

# Getting Started

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## Understanding hard disk drive space

The hard disk drive on the Hewlett-Packard and Compaq computers with the Microsoft® Windows operating system preinstalled may appear to be smaller than the size 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. Microsoft Windows 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 Microsoft Windows and the size advertised. The storage capacity of the hard disk drive is as advertised.

Microsoft Windows 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.

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# 1 Getting information

Type of information	Where to find
<ul style="list-style-type: none"><li>Set up your computer.</li></ul>	Setup poster included with your computer.
<ul style="list-style-type: none"><li>See how-to videos about using the features of your computer.</li></ul>	Visit <a href="http://www.hp.com/supportvideos">www.hp.com/supportvideos</a> (English only)
<ul style="list-style-type: none"><li>Use the computer.</li><li>Connect to the Internet.</li><li>Recover factory settings.</li></ul>	<i>Getting Started</i> (this guide)
<ul style="list-style-type: none"><li>Learn how to use the Microsoft® Windows® 7 operating system.</li><li>Find Windows 7 password information.</li></ul>	Help and Support Click the <b>Start</b> button, and then click <b>Help and Support</b> or visit <a href="http://www.hp.com/go/win7">www.hp.com/go/win7</a> .
<ul style="list-style-type: none"><li>Troubleshoot the most common computer hardware and software issues.</li><li>Find links to driver updates.</li><li>Read frequently asked questions.</li></ul>	Windows 7 troubleshooting tools <ol style="list-style-type: none"><li>Click the <b>Start</b> button, click <b>Control Panel</b>, and then click <b>System and Security</b>.</li><li>Under <b>Action Center</b>, click <b>Find and fix problems (troubleshooting)</b>.</li></ol>
<ul style="list-style-type: none"><li>Find electronic user guides and specifications for your computer model.</li><li>Order parts and find additional troubleshooting help.</li></ul>	HP Support Web site: <a href="http://www.hp.com/support">www.hp.com/support</a>
<ul style="list-style-type: none"><li>Upgrade or replace components of your computer.</li></ul>	<i>Upgrading and Servicing Guide</i> Click the <b>Start</b> button, click <b>All Programs</b> , and then click <b>User Guides</b> . If the guide is not available there, visit <a href="http://www.hp.com/support">www.hp.com/support</a>
<ul style="list-style-type: none"><li>Find computer warranty information.</li><li>Get technical support.</li></ul>	<i>Limited Warranty and Support Guide</i> or the <i>Warranty and Support Information</i> included with your computer.
<ul style="list-style-type: none"><li>Get up-to-date information and help from the Windows community.</li></ul>	<a href="http://www.hp.com/support/consumer-forum">www.hp.com/support/consumer-forum</a>
<ul style="list-style-type: none"><li>Connect to a TV.</li></ul>	<i>Watching and Recording TV</i> Click the <b>Start</b> button, click <b>All Programs</b> , and then click <b>User Guides</b> . If the guide is not available there, visit <a href="http://www.hp.com/support">www.hp.com/support</a>

Type of information	Where to find
<ul style="list-style-type: none"> <li>Get special utilities for computer owners.</li> </ul>	<p><b>PC Help &amp; Tools</b> folder</p> <p>Click the <b>Start</b> button, click <b>All Programs</b>, and then click <b>PC Help &amp; Tools</b>.</p>
<ul style="list-style-type: none"> <li>Maintain your computer.</li> </ul>	<p>HP Support Assistant — Maintains your computer performance and resolve problems faster by using automated updates, onboard diagnostics, and guided assistance.</p> <p>Click the <b>Start</b> button, click <b>All Programs</b>, click <b>HP</b>, and then click <b>HP Support Assistant</b>.</p>
<ul style="list-style-type: none"> <li>Find ergonomic information.</li> </ul>	<p><i>Safety &amp; Comfort Guide</i></p> <p>Click the <b>Start</b> button, click <b>All Programs</b>, and then click <b>User Guides</b> or visit <a href="http://www.hp.com/ergo">www.hp.com/ergo</a>.</p>

**WARNING!** To reduce the risk of electrical shock or damage to your equipment: Place the computer in a location away from water, dust, moisture, and soot. These can increase the inside temperature, or can cause fire or electrocution.

**WARNING!** Do not disable the power cord grounding plug. Plug the power cord in a grounded (earthed) outlet that is easily accessible at all times.

**WARNING!** Disconnect power from the equipment by unplugging the power cord from the electrical outlet.

**WARNING!** The power supply is preset for the country/region in which you purchased your computer. If you move, check the voltage requirements for your new location before plugging the computer into an AC power outlet.

**WARNING!** To prevent direct exposure to laser beam, do not try to open the enclosure of the CD or DVD drives.

**NOTE:** Some features might not be available on systems that are shipped without a version of Microsoft Windows.

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## 2 Setting up your computer

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- ❑ Follow the steps on the setup poster included with your computer.
  - ❑ Place the computer so that all ventilation openings are unobstructed and cabling is not in a walkway or where it can be stepped on or damaged by placing furniture on it.
  - ❑ Connect all power cords from the monitor, computer, and accessories to a power surge protection device that is specifically labeled as having surge protection, an uninterruptible power supply (UPS), or a similar device. If the computer has a television tuner, or a modem or telephone connection, protect the computer by using surge protection with these signal inputs as well. Connect the television cable or the telephone line cord to the surge protection device, and then connect the device to the computer.
  - ❑ Download and install operating system updates.
  - ❑ Look in the computer box for additional printed details or updates.
  - ❑ Read the *Safety and Regulatory Information* document in the User Guides folder.
  - ❑ Read the *Safety & Comfort Guide* for proper workstation setup, posture, health and work habits, and electrical and mechanical safety information. Click the **Start** button, click **All Programs**, and then click **User Guides** or visit [www.hp.com/ergo](http://www.hp.com/ergo).
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## Protecting your computer

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Computer risk	Computer feature
Unauthorized use of the computer or user account	User password  <i>A password is a group of characters that you choose to secure computer information.</i>
Unauthorized access to Setup Utility, BIOS settings, and other system identification information	Administrator password
Computer viruses	Antivirus software  <i>The free trial antivirus software that is preinstalled on your computer can detect most viruses, remove them, and, in most cases, repair damage caused by viruses. For protection against new viruses beyond the trial period, purchase an extended update service.</i>
Unauthorized access to data and ongoing threats to the computer	Firewall software <ul style="list-style-type: none"><li>● Windows 7 includes firewall software preinstalled on the computer.</li><li>● The antivirus software, which is preinstalled on the computer, includes firewall software.</li></ul>
	Windows 7 critical security updates  Microsoft continually updates the Windows 7 operating system.

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**NOTE:** Security solutions can deter theft, mishandling, and software attacks, but cannot prevent them.

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## Guidelines for installing software and hardware devices

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After you complete the initial computer setup, you might want to install additional software programs or hardware devices. Check the operating system, memory, and other requirements listed before purchasing new software or hardware for your computer. Follow the software manufacturer's directions to install the new software.

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**NOTE:** Use only licensed original software. Installing copied software could result in an unstable installation, infect the computer with a virus, or be illegal.

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## Connecting to the Internet

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Steps to connect to the Internet:

1. Connect the hardware (might be sold separately).
    - For a modem, connect to a telephone line (DSL) or cable line and to your computer.
    - For a wired network connection, connect an Ethernet cable to the computer and to a network router or LAN device.
    - For a wireless network connection, use a wireless router with the computer to connect to a WLAN with an Internet connection.
  2. Get Internet service.
    - 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 you did not set up the computer for Internet service during the initial setup, do so now by using Online Services:
      - a. Click the **Start** button, click **All Programs**, click **Online Services**, and then click **Get Online**.
      - b. Follow the onscreen instructions to select an ISP and set up Internet service.
  3. Using your Internet connection through your ISP, open a Web browser and browse the Internet.
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**NOTE:** If you have issues connecting to the Internet, see [Internet access on page 10](#).

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# Transferring files and settings to your new computer

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You can copy files from another computer to your new computer by using CDs or DVDs, memory sticks, and external hard drives. You can also use Windows Easy Transfer software, which is included with Windows 7 (select models only), to copy files and settings to a storage device or, using an Easy Transfer Cable, directly from another computer to the new computer. The Easy Transfer Cable is a USB cable designed specifically to connect two computers and to work with the Windows Easy Transfer software.

**NOTE:** The Easy Transfer Cable is sold separately. A standard USB cable does *not* work.

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To transfer your files and settings:

1. Click the **Start** button, type `Windows Easy Transfer` into the **Start Search** box, and then click **Windows Easy Transfer**.
  2. Follow the onscreen instructions in the Windows Easy Transfer wizard to transfer your files to your new computer.
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**NOTE:** Some features might not be available on systems that are shipped without a version of Microsoft Windows.

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## 3 Troubleshooting and maintenance

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Refer to the documentation provided by the product manufacturer for information about peripheral-specific problems, such as issues with a monitor or a printer. The following tables present some issues you might encounter while installing, starting up, or using your computer and possible solutions.

For more information or for additional troubleshooting options, see [Getting information on page 1](#).

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### Computer does not start

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Symptom	Possible solution
Error message: Hard disk drive error.	Contact Support.
Computer will not turn on or start.	Ensure that the cables connecting the computer to the external power source are plugged in properly. 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, contact Support.
	If the display (monitor) is blank, the monitor might not be properly connected. Connect the monitor to the computer, plug it in, and turn it on. See <a href="#">Display (monitor) on page 6</a> .

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Symptom	Possible solution
	Test the wall outlet by connecting a different electrical device to it.
Computer seems to be locked up and is not responding.	Use the Windows Task Manager to close any programs not responding, or restart the computer: <ol style="list-style-type: none"> <li>1. Press the Ctrl+Alt+Delete keys on the keyboard simultaneously.</li> <li>2. Click <b>Start Task Manager</b>.</li> <li>3. Select the program that is not responding, and then click <b>End Task</b>.</li> </ol>
	If closing programs does not work, restart the computer: <ol style="list-style-type: none"> <li>1. Press the Ctrl+Alt+Delete keys on the keyboard simultaneously.</li> <li>2. Click the <b>Arrow</b> button next to the red Shut Down button, and then click <b>Restart</b>. Or, press and hold the On button on the computer for 5 or more seconds to turn off the computer, and then press the On button to restart the computer.</li> </ol>

## Power

Symptom	Possible solution
Error message: Invalid system disk or Non-System disk or Disk error.	When drive activity stops, remove the disc and press the spacebar on the keyboard. The computer should start up.
Computer does not turn off when the On button is pressed.	Press and hold the On button until the computer turns off. Check Power Settings.
Computer shuts down automatically.	<ul style="list-style-type: none"> <li>• The computer might be in an exceedingly hot environment. Let it cool down.</li> <li>• Ensure that computer air vents are not blocked and that the internal fan is running — see <a href="#">Keeping the computer free of dust, dirt, and heat on page 15</a>. (Your computer might not have an internal fan.)</li> </ul>

## Display (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 monitor.

Symptom	Possible solution
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"> <li>• If any of the pins are bent, replace the monitor connector cable.</li> <li>• If no pins are bent, reconnect the monitor connector cable to the computer.</li> </ul>
Images on the screen are too large or too small, or the images are fuzzy.	Adjust the monitor resolution setting in Windows 7: <ol style="list-style-type: none"> <li>1. Click the <b>Start</b> button, and then click <b>Control Panel</b>.</li> <li>2. Under <b>Appearance and Personalization</b>, click <b>Adjust Screen Resolution</b>.</li> <li>3. Adjust resolution as necessary, and then click <b>Apply</b>.</li> </ol>

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

## Keyboard and mouse (with cable)

Symptom	Possible solution
Keyboard commands and typing are not recognized by the computer.	Use the mouse to turn off the computer, unplug and reconnect the keyboard to the back of your computer, and then restart your computer.
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, unplug and reconnect the mouse cable, and then restart the computer.
Cursor does not move using the arrow keys on the number keypad.	Press Num Lock on the keyboard to turn off Num Lock, so that the arrow keys on the number keypad can be used.

Symptom	Possible solution
Cursor does not respond to mouse movement.	<p>Use the keyboard to save changes in all open programs, and then restart your computer:</p> <ol style="list-style-type: none"> <li>1. Press the Alt+Tab keys simultaneously to navigate to an open program.</li> <li>2. Press the Ctrl+S key simultaneously to save your changes in the selected program (Ctrl+S is the keyboard shortcut for Save on most—not all—programs).</li> <li>3. Repeat step 1 and step 2 to save changes in all open programs.</li> <li>4. After saving changes in all open programs, press the Ctrl+Esc keys on the keyboard simultaneously to display the Windows Start menu.</li> <li>5. Use the arrow keys to select the <b>Arrow</b> button that is next to Shut Down. Select <b>Shut Down</b>, and then press Enter.</li> <li>6. After the shutdown is complete, unplug and reconnect the mouse connector to the back of your computer, and then restart your computer.</li> </ol>
Cursor responds slowly, moves only vertically or horizontally, or does not track smoothly.	<p>For a mouse with a roller ball:</p> <ul style="list-style-type: none"> <li>• Clean the roller ball: Remove the roller ball cover from bottom of mouse (rotate it counterclockwise), remove the ball, and clean it by using a damp, lint-free cloth (not paper). Also clean the rollers on which the ball moves.</li> <li>• Use a mouse pad or other rough surface under the mouse.</li> </ul> <p>For an optical mouse:</p> <ul style="list-style-type: none"> <li>• Clean the optical mouse: Gently wipe the light sensor lens on the bottom of the mouse by using a lint-free cloth (not paper).</li> <li>• Use a mouse pad, white sheet of paper, or other less reflective surface under the mouse.</li> </ul>

## Keyboard and mouse (wireless)

Symptom	Possible solution
Wireless keyboard or mouse does not work or is not detected.	<ul style="list-style-type: none"> <li>• Ensure that you are using the wireless keyboard or wireless mouse within range of the receiver, approximately 10 meters (32 feet) for normal use, and within 30 cm (12 inches) during initial setup or for re-synchronization.</li> <li>• Ensure that the mouse is not in Suspend mode, which occurs after 20 minutes of inactivity. Click the left mouse button to reactivate it.</li> <li>• Replace the batteries in the keyboard and mouse.</li> <li>• Re-synchronize the keyboard and mouse to the receiver using the following steps.</li> </ul>

Symptom	Possible solution
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The receiver, wireless keyboard, and wireless mouse shown in the following illustrations are examples; your models might vary. **IMPORTANT:** During these steps, place the wireless keyboard and wireless mouse on the same level as the receiver, within 30 cm (12 inches) of the receiver, and away from interference from other devices.

1. Unplug the receiver from a USB connector on the computer, and then reconnect it. Your computer model might have a connector dedicated to the receiver. If you have a choice, use a USB connector on the front of the computer.



2. Check that the mouse is on **(A)**, and push and hold the Connect button **(B)** on the underside of the mouse for 5 to 10 seconds until the LED on the receiver lights or stops flashing. The receiver connection session times out after 60 seconds. To ensure that the connection was established, and that the receiver did not time out instead, move the mouse and check for response on the screen.



3. After the mouse connection is established, continue by using the steps that follow to repeat the procedure for the keyboard.
4. Push and hold the Connect button **(C)** on the underside of the keyboard for 5 to 10 seconds until the LED on the receiver lights or stops flashing.



## Speakers and sound

Symptom	Possible solution
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Volume is very low or unsatisfactory.

Ensure that you connected the speakers to the Audio Out (lime green) connector on the back of the computer. (Additional audio connectors are used for multiple-channel speakers.) Detached non-powered speakers (speakers without a separate power source, such as batteries or a power cord) do not produce satisfactory sound. Replace the non-powered speakers with powered speakers.

Symptom	Possible solution
No sound is produced.	<p>For Windows 7:</p> <ol style="list-style-type: none"> <li>1. Click the <b>Start</b> button, click <b>Control Panel</b>, click <b>Action Center</b>, and then click <b>Troubleshooting</b>.</li> <li>2. Under <b>Hardware and Sound</b>, click <b>Troubleshoot and audio playback</b>.</li> </ol> <p>If you use an HDMI connector on the graphics card (select models only) to connect your monitor to the computer, you should also connect analog speakers to the computer Audio Line Out connector if you want to hear sound during the initial setup of the computer. Refer to the Setup Poster to connect analog speakers.</p> <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) and ensure that audio is enabled and that the volume is set appropriately.</p> <p>Ensure that you connected powered (active) speakers and that they are turned on.</p> <p>Turn off your computer, and then unplug and reconnect the speakers. Ensure that the speakers are connected to an audio connector, not a Line In or headphone connector.</p> <p>To resume from Sleep mode, press the Sleep button (select models only), or press Esc.</p> <p>Unplug headphones if they are connected to your computer (or speaker system).</p>

## Internet access

Symptom	Possible solution
Internet programs do not start automatically.	Log in to your ISP, and start the desired program.
I cannot connect to the Internet.	<p>For Windows 7:</p> <ol style="list-style-type: none"> <li>1. Click the <b>Start</b> button, click <b>Control Panel</b>, click <b>Action Center</b>, and then click <b>Troubleshooting</b>.</li> <li>2. Under <b>Network and Internet</b>, click <b>Connect to the Internet</b>.</li> </ol> <p>Verify that you are using the proper cables for your Internet connection type. Your computer might have a dial-up modem and an Ethernet network adapter (also called a network interface card, or NIC). A modem uses a standard telephone cable, whereas the network adapter uses a network cable, to connect to a local area network (LAN). Do not connect a telephone cable to the network adapter, and do not plug a network cable into a telephone service line; doing so might damage the network adapter.</p>

Symptom	Possible solution
	Run the wireless setup wizard: <ol style="list-style-type: none"><li>1. Click the <b>Start</b> button, click <b>Control Panel</b>, click <b>Network and Internet</b>, and then click <b>Network and Sharing Center</b>.</li><li>2. In the Network and Sharing Center window, click <b>Set up a connection or network</b> to open the wizard, and then follow the onscreen instructions.</li></ol>
	If your system has an external antenna, try to move the antenna to a better position. If the antenna is internal, try to move the computer.
	Try to connect again later, or contact your Internet service provider (ISP) for assistance.

## Software troubleshooting

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

To repair software problems, try these methods:

- Turn the computer off completely and then turn it on again. This is the easiest (and sometimes the best) way.
- Update the drivers (see [Updating drivers on page 12](#)).
- Use Microsoft System Restore (see [Microsoft System Restore on page 12](#)) — Restore your computer to a configuration that was in use before the software was installed.
- Reinstall the software program or hardware driver. (See [Software program and hardware driver reinstallation on page 13](#)) — Restores the software (if it came with the product) or hardware driver to factory defaults.
- System Recovery (see [System Recovery on page 16](#)) — Erase and reformat the hard disk drive, and then reinstall the operating system, programs, and drivers. This erases all data files you have created.

## Updating drivers

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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.

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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 **Start** button.
2. Type `Device Manager` into the **Start Search** box, and then click **Device Manager** to open the Device Manager window.
3. Click the plus sign (+) to expand the type of device 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 then follow the onscreen instructions.

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

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## Microsoft System Restore

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If you have a problem that might be due to software that was installed on your computer, use System Restore to return the computer to a previous restore point. You can also set restore points manually.

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

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**NOTE:** Some features might not be available on systems that are shipped without a version of Microsoft Windows.

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To start a System Restore:

1. Close all open programs.
  2. Click the **Start** button, right-click **Computer**, and then click **Properties**.
  3. Click **System protection, System Restore**, click **Next**, and then follow the onscreen instructions.
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To add restore points manually:

1. Close all open programs.
  2. Click the **Start** button, right-click **Computer**, click **Properties**, and then click **System protection**.
  3. Under **Protection Settings**, select the disk for which you want to create a restore point.
  4. Click **Create**, and then follow the onscreen instructions.
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## Software program and hardware driver reinstallation

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If any of your factory-installed software programs or hardware drivers are 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 to be sure that it is still available from where you initially installed it (for example, discs or the Internet). Or check to be sure that the program is in the list of programs you can reinstall from the Recovery Manager.

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**NOTE:** Some features might not be available on systems that are shipped without a version of Microsoft Windows.

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

1. Click the **Start** button, **All Programs**, **Recovery Manager**, and then click **Recovery Manager**. If prompted, click **Yes** to allow the program to continue.
  2. Under **I need help immediately**, click **Software Program Reinstallation**.
  3. Click **Next** at the Welcome screen. A list of programs opens. Check whether your program is there.
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To uninstall a program:

1. Close all software programs and folders.
  2. Uninstall the damaged program:
    - a. Click the **Start** button, and then click **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.
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To reinstall a program using the Recovery Manager:

1. Click the **Start** button, click **All Programs**, click **Recovery Manager**, and then click **Recovery Manager**.
  2. Click **Software Program Reinstallation**, and then click **Next** at the Welcome screen.
  3. Choose the program you want to install, click **Next**, and follow the onscreen instructions.
  4. When you have finished reinstalling, restart the computer. **Do not skip this last step.** You must restart the computer after recovering software programs or hardware drivers.
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## Maintenance

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It is important that you perform simple maintenance of your computer to ensure that it works at peak performance.

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### Weekly

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Software cleanup	Use Disk Cleanup or safe third-party cleaning tools to remove junk files and temporary files that accumulate and slow down your system. Also, check for programs you no longer need and uninstall them.
Defragmentation	Run Disk Defragmenter to keep your hard disk in good condition and improve system performance. Frequently performing this task does not harm your system.
Virus scan	Perform a full virus scan every week to catch viruses that might have slipped through unnoticed. Most antivirus products have a scheduling feature to keep track of this automatically.

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### Monthly

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Hardware cleanup	Thoroughly clean the inside and outside of your computer.
Software updates	Use Windows Updates to fix operating system bugs and improve performance. Also, be sure to check for driver updates for your hardware and new versions of your favorite programs.
Windows Update	Run Windows Update monthly to install updates.
Hard disk diagnostic	Sometimes a failing hard disk can be caught beforehand by using Hard Disk Diagnostic.

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### Yearly

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System Recovery	In time, your system might still get bogged down, depending on the computer usage. Use System Recovery to wipe your Windows operating system installation clean, restoring it to the original configuration when you first started your system. <b>Make a backup of important data files before proceeding with a System Recovery.</b> See <a href="#">System Recovery on page 16</a> for further details.
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## As needed

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Backing up your data    Use CD or DVD recording software that is installed on your computer to create (or “burn”) 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.

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## Keeping the computer free of dust, dirt, and heat

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Keeping your computer system free of dust, dirt, and heat 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 smoothly and effectively. Check your system once a month for visible signs of dust and debris, and clean it about once every three months. Visit [www.hp.com/support](http://www.hp.com/support) for additional cleaning instructions.

---

Cleaning the computer vents    Air vents keep the computer and monitor cool. Keep these vents clean by using a small, battery-powered vacuum cleaner. (A battery-powered vacuum cleaner eliminates the risk of electric shock.)

1. Vacuum the vents on the computer case and the monitor case.
  2. Remove any debris that has accumulated in and around the computer connectors (for example, the Ethernet and USB connectors).
- 

Cleaning the computer and monitor    Follow these steps to clean the computer and monitor:

1. Unplug the power to the computer and the monitor.
2. To clean the monitor screen, use a clean, dry cloth. **Do not use water on the monitor screen.** For more thorough cleaning, use a clean cloth and antistatic screen cleaner.
3. Use a clean, dry cloth to dust the computer case and the monitor case.

**NOTE:** To remove sticker residue or a spill on the computer or monitor case, use isopropyl (rubbing) alcohol and a lint-free cloth.

---

Cleaning the keyboard and mouse    When cleaning the keyboard keys, use a low setting on a 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 (rubbing) alcohol to clean buildup on the keyboard keys and along its edges.
  3. Wipe the body of the mouse and the mouse cord by using cleaning wipes.
- 

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

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

# System Recovery

---

System Recovery completely erases and reformats the hard disk drive, deleting all data files you have created, and then 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 media included in the computer accessory box, and any software programs you installed after purchase.

**NOTE:** Always use the System Restore procedure before you use the System Recovery program — see [Microsoft System Restore on page 12](#).

---

**NOTE:** Some features might not be available on systems that are shipped without a version of Microsoft Windows.

---

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 [System Recovery from the Windows 7 Start Menu on page 16](#).

**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 that you create from files stored on your hard disk drive or purchased separately. To create recovery discs, see [Recovery discs on page 18](#).
- 

## System Recovery options

---

You should attempt a System Recovery in the following order:

1. Through the hard disk drive, from the Windows 7 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, visit [www.hp.com/support](http://www.hp.com/support).
- 

## System Recovery from the Windows 7 Start Menu

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**CAUTION:** System Recovery deletes all data and programs you created or installed. Back up any important data to a removable disc.

---

---

If the computer is working and Windows 7 is responding, use these steps to perform a System Recovery.

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 **Start** button, click **All Programs**, click **Recovery Manager**, and then click **Recovery Manager**. If prompted, click **Yes** to allow the program to continue.
5. Under **I need help immediately**, click **System Recovery**.
6. Select **Yes**, and then click **Next**. Your computer restarts.

**NOTE:** If your system does *not* detect a recovery partition, it prompts you to insert a recovery disc. Insert the disc, select **Yes**, and then click **Next** to restart the computer and run Recovery Manager from the recovery disc. Under **I need help immediately**, click **System Recovery**, and then continue with step 7 below. Insert the next system-recovery disc when prompted.

7. If you are prompted to back up your files, and you have not done so, select **Back up your files first (recommended)**, and then click **Next**. Otherwise, select **Recover without backing up your files**, and then click **Next**.
  8. System Recovery begins. After System Recovery is complete, click **Finish** to restart the computer.
  9. Complete the registration process, and wait until you see the desktop.
  10. Turn off the computer, reconnect all peripheral devices, and turn the computer back on.
- 

## System Recovery at system startup

---

**CAUTION:** System Recovery deletes all data and programs you created or installed. Back up any important data to a removable disc.

---

If Windows 7 is not responding, but the computer is working, follow these steps to perform a System Recovery.

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 *Windows is Loading Files...* message appears on the screen.
  5. Under **I need help immediately**, click **System Recovery**.
  6. If you are prompted to back up your files, and you have not done so, select **Back up your files first (recommended)**, and then click **Next**. Otherwise, select **Recover without backing up your files**, and then click **Next**.
  7. System Recovery begins. After System Recovery is complete, click **Finish** to restart the computer.
  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.
-

## System Recovery from recovery discs

---

**CAUTION:** System Recovery deletes all data and programs you created or installed. Back up any important data to a removable disc.

To create recovery discs, see [Recovery discs on page 18](#).

---

To perform a System Recovery using recovery discs:

1. If the computer is working, create a backup DVD containing all the data files you want to save, and then remove the backup disc from the drive tray.
  2. Insert recovery disc #1 into the DVD drive tray, and close the tray.
  3. If the computer works, click the **Start** button, click the **Arrow** button next to Shut Down, 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. If you are prompted to choose between running System Recovery from disc or from hard drive, select **Run program from disc**, and then click **Next**.
  6. Under **I need help immediately**, click **Factory Reset**.
  7. If you are prompted to back up your files, and you have not done so, select **Back up your files first (recommended)**, and then click **Next**. Otherwise, select **Recover without backing up your files**, and then click **Next**.
  8. If you are prompted to insert the next recovery disc, do so.
  9. When the Recovery Manager is finished, remove all recovery discs from the system.
  10. Click **Finish** to restart the computer.
- 

## Recovery discs

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You should 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, and the discs can be used *only* with this computer. Store the recovery discs in a safe place.

---

**NOTE:** Some features might not be available on systems that are shipped without a version of Microsoft Windows.

---

## Choosing recovery discs

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- To create recovery discs, your computer must have a DVD writer, and you must use only high-quality blank DVD +R or DVD-R discs.

**NOTE:** You *cannot* use CDs or DVD+RW, DVD-RW, DVD+RW DL, DVD-RW DL, DVD+R DL, or DVD-R DL discs to create recovery discs.

- Use high-quality discs to create your set of recovery discs. It is normal for discs to be rejected if they are not defect-free. You will be prompted to insert a new blank disc to try again.
- The number of discs in the recovery-disc set depends on your computer model (typically 1–3 DVD discs). The Recovery Disc Creator program tells you the specific number of blank discs needed to make the set.

**NOTE:** The process of creating recovery discs 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.

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## Creating recovery discs

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To create recovery discs:

1. Close all open programs.
  2. Click the **Start** button, click **All Programs**, click **Recovery Manager**, and then click **Recovery Disc Creation**. If prompted, click **Yes** to allow the program to continue.
  3. Follow the onscreen instructions. Label each disc as you make it (for example, Recovery 1, Recovery 2).
-

# The power to make a change

Thank you for your purchase. HP is dedicated to producing the highest quality, best performing, and easiest to use computers in the world. HP also designed this product with the environment in mind.  
But to reduce its impact even further, we need your help.

Let's work together to make a change.

---

## How you can help

## What we do

*Recycle your old computer.*

Disposing of electronic waste responsibly has been an HP priority for more than 20 years. If this computer is a replacement for an older computer you no longer need, go to [www.hp.com/go/recycle](http://www.hp.com/go/recycle) to find out if HP can help you dispose of your old computer with minimum impact on the planet.

*We design with the environment in mind.*

While we want you to enjoy this computer for many years to come, we recognize that you will eventually dispose of it. We have designed it so it can be easily dismantled and recycled as much as possible. The packaging that came with your computer is also designed for maximum recyclability.

*Don't use a screen saver.*

Screen savers can prevent your HP computer from going to sleep and thereby waste power. Screen savers can also reduce the life of your monitor by increasing the number of hours the LCD backlight is on.

*We design to be more energy efficient.*

This computer has HP Power Management Technology, which can reduce computer energy use up to 45% compared to computers without power management. HP computers keep energy needs to a minimum, saving you money and reducing your carbon footprint.

*Don't disable the power settings.*

The power management tools on this computer are set to minimize energy use without impacting performance. Please do not disable them.

*We design our products to use better and fewer materials.*

Ensuring the health of you, your family, and our planet is a key priority at HP. We are committed to using the safest materials in the production of this and all our other products.

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Printed in



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# Safety and Regulatory Information

## Desktops, Thin Clients, and Personal Workstations



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## About This Book

This guide provides safety and regulatory information that is compliant with U.S., Canadian, and International regulations for Desktops, Thin Clients, and Personal Workstations.

- ⚠ **WARNING!** Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.
- ⚠ **CAUTION:** Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.
- 📝 **NOTE:** Text set off in this manner provides important supplemental information.



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# 1 Safety Notices

## Important Safety Information

- △ **WARNING!** To reduce the risk of serious injury, read the *Safety & Comfort Guide*. It describes proper workstation setup, posture, and health and work habits for computer users, and provides important electrical and mechanical safety information. This guide is located on the Web at [www.hp.com/ergo](http://www.hp.com/ergo) and on the Documentation CD that is included with the product.

To reduce the risk of electric shock or damage to your equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord in a grounded (earthed) outlet that is easily accessible at all times.
- Disconnect power from the thin client by unplugging the power cord from the electrical outlet.

The computer may be heavy; be sure to use ergonomically correct lifting procedures when moving it.

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

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

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

Do not operate the computer with the cover removed.

For your safety, always unplug the computer from its power source and from any telecommunications systems (such as telephone lines), networks, or modems before performing any service procedures. Failure to do so may result in personal injury or equipment damage. Hazardous voltage levels are inside the power supply and modem of this product.

- △ **CAUTION:** If your computer is provided with a voltage select switch for use in a 115 or 230 Vv power system, the voltage select switch has been pre-set to the correct voltage setting for use in the particular country/region where it was initially sold. Changing the voltage select switch to the incorrect position can damage your computer and void any implied warranty.

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

## Installation Conditions

See installation instructions before connecting this equipment to the input supply.

- ⚠ **WARNING!** The equipment must be provided with a proper AC protective earth (PE) ground connection.

Energized and moving parts may be inside the computer. Disconnect power to the equipment before removing the enclosure. Replace and secure the enclosure before re-energizing the equipment.

## Battery Replacement Notice

- ⚠ **WARNING!** The product may contain an internal lithium manganese dioxide, vanadium pentoxide, or alkaline battery or battery pack. There is risk of fire and burns if the battery pack is not handled properly. To reduce the risk of personal injury:

- Do not attempt to recharge the battery.
- Do not expose to temperatures higher than 60° C (140° F).
- Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.
- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- Replace only with the HP spare designated for this product.

For information about removing a battery, refer to your computer documentation.

HP encourages customers to recycle used electronic hardware, HP original print cartridges, and rechargeable batteries. For more information about recycling programs, go to <http://www.hp.com/recycle>.



Batteries, battery packs, and accumulators should not be disposed of together with the general household waste. In order to forward them to recycling or proper disposal, please use the public collection system or return them to HP, an authorized HP partner, or their agents.



廢電池請回收

The Taiwan EPA requires dry battery manufacturing or importing firms, in accordance with Article 15 of the Waste Disposal Act, to indicate the recovery marks on the batteries used in sales, giveaways, or promotions. Contact a qualified Taiwanese recycler for proper battery disposal.



## Headset and Earphone Volume Level Notice

- ⚠ **WARNING!** Listening to music at high volume levels and for extended durations can damage one's hearing. To reduce the risk of hearing damage, lower the volume to a safe, comfortable level and reduce the amount of time listening at high levels.

For your own safety, before using headsets or earphones, always reset the volume. Some headphones are louder than other headphones, even if the volume control setting is the same.

Changing the default audio or equalizer settings might lead to higher volume and should only be done with caution.

For your own safety, headsets or earphones used with this product should comply with the headphone limits in EN 50332-2.

If the computer includes a headset or earphones, this combination is in compliance to EN 50332-1.

## German Ergonomics Notice

HP products which bear the "GS" approval mark, when forming part of a system comprising HP brand products, keyboards and monitors that bear the "GS" approval mark, meet the applicable ergonomic requirements. The installation guides included with the product provide configuration information.

## Laser Safety

**For products equipped with optical drives or fiber optic transceivers.**

This product may be provided with an optical storage device (i.e., CD or DVD drive) and/or fiber optic transceiver. Each of these devices contains a laser that is classified as a Class 1 Laser Product in accordance with US FDA regulations and the IEC 60825-1. The product does not emit hazardous laser radiation.

Each laser product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated May 27, 2001; and with IEC 60825-1:1993/A2:2001.

- ⚠ **WARNING!** Use of controls or adjustments or performance of procedures other than those specified herein or in the laser product's installation guide may result in hazardous radiation exposure. To reduce the risk of exposure to hazardous radiation:

- Do not try to open the module enclosure. There are no user-serviceable components inside.
- Do not operate controls, make adjustments, or perform procedures to the laser device other than those specified herein.
- Allow only HP Authorized Service technicians to repair the unit.

## CDRH Regulations

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured from August 1, 1976. Compliance is mandatory for products marketed in the United States.

## Compliance with International Regulations

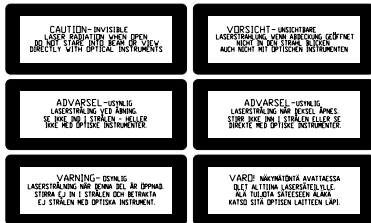
All systems equipped with CD-ROM drives comply with appropriate safety standards including IEC 825.

### Laser Product Label

The following label or equivalent is located on the surface of laser products:



This label indicates that the product is classified as a CLASS 1 LASER PRODUCT. This label appears on a laser device installed in the product.



If you have an LS-120 drive or an LS-260 drive, this label is located next to the Class 1 Laser Product label on the system.

### Laser Information

- Laser Type: Semiconductor GaAlAs
- Wave Length: 780 +/- 35 nm
- Divergence Angle: 53.5 Degrees +/- 0.5 degrees
- Output Power: Less than 0.2 mW or 10,869 W·m<sup>-2</sup> sr<sup>-1</sup>
- Polarization: Circular 0.25
- Numerical Aperture: 0.45 +/- 0.04

## Power Supply and Power Cord Set Requirements

### Power Supply Class I Grounding Requirements

For protection from fault currents, the equipment shall be connected to a grounding terminal. Plug the system power cord into an AC outlet that provides a grounded outlet. Substitute cords may not provide adequate fault protection. Only use the power cord supplied with this product or a Hewlett-Packard authorized replacement.

#### Denmark

For tilslutning af de øvrige ledere, se medfølgende installationsvejledning.

#### Norway

Apparatet må kun tilkoples jordet stikkontakt.

## Sweden

Apparaten skall anslutas till jordat uttag, när den ansluts till ett nätverk.

## Power Supply Requirements

The power supplies on some products have external power switches. The voltage select switch feature on the product permits it to operate from any line voltage between 100-127 or 200-240 volts AC. Power supplies on those products that do not have external power switches are equipped with internal circuits that sense the incoming voltage and automatically switch to the proper voltage.

For safety reasons, use only the AC adapter provided with the unit or an authorized replacement adapter from Hewlett-Packard. Replacement part numbers may be found at <http://www.hp.com/cgi-bin/hpsupport/index.pl>.

## For Use in Norway

This product is also designed for an IT power system with phase-to-phase voltage 230V.

## Power Cord Set Requirements

The power cord set received with the product meets the requirements for use in the country where you purchased the equipment. Use only the power cord provided with the unit or an authorized replacement power cord from Hewlett-Packard or an approved HP source. Replacement part numbers may be found at <http://www.hp.com/cgi-bin/hpsupport/index.pl>.

Power cord sets for use in other countries must meet the requirements of the country where you use the product. For more information on power cord set requirements, contact your authorized HP dealer, reseller, or service provider.

---

⚠ **WARNING!** Do not use power cords from other products.

Mismatched power cords may result in a shock and fire hazard.

---

The requirements listed below are applicable to all countries:

1. The power cord must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be installed.
2. The length of the power cord must be between 1.8 m (6 feet) and 3.6 m (12 feet). For a power cord 2.0 m (6.56 feet) or less, the diameter of the wire must be a minimum of 0.75 mm<sup>2</sup> or 18AWG. If the power cord is longer than 2.0 m (6.56 feet), the diameter of the wire must be a minimum of 1.0 mm<sup>2</sup> or 16AWG.

The power cord should be routed so that it is not likely to be walked on or pinched by items placed upon it or against it. Particular attention should be paid to the plug, electrical outlet, and the point where the cord exits from the product.

---

⚠ **WARNING!** Do not operate this product with a damaged power cord set. If the power cord set is damaged in any manner, replace it immediately. Damaged cords may result in user exposure to hazards.

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## Japanese Power Cord Requirements


For use in Japan, use only the power cord received with this product.

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⚠ **CAUTION:** Do not use the power cord received with this product on any other products.

---

## Pinch Hazard

 **WARNING!** Observe pinch hazard areas. Keep fingers away from closing parts.

---

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## 2 Regulatory Agency Notices

### Regulatory Compliance Identification Numbers

For the purpose of regulatory compliance certifications and identification, your product has been assigned a unique HP Regulatory Model Number (RMN). The RMN can be found on the product nameplate label, along with all required approval markings and information. When requesting compliance information for this product, always refer to this RMN. The RMN should not be confused with the marketing name or model number of the product.

### Modem Notices

---

⚠ **WARNING!** To reduce the risk of fire, electric shock, and injury to persons when using this device, always follow basic safety precautions, including the following:

Do not use this product near water—for example, near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.

Avoid using this product during an electrical storm. There is a remote risk of electric shock from lightning.

Do not use this product to report a gas leak while in the vicinity of the leak.

Always disconnect the modem cable before opening the equipment enclosure or touching an uninsulated modem cable, jack, or internal component.

If this product was not provided with a telephone line cord, use only No. 26 AWG or larger telecommunication line cord.

Do not plug a modem or telephone cable into the RJ-45 (network) jack.

SAVE THESE INSTRUCTIONS

---

### Telecommunications Device Approvals

The telecommunications device in the computer is approved for connection to the telephone network in the countries and regions whose approval markings are indicated on the product label located on the bottom of the computer or on the modem.

Refer to the user guide included with the product to ensure that the product is configured for the country or region in which the product is located. Selecting a country or region other than the one in which it is located may cause the modem to be configured in a way that violates the telecommunication regulations/laws of that country or region. In addition, the modem may not function properly if the correct country or region selection is not made. If, when you select a country or region, a message appears that states that the country or region is not supported, this means that the modem has not been approved for use in this country or region and thus should not be used.

## U.S. Modem Statements

This equipment complies with Part 68 of the FCC Rules and the requirements adopted by the ACTA. On the bottom of the computer or on the modem is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. Provide this information to the telephone company if you are requested to do so.

**Applicable certification jack USOC = RJ11C.** A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all locations, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this HP equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But, if advance notice isn't practical, the telephone company will notify you as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

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

If trouble is experienced with this equipment, call technical support. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved. You should perform repairs only to the equipment specifically discussed in the "Troubleshooting" section of the user guide, if one is provided.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission, or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure that the installation of this HP equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including a fax machine, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page, or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or other individual sending the message, and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges).

In order to program this information into your fax machine, you should complete the steps outlined in the faxing software instructions.

## Canadian Modem Statements

This equipment meets the applicable Industry Canada technical specifications.

The Ringer Equivalence Number, REN, is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices, subject only to the requirement that the sum of the RENs of all devices does not exceed 5. The REN for this terminal equipment is 1.0.

## Japanese Modem Statements

If the computer does not have the Japanese certification mark on the bottom of the computer, refer to the appropriate certification marking below.

The Japanese certification mark for the Agere Systems PCI-SV92PP Soft modem is below:



The Japanese certification mark for the Agere Systems PCI-SV92EX Soft modem is below:



The Japanese certification mark for the Agere Systems AC'97 modem is below:



## New Zealand Modem Statements

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

This equipment is not capable, under all operating conditions, of correct operation at the higher speeds for which it is designed. Telecom will accept no responsibility should difficulties arise in such circumstances.

If this device is equipped with pulse dialing, note that there is no guarantee that Telecom lines will always continue to support pulse dialing.

Use of pulse dialing, when this equipment is connected to the same line as other equipment, may give rise to bell tinkle or noise and may also cause a false answer condition. Should such problems occur, the user should *not* contact the Telecom Faults Service.

Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment (PC) associated with this device. The associated equipment shall be set to operate within the following limits for compliance with Telecom's Specifications:

- a. There shall be no more than 10 call attempts to the same number within any 30-minute period for any single manual call initiation.
- b. The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.
- c. Where automatic calls are made to different numbers, the equipment shall be set to go on-hook for a period of not less than 5 seconds between the end of one attempt and the beginning of the next attempt.
- d. The equipment shall be set to ensure that calls are answered between 3 and 30 seconds of receipt of ringing (So set between 2 and 10).

## Voice Support

All persons using this device for recording telephone conversations shall comply with New Zealand law. This requires that at least one party to the conversation is aware that it is being recorded. In addition, the Principles enumerated in the Privacy Act 1993 shall be complied with in respect to the nature of the personal information collected, the purpose for its collection, how it is to be used, and what is disclosed to any other party.

This equipment shall not be set to make automatic calls to the Telecom '111' Emergency Service.



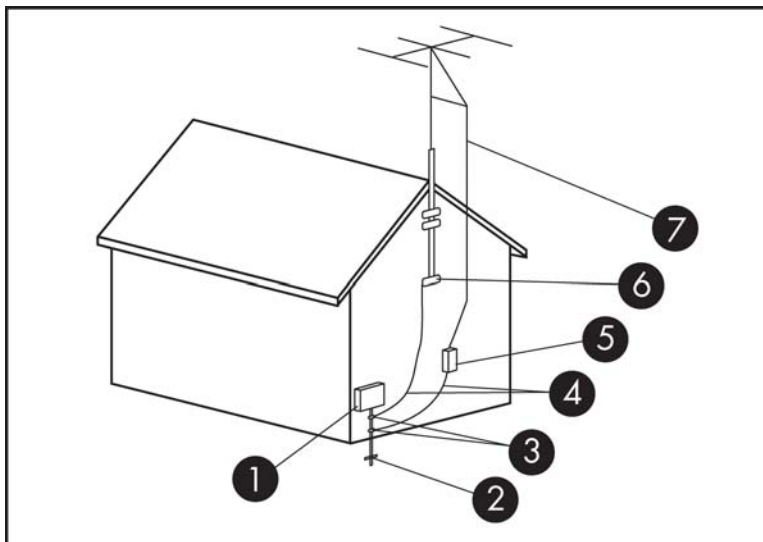
# TV Antenna Connectors Protection

## External Television Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is electrically grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper electrical grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

## Lightning Protection

For added protection of any product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the product from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product from lightning and power line surges.



**Table 2-1 Antenna Grounding**

Reference	Grounding Component
1	Electric Service Equipment
2	Power Service Grounding Electrode System (NEC Art 250, Part H)
3	Ground Clamps
4	Grounding Conductors (NEC Section 810–21)
5	Antenna Discharge Unit (NEC Section 810–20)
6	Ground Clamp
7	Antenna Lead-in Wire

## Note to CATV System Installer

This reminder is provided to call the CATV systems installer's attention to section 820-93 of the National Electric Code, which provides guidelines for proper grounding and in particular, specify that the Coaxial cable shield shall be connected to grounding system of the building, as close to the point of cable entry as practical.

## Electromagnetic Compatibility Notices

This guide provides country- and region-specific nonwireless and wireless regulatory notices and compliance information for the computer product. Some of these notices may not apply to your product.

One or more integrated wireless devices may be installed. In some environments, the use of wireless devices may be restricted. Such restrictions may apply onboard airplanes, in hospitals, near explosives, in hazardous locations, and so on. If you are uncertain of the policy that applies to the use of this product, ask for authorization to use it before you turn it on.

## Federal Communications Commission Notice

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

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

## Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the user's authority to operate the equipment.

## Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

## Declaration of Conformity for Products Marked with the FCC Logo (United States only)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

For questions regarding the product, contact:

Hewlett-Packard Company P.O. Box 692000, Mail Stop 530113 Houston, Texas 77269-2000

Or, call 1-800-HP-INVENT (1-800-474-6836).

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company P.O. Box 692000, Mail Stop 510101 Houston, Texas 77269-2000

Or, call (281) 514-3333.

To identify this product, refer to the part, series, or model number found on the product.

## Products with Wireless LAN Devices

This product may be equipped with a wireless LAN device. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

- 
- △ **WARNING! Exposure to Radio Frequency Radiation** The radiated output power of this device is below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact is minimized during normal operation.

During normal operation: To avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antennae should not be less than 20 cm (8 inches), including when the computer display is closed, if integrated into the unit. To identify the location of the wireless antennae, refer to the documentation included with the computer.

- △ **CAUTION:** When using IEEE 802.11a wireless LAN, this product is restricted to indoor use, due to its operation in the 5.15- to 5.25-GHz frequency range. The FCC requires this product to be used indoors for the frequency range of 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to cochannel mobile satellite systems. High-power radar is allocated as the primary user of the 5.25- to 5.35-GHz and 5.65- to 5.85-GHz bands. These radar stations can cause interference with and/or damage to this device.
- 

## Australia Telecom Statement

The computer must be connected to the Telecommunication Network through a line cord that meets the requirements of ACA Technical Standard TS008.

- 
- △ **WARNING!** Modems without integral RJ-11 that are shipped with this computer must be installed only in devices displaying the A-tick.
-

## Brazilian Notice

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.



- △ **CAUTION:** A alimentação de energia é predefinida para 220/230Vv. Se você possuir tomada elétrica de 110/115Vv, por favor, altere a chave na parte traseira do seu computador para a tensão correta.

## Canadian Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Wireless operation is subject to 2 conditions. The first is that the wireless device may not cause interference. The second is that the wireless device must accept any interference, including interference that may cause undesired operation of the device.

- △ **CAUTION:** When using IEEE 802.11a wireless LAN, this product is restricted to indoor use, due to its operation in the 5.15- to 5.25-GHz frequency range. Industry Canada requires this product to be used indoors for the frequency range of 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel mobile satellite systems. High-power radar is allocated as the primary user of the 5.25- to 5.35-GHz and 5.65- to 5.85-GHz bands. These radar stations can cause interference with and/or damage to this device.

The antenna for this device is not replaceable. Any attempt at user modification may damage your computer. For the Belkin Dual-Band Wireless A+G Desktop Card the maximum antenna gain permitted as specified by the Canadian e.i.r.p. limit is 2 dBi. For the Intel 802.11 a/b/g/n WLAN mini-card the maximum antenna gain permitted as specified by the Canadian e.i.r.p. limit is 6 dBi. For the Ralink 802.11 b/g/n WLAN PCIe 1x card the maximum antenna gain permitted as specified by the Canadian e.i.r.p. limit is 3 dBi.

## Avis Canadien

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. Le fonctionnement des périphériques sans fil est soumis à deux conditions. La première est que le périphérique sans fil ne doit pas causer d'interférence. La seconde est que le périphérique sans fil doit supporter toutes les interférences reçues, y compris les interférences qui pourraient entraîner un mauvais fonctionnement.

- △ **CAUTION:** Si vous utilisez un réseau local sans fil IEEE 802.11a, l'appareil ne doit être utilisé qu'à l'intérieur d'un bâtiment, car il fonctionne dans une bande de fréquences allant de 5,15 à 5,25 GHz. Il s'agit d'une réglementation d'Industrie Canada visant à réduire le risque d'interférences nuisibles aux systèmes mobiles par satellite utilisant les mêmes canaux. Les bandes de fréquences allant de 5,25 à 5,35 GHz et de 5,65 à 5,85 GHz sont réservées aux stations radars très puissantes. Celles-ci peuvent causer des interférences et/ou endommager l'appareil.

L'antenne de l'appareil ne peut pas être remplacée. Vous risquez d'endommager votre ordinateur si vous essayez de modifier les paramètres par défaut. Le gain d'antenne maximal autorisé pour la carte réseau sans fil bibande A+G Belkin pour ordinateur de bureau est de 2 dBi, conformément à la valeur d'EIRP (puissance isotrope rayonnée équivalente) maximale canadienne. Le gain d'antenne maximal autorisé pour la mini-carte réseau local sans fil Intel 802.11 a/b/g/n est de 6 dBi, conformément à la valeur d'EIRP (puissance isotrope rayonnée équivalente). Le gain d'antenne maximal autorisé pour la carte PCIe 1x réseau local sans fil Ralink 802.11 b/g/n est de 3 dBi, conformément à la valeur d'EIRP (puissance isotrope rayonnée équivalente) maximale canadienne.

## European Union Regulatory Notice

Products bearing the CE marking comply with the following EU Directives:

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- EuP Directive 2005/32/EC where applicable

CE compliance of this product is valid only if powered with the correct CE-marked AC adapter provided by HP.

If this product has telecommunications functionality, it also complies with the essential requirements of the following EU Directive:

- R&TTE Directive 1999/5/EC

Compliance with these directives implies conformity to harmonized European standards (European Norms) that are listed in the EU Declaration of Conformity issued by HP for this product or product family. This compliance is indicated by one of the following conformity markings placed on the product.

- The following CE marking is valid for non-telecommunications products and for EU harmonized telecommunications products, such as Bluetooth®.



- The following CE marking is valid for EU non-harmonized telecommunications products.



\*If applicable, a notified body number is used. Refer to the regulatory label provided on this product.

The telecommunications functionality of this product may be used in the following EU and EFTA countries:

Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom.

The official EU CE declaration of conformity for this device may be found at <http://www.hp.com/go/certificates>.

The point of contact for regulatory matters is Hewlett-Packard GmbH, HQ-TRE, Herrenberger Strasse 140, 71034 Boeblingen, Germany.

## Products with 2.4-GHz Wireless LAN Devices

### France

For 2.4 GHz Wireless LAN operation of this product certain restrictions apply: This product may be used indoors for the entire 2400-2483.5 MHz frequency band (channels 1-13). For outdoor use, only 2400-2454 MHz frequency band (channels 1-9) may be used. For the latest requirements, see <http://www.arcep.fr>.

L'utilisation de cet équipement (réseau local sans fil 2,4 GHz) est soumise à certaines restrictions : cet équipement peut être utilisé à l'intérieur d'un bâtiment en utilisant toutes les fréquences de 2400 à 2483,5 MHz (Chaînes 1-13). Pour une utilisation à l'extérieur, seules les fréquences de 2400 à 2454 MHz (Chaînes 1-9) peuvent être utilisées. Pour les dernières restrictions, voir <http://www.arcep.fr>.

### European Telephone Network Declaration (European Union Only)

The product herewith complies with the requirements of the R&TTE Directive 1999/5/EC (Annex II) and carries the CE marking accordingly. However, due to differences between the individual PSTNs provided in different countries/regions, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point. In the event of problems, you should contact your equipment supplier in the first instance.

### European Network Compatibility Declarations (European Union Only)

This equipment has been designed to work with analogue DTMF Networks (TBR-21 compliant).

This equipment may have internetworking difficulties in PSTN networks that only support Pulse Dialing. Please consult with your network operator for further assistance.

### India Telegraph Act Notice

The India Telegraph Act of 1885 requires that an IEEE 802.11a wireless LAN end user obtain a license. To obtain this license, please contact The Wireless Planning & Coordination Wing, Ministry of Communications, Sanchar Bhavan New Delhi.

## Japanese Notice

この装置は、クラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

VCCI-B

この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場の製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）が運用されています。

- 1 この機器を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局が運用されていないことを確認して下さい。
- 2 万一、この機器から移動体識別用の構内無線局に対して電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の発射を停止した上、下記連絡先にご連絡頂き、混信回避のための処置等（例えば、パーティションの設置など）についてご相談して下さい。
- 3 その他、この機器から移動体識別用の特定小電力無線局に対して電波干渉の事例が発生した場合など何かお困りのことが起きたときは、次の連絡先へお問い合わせ下さい。

連絡先：日本ヒューレット・パッカード株式会社 TEL：0120-014121

5 GHz帯を使用する特定無線設備（802.11a相当）は屋内使用に限られています。この機器を屋外で使用する場合は電波法で禁じられています。

## Wireless LAN 802.11b devices



## Wireless LAN 802.11g devices



## Korean Notice

신청자: 라이트온 테크놀로지

제조사: 동광 지-컴 컴퓨터

제조국: 중국

B급 기기 (가정용 방송통신기기)	이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.
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## NCC Notice

### 低功率電波輻射性電機管理辦法

第十二條經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率，加大功率或變更原設計之特性及功能。

第十四條低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信規定作業之無線電信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

在5.25G ~5.35G頻帶內操作之無線  
資訊傳輸設備僅適於室內使用


## Environmental Agency Notices

### Disposal of Waste Equipment by Users in Private Household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

## ENERGY STAR Qualification (select models only)

 **NOTE:** This section applies only to products bearing the Energy Star logo.

HP computers marked with the ENERGY STAR logo follow the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR specifications for computers. The EPA ENERGY STAR logo does not imply endorsement by the EPA. As an ENERGY STAR Partner, Hewlett-Packard Company has determined the products marked with the ENERGY STAR logo are ENERGY STAR-qualified per the applicable ENERGY STAR guidelines for energy efficiency. The following logo appears on all ENERGY STAR-qualified computers.



The ENERGY STAR Computers Program was created by the EPA to promote energy efficiency and reduce air pollution through more energy-efficient equipment in homes, offices, and factories. One way products achieve this energy efficiency is by reducing power consumption when not being used through the Microsoft Windows Power Management feature.

The Power Management feature enables the computer to enter a low-power (or “sleep”) mode after a period of inactivity. When used with an external monitor that is ENERGY STAR-qualified, this feature also supports the similar power management features of the external monitor.


To take advantage of this energy savings, the Power Management feature has been preset to power down the computer and monitor after the following specified periods of inactivity:

	Operating System	Computer	Monitor
Business Desktops	XP	15 minutes	15 minutes
	Vista	15 minutes	15 minutes
	Windows 7	30 minutes	10 minutes
Consumer Desktops		15 minutes	10 minutes
Thin Clients		Not applicable	15 minutes
Workstations		30 minutes	15 minutes

Both the computer and monitor can be woken from sleep mode through user interaction with any of the computer input devices (mouse, keyboard, and so on). When configured with Wake On LAN (WOL) enabled, the computer can also be woken by a network signal.

See the EPA ENERGY STAR Power Management Web site for more information about the energy and financial savings potential of the Power Management Feature: <http://www.energystar.gov/powermanagement>.

See the EPA ENERGY STAR Web site for more information about the ENERGY STAR program and its environmental benefits: <http://www.energystar.gov>.

 **CAUTION:** Using the Energy Save Monitor feature with monitors that are not ENERGY STAR-qualified can cause video distortion when an Energy Save timeout occurs.

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 **NOTE:** ENERGY STAR is not supported on Linux or FreeDOS Desktop PCs.

ENERGY STAR is not supported on Linux workstations.

If it is necessary to restore the operating system, you must also reset the ENERGY STAR settings (if applicable) after the restore.

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To verify the factory default power settings for your computer, select **Start > Control Panel**, and then double-click **Power Options**.

## Chemical Substances

HP is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No. 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at <http://www.hp.com/go/reach>.

## Mercury Statement

This HP product may contain the following material that might require special handling at end-of-life:

- Mercury in the fluorescent lamp in the display LCD

Disposal of mercury can be regulated because of environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance (EIA) (<http://www.eiae.org>).

## Perchlorate Material—special handling may apply

The computer's real-time clock battery may contain perchlorate and may require special handling when recycled or disposed of in California. See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>.

## Chinese Restriction of Hazardous Substances (RoHS)

### 有毒有害物质和元素及其含量表 根据中国的《电子信息产品污染控制管理办法》

部件名称	有毒有害物质和元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
主板 处理器和散热器	X	○	○	○	○	○
内存条	X	○	○	○	○	○
I/O PCAs	X	○	○	○	○	○
电源	X	○	○	○	○	○
键盘	X	○	○	○	○	○
鼠标	X	○	○	○	○	○
机箱/其他	X	○	○	○	○	○
风扇	X	○	○	○	○	○
内部/外部媒体阅读设备	X	○	○	○	○	○
外部控制设备	X	○	○	○	○	○
电缆	X	○	○	○	○	○
硬盘驱动器	X	○	○	○	○	○
显示屏	X	X	○	○	○	○

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。

表中标有“X”的所有部件都符合欧盟RoHS法规,“欧洲议会和欧盟理事会2003年1月27日关于电子电器设备中限制使用某些有害物质的2002/95/EC号指令”。

注: 环保使用期限的参考标识取决于产品正常工作的温度和湿度等条件。

The Table of Toxic and Hazardous Substances/Elements and their Content as required by China's Management Methods for Controlling Pollution by Electronic Information Products


**Table 2-2 Toxic and Hazardous Substances and Elements**

Part Name	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Motherboard, processor and heat sink	X	O	O	O	O	O
Memory	X	O	O	O	O	O
I/O PCAs	X	O	O	O	O	O
Power supply	X	O	O	O	O	O
Keyboard	X	O	O	O	O	O
Mouse	X	O	O	O	O	O
Chassis/Other	X	O	O	O	O	O
Fans	X	O	O	O	O	O
Internal/External Media Reading Devices	X	O	O	O	O	O
External Control Devices	X	O	O	O	O	O
Cable	X	O	O	O	O	O
Hard Disk Drive	X	O	O	O	O	O
Display	X	X	O	O	O	O

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.

All parts named in this table with an “X” are in compliance with the European Union’s RoHS Legislation – “Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment”.

 **NOTE:** The referenced Environmental Protection Use Period Marking was determined according to normal operating use conditions of the product such as temperature and humidity.

## Chinese Safety Notices

### HP 工作站使用安全手册

#### 使用须知

欢迎使用惠普工作站，为了您及仪器的安全，请您务必注意如下事项：

1. 仪器要和地线相接，要使用有正确接地插头的电源线，使用中国国家规定的 220V 电源。
2. 避免高温和尘土多的地方，否则易引起仪器内部部件的损坏。
3. 避免接近高温，避免接近直接热源，如直射太阳光、暖气等其它发热体。
4. 不要有异物或液体落入机内，以免部件短路。
5. 不要将磁体放置于仪器附近。

#### 警告

为防止火灾或触电事故，请不要将该机放置于淋雨或潮湿处

如果您按照以上步骤操作时遇到了困难，或想了解其它产品性能，请在以下网页上寻找相关信息：<http://www.hp.com.cn>

或联系我们

中国惠普有限公司  
地址：北京朝阳区建国路112号中国惠普大厦  
电话：010-65643888

## Japanese Restriction of Hazardous Substances (RoHS)

2008年、日本における製品含有表示方法、JISC0950が公示されました。製造事業者は、2006年7月1日以降に販売される電気・電子機器の特定化学物質の含有に付きまして情報提供を義務付けられました。製品の部材表示に付きましては、

[www.hp.com/go/jisc0950](http://www.hp.com/go/jisc0950) を参照してください

A Japanese regulatory requirement, defined by specification JIS C 0950, 2008, mandates that manufacturers provide Material Content Declarations for certain categories of electronic products offered for sale after July 1, 2006.

To view the JIS C 0950 material declaration for this product, visit [www.hp.com/go/jisc0950](http://www.hp.com/go/jisc0950).

## Turkey EEE Regulation

Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

## German Acoustics Notice

LpA is < 70dB(A)

Schalldruckpegel LpA = kleiner 70 dB(A)

Am Arbeitsplatz (operator position)

Normaler Betrieb (normal operation)

Nach ISO 7779:1999 (Typprüfung)