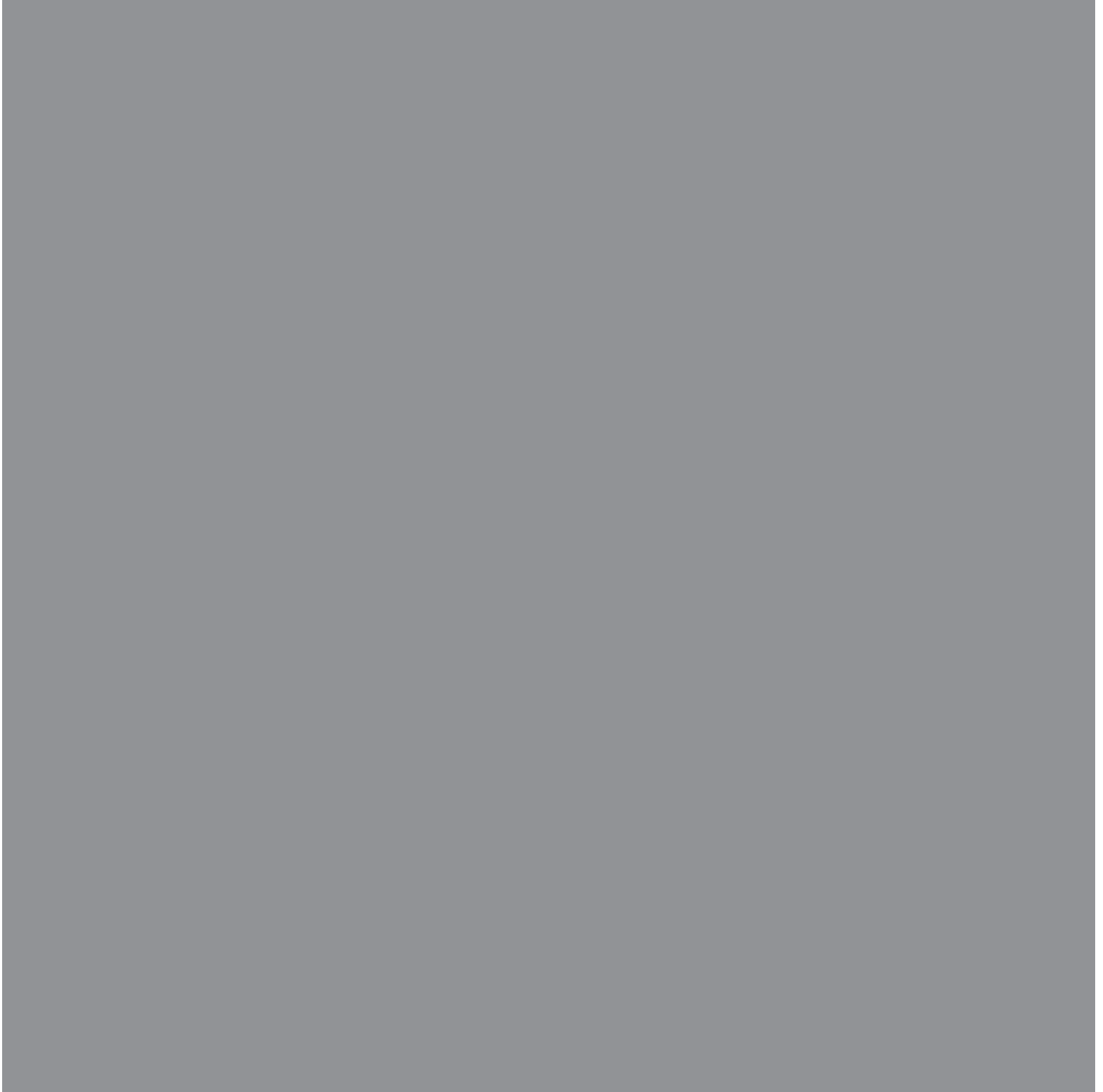


Troubleshooting and Maintenance Guide



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Maintenance

This section includes information about tasks you can perform to help ensure trouble-free operation of your computer, and to ease the recovery of important information on your computer if problems arise in the future.

Creating Data Backup Discs

Use CD or DVD recording (or *burning*) software that is installed on your computer, (for example, CyberLink Power2Go) to create backup discs of important information, including personal files, e-mail messages, and Web site bookmarks. You can also move data to an external hard disk drive.

The following procedure is just one way to back up data; refer to **Help and Support** for more information.

- 1 Click the **Windows Vista start button**™ , **All Programs**, and then click **CyberLink DVD Suite**.

The CyberLink registration window opens. Register now or later.

- 2 Click the **data** icon  at the top of the window.

- 3 Click **Make a data DVD** or **Make a data CD**.

The Power2Go window opens, listing your folders.

- 4 Highlight the files or folders you want to move,

and then click the **Add** icon .

- To remove a file, select it, and then click the

Delete a Folder icon .

- To remove all files, click the **Delete all**

Folders icon .

- To create a new folder in the directory, click

the **Add Folder** icon .

A folder is created under the current directory.

- 5 When you are finished adding files, click the **Burn a Disc** icon.

The Configuration/Information window opens to the Burner tab, to enable you to set your recording configuration. Leave these at the default settings.

- 6 At the message prompting you to insert a disc, do so.

Power2Go begins recording your data to disc, showing a progress bar.

- 7 At the message *Data Disc: Completed Successfully*, click **OK**.

The disc is automatically ejected.

- 8 Remove the disc from the disc drive, label it, and store it in a safe place.

When writing data to a backup disc, use software that includes *write verification* functionality (CyberLink Power2Go software does). This feature compares the data on your hard disk drive with the data copied to the disc to ensure it is an exact copy. Depending on your disc recording software, you may need to manually enable this feature (refer to the software documentation).

If you encounter recording issues, try alternate media (different types or brands). Also, use the Windows Explorer tool to view your files and verify content was copied over. To open Windows Explorer, right-click the **Windows Vista start button**, and then click **Explore**.

Creating System Recovery Discs

This is a one-time procedure that you should perform while your computer is working properly. If you encounter problems with your computer later, you can restore it to its original factory settings by using the system recovery discs that you created.

Before creating system recovery discs, read "System Recovery" on page 24.

Removing Unused Programs

Unused programs take up memory space and slow down the computer. If there are programs you do not use, follow these steps to uninstall them.

- 1 Click the **Windows Vista start button**, and then click **Control Panel**.
- 2 Click **Uninstall a program**. The Programs and Features window opens.
- 3 Select the program you want to remove, and then click **Uninstall**.
- 4 Follow the onscreen instructions.

NOTE: Some programs have their own uninstall features. If you cannot uninstall a program from the Control Panel, refer to the program documentation or online Help.

Using Windows Update

Check for updates or schedule a monthly automatic update. (See the *Getting Started* guide for details.)

- 1 Click the **Windows Vista start button**, and then click **Control Panel**.
- 2 Under **Security**, click the **Check for Updates** button.
- 3 Click **Install Updates**.

Reviewing programs that automatically run at startup

Set the Startup Programs feature to open only needed software programs, to improve system speed and performance:

- 1 Click the **Windows Vista start button**, **All Programs**, then click **Windows Defender**.
- 2 Click **Tools**.
- 3 Click **Software Explorer**.
- 4 In the Category list, select **Startup Programs**.
- 5 Select the program that you want to prevent from running at startup, and click **Disable**.

Running the Disk Cleanup Program

The Disk Cleanup program frees up space on your hard disk drive by removing temporary and unused files (including temporary Internet files and files in the Recycle Bin). You can run Disk Cleanup manually, or you can set it up to run automatically.

Running Disk Cleanup manually

- 1 Click the **Windows Vista start button**, **All Programs**, **Accessories**, **System Tools**, and then click **Disk Cleanup**.

Disk Cleanup searches for files to delete and calculates how much disk space can be saved.

- 2 Place a check mark in the check box next to the file types you want to delete.
- 3 Click **OK**, and then click **Delete Files** to finish deleting the selected files.

Scheduling Disk Cleanup to run automatically

- 1 Click the **Windows Vista start button**, **All Programs**, **Accessories**, **System Tools**, and then click **Task Scheduler**.
- 2 Click **Action**, and then click **Create Basic Task**.
- 3 Type a name for the task, and an optional description.
- 4 Click **Next**, and then click **Next** again.
- 5 Select the reoccurrence, and click **Next**.
- 6 Select the time at which to run Disk Cleanup, and click **Next**. Disk Cleanup may take a long time, so select a time when the computer is on but not in use.
- 7 Select **Start a program**, and click **Next**.
- 8 Under **Program/Script**, click **Browse**.
- 9 Type *cleanmgr.exe*, and click **Open**, and then **Next**.
- 10 Review the summary of the schedule you set. When you are done, click **Finish**. Disk Cleanup will run at the time you set.

Running the Disk Defragmenter Program


When Microsoft® Windows Vista® operating system stores files on your hard disk drive, it often divides them into multiple pieces (or *fragments*) so they fit into available space on the drive. When you open a fragmented file, the process takes more time because it must be retrieved from more than one place.

The Disk Defragmenter program groups the fragmented files together on your hard disk drive to improve computer performance. This does not affect the location of files and folders on your computer.

NOTE: The Disk Defragmenter program may take a long time to complete. You can run it unattended overnight.

- 1 Save your work and close all open programs.
- 2 Press the Ctrl-Alt-Delete keys simultaneously.
- 3 Click **Start Task Manager**.
- 4 On the Applications tab, select all the programs that are listed, and then click **End Task**. Close the Task Manager.
- 5 Click the **Windows Vista start button**, **All Programs, Accessories, System Tools**, and then click **Disk Defragmenter**.
- 6 Click **Defragment Now**.

If Disk Defragmenter repeatedly starts, a background program is still accessing the hard disk drive. Restart the computer in Safe Mode, and then run the Disk Defragmenter program again:

- 1 Click the **Windows Vista start button**, click the **Arrow** button next to the **Lock** button, and then click **Restart**. 
- 2 Press the F8 key as soon as the first logo screen appears.
- 3 In the Windows Advanced Options menu, use the arrow keys to select **Safe Mode**, and then press Enter.
- 4 After Windows Vista starts, use the procedure above to run the Disk Defragmenter program.
- 5 To turn off Safe Mode, repeat step 1.

Checking for Hard Disk Drive Errors

Perform the following procedure to check the integrity of the hard disk drive in Windows Vista. Close all open programs before beginning the disk check.

- 1 Click the **Windows Vista start button**, and then click **Computer**.
- 2 Right-click the hard disk drive that you want to check, and then click **Properties**.
- 3 Click the **Tools** tab.
- 4 Under **Error-checking**, click **Check Now**.
- 5 If desired, place a check mark in the **Automatically fix file system errors** and **Scan for and attempt recovery of bad sectors** check boxes.
- 6 Click **Start**. If prompted to restart the computer, click **Yes**.

The computer will restart and check the hard disk drive for errors.

Understanding Hard Disk Drive Space

The hard disk drive on the Hewlett-Packard and Compaq computers with the Windows Vista operating system preinstalled *may* appear to be smaller than what is stated in the product specifications, in the documentation, or on the box. Hard disk drives are described and advertised by manufacturers in terms of decimal (base 10) capacity. Windows Vista and other programs, such as FDISK, use the binary (base 2) numbering system.

In decimal notation, one megabyte (MB) is equal to 1,000,000 bytes, and one gigabyte (GB) is equal to 1,000,000,000 bytes. In the binary numbering system, one megabyte is equal to 1,048,576 bytes, and one gigabyte is equal to 1,073,741,824 bytes. Because of the different measuring systems, you may see a difference between the size reported by Windows Vista and the size advertised. The storage capacity of the hard disk drive is as advertised.

Windows Vista reports smaller capacity in the Windows Explorer tool and in the Computer window because it shows information about one partition on the hard disk drive at a time. One of the partitions contains the system recovery information.

Keeping the Computer Free of Dust and Dirt

Keeping your computer system free of dust and dirt will prolong its life. Dust, pet hair, and other particles can build up, creating a blanket effect; as a result, components can overheat, or, in the case of the keyboard and mouse, not work as smoothly and effectively. Check your system once a month for visible signs of dust and debris, and clean it about once every three months.

Cleaning the computer and monitor

- 1 Unplug the computer from its power source.
- 2 Unplug the monitor from its power source.
- 3 Use a clean, dry cloth to dust the computer case and the monitor.
- 4 Use a clean cloth dampened with warm water to wipe the computer case and the monitor case clean.

Do not use water on the monitor screen.

NOTE: If there is sticker residue or a spill on the computer or monitor case, use isopropyl or rubbing alcohol and a lint-free cloth to remove it.

- 5 Use a clean cloth to dry the computer and monitor case.
- 6 Use a clean, dry cloth to clean the monitor screen, or, for more thorough cleaning use an antistatic screen cleaner and a clean cloth.

Cleaning vents

Air vents keep the computer and monitor cool. To maintain efficient air flow, keep these vents clean by using a small battery-operated vacuum cleaner. (A battery-operated vacuum cleaner eliminates the risk of electric shock.)

- 1 Run the vacuum over the vents in the computer case and the monitor case.
- 2 Remove any debris that has accumulated in and around the computer ports (for example, the Ethernet and USB ports).

Cleaning the keyboard and mouse

When cleaning the keyboard keys, use a low setting on the battery-powered vacuum cleaner, to avoid removing key caps and springs.

- 1 Vacuum between the keys of the keyboard and along the grooves.
- 2 Use a clean, dry cloth and isopropyl alcohol to clean buildup on the keyboard keys and along its edges.
- 3 Wipe the body of the mouse and the mouse cord with cleaning wipes or a cloth and cleanser.

If you have a rollerball mouse, clean the ball and rollers inside:

- 1 Turn the mouse upside down.
- 2 Rotate the ball-cover ring counterclockwise to remove the ring and release the roller ball.
- 3 Rinse the roller ball with soap and warm water.
- 4 Clean the rollers inside the mouse with a cotton swab dampened with isopropyl alcohol.
- 5 After the roller ball and rollers are completely dry, replace the ball and ball-cover ring.


Troubleshooting Computer Problems

The troubleshooting tables appear in the following order:

- Audio
- CD and DVD Drives
- Video
- Display (Monitor)
- Hard Disk Drive
- Hardware Installation
- Internet Access
- Keyboard and Mouse
- Power
- Performance
- Bluetooth Wireless Devices
- Miscellaneous

For more information about monitor problems, or for problems related specifically to your printer, refer to the documentation provided by the product manufacturer.

Audio

Symptom	Possible solution
No sound is produced.	<p>Press the Mute button on the keyboard to see whether the Mute feature is enabled.</p> <p>Or</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then click Control Panel.2 Click Hardware and Sound, and then click Adjust system volume.3 If programs are muted, click the Mute button to unmute. <hr/> <p>If you are using built-in monitor speakers, use the monitor front panel volume button to adjust volume. Use the front panel buttons to enter the onscreen display (OSD) to be sure audio is enabled and volume is set appropriately.</p> <hr/> <p>Click the Volume icon () on the task bar, or use the keyboard controls to increase the volume.</p> <hr/> <p>Ensure powered (active) speakers are turned on.</p> <hr/> <p>Turn off your computer, and reconnect the speakers. Ensure the speakers are connected to an audio port, not a Line In or headphone port.</p> <hr/> <p>Press the Sleep button (select models only), or the Esc key on the keyboard, to resume from sleep mode.</p> <hr/> <p>Unplug headphones if they are connected to your computer.</p>

Audio (continued)

Symptom

Codec error messages appear when certain audio files are played.

Possible solution

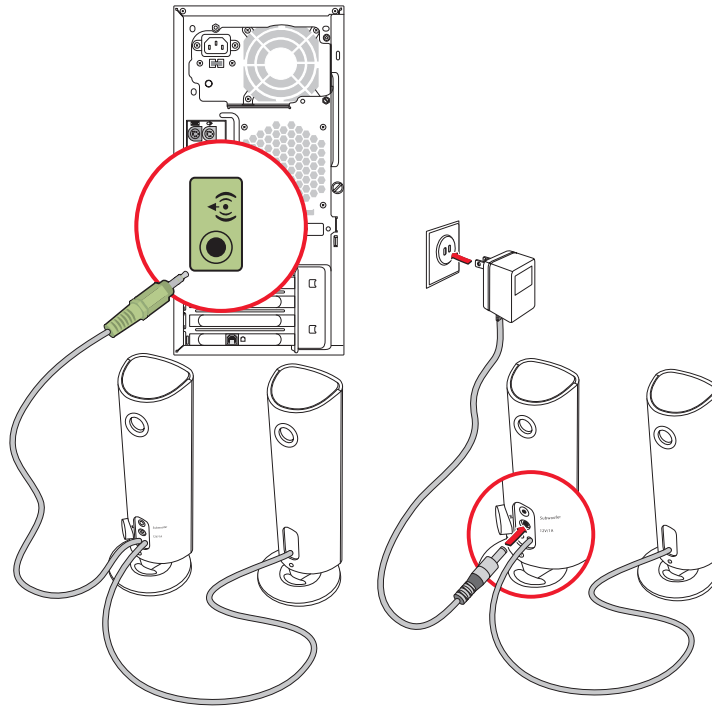
Open the file in Windows Media Player. Ensure Windows Media Player is configured to automatically download codecs.

- If the correct codec is available, the file will play. Note that you must be connected to the Internet to download the codec file.
- If the correct codec is not available, check to see whether there is an update available for Windows Media Player.

For more information, open Windows Media Player Help and search for *codec*.

Volume is very low or unsatisfactory.

Detached non-powered speakers (speakers without a separate power cord) will not produce satisfactory sound. Replace the non-powered speakers with powered speakers. Powered speakers have a power cord and On button, and they connect to the Audio Out (green) connector on the back of the computer.



CD and DVD Drives

Symptom	Possible solution
The CD or DVD drive cannot read a disc, or it takes too long to start.	<p>Ensure the disc is inserted with the label facing up and centered in the tray.</p> <p>Wait at least 30 seconds for the drive to determine the type of media.</p> <p>Clean the disc with a disc cleaning kit, available from most computer stores.</p> <p>The driver may be corrupted or outdated. For detailed information about restoring and updating drivers, see "Updating Drivers" on page 22.</p>
I cannot remove a CD or DVD.	<p>Turn on your computer, and press the Eject button nearest the drive to open the tray.</p> <p>If you suspect a problem with the Eject button itself:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then click Computer.2 Right-click the CD or DVD drive you want to open.3 Select Eject from the menu.
My mini-CD disc is falling down inside the computer.	<p>On all Slimline computers, the CD/DVD drive is installed in a vertical position. Standard-sized CDs and DVDs can fit into the drive vertically; however if you are using a mini-disc, you must first place the computer on its side before you insert the mini-disc.</p> <ol style="list-style-type: none">1 Face the front of the computer and lay the computer down on its right side.2 Press the Eject button to open the CD/DVD tray.3 Place the mini-disc into the recess inside the tray, and press the Eject button again to close it.
I cannot create (record) a disc.	<p>Ensure the disc is inserted with the label facing up and centered in the tray.</p> <p>Verify that you are using the correct disc type (media) for the drive. Try a different brand of disc.</p> <p>Ensure the disc is clean and undamaged. If recording stopped during a recording session, the disc may be damaged; use a different disc.</p> <p>Use the correct type of disc for the type of files you are recording.</p> <p>When using a CD-R disc, ensure it is blank if recording music, and that it is blank or appendable (with space to add more data files) if recording data.</p> <p>Verify that you are using the correct disc type when you make a copy of a disc. Some recording programs can record only to the same disc type as the source. For example, you can record a DVD only to a DVD+R/-R or a DVD+RW/-RW disc, and you can record a CD only to a CD-R or a CD-RW disc.</p> <p>Ensure that the disc is in the correct drive, and that you specify the same drive in the CD or DVD recording software.</p>

CD and DVD Drives (continued)

Symptom	Possible solution
I cannot create (record) a disc. (continued)	<p>Select a slower write speed for the recording drive, if a slower speed is available.</p> <hr/> <p>The recording software may not let you add a track if it exceeds the available space on your disc. You can make space available by removing one or more tracks from the list before recording the files to the disc.</p> <hr/> <p>Close all software programs and windows before recording.</p> <hr/> <p>Ensure you have enough available space on your hard disk drive to store a temporary copy of the content.</p> <hr/> <p>Click the Windows Vista start button, and then click Computer. Right-click the hard disk drive, and then click Properties to view the available space.</p> <hr/> <p>If you are on a network, copy the files from a network drive to your hard disk drive first, and then record them to disc.</p> <hr/> <p>Close all programs and windows, and then restart your computer.</p>
I cannot add data to a DVD.	<p>Ensure you set the correct recording option (append or add data files) in your DVD recording software.</p>
Titles of music tracks are not displayed for the CD.	<p>For the artist, title, and track information to appear when you play music CDs, the computer must be connected to the Internet. This information is not recorded on the disc.</p> <hr/> <p>Track information may not be available for every CD.</p>
An error message appears when I capture video.	<p>You may need to select the capture device if your computer has both an analog and a digital video capture device. To find out how to change the video device selection, refer to the Help menu in the video capture program.</p>
I cannot play a DVD movie on a DVD player.	<p>Your DVD player cannot play video files that were recorded onto the DVD as data files. To play a movie properly, use a video recording program. Some video files may be viewed on a computer, but not on a home DVD video player.</p>

Video

Symptom	Possible solution
Some video files do not play.	Your file may be corrupt or in an unsupported format. Open the video file in a video editor, and then resave the file in a supported format.
Codec error messages appear when I play certain video files.	<p>Open the file in Windows Media Player. Ensure Windows Media Player is configured to automatically download codecs.</p> <ul style="list-style-type: none">■ If the correct codec is available, the file will play. Note that you must be connected to the Internet to download the codec file.■ If the correct codec is not available, check to see whether there is an update available for Windows Media Player. <p>For more information, open Windows Media Player Help and search for <i>codec</i>.</p>
Error message: <i>Files Needed To Display Video Are Missing or Corrupt.</i>	<ol style="list-style-type: none">1 Click the Windows Vista start button, right-click Computer, and then click Properties.2 Under Tasks, click Device Manager.3 Click the plus sign (+) next to Sound, video and game controllers.4 Right-click TV tuner (select models only), and then click Update Driver Software.5 Select Search automatically for updated driver software.6 Follow the instructions to update the driver.7 If you are prompted, restart the computer.

Display (Monitor)

In addition to the information listed here, also refer to the documentation that came with your monitor.

Symptom	Possible solution
Screen is blank, and monitor power light is not lit.	Reconnect the power plug to the back of the monitor and to the wall outlet. Press the On button on the front of the monitor.
Screen is blank.	Press the space bar on the keyboard or move the mouse to make the screen display visible again. Press the Sleep button (select models only), or the Esc key on the keyboard, to resume from sleep mode. Press the On button to turn on the computer. Inspect the monitor video connector for bent pins: <ul style="list-style-type: none">■ If any of the pins are bent, replace the monitor connector cable.■ If no pins are bent, reconnect the monitor connector cable to the computer.
Images on the screen are too large or too small, or the images are fuzzy.	Adjust the monitor resolution setting in Windows Vista: <ol style="list-style-type: none">1 Right-click the desktop, and then click Personalize.2 Click Display Settings.3 Adjust Resolution as necessary.



Hard Disk Drive

Symptom	Possible solution
Computer seems to be locked up and is not responding.	<p>Use the Windows Task Manager to close any programs not responding, or restart the computer:</p> <ol style="list-style-type: none">1 Press the Ctrl, Alt, and Delete keys on the keyboard simultaneously.2 Click Start Task Manager.3 Select the program that is not responding, and then click End Task. <p>If closing programs does not work, restart the computer:</p> <ol style="list-style-type: none">1 Press the Ctrl, Alt, and Delete keys on the keyboard simultaneously.2 Click the arrow next to the red Shut Down button, and then click Restart. <p>Or</p> <ol style="list-style-type: none">1 Press and hold the On button for 5 or more seconds to turn off the computer.2 Press the On button to start the computer.
Error message: <i>Hard disk drive error</i> .	Press the Help ? button on the keyboard to open the Help and Support Center, or refer to the <i>Limited Warranty and Support Guide</i> to contact Support.

Hardware Installation

Symptom	Possible solution
A new device is not recognized as part of the system.	<p>Install the device driver from the CD provided with the device, or download and install the driver from the device manufacturer's Web site.</p> <p>You may need an updated driver for Windows Vista. Contact the device vendor directly for an update.</p> <p>For HP peripherals, visit the HP Web site. For details, refer to the <i>Limited Warranty and Support Guide</i> for details.</p> <hr/> <p>Ensure that all cables are properly and securely connected and that the pins in the cable or connector are not bent.</p> <hr/> <p>Turn off the computer, turn on the external device, and then turn on the computer to integrate the device with the computer.</p> <hr/> <p>Restart the computer, and follow the instructions for accepting the changes.</p> <hr/> <p>Disable the automatic settings in the operating system for the card, and choose a basic configuration that does not cause a resource conflict.</p> <p>You can also reconfigure or disable devices to resolve the resource conflict.</p>

Hardware Installation (continued)

Symptom	Possible solution
A new device does not work.	To install or uninstall a device driver, you must be logged in with administrative privileges. If you need to switch users, click the Windows Vista start button , click the Arrow button next to the Lock button, and then click Switch User . Choose a user with administrative privileges. 
A device does not work after installing a new device.	To resolve a device conflict, you may need to disable one of the devices or uninstall an old device driver: <ol style="list-style-type: none">1 Click the Windows Vista start button, right-click Computer, and then click Properties.2 Under Tasks, click Device Manager.3 Click the plus sign (+) next to the problem device and check for exclamation points in a yellow circle near the device icon. The exclamation point means there is a device conflict or problem with the device. Exclamation points do not always appear when a device is not working properly.4 If you have removed a hardware device, and the device driver is listed in the Device Manager, this may be causing the device conflict. To uninstall the old driver so that the new device driver works properly, right-click the device, click Uninstall, and then click OK.5 Double-click the name of the device, and then select Properties.6 Click the Resources tab to verify that there is a device conflict.7 Click the General tab to see whether your device is enabled and working properly. If it is available, click the Troubleshoot button, and follow the onscreen instructions in the device troubleshooter wizard.8 Restart the computer. Click the Windows Vista start button, click the Arrow button next to the Lock button, and then click Restart. 

Internet Access

Symptom	Possible solution
I cannot connect to the Internet.	<p>Verify Internet settings, or contact your Internet Service Provider (ISP) for assistance.</p> <hr/> <p>Verify that you are using the proper cables for your Internet connection type. Your computer may have a modem and an Ethernet network adapter (also called a network interface card, or NIC). A modem uses a standard telephone cable to make a dial-up connection. A NIC uses a network cable to connect to a local area network (LAN). Do not connect a telephone cable to the NIC. Do not plug a network cable into a telephone service line; doing so may damage the NIC.</p> <hr/> <p>For more information about connecting to the Internet, press the Help ? button on the keyboard to open the Help and Support Center.</p> <hr/> <p>Verify that the Web browser is installed and set up to work with your ISP.</p> <hr/> <p>Run the wireless setup wizard:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then select Network.2 In the Network window, click Network and Sharing Center.3 In the Network and Sharing Center window, click Set up a connection or network to open the wizard.4 Follow the onscreen instructions. <hr/> <p>If your system has external antennas, try to move the antenna to a better position. If the antenna is internal, try to move the chassis.</p> <hr/> <p>Try to connect again later, or contact your ISP for assistance.</p>
I cannot automatically start Internet programs.	<p>Log in to your ISP, and start the desired program.</p>
Web pages load slowly.	<p>Verify that the correct modem speed and COM port are selected:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then click Control Panel.2 Click Hardware and Sound.3 Double-click Phone and Modem Options.4 Click the Modems tab, and then click the Properties button.5 In the <i>Device status</i> area, verify the modem is working properly. <p>Note that Web pages do not always load as quickly as files stored on your computer. Web pages may also load slowly if there is a high demand for the Web site at that time.</p>

Internet Access (continued)

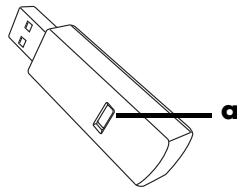
Symptom	Possible solution
The AOL program opens even when it is not being used.	<p>You may want to remove the AOL program.</p> <p>To uninstall AOL:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then click Control Panel.2 Click Uninstall a program.3 Select America Online, click Uninstall, and then follow the onscreen instructions. <p>NOTE: Removing the AOL program will not cancel your account with AOL.</p>
My Internet browser home page changed to something I did not want.	<p>You may have <i>spyware</i> on your computer. Spyware is software that usually runs silently in the background on your computer, collecting and sending information about you and your use of the computer to another person or system on the Internet.</p> <p>You can find and remove spyware from your computer by using any one of a number of software programs available for this purpose, including Windows Defender.</p> <p>To scan for spyware by using Windows Defender:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, All Programs, and then click Windows Defender.2 Click Scan. <p>Many of the popular virus protection programs also include tools that scan for and remove spyware from your computer.</p> <p>To avoid getting spyware on your computer:</p> <ul style="list-style-type: none">■ Do not install programs if you are not sure they come from reputable companies. Check the company Web site carefully for information about what is included with the program.■ Do not automatically click Yes when a download window asks if it is OK to install a program on your computer. Read the message in the window and make sure it is a software program that you really want.
Unwanted pop-up advertisements display on my computer when connected to the Internet.	<p>This is typically caused by <i>adware</i> or advertising-supported software.</p> <p>You can configure your Web browser to block pop-ups. For example, in Internet Explorer, click Tools, and then click Pop-up Blocker.</p> <p>To remove adware from your computer, use the antispyware/adware program included on your computer (select models only), or use any number of available software programs that remove adware programs.</p> <p>Note that many of the popular antivirus programs have tools that scan for and remove adware from your computer.</p>

Keyboard and Mouse

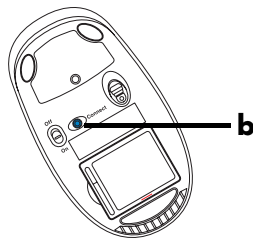
Symptom	Possible solution
Keyboard commands and typing are not recognized by the computer.	Turn off the computer by using the mouse, reconnect the keyboard to the back of your computer, and then turn on your computer.
Keyboard Print button does not work.	Use the Print menu item in the program (usually located on the File menu).
Wireless keyboard or mouse does not work or is not detected.	Check for these problems: <ul style="list-style-type: none">■ Ensure the mouse and keyboard are within range of the receiver.■ Replace the batteries in the keyboard and mouse. Turn the devices over, take off the battery cover, remove the old batteries, and insert new alkaline batteries. Do not use rechargeable batteries.■ Ensure the mouse is not in suspend mode, which occurs after 20 minutes of inactivity. Click the left mouse button to reactivate it.

Resynchronize the keyboard and mouse to the receiver:

- 1 Plug the receiver into a USB port on the computer.
If you have a choice, use a USB port on the front of the computer.
- 2 Push the Connect button (**a**) on the receiver (which is also the LED light), and hold it for 5 to 10 seconds until the blue light starts to flash.



- 3 Check that the mouse is on, and push and hold the Connect button (**b**) on the underside of the mouse until the blue LED on the receiver stops flashing.



NOTE: The receiver connection session times out after 60 seconds. To ensure the connection was established, and that the receiver did not time out instead, move the mouse and check for response.

Keyboard and Mouse (continued)

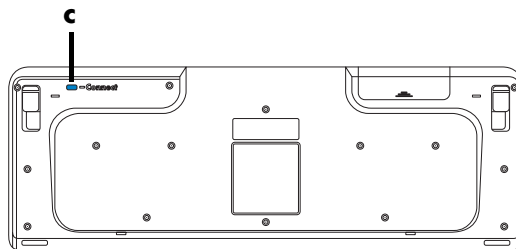
Symptom

Possible solution

Wireless keyboard or mouse does not work or is not detected.
(continued)

After the mouse connection is established, repeat the procedure with the keyboard:

- 1 Push the Connect button on the receiver, and hold it for 5 to 10 seconds until the blue light starts to flash.
- 2 Push and hold the Connect button (c) on the underside of the keyboard until the blue LED on the receiver stops flashing.



Refer to the documentation that came with the keyboard and mouse.

Mouse (with cable) does not work or is not detected.

Unplug and reconnect the mouse cable to your computer.

If the mouse is still not detected, turn off the computer, reconnect the mouse cable, and then restart the computer.

Cursor does not respond to mouse movement.

Restart your computer by using the keyboard:

- 1 Press the Alt and Tab keys on the keyboard simultaneously, to navigate to an open program.
- 2 Press the Ctrl and S keys on the keyboard simultaneously to save your changes in the selected program (Ctrl+S is the keyboard shortcut for Save on most—*not all*—programs).
- 3 After saving changes in all open programs, press the Ctrl and Esc keys on the keyboard simultaneously to display the Windows Start Menu.
- 4 Use the arrow keys to select the **Arrow** button next to the **Lock** button. Select **Shut Down**, and then press the Enter key on the keyboard.
- 5 After the shutdown is complete, reconnect the mouse connector to the back of your computer, and then turn on your computer.



Cursor responds slowly to mouse movement.

If you have a rollerball mouse, clean the roller ball. For detailed cleaning instructions, go to: <http://www.hp.com/support>

Select your country/region and language, search on your computer model number, and then search on the keyword *cleaning*.

For a mouse with a roller ball, use a mouse pad or other rough surface under the mouse. For an optical mouse, try a less reflective surface under the mouse.

Keyboard and Mouse (continued)

Symptom	Possible solution
I cannot move the cursor using the arrow keys on the number key pad.	Press the Num Lock key. The Num Lock light should not be on if you want to use the arrow keys on the number key pad.
Cursor moves only vertically or horizontally (or it does not move smoothly on the screen).	Remove the rollerball cover from bottom of mouse (rotate it counterclockwise), remove the ball, and clean it with a damp, lint-free cloth (not paper). Also clean the rollers on which the ball moves.
Optical mouse does not track the cursor well.	Place the mouse on a mouse pad or white sheet of paper, or gently wipe the light sensor lens on the bottom of the mouse with a lint-free cloth (not paper).
Cursor moves too fast or too slow.	Adjust the cursor speed: <ol style="list-style-type: none">1 Click the Windows Vista start button, Control Panel, Hardware and Sound, and then click Mouse.2 Click the Pointer Options tab.3 Adjust the Motion slider toward Slow or Fast to decrease or increase the speed at which the cursor responds to mouse movement.4 Click OK.

Power

Symptom	Possible solution
Computer will not turn on or start.	<p>Ensure that cables connecting the computer to the external power source are plugged in properly.</p> <hr/> <p>When the cables connecting the computer to the external power source are plugged in properly, and the wall outlet is functioning, the green power supply light on the back of the computer should be on; if it is not, refer to the <i>Limited Warranty and Support Guide</i> to contact Support.</p> <hr/> <p>If the display (monitor) is blank, the monitor may not be properly connected. Connect the monitor to the computer, plug it in, and turn it on. See "Display (Monitor)" on page 10.</p> <hr/> <p>Set the line voltage selection switch to the correct setting for your country/region, or refer to the <i>Limited Warranty and Support Guide</i> to contact Support.</p> <hr/> <p>Test the wall outlet by connecting a different electrical device to it.</p> <hr/> <p>Incompatible memory (RAM) may have been installed. Reinstall the old memory to return your computer to its original state. For instructions, refer to the <i>Upgrading and Servicing Guide</i>.</p> <hr/> <p>Reseat the hard disk drive data and power cables. For instructions, refer to the <i>Upgrading and Servicing Guide</i>.</p>
Error message: <i>Invalid system disk or Non-System disk or disk error</i> .	<p>When drive activity stops, remove the disk and press the spacebar on the keyboard. The computer should start up.</p>
Computer does not turn off when the On button is pressed.	<p>Press and hold the On button until the computer turns off.</p>
Computer shuts down automatically.	<p>The computer may be in an exceedingly hot environment. Let it cool down.</p> <p>Ensure computer air vents are not blocked and internal fan is running. Note that your computer may not have an internal fan.</p>
Computer displays the wrong date and time.	<p>The real-time clock (RTC) battery may need to be replaced. Battery life is approximately seven years.</p> <p>Before replacing the battery, try resetting the date and time in your operating system by using the Control Panel. If the problem persists, replace the battery. For instructions, refer to the <i>Upgrading and Servicing Guide</i>.</p>
Computer displays a processor speed that is lower than expected.	<p>This happens when the processor is automatically running in a lower power state, because the applications running do not require the maximum processing power.</p>

Performance

Symptom	Possible solution
Software programs and files take longer to open or respond.	<p>If you created multiple user accounts on your computer, ensure other users are not logged in. If there are multiple users logged in simultaneously, system resources must be shared among them.</p> <hr/> <p>Run the Disk Cleanup program to delete unwanted files (including temporary Internet files, installed components and programs that you no longer use, and files in the Recycle Bin) from your hard disk drive:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, All Programs, Accessories, System Tools, and then click Disk Cleanup.2 Select the drive on which you want to perform the cleanup.3 Place a check mark in the check box next to the file types you want to delete.4 Click OK, and then click Yes to permanently delete the files. <hr/> <p>Run the Disk Defragmenter program to group fragmented files together on your hard disk drive to improve performance. This does not affect the location of files and folders on your computer.</p> <p>NOTE: The Disk Defragmenter program may take a long time to complete. It is a good idea to run it overnight.</p> <ol style="list-style-type: none">1 Save your work and close all other programs.2 Press the Ctrl-Alt-Delete keys simultaneously.3 Click Start Task Manager.4 On the Applications tab, select all the programs that are listed, and then click End Task.5 Click the Windows Vista start button, All Programs, Accessories, System Tools, and then click Disk Defragmenter.6 Click Defragment now. <hr/> <p>Remove unused programs:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then Control Panel.2 Click Uninstall a program. The Programs and Features window opens.3 Select the program you want to remove, and then click Uninstall.4 Follow the onscreen instructions.


Performance (continued)

Symptom	Possible solution
Software programs and files take longer to open or respond. (continued)	<p>Check for hard disk drive errors:</p> <ol style="list-style-type: none">1 Close all open programs and windows.2 Click the Windows Vista start button, and then Computer.3 Right-click the hard disk drive that you want to check, and then click Properties. The System Properties window opens.4 Click the Tools tab.5 Under Error-checking, click Check Now.6 (Optional) Place a check mark in the Automatically fix file system errors and Scan for and attempt recovery of bad sectors check boxes.7 Click Start. If you are prompted to restart the computer, click Yes.

Bluetooth Wireless Devices

Symptom	Possible solution
Bluetooth device is not working.	<p>Ensure the device and your computer are the correct distance apart—not too far and not too near. For the correct distance, refer to the device instructions.</p> <hr/> <p>Remove and then reinstall the device:</p> <ol style="list-style-type: none">1 Click the Windows Vista start button, and then click Control Panel.2 Click Hardware and Sound, and then click Bluetooth Devices.3 Select the device that is not working, and then click Remove.4 Click Add, press the reset button on the device, place a check mark in the My device is set up and ready to be found check box, and then click Next.5 Follow the onscreen wizard instructions. <hr/> <p>The device may have too many connections. Either wait until the device is less busy, or set the other devices so they are not discoverable. For information on how to turn off discoverability, refer to the device instructions.</p> <hr/> <p>Ensure other devices that use radio frequencies (for example, microwave ovens, cordless phones, and 802.11 wireless networks) are not creating interference. Try moving the device that is not working farther away from other devices.</p>

Miscellaneous

Symptom	Possible solution
Error message: <i>Insufficient memory</i> .	Close all open programs, and then try the desired task again, or restart your computer (click the Windows Vista start button , click the Arrow button next to the Lock button, and then click Restart). If the message displays again, consider purchasing and installing additional memory. 
Remote sensor is not receiving a signal from the remote control (select models only).	<ol style="list-style-type: none">1 Click the Windows Vista start button, right-click Computer, and then select Properties.2 Under Tasks, click Device Manager.3 Click the plus sign (+) next to Universal Serial Bus Controllers.4 If eHome Infrared Receiver is listed under Universal Serial Bus Controllers, Windows Vista 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 computer, and then plug it back into the same USB port.6 Disconnect all other USB devices, leaving the remote sensor connected, and then restart the computer. Connect other USB devices after the remote sensor appears in the Device Manager window.
Memory card reader (select models only) cannot read my memory card.	<p>Do not insert or remove memory cards when the in-use light is flashing. Doing so may cause data loss or permanent damage to the card reader.</p> <p>Some memory cards have a Read/Write or Security switch. Ensure the switch is set to Write Enabled before you attempt to write data to the card.</p> <p>Ensure the amount of data you are storing has not exceeded the storage limit of the memory card.</p> <p>Ensure the memory card is one of the supported types: CompactFlash (I, II, and Microdrive), Memory Stick, Memory Stick Pro, MultiMedia, Secure Digital, SmartMedia, or xD. Some models may support additional types.</p> <p>Ensure the memory card is fully inserted into the correct slot.</p> <p>Inspect the ends of the memory cards for dirt or material that closes a hole or spoils a metal contact. Clean the contacts with a lint-free cloth and a small amount of isopropyl alcohol. Replace the memory card if necessary.</p>

Repairing Software Problems

Your computer uses the operating system and installed software programs during normal operation. If your computer works improperly or stops because of the software, you may be able to repair it.

Some software repairs are as simple as restarting your computer, and others require performing a system recovery from files on your hard disk drive.

IMPORTANT: You must perform the computer repair methods in the order described in this document.

Software Repair Overview

This section lists the available methods of fixing your computer if you are experiencing software problems. The sections that follow provide detailed instructions for each method. You must perform the procedures in the order listed in this overview:

- 1 Restarting Your Computer
- 2 Turning Off Your Computer
- 3 Updating Drivers
- 4 Microsoft System Restore
- 5 Software Program and Hardware Driver Reinstallation
- 6 System Recovery

NOTE: If you are replacing a hard disk drive, you only need to perform the system recovery.

Restarting Your Computer

Restarting is the simplest repair method for your computer. When you restart, the computer reloads the operating system and software into its memory.

To restart your computer:

- 1 Close all open programs and windows.
- 2 Click the **Windows Vista start button**, click the **Arrow** button next to the **Lock** button, and then click **Restart**.



Turning Off Your Computer

When you turn off your computer and then turn it on again, you force the computer to reload the operating system into its memory, which clears some tracking information. This may eliminate some problems that can remain after you perform a restart.

To turn off your computer:

- 1 Close all open programs and windows.
- 2 Click the **Windows Vista start button**, click the **Arrow** button next to the **Lock** button, and then click **Shut Down**.
- 3 Start your computer by pressing the On button.



Updating Drivers

A *driver* is a software program that enables your computer to communicate with an attached device, such as a printer, hard disk drive, mouse, or keyboard.

Complete the following procedure to update a driver, or to revert to an earlier version of the driver if the new one does not solve your problem:

- 1 Click the **Windows Vista start button**, right-click **Computer**, and then click **Properties**.
- 2 Under **Tasks**, click **Device Manager**.
- 3 Click the plus sign (+) to expand the type of device for which you want to update or rollback, (for example, DVD/CD-ROM drives).
- 4 Double-click the specific item (for example, HP DVD Writer 640b).
- 5 Click the **Driver** tab.
- 6 To update a driver, click **Update Driver**, and follow the onscreen instructions.

Or

To revert to an earlier version of a driver, click **Rollback Driver**, and follow the onscreen instructions.

Microsoft System Restore

Microsoft Windows Vista includes a feature that enables you to restore your computer configuration to that of a previous time when the current software problem did not exist. The feature does this by creating a *restore point* where it records the computer settings at that time and date.

When a new program is installed, the operating system automatically creates a restore point before it adds the new software. You can also set restore points manually.

If you experience a problem that you think may be due to software on your computer, use System Restore to return the computer to a previous restore point.

NOTE: Always use this System Restore procedure before you use the System Recovery program.

To start a System Restore:

- 1 Close all open programs.
- 2 Click the **Windows Vista start button**, **All Programs**, and then click **Accessories**.
- 3 Choose **System Tools**, **System Restore**, and then click **Next**.
- 4 Follow the onscreen instructions.

To manually add restore points:

- 1 Close all open programs.
- 2 Click the **Windows Vista start button**, and then **Control Panel**.
- 3 Click **System and Maintenance**, and then **System**.
- 4 Click **System protection**.
- 5 Under **Automatic Restore Points**, select the disk for which you want to create a restore point.
- 6 Click **Create**.
- 7 Follow the onscreen instructions.

For more information about software restore points:

- 1 Click the **Windows Vista start button**, and then click **Help and Support**.
- 2 Type *system restore* in the Search box, and then click **Search**.

Software Program and Hardware Driver Reinstallation

If an individual factory-installed software program or hardware driver is damaged, you can reinstall it by using the Recovery Manager program (select models only).

NOTE: Do not use the Recovery Manager program to reinstall software programs that came on CDs or DVDs included in the computer box. Reinstall these programs directly from the CDs or DVDs.

Before you uninstall a program, be sure you have a way to reinstall it. Check that it is still available from where you initially installed it (for example, discs or the Internet). Or check that the program is in the list of programs you can reinstall from the Recovery Manager.

To check the list of installable programs in the Recovery Manager:

- 1 Click the **Windows Vista start button**, **All Programs**, **PC Help & Tools**, and then click **Recovery Manager**.
- 2 Click **Advanced Options**, **Reinstall software programs that came with your computer**, and then click **Next**.
- 3 Click **Next** at the Welcome screen.

A list of programs opens. Check whether your program is there.

To uninstall a program:

- 1 Close all software programs and folders.
- 2 Uninstall the damaged program:
 - a Click the **Windows Vista start button, Control Panel**.
 - b Under **Programs**, click **Uninstall a program**.
 - c Select the program you want to remove, and then click **Uninstall**.
 - d Click **Yes** if you want to continue with the uninstall process.

To reinstall a program using the Recovery Manager:

- 1 Click the **Windows Vista start button, All Programs, PC Help & Tools**, and then click **Recovery Manager**.
- 2 Click **Advanced Options, Reinstall software programs that came with your computer**, and then click **Next**.
- 3 Click **Next** at the Welcome screen.
- 4 Choose the program you want to install, click **Next**, and follow the onscreen instructions.
- 5 When you have finished reinstalling, restart the computer.

NOTE: Do not skip this last step. You must restart the computer after recovering software programs or hardware drivers.

System Recovery

After you have tried the previously mentioned methods of repairing your computer, you can run a system recovery as a last resort to reinstall the factory-shipped operating system, software programs, and hardware drivers.

System recovery completely erases and reformats the hard disk drive, deleting all data files you have created. System recovery reinstalls the operating system, programs, and drivers. However, you must reinstall any software that was not installed on the computer at the factory. This includes software that came on CDs included in the computer accessory box, and software programs you installed after purchase.

You must choose one of the following methods to perform a system recovery:

- **Recovery Image**—Run the system recovery from a recovery image stored on your hard disk drive. The recovery image is a file that contains a copy of the original factory-shipped software. To perform a system recovery from a recovery image, see “Starting system recovery from the hard disk drive” on page 25.

NOTE: The recovery image uses a portion of the hard disk drive that cannot be used for data storage.

- **Recovery Discs**—Run the system recovery from a set of recovery discs (CDs or DVDs) that you create from files stored on your hard disk drive. To create recovery discs, see the next section.

Creating Recovery Discs

Complete the procedure described in this section to create a set of recovery discs from the recovery image stored on your hard disk drive. This image contains the operating system and software program files that were originally installed on your computer at the factory.

You can create only one set of recovery discs for your computer. Furthermore, the recovery discs you create can be used only with your computer.

After creating the recovery discs, you can delete the recovery image if you want to make extra space available on your hard disk drive.

NOTE: Do not delete the recovery image until you have made recovery discs.

Choosing Recovery Discs

There are several advantages to using DVDs instead of CDs when creating recovery discs:

- DVDs have greater capacity than CDs, so there are fewer discs to record and store.
- DVD recovery discs take less time to create than CD recovery discs.

To create recovery discs, your computer must have a CD or DVD Writer drive, or other drive that can write to CDs or DVDs.

DVD+RW, DVD-RW, and CD-RW discs cannot be used to create recovery discs.

You must use high-quality discs. Because making a set of recovery discs is so important, there is a very high verification standard for this process. You may see error messages such as *Recording failure when writing disc* or *Error detected during disc verification*.

Your discs may be rejected if they are not defect-free. You will be prompted to insert a new blank disc to try again. It is normal that some of your discs may be rejected.

The number of discs in the recovery disc set depends on your computer model. The program that creates the discs tells you the specific number of blank discs needed to make the set. The following table gives an idea of how many discs you will need.

Disk Drive	Disc Type	Number of Required Blank Discs
DVD	DVD-R, DVD+R	1–3 discs
DVD	DVD+R Dual-Layer	1–2 discs
CD	CD-R	7–16 discs
No CD or DVD drive		Contact HP Support

The process takes some time to verify that the information written on the disc is correct. You can quit the process at any time. The next time you run the program, it resumes where it left off.

To create recovery discs:

- 1 Close all open programs.
- 2 Click the **Windows Vista start button**, **All Programs**, **PC Help & Tools**, and then click **Recovery Disc Creation**.
- 3 Follow the onscreen instructions. Label each disc as you make it (for example, Recovery 1, Recovery 2).
- 4 Store the recovery discs in a safe place.

System Recovery Options

You should attempt a system recovery in the following order:

- 1 Through the hard disk drive, from the Windows Vista Start menu.
- 2 Through the hard disk drive, by pressing the F11 key on the keyboard during system startup.
- 3 Through recovery discs that you create.
- 4 Through recovery discs purchased from HP Support. To purchase recovery discs, go to <http://www.hp.com/support> and visit the Software & Driver downloads page for your computer model.

Starting system recovery from the hard disk drive

Choose one of the following procedures to reinstall the software from the recovery image on your hard disk drive:

- System recovery from the Windows Vista Start menu
- System recovery at system startup

System recovery from the Windows Vista Start menu

If the computer is working, and Windows Vista is responding, use these steps to perform a system recovery.

NOTE: System recovery deletes all data and programs you created or installed after purchase. Therefore, ensure you have backed up, to a removable disc, any data you want to keep.

- 1 Turn off the computer.
- 2 Disconnect all peripheral devices from the computer, except the monitor, keyboard, and mouse.
- 3 Turn on the computer.
- 4 Click the **Windows Vista start button**, **All Programs**, **PC Help & Tools**, and then click **Recovery Manager**.

- 5 In the Recovery Manager Welcome window, click the **Advanced options** button.
- 6 Choose the system recovery option that recovers your computer to its original factory condition, and then click **Next**.
- 7 Click **Next** at the next screen that prompts you to do so.

Your computer restarts.

NOTE: If your system does not detect a recovery partition, it will prompt you to insert a recovery disc.

- 8 In the Welcome window, click **Next**.
- 9 When prompted to perform a system restore, click **No**, and then click **Next**.
- 10 Click **Yes** to perform a system recovery, and then click **Next**.
- 11 If you are prompted to back up your files, and you have not done so, click **Yes**. Otherwise, click **No**, and then click **Next**.

System recovery begins. After system recovery is complete, the computer restarts.

- 12 Complete the registration process, and wait until you see the desktop.
- 13 Turn off the computer, reconnect all peripheral devices, and turn the computer back on.
- 14 Perform the procedure "Performing the post-recovery procedure" on page 27.

System recovery at system startup

If Windows Vista is not responding, but the computer is working, use these steps to perform a system recovery:

NOTE: System recovery deletes all data and programs you created or installed after purchase. Therefore, ensure you back up, to a removable disc, any data you want to keep.

- 1 Turn off the computer. If necessary, press and hold the On button until the computer turns off.
- 2 Disconnect all peripheral devices from the computer, except the monitor, keyboard, and mouse.

- 3 Press the On button to turn on the computer.
- 4 As soon as you see the initial company logo screen appear, repeatedly press the F11 key on your keyboard until the Recovery Manager window opens.
- 5 Click **Advanced options**.
- 6 In the Advanced options window, click **System recovery**, and then click **Next**.
- 7 If you are prompted to back up files, and you have already done so, click **No**, and then click **Next**.
System recovery begins. After system recovery is complete, the computer restarts.
- 8 Complete the registration process, and wait until you see the desktop.
- 9 Turn off the computer, reconnect all peripheral devices, and turn the computer back on.
- 10 Perform the procedure in "Performing the post-recovery procedure" on page 27.

Starting system recovery from recovery discs

This section contains the procedure for performing a system recovery from the recovery discs you created as described in "Creating Recovery Discs" on page 24.

NOTE: System recovery deletes all data and programs you created or installed after purchase. Therefore, ensure you back up, onto removable discs, any data you want to keep.

To perform a system recovery program using recovery discs:

- 1 If the computer is working, create a backup CD or DVD containing all the data files you want to save. When you are done, remove the backup disc from the drive tray.



CAUTION: All data on the hard disk drive will be deleted. You will lose data if it is not backed up.

- 2 Insert recovery disc #1 into the appropriate drive tray (CD or DVD), and close the tray.

- 3 If the computer works, click the **Windows Vista start button**, click the **Arrow** button next to the **Lock** button, and then click **Shut Down**.



Or

If the computer is not responding, press and hold the On button for approximately 5 seconds, or until the computer turns off.

- 4 Disconnect all peripheral devices from the computer, except the monitor, keyboard, and mouse.
- 5 Press the On button to turn on the computer.
A window may open, prompting you to choose between running system recovery from the discs or from your hard drive.
- 6 Choose to run from the recovery discs, and then click **Next**.
- 7 In the Welcome window, click **Next**.
- 8 When you are prompted to perform a system restore, click **No**, and then click **Next**.
- 9 Click **Yes** to perform a system recovery, and then click **Next**.
- 10 If you are prompted to back up your files, and you have not done so, click **Yes**. Otherwise, click **No**, and then click **Next**.
- 11 If you are prompted to insert the next recovery disc, do so.
- 12 When the Recovery Manager is finished, remove the last recovery disc.
- 13 Click **Finish** to restart the computer.

Performing the post-recovery procedure

- 1 At the Welcome to Microsoft Windows screen, follow the onscreen setup instructions, and then click **Start** in the last screen to display the Windows desktop.
- 2 Configure your Internet connection.
- 3 Turn off your computer, reconnect all peripheral devices that were originally connected to it, and then turn the computer back on.
- 4 Reinstall software that originally came in the box with your computer, and also any additional software you purchased.
 - The system recovery software might have already installed some of the software that came in the box.
 - If you installed updates to any software programs, reinstall those as well. You can typically download these updates from the software manufacturer's Web site.
- 5 Use Windows Update to get critical updates from Microsoft:
 - a Click the **Windows Vista start button**, and then click **Control Panel**.
 - b Under **Security**, click the **Check for Updates** button.
 - c Click **Install Updates**.
- 6 Restart your computer. (Some updates will not finish installing until you restart.)
- 7 Use HP Update to get critical updates from HP:
 - a Click the **Windows Vista start button**, **All Programs**, the **HP** folder, and then click **HP Update**.
 - b Follow the onscreen instruction to download driver and software updates.
- 8 If you performed a backup before the system recovery, copy the backup data files from the backup media to your hard disk drive.
- 9 Ensure your system is running up-to-date security software.

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