



Macintosh
User's Guide



Includes setup, troubleshooting, and important health-related information for Macintosh LC 550 computers

 Apple Computer, Inc.

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Contents

Communications regulation information vi

1 Getting Started 1

- Plugging in the computer 1
- Installing an expansion card 3
- Connecting the mouse and keyboard 4
- Connecting other equipment 5
- Turning the computer on for the first time 6
- What's next? 8
- Learning the basics 9
- Reviewing the basics 10
- Turning the computer off 11
- Turning the computer on 12
- Where to find answers 13

2 Getting Help 15

- Getting answers to your questions 16
- Identifying objects on the screen 24
- Learning useful shortcuts 25

3	Expanding Your Computer and Using Special Features	27
	Your computer at a glance	28
	Connecting additional equipment	29
	Using the sound control buttons on your computer	30
	Using the screen control buttons on your computer	31
	Using the built-in microphone	32
	Connecting to a network	33
	Expanding memory	34
	Installing internal drives	34
4	Installing and Using Application Programs	35
	Installing application programs	36
	Working with several programs at a time	37
	Backing up your files	38
5	Troubleshooting	39
	When you have questions	39
	When you run into trouble	39
	Solutions to common problems	43
	Initializing a hard disk	54
	Repairing a damaged disk	58
	Installing or reinstalling system software	63
Appendix A	Health, Safety, and Maintenance Tips	73
	Health-related information about computer use	73
	Safety instructions	78
	Handling your computer equipment	79
	Cleaning your equipment	83

Appendix B	Installing an Expansion Card	85
	Opening the computer	86
	Installing a processor-direct (PDS) slot card	89
	Closing the computer	90
Appendix C	Special Keys on Your Keyboard	93
	Index	95

Communications regulation information

FCC statement

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

Radio and television interference

The equipment described in this manual 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. You may find the following booklet helpful: *Interference Handbook* (stock number 004-000-00493-1). This booklet, prepared by the Federal Communications Commission, is available from the U.S. Government Printing Office, Washington, DC 20402.

IMPORTANT Changes or modifications to this product not authorized by Apple Computer, Inc., could void the FCC Certification and negate your authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of Apple peripheral devices and Apple shielded cables and connectors between system components. It is important that you use Apple peripheral devices and shielded cables and connectors between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices. You can obtain Apple peripheral devices and the proper shielded cables and connectors through an Apple-authorized dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance.

DOC statement

DOC Class B Compliance This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled “Digital Apparatus,” ICES-003 of the Department of Communications.

Observation des normes—Classe B Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur : “Appareils Numériques”, NMB-003 édictée par le ministre des Communications.

VCCI statement

情報処理装置等電波障害自主規制について

この装置は、第二種情報装置（住宅地域又はその隣接した地域において使用されるべき情報装置）で住宅地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。

しかし、本装置をラジオ、テレビジョン受信機に近接してご使用になると、受信障害の原因となることがあります。

取扱説明書に従って正しい取り扱いをしてください。

CD-ROM drive

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

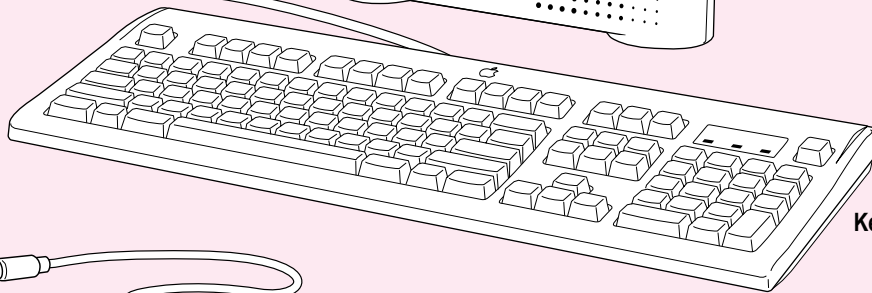
WARNING Do not attempt to disassemble the cabinet containing the laser. The laser beam used in this product is harmful to the eyes. The use of optical instruments, such as magnifying lenses, with this product increases the potential hazard to your eyes. For your safety, have this equipment serviced only by an Apple-authorized service provider.

If you have an internal Apple CD-ROM drive in your computer, your computer is a Class 1 laser product. The Class 1 label, located on the computer, indicates that the drive meets minimum safety requirements. A service warning label is on the CD-ROM drive inside the computer.

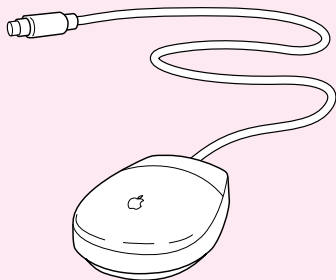


Macintosh computer

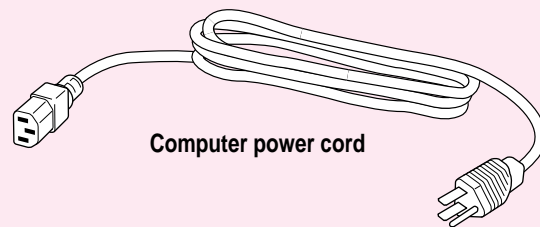
Keyboard cable
(sometimes built into the
keyboard as shown here)



Keyboard



Mouse



Computer power cord



Optional security screws

Follow the instructions in this chapter to set up your computer and learn the basics.

1

Getting Started



The illustration on the facing page shows all the equipment you will need to set up your computer and begin using it. Place your equipment on a sturdy, flat surface near a grounded wall outlet. Before following the setup instructions in this chapter, you may want to read “Arranging Your Office” in Appendix A (in the section on health-related information) for tips on adjusting your work furniture so that you’re comfortable when using the computer.

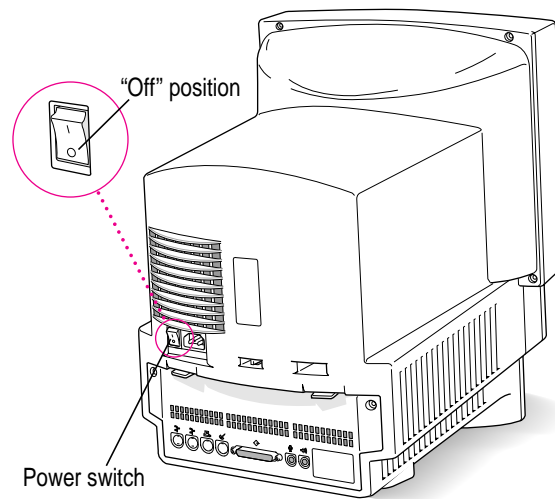
Plugging in the computer

Before you plug your Macintosh into a wall socket, carefully read all the setup instructions in this chapter. Then, before you connect anything to your Macintosh, follow the instructions in this section to plug it in. The plug grounds the computer and protects it from electrical damage while you are setting up.

When you are ready to begin, follow these steps:

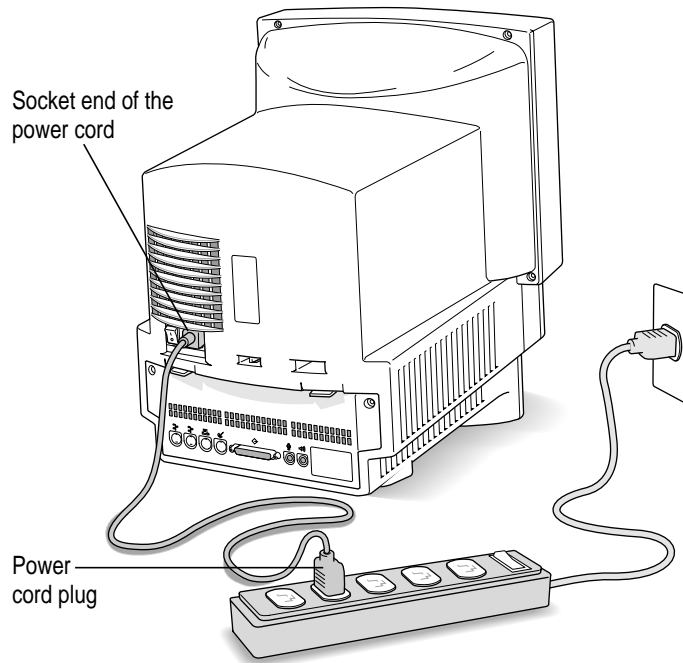
- 1 **Plug the socket end of the power cord into the recessed power plug (marked with the symbol ~) on the back of the computer.**

IMPORTANT To protect both yourself and the computer from electrical hazards, the computer should remain turned off until you are finished connecting its parts. Check the main power switch at the back of the computer. Make sure that the bottom of the switch (marked with the \circ symbol) is pressed in.



Make sure that at least one end of the power cord is within easy reach so that you can unplug the computer when you need to.

- 2 Plug the other end of the power cord into a three-hole grounded outlet or power strip.



WARNING This equipment is intended to be electrically grounded. Your Macintosh is equipped with a three-wire grounding plug—a plug that has a third (grounding) pin. This plug will fit only a grounded AC outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not defeat the purpose of the grounding plug!

Installing an expansion card

If you purchased an expansion card for your Macintosh, install it now. (See Appendix B, “Installing an Expansion Card,” for instructions.) If you don’t have an expansion card, continue with the next section, “Connecting the Mouse and Keyboard.”


Connecting the mouse and keyboard


The way you connect the mouse and keyboard depends on whether the keyboard has a separate cable or a built-in cable.

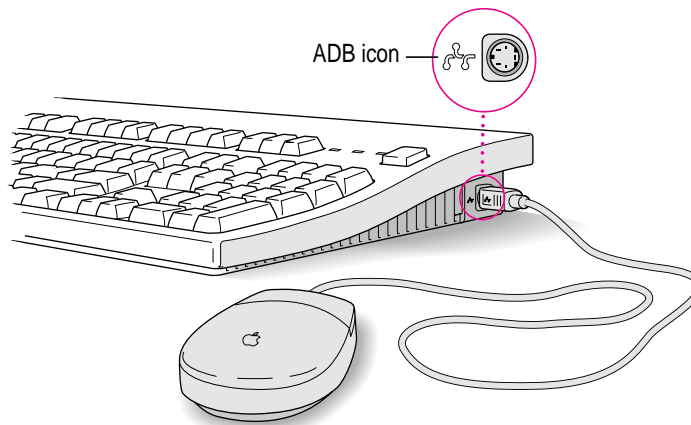
Connecting a keyboard with a separate cable


- 1 Plug the mouse cable into the port on either side of the keyboard.**

Most right-handed people prefer to use the mouse with their right hand; most left-handed people prefer to use their left hand. Plug the mouse into the port on the side you prefer.

The plug and the port are marked with the  icon (symbol). Align the icons before you insert the plug. (The positions of the port and icon on your keyboard may be different from those pictured here.)

By the way: A port marked with the  icon is called an Apple Desktop Bus (ADB) port.



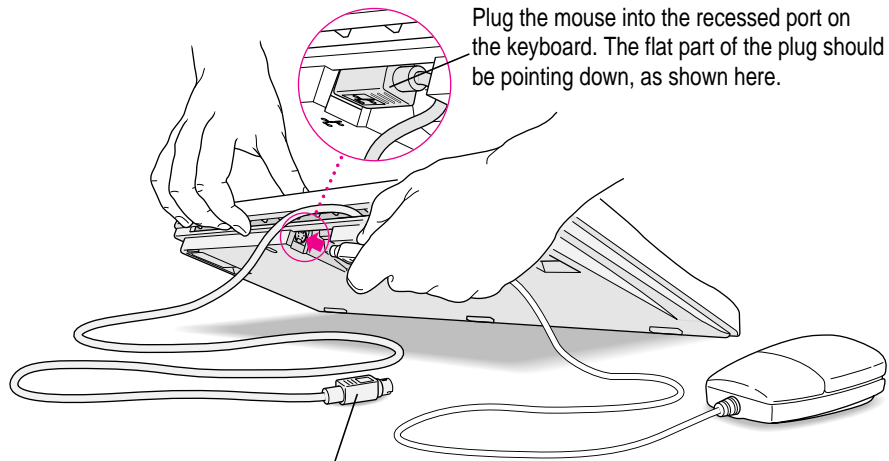
- 2 Plug the keyboard cable (both ends are the same) into the other port on the keyboard.**
- 3 Plug the keyboard cable into the port marked with the  icon on the back of the computer.**

Connecting a keyboard with a built-in cable

- 1 Plug the mouse cable into the recessed port on the back of the keyboard.

The plug and the port are marked with the ⌘ icon (symbol). The positions of the port and icon on your keyboard may be different from those pictured.

By the way: A port marked with the ⌘ icon is called an Apple Desktop Bus (ADB) port.



This cable plugs into the Apple Desktop Bus (ADB) port on the back of the computer. The ADB port on the computer is marked with the ⌘ icon.

- 2 Plug the keyboard cable into the port marked with the ⌘ icon on the back of the computer.

Connecting other equipment

If you are new to the Macintosh, it's a good idea to get some experience using your computer before you connect other equipment, such as a printer or scanner. To learn basic Macintosh skills, continue with the instructions in this chapter.

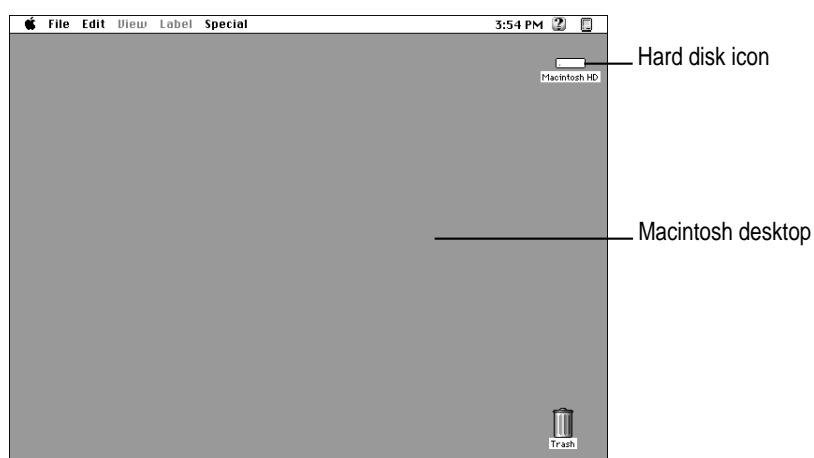
When you're ready to connect other equipment to your Macintosh, see the instructions in Chapter 3.

Turning the computer on for the first time

To turn the computer on for the first time, follow these steps:

- 1** Press the top of the power switch at the back of the computer. The top of the switch is marked with the symbol I.
- 2** Press the Power key (marked with a triangle) on your keyboard.


You hear a tone from the computer as it starts up. After a few moments you should see a screen like the one below. This means that system software has already been installed, and your computer is ready to use.



If something else happens, see “Problems Starting Up?” on the next page.

Problems starting up?

If the screen is dark, check these items to see if you can identify the problem:

- Is the computer turned on? The power-on light on the front of the computer should be on. Make sure the top of the power switch on the back of the computer is pressed in.
- Is the power cord connected to the computer, and is the cord plugged into a power source?
- If the computer is plugged into a power strip, is the power strip turned on?
- Are the keyboard and mouse cables connected correctly? (Don't disconnect the keyboard or mouse cable while the computer is on. You could damage your equipment.)
- Is the brightness control on the monitor (marked with the  icon) turned down?
- If you have an external hard disk attached to your computer, is that hard disk turned on? Was it turned on before you turned on the computer? If you're not sure, turn everything off. Then turn on the external hard disk before you turn on your computer.

If you see a blinking question mark on the screen, you probably need to install system software. See “Installing or Reinstalling System Software” in Chapter 5.

What's next?

Congratulations! You've finished setting up your computer. Now continue with one of the following steps:

- If you are new to the Macintosh, turn to the next section, “Learning the Basics.”
- If you are an experienced Macintosh user, turn to Chapter 2, “Getting Help,” to learn about Macintosh Guide, your main source of information when you're working with the Macintosh.
- If you want to connect other equipment, such as a printer, to your computer, see Chapter 3, “Expanding Your Computer and Using Special Features.”

Before you begin working with your computer, be sure to read the important health and safety information in Appendix A.

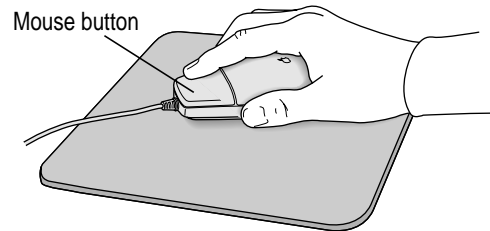
IMPORTANT If you need to turn off your computer at any point, please see “Turning the Computer Off” later in this chapter. It is very important to use the correct procedure for shutting down your Macintosh before turning it off.

Learning the basics

If you are new to the Macintosh, you should begin by looking at the easy-to-use program called the Macintosh Tutorial. The tutorial teaches you the basic skills you'll need to use your computer. To start the tutorial, follow these steps:

1 Slide your mouse along your mouse pad or desk.

Hold the mouse as shown, with the cable pointing away from you. Don't press the mouse button (under your index finger). Notice that the arrow (↔) on the screen moves in the same direction that you move the mouse.



If the arrow doesn't move, make sure that the cables connecting the mouse and keyboard are secure and that your mouse is positioned as shown in the illustration.

2 Move the tip of the arrow (↔) to the question mark (?) in the upper-right portion of the screen.

If you run out of room on your mouse pad or desk while moving the mouse, pick up the mouse and place it where there's more room. (The arrow on the screen moves only when the mouse is in contact with the mouse pad or desk.)

3 With the tip of the arrow on the question mark, press and hold down the mouse button.

A list of choices (called a *menu*) appears. This is the Guide (?) menu, which is the place to go when you have a question about how to use your computer.

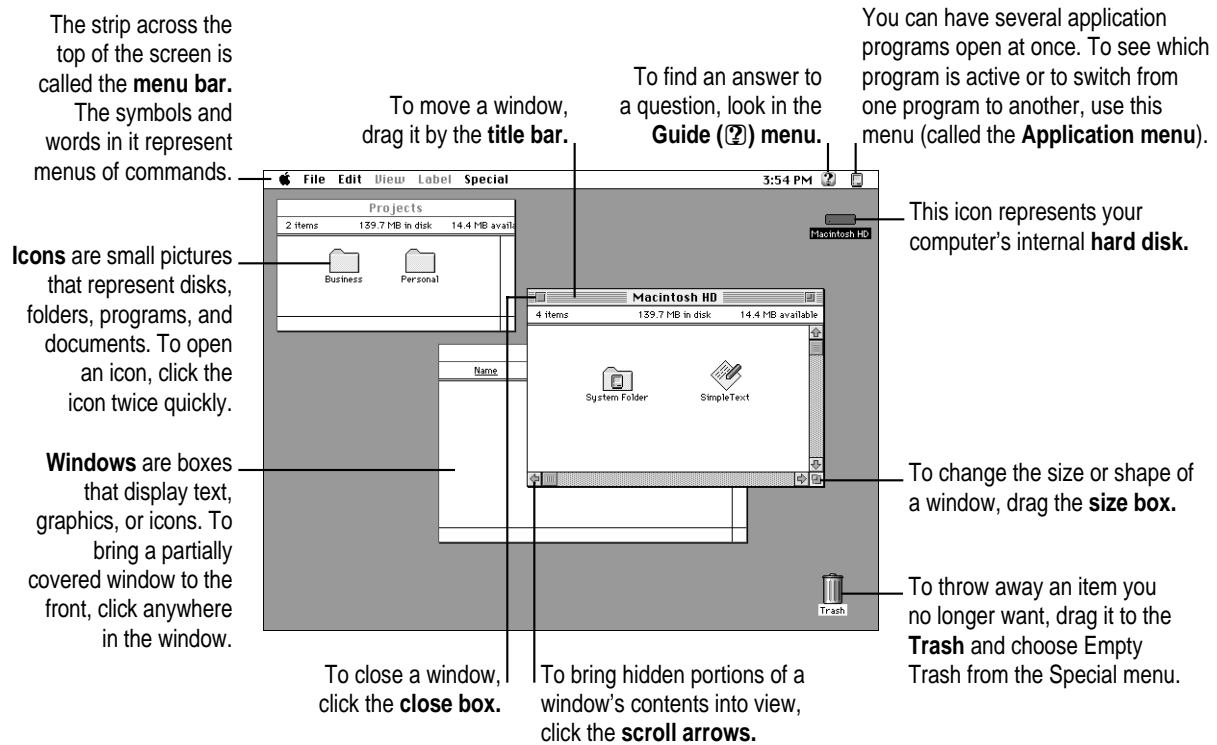


- 4 While holding down the mouse button, move the arrow until the words “Macintosh Tutorial” are highlighted, then release the mouse button.

A window appears welcoming you to the tutorial. You can set this book aside for now and follow the instructions on the screen. When you have completed the tutorial, return to this book.

Reviewing the basics

The following illustration summarizes many of the basic skills and terms you learned from the tutorial.



Turning the computer off

To turn the computer off, you choose Shut Down from the Special menu. Detailed instructions follow.

- 1 Move the tip of the arrow (⏏) to the word “Special” at the top center of the screen.



If the word “Special” does not appear at the top of the screen, you’re working in the wrong program. Pull down the Application menu (to the right of the Guide [?] menu) and choose Finder. Then try step 1 again.

- 2 With the tip of the arrow on the word “Special,” press and hold down the mouse button.
- 3 While holding down the mouse button, move the arrow down the list of choices until the words “Shut Down” are highlighted, then release the mouse button.



You can also shut down your computer from the keyboard:

- 1 Press the Power key (marked with the triangle) on the keyboard.**

You will see a message asking whether you want to shut down or continue working.

- 2 Click Shut Down.**

Turning the computer on

To turn on the computer after you've shut it down with either the menu command or the keyboard:

- **Press the Power key (marked with the triangle) on the keyboard.**

Leave the power switch on the back of your computer in the “on” position (with the top part of the switch, marked with the symbol I , pressed in).

Where to find answers

When you have questions about using your Macintosh, there are several places you can look for answers.




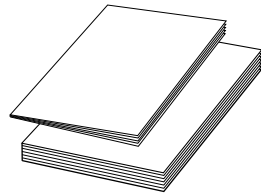
In this book

Use this book to help you set up your computer and learn about it, or to find solutions to problems.



In the Guide menu

The Guide menu (marked with the  icon) is your main source of information about the Macintosh. To learn how to get different kinds of help from the Guide menu, see Chapter 2 in this book.



In other manuals

For answers to questions about other equipment or about application programs you have purchased, see the manuals that came with the equipment or programs.



From Apple's customer support hotline

If you can't find an answer in any of the materials provided, call the customer support hotline. (The phone number for the hotline is in the service and support information that came with your computer.)

Use the instructions in this chapter to learn about the help available to you in the Guide menu.

2 Getting Help

The Guide menu is your main source of information when you're working with your computer. The menu is identified by a question mark (🔍) in the upper-right corner of the screen.



Getting answers to your questions

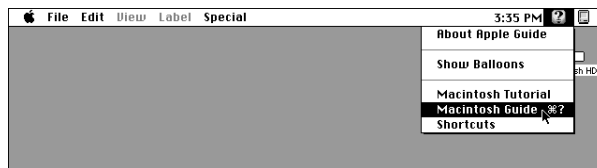
When you have a question while working with your computer, you can get the answer by choosing Macintosh Guide from the Guide menu.

- 1 Pull down the Application menu (in the upper-right corner of the screen) and choose Finder to make it the active application program.

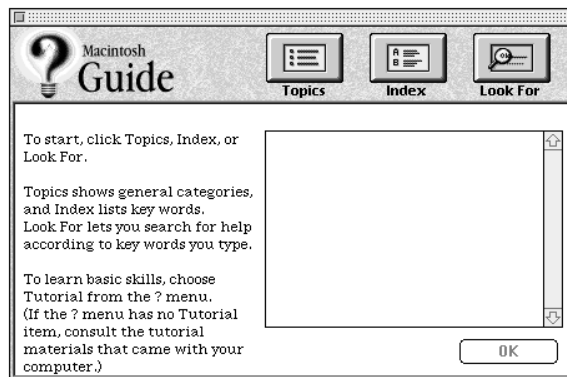


A checkmark in the menu indicates that the Finder is the active program.

- 2 Pull down the Guide menu (marked with the ? icon) and choose Macintosh Guide.



The Macintosh Guide window appears.



Whenever you use Macintosh Guide, its window remains in front of other windows. If the window gets in your way, you can move it by dragging its title bar (the gray bar across the top of the window).

- 3 Notice the three buttons at the top of the window: Topics, Index, and Look For.



Macintosh Guide gives you three ways of finding information:

- **Topics** lets you choose from a list of general subjects; it is like the table of contents in a book.
- **Index** lets you choose from an alphabetical list of more specific subjects; it is like the index in a book.
- **Look For** lets you search for information related to a specific word or phrase that you type.

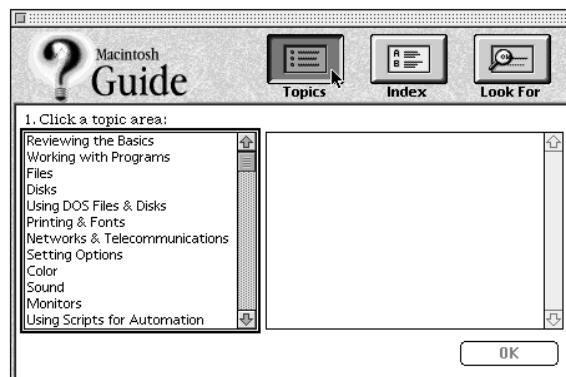
In the following sections you will practice using each method.

If you have problems while using Macintosh Guide, see “Tips for Using Macintosh Guide” later in this chapter.

Getting answers with the Topics button

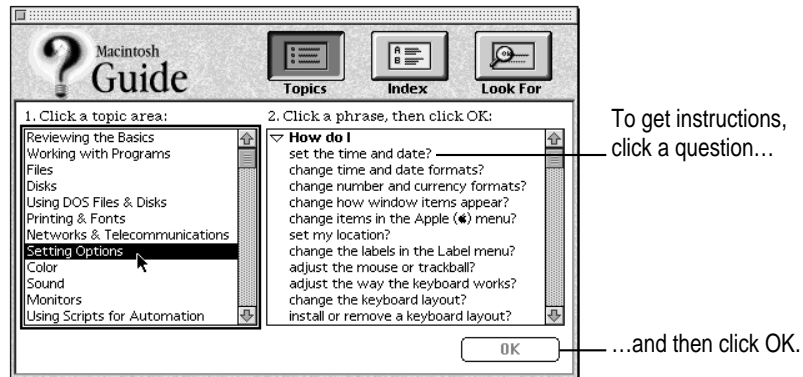
- 1 In the Macintosh Guide window, click the Topics button.

A list of general topics appears on the left side of the Macintosh Guide window. (Depending on the hardware and software you have, the list of topics may look different.)



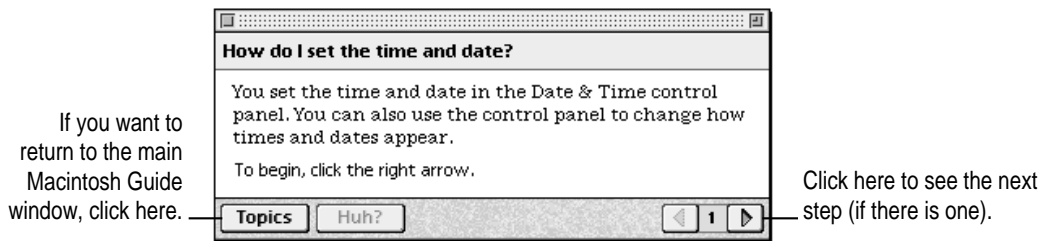
2 Click “Setting Options” in the list of topics.

When you click any topic area, a list of related questions appears on the right side of the Macintosh Guide window.



3 Click the question “How do I set the time and date?” and then click OK. Or double-click the question.

A small window appears with instructions for you to follow.



4 Read and follow the instructions in this window.

Macintosh Guide provides step-by-step instructions to answer the question you selected. When you have completed each step, click the right arrow in the lower-right corner to see the next step.

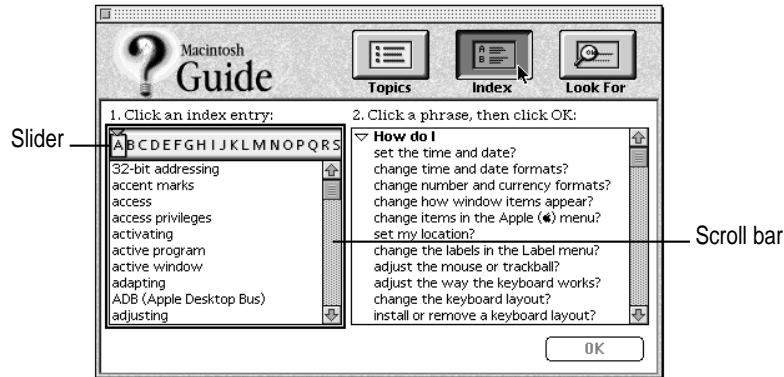
5 When you have completed all the steps, click the Topics button in the lower-left corner to return to the main Macintosh Guide window.

Now continue with the next section.

Getting answers with the Index button

- 1 In the Macintosh Guide window, click the Index button.

An alphabetical list of subjects appears on the left side of the window.

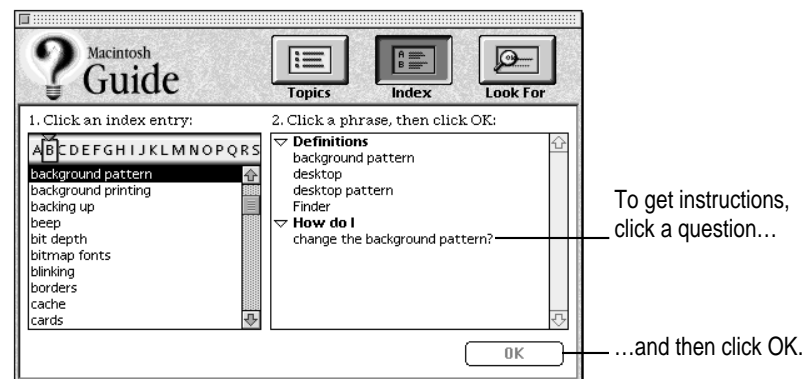


- 2 Scroll through the alphabetical list until the phrase “background pattern” is visible.

You can scroll through the list either by dragging the slider to the letter *B* or by using the scroll bar at the right of the list.

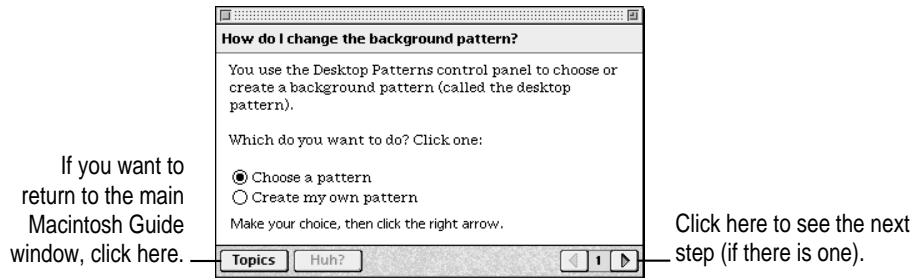
- 3 Click the phrase “background pattern” in the alphabetical list.

When you click any index entry, a list of related questions appears on the right side of the Macintosh Guide window.



- 4 Click the question “How do I change the background pattern?” and then click OK. Or double-click the question.

A small window appears with instructions for you to follow.



- 5 Read and follow the instructions in the window.

Macintosh Guide provides step-by-step instructions to answer the question you selected. When you have completed each step, click the right arrow in the lower-right corner to see the next step.

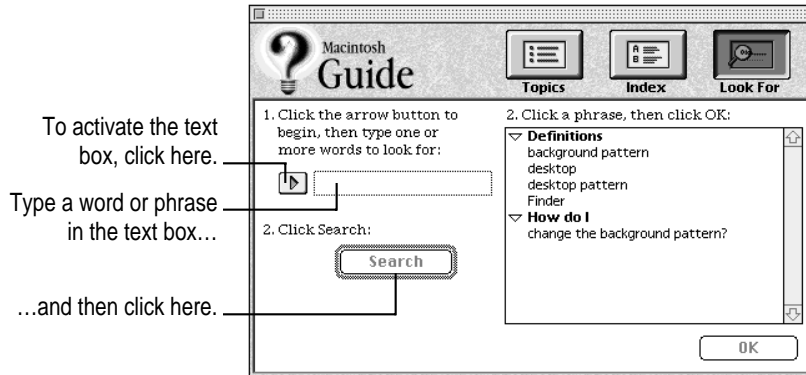
- 6 When you have completed all the steps, click the Topics button in the lower-left corner to return to the main Macintosh Guide window.

Now continue with the next section.

Getting answers with the Look For button

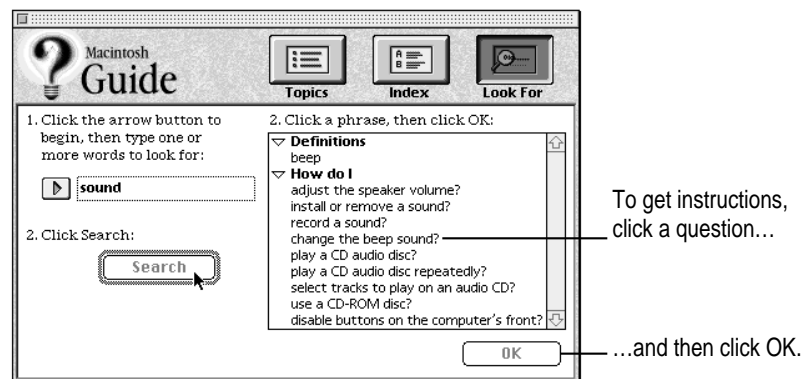
- 1 In the Macintosh Guide window, click the Look For button.

A small box appears on the left side of the window, where you can type text.



- 2 Click the arrow button to activate the text box.
- 3 Type "sound" in the text box and then click Search.

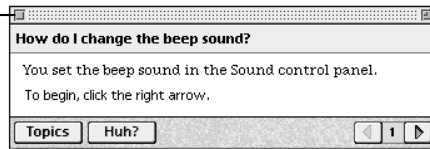
When you click Search, a list of questions related to the word or phrase you typed appears on the right side of the Macintosh Guide window.



- 4 Click the question “How do I change the beep sound?” and then click OK. Or double-click the question.

A small window appears with instructions for you to follow.

If you want to close
Macintosh Guide,
click here.



Click here to see the next
step (if there is one).

- 5 Read and follow the instructions in the window.

Macintosh Guide provides step-by-step instructions to answer the question you selected. When you have completed each step, click the right arrow in the lower-right corner to display the next step.

- 6 When you have completed all the steps, click the close box in the upper-left corner to close Macintosh Guide.

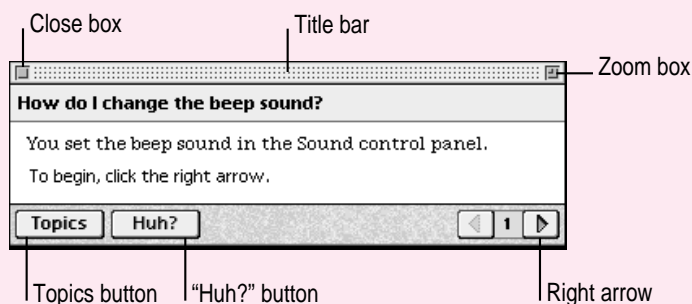
Tips for using Macintosh Guide

Here are a few tips for using Macintosh Guide effectively:

- Macintosh Guide is available only when you are in the Finder—the desktop area where you can see the icons of disks, folders, and files. (Other programs may also have help available in the Guide menu, however.) If you don't see Macintosh Guide in the Guide menu, pull down the Application menu (to the right of the Guide menu) and choose Finder.
- Follow the steps when you're instructed to; don't skip ahead or read ahead. That way the computer can check to make sure you've done a step correctly.
- Unlike most windows, the Macintosh Guide window stays in front of other windows on the screen so that your instructions are never covered. If you need to move the Guide window out of the way, drag it by the title bar at the top of the window.

You can also move the window out of the way by clicking the zoom box. Click the box once to shrink the window; click it a second time to expand the window to its original size.

- If you need more information about an instruction or a term, click the button labeled “Huh?” to get further explanation. (The “Huh?” button is dimmed when no additional information is available.)
- If you want to return to the main Macintosh Guide window, click the Topics button in the lower-left corner of the Guide window.
- When you're finished using Macintosh Guide, click the close box in the upper-left corner of the window.



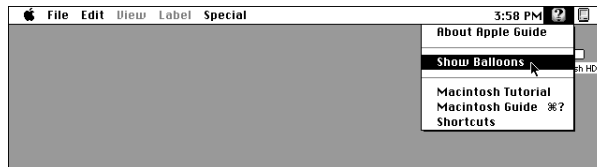
Identifying objects on the screen

Sometimes you'll see an unfamiliar item on the screen and ask yourself, "What's that?" You can get an answer by using a Macintosh feature known as Balloon Help.

Balloon Help explains the function of icons, menus, commands, and other items on the Macintosh screen in balloons like those you see in comic strips.

Follow these steps to use Balloon Help:

- 1 Pull down the Guide menu (marked with the  icon) and choose Show Balloons.**



- 2 Point to any object on the screen that you want to identify.**

A balloon appears next to the object. In the following illustration, for example, pointing to the Trash displays a balloon that explains how to use the Trash to throw items away.




Although balloons appear next to items when you point to them, the way you work does not change; you can still select icons, choose commands, and so on.

- 3 When you're finished using Balloon Help, choose Hide Balloons from the Guide menu.**

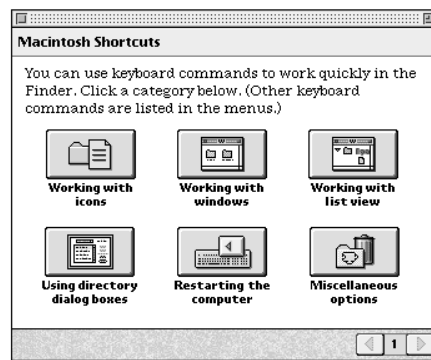
Learning useful shortcuts

You can perform many tasks in the Finder more quickly if you use keyboard or mouse shortcuts. For example, instead of clicking an icon and choosing Open from the File menu, you can simply double-click the icon to open it.

Follow these steps to learn keyboard and mouse shortcuts:

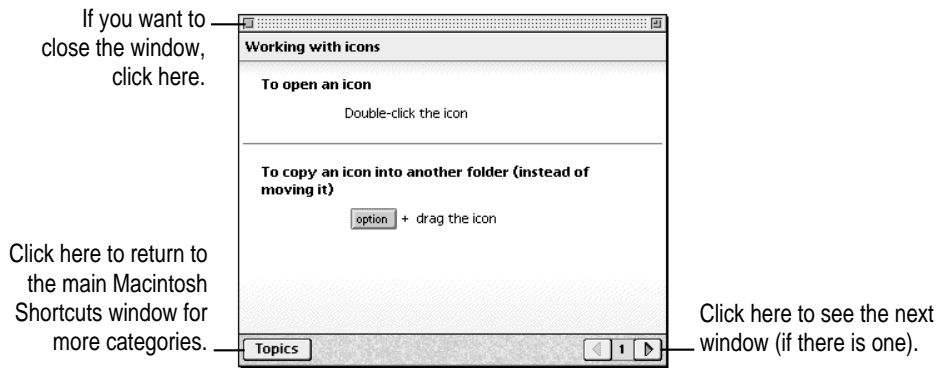
- 1 Pull down the Guide menu (marked with the  icon) and choose Shortcuts.

The main Macintosh Shortcuts window appears.



2 Click one of the category buttons.

Another window appears, describing shortcuts for that category.



3 Read about the shortcuts available for the category you selected.

Click the right arrow in the lower-right corner of the window to display the next window (if there is one).

4 When you finish reading about the shortcuts for your category, click the Topics button in the lower-left corner to return to the main Macintosh Shortcuts window. Or click the close box in the upper-left corner to close the window.

Read this chapter for information on expanding your computer system with additional hardware and using special features of your computer.

3

Expanding Your Computer and Using Special Features

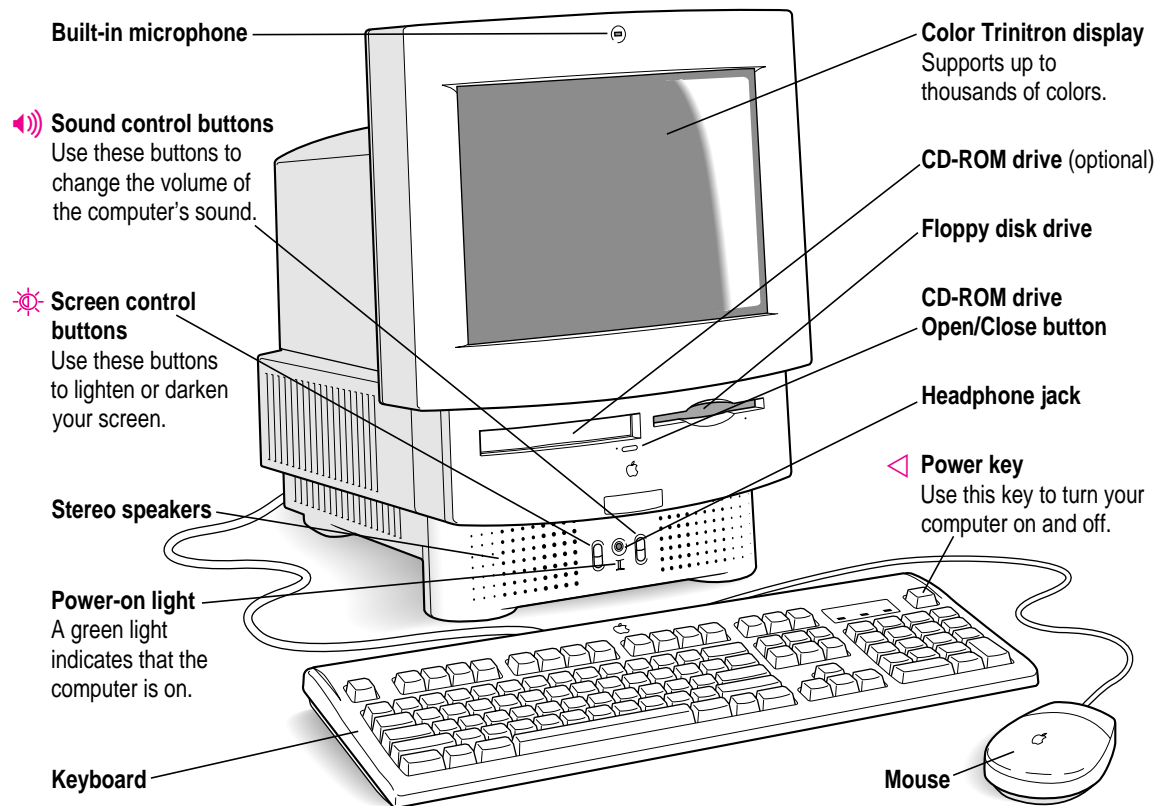


Read this chapter to learn how to connect additional equipment to your Macintosh. Also read this chapter to learn about some of the special features of your Macintosh:

- using the sound control buttons
- using the screen control buttons
- using the built-in microphone
- connecting to a network

Your computer at a glance

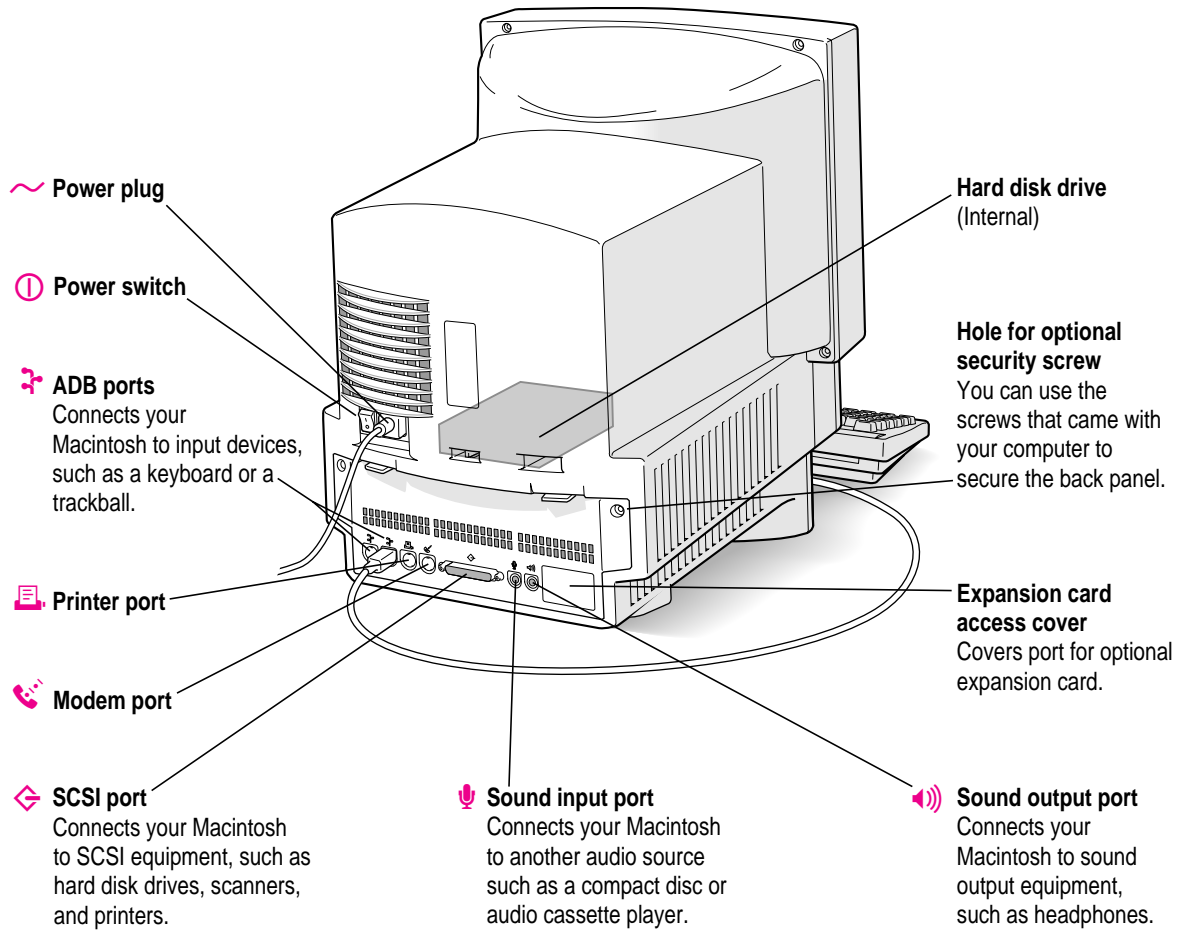
This illustration shows a Macintosh LC 550 system with the optional CD-ROM drive. You can expand your computer system by connecting additional hardware (such as a printer, modem, or scanner).




Connecting additional equipment

The illustration on this page shows where equipment should be connected to your computer.

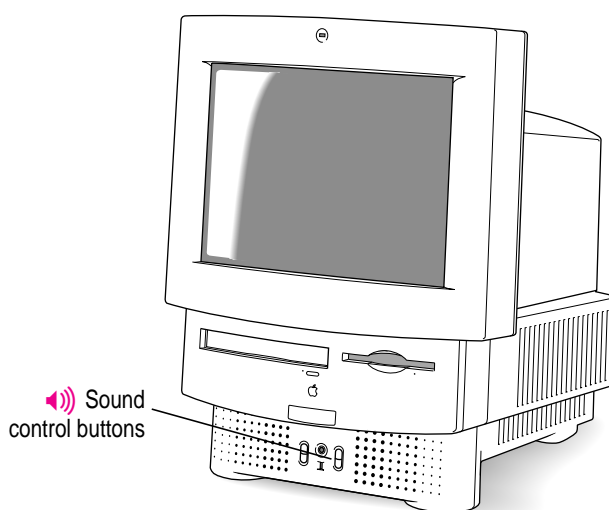
For instructions on connecting equipment such as a printer or scanner, see the manual that came with the equipment.




Using the sound control buttons on your computer


There are two sets of buttons on the front of your Macintosh. The set on the right (marked with the ) is for sound control. You can use these buttons to increase or decrease the volume of the sound your Macintosh plays:

- Press the button at the top to make the sound louder.
- Press the button on the bottom to make the sound softer.

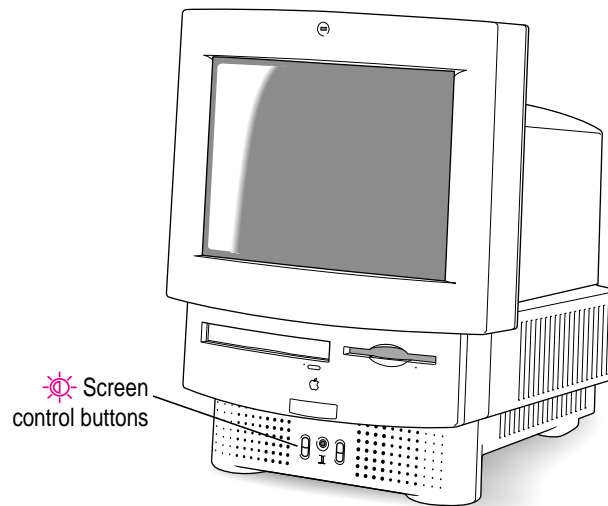


You can also adjust the sound by using the Sound control panel. For more information about adjusting sound, see the “Sound” topic of Macintosh Guide, available in the Guide () menu.

Using the screen control buttons on your computer

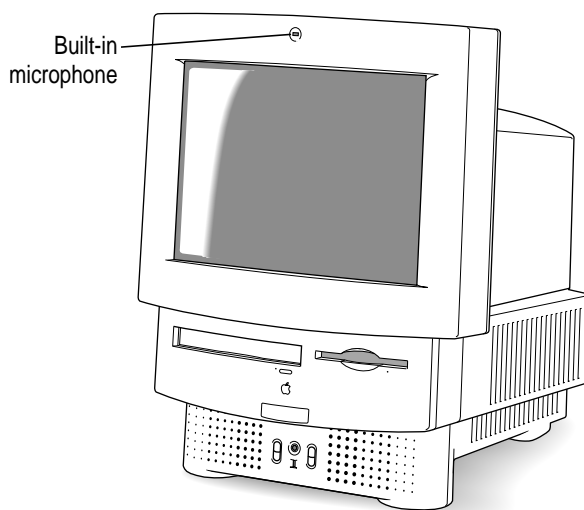
You can adjust the level of light and dark on the screen of your built-in monitor by using the screen control buttons on your computer (marked with the  icon).

- Press the button at the top to lighten your screen.
- Press the button at the bottom to darken your screen.



Using the built-in microphone

Your Macintosh comes with a built-in microphone for recording live sounds. The microphone is highly sensitive. Once you've turned it on (which you do with a sound-recording application program), it can pick up sounds within a range of several feet. For information on recording sound, see the "Sound" topic of Macintosh Guide, available in the Guide (📖) menu.



WARNING Do not stick any small objects into the built-in microphone. Doing so may damage your equipment.

Connecting to a network

If your computer has an optional Ethernet card, you can connect your Macintosh to any standard high-speed Ethernet network. You can connect your Macintosh to an existing Ethernet network that uses thin coaxial cables, 10BASE-T twisted pair cables, thick coaxial cables, or other standard cables.

You may need to purchase an appropriate Apple Ethernet media adapter or other compatible media adapter to connect your Macintosh to a network. (Consult the service and support information that came with your computer for instructions on how to contact an Apple-authorized service provider or Apple for more information on Apple Ethernet media adapters.)

To use Ethernet, you need to change the network connection in the Network control panel. (For instructions on how to select a network connection and other information about using your Macintosh on a network, see the “Networks & Telecommunications” topic of Macintosh Guide, available in the Guide [?] menu.)

IMPORTANT Your Macintosh supports EtherTalk Phase 2 (AppleTalk Phase 2 Protocols for Ethernet networks) and TCP/IP (via MacTCP software). Non-Apple products that you can use to communicate over Ethernet using protocols are also available. Your Macintosh does not support EtherTalk Phase 1 (AppleTalk Phase 1 protocols for Ethernet networks).

CAUTION The use of an Ethernet card will make your Macintosh a Class A computing device, according to FCC regulations.

Expanding memory

The random-access memory (RAM) in your computer can be expanded. Installing additional RAM adds more memory chips to your computer and expands its capabilities. The *Technical Information* booklet that came with your computer describes how much additional memory can be installed in your Macintosh.

WARNING To avoid damage to your computer, Apple recommends that only an Apple-certified technician install additional RAM. Consult the service and support information that came with your computer for instructions on how to contact an Apple-authorized service provider or Apple for service. If you attempt to install additional RAM yourself, any damage you may cause to your equipment will not be covered by the limited warranty on your computer. See an Apple-authorized dealer or service provider for additional information about this or any other warranty question.

Installing internal drives

Your Macintosh can hold up to three internal storage devices, including a floppy disk drive, a CD-ROM (compact disc read-only memory) drive, and a hard disk drive (several capacities are available). These drives may already be installed. If you want to add or replace an internal drive, see your Apple-authorized dealer.



Read this chapter for information on installing and using application programs with your computer.

4

Installing and Using Application Programs



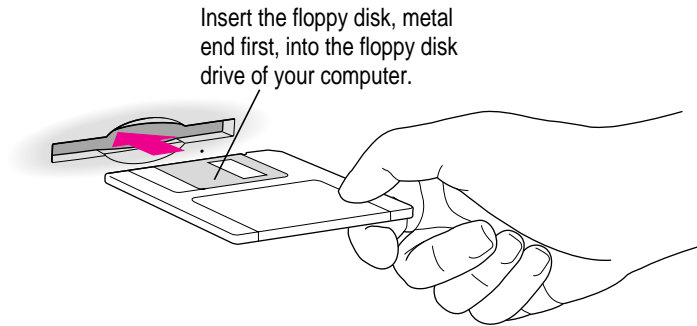
Your computer has several application programs already installed, as well as some programs that you must install before you can use them. (You will need to run the application program's Installer program before the application programs will work.) You'll find these programs on your hard disk.

You may want to experiment with AppleScript, one of the programs on your hard disk. With AppleScript you can automate tasks in the Finder and other scriptable programs (programs that support AppleScript). Instructions for using AppleScript are also included in the AppleScript folder.

Installing application programs

You'll probably want to buy and install additional application programs. See the manuals you receive with your programs for instructions on installing and using them.

In most cases, you'll install an application program on your internal hard disk from floppy disks that contain the program. The following illustration shows how to insert a floppy disk in your computer's disk drive.



To use your programs most effectively, follow these guidelines:

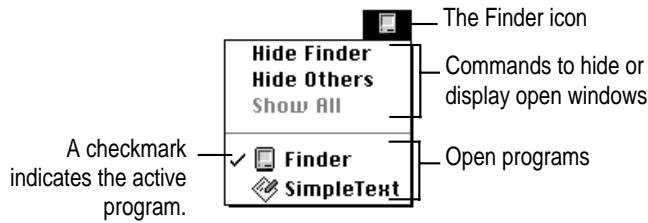
- Put only one copy of each program on your hard disk. Having more than one copy can cause errors.
- Whenever you copy a program disk to your hard disk, be careful not to copy a System Folder. Always check to see what you've copied, and drag any extra System Folders to the Trash.
- If a program malfunctions consistently, try installing a fresh copy. If that doesn't help, find out from the software manufacturer whether your version of the program is compatible with the system software you're using.

For instructions on how to eject floppy disks, see the “Disks” topic of Macintosh Guide, available in the Guide (🔍) menu.

Working with several programs at a time

You can open as many application programs and desk accessories as your computer's memory allows.

All open programs are listed in the Application menu at the right end of the menu bar. The name of the active program (the one you're using right now) has a checkmark next to it, and its icon appears in the menu bar.



Finding out which programs are open

If you have several programs and windows open, you can find out which program is active and which other programs are open by pulling down the Application menu.

Switching programs

You can switch to another open program or desk accessory by choosing its name from the Application menu.

If a program's icon is dimmed in the menu, that means its windows are hidden. Choosing the program from the Application menu displays its windows.

You can also switch to another program by clicking in a window that belongs to an open program, or by double-clicking a program icon (or the icon of a document that was created with the program).

Hiding and showing windows on the desktop

You can hide all windows except those of the active program by choosing Hide Others from the Application menu.

The other programs remain open even though their windows are hidden. When you switch to another program, its windows become visible again.

If you want to see all the open windows, choose Show All from the Application menu.

Backing up your files

Making backup copies of important files is good protection against possible damage to the originals.

- You can back up files stored on your hard disk by copying them to floppy disks.
- You can back up an entire floppy disk by copying it to another floppy disk, or to a hard disk.
- You can use a commercial backup program to copy new and changed files from a hard disk to another hard disk, to a tape drive, or to a series of floppy disks.
- If your computer is on a network, you can back up files by copying them to a shared disk on the network.

Consult this chapter if you experience problems using your computer.

5

Troubleshooting



When you have questions

If you want to know how to do a particular task with your computer, refer to Macintosh Guide in the Guide (🔗) menu. For instructions on using Macintosh Guide, see Chapter 2 of this manual.

When you run into trouble

While you're using your computer, you may occasionally see a bomb icon or an error message, or you may have a problem such as the pointer (⏏) “freezing” on the screen. If you have trouble with your computer, take a few minutes to read the information in this chapter. If your problem is related to a particular procedure, you should also look for information on that procedure in Macintosh Guide, available in the Guide (🔗) menu. For additional troubleshooting information and a list of common questions relating to your system software, see the “Troubleshooting” topic of Macintosh Guide.

If you are unable to access Macintosh Guide (for example, if your screen is “frozen”), refer to this chapter to see if you can resolve the problem.

Take your time

When you see an error message, you don't have to take action immediately. The message stays on the screen until you click the OK button or turn off the Macintosh.

To help diagnose and correct the problem, gather as much information on the situation as you can before starting over.

- Make a note of exactly what you were doing when the problem occurred. Write down the message on the screen and its ID number (if any). Also list the programs you were using and the names of any items you know have been added to the System Folder since the system software was installed. This information will help a service person diagnose the problem. (It is helpful to keep a printed copy of the items in your System Folder. For instructions on printing the contents of a folder, see the “Printing & Fonts” topic of Macintosh Guide, available in the Guide [?] menu.)
- Check the screen for any clues. Is a menu selected? What programs and document icons are open? Note anything else that seems relevant.
- If you were typing text and were not able to save it before the problem occurred, you can write down the parts of the text still visible on the screen so that some of your work will be easy to replace.
- Ask other Macintosh users about the problem you're having; they may have a solution for it.

If you need repair service, consult the service and support information that came with your computer for instructions on how to contact an Apple-authorized service provider or Apple for assistance.

Start over

Often you can eliminate a problem simply by clearing the computer's memory and starting over.

If you can, save any open documents before restarting the Macintosh. If your system is frozen and does not respond to anything you do, or if you have a “bomb” message on the screen, saving may not be possible. You can try pressing ⌘-Option-Esc to quit the program in use when the problem occurred; if this works, you can then save the documents open in other programs before restarting.

To restart your Macintosh, try the following steps:

- 1 If you can, choose Restart from the Special menu or from the dialog box that's on screen.**

Dialog boxes contain messages from the computer. If something goes wrong, a message may appear on the screen, asking you to restart the computer.

- 2 If you can't choose Restart, hold down the ⌘ and Control keys while you press the Power key (marked with a triangle).**

This key combination restarts the computer. (Use this key combination only when you can't choose Restart from the Special menu.)

- 3 If nothing happens, turn off your computer with the power switch, wait at least 10 seconds, and then turn it on again.**

4 If the power switch doesn't turn off the computer, unplug your Macintosh.

If you suspect that the problem is with other equipment, such as a printer or an external hard disk that's attached to your computer, turn that equipment off for 10 seconds or longer, then turn it on again and restart the Macintosh.

Rebuild your desktop regularly

A process known as “rebuilding the desktop” helps your Macintosh keep track of data on your startup disks. Although you usually use the hard disk in your computer as a startup disk, you can also start up from any other disk that has system software installed. It's a good idea to rebuild the desktop of your startup disks once a month or so.

To rebuild the desktop of a startup disk, follow these steps:

1 Hold down the Option and ⌘ keys while you start up your computer.

Do not release the keys until you see a message asking whether you want to rebuild the desktop.

2 Click OK.



Solutions to common problems

The computer is turned on but the screen is dark.

One of the following is probably the cause:

- You have a screen saver program that darkens the screen when the computer has not been used for a certain period.

Press a key or move the mouse to turn off the screen saver.

- The monitor's brightness control (☼) is not adjusted properly.

Check the monitor's brightness control and turn it up if necessary.

- The Macintosh or the monitor is not getting power.

If you have a separate monitor, check that the monitor is plugged in and turned on, and that the monitor cable is firmly connected to both the computer and the monitor.

Check that the computer's power cord is firmly connected to the computer and plugged into a grounded electrical outlet, and that the outlet has power.

If you have more than one monitor, and only one is dark, check that it is set up correctly in the Monitors control panel. For information on using more than one monitor, see the "Monitors" topic of Macintosh Guide, available in the Guide (📖) menu.

If you are displaying video from your computer on a television screen, it is normal for your computer monitor to be dark.

The computer's clock keeps time inaccurately.

Your computer has a clock that runs continuously. When the computer is turned off, a battery keeps the clock running. If your clock begins to keep time inaccurately, have your Apple-authorized service provider replace the battery.

When you start up, a disk icon with a blinking question mark appears in the middle of the screen.



This icon indicates that your Macintosh cannot find the system software it needs to start up. One of the following is probably the cause:

- Your computer may be having a problem recognizing external equipment that uses the Small Computer System Interface (SCSI).

Turn off all external SCSI equipment and disconnect the first SCSI device in the chain from your computer's SCSI port. Then restart the computer. If the computer starts up after you disconnect your SCSI equipment, refer to the manuals that came with the equipment for information on the proper way to connect SCSI equipment and assign SCSI ID numbers.

If you have a printer connected to your computer's SCSI port, make sure your printer is not supposed to be connected to the printer port instead. Check the manuals that came with your printer for information on how to properly connect it.

- System software is not installed on the startup hard disk, the system software is damaged, or the hard disk is not working properly.

Start up your computer using the *Disk Tools* floppy disk or (if you have a built-in CD-ROM drive) with the CD-ROM disc that contains system software. (For instructions on how to start up your computer from the CD-ROM disc, see "Starting Up From a CD-ROM Disc" in the section "Initializing a Hard Disk" later in this chapter.) Then follow the instructions in "Repairing a Damaged Disk" later in this chapter to test your startup hard disk and repair any damage.

If repairing the disk doesn't help, follow the instructions in "Installing or Reinstalling System Software" later in this chapter to reinstall system software on your startup hard disk.

When you try to start up from a floppy disk, a disk icon with an X appears in the middle of the screen and the floppy disk is ejected.



This icon indicates that the floppy disk you tried to start up from is not a startup disk.

Wait a few seconds. The computer should start up from its internal hard disk. Make sure you insert floppy disks only after the computer has begun starting up.

A “sad Macintosh” icon appears and the computer won’t start up.



This icon indicates that your Macintosh cannot start up because of a problem with the system software or the computer hardware.

Eject any floppy disks by turning off the computer and then holding down the mouse button while you turn the computer on again. Try starting up with the *Disk Tools* floppy disk or (if you have a built-in CD-ROM drive) with the CD-ROM disc that contains system software. (For instructions on how to start up your computer from the CD-ROM disc, see “Starting Up From a CD-ROM Disc” in the section “Initializing a Hard Disk” later in this chapter.) If the “sad Macintosh” icon appears again, consult the service and support information that came with your computer for information on contacting an Apple-authorized service provider or Apple for assistance.

The hard disk icon does not appear on the desktop.

If you don’t see a hard disk icon on the desktop, try the following:

- If the hard disk is internal, shut down your computer, wait at least 10 seconds, and then turn it on again.
- If the hard disk is external, make sure that it is turned on and that its cable is connected firmly; then restart the Macintosh.
- Check the ID numbers of all SCSI equipment connected to your computer. See the manuals that came with your SCSI equipment for information on setting SCSI ID numbers.

- If the hard disk is your startup disk, start your computer using the *Disk Tools* floppy disk or (if you have a built-in CD-ROM drive) with the CD-ROM disc that contains system software. (For instructions on how to start up your computer from the CD-ROM disc, see “Starting Up From a CD-ROM Disc” in the section “Initializing a Hard Disk” later in this chapter.) Then follow the instructions in “Repairing a Damaged Disk” later in this chapter to test your startup hard disk and repair any damage.

If repairing the disk doesn't help, follow the instructions in “Installing or Reinstalling System Software” later in this chapter to reinstall system software on your startup hard disk.

Icons do not appear correctly on your screen.

You need to rebuild the desktop—a process that helps your Macintosh keep track of files and folders on your hard disk. For instructions, see “Rebuild Your Desktop Regularly” in the section “When You Run Into Trouble” earlier in this chapter.

If icons do not appear correctly after you rebuild the desktop, restart your computer while pressing the Shift key to temporarily turn off system extensions. When you see the “Welcome to Macintosh—extensions off” message, release the Shift key and press the Option and ⌘ keys until you see a message asking if you want to rebuild the desktop.

Your Macintosh can't read a floppy disk.

If you see a message that a floppy disk is unreadable, try one of the following:

- If the disk has never been used, you may simply need to initialize it. For instructions, see the “Disks” topic of Macintosh Guide, available in the Guide (Ⓜ) menu.
- The disk may be damaged. See “Repairing a Damaged Disk” later in this chapter for information on testing and repairing disks.

If you are trying to use a DOS disk, consider the following:

- The disk may have been formatted incorrectly on a DOS computer. On DOS computers it's possible to format a standard double-sided disk in a high-density (1440K) format, and vice versa. Disks formatted in this way cannot be read by a Macintosh computer.

When formatting disks on a DOS computer, always format standard double-sided disks in the 720K format. Always format high-density disks in the 1440K format.

If a disk has been formatted incorrectly, use a DOS computer to copy its contents onto another disk that has been properly formatted.

The pointer (⌘) freezes on the screen.

Your system has a software problem.

- Press ⌘-Option-Esc to quit the application program in use when the problem occurred. If this works, you can save the documents open in other programs before restarting.
- Restart your Macintosh. (For instructions, see “Start Over” in the section “When You Run Into Trouble” earlier in this chapter.) Most software problems are temporary, and restarting usually corrects the problem.
- Check the startup disk and program you were using when the problem occurred. Make sure that all programs, desk accessories, and system extensions you’re using are compatible with the system software.
- Sometimes incompatible system extensions or control panels can cause system software problems. Restart while holding down the Shift key; this temporarily turns off all system extensions. If your computer works normally after you do this, remove all extensions from the Extensions folder (inside the System Folder) and put them back into the Extensions folder one at a time. Restart after you add each extension. This procedure should identify any incompatible extensions.

You can also use the Extensions Manager control panel to turn off individual extensions. For information on using this control panel to manage system extensions, see the “Setting Options” topic of Macintosh Guide, available in the Guide (🔍) menu.

- If the problem recurs, you may need to reinstall system software. See “Installing or Reinstalling System Software” later in this chapter for instructions.

A dialog box with a bomb appears.

Your system has a software problem.

- Write down what you were doing when the message appeared, and write down the message's text and its number, if there is one.
- Restart your Macintosh. (See “Start Over” in the section “When You Run Into Trouble” earlier in this chapter for instructions.) Most software problems are temporary, and restarting usually corrects the problem.
- Check the startup disk and application program you were using when the dialog box appeared. Make sure that all programs, desk accessories, and system extensions you're using are compatible with the system software. Reinstalling the system software may correct the problem.
- Sometimes incompatible system extensions or control panels can cause system software problems. Restart while holding down the Shift key; this temporarily turns off all system extensions. If your computer works normally after you do this, remove all extensions from the Extensions folder (inside the System Folder) and put them back into the Extensions folder one at a time. Restart after you add each extension. This procedure should identify any incompatible extensions.

You can also use the Extensions Manager control panel to turn off individual extensions. For information on using this control panel to manage system extensions, see the “Setting Options” topic of Macintosh Guide, available in the Guide (Ⓜ) menu.

- If the problem recurs, you may need to reinstall system software. See “Installing or Reinstalling System Software” later in this chapter for instructions.

The pointer (⏏) doesn't move when you move the mouse.

One of the following situations is probably the cause:

- Your system has a software problem.

Press ⌘-Option-Esc to quit the application program in use when the problem occurred. If this works, you can save the documents open in other programs before restarting.

Restart your Macintosh. See “Start Over” in the section “When You Run Into Trouble” earlier in this chapter for instructions.

Check the startup disk and program you were using when the problem occurred. Make sure that all programs, desk accessories, and system extensions you're using are compatible with the system software. Try starting up the computer from the *Disk Tools* disk or the CD-ROM disc that contains system software. (For instructions on how to start up your computer from the CD-ROM disc, see "Starting Up From a CD-ROM Disc" in the section "Initializing a Hard Disk" later in this chapter.) If your computer starts up normally, there may be an extension conflict.

If the problem recurs, you may need to reinstall system software. See "Installing or Reinstalling System Software" later in this chapter for instructions.

- The mouse is not connected properly.

Turn the computer off using the power switch, check that the mouse and keyboard cables are connected properly, and then restart the computer.

- Signals from the mouse are not reaching the computer, either because the mouse needs cleaning or because there is something wrong with the mouse.

Clean the mouse according to the instructions in Appendix A of this book.

If you have another mouse or pointing device, try connecting and using it. (Turn off the computer before connecting it.) If the new device works, there is probably something wrong with the mouse you replaced.

If none of these procedures solves the problem, consult the service and support information that came with your computer for instructions on how to contact an Apple-authorized service provider or Apple for assistance.

Typing on the keyboard produces nothing on the screen.

One of the following is probably the cause:

- Your system has a software problem.

Restart your Macintosh. For instructions, see "Start Over" in the section "When You Run Into Trouble" earlier in this chapter.

Check the startup disk and application program you were using when the problem occurred. Make sure that all programs, desk accessories, and system extensions you're using are compatible with the system software.

If the problem recurs, you may need to reinstall system software. See “Installing or Reinstalling System Software” later in this chapter for instructions.

- You haven’t selected any text or set the insertion point (I).

Make sure the program you want to type in is the active program. Then place the pointer (Ⓜ) in the active window and click to set an insertion point (I) or drag to select text (if you want to replace the text with your typing).

- The keyboard is not connected properly.

Turn off the computer using the power switch, then check that the keyboard cable is connected properly at both ends.

If you have a keyboard with an ADB port (marked with the Ⓜ icon) on each end, turn off the Macintosh using the power switch and plug the keyboard cable into the other ADB port on the keyboard. (You may have to unplug the mouse to do this.) Then restart the computer.

Many Macintosh computers have two ADB ports on the back panel. Also, some monitors have one or two ADB ports. Turn off the Macintosh using the power switch and connect your keyboard cable to a different ADB port on the computer or monitor. Then restart the computer.

- The keyboard is damaged.

If you have access to another keyboard, try using it instead. (Turn the computer off before connecting it.) If the new keyboard works, there is probably something wrong with the one you replaced.

If none of these procedures solves the problem, consult the service and support information that came with your computer for instructions on how to contact an Apple-authorized service provider or Apple for assistance.

You can't start an application program or it quits unexpectedly. Or, when you try to open a program, you see a message that not enough memory is available.

One of the following is probably the cause:

- The Macintosh ran out of memory.

Quit the programs that you have open and then open the program you want to use, or restart your Macintosh.

Use the Memory control panel to turn on virtual memory. (This is especially important if you have a Power Macintosh computer or Power Macintosh upgrade card and are using programs designed specifically for the Power Macintosh.) For more information on virtual memory, see the “Memory” topic of Macintosh Guide, available in the Guide (🔍) menu.

- The program needs more memory.

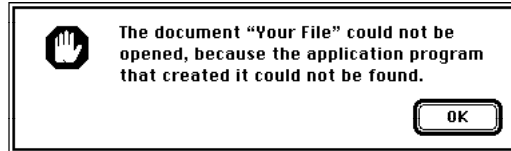
Use the program's Info window to give it more memory. For more information on increasing a program's memory, see the “Memory” topic of Macintosh Guide, available in the Guide (🔍) menu.

- The program requires special hardware, such as a floating-point unit (FPU), and your computer doesn't have the hardware installed.

Check the documentation that came with the program to find out if the program requires a Macintosh with special hardware, such as an FPU. Then check the *Technical Information* booklet that came with your Macintosh to find out if your computer is equipped with such special hardware, or if the hardware can be installed. Consult your Apple-authorized service provider for information on installing special hardware in your computer.

You see a message that an application program can't be found.

The following dialog box appears if you try to open a document that was created with software that is not on your hard disk.



Normally, you see this message if you try to open a document that came from another Macintosh with software that is different from yours.

- Some documents can be opened by more than one application program. Try starting a program that you think might be able to open the document, then choose Open from the program's File menu to try to open the document.
- Purchase and install the correct software to use the document, or find out if the creator of the document can convert it to a form that one of your programs can use.
- Don't try to open the files in your System Folder. Most of the files in your System Folder are used by your computer for internal purposes and are not intended to be opened.
- Rebuild your desktop by holding down the Option and ⌘ keys while starting up your computer. Keep holding down the keys until you see a message asking whether you want to rebuild the desktop. Click OK.
- If the document is from a DOS computer, use the PC Exchange control panel to specify which Macintosh program will open the document. For information about working with DOS documents on your Macintosh, see the "Using DOS Files & Disks" topic of Macintosh Guide, available in the Guide (📖) menu.

You experience problems using a document from a DOS computer.

If you can't open a DOS document using a Macintosh program, try the following:

- Open the document from within the program by choosing Open in the program's File menu.
- Use the PC Exchange control panel to change the document's type to one that can be opened by the program.

If a DOS document is displayed incorrectly, or you see strange codes or characters in the document, try one of the following:

- Your application program may have special procedures for opening and saving documents with different file formats. See the information that came with your program.
- Try opening the document in another program.

Note: Some characters that can be displayed on the Macintosh are not accurately displayed on DOS computers.

For more information about working with DOS documents on your Macintosh, see the "Using DOS Files & Disks" topic of Macintosh Guide, available in the Guide (⌘) menu.

Initializing a hard disk

Before you can use a new disk, the disk must be prepared so that the computer knows where to store information on the disk. This preparation is called *initializing* (or *formatting*) the disk.

When do you need to initialize a hard disk?

The hard disk inside your computer was initialized at the factory, so you shouldn't need to initialize it. You need to initialize a hard disk only if

- you purchase a hard disk that has not been initialized at the factory
- your hard disk is damaged

If a hard disk needs to be initialized, the disk's icon does not appear on the desktop when you start up the computer using another disk.

WARNING Initializing a disk erases any information that may be on it. Before you initialize a damaged disk, try to repair it as described in “Repairing a Damaged Disk” later in this chapter.

Starting up from a CD-ROM disc

To initialize, test, or repair a hard disk, or to install system software on a hard disk, you need start up your computer from another disk. If your computer has a CD-ROM drive, you can start up your computer using the CD-ROM disc containing system software that came with the computer.

To start up the computer using the CD-ROM disc, follow these steps:

- 1 Turn your computer on.**
- 2 Press the Open/Close button on your CD-ROM drive, and quickly insert the CD-ROM disc containing system software into the drive.**
- 3 Immediately press the C key on your keyboard.**

Continue to hold down the key until you see the “Welcome to Macintosh” message.

If a blinking question mark appears, or if the computer starts up from your hard disk: You did not insert the CD-ROM disc quickly enough for the computer to recognize it as a startup disk. Follow these steps:

1 Shut down your computer.

The CD-ROM disc will remain in the CD-ROM drive.

2 Turn the computer on.

3 Immediately press the C key on the keyboard.

Continue to hold down the key until you see the “Welcome to Macintosh” message.

Starting up from a floppy disk

To initialize, test, or repair a hard disk, or to install system software on a hard disk, you need to start up your computer from another disk. If you don't have a built-in CD-ROM drive, you can start up the computer using either the *Disk Tools* or *Install Disk 1* floppy disk that came with your computer.

To start up your computer using a floppy disk, follow these steps:

1 Shut down your computer.

2 Insert the floppy disk into the disk drive.

If you want to initialize, test, or repair your hard disk, use the *Disk Tools* disk to start up your computer. If you want to install system software, use the *Install Disk 1* disk.

3 Turn on the computer.

How to initialize a hard disk

You initialize an Apple SCSI hard disk by using a program called Apple HD SC Setup, which is on the floppy disk labeled *Disk Tools* that came with your computer. If your computer came with a CD-ROM drive and you didn't receive floppy disks, you can find Apple HD SC Setup on the CD-ROM disc that contains system software.

- 1 **Start up your computer from the *Disk Tools* disk or the CD-ROM disc that contains system software.**

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” earlier in this section.

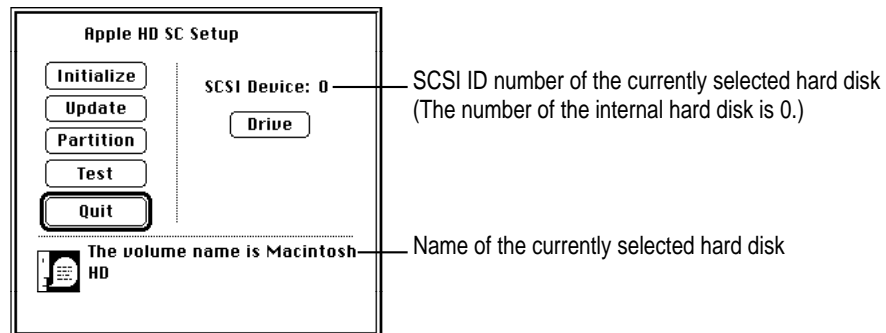
- 2 **Open the Apple HD SC Setup icon.**

You may need to look in a folder called Utilities to find Apple HD SC Setup.



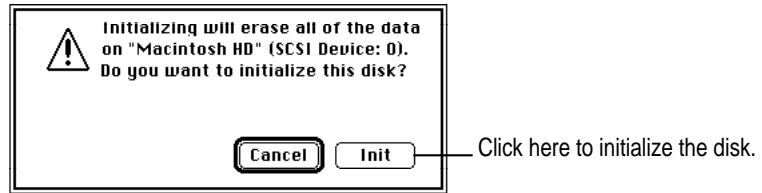
- 3 **Click Drive until the disk you want to initialize appears.**

You cannot initialize the disk that you used to start up your computer or the disk that contains the Apple HD SC Setup program.



- 4 **Click Initialize.**

- 5 Click Init to initialize the hard disk.



- 6 If a message appears asking you to name the disk, type a name and then click OK.
- 7 Click Quit when you see a message reporting that initialization was successful.

If a message reports that initialization failed, try again. If initialization fails a second time, take the disk to your Apple-authorized service provider for repair.

Repairing a damaged disk

Disks can become damaged by repeated use and handling.

When do you need to repair a disk?

If you see a message reporting that a disk is damaged or unreadable, you may need to repair the disk.

Try these suggestions first

If you can't start up from a hard disk or you don't see the hard disk icon on the desktop, try the following:

- If the hard disk is internal, shut down your Macintosh, wait at least 10 seconds, and then turn it on again.
- If the hard disk is external, make sure that it is turned on and that its cable is connected firmly; then restart the Macintosh.
- If the hard disk is your startup disk, start up with a different startup disk. If the hard disk's icon appears on your desktop, reinstall system software on the hard disk (see "Installing or Reinstalling System Software" later in this chapter).
- Check the ID numbers of all SCSI equipment connected to your computer. Each device must have a unique ID number (the computer itself has the ID number 7, and the internal hard disk has the number 0). Also check that the chain of devices is terminated properly. For information on setting SCSI ID numbers and terminating a SCSI chain, see the manuals that came with your SCSI equipment.
- Test the disk following the instructions that come next.

How to test a hard disk

You can test an Apple SCSI hard disk with the Apple HD SC Setup program, which is on the floppy disk labeled *Disk Tools* that came with your computer. If your computer has a built-in CD-ROM drive, and you didn't receive floppy disks, you can find the Apple HD SC Setup program on the CD-ROM disc that contains system software.

- 1 **Start up your computer from the *Disk Tools* disk or the CD-ROM disc that contains system software.**

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” in the section “Initializing a Hard Disk” earlier in this chapter.

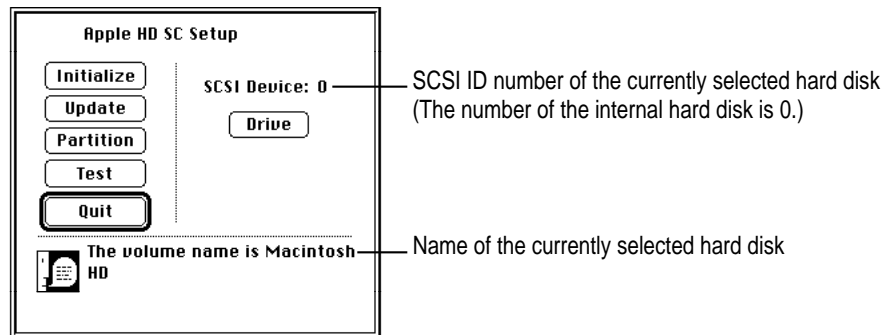
- 2 **Open the Apple HD SC Setup icon.**

You may need to look in a folder called Utilities to find Apple HD SC Setup.



Apple HD SC Setup

- 3 **Click Drive until the disk you want appears.**



- 4 **Click Test.**
- 5 **When a message tells you that testing is complete, click Quit.**

If the test reveals a problem, you may be able to correct it by using Disk First Aid or another disk repair program (see the instructions in the next section), or you may need to reinitialize the disk (see “Initializing a Hard Disk” earlier in this chapter). Consult an Apple-authorized service provider for assistance if necessary.

How to repair a hard disk or floppy disk

You can repair some types of disk damage by using the Disk First Aid program, which is included either on the *Disk Tools* floppy disk or on the CD-ROM disc containing system software that came with your computer.

- 1 Start up your computer from the *Disk Tools* disk or the CD-ROM disc that contains system software.**

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” in the section “Initializing a Hard Disk” earlier in this chapter.

- 2 Open the Disk First Aid icon.**

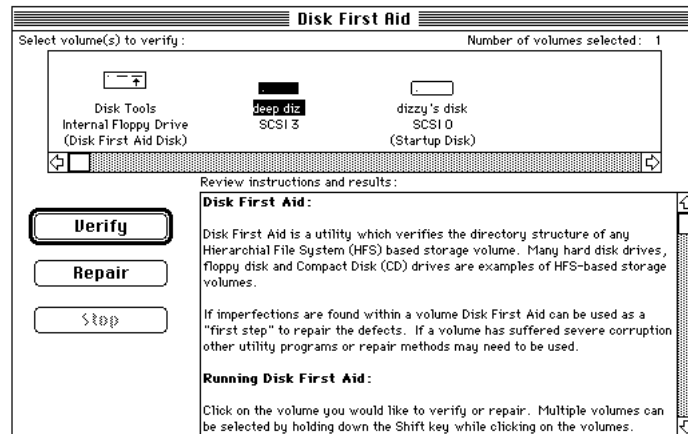
You may need to look in a folder called Utilities to find Disk First Aid.



Disk First Aid

- 3 Click the icon of the disk you want to test.

Disk icons appear in a box at the top of the Disk First Aid window.



- 4 Click Repair to begin testing and repairing the disk.

You can't repair the startup disk or the disk that contains the Disk First Aid program, but you can test these disks by clicking Verify. If the program reveals a problem with either of these disks, start up the computer from another disk so that you can repair the damaged disk.

If you want to test and repair another disk, click its icon and then click Repair.

- 5 When testing and repair are finished, choose Quit from the File menu.

If Disk First Aid cannot correct the problem

- Try repairing the disk again. Sometimes repeating the process corrects the problem.
- Use another disk repair or recovery program. Some disk repair programs let you recover information from a damaged disk.
- Consult a computer repair specialist for help.
- Once you have recovered all the information you can, erase (reinitialize) the disk. If initialization doesn't work, discard the damaged disk (if it's a floppy disk), or take it to your Apple-authorized service provider for repair (if it's a hard disk).

Installing or reinstalling system software

System software is the set of programs and other files that your computer uses to start itself up, keep track of your files, and run the application programs you use. System software is kept in the folder called the System Folder. When you turn on your computer, it looks for a startup disk, which is a disk that contains the system software. The startup disk is usually the hard disk that's inside your computer, though another hard disk or a floppy disk can also be a startup disk.

The accessory kit that came with your Macintosh provides system software on either a set of floppy disks or a CD-ROM disc. You can use the floppy disks or the CD-ROM disc to install the system software on your Macintosh if you need to do so.

When should you install system software?

Your Macintosh came with all the necessary system software installed on its internal hard disk, so you don't need to install system software on that disk unless you encounter software problems.

If you have a new hard disk or a newly initialized hard disk that doesn't contain system software, or if you want to upgrade to a more recent version of system software on a hard disk, follow the instructions in "Installing System Software" later in this chapter.

When should you reinstall system software?

If you have a problem with your system software, you may see this icon in the middle of the screen:



If this icon appears, follow the instructions in "Repairing a Damaged Disk" earlier in this chapter to test your startup hard disk and repair any damage.

If repairing the disk doesn't help, follow the instructions in the next section, "Installing System Software," to reinstall system software on your startup hard disk.

Installing system software

Follow the steps in this section to do what is commonly called a “normal” installation of system software.

If you’re installing system software on a hard disk for the first time, make sure that your hard disk has been initialized, a process that prepares the disk to store information. If you see the hard disk’s icon on the desktop when you start up the computer, the disk has been initialized. If no disk icon appears when you start up, see “Initializing a Hard Disk” earlier in this chapter for instructions.

To do a normal installation, follow these steps:

- 1 Start up your computer from the *Disk Tools* disk or the CD-ROM disc that contains system software.**

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” in the section “Initializing a Hard Disk” earlier in this chapter.

- 2 Find and open the Disk First Aid icon.**

You may need to look in a folder called Utilities to find Disk First Aid.



Disk First Aid

After Disk First Aid starts, follow the instructions on the screen. Disk First Aid checks your hard disk for any problems.

- 3 When Disk First Aid has finished checking your hard disk, choose Quit from the File menu.**
- 4 Open the Apple HD SC Setup program.**

You use the Apple HD SC Setup program to update your hard disk.
- 5 Make sure the disk indicated on the screen is your startup disk, then click Update.**
- 6 When you are finished, quit Apple HD SC Setup.**
- 7 Shut down your computer.**

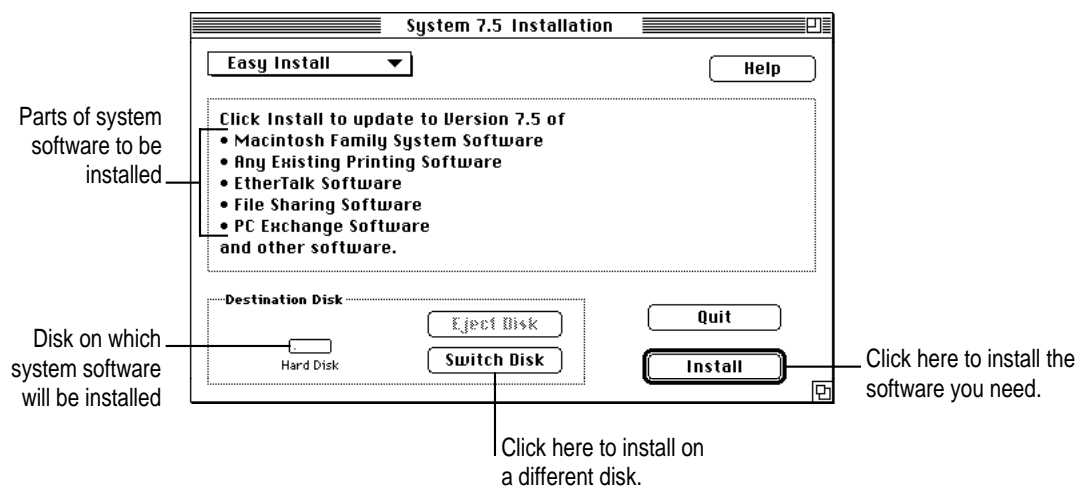
- 8 Start up your computer from the *Install Disk 1* disk or the CD-ROM disc that contains system software.

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” in the section “Initializing a Hard Disk” earlier in this chapter.

The Installer’s Welcome screen appears. You may have to double-click the System Software Installer icon to open the Installer program.

- 9 Click OK.

The Easy Install dialog box appears.



- 10 Make sure that the hard disk named in the box is the one on which you want to install system software.

If it isn’t, click Switch Disk until the correct disk name appears.

- 11 Click Install.

- 12 Follow the instructions that appear on the screen.

If you’re installing system software from floppy disks, you see messages asking you to insert different disks.

13 When you see a message reporting that the installation was successful, click Restart.

If a message reports that installation was not successful, try installing again. (Follow the instructions on the screen.)

If, after reinstalling system software by doing a normal installation, you still experience problems with your computer, follow the steps in the next section for doing a “clean” installation of system software.

IMPORTANT Certain system extensions or application programs that were originally on your hard disk may not be installed with the Installer program. If you notice that a certain extension or program was not installed, you may need to install it separately. You can find these additional extensions and programs on the CD-ROM disc that contains system software. If you don't have a CD-ROM drive, see the service and support information that came with your computer for information on how to contact Apple directly for assistance.

Doing a clean installation of system software

The steps in this section outline what is commonly called a “clean” installation of system software. Do a clean installation if you can't determine what is damaged in your System Folder (especially if you think any special software, such as control panels, system extensions, or custom utilities, may be causing the problems you're experiencing). You should also do a clean installation if you're still having problems with your computer after you've reinstalled system software by doing a normal installation.

To do a clean installation, follow these steps:

- 1 Start up your computer from the *Disk Tools* disk or the CD-ROM disc that contains system software.**

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” in the section “Initializing a Hard Disk” earlier in this chapter.

- 2 Find and open the Disk First Aid icon.**

You may need to look in a folder called Utilities to find Disk First Aid.



Disk First Aid

After Disk First Aid starts, follow the instructions on the screen. Disk First Aid checks your hard disk for any problems.

- 3 When Disk First Aid has finished checking your hard disk, choose Quit from the File menu.**
- 4 Find and open the Apple HD SC Setup icon.**

You may need to look in a folder called Utilities to find Apple HD SC Setup.



Apple HD SC Setup

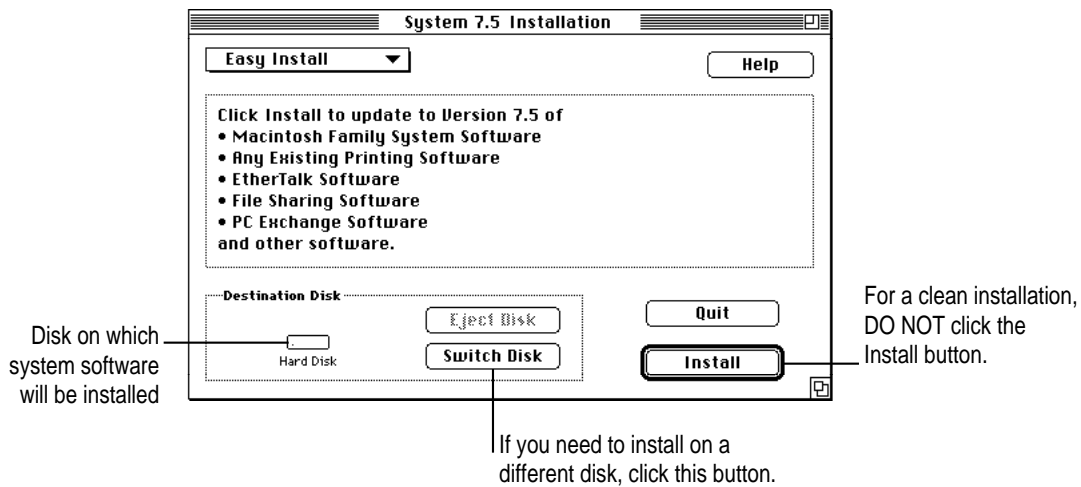
- 5 Click Drive until the disk on which you want to reinstall system software appears.**
- 6 Click Update and follow the instructions on the screen.**
- 7 When you see a message that the update was successful, click Quit.**

- 8 Insert the *Install Disk 1* disk into the floppy disk drive, or insert the CD-ROM disc that contains system software into the CD-ROM drive.

The Installer's Welcome screen appears. You may have to double-click the System Software Installer icon to open the Installer program.

- 9 Click Continue.

The Easy Install dialog box appears.



- 10 Make sure that the hard disk named in the Destination Disk box is the one on which you want to install system software.

If it isn't, click Switch Disk until the correct disk name appears.

- 11 Hold down Shift-⌘-K to start the clean installation.

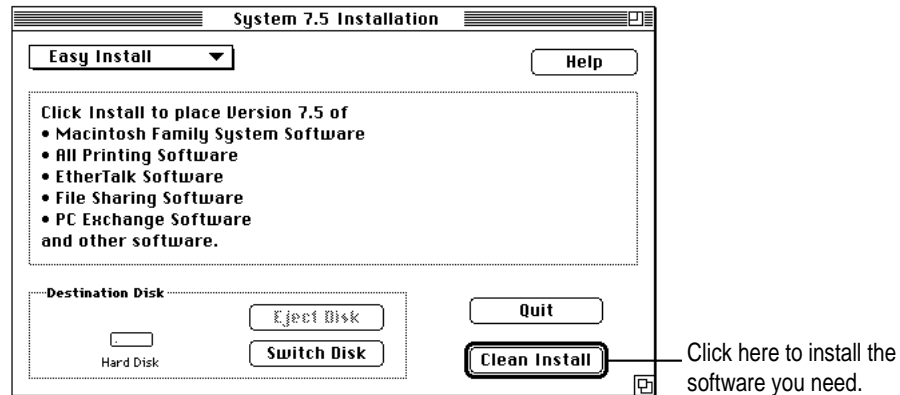
The following dialog box appears.



- 12 Click the Install New System Folder button and click OK.

The Easy Install dialog box appears. The Install button has changed to Clean Install, and the contents of your old System Folder have been moved to a new folder named Previous System Folder.

13 Click Clean Install.



14 Follow the instructions that appear on the screen.

It takes a few minutes to complete the installation.

15 When you see a message reporting that the installation was successful, you may need to click Restart.

You need to click Restart only if you installed software onto the startup disk.

If a message reports that installation was not successful, try repeating the clean installation procedure.

Replacing special software

1 Copy any special software items from the Previous System Folder back to your System Folder one item at a time, restarting the computer after copying each item.

Special software consists of items such as control panels, system extensions, or custom utilities that you may have added to your System Folder.

IMPORTANT Be very careful not to *replace* (copy over) any of the files in the System Folder with files from the Previous System Folder.

2 Check after each restart to make sure your computer is not having any software problems.

If any of your special software items cause software problems, contact the software manufacturer for assistance or an upgrade.

Doing a custom installation

For most Macintosh users, the Easy Install procedure described in the previous sections is appropriate, because it automatically installs all the items you need. However, if you'd like to select a combination of system software files for your specific needs, you can customize your system software installation. You use custom installation to install or update one or more specific files, or to save space on your hard disk by installing only the files you want.

To install customized system software, follow these steps:

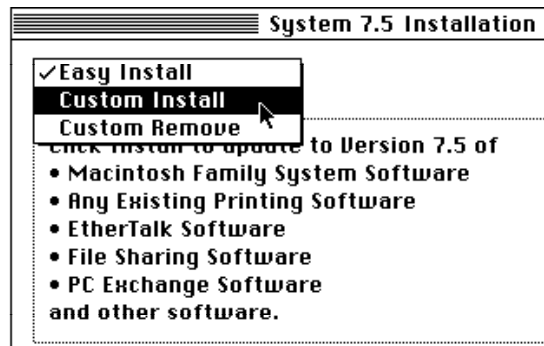
- 1 **Start up your computer from the *Install Disk 1* disk or the CD-ROM disc that contains system software.**

See “Starting Up From a CD-ROM Disc” or “Starting Up From a Floppy Disk” in the section “Initializing a Hard Disk” earlier in this chapter.

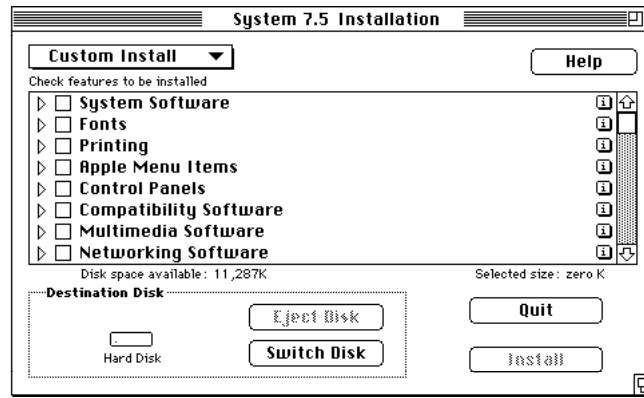
- 2 **Click OK.**

The Easy Install dialog box appears.

- 3 **Choose Custom Install from the pop-up menu.**



The Custom Install dialog box appears, listing all available system software components.



- 4 Scroll through the list of components, clicking the checkbox next to each component you want to install.

To get additional information about each component listed, click the box with the letter *i* in it to the right of the component.

- 5 Click Install.
- 6 Follow the instructions that appear on the screen.
- 7 When you see a message reporting that the installation was successful, click Quit.

If a message reports that installation was not successful, try installing again. (Follow the instructions on the screen.)

- 8 Restart your Macintosh.

The system software is installed and your computer is ready to use.

Read this appendix for important health and safety instructions, as well as tips on keeping your computer in good working order.



Appendix A Health, Safety, and Maintenance Tips



For your own safety and that of your equipment, follow all the instructions in this chapter. Keep these instructions available for reference by you and others.

Health-related information about computer use

Muscle soreness, eye fatigue, and other discomforts and injuries sometimes associated with using computers can occur from performing any number of activities. In fact, misuse of the same muscles during multiple activities can create a problem that might not otherwise exist. For example, if you engage in nonwork activities that involve repetitive stress on the wrist—such as bicycling—and also use your computer’s keyboard improperly, you may increase your likelihood of developing wrist problems. Some individuals are at greater risk of developing these problems because of their health, physiology, lifestyle, and general exposure to stress. Work organization and conditions, such as workstation setup and lighting, also play a part in your overall health and comfort. Preventing health problems is a multifaceted task that requires careful attention to the way you use your body every hour of every day.

The most common health effects associated with using a computer are musculoskeletal discomfort and eye fatigue. We’ll discuss each area of concern below.

Musculoskeletal discomfort

As with any activity that involves sitting for long periods of time, using a computer can make your muscles sore and stiff. To minimize these effects, set up your work environment carefully, using the guidelines that follow, and take frequent breaks to rest tired muscles. To make working with your computer more comfortable, allow enough space in your work area so that you can change position frequently and maintain a relaxed posture.

Another type of musculoskeletal concern is repetitive stress injuries (RSIs), also known as cumulative trauma disorders (CTDs). These problems can occur when a certain muscle or tendon is repeatedly overused and forced into an unnatural position. The exact causes of RSIs are not totally understood, but in addition to awkward posture, such factors as the amount of repetition, the force used in the activity, the individual's physiology, workplace stress level, and lifestyle may affect the likelihood of experiencing an RSI.

RSIs did not suddenly arise when computers were invented; tennis elbow and writer's cramp, for example, are two RSIs that have been with us for a long time. Although less common than other RSIs, one serious RSI discussed more often today is a wrist problem called carpal tunnel syndrome, which may be aggravated by improper use of computer keyboards. This nerve disorder results from excessive pressure on the median nerve as it passes through the wrist to the hand.

This section offers advice on setting up your work area to enhance your comfort while you use your computer. Since the effects of repetitive movements associated with using a computer can be compounded by those of other work and leisure activities to produce or aggravate physical problems, proper use of your computer system must be considered as just one element of a healthy lifestyle.

No one, of course, can guarantee that you won't have problems even when you follow the most expert advice on using computer equipment. You should always check with a qualified health specialist if muscle, joint, or eye problems occur.

Eye fatigue

Eye fatigue can occur whenever the eyes are focused on a nearby object for a long time. This problem occurs because the eye muscles must work harder to view an object that's closer than about 20 feet (6 meters). Improper lighting can hasten the development of eye fatigue. Although eye fatigue is annoying, there's no evidence that it leads to permanent damage.

Whenever you're engaged in an activity that involves close-up work—such as reading a magazine, doing craft work, or using a computer—be sure to have sufficient glare-free lighting and give your eyes frequent rest breaks by looking up and focusing on distant objects. Remember to have your eyes examined regularly.

To prevent discomfort and eye fatigue:

- Arrange your work space so that the furniture is properly adjusted for you and doesn't contribute to an awkward working posture.
- Take frequent short breaks to give your muscles and eyes a chance to rest.

Arranging your office

Here are some guidelines for adjusting the furniture in your office to accommodate your physical size and shape.

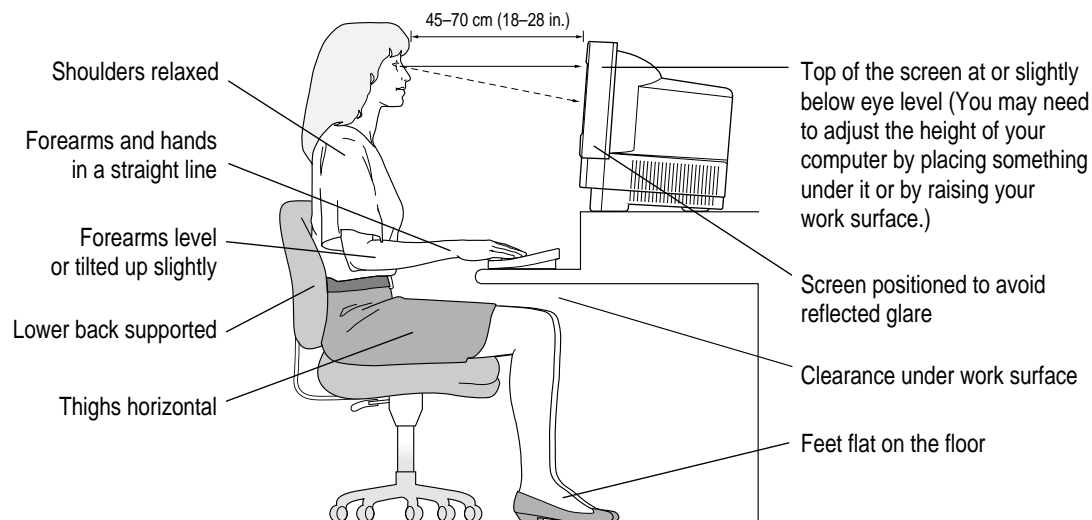
- An adjustable chair that provides firm, comfortable support is best. Adjust the height of the chair so your thighs are horizontal and your feet flat on the floor.

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.

- When you use the computer keyboard, your shoulders should be relaxed. Your upper arm and forearm should form an approximate right angle, with your wrist and hand in roughly a straight line.

You may have to raise your chair so 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 may 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.

- Position the mouse at the same height as your keyboard. Allow adequate space to use the mouse comfortably.
- Arrange the monitor so the top of the screen is slightly below your eye level when you're sitting at the keyboard. The best distance from your eyes to the screen is up to you, although most people seem to prefer 18 to 28 inches (45 to 70 cm).
- Position the computer to minimize glare and reflections on the screen from overhead lights and windows.



Avoiding fatigue

- Change your seated position, stand up, or stretch whenever you start to feel tired. Frequent short breaks are helpful in reducing fatigue.
- Use a light touch when typing or using a mouse and keep your hands and fingers relaxed.
- Some computer users may 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.
- Allow adequate workspace so that you can use your keyboard and mouse comfortably. Place papers or other items so you can view them easily while using your computer. A document stand may make reading papers more comfortable.
- Eye muscles must work harder to focus on nearby objects. Occasionally focus your eyes on a distant object, and blink often while you work.
- Clean your screen regularly. Keeping the screen clean helps reduce unwanted reflections.

What about electromagnetic emissions?

There has been recent public discussion of the possible health effects of prolonged exposure to extremely low frequency (ELF) and very low frequency (VLF) electromagnetic fields. Such fields are associated with electromagnetic sources such as television sets, electrical wiring, and some household appliances—as well as computer monitors.

Apple has reviewed scientific reports and sought the counsel of government regulatory agencies and respected health organizations. Based on the prevailing evidence and opinions, Apple believes that the electric and magnetic fields produced by computer monitors do not pose a health risk.

In response to those customers who wish to reduce their exposure to electromagnetic fields, Apple has lowered the emission levels of our products. We are also actively encouraging further scientific research so we can continue to promote the health and safety of our customers and employees.

Safety instructions

For your own safety and that of your equipment, always take the following precautions.

Turn off the computer completely and disconnect the power plug (by pulling the plug, not the cord) if any of the following conditions exists:

- the power cord or plug becomes frayed or otherwise damaged
- you spill something into the case
- your Macintosh is exposed to rain or any other excess moisture
- your Macintosh has been dropped or the case has been otherwise damaged
- you suspect that your Macintosh needs service or repair
- you want to clean the case (use only the recommended procedure described later in this chapter)

Be sure that you always do the following:

- Keep your Macintosh away from sources of liquids, such as wash basins, bathtubs, shower stalls, and so on.
- Protect your Macintosh from dampness or wet weather, such as rain, snow, and so on.
- Read all the installation instructions carefully before you plug your Macintosh into a wall socket.
- Keep these instructions handy for reference by you and others.
- Follow all instructions and warnings dealing with your system.

WARNING Electrical equipment may be hazardous if misused. Operation of this product, or similar products, must always be supervised by an adult. Do not allow children access to the interior of any electrical product and do not permit them to handle any cables.

Handling your computer equipment

Follow these guidelines for handling your computer and its components:

- When setting up your computer, place components on a sturdy, flat surface, and carefully follow all setup instructions.
- When connecting or disconnecting a cable, always hold the cable by its connector (the plug, not the cord).
- Turn off your computer and all its components before connecting or disconnecting any cables to add or remove any component. Failure to do so could seriously damage your equipment.
- Never force a connector into a port. If the connector and port do not join with reasonable ease, they probably don't match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.
- Take care not to spill any food or liquid on the computer, keyboard, mouse, or other components. If you do, turn your computer off immediately and unplug it before cleaning up the spill. Depending on what you spilled and how much of it got into your equipment, you may have to bring your equipment to an Apple-authorized service provider.
- Protect the computer and its components from direct sunlight and rain or other moisture.
- Keep all ventilation openings clear and unobstructed. Without proper air circulation, components can overheat, causing damage or unreliable operation.

WARNING This equipment is intended to be electrically grounded. Your Macintosh is equipped with a three-wire grounding plug—a plug that has a third (grounding) pin. This plug will fit only a grounded AC outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not defeat the purpose of the grounding plug!

Handling the built-in monitor

Follow these procedures for handling the built-in monitor:

- Turn down the screen brightness control if you leave the computer turned on for extended periods. If the brightness is not turned down, the image on the screen could “burn in” and damage the screen.

You can also use a “screen saver” program, which dims or varies the image on the screen when the computer has been idle for a specified period of time. These programs are available from independent suppliers and user groups.

- If there is interference on the monitor’s screen or on a television or radio near your computer, move the affected equipment farther away.

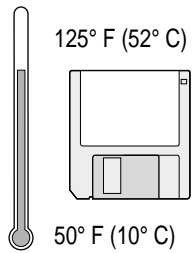
Handling the keyboard

Take care not to spill any liquid on the keyboard. If you do, turn off your computer immediately.

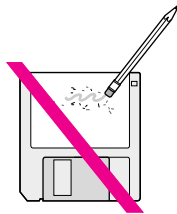
- If you spill liquid that is thin and clear, unplug the keyboard, turn it upside down to let the liquid drain out, and let it dry for 24 hours at room temperature. If, after you take these steps, the keyboard doesn’t work, take it to your Apple-authorized service provider for repair.
- If you spill liquid that is greasy, sweet, or sticky, unplug the keyboard and take it to your Apple-authorized service provider for repair.

Handling floppy disks

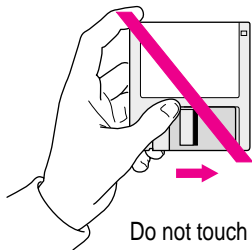
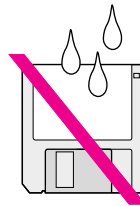
Store disks at temperatures between 50° F and 125° F.



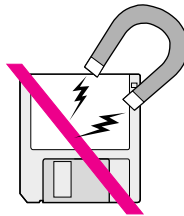
Do not use a pencil or an eraser on a disk or disk label.



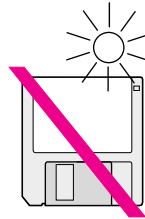
Keep disks dry.



Do not touch the exposed part of the disk behind the metal shutter.



Keep disks away from magnets.



Avoid exposing disks to extremely hot temperatures.

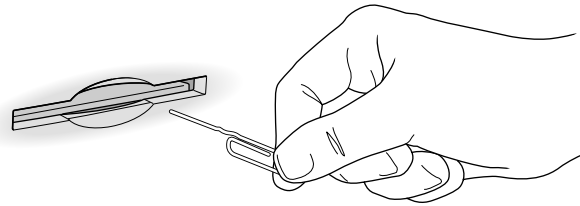
Ejecting a disk

For instructions on ejecting a floppy disk, a CD-ROM disc, or a removable media disk, see the “Disks” topic of Macintosh Guide, available in the Guide (🔍) menu.

If you can't eject a floppy disk

If you can't eject a floppy disk in the usual way, try the following in order:

- Hold down the ⌘ and Shift keys and press the number 1 key on your keyboard to eject a disk in the internal disk drive.
- Turn off the computer. If the disk isn't ejected, then hold down the button on your mouse or other pointing device while you turn the computer on again.
- Locate the small hole near the disk drive's opening, and carefully insert the end of a large straightened paper clip into it. Push gently until the disk is ejected. Do not use excessive force.



If nothing works, take the computer or disk drive to your Apple-authorized service provider to have the disk removed.

Power supply

The power supply in your computer is a high-voltage component and should not be opened for any reason, even when the computer is off. If the power supply needs service, contact your Apple-authorized dealer or service provider.

Cleaning your equipment

Follow these general rules when cleaning the outside of your computer and its components:

- Use a damp, soft, lint-free cloth to clean the computer's exterior. Avoid getting moisture in any openings.
- Don't use aerosol sprays, solvents, or abrasives.

Cleaning the computer case

To clean the case, do the following:

- 1 Turn off the computer completely and then disconnect the power plug. (Pull the plug, not the cord.)
- 2 Wipe the surfaces lightly with a clean, soft cloth dampened with water.

Cleaning the monitor

To clean the screen, put household glass cleaner on a soft cloth and wipe the screen. Don't spray the cleaner directly on the screen, because the liquid might drip into the monitor or computer.

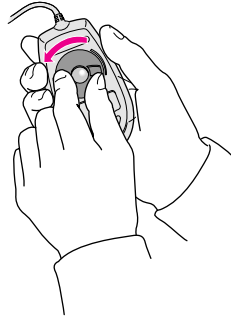
Cleaning the mouse

The mouse contains a small ball that must roll smoothly for the mouse to work properly. You can keep this ball free of dirt and grease by using the mouse on a clean, lint-free surface and cleaning it occasionally.

You need a few cotton swabs and a clean, soft, lint-free cloth.

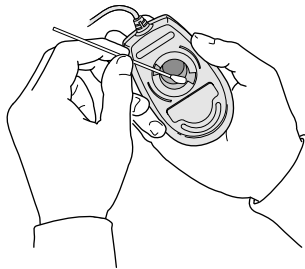
- 1 Turn off your computer.

- 2 Turn the mouse upside down and turn the plastic ring on the bottom counterclockwise to disengage it.



If you have an older mouse, you may need to press the plastic ring (rather than turn it) to disengage it.

- 3 Turn the mouse right side up with one hand and catch the ring and the ball with your other hand.
- 4 Clean the three small rollers inside the mouse with a cotton swab moistened with water. Rotate the rollers to clean all around them.



- 5 Wipe the mouse ball with a clean, soft, dry, and lint-free cloth.
- 6 If necessary, wash the mouse ball with warm soapy water (use a mild soap such as a dishwashing liquid) and then dry the mouse ball thoroughly.
- 7 Gently blow into the mouse case to remove any dust that has collected there.
- 8 Put the ball and the ring back in place.

Your mouse should roll smoothly across your mouse pad or desk. If it doesn't, repeat these instructions carefully.

Read this appendix for instructions on how to install an expansion card in your computer.



Appendix B Installing an Expansion Card



Expansion cards are printed circuit boards that can be installed in your computer to give it special capabilities, such as enhanced video capabilities, networking and communications, and additional processing power. Your Macintosh has one processor-direct slot available to install a processor-direct slot (PDS) expansion card.

You can install an expansion card by following the instructions that came with the card, or by following the instructions in this appendix.

WARNING To avoid damaging your computer and expansion card, do not attempt to install any expansion card without first checking the documentation for that card. If the documentation specifies that an Apple-certified technician must install the card (usually because the installation requires special training or tools), consult the service and support information that came with your computer for instructions on how to contact an Apple-authorized service provider or Apple for service. If you attempt to install the card yourself, any damage you cause to your computer will not be covered by the limited warranty on your computer. If the card is not an Apple-labeled product, check with an Apple-authorized dealer or service provider to see if you can install it yourself.

Installing an expansion card involves three steps:

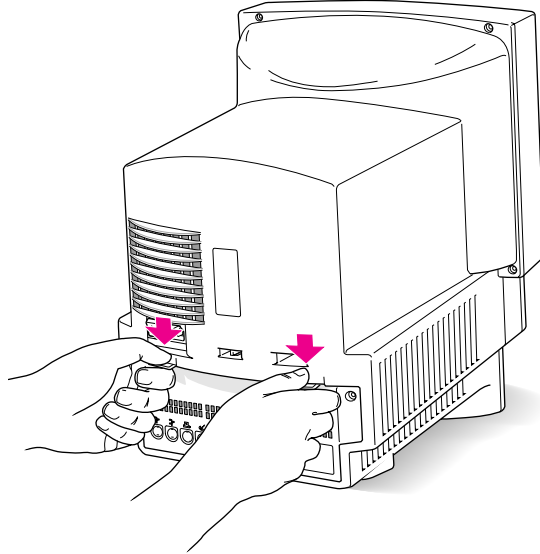
- opening the computer
- inserting the card in the slot
- closing the computer

IMPORTANT To use an Apple IIe Card with your Macintosh, you will need version 2.2 or later of the Apple IIe Card software. If you're using an earlier version, consult the service and support information that came with your computer for information on how to obtain an upgrade.

Opening the computer

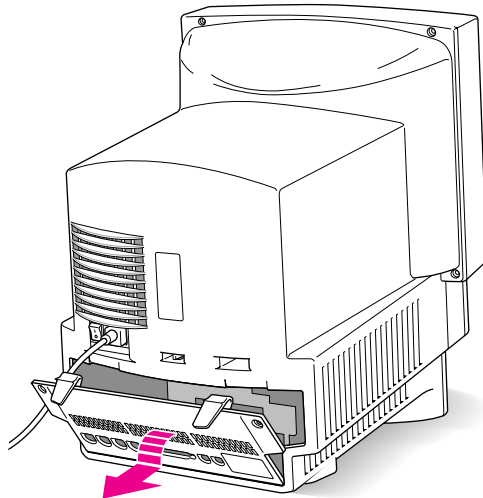
- 1 Choose Shut Down from the Special menu or press the Power key on the keyboard.
- 2 Turn off the computer completely by pressing the main power switch at the back of the computer.
- 3 Unplug the cable that connects your keyboard to the computer.
- 4 If there are security screws on either side of the computer's back panel, remove them with a Philips screwdriver.

- 5** Place your thumbs on the two plastic tabs on the back panel of the computer.



- 6** Press down on the tabs and pull gently until the back panel opens.

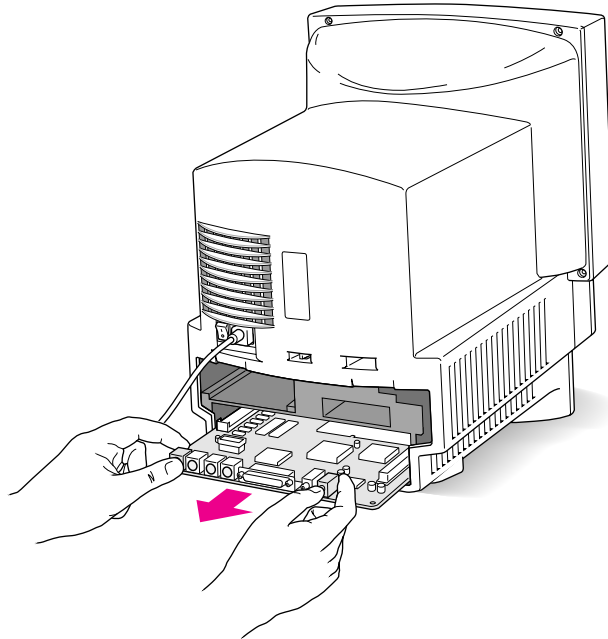
- 7** Take the back panel off and set it aside.



- 8 Slide the logic board (the board that holds the components that make your computer work) partway out until you have access to the entire slot at the right side of the board.

WARNING Don't pull the board all the way out; this can damage your Macintosh.

You'll need to hook your fingers around the little metal boxes to pull the logic board.

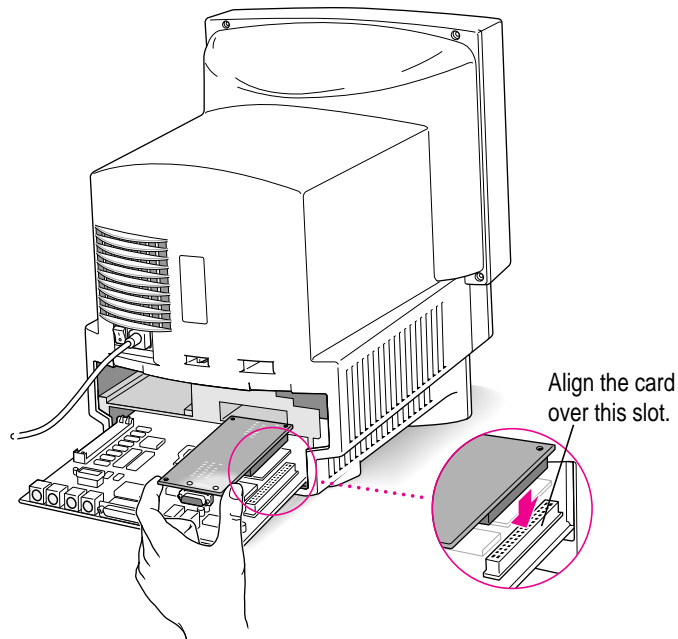


Installing a processor-direct slot (PDS) card

- 1 Remove the processor-direct slot (PDS) expansion card from its static-proof bag.

Hold the card by its top edge to avoid touching the connector on the bottom of the card.

- 2 Align the card over the processor-direct slot.



- 3 Press down on the card until the connector is solidly in place.

Don't force the card. If you meet resistance, pull the card out and try again.

To see if the card is properly connected, lift it gently. If it resists and stays in place, it's connected.

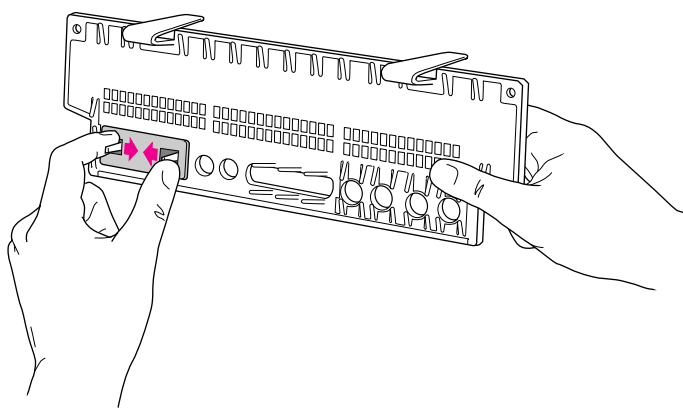
Closing the computer

- 1 Slide the logic board back in.

Push on the back edge of the logic board until it is firmly in place.

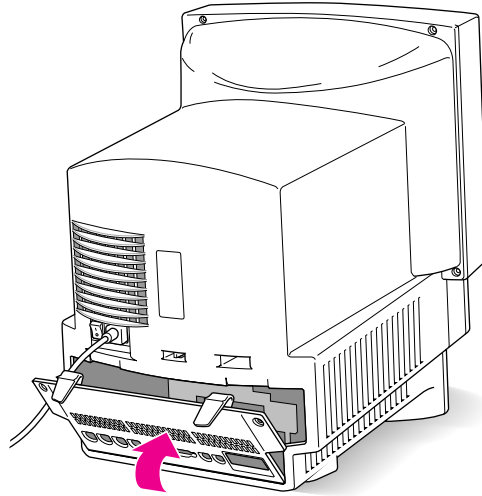
- 2 If there is a connector on the card that you just installed (for example, if you are installing an Apple IIe Card), remove the access cover on the back panel you removed earlier.

Pinch together the plastic tabs on the access cover to remove it and pop it out. With the access cover off, you can use the port on the card you just installed.



3 Replace the back panel of the computer.

Slip the back panel over the prongs at the bottom edge of the back of the computer and push it up and forward until it snaps into place. If your back panel was held on by screws, replace them.



WARNING Never turn on your computer unless all of its internal and external parts are in place. Operating the computer when it is open or missing parts can be dangerous, and can damage your computer.

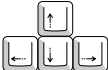



Read this appendix to learn how to use the special keys on your keyboard.

Appendix C Special Keys on Your Keyboard

Your computer keyboard contains certain special keys that typewriter keyboards don't have. Many of these keys allow you to give commands to the computer without using the mouse. For example, in many application programs, pressing the ⌘ (Command) key at the same time as the Q key is often an alternative method of quitting a program.







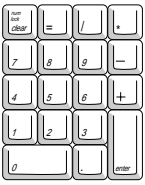





The following table describes what you can do with the special keys on your keyboard. The number of special keys on your keyboard may vary from this list; it depends on the model of keyboard you have.

Special keys on Apple keyboards

Arrow keys		Use to move the insertion point, as an alternative to using the pointer. In some programs, the arrow keys have other functions.
Caps Lock key		Use to capitalize a series of letters (numbers and symbols aren't affected).
Clear key		Use to delete the current selection (or use the Delete key). In some programs, Clear has other functions.
⌘ (Command) key		Use in combination with other keys as an alternative to choosing a menu command.

continued ►

Special keys on Apple keyboards *(continued)*

Control key		In combination with other keys, this key provides shortcuts or modifies other actions.
Delete key		Use to delete selected material, or the character to the left of the insertion point.
Enter key		In a dialog box, pressing Enter is the same as clicking the outlined button. In some programs, pressing this key confirms information you have provided.
Escape key		The function of this key depends on the program you're using.
Function keys		Some programs allow you to use the 12 function keys to give commands. You can assign commands or action sequences to function keys with special utility programs.
Option key		Use in combination with other keys to produce special characters or modify actions.
Numeric keys		Use to produce numbers and mathematical symbols; some programs use these keys as function keys to initiate actions.
Power key		On some models, press to turn on the computer. Also press to shut down the computer on certain models.
Return key		Use to move the insertion point to the beginning of the next line. In a dialog box, pressing Return is the same as clicking the outlined button.
Shift key		Use to produce capital letters (or the upper character on the key).
Other special keys		The function of these keys depends on the operating system and program you're using.
Tab key		Use to move the insertion point to the next stopping place (such as a tab stop or field in a dialog box or program).

If you can't find what you're looking for in this index, look in Macintosh Guide—available in the Guide (🔍) menu on your computer.



Index

• • • • •

- ⌘-Control-Power key, for restarting computer 41
- ⌘-Option-Esc, for quitting program in trouble 41, 47, 48
- ⌘-Shift-1, for ejecting floppy disk 82
- 🔍 icon, as Guide menu indicator 9, 10

A

- Apple Desktop Bus (ADB) icon, 4, 5
- accessory kit, system software in 63
- activating applications 16
- active menu, checking for 10
- active program indicator 37
- ADB port. *See* Apple Desktop Bus (ADB) port
- air circulation 79
- Apple Desktop Bus (ADB) port 29
 - icon for 4, 5
 - troubleshooting 50
- Apple HD SC Setup icon 56
- Apple HD SC Setup program 59, 64, 67
- Apple IIe card. *See* expansion cards
- AppleScript 35
- Application menu 16, 23
 - icon for 10
 - open programs listed in 37
- applications 35–38
 - activating 16
 - active, identifying 37
 - additional, on hard disk 35
 - compatibility with system software 48, 49
 - disk repair 60, 62
 - Installer program and 66
 - installing 36
 - memory problems with 51
 - open, listed 37
 - opening 37
 - problems opening 51, 52
 - quitting unexpectedly 51
 - quitting when system freezes 47, 48
 - screen saver 43
 - switching between 10, 37
 - troubleshooting 36, 47, 48, 51, 52
- arrow keys 93
- arrow on screen
- frozen 47, 48
- moving 9–10

B

- backing up files or disks 38
- Balloon Help 24
- basic Macintosh skills 9–10
- battery for clock 43
- blinking question mark disk
 - icon 7, 44, 63
- bomb message 39, 41, 48
- brightness control 28, 31, 43, 80

C

- cables
 - connecting and disconnecting 79
 - connecting mouse and keyboard 4–5
 - for Ethernet connection 33
 - keyboard, checking 50
 - monitor 43
 - safety concerns 79
 - troubleshooting 7
- capital letters 93, 94
- Caps Lock key 93
- carpal tunnel syndrome 74
- case
 - cleaning 83
 - closing 90–91
 - installing expansion card in 89
 - opening 86–88
- CD-ROM disc
 - Apple HD SC Setup program on 59
 - system software on 64, 67, 68
- CD-ROM drive, internal 28
 - adding or replacing 34
 - initializing hard disk from 56
 - starting up from 54–55
- CD-ROM Open/Close button 28
- characters, special 94
- cleaning
 - case 83
 - monitor 83
 - mouse 83–84
 - spills 80
- Clear key 93
- clicking icons 25

- clock, troubleshooting 43
- close box 10
- closing the Macintosh Guide window 23
- color Trinitron display 28
- Command key 93
- Command-Control-Power key, for
 - restarting computer 41
- Command-Option-Esc, for quitting
 - program in trouble 41, 47, 48
- Command-Shift-1, for ejecting floppy disk 82
- commands
 - assigning to function keys 94
 - shortcuts for 25–26, 93, 94
- communications port (modem port) 29
- connectors, handling 79
- Control key 94
- control panels, incompatible with
 - system software 48
- copying files or disks 38
- copying System Folder 64
- cumulative trauma disorders (CTDs) 74
- cursor. *See* pointer
- customer support hotline 13
- Custom Install dialog box 71

D

- Delete key 94
- deleting selected material 94
- desk accessories 47
 - compatibility problems with 48, 49
 - switching to 37
- desktop
 - hard disk icon does not appear on 45
 - hiding or showing windows on 38
 - illustrated 10
 - rebuilding 42, 46, 52
 - at startup 6
- dialog boxes 41
- dimmed icons 37

- Disk First Aid 60–62, 64, 67
- Disk First Aid icon 60, 64
- disk icons
 - blinking question mark 7, 44, 63
 - with X in center 45
- disk repair programs 60, 62
- Disk Tools* disk
 - Apple HD SC Setup program on 59
 - Disk First Aid on 60
 - initializing hard disk from 56
 - starting up from 44, 45, 55
 - system software on 64, 67
- documents
 - DOS 52, 53
 - opening, problems with 52
- DOS disks
 - formatting 47
 - troubleshooting 46
- DOS documents, troubleshooting 52, 53
- double-clicking icons 10, 25

E

- Easy Install dialog box 65
- ejecting disks 45
 - problems with 82
- electrical safety 3, 78, 79, 82
- electromagnetic emissions 77
- ELF (extremely low frequency)
 - emissions 77
- entering text, troubleshooting 50
- Enter key 94
- erasing selected material 94
- erasing the hard disk, by initializing 54
- ergonomics 75, 76, 77
- error message 39, 40. *See also*
 - troubleshooting
- Escape key 94
- Ethernet network, connecting to 33
- EtherTalk protocols 33
- expansion card access cover 29, 90
- expansion cards 85
 - installing 89–91
 - opening case for 86–88

- extensions
 - compatibility problems with 47, 48, 49
 - connecting 28, 29
 - Installer program and 66
 - turning off 46, 47, 48
- Extensions folder, fixing
 - incompatibilities in 47, 48
- Extensions Manager control panel 47, 48
- extremely low frequency (ELF)
 - emissions 77
- eye fatigue problems 75

F

- fatigue
 - avoiding 77
 - eye problems 75
- FCC regulations, Ethernet card and 33
- Finder
 - activating 16, 23
 - active program indicated in 37
 - application management in 37
 - Macintosh Guide and 16, 23
 - shortcuts in 25
- Finder icon 37
- floating-point unit (FPU) 51
- floppy disk drive 28
 - adding or replacing 34
 - ejecting disk from 45, 82
 - inserting disk in 36
- floppy disks
 - backing up on 38
 - DOS 46
 - ejecting 45, 82
 - handling guidelines 81, 82
 - initializing 46–47
 - initializing hard disk from 56
 - inserting in drive 36
 - problems ejecting 82
 - problems reading 46
 - repairing 60–62
 - starting up from 45, 55
 - startup, rebuilding desktop on 42
 - troubleshooting 46, 62, 82

- formatting DOS disks 47
- formatting floppy disks 46–47
- formatting hard disk 54, 55, 56–57
- FPU (floating-point unit) 51
- frozen system, troubleshooting 39, 41, 47
- function keys 94

G

- grounding plug 3, 79
- Guide menu 9, 10, 15, 16. *See also*
 - Balloon Help; Macintosh
 - Guide window; Macintosh
 - Shortcuts window
- Hide Balloons command 24
- Macintosh Guide command 16–17
- Shortcuts command 25
- Show Balloons command 24

H

- handling computer equipment 79–81
 - floppy disks 81
 - power supply 82
 - safety concerns 78, 79
- hard disk
 - backing up 38
 - damaged 54, 55
 - erasing 54
 - initializing 54, 55, 56–57
 - installing system software on. *See*
 - installing system software
 - repairing 58, 60–62
 - testing 59–60, 61
 - troubleshooting 45–46, 58–60, 62
- hard disk drive
 - adding or replacing 34
 - external, troubleshooting 7, 58
 - installing applications on 36
 - location of in computer 29
- hard disk icon 6, 10
 - failure to appear 45–46

- hardware components viii, 28, 29
 - cleaning 83–84
 - floating-point unit (FPU) 51
 - handling guidelines 79–80
- headphone jack 28
- health concerns 73–77. *See also*
 - safety instructions
 - avoiding fatigue 77
 - electromagnetic emissions 77
 - eye fatigue 75
 - musculoskeletal discomfort 73, 74
 - office arrangement and 75–76, 77
 - repetitive stress injuries (RSIs) 73, 74
- help. *See* Balloon Help; Guide menu; Macintosh Guide window; troubleshooting
- Hide Balloons command (Guide menu) 24
- Huh? button (Macintosh Guide window) 23

I, J

- icons
 - appearing incorrectly on screen 46
 - Apple HD SC Setup 56
 - bomb 39
 - clicking 25
 - defined 10
 - dimmed 37
 - disk with blinking question mark 7, 44, 63
 - Disk First Aid 60, 64
 - disk with X in center 45
 - double-clicking 25
 - Finder 37
 - hard disk 6, 10, 45
 - opening 10, 25
 - question mark, as Guide menu indicator 9, 10, 15
 - sad Macintosh 45
 - System Software Installer 65
- identifying objects on the screen 24
- Index button (Macintosh Guide window) 17, 19–20

- information sources 13, 40
- initializing DOS disks 47
- initializing floppy disks 46–47
- initializing hard disk 54, 55, 56–57
- insertion point
 - moving with Return key 94
 - moving with Tab key 94
 - setting 50
- Install Disk 1* disk
 - in system software installation 65, 68, 70
 - starting up from 55
- Installer program 68
 - additional application programs and 66
 - opening 65
- installing additional memory 34
- installing applications 36
- installing expansion cards 85–91
 - warranty caution 85
- installing internal drives 34
- installing keyboard and mouse 4–5
- installing system software 63–71
 - “clean” install procedure 66–70
 - for compatibility problems 49
 - custom procedure 70–71
 - for first time 64
 - “normal” install procedure 64–66

K

- keyboard
 - care of 80
 - connecting mouse and 4–5
 - troubleshooting 50
- keyboard cable, checking 50
- keyboard shortcuts 25–26
- keys, special 93–94

L

- Look For button (Macintosh Guide window) 17, 21–22

M

- Macintosh basics 9–10
- Macintosh desktop 6
- Macintosh Guide window 16, 23
 - appearance of 16
 - closing 23
 - Huh? button 23
 - Index button 17, 19–20
 - Look For button 17, 21–22
 - moving 16, 23
 - moving to next step in 18
 - opening 16
 - returning to 18, 23
 - searching for general subjects in 17–18
 - searching for specific subjects in 17, 19–20
 - searching for words or phrases in 17, 21–22
 - shrinking and expanding 23
 - tips for using 23
 - Topics button 17–18
- Macintosh Shortcuts window 25
- Macintosh Tutorial, starting 9–10
- maintenance
 - cleaning equipment 83–84
 - equipment handling guidelines 79–80
 - keyboard 80
 - power supply 82
- mathematical symbols 94
- memory
 - adding 34
 - insufficient 51
- Memory control panel 51
- menu bar 10
- menu commands. *See* commands
- menus 9
- microphone, built-in 28, 32
- modem port 29
- moisture, avoiding 78

monitor. *See also* screen
brightness control on 28, 31, 43
cleaning 77
color Trinitron 28
handling guidelines 80
positioning 76
troubleshooting 7, 43
using more than one 43

monitor cable 43

mouse
cleaning 83–84
double-clicking, for opening icon 10
holding 9
installing 4, 5
moving 9
moving arrow with 9–10
position of 9, 76
shortcuts with 25–26
troubleshooting 9, 48, 49

Mouse button 9

mouse pad 9

moving arrow on screen 9–10

moving insertion point with keys 94

moving the Macintosh Guide
window 16, 23

moving the mouse 9

musculoskeletal discomfort
problems 73, 74

N

network
backing up on 39
connecting to 33

numeric keys 94

O

office arrangement guidelines 75, 76, 77

open application, identifying 37

opening an application 37
problems with 51, 52

opening DOS documents, problems
with 53

opening icons, shortcut for 25

open windows, showing 39

Option-⌘, for rebuilding desktop 42

Option key 94

P

PC Exchange control panel 52, 53

plugging in the computer 1–3
safety concerns 78, 79

pointer
frozen 47, 48
moving 9–10
setting insertion point with 50

ports
Apple Desktop Bus (ADB) 29, 50
modem/communications 29

power cord 3, 43
frayed or damaged 78
safety concerns 78

Power key 28, 94
in restart procedure 41
turning on for the first time 6
turning on or off 12

power-on light 28

power plug 3, 29
damaged 78

power problems, troubleshooting 7, 43

power supply, safety caution 82

power switch 2, 29

printer port 29

problem solving. *See* Balloon Help;
Guide menu; Macintosh Guide
window; troubleshooting

processor-direct slot (PDS) expansion
cards 85
installing 89–91
opening computer for 86–88

programs. *See* applications

Q

question mark disk icon 7, 44, 63
question mark icon, as Guide menu indicator 9, 10, 15
questions. *See* Balloon Help; Guide menu; Macintosh Guide window; troubleshooting
quitting applications when system freezes 47

R

radio and television interference vi, 80
RAM. *See* random-access memory
random-access memory (RAM), adding 34
rebuilding desktop 42, 46, 52
reinstalling system software 49, 63
repair. *See* service and support
repairing a floppy disk 60–62
repairing a hard disk 58, 59, 60–62, 63
repairing System Folder contents 66–70
repetitive stress injuries (RSIs) 73, 74
Restart command (Special menu) 41
restarting Macintosh
 to solve a problem 41, 42, 44, 48
 to turn off system extensions 47
Return key 94
RSIs (repetitive stress injuries) 73, 74

S

sad Macintosh icon 45
safety instructions, 78
 grounding plug 3, 79
 power supply 82
screen control buttons 28, 31
screen display. *See also* monitor
 dark 7, 43
 frozen 47
 icons appear incorrectly on 46
 identifying objects on 24
 at startup 6
 typing produces nothing on 49–50

screen saver programs 43, 80
scroll arrows 10
SCSI devices
 ID numbers on 45, 58, 59
 troubleshooting 44, 45, 58, 59
SCSI port 29
security screws 29
service and support
 sources of 13, 40
 for hard disk initialization failure 57
setting up the computer 1–8
 adding internal drives 34
 adding memory 34
 connecting additional equipment 28, 29
 connecting mouse and keyboard 4–5
 connecting to network 33
 installing expansion cards 85–91
 plugging in 1–3
 starting up 6–7
Shift key 94
shortcuts, keyboard and mouse 25–26
Shortcuts window 25
Show Balloons command (Guide menu) 24
Shut Down command (Special menu) 11
size box 10
Small Computer System Interface. *See* SCSI devices; SCSI port
software. *See* applications; system software
sound, recording 32
sound control buttons 28, 30
sound input port 29
sound output port 29
speakers 28
special characters 94
Special Keys 93–94
Special menu
 Empty Trash command 10
 Restart command 41
 Shut Down command 11
spills 78, 80

- starting up 6. *See also* restarting
 - Macintosh
 - from CD-ROM disc 44, 54–55
 - from floppy disk 44, 45, 55
 - troubleshooting 7, 44, 45
- startup disk
 - CD-ROM disc as 45, 54–55
 - floppy disk as 45, 55
 - purpose of 63
 - restarting computer with 44
 - troubleshooting 44, 46, 47
- stereo speakers 28
- Storage folder 68, 69
- support. *See* service and support
- switching between programs 10, 37
- system extensions. *See* extensions
- System Folder 63
 - disk copy warning 36
 - do not open 52
 - Extensions folder in 47
 - printing contents of 40
 - repairing contents of 66–70
 - Storage folder caution 69
- system software 65
 - compatibility problems with 47, 49
 - installing 63–71
 - “clean” installation 66–70
 - custom installation 70–71
 - first installation 64
 - “normal” installation 64–66
 - purpose of 63
 - reinstalling 49, 63
 - removing old 68
 - repairing 66–70
 - troubleshooting 44, 45, 47, 63, 66
- System Software Installer icon 65
- system startup. *See* starting up:
 - startup disk

T

- Tab key 94
- television, using as monitor 43
- television interference vi, 80
- testing the hard disk 59–60, 61
- text, failure to appear on screen 49
- title bar 10
- Topics button (Macintosh Guide window) 17–18
- Trash icon 10
- troubleshooting 39–71. *See also*
 - Guide menu
 - ADB port problems 50
 - applications 36, 47, 48, 51, 52
 - “bomb” message 39, 41, 48
 - cable connections 7
 - clock 43
 - common problems 43–53. *See also specific problems*
 - disk icon with blinking question mark 7, 44, 63
 - DOS disks 46
 - DOS documents 52, 53
 - error messages 39, 40
 - floppy disk 46, 62, 82
 - frozen system 39, 41, 47
 - hard disk 45–46, 59–60, 62
 - external 7, 58
 - icons appearing incorrectly on screen 46
 - information sources 13, 40
 - keyboard 50
 - memory 51
 - monitor 7, 43. *See also* troubleshooting, screen display
 - mouse 9, 48, 49
 - opening applications 51, 52
 - pointer does not move 48–49
 - power 7, 43
 - procedures 40
 - rebuilding desktop 42
 - repairing disks 60–62

- restarting Macintosh 41, 42, 44
- sad Macintosh icon 45
- screen display 7, 43, 46, 49–50
- SCSI devices 44, 45, 58, 59
- starting applications 51
- starting the computer 7
- startup disk 44, 46, 47
- startup problems 58
- system extensions 47
- System Folder 66
- system software 44, 45, 47, 63, 66
- system startup 44, 45
- text entry problems 50
- typing produces nothing on screen 49–50
- turning off the computer 11–12, 94
 - for solving problem 41, 42
- turning on the computer 6, 12, 94
- tutorial, starting 9–10
- typing. *See also* keyboard; keys; text
 - capital letters 93
 - mathematical characters 94
 - special characters 94

U

- unplugging the computer, for solving problem 42
- Utilities folder, Disk First Aid in 60, 64

V

- ventilation 79
- very low frequency (VLF) emissions 77
- virtual memory 51

W, X, Y, Z

- warranty concerns, expansion cards 85
- windows 10
 - bringing to front 10
 - hiding or showing on desktop 38



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