
HP Pavilion Notebook PC

Setup Guide

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Introducing the Pavilion Notebook PC

Taking Inventory

- HP Pavilion Notebook PC.
- Main battery.
- AC adapter and power cord.
- Telephone cord.
- Quick Start sheet.
- The HP Pavilion Notebook PC *Setup Guide*.
- Pavilion Notebook Recovery CD (or CDs), used to restore Windows 98 and all software included with your computer.
- Microsoft Encarta CD.
- Microsoft Works CD.
- Microsoft Money CD.
- Microsoft Windows 98 manual.

Software bundled on your computer

Your Pavilion Notebook comes with a selection of the software listed here. Various models are configured with different combinations of software.

Software	Function
Microsoft Works	Offers word processing, spreadsheet, database, and calendar applications, all contained in a single software program. (A CD is included, in case you have to reinstall the software.)
Microsoft Encarta	Provides access to a CD-based encyclopedia.
Microsoft Money	Helps you manage finances at home and at the office using electronic checkbooks, online banking, and tools for investment tracking and tax planning. (A CD is included.)
Intuit Quicken Basic	Allows you to manage and organize your finances, including checkbook balancing, bill paying, and budget development.
QuickLink III	Permits fax transfer to fax machines and fax software—and permits data transfer.

Efax Web link	Permits you to receive faxes at your existing e-mail address.
VirusScan	Protects your computer from files that can be harmful.
Electronic Registration	Permits quick and easy registration of your computer. See “To register your computer” on page 19 for details.
My Yahoo!	Provides access to Yahoo! Web site, including customizable My Yahoo! Web site in regions where available.
Adobe Acrobat Reader	Allows you to read documents in Acrobat format, which is used frequently on the Web.
HP DiagTools	Provides hardware diagnostic tests.
HP Online Backup	Provides for file backup.
AudioRack CD Player	Controls play of audio CDs.
MusicMatch Jukebox	Controls play of MP3 music files.
Ravisent Cinemaster or Mediamatics	For computers with a DVD drive, controls DVD play.

To find more information

Congratulations! Your Pavilion Notebook PC sets a new standard in personal computing. It is compact and easy to carry, and is infused with the quality and attention to detail that are the hallmark of Hewlett-Packard.

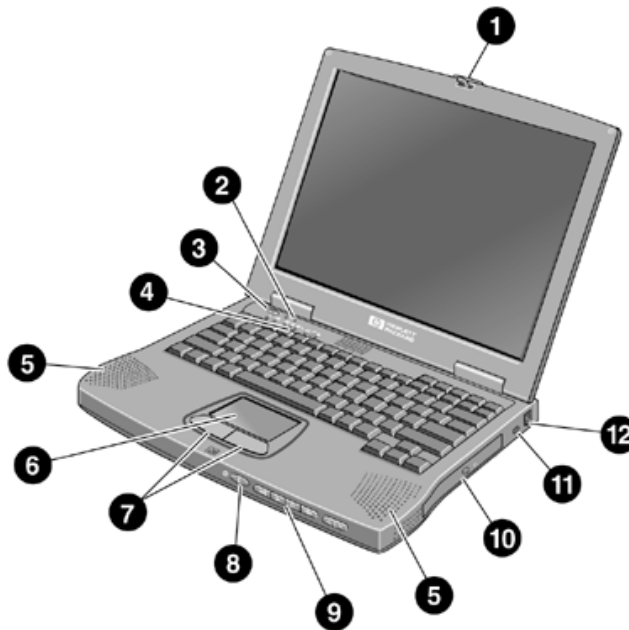
The Pavilion Notebook PC *Quick Start* sheet shows how to get your computer up and running quickly. This *Setup Guide* shows how to set up and operate your computer and where to go for help if you run into trouble.

This table lists other sources of information about your computer.

Source	Description
Pavilion Notebook <i>User's Guide</i>	The <i>User's Guide</i> is a help file located on your hard drive. It provides you with detailed information about your Pavilion Notebook PC (Start, Programs, Pavilion Library—or double-click the desktop icon).
Pavilion Notes	This document contains late-breaking information available after the manuals were completed (Start, Programs, Pavilion Library—or double-click the desktop icon).
Introductory Microsoft manual for Windows 98.	This manual contains information about using the standard features of Microsoft Windows 98 Second Edition (SE).
Pavilion Notebook Web site	www.hp.com/notebooks
HP Customer Care Web site	www.hp.com/cposupport

Identifying the Parts of the Pavilion Notebook

Front view



- 1 Latch to open the computer
- 2 Built-in microphone
- 3 Blue power button
- 4 Status lights (see "Status lights" on page 14)
- 5 Built-in speakers
- 6 Touch pad (pointing device)

Introducing the Pavilion Notebook PC
Identifying the Parts of the Pavilion Notebook

- 7 Click buttons
- 8 CD player power
- 9 CD player buttons
- 10 CD-ROM drive or DVD drive
- 11 Kensington lock slot (security connector)
- 12 Modem phone jack

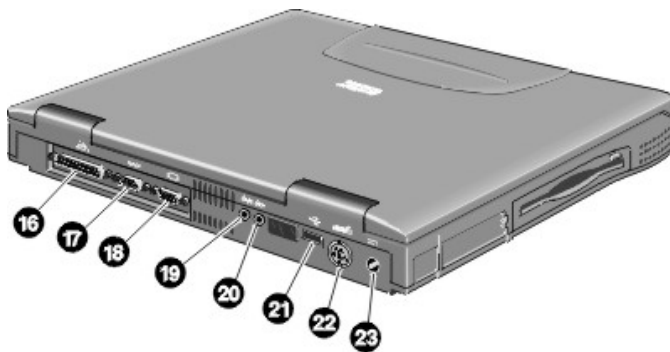
Side view



- 13 PC Card eject button
- 14 PC Card and CardBus slot (lower)
- 15 Floppy disk drive

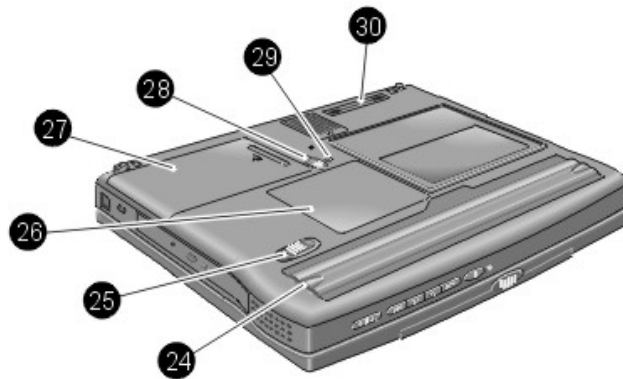
Introducing the Pavilion Notebook PC
Identifying the Parts of the Pavilion Notebook

Rear view



- 16 Parallel port
- 17 Serial port
- 18 VGA port (external monitor)
- 19 Audio out (external speaker)
- 20 Microphone jack
- 21 USB port
- 22 PS/2 port
- 23 AC adapter jack

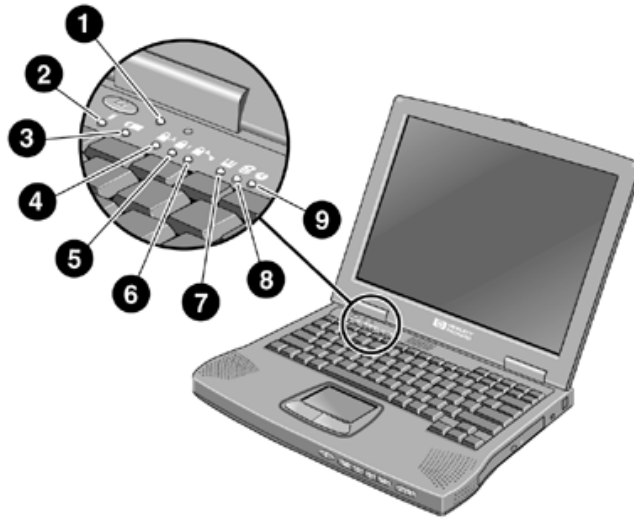
Bottom view



- 24 Battery
- 25 Battery latch
- 26 RAM expansion cover
- 27 Hard disk drive
- 28 Hard disk drive latch and locking screw
- 29 System-off button (for resetting computer)
- 30 Port replicator connector

Introducing the Pavilion Notebook PC
Identifying the Parts of the Pavilion Notebook

Status lights



- 1 Power
- 2 AC connected
- 3 Battery
- 4 Caps Lock
- 5 Num Lock
- 6 Scroll Lock
- 7 Floppy disk drive access
- 8 Hard disk drive access
- 9 CD-ROM or DVD access

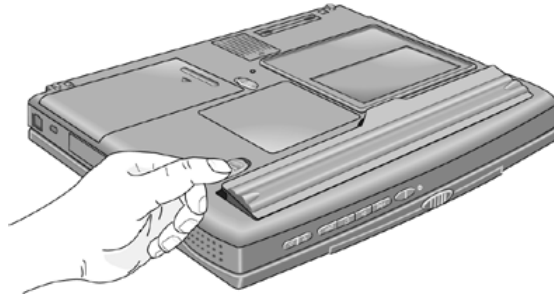
Setting Up the Computer

To install the battery

WARNING

Do not mutilate, puncture, or dispose of batteries in fire. A battery can burst or explode, releasing hazardous chemicals. A rechargeable battery must be recycled or disposed of properly.

Your computer is shipped with the battery installed. If the battery has been removed, you can install it by inserting it into the battery bay on the bottom of your computer by sliding the battery latch, as shown.



Once you have installed the battery, connect the AC adapter to the computer and recharge the battery while you work. You can also replace a low battery with another that is more fully charged.

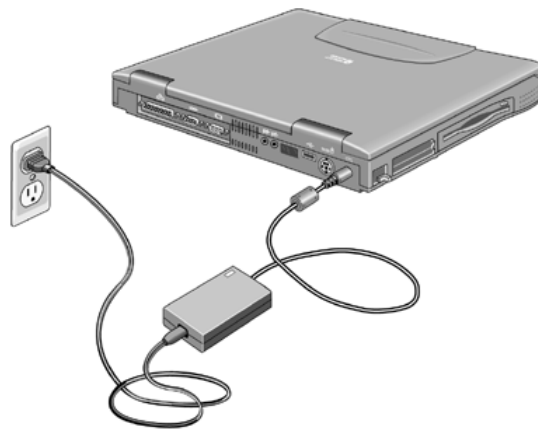
Introducing the Pavilion Notebook PC Setting Up the Computer

To connect AC power

CAUTION

Use only the HP AC adapter intended for this product, model HP F1454A. Using any other AC adapter can damage the computer and may void your warranty. Refer to the warranty statement for your product.

Plug in the AC adapter, then connect the AC adapter to the rear of the computer, as shown. The battery starts charging.



To connect a phone line

Your Pavilion Notebook has a built-in modem. If you prefer, you can instead use a PC Card modem or an external modem to connect to a phone line.

1. Plug one end of the phone line into the (modem) phone jack on the computer. Be sure it clicks into place.
2. Plug the other end of the phone line into a telephone jack. (If the phone line does not fit your telephone jack, you may need to use an adapter.)

CAUTION

Your built-in modem may not work with multiple phone lines or a private branch exchange (PBX), cannot be connected to a coin-operated telephone, and does not work with party lines. Some of these connections may result in excess electrical voltage and could cause a malfunction in the internal modem. Check your telephone line type prior to connecting your phone line.

NOTE

The Pavilion Notebook modem supports the v.23 standard required for connecting to the MiniTel system in France. To connect to the MiniTel system, use MiniTel emulation software available in France.

To turn on the computer

Press the blue power button above the keyboard. Windows starts automatically. If you are turning on the computer for the first time, go to “To set up Windows” on page 18.

The power status light (see “Status lights” on page 14) reports the following:

- Steady green light: computer is on.
- Slow blinking: computer is in System Standby or Suspend mode.
- No light: computer is off or in Hibernate mode.

See “Managing Power Consumption” on page 38 for additional information about turning off your computer.

Hint

If your computer does not turn on when operating on battery power, the battery may be out of power. Plug in the AC adapter and press the blue power button again.

To set up Windows

The HP Pavilion Notebook has Microsoft Windows 98 preinstalled on the hard disk drive. The first time you turn on your computer, a Windows Setup program will automatically run so that you can customize your setup, register your computer, and sign up with an Internet Service Provider (ISP).

Year 2000

Hewlett-Packard makes no representation or warranty about the Year 2000 readiness of non-HP products including preinstalled operating systems or application software. You should contact the software manufacturer directly to determine if you need to do anything else to ensure compliance.

Microsoft has indicated that many of its operating system software products and applications require customer installation of software patches for Year 2000 compliance and may require additional patches in the future. The need for such patches most likely applies to the operating system software and any Microsoft applications shipped with this product. You are urged to contact Microsoft at <http://www.microsoft.com/y2k>, at 1-888-MSFTY2K (U.S. and Canada only), or at your local Microsoft office.

Before you begin, connect the AC adapter to your notebook, since your battery may not be sufficiently charged to complete the Windows setup. Also, be sure to connect the notebook to the phone line. For information on connecting your modem, see “To connect a phone line” on page 16.

1. Press the blue power button.
2. The Windows Setup program starts automatically.
3. Follow the instructions as they appear on the screen.

During setup, you are prompted to:

- Enter a user name.
- Register your computer.
- Accept the License Agreement.
- Select an Internet Service Provider.

Note

If you experience any connection problems with your modem, you can try redialing. If that doesn't work, you can skip the product registration and ISP selection for now.

To register your computer

Be sure to register your computer. Registering is free and fast, and it ensures you will receive quicker, more personalized support. The information you provide during registration will be used to provide you with better products and services.

There are three ways to register:

- by modem
- by phone
- by fax

By modem

Windows 98 automatically prompts you to register by modem. If you wish to do so, make sure that you have connected the phone line, then follow the onscreen instructions.

If you choose not to register right away, you can register by modem later by double-clicking the Registration icon on the desktop. This icon disappears after you register.

By phone

You can call your HP Customer Care Center and register by phone. The number, in the U.S., is (970) 635-1000.

By fax

If a printer is connected to your computer, you can print a copy of your registration and fax it to HP. You will find the fax number on the registration form.

By completing registration, you will:

- Record your ownership of the Pavilion Notebook with Hewlett-Packard and gain access to service, support, and information.
- Optionally, record your ownership of the Windows 98 operating system with Microsoft.

To connect to an Internet Service Provider

1. Connect the included telephone cord to your built-in modem. If you prefer, you can instead use a PC Card modem or an external modem to connect to an Internet Service Provider.
2. Double-click the Easy Internet Signup icon on the desktop. This will launch an Internet setup wizard, which will help you locate an Internet service provider in your area.

–or–

Click Start, Programs, Online Services and select one of the listed providers. This begins the registration process for the online provider you have chosen.

To reset the screen saver

If your HP Pavilion Notebook PC was used as a demonstration unit in a retail store, it may have been configured to display the Pavilion screen saver demo continuously.

To reset your notebook:

1. Choose a different screen saver.
 - Right click on the desktop and select Properties.
 - Select the Screen Saver tab, and use the pulldown menu to choose a different screen saver.
 - Click Apply and click OK.
2. Reset the power management features.
 - Select Start, Settings, Control Panel, Power Management.
 - Reset power management features as you prefer. (For example, you can use the pulldown menu under Power schemes and select the Portable/Laptop power scheme, which is appropriate for most mobile users.)
 - Click Apply and click OK.

Using the Pavilion Notebook PC

Operating the Computer

To use the Fn hot keys



The combination of the Fn key plus another key creates a *hot key*—a shortcut key sequence—for various system controls. Press *and hold* Fn while pressing the appropriate key. (Press and hold Ctrl+Alt with the appropriate key when using an external keyboard.)

Hot key	Does this
Fn + F1	Increases the display's contrast (HPA displays only).
Fn + F2	Decreases the display's contrast (HPA displays only).
Fn + F3	Enters Standby mode. (with Windows 98, identical to Suspend mode)
Fn + F4	Enters Suspend mode.
Fn + F5	Enters Hibernate mode.
Fn + F6	Toggles the sound on and off (mutes sound).
Fn + UP ARROW	Increases sound volume (except on external keyboard).
Fn + DOWN ARROW	Decreases sound volume (except on external keyboard).
Fn + F12	Switches among the built-in display, an external display, and simultaneous displays.
Fn + NumLock	Toggles Scroll Lock on and off.

To use the touch pad

The touch pad, a touch-sensitive pointing device that controls the motion and speed of the pointer on the screen, is built into your computer.



1. Move a thumb or finger across the touch pad in the direction you want the pointer to move.
2. Use the click buttons, which function like the left and right buttons on a mouse, to make your selection. You can also tap on the touch pad instead of clicking a button.
 - To open an application, move the pointer over the icon, then press the **left button twice** rapidly.
 - To make menu selections, move the pointer to the item and press the **left** button once.
 - To open the shortcut menu for an item, move the pointer over the item and click the **right** button.
 - To drag an item, move the pointer over the item. Press and hold the left button while you move the pointer to the new location. Release the button.

Working in Comfort

WARNING

Improper use of keyboards and other input devices has been associated with ergonomic injury. For more information about reducing your risk, visit our ergonomics Web site at www.hp.com/ergo.

Thank you for selecting HP computing equipment. To optimize your comfort and productivity, it is important that you set up your work area correctly and use your HP equipment properly. With that in mind, we have developed some set-up and use recommendations for you to follow based on established ergonomic principles.

Improper and prolonged use of keyboards and input devices are among those tasks that have been associated with repetitive strain injury (RSI) to soft tissues in the hands and arms. If you experience discomfort or pain while using any computing equipment, discontinue use immediately and consult your physician as soon as possible.

In addition to the information on RSI given in this chapter, you may also consult the online version of Working in Comfort preloaded on the hard disk of your computer (Start, Programs, Pavilion Library, Working in Comfort), or visit HP's Working in Comfort Web site.

About Repetitive Strain Injury

Because your comfort and safety are our primary concern, we strongly recommend that you use HP computing equipment in accordance with established ergonomic principles and recommendations.

Scientific literature suggests that there may be a relationship between injury to soft tissues—especially in the hands and arms—and prolonged, improper use of keyboards or other equipment requiring repeated motions of the hands and forearms.

This literature also suggests that there are many other risk factors that may increase the chance of such injury, commonly called Repetitive Strain Injury.

What is RSI?

Repetitive Strain Injury (RSI—also known as cumulative trauma disorder or repetitive motion injury) is a type of injury where soft tissues in the body, such as muscles, nerves, or tendons, become irritated or inflamed.

RSI has been a reported problem for those who perform repetitive tasks such as assembly line work, meatpacking, sewing, playing musical instruments, and computer work.

RSI also has been observed in those who frequently engage in activities such as carpentry, knitting, housework, gardening, tennis, windsurfing and lifting children.

What causes RSI?

The specific causes of RSI have not been established. Nevertheless, the incidence of RSI has been associated with a variety of risk factors, including:

- Too many uninterrupted repetitions of an activity or motion.
- Performing an activity in an awkward or unnatural posture.
- Maintaining static posture for prolonged periods.
- Failing to take frequent short breaks.
- Other environmental and psychosocial factors.

In addition, there have been reports associating the occurrence of RSI with the use of computer keyboards, mice, and other input devices. Also, certain medical conditions, such as rheumatoid arthritis, obesity and diabetes, may predispose some people to this type of injury.

What can I do to avoid RSI?

Some people who use computers may experience physical discomfort during their use. This discomfort may be a symptom of a repetitive strain injury.

Properly setting up and using computing equipment can help to minimize your chances of experiencing this discomfort. Well-designed and properly adjusted equipment alone may not be sufficient to eliminate all potential problems.

Maintaining good posture and positioning when working on computers also has a significant bearing on your comfort.

What if I experience discomfort?

If you are experiencing any discomfort, seek professional medical advice immediately. Typically, the earlier a problem is diagnosed and treated, the easier it is to resolve.

Preparing Your Work Environment

When using HP computing equipment, it is important that your work environment contribute to your comfort and productivity.

Your Chair

It's very important that your chair provides a comfortable sitting position and offers the following features:



- **A stable base, such as five legs with casters.** Make sure the casters are designed for the type of floor you have in your workspace, whether it is bare or carpeted.
- **A height- and tilt-adjustment feature.** It should be easy to adjust your chair height from 40 cm to 52 cm (15.5 inches to 20.5 inches) as measured from the top of the seat pan to the floor. If you are much taller or shorter than average, you may need a chair that can be adjusted beyond this range. Adjust your chair so that the work surface or keyboard tray is at elbow height and your feet are flat on the floor with your knees slightly bent below your hips. Ideally, the seat pan should be able to tilt both forward (minimum of 5 degrees) and backward (minimum of 10 degrees). If the chair has an adjustable seat pan, inclining the seat slightly forward will transfer some

of the pressure from the spine to the thighs and feet. This will relieve pressure on your back.

- **A curved seat edge.** The front of the seat should be curved and finished in a “waterfall” edge.
- **An adjustable back support** in both height and forward and backward tilt. It is important that the backrest correctly supports the lower part, or lumbar curve, of the back.
- **A freely rotating swivel** so you can move easily from side-to-side.
- **Fully adjustable and padded armrests.** The chair arms should not interfere with adjusting the chair or moving it close to your work surface.

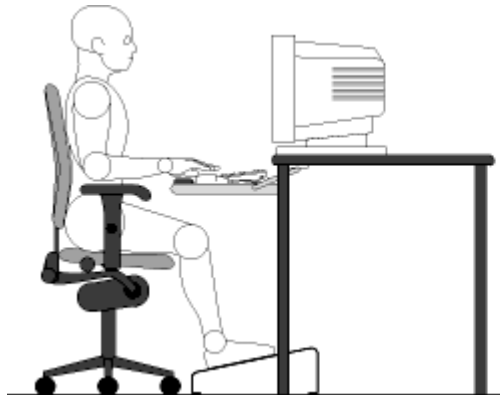
Your Work Surface

Ideally, you should be able to adjust the height of your work surface.

A simple way to ensure your work surface is at the correct height is to first adjust the height of the seat-pan of your chair. With your chair properly adjusted and your feet firmly on the floor, adjust the work surface height until your forearms are parallel to the floor when you have your fingers on the keyboard or other input device.

Your Work Posture

Sitting in one position for long periods can be uncomfortable. To minimize the potential for physical discomfort or injury, it's important that you maintain proper posture.



- **Back:** While sitting at your work surface, make sure your back is supported by the chair's backrest in an erect position or angled slightly backwards.

Using the Pavilion Notebook PC
Working in Comfort

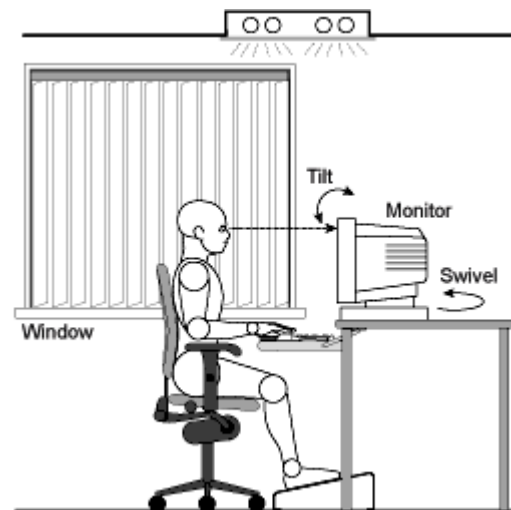
- **Arms:** Your arms should be relaxed and loose, elbows close to your sides, with forearms and hands approximately parallel to the floor.
- **Wrists:** Your wrists should be as straight as possible while using the keyboard, mouse or trackball. They should not be bent sideways, or more than 10 degrees up or down.
- **Legs:** Your thighs should be horizontal or angled slightly downward. Your lower legs should be near a right angle to your thighs. Your feet should rest flat on the floor. If necessary, use a footrest, but double check that you have your seat height adjusted correctly before getting a footrest.
- **Head:** Your head should be upright or tilted slightly forward. Avoid working with your head or trunk twisted.
- **Overall:** Change your position frequently and take regular breaks to avoid fatigue.

Setting Up Your HP Computing Equipment

Make sure that all the elements of your HP computer system—monitor, document holder, keyboard, mice and other input devices, and headphones and speakers—are optimally arranged and adjusted to meet your personal requirements. The recommendations that follow will help you achieve this.

Your HP Monitor

It is important that your monitor screen be clean and positioned correctly to improve readability and help you work comfortably. Glare, high contrast, reflections, dirt and dust will interfere with what you see on the screen. The recommendations that follow can help you achieve a comfortable arrangement.



- The top of your monitor screen should be at or slightly below eye level. Most HP monitors come with a tilt-and-swivel feature that makes it easy to adjust the screen position.
- To avoid obscuring your view, the screen should be positioned perpendicular to your line of sight; that is, straight on.
- To avoid glare or reflection, try to position the monitor so the screen is at a right angle to your window rather than in front of it. If reflection or glare persists, tilting the screen forward may help.

Using the Pavilion Notebook PC

Working in Comfort

- Maintain a comfortable viewing distance to the screen. Most people prefer a viewing distance of approximately 46 to 76 cm (18 to 30 inches), depending on monitor size. Character size and the amount of space available on the work surface can affect this distance.
- Text should be easy to read. To help ease eyestrain, adjust text attributes such as character size, spacing, and color. In addition, you will need to use the controls provided with your monitor to adjust the visual settings so that contrast and brightness levels are comfortable for you. High contrast and low brightness is usually the preferable combination.
- The monitor should be free from flicker. If the image on your screen is not stable, the monitor may require repair or adjustment.
- When possible, use a program that has a simple user interface, such as easily identifiable icons and pull-down menus. Also, screen information should be displayed in a structured and well-organized way.

Monitor Use Specifications

- When viewing your monitor, your head should not be tilted more than 15 degrees forward.
- You should not have to look up more than 5 degrees above horizontal or down more than 30 degrees below horizontal for normal work tasks, such as typing or reading.

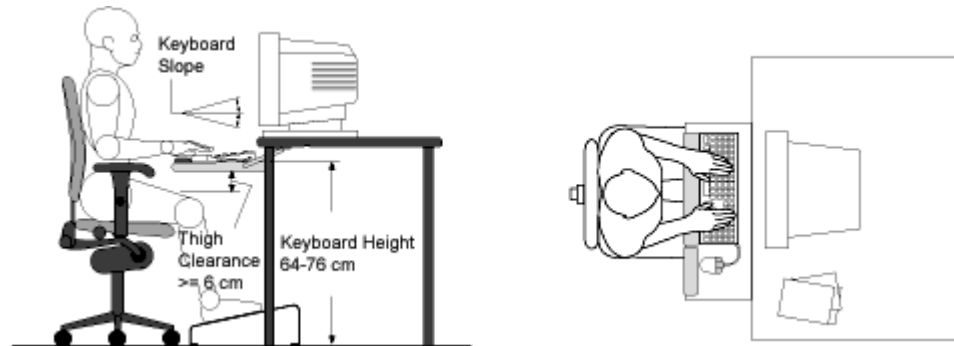
Document Holders

When keying in data from a hardcopy document, placing it in a document holder rather than on a flat surface will make it easier to read. The following recommendations should be observed when using a document holder:

- The document holder should be at approximately the same height and distance from your eyes as the screen, and as close to the monitor as possible to prevent neck twisting. Some users prefer a document holder mounted to the monitor while others prefer the document holder positioned between the screen and keyboard.
- If the primary task is to view documents rather than using the monitor, the document holder may be placed directly in front of the keyboard with the monitor slightly to the side.
- To help reduce stress on your neck and prevent eye fatigue, try to minimize the movement of your head and eyes while using a document holder.

Your HP Keyboard

The proper positioning and use of your HP keyboard is important when using HP computing equipment. Be sure to observe the following recommendations to optimize your comfort and safety:



- We recommend you place your keyboard in front of the screen or document holder, whichever is viewed the most. Your HP keyboard has long cables so you can place it in the position that is most comfortable for you while you are using your system.
- Because HP keyboards vary in depth, you'll want to be sure that your work surface or keyboard tray has sufficient room to accommodate your model. The keyboard tray should be wide enough to hold both the keyboard and mouse or trackball: 66 to 71 cm (26 to 28 inches).
- Your HP keyboard may have a kickstand that can be opened or closed to raise or lower the keyboard angle. If you are in the correct sitting position with your elbows at about the same level as the work surface, you may not need to use it. However, if your elbows are below the work surface, you may wish to use the kickstand to raise the back of the keyboard.
- An adjustable keyboard tray may be useful if you cannot adjust your chair or work surface to the proper height for typing. It should adjust in height from 64 to 76 cm (25 to 30 inches) above the floor and tilt forward and backward to help you find the most comfortable position. Note that research has shown that there may be less muscle tension in shoulders and forearms with the keyboard tilted away from you.
- When using your HP keyboard, remember it takes very little pressure or force from your fingers to activate the keys. Improper typing style—the use of too much force—can place unnecessary stress on the tendons and muscles in your hands, wrists, and forearms.
- Make sure that your hands are in a neutral position when you use your keyboard. This means that your forearms, wrists, and hands should be in a straight line.

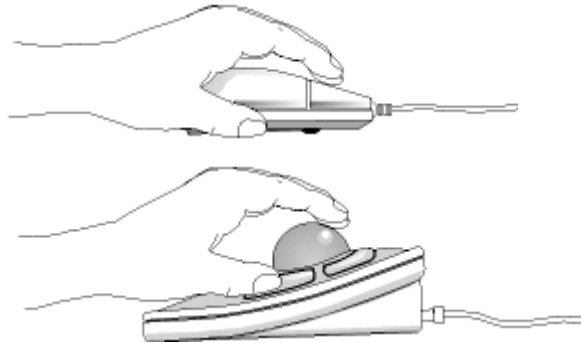
Using the Pavilion Notebook PC

Working in Comfort

- The keyboard has a low profile to help prevent excessive bending of your wrists while typing. Literature suggests that you should not bend your wrists sideways or more than 10 degrees up or down. Keep your wrists straight by moving your entire hand and forearm over to use the function keys or numeric keypad.
- You may use a palm rest to help keep your hands and wrists in a comfortable and neutral position when you are not typing. Some HP keyboards come with an integrated palm rest. If you use a palm rest, see that it is rounded and padded, and flush in height with the front edge of the keyboard. Note that your palms—not your wrists—should rest on the palm rest. If you don't have a palm rest, try not to rest your wrists on a sharp edge, such as a work surface edge.

Mice and Other Input Devices

Various aspects of using mice and other input devices may increase your risk of discomfort or injury. If you connect an external mouse to your computer, observing the following recommendations may reduce that risk.



- As with the keyboard, try to keep your hand, wrist, and forearm in a neutral position while using your mouse or other input device.
- When using a stylus or light pen with a graphics tablet, don't grip the stylus tightly. Keep your hand and fingers relaxed and try to maintain a neutral posture in your hand, wrist and forearm.
- If you use your thumb to rotate the ball on a trackball or spaceball, keep it in a relaxed, natural shape, and maintain a neutral posture in your hand, wrist, and forearm.
- Hold the mouse gently by draping your fingers over it. Keep your hand relaxed and fingers loose. Do not grip the mouse tightly.
- It takes very little pressure or force from your fingers to activate the buttons or scroll wheel on your mouse, scrolling mouse, trackball, or other input device. Using too

much force can place unnecessary stress on the tendons and muscles in your hands, wrists, and forearms.

- If you are using a scrolling mouse, be sure to keep your fingers and hand in a relaxed, neutral position when activating the scroll wheel. Also, this type of mouse features software that can minimize the number of mouse movements or button clicks.
- When using a mouse, trackball, stylus and graphics tablet, or other input device, position it as close to the keyboard as possible, and keep it at the same level so you do not have to stretch while using it.
- Use a good quality mouse pad to enable the mouse to work most effectively and reduce unnecessary hand and wrist movements.
- Be sure to keep your mouse and trackball clean. Regular removal of accumulated dust and dirt helps ensure proper tracking and reduces unnecessary hand and wrist motions.

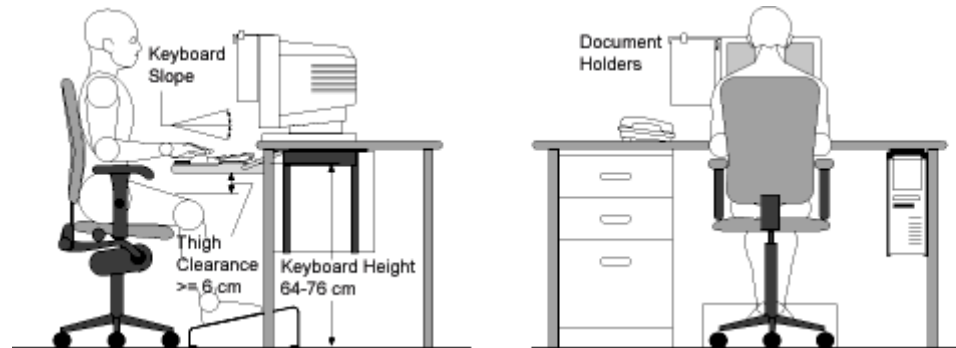
Headphones and Speakers

Listening to loud sounds for prolonged periods may permanently damage your hearing. To avoid discomfort from unexpected noise, always turn down the volume before connecting headphones or speakers to your HP equipment.

When you put on the headphones, slowly increase the volume until you find a comfortable listening level, then leave the volume control in that position.

Comfort and Safety Checklist

These recommendations are drawn from the latest available international ergonomic standards and recommendations, including ISO 9241 and ANSI/HFS 100-1988.



General

- **Work Surface Height:** Adjust either your seat height, work surface, or both, to position the work surface at approximately elbow height.
- **Work Surface Arrangement:** Make sure frequently used equipment is within easy reach. For example, if you are primarily using the keyboard, place it directly in front of you, not to the side. If you are primarily using the mouse, place it in front of your hand or arm. If you are using both a mouse and keyboard, place them both at the same work surface height and close together. If a palm rest is used, the height should be flush with the front edge of the keyboard. Other items, such as your telephone or notepad, also should be considered.
- **Monitor:** Place your monitor so that the top of the screen is at, or slightly below, eye level (up to 15 degrees).
- **Head:** Do not tilt your head forward by more than 15 degrees, and try not to turn your head toward the side.
- **Back:** While sitting at your work surface, make sure your back is supported by the chair's backrest in an erect position or angled slightly backwards.
- **Arms:** Make sure your arms and elbows are relaxed and loose, with your upper arm perpendicular to the floor or slightly forward. Keep your forearms and hands approximately parallel with the floor with elbows bent between 70 and 115 degrees. Keep your elbows close to your sides (less than 20 degrees away from your body).

- **Legs:** Your thighs should be horizontal or angled slightly downward. Your lower legs should be near a right angle to your thighs. Make sure there is sufficient room under the work surface for your legs.
- **Feet:** If after adjusting your chair you cannot rest your feet comfortably on the floor, use a footrest, preferably one that can be adjusted in height and angle.

Overall

- Look away from the screen from time to time to help reduce eyestrain. Focus on distant objects briefly, and blink periodically to lubricate your eyes. You also should have your eyes checked on a regular basis and ensure your eyeglass prescription is suitable for working on a monitor screen.
- Remember to occasionally shift position and move your body. Keeping your body in one position for long periods is unnatural and stressful. When prolonged work is required, take frequent short breaks. As a rule of thumb, a five- or ten-minute break every hour is a good idea. Short, frequent breaks are more beneficial than longer less frequent breaks. Data show that people who work for long periods of time without a break may be more prone to injury.
- Changing tasks frequently will help prevent muscle stiffness. Examples: alternating between keyboarding, reading, writing, filing, and moving around in your work environment, helps you maintain a relaxed posture. Occasionally stretch the muscles in your hands, arms, shoulders, neck, and back. You should stretch at least as often as you take brief task breaks—at least once every hour.
- Discomfort may be alleviated by using alternative ergonomic designs and accessories such as ergonomically personalized chairs, palm rests, keyboard trays, alternative input devices, prescription eyeglasses, anti-glare screens, and more. Seek additional information from the sources available to you, including your employer, doctor, local office supply store, and the information sources listed in the online version of *Working in Comfort*, which is preloaded on the hard disk of your HP computing equipment.

Your HP Pavilion Notebook PC

You can use your HP Pavilion Notebook virtually anywhere, anytime. The following recommendations should help you work more comfortably.

Note that if you are using your portable computer as your primary computer, or using it for extended periods, you should use it with a full-size keyboard, monitor, and mouse. This will give your portable computer the adjustability and comfort features of a desktop

Using the Pavilion Notebook PC **Working in Comfort**

unit. HP port replicators offer quick, easy connections to these devices. More information on how to prepare your workspace environment and set up your HP equipment is available in other sections of *Working in Comfort with Your HP Computing Equipment*.

Preparing Your Mobile Work Environment

- Use a chair that provides good support for your lower back. If an adjustable chair is not available, you can use a pillow or rolled-up towel to provide lower back support.
- Try to keep your thighs parallel to the floor and your feet flat on the floor. In a mobile environment, you can do this by using a phone book or briefcase to support your feet.
- Adjust the height of either your work surface or chair to keep your arms in a neutral position. Your arms should be relaxed and loose, elbows at your sides, with the forearms and hands parallel with the floor.
- Position your notebook computer display to minimize glare and reflection. For example, on an airplane, lower the window shade, or in a hotel room, draw the curtains. You also should maintain a comfortable viewing distance, approximately 40 to 60 cm (16 to 24 inches). Adjust the angle of your display to help keep your head angled slightly downward in a comfortable position.

Using Your Mobile Computer

- Position the computer so your wrists and hands are in a neutral position. Your wrists should be as straight as possible and should not have to bend sideways or more than 10 degrees up or down. If your notebook computer does not have a built-in palm rest, you can use a rolled-up towel.
- Try to type as lightly as possible. The notebook keyboard requires little force to activate.
- Take frequent, short rest breaks. This is especially important in a mobile computing environment.
- Portable computers weigh between approximately 1.4 and 3.7 kilos (3 and 8 pounds). When traveling, be sure to carry your computer properly to minimize strain on your body. Shift the bag containing your notebook equipment frequently between your left and right hands and shoulders.

Traveling with Your Computer

Managing Power Consumption

When you are not using your computer, you will want to maximize battery operating time without compromising performance. It is not necessary to turn the computer off in order to reduce power consumption and extend battery life.

With Windows 98 SE, Advanced Power Management (APM) provides both manual and automated tools for reducing power consumption.

- Power management options can be set to occur automatically, based on timeout values that you have entered. See “Managing Power Consumption” in the *User’s Guide*.
- Power management options may be invoked manually at any time by pressing the appropriate key. See “To use manual power management” on page 38.

To use manual power management

You can shut down your computer manually whenever you need to with any of the following three levels of shutdown.

System standby

Action	Turns off the display and hard disk drive. Saves current session to RAM.
When	Fn+F3 or Fn+F4 or Start, Shut Down, Standby.
Resume	Press the blue power button to return to your current session.

System standby can also occur automatically when the timeout setting in the Power Management Properties window is reached. (In Windows 98, there is no difference between Standby and Suspend.)

Hibernate

Action	Saves the current session to disk, then shuts down. Provides maximum power savings while still allowing you to recover the current session.
When	Press Fn+F5.
Resume	Press the blue power button to recover your current session. This takes several seconds.

Hibernate can also occur automatically when:

- Battery power reaches a critically low level (see “To respond to a low-battery warning” on page 41).
- The timeout setting in the BIOS Setup utility is reached (default is 2 hours after System standby occurs).

Off

Action	Turning off your computer provides maximum power savings. The current session is not saved and unsaved data will be lost.
When	Start, Shut Down, Shut down.
Resume	Press the blue power button to start a new session. This will take several seconds.

Sometimes the system stops responding and you are not able to turn off the computer as described above. To recover, use the following in the order listed.

- If you are unable to access the Start menu, you can turn off the system by pressing and holding the blue power button for 4 seconds.
- If holding the blue power button fails, insert a pin or straightened paper clip into the system-off button on the bottom of the computer (see “Bottom view” on page 13).

Note

When the system hibernates as a result of a critically low battery, you will find when resuming that all your data has been saved but that some functions may be disabled. To resume normal operation, restore power (by connecting AC power or installing a charged battery), perform a full shutdown, and then restart the computer.

Using Battery Power

To check the battery status

From the battery status light



The battery status light (second from left) reports the following information:

Green	AC attached—battery full
Orange	AC attached—battery charging
Red	AC attached—battery will not accept charge

From the Windows taskbar

The System Tray on the Windows taskbar includes a power icon that allows access to more detailed battery status information. The icon looks like a battery when AC is not connected.

- Place pointer over the power icon to display a percentage of remaining time.
- Right click the power icon to view the options for displaying power information.
- Left click the power icon to display a menu of the available power schemes.

To respond to a low-battery warning

The computer automatically alerts you when the battery power drops to a critically low level. First you will hear a high-pitched beep. Then, if you have not taken restorative action within a short time, the system hibernates.

You won't be able to turn the computer on again until you restore power by one of the following actions:

- Plug in the AC adapter (see "To connect AC power" on page 16).
- or–
- Replace the battery with one that is charged (see "To install the battery" on page 15).

Note

If you plug in the AC adapter, you can continue to work while your battery recharges.

Configuring and Expanding Your Computer

Installing RAM modules

The Pavilion Notebook provides an optional memory expansion slot for installing up to two RAM expansion modules. Use HP SDRAM modules only; EDO RAM is not supported.

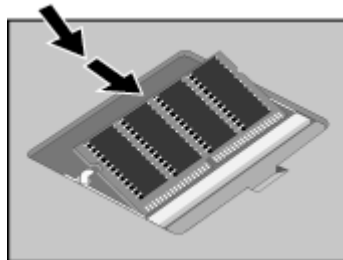
Your computer's computer chips are extremely static-sensitive. Static electricity can permanently damage computer chips. Carefully read the following caution information.

CAUTION

Handle the RAM module only by its edges. Otherwise, you may damage the module due to electrostatic discharge. Static electricity can permanently damage computer chips. It is therefore important to discharge the static electricity from your body before installing the memory module. Discharge your body's electricity by touching the metal shielding around the connectors on the rear of the computer.

You'll need a small Phillips screwdriver to complete this procedure.

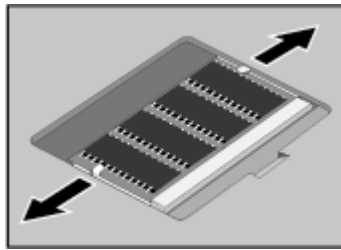
1. Click the Start Button and select Shut down.
2. Unplug the AC adapter, if present, and remove the battery.
3. Remove the RAM expansion cover located on the bottom of the computer using a Phillips screwdriver.



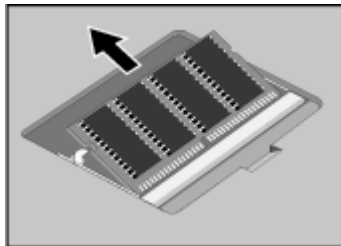
4. Insert the RAM expansion module into the connector at about a 30° angle until it's fully inserted. Then press down at both sides of the module until it latches.
5. Replace the RAM expansion module door.
6. Insert the battery.

Removing RAM modules

After you remove the RAM expansion cover, do the following:



1. Release the two latches at the sides of the RAM expansion module by pushing them gently outward (away from the sides of the module).
2. When you release the latches, the free edge of the module pops up.

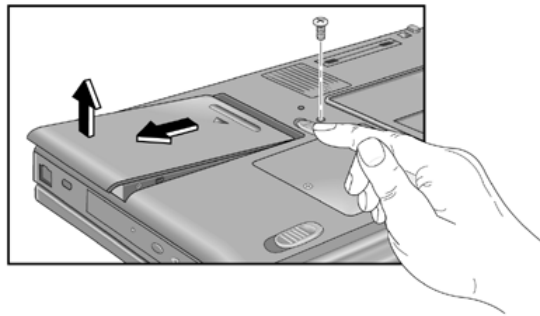


3. Pull the module out of the connector.
4. Replace the RAM expansion module door.

Replacing a hard disk drive

You'll need a small Phillips screwdriver to complete this procedure.

1. From the Start menu, shut down the computer.
2. Unplug the AC adapter, if present, and remove the battery.
3. Turn the unit bottom side up.
4. Use a screwdriver to remove the hard disk drive locking screw.



5. Slide and hold the hard disk drive latch.
6. Slide the hard disk drive toward the edge of the computer, then lift out.
7. Insert the new hard disk drive and the locking screw.
8. Insert the battery.

Note

If you are installing a new hard disk drive, you should create a Hibernate partition on the drive before loading any software. See "Expanding the Hibernate Partition" on page 47.

Expanding the Hibernate Partition

You can create the Hibernate partition by booting from the Recovery CD. The partitioning and recovery process takes approximately 20 minutes—do not interrupt the process or unplug the AC adapter until the process is completed.

CAUTION

This procedure will format the hard disk drive and erase all data on the disk. Be sure to back up all data from your hard disk before you begin this procedure. After the hard disk drive is formatted, you'll need to reinstall any applications.

1. Back up all data from your hard disk.
2. If you wish to install additional RAM, do so now.
3. Connect the AC adapter to the computer.
4. Insert the Recovery CD in the CD-ROM (or DVD) drive. (If your system came with two Recovery CDs, insert Disc 1.)
5. Restart the computer, and when you see the HP logo, press F2.
6. Select the CD-ROM drive as the first boot device, exit from the BIOS Setup utility, and reboot.
7. Choose Continue.
8. Choose Advanced.
9. Select a size from the Hibernate Partition Size drop-down list.
10. If you want to create a Hibernate partition without recovering the operating system, select the “Do not load operating system” checkbox and select one of the partition options.
11. Choose Continue.
12. Click OK to begin.

If your system came with two Recovery CDs, you may be prompted to insert the other Recovery CD during the partitioning process.

13. When you are prompted to reboot your computer, remove the Recovery CD and press Ctrl+Alt+Delete.
14. Follow the onscreen instructions for setting up Windows.
15. When Windows setup is complete, reinstall any applications and restore backed up data.

Service and Support

Hewlett-Packard Limited Warranty Statement

1. HP warrants to you, the end-user customer, that HP hardware, accessories and supplies will be free from defects in materials and workmanship after the date of purchase, for the period specified in the Warranty Duration sheet included with your HP Pavilion Notebook PC. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or equivalent in performance to new.
2. HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified in the Warranty Duration sheet included with your HP Pavilion Notebook PC, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software which does not execute its programming instructions due to such defects.
3. HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.
4. HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.
5. Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.
6. TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. Some countries, states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from country to country, state to state, or province to province.

7. TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some countries, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Getting Support for Your Pavilion PC

HP offers a number of ways that you can get technical support for your computer. If you have questions or problems, here are the resources available to you:

- Look up information in the electronic *User's Guide*.
- Visit the Pavilion Notebook Web site.
- Visit the HP Customer Care Web site.
- Call HP support.

To use the Pavilion Notebook *User's Guide*

The Pavilion Notebook *User's Guide* is an electronic help system included on your hard disk. To open the *User's Guide*, double-click the *User's Guide* icon on the desktop. To locate information in the guide, use the Contents or Index tabs to search for information. The Contents tab lists the headings of all the topics in the guide. The Index tab provides an alphabetical list of the keywords in the guide; you can locate a keyword either by typing it in the box or by scrolling through the list.

To get help from the Pavilion Notebook Web site

HP has a Web site on the Internet dedicated to Pavilion Notebook owners: www.hp.com/notebooks. This Web site contains information about the various Pavilion Notebook models, warranties, and special promotions.

To get help with your computer, click the Technical Support button. In the technical support area, you will have access to:

- Answers to frequently asked questions
- Software, driver, and BIOS updates
- Electronic manuals
- Troubleshooting solutions

To get support from the HP Customer Care Web site

Another Web site useful to Pavilion Notebook owners is HP Customer Care: www.hp.com/cpso-support/guide/home.html. This Web site provides information about:

- Self-help tools, such as bulletin boards, CD-ROM subscriptions, and service parts information
 - The basic services included with your warranty, as well as descriptions of enhanced and custom services
 - Obtaining software updates
 - Support telephone numbers for HP products
-

To call the HP Customer Care Center

If you are unable to solve a problem with your Pavilion Notebook, you can call the HP Customer Care Center in the U.S., at (970) 635-1000. The Customer Care Center will assist you at no charge during the term of the warranty; you are responsible only for the telephone charge. During the free assistance period, HP will assist with questions about:

- Applications and operating systems included with your computer
- HP-described operation environments and conditions
- HP accessories, HP upgrades, and basic operation and troubleshooting

HP will not be able to help with questions about:

- Non-HP hardware, software, operating systems, or usage not intended for—or not included by HP with—the product
- How to repair the product yourself
- Product development or custom installations
- Consulting.

Obtaining Repair Service

To receive warranty repair service

To receive warranty repair service, contact the HP Customer Care Center in the U.S., at (970) 635-1000.

The support technician will help qualify your unit for warranty repair based on the warranty applicable to your unit and original purchase date, and will provide you with repair processes. Warranty service includes the cost of shipping, handling, duties, taxes, freight, or fees to or from the service location. HP Pavilion Notebook PC service is currently provided for the continental U.S.

To repair your computer outside the warranty period

If your PC is no longer in the warranty period, contact the appropriate Customer Care Center or an HP service center. The support provider will let you know about repair charges and processes.

To prepare your computer for shipment

1. **Important.** Back up your hard disk drive.

While your computer is being repaired, the hard disk may be replaced or reformatted.

2. Hewlett-Packard cannot guarantee the return of removable components. Please remove the following prior to sending your computer in for service:
 - PC cards
 - AC adapter and power cord
 - CDs in the CD player
 - Floppy disks in the floppy disk drive

3. When sending your computer to Hewlett-Packard, please use the original product packaging or other substantial packaging in order to avoid damage to the unit in transit.

Note

If the hard disk drive is defective, you will receive a replacement drive with the original HP software.

Solving Problems with Your Computer

Troubleshooting Techniques

This section contains solutions to a few common problems and troubleshooting techniques for the HP Pavilion Notebook PC—for those situations when you cannot access the information on your computer. You will find a more complete set of troubleshooting solutions and techniques in the electronic *User's Guide*.

Display Problems

If the computer is on, but the screen is blank

- Try pressing Fn+F1 to increase the contrast or Fn+F2 to decrease the contrast. (On TFT displays, contrast control is not necessary and therefore is not available.)
- Press Fn+F12 in case the internal display was disabled. (Do this three times to return to the state you started from.)
- If the computer is cold, allow it to warm up.

If the screen is difficult to read

- Check whether the display resolution is set to its default setting—800×600 for 12.1" display or 1024×768 for larger displays. Check this in Start, Settings, Control Panel, Display, Settings.
- If you have an HPA display, try pressing Fn+F1 to increase contrast.

If the display refreshes slowly

- Increase the amount of RAM that is allocated to video display (if your computer has less than 64MB RAM). By default, a portion of your installed RAM is allocated to video display: 4MB if you have less than 64MB RAM, 8MB if you have 64MB RAM or more. (Using additional memory for video allows you to display more colors: True Color with 8MB versus High Color with 4MB. However, using additional memory for video results in less memory available for other computer operations.) You can change the Auto default to either 4MB or 8MB.
 1. From the Start menu, shut down, then restart the computer.
 2. When you see the HP logo, press F2 to enter the BIOS Setup utility.
 3. Open the Memory menu.
 4. Select Video RAM Size.

5. Select 4MB or 8MB.
6. Exit the BIOS Setup utility.

If part of the Windows desktop is not visible and you have to scroll down to see the taskbar

- Your display resolution may be set to 1024×768 on a 12.1" display, instead of 800×600. You need to set the monitor type to Laptop Display Panel (800×600).
 1. Click Start, Settings, Control Panel.
 2. Double-click Display.
 3. Click the Settings tab.
 4. Click Advanced.
 5. Click the Monitor tab.
 6. Click Change.
 7. Click Next.
 8. Choose to manually select the monitor type.
 9. Select Laptop Display Panel (800×600) and click Next.
 10. Click Next and then Finish.
 11. Click Close.
 12. Reduce the resolution to 800×600 pixels and click Apply.

If an external display does not work

- Check the connections.
- Press Fn+F12 in case the external monitor was disabled. (Do this three times to return to the state you started from.)
- The external monitor may not be detected. In the BIOS Setup utility, try setting Video Display Device to LCD/CRT in the Main menu.

You may also want to test the display with diagnostics.

Power and Battery Problems

If the computer turns off immediately after it turns on

- Battery power is probably extremely low. Plug in the AC adapter or insert a newly charged battery.

If the computer keeps beeping

- The Pavilion Notebook beeps for 15 seconds when the battery is low. Save your work, shut down Windows immediately, and insert a charged battery or plug in the AC adapter.

If the computer has a short operating time

- Try conserving power by setting power timeouts to shorter periods. In Windows 98, you can adjust these settings in the Power Management applet in Control Panel.
- If you are running any applications with an automatic save feature, such as MS Word for Windows, you can extend the save time or disable this feature to reduce hard disk access.
- If the operating time has become shorter and the battery is more than a year or two old, you may need to replace the battery.
- Set the display brightness to the lowest comfortable level.
- Heavy modem use can affect battery operating time.
- PC card use can affect battery operating time.
- Check the Power Management settings in BIOS Setup.
 1. From the Start menu, shut down, then restart the computer.
 2. When you see the HP logo, press F2 to enter the BIOS Setup utility.
 3. From the Power menu, make sure Enable Power Saving is enabled.
 4. Exit the BIOS Setup utility.

If the battery doesn't charge

- Make sure the AC adapter is plugged into the power source and that the light on the adapter is on.
- If you're using a power strip, remove the AC adapter from the power strip and plug it directly into a wall outlet.

- Check that the battery is fully installed and locked in place.
- Turn off the computer, then check that the battery contacts are clean and that the AC adapter cables are fully plugged in.
- Move the computer away from any nearby heat source. Unplug the AC adapter and allow the battery to cool down. An elevated battery temperature prevents charging.
- If available, try another battery and AC adapter.

If the Time Remaining percentage for the battery is not correct

- When you place the pointer on the power (battery) icon on the Windows taskbar, you will see the percentage of remaining time left on the battery. The Smart Battery feature calculates the Time Remaining by dividing the battery capacity by the real time power consumed by the system. In other words, this percentage reflects the task you are performing at the moment. For example, if you are doing something that consumes a lot of battery power (such as reading a CD-ROM or DVD), the Time Remaining percentage will be lower than if you were performing a task that doesn't require as much power. (The system assumes you will continue with this same task until the battery runs out.) Therefore, the Time Remaining value should be viewed as an estimate, not a precise value.

If the computer stops responding

- Press CTRL+ALT+DEL to end the application that is not responding.
- Press the blue power button for at least 4 seconds to turn off the computer. Then press the blue button again to turn the computer back on.
- If nothing happens, insert a paper clip into the system-off button on the bottom of the computer. Then press the blue button to turn the computer on.

If the computer doesn't suspend as expected

- If you have a connection to another computer, the computer doesn't suspend if the connection is actively in use.
- If the computer is performing an operation, it normally waits for the operation to finish.

You may also want to test the power management system with diagnostics.

Recovery CD Problems

If an error message “Windows cannot find wordpad.exe” appears after inserting the Recovery CD

- The system is trying to open the readme.doc file in WordPad, but cannot locate the wordpad.exe program file. Under Windows 98, this error message may appear after inserting the Recovery CD. To indicate the location of this file, type C:\Program Files\Accessories in the Program Not Found error message box.

Startup Problems

If the computer doesn't respond at turn-on

- Connect the AC adapter.
- Press the blue power button to try turning on the unit.
- Use the system-off button to reset the computer.
- If you get no response, remove the battery and AC adapter, remove any PC cards, and undock the computer—then plug in the AC adapter and try resetting.
- If you still get no response, call HP for assistance.

If the computer doesn't boot from battery power

- Make sure the battery is properly inserted and fully charged.
- Check battery contacts. If available, try another battery.

If the computer doesn't boot from the floppy disk drive

- Check the boot order in the BIOS Setup utility.
 1. From the Start menu, shut down, then restart the computer.
 2. When you see the HP logo, press F2 to enter the BIOS Setup utility.
 3. Open the Boot menu. The default boot order is (1) CD-ROM/DVD, (2) Diskette A, and (3) Hard Drive C.
 4. As the first boot device, select Diskette A.
 5. Exit the BIOS Setup utility.

Suspending and Resuming Problems

If the computer takes a long time to resume after being suspended

- In Windows 98, the computer can take a minute or longer to resume when a network card is installed. While the operating system is loading drivers and checking hardware and network connections, you will see a blinking cursor on your display. As soon as the hardware has been re-initialized, the Windows desktop will appear.

If the operating system hangs after you have suspended or resumed

- Your system may hang if you dock or undock your notebook while you are in the process of suspending or resuming the computer. Make sure your computer has completely suspended or resumed before you dock or undock it.

Testing Hardware Operation

The Pavilion Notebook DiagTools program provides two levels of testing:

- Automated testing using the basic hardware test.
- Advanced testing using individual hardware tests.

The tests are designed to run after the system reboots. This ensures that the computer will be in a predictable state, so the diagnostic program can properly test the hardware components. The tests are nondestructive and are intended to preserve the state of the computer. The computer reboots when you exit the program, so that drivers can be loaded.

To run the diagnostic test:

1. Reboot the computer and, when you see the HP logo , press F10.
2. When you see the initial diagnostics screen, press F2 twice to continue.
3. When the hardware detection finishes, check the list of detected hardware.
If a device is not detected or fails its test, it may be configured incorrectly in the BIOS Setup utility. You can confirm the problem by running BIOS Setup and checking the settings.
4. Press F2 twice to run the basic hardware test.
5. If you want to run additional hardware tests, press F2 twice. From the advanced test screen, select and run the appropriate tests. Tests are not listed if no such hardware is detected. Press the following keys to run tests:

ENTER	Runs the highlighted test.
F5 or SPACE	Marks or unmarks the highlighted test.
F6	Marks or unmarks all tests in the current menu.
F7	Marks or unmarks all tests in all menus.
F10	Runs all marked tests.

6. When you have finished running advanced tests, press ESC to exit.
7. If you want to view or save system and test information, press F4 twice to create a Support Ticket log file. (If you want to view the Support Ticket, press F7.)
8. Press F3 twice to exit and reboot.

If you saved a Support Ticket, you can also view it later. From the directory `c:\dmi\hpdiaqs`, run the file `hpsuppt.exe`. The Support Ticket will appear in that directory as `hpsuppt.txt`.

Recovering and Reinstalling Software

You can use the Recovery CD to recover an original Pavilion Notebook build, or you can use it to install the HP custom software over a user-installed alternate operating system. If you need to recover a specific application, you can reinstall the software directly from your hard drive; for instructions, see “To recover an application” in the electronic *User’s Guide*.

The Recovery CD provides the Pavilion Notebook–specific Windows drivers to configure your custom system. You can find drivers:

- On the Pavilion Notebook hard drive under C:\Notebook\Drivers.
- On the Recovery CD, under \Notebook\Drivers\W98.
- On the Pavilion Notebook Web site at www.hp.com/notebooks. This Web site contains the latest updates of software drivers for your computer.

To recover the factory installation of your hard disk

The following procedure describes how to recover the original Windows software and operating system that came with your computer.

CAUTION

This procedure will format the hard disk drive. After the hard disk drive is formatted, you’ll need to reinstall any applications. Reformatting the hard disk drive will erase all data on the disk.

1. Back up all data from your hard disk.
2. Connect the AC adapter to the computer.
3. Insert the bootable Recovery CD in the CD-ROM drive.
4. Reboot and, when you see the HP logo, press F2.
5. Select the CD-ROM drive as the first boot device, exit from the BIOS Setup utility, and reboot.

You can find more details about recovering the factory installation of Windows on the Recovery CD: the file `readme.txt` is in the CD’s root directory.

The recovery process can take as long as 30 minutes. *Do not interrupt the process or unplug the AC adapter until the process is completed.*

Sending Your Computer for Service

See “Obtaining Repair Service” on page 54 to determine if your computer must be sent in for service. If so, prepare your computer for shipment.

1. **Important.** Back up your hard disk drive.

While your computer is being repaired, the hard disk may be replaced or reformatted.

2. Hewlett-Packard cannot guarantee the return of removable components. Please remove the following prior to sending your computer in for service:
 - PC cards
 - AC adapter and power cord
 - CDs in the CD player
 - Floppy disks in the floppy disk drive
3. When sending your Pavilion Notebook to Hewlett-Packard, please use the original product packaging or other substantial packaging in order to avoid damage to the unit in transit.

Note

If the hard disk drive is defective, you will receive a replacement drive with the original HP software.

Specifications and Regulatory Information

Hardware and Software Specifications

You will find detailed information about your computer's hardware and software specifications in the electronic *User's Guide*. For the most up-to-date information on Pavilion Notebook PC specifications, go to the HP Pavilion Notebook Web site at www.hp.com/notebooks.

Safety Information

Power Cords

The power cord supplied with the Pavilion Notebook AC adapter should match the plug and voltage requirements for your local area. Regulatory approval for the AC adapter has been obtained using the power cord for the local area. However, if you travel to a different area and need to connect to a different outlet or voltage, you should use one of the power cords listed below. To purchase a power cord (including one for a country not listed below) or a replacement AC adapter (HP F1454A), contact your local Hewlett-Packard dealer or Sales and Service office.

Country	Rated Voltage and Current	HP Part Number
Canada Mexico Philippines Taiwan United States	125 Vac (3 A)	8120-6313
Europe Egypt Saudi Arabia	250 Vac (2.5 A)	8120-6314
Hong Kong Singapore United Kingdom	250 Vac (2.5 A)	8120-8699
Australia New Zealand	250 Vac (2.5 A)	8120-6312
Japan	125 Vac (3 A)	8120-6316
India South Africa	250 Vac (2.5 A)	8120-6317
People's Republic of China	250 Vac (2.5 A)	8120-8373

Battery Safety

- To avoid risk of fire, burns, or damage to your battery pack, do not allow a metal object to touch the battery contacts.
- The battery pack is suitable for use only with compatible HP Pavilion Notebook models. Check the *Support and Service* section of this *Setup Guide* for your local HP contact.
- Do not disassemble. There are no serviceable parts inside. Do not dispose of the battery pack in fire or water.
- Handle a damaged or leaking battery with extreme care. If you come in contact with the electrolyte, wash the exposed area with soap and water. If it contacts the eye, flush the eye with water for 15 minutes and seek medical attention.
- Do not expose the battery pack to high storage temperatures (above 60° C, 140° F).
- When the battery is not in use, store it in the battery pouch provided.
- When discarding a battery pack, contact your local waste disposal provider regarding local restrictions on the disposal or recycling of batteries.
- To obtain a replacement battery, contact your local dealer or HP sales office.
- Do not charge the battery pack if the ambient temperature exceeds 45° C (113° F).

Laser Safety

The CD-ROM and DVD drives used with the HP Pavilion Notebook PC are certified as Class 1 laser devices according to the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard and International Standards IEC 825 / IEC 825-1 (EN60825 / EN60825-1). These devices are not considered harmful, but the following precautions are recommended:

- Ensure proper use by reading and following the instructions carefully.
- If the unit requires service, contact an authorized HP service center—see the Pavilion Notebook *Support and Service* section of this *Setup Guide*.
- Do not attempt to make any adjustment of the unit.
- Avoid direct exposure to the laser beam—do not open the unit.

Regulatory Information

This section presents information that shows how the HP Pavilion Notebook PC complies with regulations in certain regions. Any modifications to the Pavilion Notebook not expressly approved by Hewlett-Packard could void the authority to operate the Pavilion Notebook in these regions.

U.S.A.

The HP Pavilion Notebook PC generates and uses radio frequency energy and may interfere with radio and television reception. The Pavilion Notebook PC complies with the limits for a Class B computing device as specified in Part 15 of FCC Rules, which provide reasonable protection against such interference in a residential installation. In the unlikely event that there is interference to radio or television reception (which can be determined by removing the unit's batteries and AC adapter), try the following:

- Reorienting or relocating the receiving antenna.
- Relocating the computer with respect to the receiver.
- Connecting the computer's AC adapter to another power outlet.

Connections to Peripheral Devices

To maintain compliance with FCC Rules and Regulations, use properly shielded cables with this device.

For more information, consult your dealer, an experienced radio/television technician, or the following booklet, prepared by the Federal Communications Commission: *How to Identify and Resolve Radio-TV Interference Problems*. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4. At the first printing of this manual, the telephone number was (202) 512-1800.

Specifications and Regulatory Information

Regulatory Information

Declaration of Conformity (U.S.A.)

Responsible Party: Hewlett-Packard Company
Manager of Corporate Product Regulations
3000 Hanover Street
Palo Alto, CA 94304, U.S.A.
(415) 857-1501

declares that the product(s)

Trade name: Hewlett-Packard Company

Product name: HP Pavilion Notebook PC

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.

Canada

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

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

European Union

The equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In event of problems, you should contact your equipment supplier in the first instance.

This equipment has been designed to work in all of the countries of the European Economic Area (Public Switched Telephone Networks). Network compatibility is dependent on internal software settings. Contact your equipment supplier if it is necessary to use the equipment on a different telephone network. For further product support, contact Hewlett-Packard at the phone numbers provided in your *User's Guide*.

Japan

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラス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。
取り扱い説明書に従って正しい取り扱いをして下さい。

International

Products sold internationally by Hewlett-Packard and its authorized dealers meet the specifications listed below.

Declaration of Conformity (according to ISO/IEC Guide 22 and EN 45014)

Manufacturer:	Hewlett-Packard Company
Address:	Hewlett-Packard Company Mobile Computing Division 19310 Pruneridge Ave. Cupertino, CA 95014, U.S.A. declares that the following product
Product name:	HP Pavilion Notebook PC
Options:	All
	conforms to the following product specifications
Safety:	IEC 950:1991+A1,A2 ,A3, A4 / EN 60950 (1992)+A1,A2, A3, A4 GB4943-1995 IEC 825-1:1993/EN60825-1:1994

Specifications and Regulatory Information
Regulatory Information

EMC:	CISPR 22:1993 / EN 55022 (1994): Class B [1] GB9254-1988 EN 50082-1:1992 IEC 801-2:1991 / prEN 55024-2 (1992): 4kV CD, 8kV AD IEC 801-3:1984 / prEN 55024-3 (1991): 3V/m IEC 801-4:1988 / prEN 55024-4 (1992): 0.5 kV signal lines, 1.0kV power lines FCC Title 47 CFR, Part 15 Class B ANSI C63.4: 1992 AS/NZS 3548: 1995 Rules and Regulations of Class B
Supplementary Information:	The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC, EMC Directive 89/336/EEC and IEC 825-1 and carries the CE marking accordingly. 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. The HP F1740A and F1454A AC/DC adapter used with this product is designed to operate on all power systems, other than IT power systems. [1] The product was tested in a typical configuration with Hewlett-Packard personal computer peripherals.

Quality Department
Hewlett-Packard Company
Mobile Computing Division

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