



3. A *Found New Hardware* message appears. Wait 2 or 3 minutes for Windows to make the necessary settings for the new device. When installation is complete, a message appears telling you the camera is ready to use.

If the PC does not recognize your digital camera or your digital video camera:

1. Click **Start** on the taskbar, and then click **Control Panel**.
2. Click **Performance and Maintenance**, if available, and then double-click the **System** icon.
3. Click the **Hardware** tab, and then click the **Device Manager** button.
4. Click the plus sign (**+**) next to *imaging devices*. If the name of the camera appears under imaging devices the device is ready. If the name is not there, try the following:
   - Click **Action**, and then **Scan for hardware changes**. Look in Device Manager for a new addition under imaging devices.
   - Unplug the video camera's transfer cable from the PC, and plug it into a different port. Look in Device Manager for a new addition under imaging devices.

When connecting an analog video camera to the PC, use the Video and Audio In connectors on the front or back of the PC.

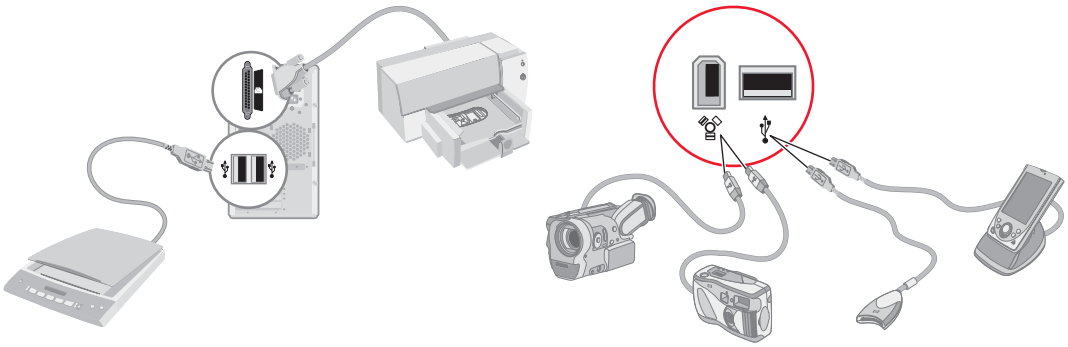
If a Digital Video Device Auto Play window appears when you connect your camera, click *Cancel*.

You must use a 6-pin (not a 4-pin) FireWire (IEEE 1394) cable with the 6-pin FireWire (IEEE 1394) connector on your HP Media Center PC.

Connecting to Other Devices

Some peripheral devices are not included with the PC.

Other peripheral devices can be connected to the front or back of your HP Media Center PC by using USB or FireWire (IEEE 1394) ports. You can connect peripheral devices such as a printer, scanner, video camera, digital camera, memory card reader, and PDA (personal digital assistant) or handheld computer to the PC. See the documentation that came with your device.



Connecting the Television Signal

Using TV Cables

Your HP Media Center PC includes video and audio cables to connect the television signals.

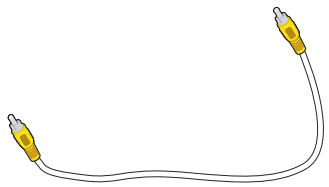
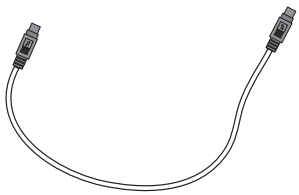
Use video and audio cables to connect to following:

- Video out from the HP Media Center PC to the TV
- TV signal source video in to the HP Media Center PC
- Audio out from the HP Media Center PC to the TV
- TV signal source audio in to the HP Media Center PC

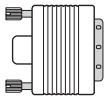
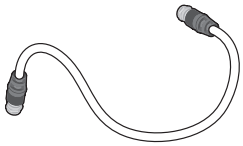
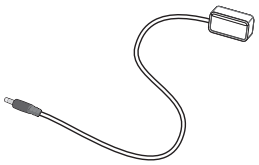
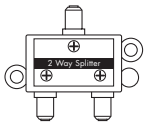
Location and number of connectors may vary by model.

Audio and Video Cables

The following table shows cable types that may be required to connect your HP Media Center PC to your television system.

Cable	Name	Description
	Composite video cable	RCA yellow end. Plug cable into an RCA connector such as Composite Video Out or TV Source In.
	S-video cable (Delivers a sharper image than composite video by providing separate color and black-and-white image signals.)	Y/C, 4-pin. Plug cable into an S-video connector such as S-video Video Out or TV Source In.
	Analog video cable/ adapter (select models only)	Used with analog video output connector. Provides S-video and composite video output.

The number and type of cables required to connect your PC may vary by model. Some cables are included for select models only.

Cable	Name	Description (Continued)
	DVI-I or DVI-D cable	Digital Video Out. Plug cable into a DVI-I or DVI-D input of an HDTV-capable TV or monitor.
	TV coaxial cable	Plug cable into a TV signal source input connector from cable set-top boxes or antennas.
	Remote IR cable (Infrared transmitter) **NOTE:** PC includes 1 with single TV tuner or 2 with dual-tuner option.	Remote IR cable. Used to control TV signal source from set-top box.
	Splitter	Used to connect one signal source to two RF inputs on your PC.
	RCA stereo	RCA red and white ends. Used for TV signal source Audio In and Audio Out connectors to TV.

You may need to purchase extra cables separately. Your HP Media Center PC box may not include all the cables you need for your PC setup and may vary by model.

For example, you may want to use an S-video cable to connect the TV Out on the PC to your TV, if your TV has an S-video input connector.

Connecting the TV Signal Source

Connect the signal source for the TV by using the TV In coaxial connector or the composite/S-video In connector.

Plug the connector of a coaxial cable from your TV cable into the TV/Cable Ant connector on the back of the PC, and then turn the connector to tighten it.

Or

Plug a cable into the S-video or composite video In connector on the back of the PC; use an S-video cable (not provided) or the composite video cable. Plug the other end of the cable into your set-top box or other device that is providing the signal source for the TV.

You must also plug audio cables (not provided) from your set-top box into the Audio In right (red) connector and the Audio In left (white) connector on the back of the PC, if you are using a set-top box with S-video or composite video output.

Refer to "HP Media Center PC Front Connectors" on page 11.

You must also connect the Remote Emitter cable if you are using a set-top box. See "Connecting the Remote Sensor" on page 21.

Location and number of connectors may vary by model.

Connecting a dual tuner (Select models only)

The HP Media Center PC records television and allows you to control the television channels. The HP Media Center PC supports two tuner configurations:

The Television Program Guide is not available in all countries/regions.

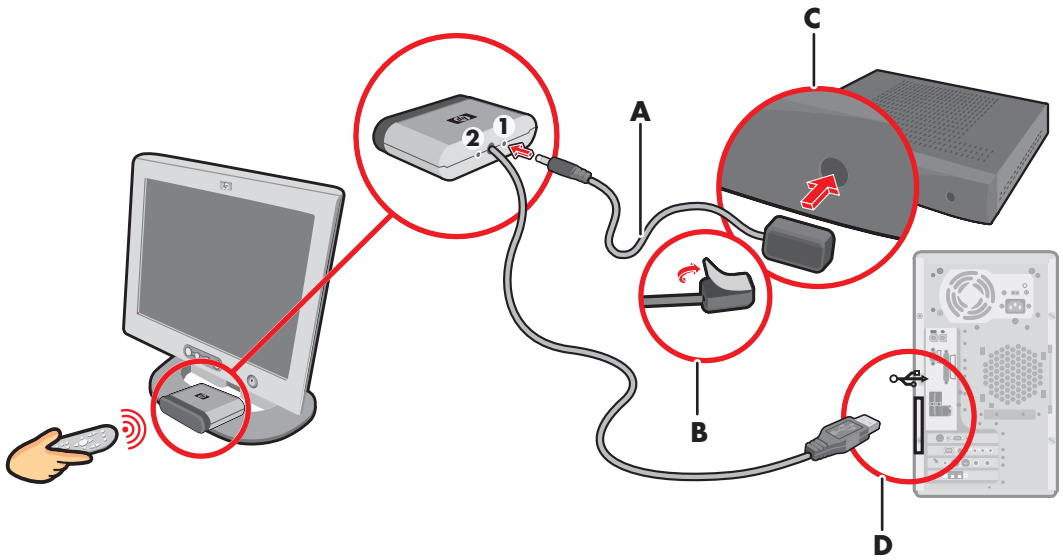
TV Tuner	Description	Requirements
Single-tuner TV source	Watch or record one program only in NTSC or PAL.	■ If you are using a TV antenna or standard cable connector, the signal is routed to a single tuner.
Dual-tuner TV source	You can watch a show on one channel while Media Center records another show on a different channel. You can also record two different programs at the same time.	■ If you are using a TV antenna or standard cable connector, the signal is routed to both tuners internally. ■ You must connect a second set of inputs if you are using a cable or satellite set-top box. Otherwise, connect a second set-top box to the second set of back-panel connectors. ■ TV sources must be of the same type: Either cable TV, digital cable TV, satellite TV, or antenna. ■ The TV sources must also have the same, identical channel lineup; for example, if you are using two satellite TV sources they must provide the exact same channels. ■ All TV viewing and scheduling is provided through the Television (Electronic) Program Guide in Media Center, so both TV sources must have identical Television Program Guides.

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.

1. If you have a cable TV set-top box, a satellite set-top box, or other set-top box that controls your TV signal, connect the remote control sensor cable (emitter) (**A**) into connector (**1**) on the back of the remote sensor; otherwise skip to step 3. Connector (**2**) can also be used if you have a second set-top box.
2. Remove the paper from the backing tape on the end of the cable (**B**), and then press the end of the cable over the remote infrared (IR) receiver window on your cable TV set-top box (**C**). You can locate the remote infrared receiver window by using a flashlight to shine through the plastic on the front of most devices.
3. Plug the remote control sensor cable into a USB connector (**D**) on the back of the PC.
4. 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.)

You can locate the remote infrared receiver window on your cable TV set-top box by using a flashlight to shine through the plastic on the front of most devices.

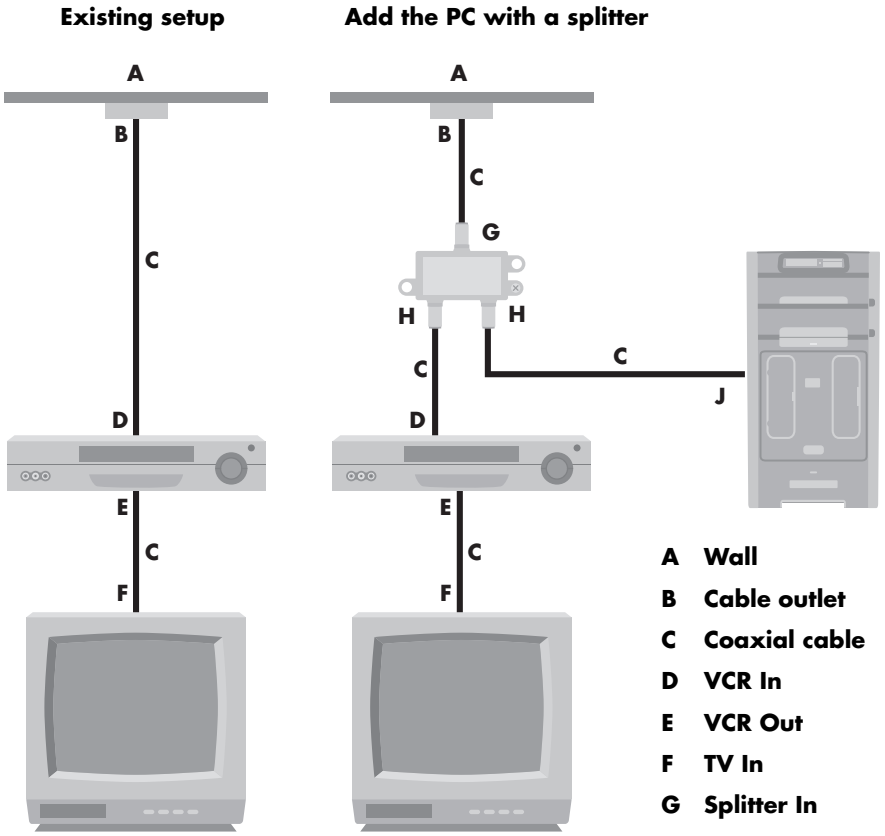


Connecting the TV Signal Source When You Have an Existing Setup

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.



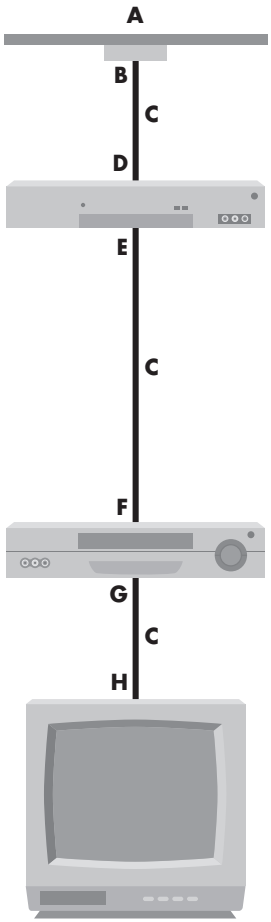
A **Wall**
B **Cable outlet**
C **Coaxial cable**
D **VCR In**
E **VCR Out**
F **TV In**
G **Splitter In**
H **Splitter Out**
J **TV In on back of PC**

Wall to cable TV set-top box or satellite box to VCR to TV using coaxial cable

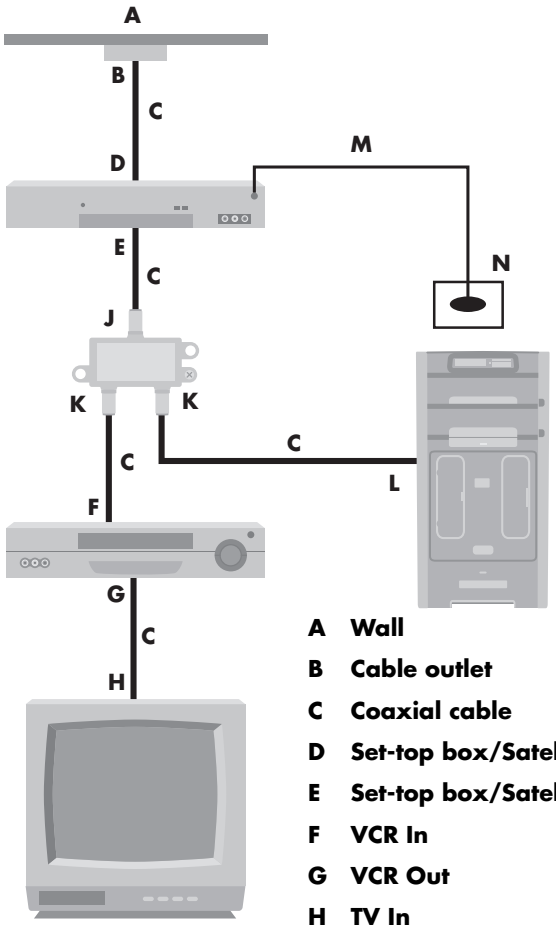
Remove the coaxial cable at the input to the VCR, and connect it to the input of a coaxial cable signal splitter (not included; available at electronics stores). Connect two coaxial cables to the splitter outputs.

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 control sensor cable (emitter) 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" on page 21.

Existing setup



Add the PC with a splitter



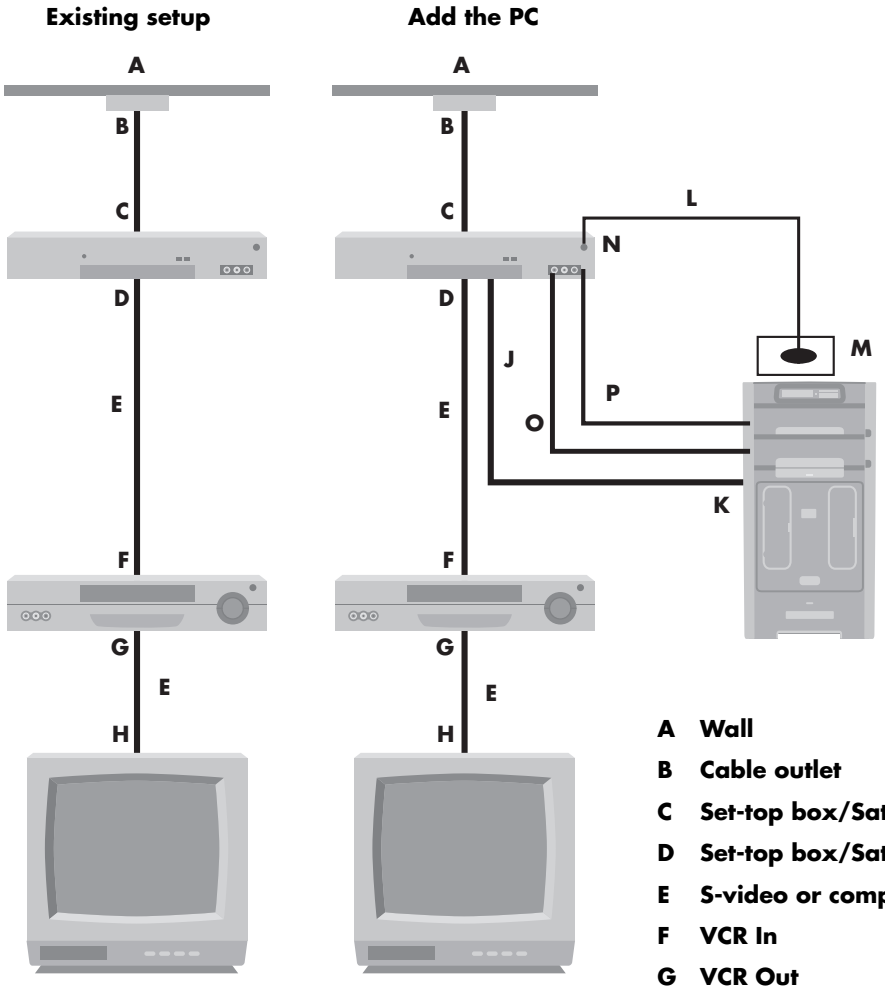
A Wall
B Cable outlet
C Coaxial cable
D Set-top box/Satellite In
E Set-top box/Satellite Out
F VCR In
G VCR Out
H TV In
J Splitter In
K Splitter Out
L TV In on back of PC
M Remote control sensor cable
N Remote control sensor

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

1. Do not detach any cables from your existing setup.
2. Connect an additional cable:
   - Using S-video (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-video In connector on the back of the PC.

   Or

   - Using composite video: 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-video In connector on the back of the PC.
3. When using a composite video or S-video cable, you must also plug audio cables (not provided) from your satellite or set-top box 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" on page 21.



A **Wall**

B **Cable outlet**

C **Set-top box/Satellite In**

D **Set-top box/Satellite Out**

E **S-video or composite cable**

F **VCR In**

G **VCR Out**

H **TV In**

J **Add an S-video or composite cable with adapter**

K **S-video In on back of PC**

L **Remote control sensor cable**

M **Remote control sensor**

N **Set-top box/second output**

O **R-Audio**

P **L-Audio**

Using the TV as a Monitor

If your Media Center PC has TV-out capability (select models only), you can connect it to a TV to view the PC image on a TV screen. With the TV-out feature, you can view the PC image, watch DVD movies, or play games on your TV. This is an optional feature.

Cables for connecting the PC to a TV

To connect the PC to a TV, you need a video cable and an audio cable. The type of video cable you need depends on your TV:

- If your TV has an S-video input jack, you need an S-video cable.
- If your TV has a composite video jack, you need a composite video cable, and depending on the jacks on the back of your PC, you may also need an S-video adapter cable.

Viewing the PC Image on Your TV Screen

The type of video card on your PC determines how the PC selects the TV-out option.

When you want to disconnect the TV from your PC, you may need to disable the TV option to return your PC display to its original resolution.

Adjusting the Screen Resolution

To change the screen resolution:

1. Right-click an empty area of the desktop, and then click **Properties**.
2. On the Settings tab, adjust the screen resolution. Moving the sliderbar toward **Less** increases the size of text on your screen. Moving the sliderbar toward **More** decreases the size of text.
3. Click **Apply**.
4. Click **Yes**, if it is present.
5. Click **OK**.

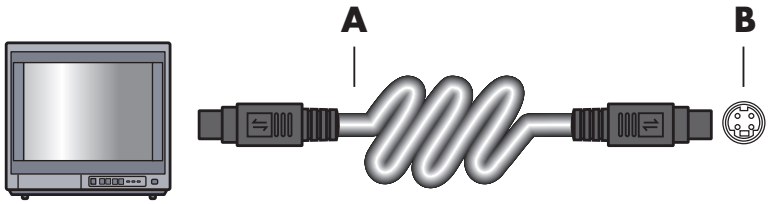
You can connect more than one display device (CRT monitor, flat panel monitor, TV, and so on) to the PC (select models only). You can quickly change where the PC desktop appears by pressing Alt+F5. Each time you press the Alt+F5 key combination, the PC display appears on the next device. If Alt+F5 does not work, restart the PC and try again.

Connecting the PC to a TV

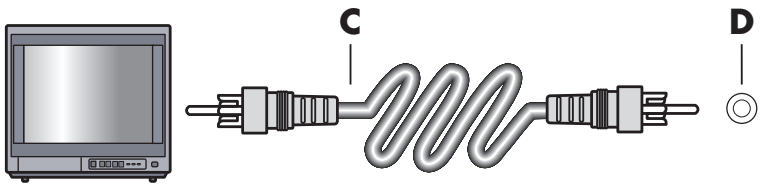
1 Turn off the PC.

2 Connect the TV cable using one of the following arrangements, depending on the connection jacks on your TV.

3 If your TV has an S-video jack, connect an S-video cable (**A**) (not provided) from the S-video In jack on the TV to the S-video Out jack (**B**) on the back of the PC (select models only).



4 If your TV has a composite video input jack and your PC has a composite video output jack, connect a composite video cable (**C**) to the Video In jack on the TV and to the composite video out jack (**D**) on the back of the PC (select models only).



5 Turn on the TV and select the TV In video source; refer to the documentation for your TV set.

6 Enable the image for the TV. For more information about this step, see "Viewing the PC image on the TV" on page 30.

There may be two S-video connectors on the back of the PC: S-video Out on the video card (select models only) and S-video In on the TV tuner card.

Using the Media Center Setup Wizard for Optional Setup of Your TV Display

If you choose the option *Preview Automatic Adjustment*, the screen may appear black or seem to halt for approximately 20 seconds. Wait until the wizard screen reappears, choose *Do not adjust any settings*, click *Next*, and then continue with the next step in this procedure.

If your TV connects to the system using a composite or S-video connection, the Media Center setup wizard cannot make automatic adjustment of settings for your TV display.

This automatic adjustment is available during the Optional Setup, within the "Optimize how Media Center looks on your display" option. Instead of using the wizard for automatic adjustment, set the TV display by using the Windows Desktop Properties.

The following procedure describes what to do within the Media Center setup wizard and how to use the Windows Desktop Properties to adjust settings for your TV display:

1. During the Media Center setup wizard, at the Optional Setup, select **Optimize how Media Center looks on your display**, and then click **Next**.
2. When the Display Configuration window appears, click **Next**.
3. Select the display type for, and then select the connection type for your TV display:
   - If you choose the option **Composite or S-video**, click **Next**, and then continue with step 4.
   - If you choose the options **DVI or VGA** or **Component (YPbPr)**, you do not need to continue with this procedure. Continue using the wizard to adjust your TV display.
4. On the next screen, select **Keep my current Settings and continue**, and then click **Next**. Do not select the option **Preview Automatic Adjustment**.
5. Continue using the wizard, and then either close or minimize Media Center.
6. Right-click a free area of the Windows desktop, and choose **Properties**.
7. Click the **Settings** tab, and then click the **Advanced** button on that tab.
8. Select the **GeForce tab**. If you have a GeForce tab, see "Changing the Display for a GeForce Graphics Card" on page 29.

   Or

   Select the **ATI Displays** tab. If you have an ATI Displays tab, see "Changing the Display for an ATI Graphics Card" on page 29.

   Or

   If you have the ATI Catalyst Control Center graphics card, see "Changing the Display for an ATI Catalyst Control Center Graphics Card" on page 30.

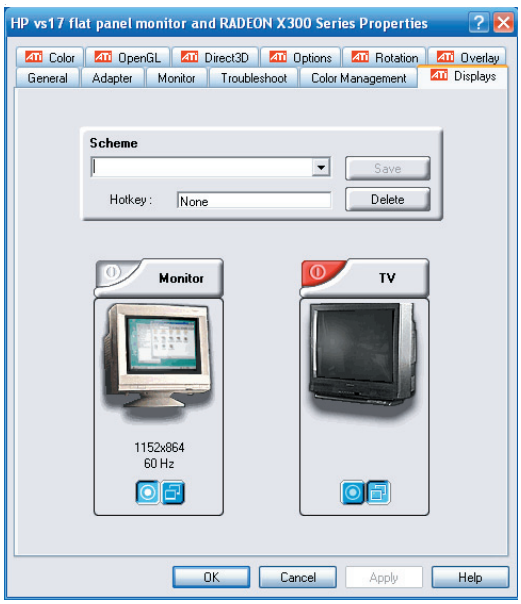
The type of video card on your PC determines how the PC selects the TV-out option. Some options and menus in this procedure may be different for your PC.

Changing the Display for a GeForce Graphics Card

1. Follow the "Using the Media Center Setup Wizard for Optional Setup of Your TV Display" on page 28.
2. Click the **GeForce** tab.
3. Click **TV Settings**.
4. Select the **Device Adjustment** button, and then you can select the various screen adjustment settings.
5. Click **Apply**, and then click **OK**.
6. Click **OK** again to close the window.

Changing the Display for an ATI Graphics Card

1. Follow the "Using the Media Center Setup Wizard for Optional Setup of Your TV Display" on page 28.
2. Click the **ATI Displays** tab.
3. Click the **TV** button (the small bar above the TV icon). The TV Properties window opens. (Your TV must be connected to the system.)
4. Click the **Adjustments** tab.
5. Adjust the screen position or screen size, and then click **Apply**.
6. Click **OK** as needed to close the windows.



You may need to click the On button (at the left corner of the TV button bar) to make the On button green, and then click *Apply*.

Changing the Display for an ATI Catalyst Control Center Graphics Card

1. Follow the "Using the Media Center Setup Wizard for Optional Setup of Your TV Display" on page 28.
2. Right-click the desktop, and then select **ATI Catalyst Control Center**.

3. Click the **ATI Catalyst Control Center** button to open the display control window.
4. Click the **Displays Manager** button. The Desktop and Display Setup window appears on the right side of the window.
5. Select the **Wizard** button.
6. Select your display type.
7. Select type of content you want to view:

   Windows Desktop

   Or

   Full screen video

8. Click **Next**.
9. Select **Apply** to enable the recommended settings.
10. Select **Yes** or **No** to keep settings.
11. Click **Finish**.

Viewing the PC image on the TV

To view your PC image on the TV:

The type of video card on your PC determines how the PC selects the TV-out option. Some options and menus in this procedure may be different for your PC.

1. Make sure the video and audio cables are connected before you turn on the TV and the PC.
2. Turn on the TV. Make sure the Video input setting is selected, not the TV setting.
3. Turn on the PC.
4. When the Windows desktop appears, right-click an empty area of the desktop, and choose **Properties**. The Display Properties window opens.
5. Click the **Settings** tab.
6. Click the **Advanced** button.
7. Look at the tabs and follow the steps that apply to your PC:

   - If you see the *GeForce* tab, see "Viewing the PC image on the TV using the GeForce graphics card" on page 31.
   - If you see the ATI *Displays* tab, see "Viewing the PC image on the TV using the ATI graphics card" on page 31.

Viewing the PC image on the TV using the GeForce graphics card

1. Click the **GeForce** tab.
2. To view the PC image on your PC monitor and your TV simultaneously, in the *nView Modes* area select **Clone** from the drop-down list.

   Or

   To view the PC image on just the TV, in the area *nView Modes*, select **Single display** from the drop-down list, and then, if necessary, in the *Current display* area select **TV** from the drop-down list.
3. Click the **Apply** button.
4. When the PC image appears on the TV screen, click **Yes** to keep the setting. You have 15 seconds to accept this new setting before it reverts to the previous setting.
5. Click the **OK** button to save changes, and then click **OK** again to close the Display Properties window.

Viewing the PC image on the TV using the ATI graphics card

1. Click the **ATI Displays** tab. This tab shows a monitor and a TV. The upper-left corner of each display icon is a button and a status indicator. A red corner indicates an inactive display; a green corner indicates an active display.
2. To view the PC image on your PC monitor and your TV simultaneously, click the upper-left corner of the TV icon so that it is green. Click **Apply**.

   Or

   To view the PC image on just the TV, click the TV corner so it is green, and then click the monitor corner so it is red. Click **Apply**.
3. When the PC image appears on the TV screen, click **Yes** to keep the setting. You have 15 seconds to accept this new setting before it reverts to the previous setting.
4. Click the **OK** button to save changes, and then click **OK** again to close the Display Properties window.

Your TV must be connected to the PC to change the display.

Enabling and disabling the TV option using the GeForce graphics card

Your TV must be connected to the PC to change the display.

When you want to disconnect the TV from the PC, you may need to disable the TV option to return your PC display to its original resolution.

To enable or disable the TV option to view your PC image on the original display:

1. Right-click an empty area of the screen, and choose **Properties**.
2. Click the **Settings** tab.
3. Click the **Advanced** button.
4. Click the **GeForce** tab.
5. Click the **Current Display** drop-down list, and then select **Analog Display** or **Digital Display**.
6. Click the **Apply** button.
7. When the PC image appears on the TV screen, click **Yes** to keep the setting. You have 15 seconds to accept this new setting before it reverts to the previous setting.
8. Click the **OK** button to save changes, and then click **OK** again to close the Display Properties window.

Enabling and disabling the TV option using the ATI Displays graphics card

Your TV must be connected to the PC to change the display.

When you want to disconnect the TV from the PC, you may need to disable the TV option to return your PC display to its original resolution.

To enable or disable the TV option to view your PC image on the original display:

1. Right-click an empty area of the screen, and choose **Properties**.
2. Click the **Settings** tab.
3. Click the **Advanced** button.
4. Click the **ATI Displays** tab. This tab shows a monitor and a TV. The upper-left corner of each display icon is a button and a status indicator. A red corner indicates an inactive display; a green corner indicates an active display.
5. Click the upper-left corner of the TV icon so it is red, and then click the upper-left corner of the monitor icon so it is green. Click the **Apply** button.
6. When the PC image appears on the TV screen, click **Yes** to keep the setting. You have 15 seconds to accept this new setting before it reverts to the previous setting.
7. Click the **OK** button to save changes, and then click **OK** again to close the Display Properties window.

Enabling and disabling the TV option with ATI Catalyst Control Center

When you want to disconnect the TV from the PC, you may need to disable the TV option to return your PC display to its original resolution.

To disable the TV option to view your PC image on the original display:

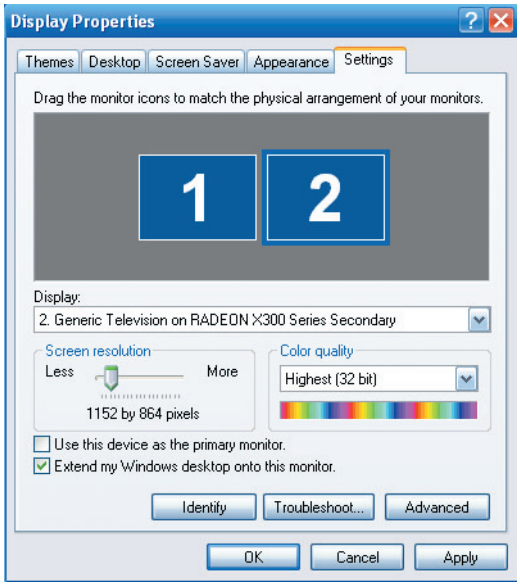
1. Right-click an empty area of the screen, and choose **ATI Catalyst Control Center**.
2. Click the **ATI Catalyst Control Center** button.
3. Click **Displays Manager** button. The Desktop and Display Setup window appears.
4. Right-click the icon that represents the TV display, and select **Enable**.
5. Select **Yes** or **No** to keep your settings.
6. Click **Finish**.

Disconnecting the TV

1. Disable the TV option. See "Viewing the PC image on the TV" on page 30.
2. Turn off the TV and the PC.
3. Remove the video cable from the TV and the PC.

Changing Your Display Using Windows XP

1. Right-click a free area of the Windows desktop, and choose **Properties**.
2. Click the **Settings** tab.
3. Select the display you want to view by clicking the **1** or **2** in the window or by selecting the correct display by clicking the drop-down arrow under *Display*.
4. Select your display settings, and then click **Apply** to save your changes.



Configuring Speaker and Sound Options

HP Media Center PCs support many different audio options, sound connections, and speaker configurations. You may set up your PC for two stereo speakers or for multichannel audio speaker systems. Connect your speaker system to the PC, and then configure the audio software for sound output. For more details about connecting stereo speakers to the PC, see the setup poster.

This chapter describes the most typical options. Your system may have different components.

Speakers are included with the monitor (select models only) or are sold separately.

For additional information on connecting the speakers, refer to the setup poster that came with the PC and the documentation that came with your speakers.

Sound Connector Types

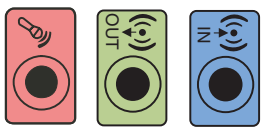
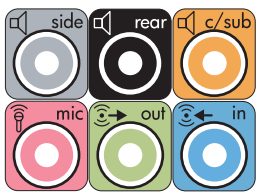
Your model may include one of three analog sound connector types on the back of your PC:

- Three connectors
- Six connectors
- Sound card

The connectors are 1/8-inch (3.5 mm) stereo minijacks that connect from the back of your PC to speakers and microphones.

Your system may also have a separate Digital Out connection (select models only).

Software configuration is different for each connector type, as noted in the instructions.

Connector	Description	Illustration	Type
Three connectors	Your PC model may include three sound connectors. You can connect up to a 5.1 audio system to the PC. If you want to connect multichannel audio, follow the instructions carefully.		3
Six connectors	Your PC model may include six sound connectors on the back of your PC. You can connect up to a 7.1 audio system to the PC.		6

Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

Connector	Description (Continued)	Illustration	Type
Sound card connector	Your PC may include a sound card. You can connect up to a 5.1 audio system (7.1 audio system for select models) or digital speakers to the sound card on the PC.	*See below.*	**S**

Use the sound connectors that match your PC model when installing cables, as shown in the installation procedure steps.

The following table shows the sound connectors on the back panel of PC systems.

Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

Sound connector			
Type 3	**Type 6**	**Type S**	**Description**
			Line **Side** (gray) for side speakers in an eight-speaker system (7.1).
		A	Line **C/Sub** (gold) for center/subwoofer speakers in a multichannel audio configuration.
		B	Line **Rear** (black) for rear speakers in a multichannel audio configuration.
		C	Line **Out** (lime green) for front speakers.

Sound connector			
Type 3	**Type 6**	**Type S**	**Description (Continued)**
		D	**Mic** (pink) connects to microphone. (**Type 3** also functions as center/subwoofer Line Out when a multichannel audio configuration is activated.)
		E	Line **In** (light blue) connects to an analog audio device such as a CD player for input into PC. (**Type 3** also functions as rear Line Out when a multichannel audio configuration is activated.)
		F	**Digital Out** (orange) connects to a digital audio device with digital input (such as a home audio receiver/amplifier) or digital speakers (select models only).

Speaker Configurations

You may set up your HP Media Center PC for the following supported configurations:

Name	Speaker system	See
Headphones	None, muted.	"Using Headphones" on page 60.
2 (stereo)	Left speaker, right speaker.	"Connecting 2/2.1 (2 Speakers and a Subwoofer) Audio Speakers" on page 39.
2.1	Left speaker, right speaker, and a subwoofer.	"Connecting 2/2.1 (2 Speakers and a Subwoofer) Audio Speakers" on page 39.
4.1	Two front speakers, two rear speakers, and a subwoofer.	"Connecting 4.1 (4 Speakers and a Subwoofer) Audio Speakers" on page 40.
6/5.1	Two front speakers, two rear speakers, a center speaker, and a subwoofer.	"Connecting 5.1 (5 Speakers and a Subwoofer) Audio Speakers" on page 41.
8/7.1	Two front speakers, two rear speakers, two side speakers, a center speaker, and a subwoofer (select models only).	"Connecting 7.1 (7 Speakers and a Subwoofer) Audio Speakers" on page 42.

Name	Speaker system (Continued)	See
Home audio system	Home stereo or home theater audio system with passive speakers.	"Connecting the PC to a Home Audio System" on page 43.
Digital audio	Digital speakers or digital input connector on audio system.	"Connecting Digital Audio" on page 47.
Multi-streaming audio	Two front speakers, two rear speakers, two side speakers, a center speaker, and a subwoofer (select models only).	"Configuring Multi-streaming Audio" on page 56.

Speaker types

Speakers may be included with the monitor (select models only) or are sold separately. Refer to the product documentation for your speakers.

Your PC supports only an active (powered) speaker system. An active speaker system must have its own power cord. A home audio system does not require active speakers because the receiver provides amplification.

A stereo speaker set is a left-right, two-channel speaker system. A multichannel audio speaker system has a left-right front and left-right rear channel, and it may include a subwoofer and a center speaker. Side speakers are included in more advanced systems. A subwoofer provides enhanced bass sounds.

".1" indicates a subwoofer. For example, 7.1 channels refers to an eight-speaker mode and uses two front speakers (left-right), two side speakers (left-right), two rear speakers (left-right), a center speaker, and a subwoofer.

Connecting 2/2.1 (2 Speakers and a Subwoofer) Audio Speakers

To connect simple left/right stereo active speakers or two speakers and a subwoofer for 2.1 speaker output:

1. Turn off the PC.
2. Connect the speaker cable to the lime green Audio Line Out connector that matches the back of your PC.

3. Connect the cable to the audio system. For 2.1 speakers that were shipped with your PC (select models only), connect the Audio Line Out connector to the subwoofer.
4. Connect the left and right speakers to the subwoofer. Refer to the speaker documentation.
5. Turn on the PC.
6. Plug in the speaker system power.
7. Turn on the speaker system.

Step 8 is optional for a two-speaker setup.

8. After the speakers are connected to the PC, configure the audio software for sound output for your PC model:
   - Type 3: See "Configuring Audio Output with Multi-channel Sound Manager" on page 48.
   - Type 6: See "Configuring Audio Output with Sound Effect Manager" on page 50.
   - Sound card: See "Configuring Audio Output with a Sound Card" on page 53.

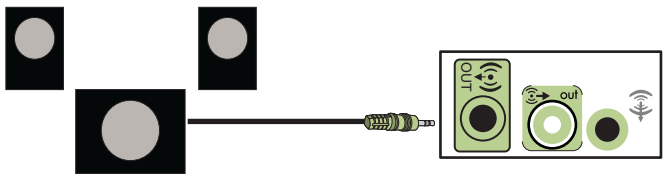
Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

Always turn on the PC before you turn on the speaker system.

The following diagram shows a typical 2.1 audio installation:



Connecting 4.1 (4 Speakers and a Subwoofer) Audio Speakers

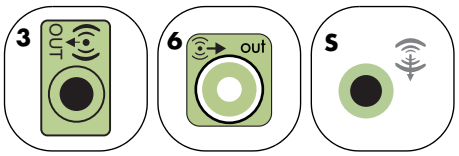
To connect two front speakers, two rear speakers, and a subwoofer for four-channel (4.1 speaker) output:

Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

1. Turn off the PC.
2. Connect the front speaker cable to the lime green Audio Line Out connector that matches the back of your PC.



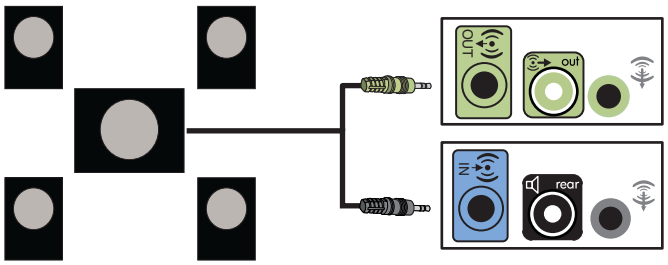
3. Connect the rear speaker cable to the black connector that matches the back of your PC.

For type 3-connector systems, the blue Audio Line In connector functions as a Rear Line Out when a multichannel audio configuration is activated.

Always turn on the PC before you turn on the speaker system.

4. Connect the cables to the audio system.
5. Connect the front and rear speakers to the subwoofer. Refer to the speaker documentation.
6. Turn on the PC.
7. Plug in the speaker system power.
8. Turn on the speaker system.
9. After the speakers are connected to the PC, configure the audio software for sound output for your PC model:
   - Type 3: See "Configuring Audio Output with Multi-channel Sound Manager" on page 48.
   - Type 6: See "Configuring Audio Output with Sound Effect Manager" on page 50.
   - Sound card: See "Configuring Audio Output with a Sound Card" on page 53.

The following diagram shows a typical 4.1 audio installation:



Connecting 5.1 (5 Speakers and a Subwoofer) Audio Speakers

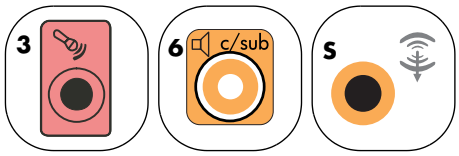
To connect two front speakers, two rear speakers, a center speaker, and a subwoofer for six-channel (5.1 speaker) output:

1. Turn off the PC.
2. Connect the front speaker cable to the lime green Audio Line Out connector that matches the back of your PC.

3. Connect the rear speaker cable to the black connector that matches the back of your PC.

For type 3-connector systems, the blue Audio Line In connector functions as a Rear Line Out when a multichannel audio configuration is activated.

4. Connect the center/subwoofer speaker cable to the gold (or pink Mic) connector that matches the back of your PC.



For type 3-connector systems, the pink Mic connector functions as a center/subwoofer speaker Line Out when a multichannel audio configuration is activated.

5. Connect the cables to the audio system.
6. Connect the front, rear, and center speakers to the subwoofer. Refer to the speaker documentation.
7. Turn on the PC.
8. Plug in the speaker system power.
9. Turn on the speaker system.
10. After the speakers are connected to the PC, configure the audio software for sound output for your PC model:
    - Type 3: See "Configuring Audio Output with Multi-channel Sound Manager" on page 48.
    - Type 6: See "Configuring Audio Output with Sound Effect Manager" on page 50.
    - Type 6: — multi-streaming: See "Configuring Audio Output with Sound Effect Manager" on page 50.
    - Sound card: See "Configuring Audio Output with a Sound Card" on page 53.

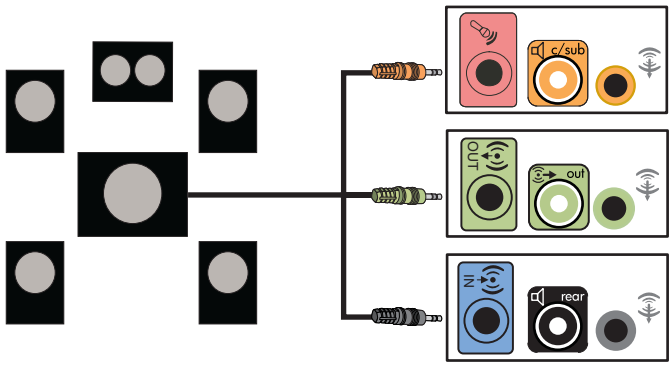
Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

Always turn on the PC before you turn on the speaker system.

The following diagram shows a typical 5.1 audio installation:



Connecting 7.1 (7 Speakers and a Subwoofer) Audio Speakers

(Select models only)

To connect two front speakers, two side speakers, two rear speakers, a center speaker, and a subwoofer for eight-channel (7.1 speaker) output:

1. Turn off the PC.
2. Connect the front speaker cable to the lime–green Audio Line Out connector on the back of your PC.

3. Connect the rear speaker cable to the black connector on the back of your PC.

4. For type 6 connectors only, connect the side speaker cable to the gray connector on the back of your PC.

5. Connect the center speaker and subwoofer speaker cable to the gold connector on the back of your PC.

6 Connect the cables to the audio system.

7 Connect the front, rear, side, and center speakers to the subwoofer. Refer to the speaker documentation.

8 Turn on the PC.

9 Plug in the speaker system power.

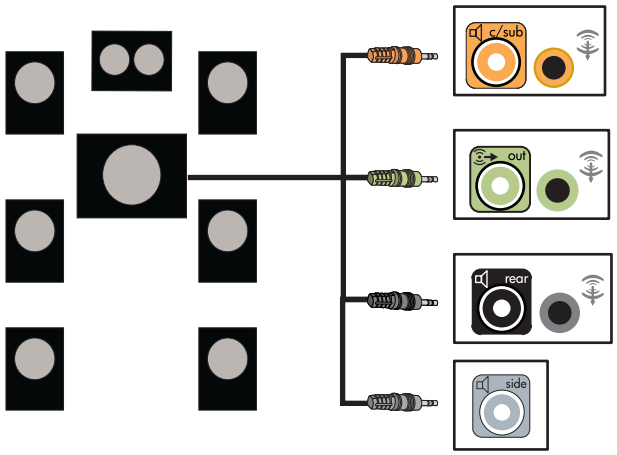
10 Turn on the speaker system.

11 After the speakers are connected to the PC, configure the audio software for sound output for your PC model:

- Type 6: See "Configuring Audio Output with Sound Effect Manager" on page 50.
- Type 6 — multi-streaming: See "Configuring Audio Output with Realtek HD Sound Effect Manager" on page 54.

Always turn on the PC before you turn on the speaker system.

The following diagram shows a typical 7.1 audio installation:



Connecting the PC to a Home Audio System

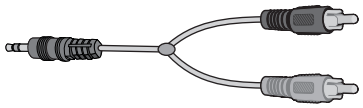
You can connect your HP Media Center PC to your home stereo or home theater multichannel audio receiver/amplifiers using your existing speakers.

For example, see "2.1 home stereo installation" on page 44, or "5.1 home audio installation" on page 45.

Y adapter cables

Y adapter and extension cables are purchased separately.

Most home receiver/amplifiers have RCA-type input connectors. You may need to connect Y adapter cables between your PC and your receiver/amplifier. Y adapter cables have one 1/8-inch (3.5 mm) stereo minijack on one end and two RCA connectors on the other end. These cables are purchased separately.



The number of Y adapter cables you need to connect to your home stereo system depends on the number of speakers you install:

- 2/2.1 speaker system: 1 Y adapter cable
- 4/4.1 speaker system: 2 Y adapter cables
- 6/5.1 speaker system: 3 Y adapter cables
- 8/7.1 speaker system: 4 Y adapter cables

Connecting a home stereo to a PC typically requires audio cables that are long enough to connect from the PC to the stereo. You may also need to purchase RCA or mini-extension cables.

2.1 home stereo installation

A: PC back-panel connectors (type 3, type 6, or sound card)

B: Y adapter cables

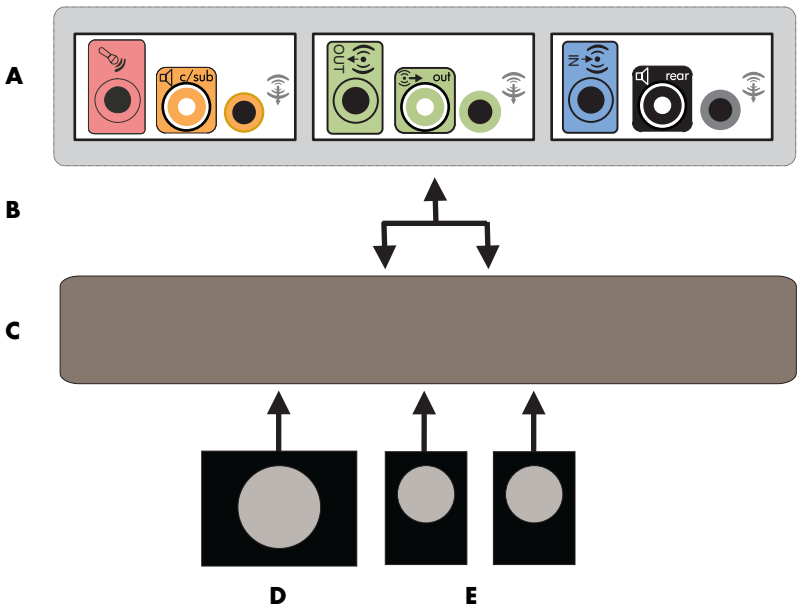
C: Receiver/amplifier

D: Subwoofer

E: Front speakers (left and right)

The following diagram shows a typical two-channel (2.1) speaker installation that uses passive stereo speakers and plugs into a home stereo standard left and right input.

This is only a suggested configuration. Your system may be different.

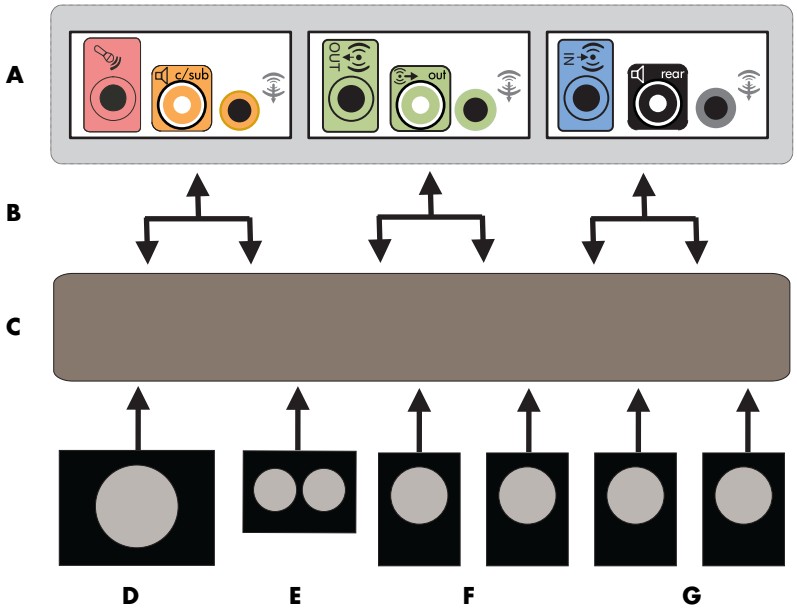


PC to 2.1 multichannel audio system connection

5.1 home audio installation

The following diagram shows a typical advanced home theater audio six-channel 6/5.1 speaker installation that requires multichannel inputs on a receiver/amplifier.

This is only a suggested configuration. Your system may be different.



PC to 5.1 multichannel audio system connection

A: PC back-panel connectors (type 3, type 6, or sound card)

B: Y adapter cables

C: Receiver/amplifier

D: Subwoofer

E: Enter speaker

F: Front speakers (left and right)

G: Rear speakers (left and right)

5.1 home audio installation procedure

To connect a six-channel (5.1 speaker) home audio system to the PC:

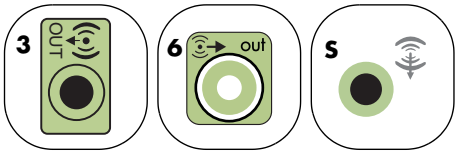
Receiver/amplifier input connectors may be labeled Surround, 5.1, or 6 Channel inputs, CD, DVD, or DVD In.

Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

1. Turn off the PC.
2. Turn off the receiver/amplifier.
3. Connect the front stereo minijack end of a Y adapter cable into the lime green Audio Line Out connector that matches the back of your PC.

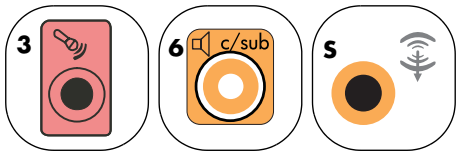


Connect the left and right ends of the Y adapter cable into the front left (L) and right (R) inputs on the back of the receiver/amplifier.

4. If you have rear speakers, connect the rear stereo minijack end of a Y adapter cable into the Audio Line In (blue) or the Rear Speaker Out (black) connector that matches the back of your PC.

- Connect the left and right ends of the Y adapter cable into the rear left (L) and right (R) inputs on the back of the receiver/amplifier.

5. If you have a center/subwoofer speaker, connect the stereo minijack of a Y adapter cable into the microphone (pink) connector or the center speaker/subwoofer (gold) connector that matches the back of your PC.



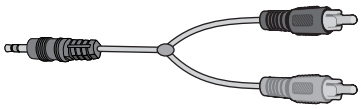
- Connect the left and right ends of the Y adapter cable into the center/subwoofer inputs on the back of the receiver/amplifier (6/5.1- or higher-channel system).
- Plug the Y adapter cable into the subwoofer connector on the back of the receiver even if a subwoofer is not used.

6. Turn on the receiver/amplifier.
7. Select the receiver/amplifier input that the Y adapter cables are plugged into.
8. Turn on the PC.
9. After the audio system is connected to the PC, configure the audio software for sound output for your PC model:
   - Type 3: See "Configuring Audio Output with Multi-channel Sound Manager" on page 48.
   - Type 6: See "Configuring Audio Output with Sound Effect Manager" on page 50.
   - Sound card: See "Configuring Audio Output with a Sound Card" on page 53.

Connecting Digital Audio

(Select models only)

If you have a sound card and you are connecting your home stereo AV receiver via digital out, plug the 3.5 mm stereo plug into the **Digital Out** connector on the sound card. Connect the red RCA stereo plug on the 3.5 mm Y cable to the AV receiver's digital input connector. If the red RCA stereo plug does not work, try the white stereo plug. One of the connectors is not used.



To connect digital audio, your PC must include a digital out connector on the sound card or on the back panel. You do not need to connect multichannel speaker outputs if you connect the digital output.

To connect digital audio speakers:

1. Turn off the PC.
2. Connect the Digital Out connector on the back panel of your PC to the digital input (S/PDIF) on digital speakers or a digital audio system.

3. Turn on the PC.
4. Plug in the speaker system power.
5. Turn on the speaker system.
6. After the speakers are connected to the PC, configure the audio software for sound output for your PC model:

   - Audio card with digital output and type 3 connectors: See "Configuring Audio Output with Multi-channel Sound Manager" on page 48. Follow the instructions to enable digital audio output.
   - Audio card with digital output and type 6 connectors: See "Configuring Audio Output with Sound Effect Manager" on page 50. Digital audio output is already enabled as the default.
   - Sound card: See "Configuring Audio Output with a Sound Card" on page 53. Follow the instructions to enable digital audio output.

Type 3 is three connectors.

Type 6 is six connectors.

Type S is sound card.

Always turn on the PC before you turn on the speaker system.

Configuring Audio Output

You can configure your speaker's audio output with the following software. Use the software that applies to your PC model:

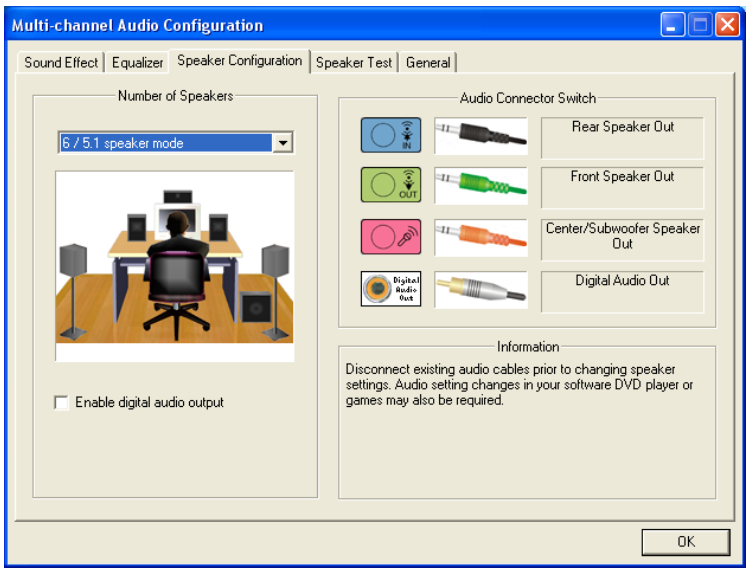
- Multi-channel Sound Manager (type 3)
- Sound Effect Manager (type 6)
- Realtek HD Sound Effect Manager (multi-streaming audio)
- Creative Speaker Settings (sound card)
- Media Center (all systems)
- WinDVD Player (all systems)

Configuring Audio Output with Multi-channel Sound Manager

Follow these steps after you have installed and connected your speakers, if your PC model has type 3 connectors.

To configure multichannel audio output for PCs with Multi-channel Sound Manager:

1. Click **Start** on the taskbar.
2. Choose **All Programs**.
3. Click **Multi-channel Sound Manager**. The Multi-channel Audio Configuration window opens with one of five control screens.



- **Sound Effect —** Select the environment settings.
- **Equalizer —** Equalize the audio frequencies.
- **Speaker Configuration —** Select the number of speakers. An *Audio Connector Switch* indicates the speaker configuration.
- **Speaker Test —** Test all connected speakers for correct configuration.
- **General —** View driver and audio information.

4 Click the **Speaker Configuration** tab near the top of the window to open the control screens. (Your speakers may need to be plugged in to see this tab.)

5 Select the option describing the number of speakers in your system, in a range from **2/2.1 speaker mode** to **6/5.1 speaker mode**.

6 Enable digital audio if you want digital audio output. See "Enabling digital audio output with Multi-channel Sound Manager (optional)" on page 49.

7 Click **OK**.

8 Test the speakers. Click the **Speaker Test** tab. Follow the instructions.

9 Configure audio output for the Media Center. See "Configuring Audio for Media Center" on page 59.

10 Configure audio output for the WinDVD Player. See "Configuring Audio for InterVideo WinDVD Player" on page 60.

Enabling digital audio output with Multi-channel Sound Manager (optional)

Your PC must include a digital audio out connector on the back panel.

To enable digital audio output:

1 Follow steps 1 through 5 of the previous procedure, "Configuring Audio Output with Multi-channel Sound Manager."

2 Place a check next to **Enable digital audio output**. The *Output digital and analog* option is automatically selected.

3 Connect the digital audio output connector on the back of your PC to your home audio system's digital audio input.

4 Select your stereo system's digital audio input.

5 Click **OK**.

6 Test the speakers. (If you test using a DVD, you need to configure WinDVD first. See "Configuring Audio for InterVideo WinDVD Player" on page 60.)

7 Configure audio output for the Media Center. See "Configuring Audio for Media Center" on page 59.

8 Configure audio output for the WinDVD Player. See "Configuring Audio for InterVideo WinDVD Player" on page 60.

If you select **Enable digital audio output**, the microphone volume setting becomes not muted, and the recording source is fixed in Stereo Mix. If you place the microphone too close to the speakers, feedback can occur.

Configuring Audio Output with Sound Effect Manager

Follow these steps after you have installed and connected your speakers, if your PC model has type 6 connectors.

To configure multichannel audio output for PCs with Sound Effect Manager:

If you do not see the device for your configuration, change the speaker selection in the Speaker Configuration window.

1. Click **Start** on the taskbar.
2. Click **Control Panel**.
3. Click **Sounds, Speech and Audio Devices** (or **Sounds and Audio Devices**).
4. Click **Sound Effect Manager**. The window opens.
5. Click a button near the top of the window to see that control screen.
6. Select the option describing the number of speakers in your system in a range from **2.1 Speaker** to **7.1 Speaker**.
7. Click the **Speaker Test** button to test the speakers.
8. Click **OK**.
9. Configure audio output for the Media Center. See "Configuring Audio for Media Center" on page 59.
10. Configure audio output for the WinDVD Player. See "Configuring Audio for InterVideo WinDVD Player" on page 60.

The Sound Effect Manager control screens

- **Sound Effect —** selects the Environment and the Equalizer settings. You can select an Environment such as **Under Water** or **Auditorium**. To use the Equalizer, click the Power button in the center of the circular equalizer control to turn on the Equalizer. You can click a preset button, such as **Pop** or **Live**, or manually adjust the settings and then save them for easy selection later.
- **Speaker Configuration —** selects the number of speakers, shows the **Connection Guide**, and has the **Speaker Test** button to test the speakers. A connector with no descriptive text in the Connection Guide indicates that the connector is not used for the selected speaker configuration.
- **Digital Audio —** selects the digital audio output and digital audio frequency for the digital audio connectors on the PC.
- **Audio Wizard —** opens a window that shows the connector panel on the front of the PC. To close the window without enabling the wizard, click **OK**.

To enable the Audio Wizard

Make sure the **Enable Auto Detection** check box is selected to enable the wizard. Click **OK** to close the window.

Using the Audio Wizard in the Sound Effect Manager (type 6 connectors)

The Sound Effect Manager Audio Wizard can help you connect front-panel audio.

To use the Audio Wizard:

1. Turn on the PC.
2. Click **Start** on the taskbar.
3. Choose **Control Panel**.
4. Click **Sounds, Speech and Audio Devices** (or **Sounds and Audio Devices**).
5. Click **Sound Effect Manager**. The window opens.
6. Click **Audio Wizard**. A window opens that shows the connector panel on the front of the PC.
7. Place a check in the **Enable jack detection** check box to enable the wizard.
8. Connect the speaker system audio cable plugs into the connectors on the front of your PC. The panel display highlights a cable that is properly inserted in a connector.
9. Close the window.

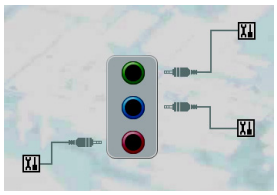
Retasking front-panel connectors

To retask using the Audio Wizard (type 6 connector):

With the Audio Wizard enabled, both the microphone connector and the headphones connector on the front of the PC can be retasked to perform a different audio function. These two connectors are universal audio jacks. When you plug in a cable, the wizard asks you to select the function for the cable from a list, and then it sets the universal audio jack to perform as the selected function. The functions are:

- Stereo speaker (out)
- Microphone (in)
- Headphone (in)
- Audio line in

1. Follow steps 1 through 7 of the procedure "The Sound Effect Manager control screens."
2. When you plug in a cable, the wizard asks you to select the device you plugged in from a list.
3. Close the window.



Disabling digital audio output with Sound Effect Manager (optional)

To disable digital audio output:

1. Follow the procedure "Configuring Audio Output with Sound Effect Manager" on page 50.
2. Click the **Digital Audio** button. Select **Digital output off** (you can also select **Digital-in to Digital-out pass through mode**).
3. Close the window.

If you select **Enable digital audio output**, the microphone volume setting becomes not muted and the recording source is fixed in Stereo Mix. If you place the microphone too close to the speakers, feedback can occur.

Configuring Audio Output with a Sound Card

Follow these steps after you have installed and connected your speakers.

To configure multichannel audio output for PCs with the Creative Sound Blaster Audigy sound card:

1. Click **Start** on the taskbar.
2. Choose **All Programs**.
3. Choose **Creative**, **SoundBlaster Audigy**. Click **Creative Speaker Settings**. The speaker settings window opens.
4. Select a speaker setting from the Speaker/ Headphone Selection drop-down menu. Enter a speaker configuration from 2/2.1 to 2/7.1.
5. Enable digital audio if you want digital audio output. See "Enabling digital audio output with a sound card (optional)" on page 53.
6. Click the **Channel** button to test the speakers.
7. Adjust the speaker volume settings on the PC. Click the **Calibrate** button. The wizard starts. Follow the wizard's basic instructions.
8. Close the window.
9. Configure audio output for the Media Center. See "Configuring Audio for Media Center" on page 59.
10. Configure audio output for the WinDVD Player. See "Configuring Audio for InterVideo WinDVD Player" on page 60.

Enabling digital audio output with a sound card (optional)

To enable digital audio output:

1. Follow steps 1 through 4 of the previous procedure, "Configuring Audio Output with a Sound Card."
2. Place a check mark in the **Digital Output Only** check box.
3. Connect the digital audio output connector on the back of your PC to your home audio system's digital audio input.
4. Select your stereo system's digital audio input.
5. Play a DVD to test the speakers.
6. Adjust the speaker volume settings on the PC. Click the **Calibrate** button. The wizard starts. Follow the wizard's basic instructions.
7. Close the window.
8. Configure audio output for the Media Center. See "Configuring Audio for Media Center" on page 59.
9. Configure audio output for the WinDVD Player. See "Configuring Audio for Media Center" on page 59.

Disabling digital audio output with Sound Effect Manager (optional)

To disable digital audio output:

1. Open the Sound Effect Manager: Click **Start**, **Control Panel**, **Sounds, Speech and Audio**, and then **Sound Effect Manager**.
2. Click **Audio Wizard**. A window opens, displaying the connector panel on the front of the PC.
3. Click the **Digital Audio** button. Select **Digital output off** (you can also select **Digital-in to Digital-out pass through mode**).
4. Close the window.

If you select **Enable digital audio output**, the microphone volume setting becomes active, the recording source is fixed in Stereo Mix, and if you place the microphone too close to the speakers, feedback can occur.

Configuring Audio Output with Realtek HD Sound Effect Manager

If you do not see the device for your configuration, change the speaker selection in the Speaker Configuration window.

Follow these steps after you have installed and connected your speakers, if your PC model has type 6 connectors and is capable of multi-streaming audio.

To configure multichannel audio output for PCs with Realtek HD Sound Effect Manager:

1. Click **Start** on the taskbar.
2. Click **Control Panel**.
3. Click **Sounds**, and then **Speech and Audio Devices** (or **Sounds and Audio Devices**).
4. Click **Realtek HD Sound Effect Manager**. The window opens.
5. Click a button near the top of the window to see that control screen.

The Realtek HD Sound Effect Manager control screens

- **Sound Effect —** selects the Environment and the Equalizer settings. You can select an environment, such as **Under Water** or **Auditorium**. To use the Equalizer, click the Power button in the center of the circular equalizer control to turn it on. You can click a preset button, such as **Pop** or **Live**, or manually adjust the settings and then save them for easy selection later.
- **Mixer —** allows control over volume, playback, mute, recording and multi-streaming audio. Click the **Multi-streaming setting** button to set up multi-streaming.

- **Audio I/O —** selects the number of speakers, shows whether the plugs are analog or digital, and selects the digital audio output and digital input device. Only speakers being used are displayed.
- **Microphone —** allows fine control over the microphone/recording quality. Includes buttons for noise suppression and acoustic echo cancellation.

Configuring the Realtek HD Sound Effect Manager

1. Click the **Audio I/O** tab.
2. Select the option describing the number of speakers in your system — for example, **7.1 speakers**.
3. Only connectors being used are shown; if the connector is not shown it means that it is not used for the selected speaker configuration.
4. Click **OK**.

To hear DVD movies recorded with multi-channel audio from all speakers, change the audio properties for the DVD player software program to match your speaker configuration (if your DVD program supports more than two channels).

To use a microphone or set up the PC for recording, see "Configuring sound for recording with the Realtek HD Sound Effect Manager" on page 56.

To use Multi-streaming Audio, see "Configuring Multi-streaming Audio" on page 56.

The front pink and green connectors can be retasked to perform other audio functions; refer to "Retasking front panel audio connectors" on page 56.

Configuring sound for recording with the Realtek HD Sound Effect Manager

The microphone connector is ready to use for recording sound. If you want to use another connector for recording, such as the Digital Audio In connector, use these steps to select it:

1. Click **Start** on the taskbar; **Control Panel**, **Sounds, Speech, and Audio Devices**, and then **Realtek HD Sound Effect Manager**.
2. Click the **Mixer** tab.
3. In *Record* click the drop-down list. Choose:
   - **RealTek HD Digital Input** to use the digital audio in connector (select models only).
   - **Line in/Mic in** to use the Audio Line In (In) or the Microphone (Mic) connectors.
4. Click **OK** to close the window.

Retasking front panel audio connectors

The pink and green connectors on the front of the PC connectors can be retasked as needed.

1. Click **Start** on the taskbar; **Control Panel**, **Sounds, Speech, Devices**, and then **Realtek HD Sound Effect Manager**.
2. Click the **Audio I/O** tab.
3. Click the **Tool** icon in the Front Panel section. The connector settings window displays.

4. Select **Enable Jack detection when device is plugged in**, and click **OK**.

The front pink and green connectors can now be used as input or output devices.

Configuring Multi-streaming Audio

The Realtek HD Sound Effect Manager software allows you to listen to two different audio sources on two different speaker sets.

For example, you hear one audio source through a rear-panel speaker connection and a second source through a front-panel headphone or speaker connection. You must configure Multi-streaming Audio for your system if you want to hear two audio sources on separate speakers.

Audio output overview

The front-panel audio output is the stereo headphone (green) connector only.

The rear-panel outputs are the speaker connectors that can be set up as multi-channel out from stereo (2.0) to 7.1 (select models only) configurations. Refer to your user documentation for powered speakers or AV receiver setup information.

Audio input overview

You can select two of the following audio sources to play through front-panel headphone and rear-panel speaker connectors:

1. From an externally connected device source, such as:
   - A microphone with cable connected to Mic In (pink).
   - An MP3 player cable connected to Line In (blue).
2. From an internal source inside, or directly connected to, the PC, audio files may reside on: Hard disk drives, DVDs, CDs, USB drives, HP Personal Media Drives, or any connected device. Play internal media files through programs such as:
   - Windows Media Player
   - WinDVD
   - Other installed media player software

Digital Audio In cannot be multi-streamed.

When to use multi-streaming audio

You may multi-stream two audio sources as described in the following typical examples:

1. For online gaming, where you hear 5.1 game sound on your AV receiver or powered speakers: While you also hear gaming conversation on your headset. See "Example 1: For online gaming" on page 58.
2. For digital home entertainment, where you hear:
   - DVD sound on your living room TV/display or AV receiver from the rear-speaker connections.
   - While you also hear your PC headphone or powered speakers that are connected to the front-panel green headphone jack, from one of the following external PC audio sources:
     a. Front-panel Line In.
     b. Internal source residing on: A hard disk drive, DVD, CD, USB drive, or other external device.

See Example 2.

Setting up multi-streaming audio

Example 1: For online gaming

To configure multi-streaming audio output for online gaming with Realtek HD Sound Effect Manager, you must enable Voice-over-IP software (software used to converse over the Internet). Other players hear your voice from the microphone via the Internet and you hear the game audio from the rear speakers:

1. Connect the audio input and output connectors to:
   - A headphone set to the front Headphone Out (green) connector.
   - A microphone to the front Mic In (pink) connector for online conversation.
   - A set of powered stereo 5.1 or 7.1 speakers to the rear Speaker Out connectors for gaming sound output.
2. Click the **Realtek HD Audio Manager** icon on the system tray to open the Realtek HD Audio Sound Effect Manager window.

3. Choose the **Mixer** tab.
4. Click the **Multi-streaming setting** audio button. The dialog box opens.

5. Select the **Enable multi-streaming playback** check box.
6. Select one of the following options to determine how you would like to hear your own voice.
   - Check the **Output Mic In/Line In to front panel** check box, and select **OK**.
   - Check the **Output Mic In/Line In to rear panel** check box, and select **OK**.
7. Select **Realtek HD Audio rear output** from the drop-down list.
8. Start the game that you are about to play. You should hear the gaming sound on the rear stereo, 5.1 or 7.1 speakers.
9. At the Mixer tab, select **Realtek HD Audio front output** to enable audio conversation with your teammates.

To ensure you have sound output, go to the Mixer window and check that the setting of the front pink microphone is not on mute.

Example 2: For digital home entertainment

To configure multi-streaming audio output for digital home entertainment with Sound Effect Manager:

1. Connect the audio output connectors to:
   - A headphone set or powered speakers connected to the front Headphone Out (green) connector for stereo music playback.
   - A set of powered stereo, 5.1, or 7.1 speakers connected to the rear Speaker Out connectors for DVD playback sound output.
2. Click the **Realtek HD Audio Manager** icon on the system tray to open the Realtek HD Audio Sound Effect Manager window.

3. Choose the **Mixer** tab.
4. Click the **Multi-streaming setting** audio button. The dialog box opens.

5. Select the **Enable multi-streaming playback** check box, and select **OK**.
6. Select **Realtek HD Audio rear output** from the drop-down list.
7. Open WinDVD to play a DVD movie. You should hear the DVD sound on the rear speakers.
8. Select **Realtek HD Audio front output** from the drop-down list.
9. Open Windows Media Player to play music. You should hear the music sound on the front headphone connection.
10. To hear an external device source from the Line In or Mic In connection:
    a. Click the **Multi-streaming setting** audio button. The dialog box opens.

    b. Check the Output Mic In/Line In to front panel check box in the dialog box, and select OK.

Configuring Audio for Media Center

Follow these steps after you have installed, connected, and configured your speakers.

To configure multichannel audio output for the Media Center:

1. Click **Start** on the taskbar, scroll down, and select **Media Center**.
2. Click **Settings**, click **DVD**. Scroll down and click **Audio**.
3. Select **Speaker Configuration**.
4. Select your Speaker Configuration by clicking the (**+**) or (**–**). If you select **Analog-2 Channel**, then select the channel mode by clicking the (**+**) or (**–**).
5. Click **Save**.
6. Close the window.

Configuring Audio for InterVideo WinDVD Player

Follow these steps after you have installed, connected, and configured your speakers.

The InterVideo WinDVD program (select models only) is set up for two-speaker (stereo) output. To hear all speakers from DVD movies recorded with multichannel audio, change the audio properties for WinDVD to match your speaker configuration (if your InterVideo WinDVD program supports more than two channels).

If you want to play a stereo DVD, you may change the audio properties of WinDVD to match the recorded DVD audio output.

1. Insert a DVD.

   Or

   Click **Start**, choose **All Programs**, **InterVideo WinDVD**, **InterVideo WinDVD Player**, and then click **InterVideo WinDVD**. The WinDVD video window opens.

2. Right-click anywhere in the WinDVD video window, and then click **Setup**. The Setup window opens.

3. Click the **Audio** tab.

4. Select **Audio Output Configuration**. Choose **Analog** or **Digital (S/PDIF)**. Click **Apply**.

5. Select **Audio Speaker Configuration**. Click the option for the number of speakers to match your multichannel speaker system.

6. You can click the **Test** button to test the speakers. You should be able to hear the speakers. Click **Stop**, and then click **OK**.

Using Headphones

Your PC comes with a Headphones connector (lime green) on the front of the PC. The headphones connector is labeled with a headphones icon.

You can also connect headphones to the Line Out connector (lime green) on the back of your PC.

Using a 2.1 speaker system with headphones

For select models with 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.

Using a 5.1 to 7.1 speaker system with headphones

For select models that include a 5.1 or higher speaker system, a headphones connector is located on the right side of the control tower.

If the control tower displays *HP* (for headphones), 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.

Selecting recording devices (Type 6 connectors only)

To select a sound recording device:

1. Click **Start** on the taskbar.
2. Choose **Control Panel**.
3. Click **Sounds and Audio Devices** (or **Sounds, Speech and Audio Devices**). The Sounds and Audio Devices window opens.
4. Click the **Audio** tab. The window opens.
5. In Sound Recording, select a recording device; for example, Realtek HD Front Pink Jack.
6. Click **OK**.
7. Close the window.

Resolving Sound Issues

If you don't have sound from your speakers, check the following:

- Check volume and mute settings. See "Using Headphones" on page 60.
- Use active, powered speakers, or speakers with an amplifier.
- Verify sound cable connections.
- Make sure the software program and sound software are configured.
- Some programs may result in low volume, even when the Volume knob is turned to the maximum position. If this is the case, double-click the **Volume** icon on the taskbar, and increase the volume.
- Reconfigure the sound software for surround sound.
- Reinstall the sound card drivers by using HP Application Recovery. See "Application Recovery" in the *PC Troubleshooting and Maintenance Guide*.

Using the Creative Sound Blaster X-Fi Sound Card

For additional information on connecting the speakers, refer to the documentation that came with your speakers.

This section provides an overview of connecting to, configuring, and recording with the Creative Sound Blaster X-Fi sound card.

Connecting the speakers

Connector	Description
	AD-Link for AD_Link X-Fi I/O Console (the X-Fi console is sold separately)
	Line Out_3 (orange or yellow) 5.1 audio setup: Front center, subwoofer 6.1 audio setup: Front center, subwoofer, and rear center 7.1 audio setup: Front center, subwoofer, and side left
	Line Out_2 (black) 4.1, 5.1, 6.1 audio setup: Rear left and right 7.1 audio setup: Rear left, rear right, and side right
	Line Out_1 (lime green) 2/2.1 audio setup: Front left and right
	FlexiJack (white) for Line In, Microphone, Digital In/Out The FlexiJack supports three functions. You must select the function in the Creative Console Launcher. See "Configuring the FlexiJack connector" on page 63.

To connect the X-Fi sound card to your speakers:

1. Use the audio connection table to connect your audio system to the sound card.
2. Turn on the PC.
3. Plug in and turn on the speaker system power.

After connecting the speaker system to the sound card, follow the steps in "Configuring the sound card software" on page 63 to configure the speaker settings in the Creative Sound Blaster X-Fi software.

Configuring the sound card software

Follow these steps after you have installed and connected your speakers to configure multi-channel audio output for PCs:

1. Click **Start** on the taskbar.
2. Choose **All Programs**.
3. Choose **Creative**, **SoundBlaster X-Fi** and then click **Creative Console Launcher**. The Entertainment Mode window displays. If a different mode displays, click the **Mode** button, and then select **Entertainment Mode**.

4. Select a speaker setting from the Speakers and Headphones Selection drop-down menu. Select speaker configuration from **2/2.1** to **7.1**.
5. If your speakers support digital audio, and you want to enable digital audio, see "Configuring the FlexiJack connector" on page 63.
6. Close the window.

Now that the sound card software has been configured, you need to configure audio output for your media software program. The procedure is different for each program. See the instructions that came with the media software program.

Three modes are available; Entertainment Mode is selected here. For information about other modes, see "Sound Blaster X-Fi configuration modes" on page 64.

Configuring the FlexiJack connector

The FlexiJack connector performs three functions:

- Digital Input/Output
- Line In
- Microphone

You must select the function in the Creative Console Launcher.

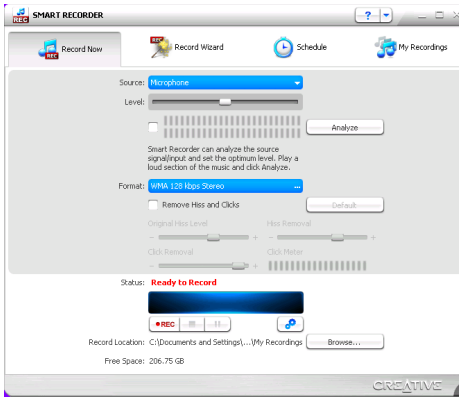
1. Connect your audio cable to the FlexiJack connector on the sound card (white).
2. Follow steps 1 through 4 of the "Configuring the sound card software" on page 63.
3. Click the **Digital I/O** button. The Digital I/O window displays.
4. Under FlexiJack Mode, select either **Digital I/O** or **Mic-In/Line-In**.
5. Close the window.

If you are using the FlexiJack as your Digital In connection and you want to connect digital speakers as your output device, you need a special connector from Creative.

Recording with the sound card

The Sound Blaster X-Fi enables sound recording from multiple audio sources using Smart Recorder.

1. Click **Start** on the taskbar.
2. Choose **All Programs**, **Creative**, **SoundBlaster X-Fi**, and then **Smart Recorder**. The Smart Recorder window displays.



Smart Recorder tools	Description
RecordNow	Configure settings for audio source, recording format, output location, and audio quality on one screen.
Record Wizard	Configure recording settings with the help of a wizard.
Schedule	Set Smart Recorder to automatically record at a time of your choosing.
My Recording	Access your saved recordings.

Sound Blaster X-Fi configuration modes

The Sound Blaster X-Fi sound card includes three modes: Audio Creation Mode, Entertainment Mode, and Game Mode.

The main functions, such as speaker configuration, equalizer, and volume control, are available in all three modes. However, each mode optimizes the sound card resources to provide the best audio performance for the activity.

Audio Creation Mode

Optimizes the sound card for advanced recording functions.

Available features:

- Recording from several audio sources
- Applying studio quality effects
- Mixer settings
- Equalizer settings

Entertainment Mode

Optimizes the sound card for playing movies and music.

Available features:

- Configuring speakers and headphones
- Configuring surround sound, DTS, and THX
- Volume, base, and treble controls
- Mixer settings

Game Mode

Optimizes the sound card for playing games.

Available features:

- Volume, base, and treble controls
- Mixer settings
- Configure speakers and headphones
- Configure surround sound

Using the Sound Blaster X-Fi documentation

For additional information on configuring and using the sound card:

1. Click **Start** on the taskbar.
2. Choose **All Programs**, **Creative**, **SoundBlaster X-Fi**, and then click **Documentation**.
3. Click **Online Manual**.

Using the PC Hardware

Using the Keyboard

Your PC may include a standard keyboard or a wireless keyboard.

A standard keyboard connects to the keyboard connector in the back of the PC.

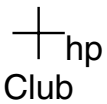
A wireless keyboard (select models only) uses a receiver/transmitter, instead of a connector cable, to communicate with your PC. A light on the receiver indicates receiver activity.

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

Special Keyboard Buttons

Your keyboard may not include some of the buttons listed.

Access buttons

Icon	Feature	Description or function
	Standby	Puts PC into or out of power-saving mode. May take 10–30 seconds before screen reappears.
?	Information	Opens the Help and Support Center.
	Internet	Opens your Internet browser. Can be reconfigured to open any Web site or software program.
	Search	Opens a Web page designed to search the Internet. Can be reconfigured to open any Web site or software program.
	E-mail	Opens an e-mail program. Can be reconfigured to open any Web site or software program.
	HP Club	Links to an HP Web site.

The number, location, and labeling of buttons may vary by keyboard model.

The Volume knob can continue to be turned, even after maximum sound has been reached.

Clicking the *Restore Defaults* button on the Buttons tab restores all of the buttons to factory settings.

Media control or playback buttons

Icon	Label	Description
	Eject 1 and Eject 2	Opens or closes upper and lower optical drive trays.
	Rec	Starts recording to selected media.
	Stop	Stops media.
	Play/Pause	Plays or pauses media.
	Prev	Rewinds media.
	Next	Fast-forwards media.
	Volume	Volume knob controls speaker volume.
	Volume	Volume buttons control speaker volume.
	Mute	Turns speaker sound on and off.

Customizing the keyboard buttons

1. Click **Start** on the taskbar, choose **Control Panel**, and then click **Printers and Other Hardware**, if it is present.
2. Double-click **Keyboard**.
3. In the Keyboard Properties window that opens, click the **Buttons** tab.
4. On the Buttons tab, double-click the button you want to change.
5. Click the **Down arrow** to the right of the list, and choose the button capability.
6. Enter a display label and address information. For a Web page, enter the complete URL in the Address box.
7. Click **OK**.
8. On the Buttons tab, click **Apply**.
9. Repeat steps 5 through 9 for each button you want to customize.
10. Click **OK** to finish.

Using the Remote Control

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

To open Media Center using the remote control, simply point it at the remote sensor, and press the Start button.

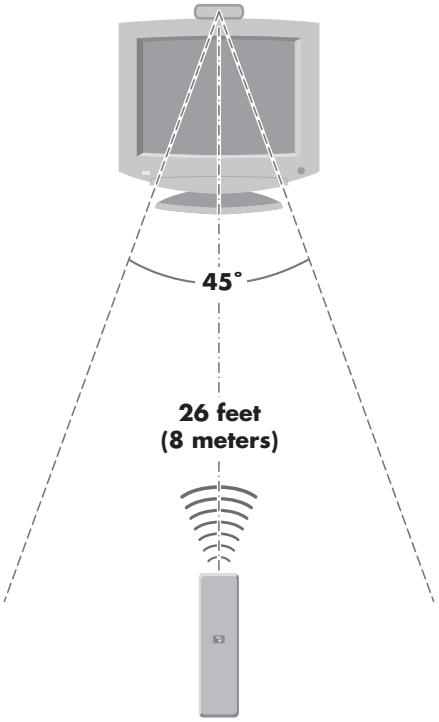
Use the remote control at a maximum distance of 8 meters (26 feet) from the remote sensor and at a maximum of 22.5 degrees (45 degrees total) from the center of the remote sensor.

Troubleshooting the remote control

If your remote doesn't work:

- Make sure that the batteries for the remote control are charged and installed correctly.
- Make sure the front of the remote sensor (IR receiver) is not blocked.
- Point the remote control within a 45-degree angle range and less than 8 meters (26 feet) away.
- If a pressed key repeats itself or sticks, unplug the remote sensor from the USB connector, wait 1 minute, and plug the remote sensor back in. Try altering the lighting conditions in the room or moving the location of the remote sensor if this continues.
- Press the Enter button on the remote control after changing a channel.
- Point the remote control toward the remote sensor, and press a button. A faint red light should appear on the remote sensor. If the light appears, then the problem is probably in the Media Center software. Close Media Center, restart the PC, and then open Media Center again.
- If the remote control works in Media Center but not when changing channels, you need to reconfigure the Media Center software settings for the cable set-top box or satellite receiver.

Use alkaline batteries in the remote control.



Remote sensor is not receiving a signal from the remote control

If a faint red light doesn't appear when you point the remote control at the remote sensor and press the OK button, try the following:

1. Click **Start**, right-click **My Computer**, and then select **Properties**.
2. Click the **Hardware** tab, and then click **Device Manager**.
3. Click the plus (**+**) sign next to Universal Serial Bus Controllers.
4. If the *eHome Infrared Receiver* is listed under Universal Serial Bus Controllers, Windows is properly detecting the IR Receiver. If it is not listed, go to the next step.
5. Unplug the end of the USB cable on the remote sensor from the PC, and plug it into the same USB port.
6. Disconnect all other USB devices, leave the remote sensor plugged in, and then restart the PC. Plug in other USB devices after the remote sensor appears in the Device Manager window.

Memory Card Reader

Digital cameras and other digital imaging devices use memory cards, or media, to store digital picture files. The optional memory card reader can read and can write to a variety of types of memory cards and the Microdrive disk drives.

The card reader is accessible directly on the front of the PC. It has four horizontal card slots, which accept the memory cards and the Microdrive disk drive.

You can place media in one or more of the card slots and use each media independently. Place only one piece of media in a slot at one time. Each card slot has its own drive letter and icon. When you insert media, the display label may change to the title of the media, if the title is present.

Formatting a memory card

If you have not used the memory card before or the card has become corrupted, you may need to format it before using it:

1. Format your memory card in your digital camera. Follow the instructions that came with your digital camera.

   Or

   Insert the media into the correct card slot on the reader until it stops and locks into place. The light on the reader lights, and the computer automatically detects the media.

2. Click **Start**, and then click **My Computer**.
3. Under *Devices with Removable Storage*, right-click the correct memory card icon.
4. Select **Format**, and then type a label name into the label field. For best compatibility, select **FAT** as the file system settings.
5. Click **Start**.
6. Click **OK** on the Format Complete window, and then click **Close**.

Some memory cards have a lock position. To view or edit your photos, make sure the memory card is in the unlocked position.

Using the memory card reader

1. Insert the media into the card slot until it stops. The activity light (**A**) on the memory card reader lights, and the PC automatically detects the media.
2. An Autoplay window opens. Select a program to access your files. The PC opens a program so you can access the media contents. You can copy files from or to the media.

   Or

   If the Autoplay window does not open, you can click **Start**, click **My Computer**, and then double-click the **memory card** icon to display the files on the memory card.
3. When you are finished, right-click the drive icon, select **Eject**, check that the activity light is on but not blinking, and then remove the media. A steady light indicates that the PC is not reading or writing the media.

Do not try to remove media when the in-use light is blinking. Doing so may cause loss of data.

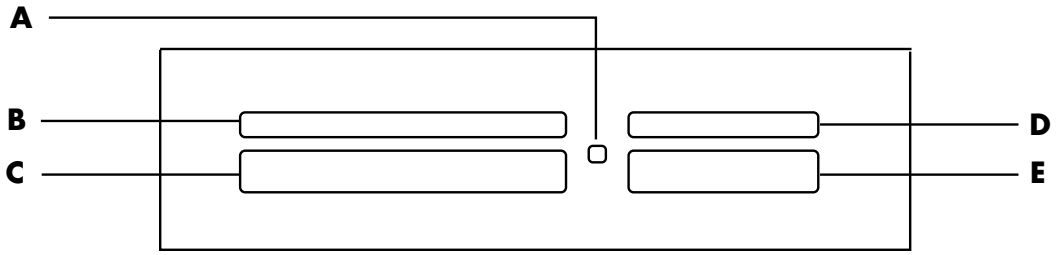
Understanding the activity light

The memory card reader activity light is off when there are no media cards plugged into the four slots.

The light turns on when a media card is inserted into a slot. The light blinks when data is being transferred between the card and the PC.

Media must be inserted correctly. Note the direction of the notched corner on the media. See the "Memory Insertion Guide" on page 72. CompactFlash and Microdrive are keyed and cannot be inserted incorrectly. Insert the receptacle edge (holes) of this media into the slot.

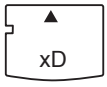
Memory Insertion Guide



A **Activity light**
B **Upper-left slot**
C **Lower-left slot**
D **Upper-right slot**
E **Lower-right slot**

Some memory cards, such as CF Ultra/III, are not compatible with the memory card reader that came with your HP Media Center PC.

Card	Insert the media	4-slot reader location
CompactFlash Type 1 media	Receptacle edge (holes)	**C** (lower-left)
CompactFlash Type II media	Receptacle edge (holes)	**C** (lower-left)
IBM Microdrive disk drive	Receptacle edge (holes)	**C** (lower-left)
Secure Digital (SD) memory card	Facing up	**D** (upper-right) SD
Mini Secure Digital (MiniSD) Memory Card*	Facing up	**D** (upper-right) MiniSD
MultiMediaCard (MMC)	Facing up	**D** (upper-right) MMC
Reduced size MultiMediaCard (RSMMC)*	Facing up	**D** (upper-right) RSMMC

Card (Continued)	Insert the media	4-slot reader location
MultiMediaCard Plus (MMC +)*	Facing up	**D** (upper-right)
MultiMediaCard Mobile (MMC Mobile)*	Facing up	**D** (upper-right)
Memory Stick (MS) memory card	Facing up	**E** (lower-right)
Memory Stick (MS-Pro) memory card	Facing up	**E** (lower-right)
Memory Stick (MS-Pro Duo) memory card*	Facing up	**E** (lower-right)
Memory Stick (MS-Duo) memory card*	Facing up	**E** (lower-right)
SmartMedia (SM) memory card	Facing up	**B** (upper-left)
xD media	Facing up	**B** (upper-left) 

*Select models only. Not available in all countries/regions.

CompactFlash and Microdrive are keyed and cannot be inserted incorrectly. Insert the receptacle edge (holes) of this media into the slot.

Troubleshooting the memory card reader

If you are having problems reading to or writing to a memory card, try the following:

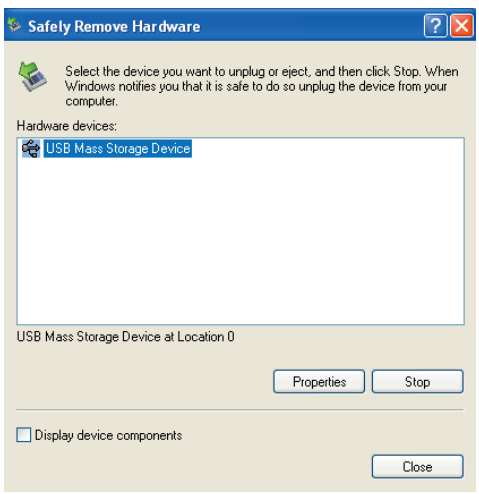
- Some cards have a read/write or security switch on the card. Make sure the read/write switch is set to Write Enabled before attempting to write data to it.
- Make sure the amount of data you want to store is not larger than the storage limit of the memory card.
- Make sure the memory card is one of the supported types: CompactFlash Type I and II, Microdrive, Memory Stick, Memory Stick Pro, MultiMediaCard, Secure Digital, SmartMedia, or xD media.
- Make sure the memory card is fully inserted into the correct slot.
- Remove the memory card when the light is not flashing, and shine a flashlight into the empty slot. If any of the pins are bent, replace the memory card reader, or have the PC serviced if a pin is touching another pin. To straighten slightly bent pins, use the tip of a fine-point retracted ballpoint pen with the computer off.
- Inspect the ends of the memory cards for anything that could be blocking a proper connection. Clean the contacts with a lint-free cloth and small amounts of alcohol. Replace the memory card, if necessary.
- The memory card reader is a device that uses the Safely Remove Hardware task. This appears as a system tray icon next to the time. Do not click **Stop** in the Safely Remove Hardware window. If you do click **Stop**, the drive is disconnected. If this happens, restart the PC.
- Do not insert or remove memory cards when the in-use light is flashing. To do so may cause data loss, or it may permanently damage the card reader.
- Format a memory card before you use it. See "Formatting a memory card" on page 71.

Do not click *Stop* in the Safely Remove Hardware window while the USB Mass Storage Device is selected. Doing so removes the operating system recognition of the memory card reader from your PC. You must restart the PC to use your reader again.

Safely Remove Hardware Utility

If you inadvertently open the Safely Remove Hardware window, click **Close**.

If you click **Stop** while the USB Mass Storage Device is selected, the operating system will not recognize the memory card reader. You will need to restart the PC for it to recognize the memory card reader.



Using Your Storage or Docking Bay

Your PC may have a storage or docking bay (select models only) on the top of the PC. You can use the docking bay to do the following:

- Store CDs, DVDs, or memory cards.
- Dock a peripheral device, such as a digital camera docking station.
- Install a special cover (optional) and an HP digital camera and HP digital camera docking station. (Both the HP digital camera and the camera docking station are sold separately.)
- Place a device and thread a FireWire (IEEE 1394) or USB data cable and power cord underneath the rear top cover to the connectors on the back of the PC.

Storing CDs, DVDs, or memory cards

To store your CDs, DVDs, or memory cards in the storage bay, gently press down the CD storage lid and slide it open.

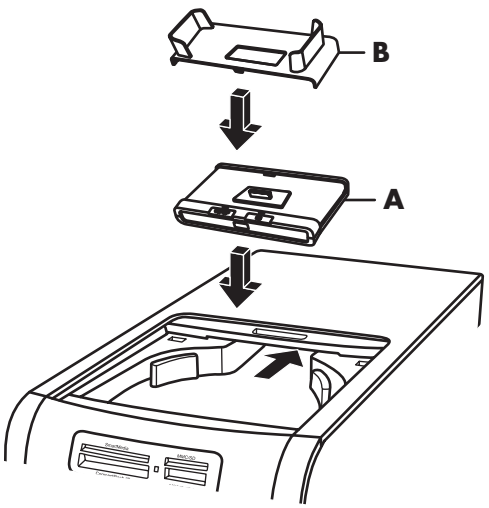
Installing an HP camera docking station

Some HP Media Center PCs include a camera docking bay. This bay is designed to hold an HP camera docking station and some HP digital cameras. The following items are optional and can be purchased separately:

- Camera docking station
- Digital camera cables
- PC camera docking bay lids
- HP digital camera and bracket

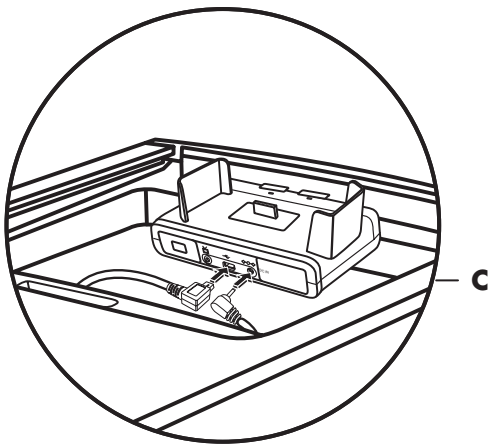
To install the HP camera docking station:

1. Gently press down the CD storage lid and slide it open.
2. Place the camera docking station (**A**) on the top of the PC.
3. Place the camera bracket (**B**) that came with your digital camera on the camera docking station.



The camera bracket clips onto the camera dock base. This bracket comes with the digital camera.

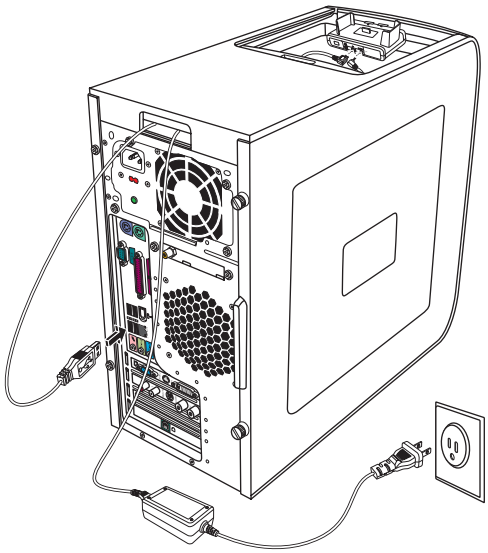
4. Thread the cables (**C**) that came with your camera docking station through the cable tunnel, starting from the back of the PC and threading them to the front of the PC. Pull cables to the center.



5 Connect the cables:

- Plug the USB cable into the back of the PC. (The location of USB ports varies by PC model.)
- Plug the red and yellow connectors (not shown) into a TV if you want to view the camera images on a TV (optional).
- Plug the power cord into a power outlet.

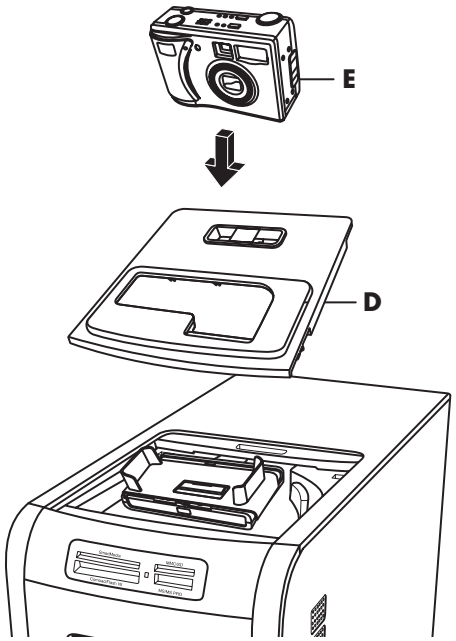
  Refer to the instructions that came with the HP camera docking station.



6 Place the correct camera docking station lid (**D**) on top of the PC. Gently guide the edge of the lid into the top of the PC.

7 Place the HP digital camera (**E**) into the camera docking station.

8 Follow the instructions that came with your camera docking station.



The wireless LAN antenna connector is located in one of the I/O slots on the back of the PC.

Connecting the Wireless LAN

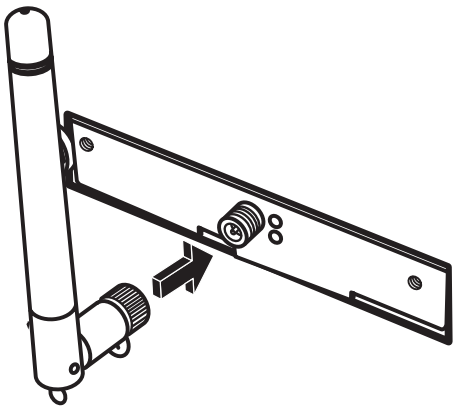
(Select models only)

You can connect the HP Media Center PC to an 802.11b/g wireless network. An external antenna is supplied with your system. You must connect this antenna to connect to the wireless network. You need an existing wireless LAN with an Internet connection (consult your ISP for further information).

You can establish a wireless network using your HP Media Center PC as a wireless access point or you can use your PC as a client if you already have a wireless network functioning.

An external antenna is supplied with your system and must be connected to the 802.11 module to increase the range and sensitivity of the radio.

1. Screw the wireless LAN antenna into the wireless LAN connector on the back of the PC.
2. You may want to move the end of the antenna away from the PC to improve your signal reception.



Index

A

analog video cable/adapter 17
antivirus, installing program 8
audio connector 13
  audio connector switch 49
  Audio Line Out 13
  digital audio connector 50
  retasking (multi-streaming) 56
Audio input
  left and right connectors 11

B

batteries
  installing in remote control 69
  type for remote control 69
buttons
  media control or playback 68

C

cables
  connecting PC to TV 26
  included 17
  TV 17
camera docking station, installing 75
carpal tunnel syndrome 3
coaxial cable
  connecting the TV signal source 23
Composite video cable 17
Composite video connector 11, 13
computer
  connecting the remote sensor 21
  connecting the TV signal source 19
  getting started 1
connecting
  digital video camera 15, 43
  headphones 60
connector
  Audio Line In 13
  Audio Line Out 13
  back panel 12
  Composite Video In 13
  FireWire (IEEE 1394) 12
  FM In 14
  front panel 11
  headphones 11
  keyboard 12
  Microphone In 11
  modem 14
  monitor 13
  mouse 12
  printer 12
  S-video In 13
  TV/Cable Ant 14
  USB 12
Creative Sound Blaster X-Fi Sound Card
  audio modes 64
  configuring 63
  recording 64
  using 62

D

devices
  connecting 16
digital camera
  connecting 15, 16
  using 70
digital video camera
  connecting to PC 15, 43
  recording videos 15, 43
  troubleshooting 15
drives
  memory card reader 70
DVI-I or DVI-D cable 18

E

equalizer
  Realtek HD Sound Effect Manager 55
Ethernet network hub 13

F

FireWire (IEEE 1394) connector 12
FM In connector 14
FM radio antenna
  connecting 14
Found New Hardware message,
  connecting a digital camera 15

H

headphones
  connector 11
  using 60
home stereo system
  connecting to the PC 43
home videos 15, 43
HP
  updates from 5

I

installing
  camera docking station 75
Internet
  Internet service provider 3
  signing up with an ISP 4

K

keyboard
  connector 12
  keys 67
  using 67
keyboard buttons
  access 67
  configuring 68
  media playback 68
  special 67

L

LAN antenna 78

M

Media Center
  opening with remote control 69
memory card reader
  in-use light 71
  troubleshooting 74
  using 70, 71
memory card, formatting 71
microphone connector 11, 13
modem connector 14
monitor connector 13
mouse connector 12
multi-channel speakers
  configuring 55
Mute button 68

N

network interface adapter 13
Norton Internet Security
  configuring 4
  registering 4

P

passwords
  creating 8
PC
  choosing a setup location 1
  connecting the remote sensor 21
  connecting the TV signal source 19
  connecting TV signal source with set-top box and VCR 23
  front-panel connectors 11
  protecting with virus-scanning software 9
  setup tips 1
  transferring files and settings to new PC 9
  virus scanning program 9
PC Help & Tools, using 3
power connector 12
printer
  connecting 16
  connector 12

R

RCA stereo cable 18
recording
  videos from digital video camera 15, 43
  with Realtek HD Sound Effect Manager, 56
remote control
  range 69
  type of battery to use 69
  using 69
remote sensor 70
  connecting 21
  Remote IR cable 18
  using 69
repetitive strain injury (RSI) 3

S

Safely Remove Hardware utility 74
Safety & Comfort Guide 3
safety information 2
safety warnings 3
scanner, connecting 16
screen resolution
  adjusting 26
settings
  remote control and remote sensor 70
software
  installing 8, 10
sound
  using additional sound cables 1
speaker systems 35
speakers
  configuring multichannel audio for Sound Manager 48
  connecting multichannel audio speakers to the PC 36, 39–47, 50
  enable digital audio output 49, 52, 54
  multichannel audio
    connecting 54
  resolving sound issues 61
  setting up digital speaker output 53
splitter cable
  using 18
standby mode button 67
stereo
  connecting to the PC 43
S-video cable 17
S-video In connector 11, 13

T

transferring information to your new PC 9
troubleshooting
  remote sensor 70
TV
  connecting 26
  connecting the TV signal source 19, 22, 24
  disabling the TV option 33
  disconnecting 33
  setting up 30
  using as a monitor 26, 27
TV coaxial cable
  using 18
TV tuner
  connecting TV to PC 27
  signal source 19

U

USB connector 12
User accounts
  creating 7

V

video game console
  using 1
video, using additional video cables 1
videos
  working with home videos 15
virus-scanning program 9

W

Windows update 5
working in comfort 3

Part Number 5991-5820