Congratulations, you and your MacBook Pro were made for each other.
Say hello to your MacBook Pro.
www.apple.com/macbookpro

Finder
Browse your files like you browse your music with Cover Flow.
Mac Help finder

Built-in iSight camera and iChat
Video chat with friends and family anywhere in the world.
Mac Help

Multi-Touch trackpad
Scroll through files, adjust images, and enlarge text using just your fingers.
Mac Help trackpad

Click anywhere
Pinch and expand
Rotate
Scroll
Swipe
Contents

Chapter 1: Ready, Set Up, Go
9  What's in the Box
9  Setting Up Your MacBook Pro
15  Putting Your MacBook Pro to Sleep or Shutting It Down

Chapter 2: Life with Your MacBook Pro
18  Basic Features of Your MacBook Pro
20  Keyboard Features of Your MacBook Pro
22  Ports on Your MacBook Pro
24  Using the Multi-Touch Trackpad
28  Using the MacBook Pro Battery
30  Getting Answers

Chapter 3: Boost Your MacBook Pro
34  Removing and Replacing the Battery
38  Replacing the Hard Disk Drive
42  Installing Additional Memory

Chapter 4: Problem, Meet Solution
53  Problems That Prevent You from Using Your MacBook Pro
Contents

57 Using Apple Hardware Test
58 Problems with Your Internet Connection
60 Problems with AirPort Extreme Wireless Communication
61 Keeping Your Software Up to Date
62 Reinstalling the Software That Came with Your MacBook Pro
63 Learning More, Service, and Support
65 Locating Your Product Serial Number

Chapter 5: Last, but Not Least
68 Important Safety Information
71 Important Handling Information
73 Understanding Ergonomics
75 Apple and the Environment
76 Regulatory Compliance Information

Looking for Something?
82 Index
1

Ready, Set Up, Go
Your MacBook Pro is designed so that you can set it up quickly and start using it right away. If you have never used a MacBook Pro or are new to Macintosh computers, read this chapter for help getting started.

*Important:* Read all the installation instructions (and the safety information starting on page 67) carefully before you first use your computer.

If you are an experienced user, you may already know enough to get started. Make sure you look over the information in Chapter 2, “Life with Your MacBook Pro,” to find out about the new features of this MacBook Pro.

Many answers to questions can be found on your computer in Mac Help. For information about getting Mac Help, see “Getting Answers” on page 30. Apple may release new versions and updates to its system software, so the images shown in this book may be slightly different from what you see onscreen.
What’s in the Box

Setting Up Your MacBook Pro
Your MacBook Pro is designed so that you can set it up quickly and start using it right away. The following pages take you through the setup process, including these tasks:

- Plugging in the 85W MagSafe Power Adapter
- Connecting cables and accessing a network
- Turning on your MacBook Pro and using the trackpad
- Configuring a user account and other settings using Setup Assistant
- Setting up the Mac OS X desktop and preferences
**Important:** Remove the protective film around the 85W MagSafe Power Adapter before setting up your MacBook Pro.

**Step 1:** **Plug In the 85W MagSafe Power Adapter to provide power to the MacBook Pro and charge the battery.**

Make sure the AC plug is fully inserted into the power adapter and the electrical prongs on your AC plug are in their completely extended position. Insert the AC plug of your power adapter into a power outlet and the MagSafe connector into the MagSafe power port. As the MagSafe connector gets close to the port, you’ll feel a magnetic pull drawing it in.

To extend the reach of your power adapter, replace the AC plug with the AC power cord. First pull the AC plug up to remove it from the adapter, and then attach the included AC power cord to the adapter, making sure it is seated firmly.

When disconnecting the power adapter from an outlet or from the computer, pull the plug, not the cord.
**Note:** When you first connect the power adapter to your MacBook Pro, an indicator light on the MagSafe connector starts to glow. An amber light indicates the battery is charging. A green light indicates that the battery is fully charged. If you don’t see a light, make sure the connector is seated properly and the power adapter is plugged in.

**Step 2:** Connect to a wireless or wired network.

- To use a wireless network with the built-in AirPort Extreme technology, make sure the wireless base station is turned on and that you know the name of the network. After you turn on your MacBook Pro, Setup Assistant guides you through the connection process. For troubleshooting tips, see page 60.
- To use a wired connection, connect one end of an Ethernet cable to your MacBook Pro and the other end to a cable modem, DSL modem, or network.
• To use a dial-up connection, you need the external Apple USB Modem, available from the online Apple Store at www.apple.com/store or from an Apple Authorized Reseller. Plug the Apple USB Modem into a USB port on your MacBook Pro, and then connect a phone cord (not included) from the modem into a phone wall jack.

**Step 3:** Press the power (\(\bigcirc\) button briefly to turn on your MacBook Pro.
You hear a tone when you turn on the computer.

It takes the MacBook Pro a few moments to start up. After it starts up, Setup Assistant opens automatically.
If your MacBook Pro doesn’t turn on, see ‘If your MacBook Pro doesn’t turn on or start up’ on page 55.
Step 4: Configure your MacBook Pro with Setup Assistant.

The first time you turn on your MacBook Pro, Setup Assistant starts. Setup Assistant helps you enter your Internet and email information and set up a user account on your MacBook Pro. If you already have a Mac, Setup Assistant can help you automatically transfer files, applications, and other information from your previous Mac.

If you don’t intend to keep or use your other Mac, it’s best to deauthorize it from playing music, videos, or audiobooks that you’ve purchased from the iTunes Store. Deauthorizing a computer prevents any songs, videos, or audiobooks you’ve purchased from being played by someone else and frees up another authorization for use. For information about deauthorizing, choose iTunes Help from the Help menu in iTunes.

If you don’t use Setup Assistant to transfer information when you first start up, you can do it later using Migration Assistant. Go to the Applications folder, open Utilities, and double-click Migration Assistant.
Step 5: Customize the Mac OS X desktop and set preferences.
You can quickly customize the desktop using System Preferences. Choose Apple () > System Preferences from the menu bar or click the System Preferences icon in the Dock. System Preferences is your command center for most settings on your MacBook Pro. For more information, open Mac Help and search for “System Preferences” or for the specific preference you want to change.

Putting Your MacBook Pro to Sleep or Shutting It Down
When you finish working with your MacBook Pro, you can put it to sleep or shut it down.

Putting Your MacBook Pro to Sleep
If you’ll be away from your MacBook Pro for only a short time, put it to sleep. When the computer is in sleep, you can quickly wake it and bypass the startup process.

To put your MacBook Pro to sleep, do one of the following:
• Close the display.
• Choose Apple () > Sleep from the menu bar.
• Press the power (U) button and click Sleep in the dialog that appears.
• Choose Apple () > System Preferences, click Energy Saver, and set a sleep timer.

NOTICE: Wait a few seconds until the sleep indicator light starts pulsing (indicating that the computer is in sleep and the hard disk has stopped spinning) before moving your MacBook Pro. Moving your computer while the disk is spinning can damage the hard disk, causing loss of data or the inability to start up from the hard disk.
To wake your MacBook Pro:

- *If the display is closed,* simply open it to wake up your MacBook Pro.
- *If the display is already open,* press the power (Ô) button or any key on the keyboard.

When your MacBook Pro wakes from sleep, your applications, documents, and computer settings are exactly as you left them.

**Shutting Down Your MacBook Pro**

If you aren’t going to use your MacBook Pro for a couple of days or longer, it’s best to shut it down. The sleep indicator light goes on briefly during the shutdown process.

**To shut down your MacBook Pro, do one of the following:**

- Choose Apple () > Shut Down from the menu bar.
- Press the power (Ô) button and click Shut Down in the dialog that appears.

If you plan to store your MacBook Pro for an extended period of time, see “Important Handling Information” on page 71 for information about how to prevent the battery from draining completely.
Life with Your MacBook Pro
Basic Features of Your MacBook Pro

- iSight camera
- Camera indicator light
- Microphone
- Built-in stereo speakers
- Battery indicator lights (side)
- Battery (underneath)
- Trackpad
- Sleep indicator light
- Infrared (IR) receiver
- Security slot
- Slot-loading SuperDrive
- Power button
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-in iSight camera and indicator light</td>
<td>Videoconference using the iChat application, take pictures with Photo Booth, or capture video with iMovie. The indicator light glows when the camera is operating.</td>
</tr>
<tr>
<td>Built-in stereo speakers</td>
<td>Listen to music, movies, games, and other multimedia files.</td>
</tr>
<tr>
<td>Built-in microphone</td>
<td>Capture sounds with the microphone (located above the Esc key on your keyboard) or talk with friends live over broadband using the included iChat application.</td>
</tr>
<tr>
<td>Battery and battery indicator lights</td>
<td>Use battery power when you are away from a power outlet. Press the battery button to activate indicator lights that show the remaining battery charge.</td>
</tr>
<tr>
<td>Trackpad</td>
<td>Click or double-click anywhere on the trackpad. Touch the trackpad with one or more fingers to move the pointer and use Multi-Touch gestures (described on page 20).</td>
</tr>
<tr>
<td>Sleep indicator light</td>
<td>A white light pulses when the MacBook Pro is in sleep.</td>
</tr>
<tr>
<td>Infrared (IR) receiver</td>
<td>Use an optional Apple Remote (available separately) with the IR receiver to control Front Row and Keynote on your MacBook Pro from up to 30 feet (9.1 meters) away.</td>
</tr>
<tr>
<td>Security slot</td>
<td>Attach a lock and cable (available separately) to prevent theft.</td>
</tr>
<tr>
<td>Slot-loading SuperDrive</td>
<td>This optical drive reads and writes to standard-size CDs and DVDs.</td>
</tr>
<tr>
<td>Power button</td>
<td>Turn your MacBook Pro on and off, or put it to sleep.</td>
</tr>
</tbody>
</table>
Keyboard Features of Your MacBook Pro

- Function (Fn) key
- esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
- Volume keys
- Brightness keys
- Mute key
- Keyboard illumination keys
- Exposé keys
- Dashboard keys
- Media keys
- Media Eject key

20 Chapter 2  Life with Your MacBook Pro
Function (fn) key
Press and hold this key to activate customized actions assigned to the function keys (F1 to F12). To learn how to customize function keys, choose Help > Mac Help from the menu bar and search for “function keys.”

Brightness keys (F1, F2)
Increase (⌘↑) or decrease (⌘↓) the brightness of your MacBook Pro display.

Exposé All Windows key (F3)
Open Exposé for quick access to all your open windows.

Dashboard key (F4)
Open Dashboard to access your widgets.

Keyboard illumination keys (F5, F6)
Increase (⌥↑) or decrease (⌥↓) the brightness of the keyboard illumination.

Media keys (F7, F8, F9)
Rewind (⏮), play or pause (►❚), or fast-forward (►►) a song, movie, or slideshow.

Mute key (F10)
Mute the sound coming from the built-in speakers and headphone port.

Volume keys (F11, F12)
Increase (⌘↑) or decrease (⌘↓) the volume of sound coming from the built-in speakers and headphone port.

Media Eject key
Press and hold this key to eject a disc that’s not in use. You can also eject a disc by dragging its desktop icon to the Trash.
Ports on Your MacBook Pro

- Gigabit Ethernet port (10/100/1000Base-T)
- Headphone out/optical digital audio out port
- Audio in/optical digital audio in port
- USB 2.0 ports
- ExpressCard/34 slot
- MagSafe power port
- FireWire 800 port
- Mini DisplayPort
- Headphone out/optical digital audio out port
<table>
<thead>
<tr>
<th>Port</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MagSafe power port</strong></td>
<td>Plug in the included 85W MagSafe Power Adapter to recharge the MacBook Pro battery.</td>
</tr>
<tr>
<td><strong>Gigabit Ethernet port (10/100/1000Base-T)</strong></td>
<td>Connect to a high-speed Ethernet network, a DSL or cable modem, or another computer. The Ethernet port automatically detects Ethernet devices and doesn’t require an Ethernet crossover cable.</td>
</tr>
<tr>
<td><strong>One FireWire 800 port</strong></td>
<td>Connect high-speed external devices, such as digital video cameras and storage devices.</td>
</tr>
<tr>
<td><strong>Two high-speed USB (Universal Serial Bus) 2.0 ports</strong></td>
<td>Connect an iPod, iPhone, mouse, keyboard, printer, disk drive, digital camera, joystick, modem, and more to your MacBook Pro. You can also connect USB 1.1 devices.</td>
</tr>
<tr>
<td><strong>Mini DisplayPort (video out)</strong></td>
<td>Connect to an external display or projection system that uses a DVI or VGA connector. You can purchase adapters for supported video formats.</td>
</tr>
<tr>
<td><strong>Audio in/optical digital audio in port</strong></td>
<td>Connect your MacBook Pro to a line-level microphone or digital audio equipment.</td>
</tr>
<tr>
<td><strong>Headphone out/optical digital audio out port</strong></td>
<td>Connect external speakers, headphones (including iPhone), or digital audio equipment.</td>
</tr>
<tr>
<td><strong>ExpressCard/34 slot</strong></td>
<td>Expand the capabilities of your MacBook Pro with standard 34mm ExpressCards. To eject an ExpressCard, push gently on it to activate the spring, and then remove it from the slot.</td>
</tr>
</tbody>
</table>

**Note:** Adapters and other accessories are sold separately at www.apple.com/store.
Using the Multi-Touch Trackpad

Use the trackpad to move the cursor and to perform a variety of Multi-Touch gestures. Unlike typical trackpads, the entire MacBook Pro trackpad is a button, and you can click anywhere on the trackpad. To enable gestures and set other trackpad options, choose Apple (_finder) > System Preferences, and then click Trackpad.

Here are ways to use your MacBook Pro trackpad:

- *Two-finger scrolling* lets you drag to scroll quickly up, down, or sideways in the active window. This option is on by default.
• **Secondary clicking** or “right-clicking” lets you access shortcut menu commands.

• To set up a one-finger secondary-click zone in the bottom left or right corner of the trackpad, select Secondary Click under the One Finger option in Trackpad preferences.

![Secondary click zone](image)

• To set up two-finger secondary-clicking anywhere on the trackpad, select Secondary Click under the Two Fingers option in Trackpad preferences.

![Secondary click zone](image)

*Note:* You can also secondary click by holding down the Control key while you click.
The following trackpad gestures work in certain applications. When you perform these gestures, slide your fingers lightly on the surface of the trackpad. For more information, see Trackpad preferences or choose Help > Mac Help and search for “trackpad.”

- **Two-finger pinching** lets you zoom in or out on PDFs, images, photos, and more.

- **Two-finger rotating** lets you rotate photos, pages, and more.
• *Three-finger swipe* lets you rapidly page through documents, move to the previous or next photo, and more.

![Three-finger swipe](image)

• *Four-finger swipe* works in the Finder and all applications. Swiping four fingers to the left or right activates Application Switcher so you can cycle through open applications. Swiping four fingers up or down causes Exposé to show the desktop or display all open windows.

![Four-finger swipe](image)
Using the MacBook Pro Battery
When the MagSafe power adapter isn't connected, your MacBook Pro draws power from its battery. The length of time that you can run your MacBook Pro varies, depending on the applications you use and the external devices connected to your MacBook Pro.

Turning off features such as AirPort Extreme or Bluetooth® wireless technology and reducing screen brightness can help conserve battery charge, for example, when you're traveling by air. Many of your system preferences are automatically set to optimize battery life.

Your MacBook Pro comes with two graphics processors, one for better battery life and the other for higher performance. To switch between processors, open System Preferences, click Energy Saver, select “Better battery life” or “Higher performance,” and then follow the onscreen instructions.

You can determine the charge remaining in the battery by looking at the eight battery level indicator lights on the left side of your MacBook Pro. Press the button next to the lights, and the lights glow briefly to show how much charge remains in the battery.

Important: If only one indicator light is on, very little charge is left. If no lights illuminate, the battery is completely drained and the MacBook Pro won't start up unless the power adapter is connected. Plug in the power adapter to let the battery recharge, or replace the drained battery with a fully charged battery (see page 34). For more information about battery indicator lights, see page 56.
You can also check the amount of battery charge remaining by viewing the Battery (🔋) status icon in the menu bar. The battery charge level displayed is based on the amount of power left in the battery with the applications, peripheral devices, and system settings you are currently using. To conserve battery power, close applications and disconnect peripheral devices not in use, and adjust your Energy Saver settings. For more information about battery conservation and performance tips, go to www.apple.com/batteries/notebooks.html.

**Charging the Battery**

When the power adapter that came with your MacBook Pro is connected, the battery charges whether the computer is on, off, or in sleep. The battery charges more quickly, however, if the computer is off or in sleep.
Getting Answers

Much more information about using your MacBook Pro is available in Mac Help on your computer and on the Internet at www.apple.com/support/macbookpro.

To get Mac Help:

1. Click the Finder icon in the Dock (the bar of icons along the edge of the screen).

2. Click the Help menu in the menu bar and do one of the following:
   a. Type a question or term in the Search field, and select a topic from the list of results or select Show All Results to see all topics.
   b. Choose Mac Help to open the Mac Help window, where you can click links or type a search question.
More Information
For more information about using your MacBook Pro, see the following:

<table>
<thead>
<tr>
<th>To learn about</th>
<th>See</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troubleshooting your MacBook Pro if you have a problem</td>
<td>Chapter 4, “Problem, Meet Solution,” on page 51.</td>
</tr>
<tr>
<td>Moving from a PC to a Mac</td>
<td>“How to move to Mac” at <a href="http://www.apple.com/getamac/movetomac">www.apple.com/getamac/movetomac</a>.</td>
</tr>
<tr>
<td>Using iLife applications</td>
<td>The iLife website at <a href="http://www.apple.com/ilife">www.apple.com/ilife</a>. Or open an iLife application, open Help for the application, and then type a question in the search field.</td>
</tr>
<tr>
<td>Changing system preferences</td>
<td>System Preferences by choosing Apple (⌘) &gt; System Preferences. Or search for “system preferences” in Mac Help.</td>
</tr>
<tr>
<td>Using the trackpad</td>
<td>Mac Help and search for “trackpad.” Or open System Preferences and click Trackpad.</td>
</tr>
<tr>
<td>Using the iSight camera</td>
<td>Mac Help and search for “iSight.”</td>
</tr>
<tr>
<td>Using the keyboard</td>
<td>Mac Help and search for “keyboard.”</td>
</tr>
<tr>
<td>To learn about</td>
<td>See</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Caring for the battery</td>
<td>Mac Help and search for &quot;battery.&quot;</td>
</tr>
<tr>
<td>Connecting a printer</td>
<td>Mac Help and search for &quot;printing.&quot;</td>
</tr>
<tr>
<td>FireWire and USB connections</td>
<td>Mac Help and search for &quot;FireWire&quot; or &quot;USB.&quot;</td>
</tr>
<tr>
<td>Connecting to the Internet</td>
<td>Mac Help and search for &quot;Internet.&quot;</td>
</tr>
<tr>
<td>Connecting an external display</td>
<td>Mac Help and search for &quot;displayport.&quot;</td>
</tr>
<tr>
<td>Apple Remote</td>
<td>Mac Help and search for &quot;remote.&quot;</td>
</tr>
<tr>
<td>Front Row</td>
<td>Mac Help and search for &quot;Front Row.&quot;</td>
</tr>
<tr>
<td>Burning a CD or DVD</td>
<td>Mac Help and search for &quot;burn disc.&quot;</td>
</tr>
<tr>
<td>Specifications</td>
<td>The Specifications page at support.apple.com/specs. Or open System Profiler by choosing Apple () &gt; About This Mac from the menu bar, and then click More Info.</td>
</tr>
</tbody>
</table>
| Instructions, technical support, and manuals for Apple products | The Apple Support website at www.apple.com/support. }
Boost Your MacBook Pro
This chapter provides information and instructions for replacing the battery, upgrading the hard disk drive, and installing additional memory in your MacBook Pro.

**WARNING:** Apple recommends that you have an Apple-certified technician install replacement drives and memory. Consult the service and support information that came with your computer for information about how to contact Apple for service. If you attempt to install a replacement drive or memory and damage your equipment, such damage is not covered by the limited warranty on your computer.

**Removing and Replacing the Battery**
You can replace your battery if you need a new one. You also need to know how to remove the battery if you want to replace the hard disk drive or install memory.

To remove and replace the battery:

1. Shut down your MacBook Pro. Disconnect the power adapter, Ethernet cable, security lock, and any other cords connected to the MacBook Pro to prevent damaging the computer.

**WARNING:** The internal components of your MacBook Pro can be warm. If you have been using your MacBook Pro, wait 10 minutes after shutting down to let the internal components cool before continuing. Use care when handling the battery. See the battery safety information on page 70.
Turn over your MacBook Pro and locate the latch. Push down to release the latch, and remove the access door that covers the battery and hard disk drive.

**Note:** The latch must be in its released, open position to remove and replace the battery and access door.
3 With the latch still in its open position, gently pull up on the tab to remove the battery.

You now have access to the serial number, the hard disk drive, and other components of your MacBook Pro.

4 To replace the battery, make sure the latch is in its open position. Hold the battery at an angle and slide the lip of the battery below the brackets on the outside edge of the battery bay. Gently press the battery down.
5 Replace the access door, making sure it is level with the bottom case of your MacBook Pro, and press the latch into place. Reconnect the power adapter and any other cables that were attached.
Replacing the Hard Disk Drive
You can upgrade the hard disk drive in your MacBook Pro. The hard disk drive is located to the left of the battery when you open the back of your MacBook Pro. The replacement drive must be a 2.5-inch drive with a Serial ATA (SATA) connector.

To replace the hard disk drive in your MacBook Pro:
1. Follow the instructions for removing the battery on page 34.
2. Touch a metal surface inside the computer to discharge any static electricity from your body.
3 Locate the bracket at the top of the drive. Use a Phillips-head screwdriver to loosen the captive screw that holds the bracket in place.

4 Using the pull tab, gently lift the drive out of the bay.

The bracket detaches from the drive. Put it aside in a safe place.
5 Hold the drive by its sides while you gently pull the connector on the left side of the drive to disconnect it.

The connector is attached to a cable and remains in the hard disk drive bay.

*Important:* There are four (4) mounting screws on the sides of your hard disk drive. If your replacement drive doesn’t include these mounting screws, remove the ones from your old drive and mount them on the replacement drive before you install it.

6 Attach the connector to the left side of the replacement drive.
7 Insert the replacement drive at an angle, making sure the mounting screws are seated properly.

8 Replace the bracket and tighten the screw.

9 Follow the instructions for replacing the battery on page 36.

For information about installing Mac OS X and bundled applications, see “Reinstalling the Software That Came with Your MacBook Pro” on page 62.
Installing Additional Memory

Your computer has two memory slots that you access by removing the battery and bottom case. Your MacBook Pro comes with a minimum of 2 gigabytes (GB) of 1066 MHz Double Data Rate (DDR3) Synchronous Dynamic Random-Access Memory (SDRAM) installed. Each memory slot can accept an SDRAM module that meets the following specifications:

- Double Data Rate Small Outline Dual Inline Memory Module (DDR3) format
- 1.25 inch (3.18 cm)
- 1 GB or 2 GB
- 200-pin
- PC3-8500 DDR3 1066 MHz Type RAM

You can add two 2 GB memory modules for a maximum of 4 GB of memory. For best performance, fill both memory slots and install an identical memory module in each slot.

To install memory in your MacBook Pro:

1. Follow the instructions for removing the battery on page 34.
2. Remove the eight (8) screws that secure the bottom case of your MacBook Pro, and then remove the bottom case.
**Important:** Because the screws are different lengths, note the screw lengths and locations so you can replace the screws correctly. Put them aside in a safe place.
**Important:** When you remove the bottom case, you expose sensitive internal components. Avoid touching anything other than the memory assembly when you remove or add memory.

3 Touch a metal surface inside the computer to discharge any static electricity from your body.
4 Push the ejection levers on the sides of the memory module in an outward direction to release the module from the memory card slot.

The memory pops up at an angle. Before removing it, make sure you see the half-circle notches. If you don’t, try pressing the ejection levers outward again.

5 Hold the memory module by its notches and remove it from the slot.

6 Remove the other memory module.

**Important:** Hold the memory modules by their edges, and do not touch the gold connectors.
7 Insert the new memory module in the slot:
   a Align the notch on the gold edge of the module with the notch in the lower memory slot.
   b Tilt the card and push the memory into the slot.
   c Use two fingers with firm, even pressure to push down on the memory module. You should hear a click when the memory is inserted correctly.
   d Repeat to install an additional memory module in the top slot. Press down on the module to make sure it is level.
8 Replace the bottom case. Replace and tighten the eight screws, making sure to put the different length screws in their proper locations.

9 Follow the instructions for replacing the battery on page 36.
Making Sure Your MacBook Pro Recognizes the New Memory

After installing additional memory in your MacBook Pro, check whether the computer recognizes the new memory.

To check the computer’s memory:
1. Start up your MacBook Pro.
2. When you see the Mac OS X desktop, choose Apple () from the menu bar and then choose About This Mac.

   The total memory includes the amount of memory that originally came with the computer plus the new memory you added. For a detailed breakdown of the amount of memory installed in your computer, open System Profiler by clicking More Info and then Memory.

   If your MacBook Pro doesn’t recognize the memory or doesn’t start up correctly, confirm that the memory you installed is compatible with your MacBook Pro and that it is installed correctly by reseating the memory.
Problem, Meet Solution
Occasionally you may have problems while working with your MacBook Pro. Read on for troubleshooting tips to try when you have a problem. You can also find more troubleshooting information in Mac Help and on the MacBook Pro Support website at www.apple.com/support/macbookpro.

When you experience a problem working with your MacBook Pro, there is usually a simple and quick solution. Think about the conditions that led up to the problem. Making a note of things you did before the problem occurred will help you narrow down possible causes and find the answers you need. Things to note include:

- The applications you were using when the problem occurred. Problems that occur only with a specific application might indicate that the application is not compatible with the version of the Mac OS installed on your computer.
- Any new software that you installed, especially software that added items to the System folder.
- Any new hardware that you installed, such as additional memory or a peripheral.
Problems That Prevent You from Using Your MacBook Pro

If your MacBook Pro doesn't respond or the pointer doesn't move
On rare occasions, an application may “freeze” on the screen. Mac OS X provides a way to quit a frozen application without restarting your computer.

To force an application to quit:

1 Press Command (⌘)-Option-Esc or choose Apple () > Force Quit from the menu bar.

   The Force Quit Applications dialog appears with the application selected.

2 Click Force Quit.

   The application quits, leaving all other applications open.

   If you need to, you can also restart the Finder from this dialog.

   Next, save your work in any open applications and restart the computer to make sure the problem is entirely cleared up.

   If the problem occurs frequently, choose Help > Mac Help from the menu bar at the top of the screen. Search for the word “freeze” to get help for times when the computer freezes or doesn't respond.

   If the problem occurs only when you use a particular application, check with the application's manufacturer to see if it is compatible with your computer. To get support and contact information for the software that comes with your MacBook Pro, go to www.apple.com/guide.

   If you know an application is compatible, you might need to reinstall your computer’s system software. See “Reinstalling the Software That Came with Your MacBook Pro” on page 62.
If your MacBook Pro freezes during startup, or you see a flashing question mark, or the display is dark and the sleep indicator light is glowing steadily (not in sleep)

The flashing question mark usually means that the computer can't find the system software on the hard disk or any disks attached to the computer.

- Wait a few seconds. If the computer doesn't soon start up, shut it down by pressing and holding the power (U) button for about 8 to 10 seconds. Disconnect all external peripherals and try restarting by pressing the power (U) button while holding down the Option key. When your computer starts up, click the hard disk icon, and then click the right arrow. After the computer starts up, open System Preferences and click Startup Disk. Select a local Mac OS X System folder.
- If that doesn't work, try using Disk Utility to repair the disk:
  - Insert the Mac OS X Install DVD into your computer.
  - Restart your computer and hold down the C key as it starts up.
  - Choose Installer from the menu bar, and then choose Open Disk Utility. When Disk Utility opens, follow the instructions in the First Aid pane to see if Disk Utility can repair the disk.

If using Disk Utility doesn't help, you might need to reinstall your computer's system software. See “Reinstalling the Software That Came with Your MacBook Pro” on page 62.
If your MacBook Pro doesn't turn on or start up

Try the following suggestions in order until your computer turns on:

• Make sure the power adapter is plugged into the computer and into a functioning power outlet. Be sure to use the 85W MagSafe Power Adapter that came with your MacBook Pro. If the power adapter stops charging and you don't see the indicator light on the MagSafe connector turn on when you plug in the power cord, try unplugging and replugging the power cord to reseat it, or try another power outlet.

• Check whether the battery needs to be recharged. Press the small button on the left side of your computer. You should see one to eight lights indicating the battery’s level of charge. If a single indicator light is on, connect your power adapter to recharge. For more information about battery indicator lights, see page 56.

• If the problem persists, reset the MacBook Pro power manager by disconnecting the power adapter, removing the battery, and holding down the power (Ô) button for at least 5 seconds.

• If you recently installed additional memory, make sure that it is correctly installed and is compatible with your computer. See whether removing and reinstalling the old memory allows the computer to start up (see page 42).

• Press the power (Ô) button and immediately hold down the Command (⌘), Option, P, and R keys simultaneously until you hear the startup sound a second time to reset the parameter RAM (PRAM).

• If you still can't start up your MacBook Pro, see “Learning More, Service, and Support” on page 63 for information about contacting Apple for service.
If the display suddenly goes black or your MacBook Pro freezes
Try restarting your MacBook Pro.
1 Unplug any devices that are connected to your MacBook Pro, except the power adapter.
2 Press the power (Ô) button to restart the system.
3 Let the battery charge to at least 10 percent before plugging in any external devices and resuming your work.
   To see how much the battery has charged, click the Battery ( MacBook ) status icon in the menu bar.
   The display might also darken if you have energy saver features set for the battery.
If you press the battery button, and all battery indicator lights flash five times quickly
Your battery needs to be replaced. Contact an Apple Retail Store or an Apple Authorized Service Provider (AASP).
If you press the battery button, and the battery indicator lights flash from left to right and then from right to left, five times in a row
Your battery is not recognized. Check that your battery is installed properly in your computer.
If you forget your password
You can reset your administrator password and passwords for all other accounts.
1 Insert the Mac OS X Install DVD. Then restart your computer and hold down the C key as it starts up.
Choose Utilities > Reset Password from the menu bar and follow the onscreen instructions.

If you have trouble ejecting a disc
Quit any applications that might be using the disc and try again. If that doesn't work, restart the computer and then immediately press and hold the trackpad button.

Using Apple Hardware Test
If you suspect a problem with the MacBook Pro hardware, you can use the Apple Hardware Test application to help determine if there is a problem with one of the computer's components, such as the memory or processor.

To use Apple Hardware Test:
1. Disconnect all external devices from your computer except the power adapter.
   If you have an Ethernet cable connected, disconnect it.
2. Restart your computer and hold down the D key as it starts up.
3. When the Apple Hardware Test chooser screen appears, select the language for your location.
4. Press the Return key or click the right arrow button.
5. When the Apple Hardware Test main screen appears (after about 45 seconds), follow the onscreen instructions.
6. If Apple Hardware Test detects a problem, it displays an error code. Make a note of the error code before pursuing support options. If Apple Hardware Test doesn't detect a hardware failure, the problem might be software related.
If this procedure doesn't work, you can insert the Applications Install DVD to use Apple Hardware Test. For more information, see the Apple Hardware Test Read Me file on the Applications Install DVD that came with your computer.

**Problems with Your Internet Connection**

Your MacBook Pro has the Network Setup Assistant application to help walk you through setting up an Internet connection. Open System Preferences and click Network. Click the “Assist me” button to open Network Setup Assistant.

If you have trouble with your Internet connection, you can try the steps in this section for your type of connection or you can use Network Diagnostics.

**To use Network Diagnostics:**

1. Choose Apple () > System Preferences.
2. Click Network and then click “Assist me.”
3. Click Diagnostics to open Network Diagnostics.
4. Follow the onscreen instructions.

If Network Diagnostics can’t resolve the problem, there may be a problem with the Internet service provider (ISP) you are trying to connect to, with an external device you are using to connect to your ISP, or with the server you are trying to access. You can try the following steps.

**Cable Modem, DSL Modem, and LAN Internet Connections**

Make sure all modem cables are firmly plugged in, including the modem power cord, the cable from the modem to the computer, and the cable from the modem to the wall jack. Also check the cables and power supplies to Ethernet hubs and routers.
Turn the modem off and on and reset the modem hardware
Turn off your DSL or cable modem for a few minutes, and then turn it back on. Some ISPs recommend that you unplug the modem’s power cord. If your modem has a reset button, you can press it either before or after you turn the power off and on.

Important: Instructions that refer to modems do not apply to LAN users. LAN users might have hubs, switches, routers, or connection pods that DSL and cable modem users do not have. LAN users should contact their network administrator rather than an ISP.

PPPoE Connections
If you are unable to connect to your Internet service provider using PPPoE (Point to Point Protocol over Ethernet), make sure you have entered the correct information in Network preferences.

To check your Network preference settings:
1 Choose Apple () > System Preferences.
2 Click Network.
3 Click Add (+) at the bottom of the network connection services list, and choose PPPoE from the Interface pop-up menu.
4 Choose an Interface for the PPPoE service from the Ethernet pop-up menu. Choose Ethernet if you are connecting to a wired network or AirPort if you are connecting to a wireless network.
5 Enter the information you received from your service provider, such as account name, password, and the PPPoE service name (if your service provider requires it).
6 Click Apply to make the settings active.
Network Connections
Make sure the Ethernet cable is plugged into your MacBook Pro and into the network. Check the cables and power supplies to your Ethernet hubs and routers.

If you have two or more computers attempting to share an Internet connection, be sure that your network is set up properly. You need to know whether your ISP provides only one IP address or multiple IP addresses, one for each computer.

If only one IP address is provided, then you must have a router capable of sharing the connection, also known as network address translation (NAT) or "IP masquerading." For setup information, check the documentation provided with your router or ask the person who set up your network. The AirPort Base Station can be used to share one IP address among multiple computers. For information about using an AirPort Base Station, check Mac Help or go to the AirPort Extreme website at www.apple.com/support/airport.

If you can't resolve the issue using these steps, contact your ISP or network administrator.

Problems with AirPort Extreme Wireless Communication
If you have trouble using AirPort Extreme wireless communication
  • Make sure the computer or network you are trying to connect to is running and has a wireless access point.
  • Make sure you have properly configured the software according to the instructions that came with your base station or access point.
• Make sure you are within antenna range of the other computer or the network’s access point. Nearby electronic devices or metal structures can interfere with wireless communication and reduce this range. Repositioning or rotating the computer might improve reception.
• Check the AirPort (_WIFI_) status icon in the menu bar. Up to four bars appear, indicating signal strength. If you don’t see the bars, try changing your location.
• See AirPort Help (choose Help > Mac Help, and then choose Library > AirPort Help from the menu bar). Also see the instructions that came with the wireless device for more information.

Keeping Your Software Up to Date
You can connect to the Internet and automatically download and install the latest free software versions, drivers, and other enhancements from Apple. When you are connected to the Internet, Software Update checks to see if any updates are available for your computer. You can set your MacBook Pro to check for updates periodically, and then you can download and install updated software.

To check for updated software:
1. Choose Apple () > System Preferences.
2. Click the Software Update icon and follow the instructions on the screen.
   • For more information, search for “Software Update” in Mac Help.
   • For the latest information about Mac OS X, go to www.apple.com/macosx.
Reinstalling the Software That Came with Your MacBook Pro

Use the software installation discs that came with your computer to reinstall Mac OS X and any applications that came with your computer. You can choose “Archive and Install,” which saves your existing files and settings, or “Erase and Install,” which erases all your data.

*Important:* Apple recommends that you back up the data on your hard disk before restoring software. Because the “Erase and Install” option erases your hard disk, you should back up your essential files before installing Mac OS X and other applications. Apple is not responsible for any lost data.

**Installing Mac OS X**

To install Mac OS X:

1. Back up your essential files.
2. Make sure your power adapter is connected and plugged in.
3. Insert the *Mac OS X Install DVD* that came with your computer.
4. Double-click Install Mac OS X.
5. Follow the onscreen instructions.

*Note:* To restore Mac OS X on your computer to the original factory settings, click Options in the “Select a Destination” pane of the Installer, and then select “Erase and Install.” If you choose “Erase and Install,” you’ll see a message reminding you to use the *Applications Install DVD* to reinstall the bundled applications that came with your computer.

6. When the installation is complete, click Restart to restart your computer.
7. Follow the prompts in the Setup Assistant to set up your user account.
Installing Applications
If you reinstall Mac OS X on your computer and select the “Erase and Install” option, you must reinstall the applications that came with your computer, such as the iLife applications.

To install the applications that came with your computer:
1. Make sure your power adapter is connected and plugged in.
2. Insert the Applications Install DVD that came with your computer.
3. Double-click Install Bundled Software.
4. Follow the onscreen instructions.
5. When the installation is complete, click Close.

Learning More, Service, and Support
Your MacBook Pro does not have any user-serviceable parts, except the hard drive and the memory. If you need service, contact Apple or take your MacBook Pro to an Apple Authorized Service Provider. You can find more information about the MacBook Pro through online resources, onscreen help, System Profiler, or Apple Hardware Test.

Online Resources
For online service and support information, go to www.apple.com/support. Choose your country from the pop-up menu. You can search the AppleCare Knowledge Base, check for software updates, or get help from Apple’s discussion forums.

Onscreen Help
You can look for answers to your questions, as well as instructions and troubleshooting information, in Mac Help. Choose Help > Mac Help.
System Profiler
To get information about your MacBook Pro, use System Profiler. It shows you what hardware and software is installed, the serial number and operating system version, how much memory is installed, and more. To open System Profiler, choose Apple () > About This Mac from the menu bar and then click More Info.

AppleCare Service and Support
Your MacBook Pro comes with 90 days of technical support and one year of hardware repair warranty coverage at an Apple Store retail location or an Apple-authorized repair center, such as an Apple Authorized Service Provider (AASP). You can extend your coverage by purchasing the AppleCare Protection Plan. For information, go to www.apple.com/support/products or the website for your country listed below.

If you need assistance, AppleCare telephone support representatives can help you with installing and opening applications, and basic troubleshooting. Call the support center number nearest you (the first 90 days are complimentary). Have the purchase date and your MacBook Pro serial number ready when you call.

Note: Your 90 days of complimentary telephone support begins on the date of purchase. Telephone fees may apply.

<table>
<thead>
<tr>
<th>Country</th>
<th>Phone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1-800-275-2273</td>
<td><a href="http://www.apple.com/support">www.apple.com/support</a></td>
</tr>
<tr>
<td>Australia</td>
<td>(61) 1-300-321-456</td>
<td><a href="http://www.apple.com/au/support">www.apple.com/au/support</a></td>
</tr>
<tr>
<td>Canada (English)</td>
<td>1-800-263-3394</td>
<td><a href="http://www.apple.com/ca/support">www.apple.com/ca/support</a></td>
</tr>
<tr>
<td>(French)</td>
<td></td>
<td><a href="http://www.apple.com/ca/fr/support">www.apple.com/ca/fr/support</a></td>
</tr>
<tr>
<td>Ireland</td>
<td>(353) 1850 946 191</td>
<td><a href="http://www.apple.com/ie/support">www.apple.com/ie/support</a></td>
</tr>
</tbody>
</table>
Telephone numbers are subject to change, and local and national telephone rates may apply. A complete list is available on the web:

[www.apple.com/contact/phone_contacts.html](http://www.apple.com/contact/phone_contacts.html)

### Locating Your Product Serial Number

Use one of these methods to find your computer's serial number:

- Choose Apple () from the menu bar and then choose About This Mac. Click the version number beneath the words “Mac OS X” to cycle through the Mac OS X version number, the build version, and the serial number.

- Click the Finder icon and open /Applications/Utilities/System Profiler. Click Hardware in the Contents panel.

- Remove the battery and view the serial number for your MacBook Pro on the front wall of the battery bay. For information about removing the battery, see page 34.
Last, but Not Least
For your safety and that of your equipment, follow these rules for handling and cleaning your MacBook Pro and for working more comfortably. Keep these instructions handy for reference by you and others.

Important Safety Information

**WARNING:** Failure to follow these safety instructions could result in fire, electric shock, or other injury or damage.

**Proper handling** Set up your MacBook Pro on a stable work surface that allows for adequate air circulation under and around the computer. Do not operate your MacBook Pro on a pillow or other soft material, as the material can block the airflow vents. Never place anything over the keyboard when operating your MacBook Pro. Never push objects into the ventilation openings.

The bottom of your MacBook Pro may become very warm during normal use. If your MacBook Pro is on your lap and gets uncomfortably warm, remove it from your lap and place it on a stable work surface.

**Water and wet locations** Keep your MacBook Pro away from sources of liquid, such as drinks, washbasins, bathtubs, shower stalls, and so on. Protect your MacBook Pro from dampness or wet weather, such as rain, snow, and fog.
Chapter 5  Last, but Not Least  69

85W MagSafe Power Adapter Make sure the AC plug or AC power cord is fully inserted into the power adapter before plugging the adapter into a power outlet. Use only the power adapter that came with your MacBook Pro, or an Apple-authorized power adapter that is compatible with this product. The power adapter may become very warm during normal use. Always plug the power adapter directly into a power outlet, or place it on the floor in a well-ventilated location.

Disconnect the power adapter, remove the battery, and disconnect any other cables if any of the following conditions exists:

• You want to add memory or upgrade the hard disk drive.
• You want to clean the case (use only the recommended procedure described on page 72).
• The power cord or plug becomes frayed or otherwise damaged.
• Your MacBook Pro or power adapter is exposed to rain, excessive moisture, or liquid spilled into the case.
• Your MacBook Pro or power adapter has been dropped, the case has been damaged, or you suspect that service or repair is required.

The MagSafe power port contains a magnet that can erase data on a credit card, iPod, or other device. To preserve your data, do not place these or other magnetically sensitive material or devices within 1 inch (25 mm) of this port.

If debris gets into the MagSafe power port, remove it gently with a dry cotton swab.
**Battery** Do not disassemble, drop, crush, or expose the battery to fire or temperatures above 212° F (100° C). Stop using the battery if it appears damaged in any way. Replace the battery only with an Apple-authorized battery for this product. Dispose of used batteries promptly according to your local environmental guidelines.

**Hearing damage** Permanent hearing loss may occur if earbuds or headphones are used at high volume. You can adapt over time to a higher volume of sound that may sound normal but can be damaging to your hearing. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked. The louder the volume, the less time is required before your hearing could be affected. Hearing experts suggest that to protect your hearing:

- Limit the amount of time you use earbuds or headphones at high volume.
- Avoid turning up the volume to block out noisy surroundings.
- Turn the volume down if you can't hear people speaking near you.

**High-risk activities** This computer system is not intended for use in the operation of nuclear facilities, aircraft navigation or communications systems, air traffic control systems, or for any other uses where the failure of the computer system could lead to death, personal injury, or severe environmental damage.
Laser Information for Optical Disc Drives

**WARNING:** Making adjustments or performing procedures other than those specified in your equipment’s manual may result in hazardous radiation exposure.

The optical disc drive in your computer contains a laser that is safe in normal use but that may be harmful to your eyes if disassembled. For your safety, have this equipment serviced only by an Apple Authorized Service Provider.

**Important Handling Information**

**NOTICE:** Failure to follow these handling instructions could result in damage to your MacBook Pro or other property.

**Turning on your MacBook Pro** Never turn on your MacBook Pro unless all of its internal and external parts are in place. Operating the computer when parts are missing may be dangerous and may damage your computer.

**Carrying your MacBook Pro** If you carry your MacBook Pro in a bag or briefcase, make sure that there are no loose items (such as paper clips or coins) that could accidentally get inside the computer through vent openings or the optical drive slot or get stuck inside a port. Also, keep magnetically sensitive items away from the MagSafe power port.

**Using connectors and ports** Never force a connector into a port. When connecting a device, make sure the port is free of debris, that the connector matches the port, and that you have positioned the connector correctly in relation to the port.
Using the optical drive  The SuperDrive in your MacBook Pro supports standard 12 cm (4.7 inch) discs. Irregularly shaped discs or discs smaller than 12 cm (4.7 inches) are not supported.

Handling glass parts  Your MacBook Pro contains glass components, including the display and trackpad. If they are damaged, don’t use your MacBook Pro until it has been repaired by an Apple Authorized Service Provider.

Storing your MacBook Pro  If you are going to store your MacBook Pro for an extended period of time, keep it in a cool location (ideally, 71° F or 22° C) and discharge the battery to 50 percent. When storing your MacBook Pro for longer than five months, discharge the battery to approximately 50 percent and then remove it from your MacBook Pro. To maintain the capacity of the battery, recharge the battery to 50 percent every six months or so.

Cleaning your MacBook Pro  When cleaning the outside of your MacBook Pro and its components, first shut down your MacBook Pro, unplug the power adapter, and remove the battery. Then use a damp, soft, lint-free cloth to clean the computer’s exterior. Avoid getting moisture in any openings. Do not spray liquid directly on the computer. Do not use aerosol sprays, solvents, or abrasives that might damage the finish.

Cleaning your MacBook Pro screen  To clean your MacBook Pro screen, first shut down your MacBook Pro, unplug the power adapter, and remove the battery. Then dampen the included cleaning cloth with just water and wipe the screen. Do not spray liquid directly on the screen.
Understanding Ergonomics
Here are some tips for setting up a healthy work environment.

Keyboard and Trackpad
When you use the keyboard and trackpad, your shoulders should be relaxed. Your upper arm and forearm should form an angle that is slightly greater than a right angle, with your wrist and hand in roughly a straight line.

This

Not this
Use a light touch when typing or using the trackpad and keep your hands and fingers relaxed. Avoid rolling your thumbs under your palms.

Change hand positions often to avoid fatigue. Some computer users might develop discomfort in their hands, wrists, or arms after intensive work without breaks. If you begin to develop chronic pain or discomfort in your hands, wrists, or arms, consult a qualified health specialist.

**External Mouse**
If you use an external mouse, position the mouse at the same height as the keyboard and within a comfortable reach.

**Chair**
An adjustable chair that provides firm, comfortable support is best. Adjust the height of the chair so your thighs are horizontal and your feet are flat on the floor. The back of the chair should support your lower back (lumbar region). Follow the manufacturer’s instructions for adjusting the backrest to fit your body properly.
You might have to raise your chair so that your forearms and hands are at the proper angle to the keyboard. If this makes it impossible to rest your feet flat on the floor, you can use a footrest with adjustable height and tilt to make up for any gap between the floor and your feet. Or you can lower the desktop to eliminate the need for a footrest. Another option is to use a desk with a keyboard tray that’s lower than the regular work surface.

**Built-in Display**
Adjust the angle of the display to minimize glare and reflections from overhead lights and windows. Do not force the display if you meet resistance. The display is not meant to open past 130 degrees.

You can adjust the brightness of the screen when you take the computer from one work location to another, or if the lighting in your work area changes.

More information about ergonomics is available on the web:

[www.apple.com/about/ergonomics](http://www.apple.com/about/ergonomics)

**Apple and the Environment**
Apple Inc. recognizes its responsibility to minimize the environmental impacts of its operations and products.

More information is available on the web:

Regulatory Compliance Information

Compliance Statement
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. See instructions if interference to radio or television reception is suspected.

Radio and Television Interference
This computer equipment generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that is on a different circuit from the television or radio. (That is, make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult an Apple Authorized Service Provider or Apple. See the service and support information that came with your Apple product. Or consult an experienced radio/television technician for additional suggestions.

Important: Changes or modifications to this product not authorized by Apple Inc. could void the EMC compliance and negate your authority to operate the product.

This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables (including Ethernet network cables) between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices.
Responsible party (contact for FCC matters only):
Apple Inc. Corporate Compliance
1 Infinite Loop, M/S 26-A
Cupertino, CA 95014-2084

Wireless Radio Use
This device is restricted to indoor use when operating in the 5.15 to 5.25 GHz frequency band.
Cet appareil doit être utilisé à l'intérieur.

Exposure to Radio Frequency Energy
The radiated output power of the AirPort Extreme technology is below the FCC radio frequency exposure limits. Nevertheless, it is advised to use the wireless equipment in such a manner that the potential for human contact during normal operation is minimized.

FCC Bluetooth Wireless Compliance
The antenna used with this transmitter must not be colocated or operated in conjunction with any other antenna or transmitter subject to the conditions of the FCC Grant.

Bluetooth Industry Canada Statement
This Class B device meets all requirements of the Canadian interference-causing equipment regulations.

Industry Canada Statement
Complies with the Canadian ICES-003 Class B specifications. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Bluetooth Europe—EU Declaration of Conformity
This wireless device complies with the R&TTE Directive.

Europe—EU Declaration of Conformity
The equipment complies with the RF Exposure Requirement 1999/519/EC, Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). Hereby, Apple Inc. declares that this 802.11a/b/g/n Mini-PcLe card is in compliance with the R&TTE Directive.
Complies with European Low Voltage and EMC Directives.
See: www.apple.com/euro/compliance

Korea Warning Statements
“일체 무선설비의 운용 중 전파혼신 가능성이 있음”
이 기기는 업무용으로 한정하여 사용할 수 있습니다.

B급 기기(가정용 방송통신기기)
이 기기는 가정용(가정용으로 한정되어 있는 것을 포함)으로 전자파장비등록을 한 기기로서 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Singapore Wireless Certification

Taiwan Wireless Statements
無線設備的警告聲明
無線設備的警告聲明

Complies with EAD Standard EN50335
Taiwan Class B Statement

VCCI Class B Statement

External USB Modem Information

As an ENERGY STAR® partner, Apple has determined that standard configurations of this product meet the ENERGY STAR® guidelines for energy efficiency. The ENERGY STAR® program is a partnership with electronic equipment manufacturers to promote energy-efficient products. Reducing energy consumption of products saves money and helps conserve valuable resources.

For more information about ENERGY STAR®, visit: www.energystar.gov
Disposal and Recycling Information

This symbol indicates that your product must be disposed of properly according to local laws and regulations. When your product reaches its end of life, contact Apple or your local authorities to learn about recycling options.

For information about Apple's recycling program, go to www.apple.com/environment/recycling.

Battery Disposal Information

Dispose of batteries according to your local environmental laws and guidelines.

California: The coin cell battery in the optional Apple Remote contains perchlorates. Special handling and disposal may apply. Refer to: www.dtsc.ca.gov/hazardouswaste/perchlorate


Nederlands: Gebruikte batterijen kunnen worden ingeleverd bij de chemokar of in een speciale batterijcontainer voor klein chemisch afval (kca) worden gedeponeerd.
Taiwan:

European Union—Disposal Information:

The symbol above means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.
Looking for Something?
## Index

**A**
- AC plug  10
- AC power adapter. See power adapter
- AC power cord  10
- adapter, power. See power adapter
- AirPort Extreme  
  - connecting wirelessly  11
  - problems  60
  - using  31
- AppleCare  64
- Apple Hardware Test  57
- Apple Remote  32
- application freeze  53
- applications  
  - Front Row  19, 32
  - iChat  19
  - iLife  31
  - Keynote  19
  - Photo Booth  19
  - audio in port  23
**B**
- battery  
  - disposal  79
  - general information  28
- indicator lights  28
  - location  19
  - performance  28
  - removing  34
  - replacing  36
  - storing  72
- battery indicator lights  28, 36
- blinking question mark  54
- brightness keys  21
- built-in speakers  19
- button, power  12, 19
**C**
- cable modem  11
- camera. See iSight
- carrying your computer  71
- changing the desktop  15
- changing password  56
- System Preferences  15
- checking memory  49
- cleaning the screen  72
- your computer  72
- computer disposal  79
- freezes  54
- inventory  9
- putting to sleep  15
- shutting down  15
- turning on  12
- won't turn on  55
- connecting to a network  11
- Control-click  25
- controls. See keys
- cord, power  10
**D**
- Dashboard  21
- desktop, customizing  15
- discs  
  - ejecting  57
  - software installation  62
  - supported types  72
- display  
  - external  23
  - See also screen
- disposing of batteries  79
- disposing of your computer  79
- Dock  30
- downloading software  61
- drive, optical  19
- DSL modem  11
Ejecting a disc 57
Energy Saver preferences
  conserving battery power 29
  graphics processors 28
environmental impact 75
ergonomics 73
Ethernet
  connecting to 11
  port 23
Expose All Windows key 21
ExpressCard slot 23
external display port 23
external modem 12
F1 to F12 function keys 21
  factory settings 62
Fast-forward key 21
FireWire
  connections 32
  port 23
  flashing question mark 54
  Force Quit 53
forward delete 25
four-finger swiping 27
Front Row application 19, 32
frozen application 53
function (fn) key 21
See also keys
  Keynote application 19
  keys
    brightness 21
    Dashboard 21
    Expose 21
    function (fn) 21
  keyboard illumination 21
  media 21
  Media Eject 21
  mute 21
  volume 21
lights
  battery 28, 56
  sleep indicator 19
Mac Help 30
Mac OS X
  reinstalling 62
  website 31
MagSafe power adapter. See
  power adapter
Media Eject key 21
media keys 21
  memory
    checking 49
    installing 42
  specifications 42
  microphone 19
Looking for Something? 83
Migration Assistant 13
Mini DisplayPort 23
modern 11
mouse 23, 74
Multi-Touch gestures 19
mute key 21

N
network address translation (NAT) 60
network connections 60
Network Diagnostics 58
Network Setup Assistant 58
number, serial 65

O
online resources 63
optical digital audio ports 23
optical drive
about 19
supported disc sizes 72

P
paging through documents
using trackpad 27
password, resetting 56
Photo Booth application 19
pinching to zoom 26
Play/Pause key 21
ports on MacBook Pro 23
power adapter
plugging in 69
port 23
using 10
power button 12, 19
power cord 10
PPPoE connections 59
preferences. See System Preferences
problems
computer freezes 54
computer won’t turn on 53, 55
Internet connection 58
pointer won’t move 53
PPPoE connections 59
screen goes black 56
trouble ejecting a disc 57
trouble using AirPort 60
See also troubleshooting
putting your MacBook Pro to sleep 15

Q
question mark, flashing 54

R
RAM. See memory
reinstalling software 62
removing the battery 34
replacing the battery 36
resetting your password 56
Rewind key 21
right click 25
rotating objects using trackpad 26
safety
general safety instructions 68
screen cleaning 72
goes black 56
scrolling with two fingers 24
SDRAM specifications 42
secondary click 25
secondary click zone 25
security slot 19
Serial ATA (SATA) hard drive 38
serial number, finding 65
service and support 64
Setup Assistant 58
shutting down 16
sleep
indicator light 19
mode 15
slot-loading optical drive 19
software
reinstalling 62
updating 61
Software Update 61
speakers 19
specifications 32