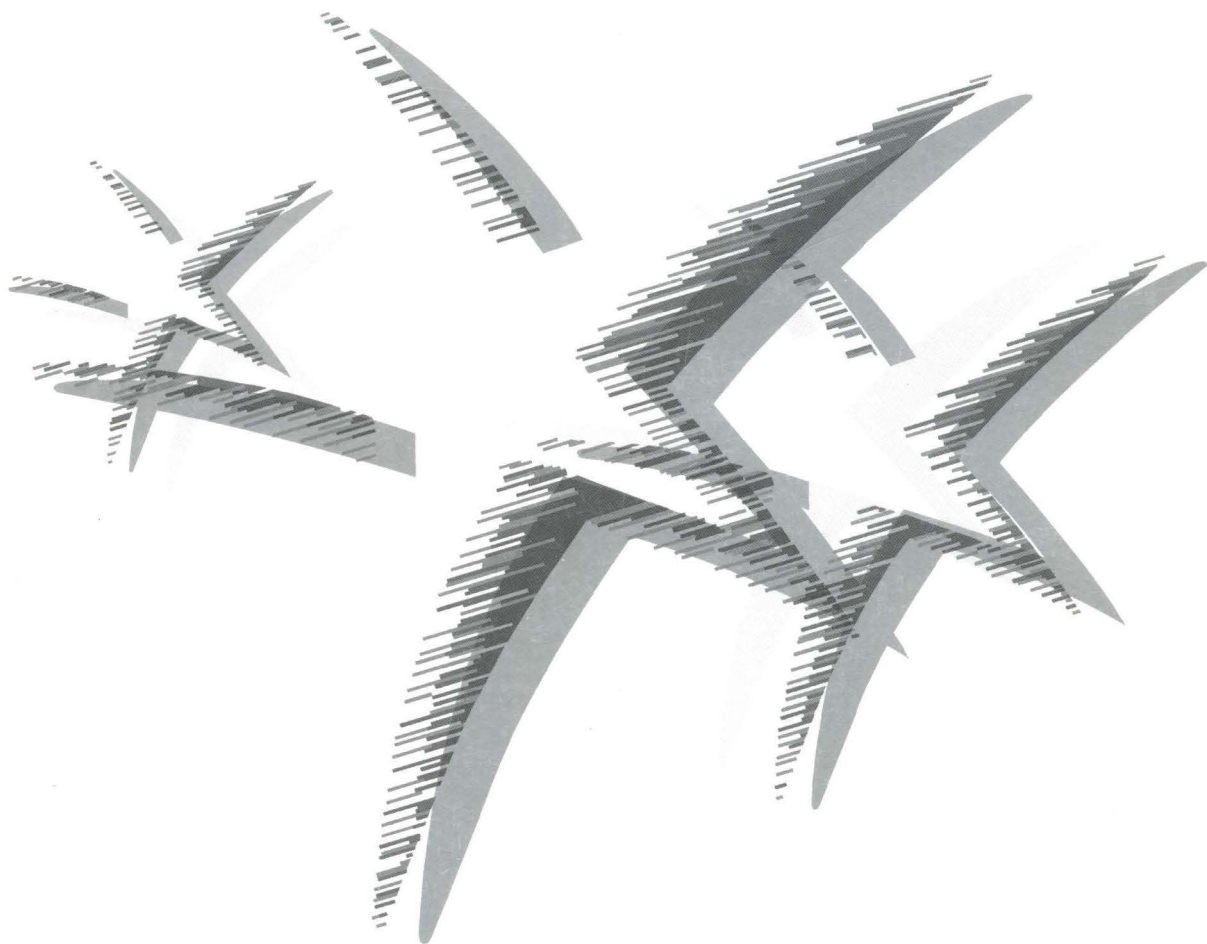




MOTOROLA

Computer Group

User's Guide



StarMax

Motorola StarMax Desktop System
and
Motorola StarMax Minitower System

User's Guide

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Motorola, Inc.
Computer Group
2900 South Diablo Way
Tempe, Arizona 85282

Preface

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Safety Summary

Safety Depends On You

The following general safety precautions must be observed during all phases of operation, service, and repair of this equipment. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the equipment. Motorola, Inc. assumes no liability for the customer's failure to comply with these requirements.

The safety precautions listed below represent warnings of certain dangers of which Motorola is aware. You, as the user of the product, should follow these warnings and all other safety precautions necessary for the safe operation of the equipment in your operating environment.

Ground the Instrument.

To minimize shock hazard, the equipment chassis and enclosure must be connected to an electrical ground. The equipment is supplied with a three-conductor ac power cable. The power cable must be plugged into an approved three-contact electrical outlet. The power jack and mating plug of the power cable meet International Electrotechnical Commission (IEC) safety standards.

Do Not Operate in an Explosive Atmosphere.

Do not operate the equipment in the presence of flammable gases or fumes. Operation of any electrical equipment in such an environment constitutes a definite safety hazard.

Keep Away From Live Circuits.

Operating personnel must not remove equipment covers. Only Factory Authorized Service Personnel or other qualified maintenance personnel may remove equipment covers for internal subassembly or component replacement or any internal adjustment. Do not replace components with power cable connected. Under certain conditions, dangerous voltages may exist even with the power cable removed. To avoid injuries, always disconnect power and discharge circuits before touching them.

Do Not Service or Adjust Alone.

Do not attempt internal service or adjustment unless another person capable of rendering first aid and resuscitation is present.

Use Caution When Exposing or Handling the CRT.

Breakage of the Cathode-Ray Tube (CRT) causes a high-velocity scattering of glass fragments (implosion). To prevent CRT implosion, avoid rough handling or jarring of the equipment. Handling of the CRT should be done only by qualified maintenance personnel using approved safety mask and gloves.

Do Not Substitute Parts or Modify Equipment.

Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification of the equipment. Contact your local Motorola representative for service and repair to ensure that safety features are maintained.

Dangerous Procedure Warnings.

Warnings, such as the example below, precede potentially dangerous procedures throughout this manual. Instructions contained in the warnings must be followed. You should also employ all other safety precautions which you deem necessary for the operation of the equipment in your operating environment.



Dangerous voltages, capable of causing death, are present in this equipment. Use extreme caution when handling, testing, and adjusting.

CE Notice (European Community)

Marking a system with the “**CE**” symbol indicates compliance of that Motorola system to the EMC and Low Voltage directives of the European Community. A system with the CE marking meets or exceeds the following technical standards:

EN 55022 “Limits and methods of measurement of radio interference characteristics of information technology equipment. Equipment Class B”.

EN 50082-1 “Electromagnetic compatibility - Generic immunity standard Part 1: Residential, commercial, and light industry”.

IEC 801-2 “Electromagnetic compatibility for industrial process measurement and control equipment Part 2: Electrostatic discharge requirements”.

IEC 801-3 “Electromagnetic compatibility for industrial process measurement and control equipment Part 3: Radiated electromagnetic field requirements”.

IEC 801-4 “Electromagnetic compatibility for industrial process measurement and control equipment Part 4: Electrical fast transient/burst requirements”.

EN 60950 “Safety of information technology equipment, including electrical business equipment”.

In accordance with European Community directives, a “Declaration of Conformity” has been made and is on file at Motorola, Inc. - Computer Group, 27 Market Street, Maidenhead, united Kingdom, SL6 8AE.

In addition to the above standards, this system has also met the requirements of the following European standards:

EN 60555-2 “Disturbances in supply systems caused by household appliances and similar electrical equipment Part 2: Harmonics”.

EN 60555-3 “Disturbances in supply systems caused by household appliances and similar electrical equipment Part 3: Voltage fluctuations”.



Regulatory Notices

Changes or modifications not expressly approved by Motorola Computer Group could void the user's authority to operate the equipment.

Use only shielded cables when connecting peripherals to assure that appropriate radio frequency emissions compliance is maintained.

FCC Class B

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

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



Industry Canada

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

CD-ROM drive

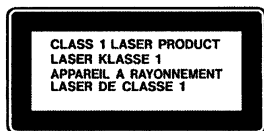


Making adjustments or performing procedures other than those specified in your equipment's manual may result in hazardous exposure.



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 authorized service provider.

If you have an internal CD-ROM drive in your computer, your computer is a Class 1 laser product. The Class 1 label, located in a user-accessible area, indicates that the drive meets minimum safety requirements. A service warning label is located in a service-accessible area. The labels on your product may differ slightly from the ones shown here.



Class 1 label



DANGER - Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.
CAUTION - INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.
PRECAUCION - RADIAACION LASER INVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.
VARO! - AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
WARNING! - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL - USYNLIG LASER STRÅLING, NÄR DENNE ER ÅBEN. UNDGÅ BESTRÅLING.
ADVARSEL - USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRALEN.

R55-0189

注意

- このカバーの内面では不可視レーザー光が放射されています。レーザー光にさらされないようにしてください。

Service warning label

Alkaline battery warning

The computer contains an alkaline battery to power the clock and calendar circuitry.



Danger of explosion if battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.



Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Software notice

Application software programs have been installed on the computer and compact discs have been included with your StarMax. See the label on the box for a complete list of all your programs.

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Declaration of Conformity

Tested Equipment Name	StarMax
Manufacturer's Name	Motorola, Inc. - Computer Group
Manufacturer's Address	2900 S. Diablo Way Tempe, Arizona 85282 USA
Manufacturer's Phone	(602) 438-3000
Type of Equipment	Personal Computer
Model Numbers	3000/160DT, 3000/200 DT, 4000/160 DT, 4000/200DT, 3000/160MT, 3000/200MT, 4000/160MT, 4000/200MT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

Congratulations on the purchase of your new Motorola StarMax System. Your computer is designed to give you the highest performance combined with real ease of use—it's easy to set up, easy to use, and easy to expand. This book will guide you through the setup procedure, tell you how to expand your computer, and provide many tips on using your new system.

The instructions on the following pages show how to set up your Motorola StarMax system. (Note some items may look slightly different depending upon the model purchased.)

Place your equipment on a sturdy, flat surface near a grounded wall outlet. Your system was designed to be used and carried in an upright position. It should not be tipped on its side during operation.

Before following the setup instructions, you may want to read *Safety instructions* and *Handling your computer equipment* for tips on the safe handling and use of your system.

Assembling your StarMax system

Before you plug your system into a wall socket, carefully read all the setup instructions in this chapter. Then, before you connect anything to your system, 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.

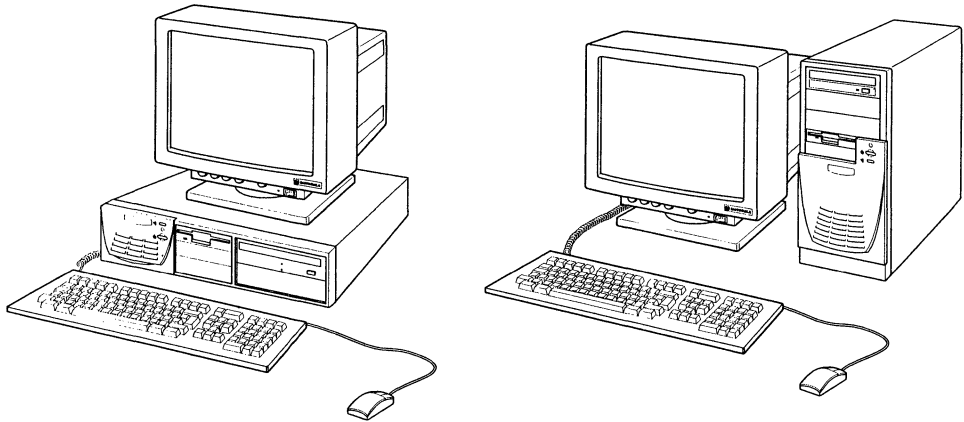


Figure 1-1. The Fully Assembled Systems

When you are ready to begin, follow these steps:

1. Place the computer where you want it.

2. Place the monitor where you want it.

- ☐ Monitors *up to* 17-inches, weighing less than 40lb. (18.2kg) can be placed on top of the StarMax Desktop System. *Monitors larger than this must be used beside the system.*
- ☐ Allow a few inches for air circulation around the computer and monitor.
- ☐ Make sure that the top of the screen is slightly below eye level when you're sitting at the keyboard.
- ☐ Position the monitor to minimize glare and reflections.

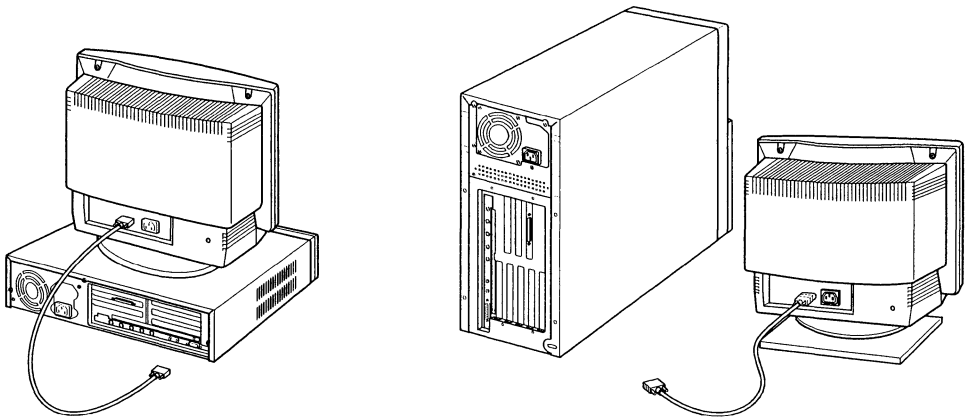


Figure 1-2. Positioning the Monitor

3. Attach the monitor cable to the monitor port on the back panel of the computer.

If you are using a SVGA monitor, the monitor connector will connect directly to the monitor port on the back panel of the computer.

If you are using an Apple-compatible (DB15) monitor, the monitor connector connects to the monitor port via an adapter. Contact your Motorola-authorized dealer for details on obtaining this adapter.

See the information that came with the monitor to use its special features.

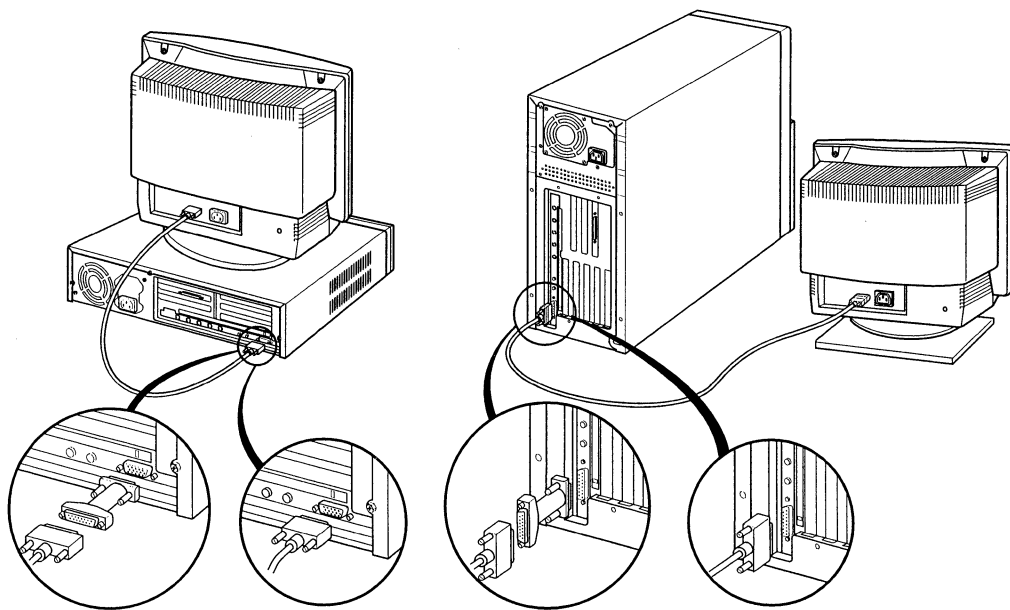


Figure 1-3. Connecting the Monitor Cable

4. Plug the keyboard and mouse connectors into their respective ports on the rear of the computer.

The StarMax system is shipped with an Apple Desktop Bus (ADB) keyboard and mouse.

ADB Connectors



ADB keyboards and mice have the connector type shown above, they *may* also have ADB icons molded into the connector shells.

Apple Desktop Bus Keyboard and Mouse Connection.

ADB devices are connected together in a string or "Daisy Chain." The mouse plugs into a port on the keyboard, the keyboard then plugs into the port, on the rear of the system unit. The ports will be marked with the  icon.

Both connectors are "keyed" to prevent incorrect orientation. Do not force a connector into a port, if it does not insert easily, check the connector and port orientation.

If your system fails to recognize these devices, check that they are connected correctly.

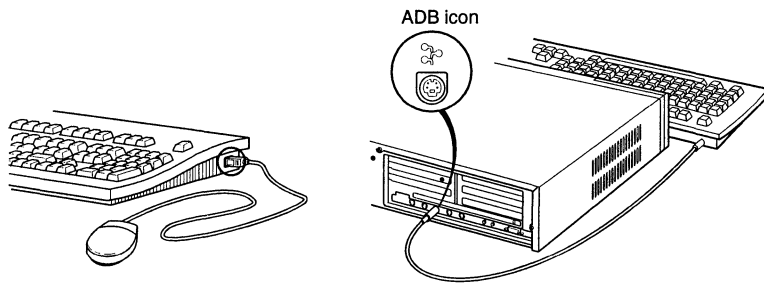


Figure 1-4. ADB Keyboard and Mouse Connection

PS/2 Keyboard and Mouse Connection.

Ensure that you connect the mouse and keyboard to the correct ports. The keyboard port is marked with the  icon and the mouse port is marked with the  icon. Both of these devices have the same type of connector and it is possible to swap connectors.

The mouse and keyboard connectors are “keyed” to prevent incorrect orientation. Do not force a connector into a port, if it does not insert easily, check the connector and port orientation.

If your system fails to recognize these devices, check that they are connected correctly.

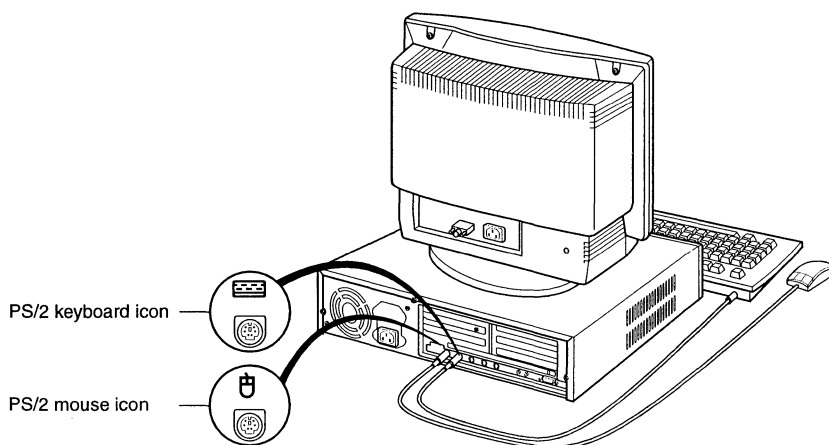


Figure 1-5. PS/2 Keyboard and Mouse Connection

5. Make sure the voltage switch(es) on the back of the computer and/or monitor are set to the kind of voltage system you will be connecting to.

The voltage switch must be set correctly to avoid damaging your computer. If you don't know the voltage used in the country you're in, refer to the table, *Voltages for different locations*, later in this chapter.

**Warning**

Setting the correct voltage for your computer does not set the voltage for your monitor. To protect your monitor, be sure to use the appropriate adapter or voltage converter, if necessary.

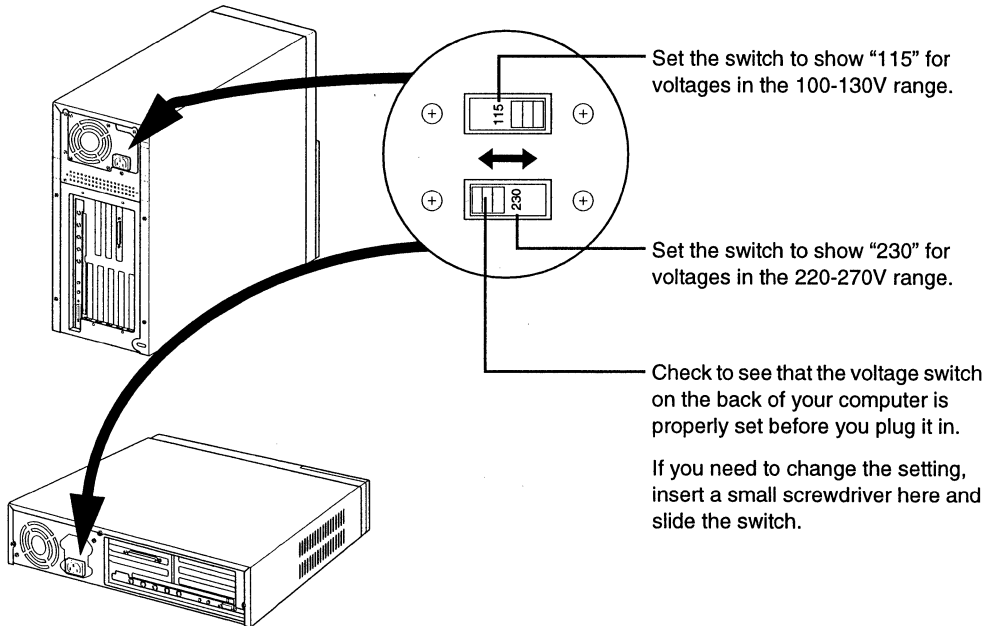


Figure 1-6. Setting the Correct Voltage

6. Plug the socket ends of two power cords into the recessed power plugs on the back of the computer and monitor.

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

Important To protect both yourself and the computer from electrical hazards, the computer should remain turned off until you are finished connecting its parts.

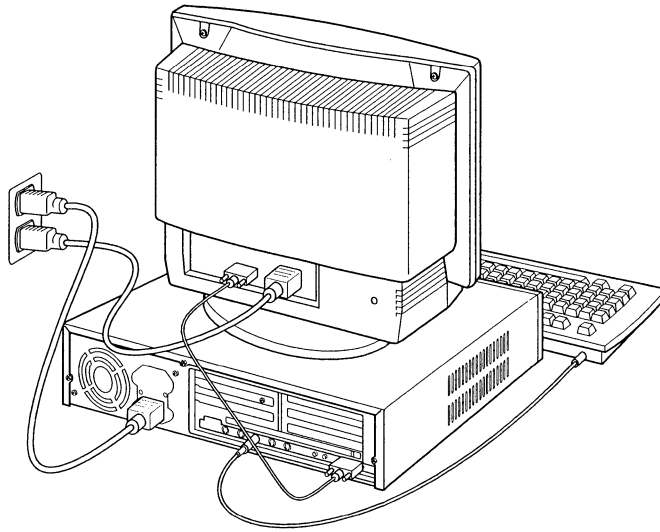


Figure 1-7. Power Cord Attachment

7. Plug the other ends of the power cords into three-hole grounded outlets or power strip.

**Warning**

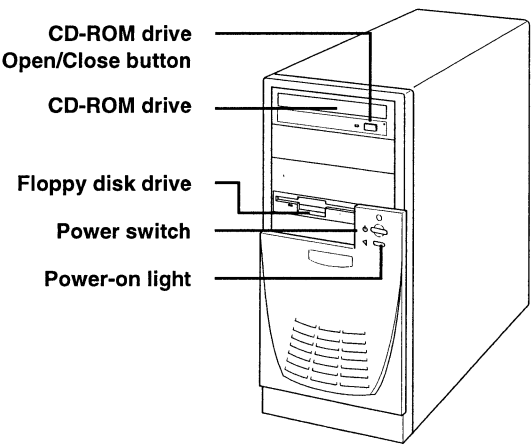
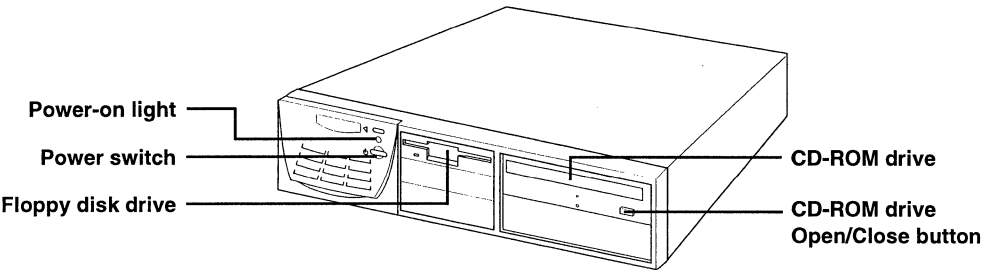
This equipment is intended to be electrically grounded. Your system is equipped with a three-wire grounding plug—a plug that has a third (grounding) pin. This plug will fit only a grounded AC outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a licensed electrician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

Important The only way to disconnect power completely is to unplug the power cord. 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.

Voltages for different locations

Country	Single voltage
Japan	100
S. Korea	100/220
Jamaica, Taiwan	110
Peru	110/220
Brazil, Lebanon	110-220
Philippines	115
Bermuda, Canada, Puerto Rico, United States, Venezuela	120
Mexico	127
Saudi Arabia	127/220
Hong Kong	200
India, South Africa	220-250
Israel, Pakistan, Singapore	230
Australia, Kuwait, Malta, New Zealand, Northern Ireland, Papua New Guinea, Oman, Qatar, United Kingdom	240
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland	220-230
Bahrain, Chile, China (People's Republic), Czechoslovakia, Egypt, Greenland, Hungary, Iceland, Indonesia, Iran, Jordan, Liechtenstein, Nepal, Paraguay, Poland, Romania, United Arab Emirates, Russia and the Commonwealth of Independent States (CIS), Yemen, Yugoslavia	220

System unit features



Connecting other equipment

If you are new to the Mac OS, 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 skills, continue with the instructions in this chapter.

When you're ready to connect other equipment to your StarMax, 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:

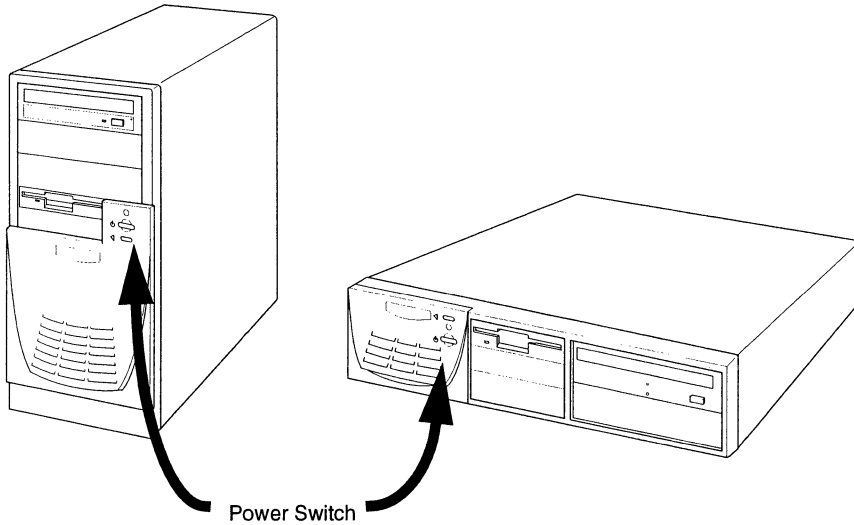


Before turning on the computer for the first time, be sure the voltage switch is set correctly for the type of voltage system to which you are connecting. See *Assembling your StarMax system*, earlier in this chapter, for instructions on setting the voltage switch. If the switch is not set correctly you may damage your computer.

1. Turn on your monitor.

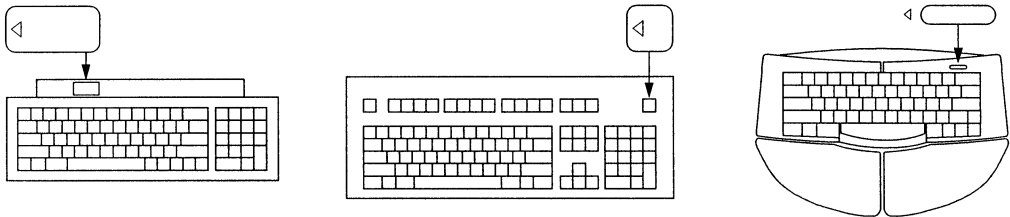
See the information that came with your monitor for the location of the power switch. The power switch is usually located on the front of the unit.

2. Turn on your computer by pressing the Power Switch on the front of the system or by pressing the Power key on your keyboard.



The Power key is marked with a triangle (◁).

The location of the Power key depends on which type of ADB keyboard you have.



You hear a tone from your computer as it starts up.

3. Check to see what's on your screen.

You see a sequence of messages describing what is happening, followed by the Desktop screen.

- ❑ If you see a blinking question mark, see *Solutions to common problems*.
- ❑ If you see anything else on your screen, or if you see nothing at all, see the section *Problems starting up?* next in this chapter.
- ❑ If you see the Mac OS desktop (shown here), your system software is working correctly.



Skip now to the section, *What's next?*

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. If it isn't on, press the power switch.
- ❑ 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?
- ❑ Is the monitor power cord plugged in?
- ❑ Is the monitor cable attached firmly to both the monitor and computer?
- ❑ Is the monitor turned on? (Check the power-on light on the front of the monitor.)
- ❑ Is the brightness control on the monitor adjusted correctly?
- ❑ Is the computer asleep? (Press a key on the keyboard to wake up the computer. It may take a moment or two for the computer to wake up.)

What's next?

You've finished setting up your computer. Continue with one of the following steps:

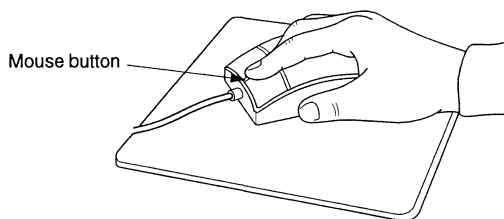
- ❑ If you are new to the Mac OS, turn to the next section, *Using the mouse*. When you've learned the basic Mac OS skills, turn to *Getting Help* to learn about Macintosh Guide, your main source of information when you're working with the Mac OS.
- ❑ If you want to connect additional equipment, such as a microphone, to your computer, see *Connecting Additional Equipment* for instructions.
- ❑ If you want to install application software on your computer, see *Installing and Using Application Programs*. You'll need this information to properly set up any applications specifically designed for computers with PowerPC processors.

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 system before turning it off.

Using the mouse

1. Slide your mouse along your mouse pad or desk.

Hold the mouse as shown, with the cable pointing away from you. Rest the heel of your palm on the desk and grasp the sides of the mouse between your thumb and fingers. Use your wrist and fingers to slide the mouse around with the index finger resting on the mouse button. Don't press the mouse button. 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.

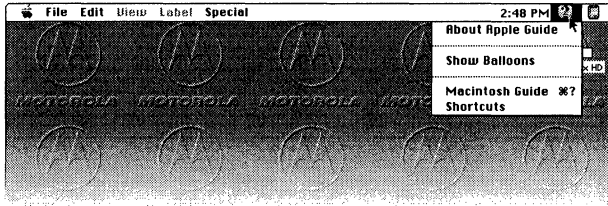
Note Your mouse may differ from the one shown in the illustration.

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.

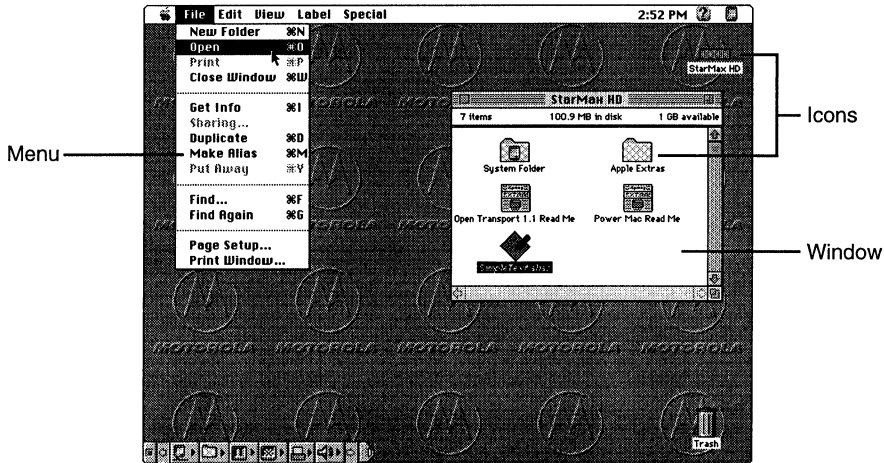
A list of choices (called a menu) appears. This is the Guide menu, which is the place to go when you have a question about how to use your computer.



Note If your mouse has more than one button, only the left one functions.

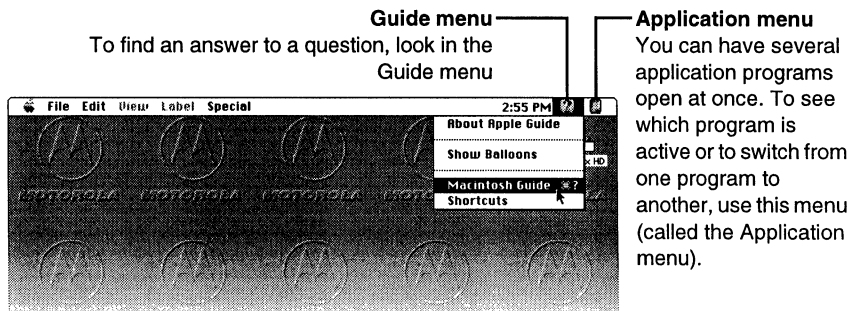
Reviewing the basics

Look at the following illustrations to review the elements you use on your screen to work with your computer.



Menus

The strip across the top of the screen is called the menu bar. The symbols and words in it represent menus of commands. To open a menu, place the pointer on the symbol or word for the menu and press the mouse button.



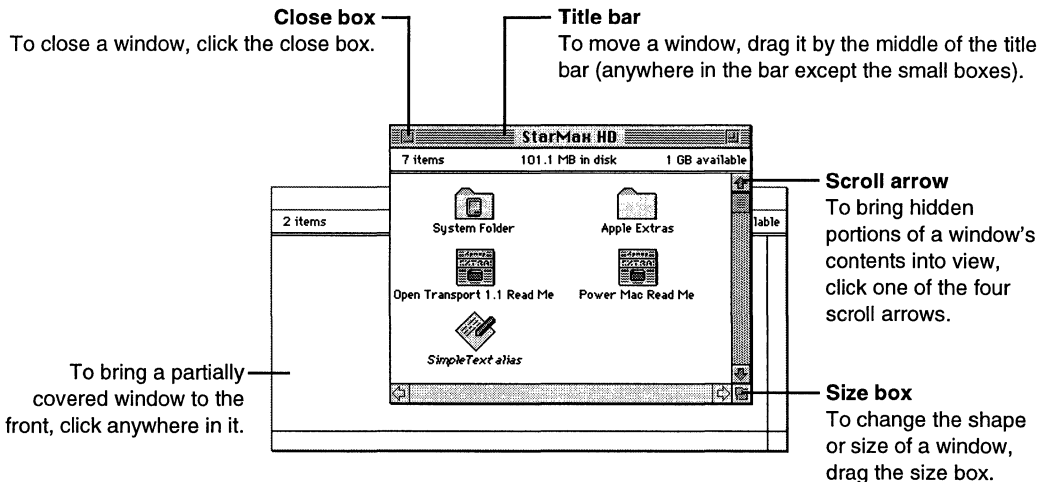
Icons

Icons are small pictures that represent disks, programs, documents and folders. You can double-click any icon to open it and see what it contains.

	This icon represents your computer's internal hard disk.
	Icons like this one represent application programs, which you use to create documents and do other work.
	Icons like this one represent documents, which you can create and edit.
	Icons like this represent folders. A folder contains other icons.
	To throw away an item you no longer want, drag it to the Trash icon and choose Empty Trash from the Special menu.

Windows

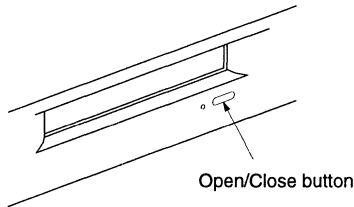
Windows are boxes that display text, graphics, or icons. To change the shape or position of a window, or to close the window, use the elements shown here.



Inserting a CD-ROM disc or other CD

Your internal CD-ROM drive works with CD-ROM discs, standard audio compact discs (CDs), and single-session or multisession Photo CDs. Follow these instructions to insert a CD-ROM disc (or other CD) into your CD-ROM drive. Then follow the instructions provided with your disc, as well as the instructions in this manual.

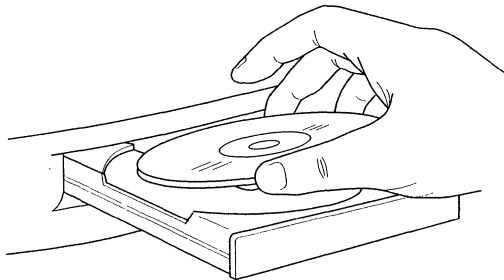
1. **Start up your computer, if it's not already on.**
2. **Press the Open/Close button to open the tray of the CD-ROM drive.**



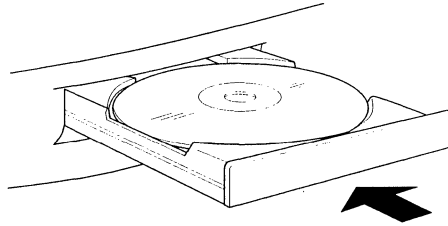
The tray opens.

3. **Place a disc in the tray with the disc label facing up.**

Make sure the disc is lying flat and centered in the tray. If you are using a small (8 cm) disc, make sure it is centered within the inside ring on the tray.



4. Gently push the tray in, or press the Open/Close button, to close the tray.



In a few moments, an icon for the disc appears on your screen.

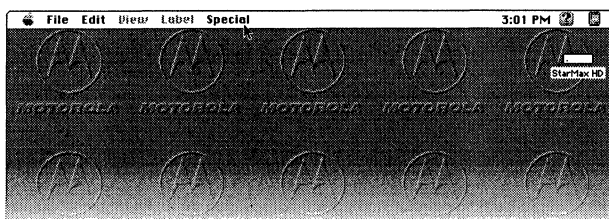
For instructions on ejecting a CD-ROM disc or other CD, see the “CD-ROM Discs” topic area of Macintosh Guide, available in the Guide menu. For instructions on using Macintosh Guide, see *Getting Help*.

Turning the computer off

Using the Shut Down command

You can turn your computer off by using the Finder's Shut Down command in the Special menu. Follow these steps:

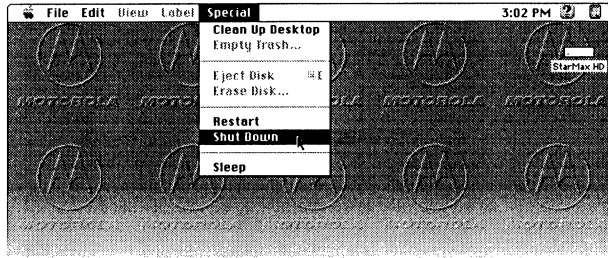
1. Move the tip of the arrow to the word "Special" at the top center of the screen.



If the word "Special" does not appear in the menu bar at the top of the screen, you're not working in the Finder, the application you need to be in when you shut down your computer. Choose Finder from the Application menu (at the far right of the menu bar). Then try 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 until the words "Shut Down" are highlighted, then release the button.



Using the Shut Down desk accessory

You do not need to return to the Finder to turn off your computer. Most programs allow you to use the Apple menu which contains an alternate shut down method. Follow these steps:

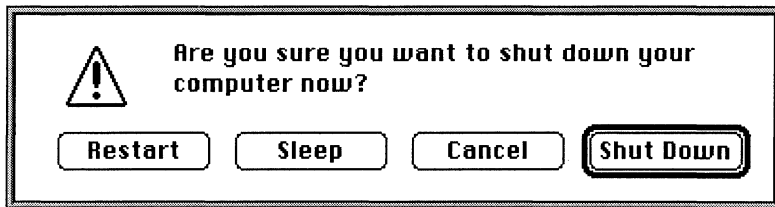
1. With the tip of the arrow on the Apple icon, press and hold down the mouse button.
2. While holding down the mouse button, move the arrow until the words "Shut Down" are highlighted, then release the button.

Using the keyboard

You may also turn off your computer from the keyboard. Follow these steps:

1. **Press the Power Key**

The following confirmation dialog appears:



2. **Move the tip of the arrow into the “Shut Down” button and click the mouse button. (Or you may also press the “return” key.)**

If you can't shut down your computer

If a problem with the computer prevents you from using the previous methods of shutting down—for example, if the computer “freezes” so that the pointer does not respond to the mouse—you can turn off the computer by pressing the Power switch on the front of the computer. You can also restart the computer by pressing the Reset switch on the front of the computer or pressing the Command-Control-Power keys.

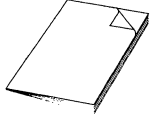


Caution

You will lose unsaved work if you use the Power switch, Reset switch, or Command-Control-Power keys. Only use these methods when there is a problem that prevents the computer from being turned off by using any of the three previously described methods. To make sure your work is saved, always use the Shut Down command.

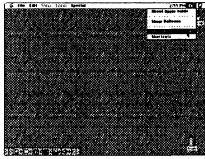
Where to find answers

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



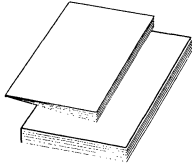
In this book

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 Mac OS. To learn how to get different kinds of help from the Guide menu, see *Getting Help*.



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.



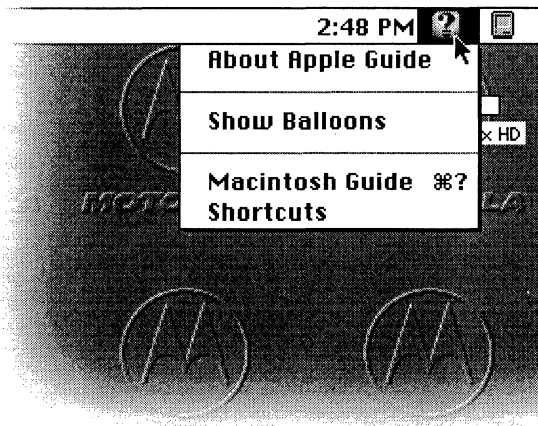
Welcome to StarMax File

The Welcome to StarMax file on your hard disk contains important information about some of the application programs included with your computer. Read Me files can also be found inside application folders.

If you have problems with a particular application program, contact the manufacturer of the program.

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

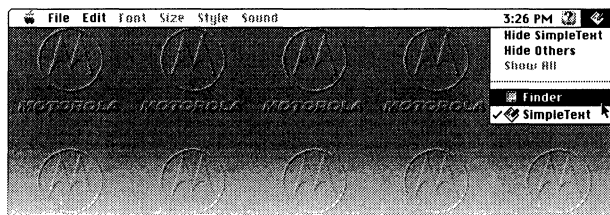
The Guide menu is your main source of information when you're working with your computer. The menu is identified by a question mark icon in the upper-right corner of the screen.



Getting answers to your questions

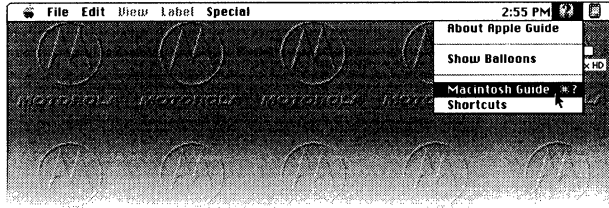
When you have a question while working with your computer, you can get the answer by choosing Macintosh Guide from the Guide menu.

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

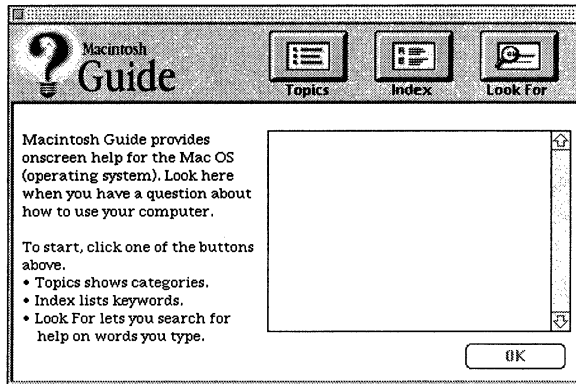


A checkmark in the menu indicates that the Finder is the active program.

2. Pull down the Guide menu and choose Macintosh Guide.

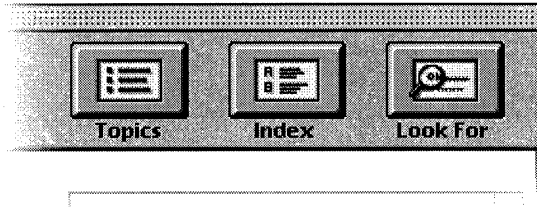


The Macintosh Guide window appears.



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:

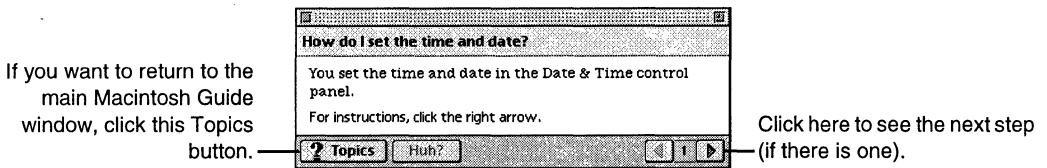
- ❑ **Topics** lets you choose from a list of general subjects; it is like the table of contents in a book.
- ❑ **Index** lets you choose from an alphabetical list of more specific subjects; it is like the index in a book.
- ❑ **Look For** lets you search for information related to a specific word or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

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.

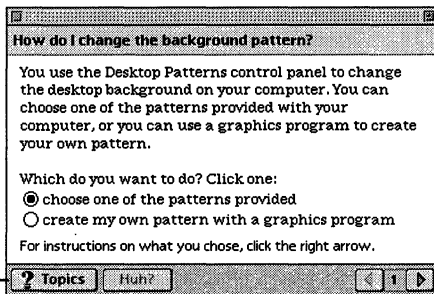
5. When you have completed all the steps, click the Topics button in the lower-left corner to return to the main Macintosh Guide window.

Now continue with the next section.

- 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.

If you want to return to the main Macintosh Guide window, click this Topics button.



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 see the next step.

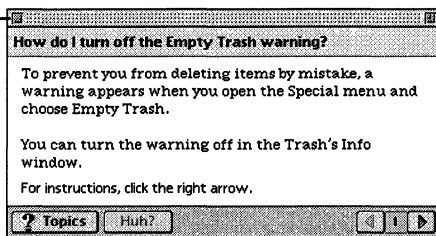
- 6. When you have completed all the steps, click the Topics button in the lower-left corner to return to the main Macintosh Guide window.**

Now continue with the next section.

- 2**
4. Click the question “How do I turn off the Empty Trash warning?” 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.

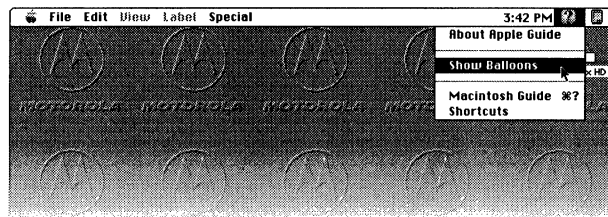
Identifying objects on the screen

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

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

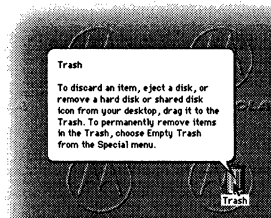
Follow these steps to use Balloon Help:

1. Pull down the Guide menu 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, 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.

2

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 Mac OS Shortcuts window. Or click the close box in the upper-left corner to close the window.

Your computer's ports and connectors

Printer port	 Connects your system to a printer, LocalTalk network, and the QuickTake 150 digital camera.
Modem port	 Connects an external modem and the QuickTake 150 digital camera to your system.
SCSI port	 Connects your system to SCSI equipment, such as external hard disk drives and scanners.
PCI card access cover (3 or 5)	Covers port for optional Peripheral Component Interconnect (PCI) slot expansion card. The Desktop System has 3 PCI slots whereas the Minitower System has 5 PCI slots.
Monitor Port	 Connects a monitor to your system
Sound output port	 Connects your system to sound output equipment, such as externally powered (amplified) speakers.
Sound input port	 Connects your system to another audio source, such as a compact disc or audio cassette player.
PS/2 Keyboard port	 Connects a PS/2 style keyboard to your system.
PS/2 Mouse port	 Connects a PS/2 style mouse to your system.
Apple Desktop Bus (ADB) port	 Connects Apple Desktop Bus devices, such as keyboards and mice, to your system.

3

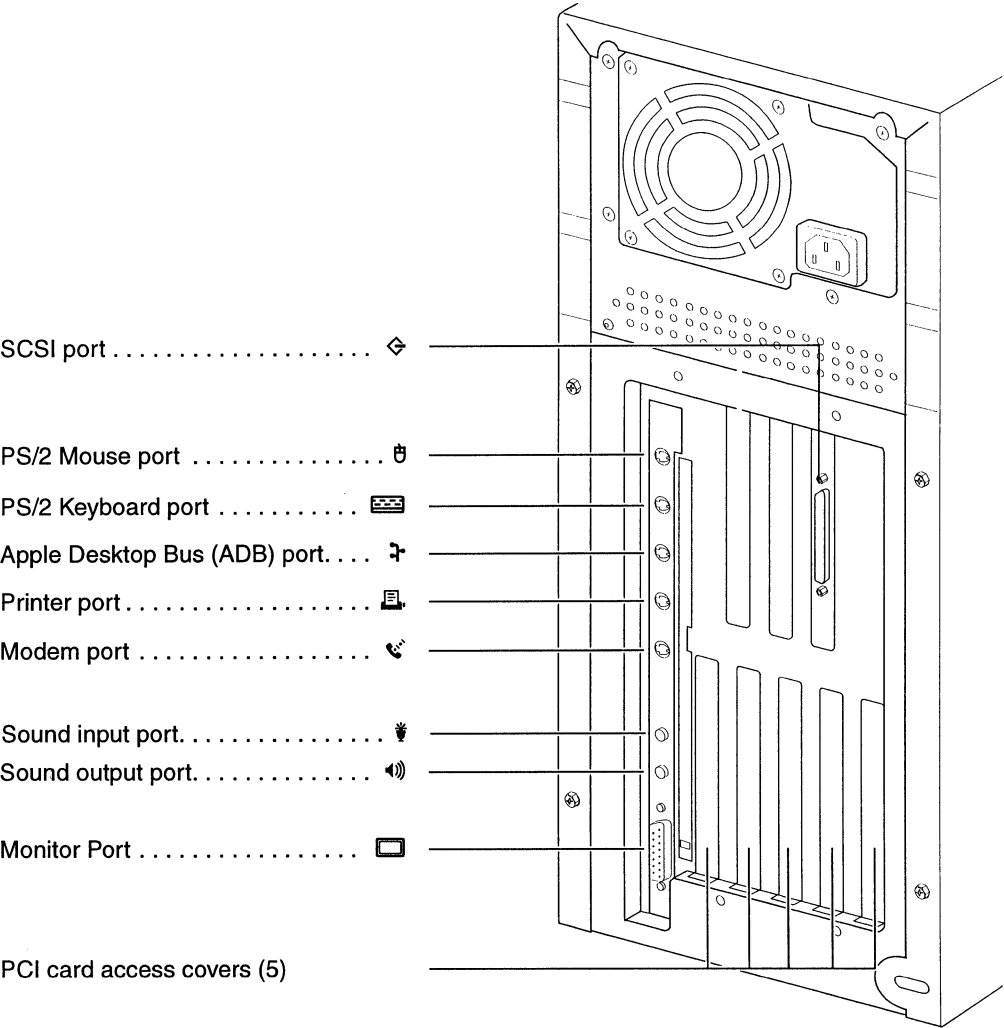
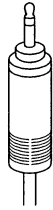


Figure 3-2. Minitower System Rear Panel Features

The computer's sound ports accept these 3.5mm connectors:



Stereo miniplug



Extended miniplug

The smaller connector (a “stereo miniplug”) is found most often on stereo equipment. The slightly longer connector is found on the Apple PlainTalk Microphone and other voice quality microphones. If your equipment has a different type of connector, you can purchase an adapter at an electronics supply store.

Connecting and positioning a microphone

Follow these steps to connect and position a microphone:

- 1. Shut down the System.**
- 2. Plug the microphone's connector into the sound input port (🔊) on the back of the computer.**
- 3. Place the microphone at the top center of the monitor.**

If you can't place the microphone on top of the monitor, position the microphone according to these guidelines:

- ☐ The microphone should be between 1 and 3 feet away from you.
- ☐ The microphone should be directly in front of you to minimize the effect of background noises.

- 4. Turn on the computer.**

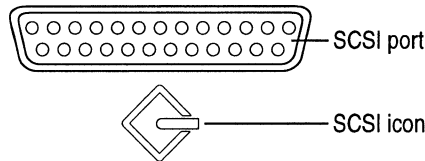
You're now ready to begin to use the microphone.

To install software that enables the computer to read text to you, see *Installing and Using Application Programs*.

Connecting external SCSI devices

3 Your computer has a port for connecting devices that use the Small Computer System Interface (SCSI, pronounced “skuh-zee”). SCSI devices commonly used with the Mac OS compatible systems include hard disk drives, CD-ROM drives, scanners, some printers, and tape or cartridge backup drives.

The SCSI port permits high-speed communication between the computer and the device.



You can connect SCSI devices to the SCSI port in a chain. The first device in the chain plugs into the SCSI port; the second device plugs into the first device, and so on.

You can attach up to seven SCSI devices to the SCSI port. All SCSI devices connected to this chain must have their own unique ID number (no two devices can use the same ID number).

IMPORTANT *Before you connect a device and Connecting a SCSI device* both later in this section, contain general instructions for attaching SCSI devices to your computer. Be sure also to follow the specific instructions that came with your external hard disk drive or other SCSI device when connecting the device to your system.

IMPORTANT The total length of the cables in a SCSI chain should not exceed 6 meters (20 feet). SCSI cables must have a 110-ohm impedance.

- ❑ Make sure that the last (or only) device in the SCSI chain has a terminator. Make sure that no other external SCSI device has a terminator.

Some external SCSI devices have built-in terminators. (Check the information that came with the device.) If the device at the end of the SCSI chain does not have a built-in terminator, you need to attach an external terminator.

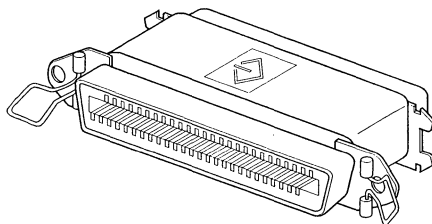


Figure 3-5. SCSI Terminator

If your SCSI device has a built-in terminator, it should be the last device in the chain. You can attach or remove external terminators yourself.

For instructions on how to eject CD-ROM discs, see *Ejecting a CD-ROM disc*. Some application programs come on floppy disks. See the “Disks” topic of Macintosh Guide, available in the Guide (🔍) menu, for information on inserting and ejecting floppy disks.

To use your applications most effectively, follow these guidelines:

- ❑ To avoid installation problems, turn off virus protection programs and use Apple Extensions Manager to turn off system extensions (except for Macintosh Easy Open) before you install any software. To start Apple Extensions Manager, restart your computer while holding down the Space bar. Use Apple Extensions Manager to turn off all system extensions except Macintosh Easy Open (this extension is needed to rebuild the desktop correctly). To turn extensions back on, use Apple Extensions Manager to turn them on, then restart your computer.
- ❑ Put only one copy of each application on your hard disk. Having more than one copy can cause errors.
- ❑ Whenever you copy an application 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 an application malfunctions consistently, try installing a fresh copy. If that doesn’t help, find out from the software manufacturer whether your version of the application is compatible with the system software you’re using.

Increasing memory available to run applications

You can increase the memory available to run your application programs by changing memory settings and removing software that you may not need. Each of these options is discussed below.

Turning virtual memory on

Virtual memory uses space on your computer's hard disk to create extra random-access memory (RAM) to run your applications. Virtual memory allows your computer to run more applications at the same time, and to have more windows open at the same time, but it can result in slightly slower performance. Also, some application programs may not perform optimally when virtual memory is turned on.

To turn virtual memory on or off, use the Memory control panel. See the "Memory" topic area of Macintosh Guide, available in the Guide (⌘) menu for more information.

Removing software that you may not need

If you have previously installed some or all of the software in the Apple Extras folder, you can remove or "uninstall" the software if you are not using it. Removing software like this will make more memory available for running applications.

To remove software, follow these steps:

1. **Start up your computer from the system software CD-ROM disc that came with your computer.**

For detailed steps, see *Starting up from a CD-ROM disc* under *Initializing a hard disk*.

2. **Open the Apple Extras folder on the CD-ROM disc.**
3. **Open the folder for the software you want to remove.**
4. **Double-click the Installer icon to open the Installer program.**

The Installer's Welcome screen may appear.

Hiding and showing windows on the desktop

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

The other applications remain open even though their windows are hidden. When you switch to another application, 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 application 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.

If a shared library is missing, you'll see a message that the application could not be opened because the shared library could not be found. If this happens, follow the directions that came with your application to reinstall the application. If the shared library is still missing, contact the applications manufacturer for assistance.

4

Using older Mac OS applications

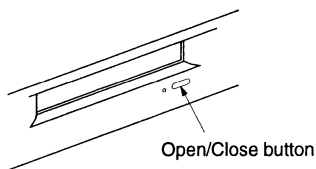
If you experience problems using an older Mac OS application, it may be incompatible with your system. You may be able to use your older application if you turn off the Modern Memory Manager in the Memory control panel.

Inserting a CD-ROM disc

Follow these instructions to insert a CD-ROM disc into your CD-ROM drive. Then follow the instructions provided with your disc, as well as the instructions in this manual.

1. Start up your system, if it is not already on.
2. Press the open/close button to open the tray of the CD-ROM drive.

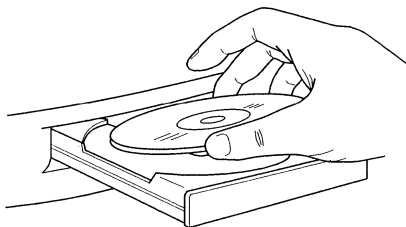
5



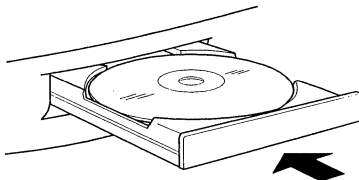
The tray opens.

3. Place a CD-ROM disc in the tray, with the disc label facing up.

Make sure the disc is lying flat and centered in the tray. If you are using a small (8cm) disc, make sure it is centered within the inside ring on the tray.



4. Push the tray in, or press the open/close button, to close the tray.



In a few moments, an icon for the CD-ROM disc appears on your screen.

Playing audio CDs

With the CD-ROM drive and your computer's built-in speaker, you can play audio compact discs (CDs) or audio tracks on CD-ROM discs. You can also attach headphones or speakers to the computer to listen to audio CDs and audio tracks. See *Connecting audio equipment*, for information on connecting sound equipment to your computer.

5 Note that you may need to set control panel options in order to play audio CD-ROM discs. Refer to the "Sound" topic of Macintosh Guide, available in the guide menu.

To start, stop and otherwise control audio discs, use the AppleCD Audio Player program, available in the Apple menu. Your audio CD software will only play tracks that contain audio information. You can listen to an audio CD or audio tracks in the background while you do other work on your computer. For more information about playing audio CDs, see the "CD-ROM Discs" topic of Macintosh Guide, available in the Guide menu.

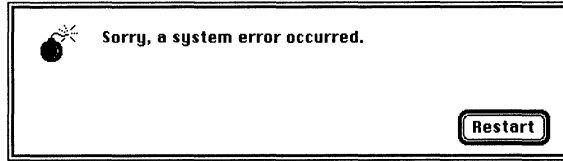
Sharing a CD-ROM disc over a network

You can share a CD-ROM disc using the file-sharing feature of System 7.5.3. If the disc has audio portions, you will be able to hear the audio yourself, but other people on the network will not. Likewise, you cannot hear the audio portions of discs you access over a network.

For further information about file sharing in system 7.5.3, see the "Sharing files" topic of Macintosh Guide, available in the Guide menu.

If 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 area 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.



Warning

If you have a problem with your computer and nothing presented in this chapter solves it, consult the service and support information that came with your computer for instructions on how to contact a Motorola-authorized service provider or Motorola for assistance. If you attempt to repair the computer yourself, any damage you may cause to the computer will not be covered by the limited warranty on your computer. Contact a Motorola-authorized dealer or service provider for additional information about this or any other warranty question.

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 system. 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. (Be sure to restart the computer immediately after you save your documents—quitting a program using **⌘-Option-Esc** may leave corrupted data in the computer's memory. This corrupted data is erased when you restart the computer.)

To restart your system, try the following steps:

- ❑ **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.

- ❑ **If you can't choose Restart, press the Power key on the keyboard or front of the computer.**

Select Restart from the dialog box that appears.

- ❑ **If the Power key doesn't work, hold down the **⌘** and Control keys while you press the keyboard Power key.**

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

- ❑ **If your computer still does not respond, turn it off with the power switch on the front of the computer, wait at least 10 seconds, and then turn it on again.**

If the computer does not turn off, try pressing and holding down the power button for 3–4 seconds.

4. **Choose All Off from the Sets pop-up menu to turn off all extensions.**
5. **Turn on Macintosh Easy Open by clicking it in the list (under Control Panels) so that a checkmark appears beside it.**
6. **Restart your computer while holding down the Option and ⌘ keys.**

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

7. **Click OK.**

The desktop is rebuilt.

IMPORTANT Do not stop the desktop-rebuilding process. Doing so could cause problems with your system software.

8. **Open the Extensions Manager control panel by choosing Control Panels from the Apple menu.**

When the Control Panels window appears, double-click the Extensions Manager icon.

9. **From the Sets pop-up menu, choose the name you gave your set of extensions in step 3 of these instructions.**

This restores your original set of extensions.

10. **Restart your computer to activate the extensions.**

- ❑ If none of these steps solves the problem, you may need to reset your computer's parameter RAM (PRAM). Reset PRAM by turning off the computer and disconnecting all external SCSI devices. Next, restart the system while holding down the key combination $\mathbb{H}$ -Option-p-r. Wait for the second startup chime, then release the keys. (Note that the "Caps Lock" key must be in the up position. This procedure won't work with the uppercase "P" and "R" keys.)

The computer does not start up from the hard disk.

Try the following:

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- ❑ Use the Drive Setup program to make the disk available. Drive Setup is located in the Utility folder on the CD that contains your system software. For instructions, start Drive Setup, then choose Drive Setup Guide from the Guide menu.
- ❑ If the hard disk is internal, shut down your computer, wait at least 10 seconds, and then turn it on again.
- ❑ If the startup hard disk is external, make sure that it is turned on and that its cable is connected firmly; then restart the system.
- ❑ Check the ID numbers of all SCSI equipment connected to your computer. Each SCSI device must have its own unique ID number. See the manuals that came with your SCSI equipment for information on setting SCSI ID numbers.

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



This icon indicates that your system 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 equipment that uses the Small Computer System Interface (SCSI).

Shut down the computer, turn off all 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 connect it properly.

- ❑ 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 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 *Testing and 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.

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:

- ❑ Use the Drive Setup program to make the disk available. Drive Setup is located in the Utilities folder. For instructions, start Drive Setup, then choose Drive Setup Guide from the Guide menu.
- ❑ If the hard disk is internal, shut down the 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 system.
- ❑ Check the ID numbers of all SCSI equipment connected to your computer. No two SCSI devices on the same SCSI chain can have the same ID number.
- ❑ If the hard disk is your startup disk, start your computer using 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 instructions in *Testing and 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.

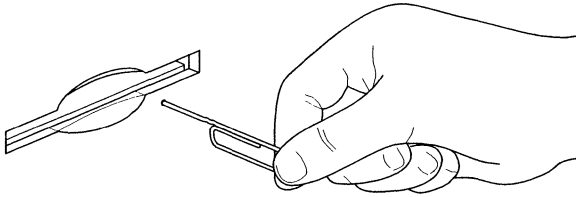
You need to rebuild the desktop—a process that helps your system keep track of files and folders on your hard disk. For instructions, see *Rebuild your desktop regularly* in the section *If you run into trouble* earlier in this chapter.

If icons do not appear correctly after you rebuild the desktop, try rebuilding a second time.

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 at the upper left of 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 none of these solutions work, take the computer to your Motorola-authorized service provider to have the disk removed.

“Customizing Your Computer” topic area 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.

Your screen displays a blank dialog box with a caret (>) in it.

Your computer has tried to launch a “debugging” application, but could not find one on your hard disk. Debugging applications are programs that software developers use to locate and fix problems in computer code. If you do not have a debugging application installed, your screen displays a caret prompt (>). To return to the desktop, type “G” and then press Return.

The pointer doesn’t move when you move the mouse.

One of the following situations is probably the cause:

- ❑ The mouse is not connected properly.
Shut down the computer. Check that the mouse and keyboard cables are connected properly, and then restart the computer.

IMPORTANT Do not connect the mouse while the computer is turned on. You may damage 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 *Safety, and Maintenance Tips* 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.

- ❑ Your system has a software problem.

Restart your system. For instructions, see *Start over* in the section *If 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.

- ❑ 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 the computer beeps every time you press a key, Easy Access is probably turned on.

Open Easy Access from the control panels listed under the Apple menu and turn it off.

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 a Motorola-authorized service provider or Motorola for assistance.

Your computer won't restart, and a CD-ROM disc is in the CD-ROM drive.

- ❑ Your computer may be trying to start up from the CD-ROM disc. Press the Open/Close button of your CD-ROM drive to open the tray and remove the CD-ROM disc. Close the tray, then restart your computer.

detailed instructions, see the “Customizing Your Computer” topic of Macintosh Guide, available in the Guide menu.

If your program performs better when a particular extension or control panel is turned off, contact the software’s manufacturer for information or an upgrade.

You see a message that your computer doesn’t have enough memory to start an application or open a document.

You can make more memory available to run your application following the instructions in *Increasing memory available to run applications* under *Working with several applications at a time* of this manual.

You can’t open a document, or you see a message that an application program can’t be found.

- ❑ 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. See *Rebuild your desktop regularly* under *If you run into trouble*, earlier in this chapter, for more information.
- ❑ If the document was created on a PC (personal computer running DOS or Windows), use the PC Exchange control panel to specify which program will open the document. For information about working with DOS documents on your system, see the information about DOS in Macintosh Guide, available in the Guide menu.

You see a message that your application program can't be opened because a file can't be found.

PowerPC Mac OS compatible programs use special files called shared libraries. Any necessary shared libraries should be installed automatically when you install PowerPC Mac OS compatible programs.

Follow the directions that came with your program to reinstall the program. If the shared library is still missing, contact the software program's manufacturer for assistance.

You experience problems using an older Mac OS program.

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Some older Mac OS programs are not completely compatible with PowerPC Mac OS compatible computers.

Open the Memory control panel and turn off Modern Memory Manager.

The tray of your CD-ROM drive won't open.

If a CD-ROM disc icon appears on your screen:

- ❑ Drag the disc icon to the Trash, or select it and choose Put Away from the File menu. If the AppleCD Audio Player program is active, choose Eject CD from the File menu.

If you see a message that a disc can't be put away because it is being shared, turn off file sharing, then try again to put away the disc.

If no CD-ROM disc icon appears on your screen:

- ❑ Press the Open/Close button of your CD-ROM drive.
- ❑ The signal to open the tray may not be reaching the computer. Turn off your computer and locate the small pinhole to the lower right of the CD-ROM tray opening. Insert the end of a large, straightened paper clip firmly and horizontally into the pinhole. Push gently until the tray is released, then carefully pull the tray open. Do not force the tray open; wait until the paper clip has dislodged it, or you may break the front of the tray.



Warning

Turn off your computer before you attempt to eject the tray using a paper clip. If you don't, you may damage the CD-ROM drive.

If neither of these suggestions works, your CD-ROM drive may be damaged. Contact a Motorola-authorized service provider or Motorola for further assistance.

Your computer won't restart, and a CD-ROM disc is in the CD-ROM drive.

- ❑ Your computer may be trying to start up from the CD-ROM disc. Press the Open/Close button of your CD-ROM drive to open the tray, and remove the CD-ROM disc. Gently close the tray; then restart your computer.

Your computer ejects a CD-ROM disc without giving you any error message.

- ❑ Make sure the disc is flat in the tray and the disc label is facing up. If you're using a small (8 cm) disc, make sure it's centered within the tray's inner ring.
- ❑ The disc may need to be cleaned. (See *Handling compact discs*.) If there are visible scratches on the shiny side of the disc, you may be able to remove them with a CD polishing kit (available from your audio CD dealer). If the scratches can't be removed, you'll need to replace the disc.
- ❑ The disc may be damaged. Try another disc in the drive, and try the original disc in another drive. If the original drive reads other discs or if the original disc doesn't work in another drive, the disc is probably damaged. You'll need to replace the disc.

You can't open a document on a CD-ROM disc.

- ❑ Try opening the application program first; then open the document.
- ❑ Read the manual that came with your CD-ROM disc. Some discs come with software that you need to install on your computer before using the disc.

You can't save changes you make to information on a CD-ROM disc.

- ❑ CD-ROM is a read-only medium. This means that information can be read (retrieved) from it, but not written (stored) on it. You can save the changed information on a hard disk or floppy disk.

- ❑ Make sure the volume is turned up in the AppleCD Audio Player. With the Audio Player open, drag the volume control slider up or press the Up Arrow key on your keyboard.
- ❑ The CD may have been paused. Click the Play/Pause button in the AppleCD Audio Player once or twice.

While playing an audio track on a CD-ROM disc that combines audio tracks and data, you double-click the disc icon and the audio track stops playing.

- ❑ You can't open data files on a CD-ROM disc and listen to audio tracks on that disc at the same time.

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You are unable to record sound from an audio CD.

- ❑ Check your computer's sound input port to see if a microphone or other device is connected.
- ❑ You may need to reset the sound options in a sound control panel. Refer to the "Sound" topic area of Macintosh Guide, available in the Guide menu.

Problems using Photo CDs

Your CD-ROM drive will not open Photo CDs.

- ❑ Reinstall the CD-ROM software (available through the "Multimedia Software" option in Custom Install when you reinstall system software).

Your computer does not display color icons for individual images on a Photo CD.

- ❑ Your computer may be low on memory. To view color icons, restart your computer and then reopen the Photos folder. See the "Memory" topic area of Macintosh Guide, available in the Guide menu, for more information on managing memory.

If you notice a decrease in your computer's performance after you add special software (a control panel, system extension, or custom utility), it may be because your special software does not work well with Mac OS computers built with the PowerPC microprocessor.

- ❑ To find out if your special software is the problem, hold down the Shift key while you restart the computer. This temporarily turns off certain kinds of software. If the computer performs better without this software, the software is likely to be the problem.
- ❑ Use the Extensions Manager control panel to turn off a system extension or set of extensions. For detailed instructions, see the "Customizing Your Computer" topic area of Macintosh Guide, available in the Guide menu. If the computer performs better when an extension is turned off, contact the extension's manufacturer for information or an upgrade.
- ❑ Drag special software items out of the System Folder or remove them permanently. (The special software may be in the Control Panels or Extensions folder inside the System Folder.) If the computer performs better when the software is removed, contact the software's manufacturer for information or an upgrade.

Hint: If you have more than one special software item, drag all the special items out of the Control Panels and Extensions folders. Then return them one at a time, restarting and checking your computer's performance each time until you identify the one that is causing problems.

If you still do not notice an improvement, follow the instructions in *Installing or reinstalling system software* later in this chapter to reinstall system software on your startup hard disk.

Obtaining online support and updated Mac OS software

Mac OS technical support information and software updates are available from many online services. Using these services, you can get troubleshooting and other important information. You can also get all of the latest versions of Mac OS software, including most printer drivers, system enablers, and updates to utilities, networking, and communication software.

IMPORTANT Be sure to read the posted Software License Agreement before installing any software.

For Mac OS software updates, look in the following online services:

- ❑ America Online
- ❑ CompuServe
- ❑ Internet: World Wide Web site
- ❑ Internet: FTP servers
- ❑ Internet: Gopher server

Specific paths and details for each service follow.

CompuServe

The MacPlanet (GO MACPLANET) area provides access to Macintosh-related information on CompuServe. From MacPlanet, go to the Apple Online (GO APLNEW) section for Apple product information, a database of technical support articles, a collection of popular software files, and software updates for U.S. and international customers.

The address for the Apple systems operator on CompuServe is 74431,1472 (via the Internet: 74431.1472@compuserve.com).

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Internet: World Wide Web

You can also download Apple software updates via Apple's World Wide Web server, www.info.apple.com. The Apple web site allows you an easy way to download Apple software updates from <ftp.info.apple.com>.

- ❑ URL for the Apple web site is: <http://www.info.apple.com>
- ❑ IP number for the web site is: 204.96.16.2

Internet: gopher server

Apple recommends using TurboGopher client software to access the Apple Computer Higher Education Gopher server. The “Apple Support Area” folder is located in the following path:

Home Gopher Server
Computer Information
Apple Computer Higher Education gopher server
Apple Support Area
Apple SW Updates

TurboGopher Client software is available via anonymous file transfer protocol (ftp) to boombox.micro.umn.edu in the /pub/gopher directory.

- ❑ Host name: info.hed.apple.com

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. 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.
- ❑ If none of these steps solves the problem, verify and test the disk by following the instructions in the next section, *How to verify and test a disk*.

How to verify and test a disk

The Drive Setup and Disk First Aid applications are used to verify and test disks. They can be found on the CD-ROM disc that contains system software.

To verify and test the disk, follow these steps:

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

See *Starting up from a CD-ROM disc* in the section *Initializing a hard disk* later in this chapter.

- 2. Verify the disk using Disk First Aid.**

- ❑ Double-click the Disk First Aid icon (you may need to look in a folder called Utilities to find Disk First Aid).



Disk First Aid

- ❑ When the Disk First Aid window appears, click the icon of the disk you want to verify, then click Verify.

How to repair a hard disk or floppy disk

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

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

See either *Starting up from a CD-ROM disc* in the section *Initializing a hard disk* later in this chapter.

2. **Open the Disk First Aid icon.**

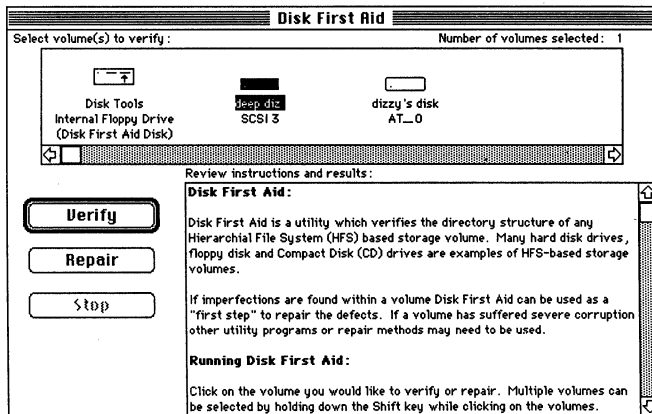
You may need to look in a folder called Utilities to find Disk First Aid.



Disk First Aid

3. **Click the icon of the disk you want to repair.**

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



Initializing a hard disk

You may never need to initialize a hard disk. This section helps you determine whether you need to initialize your hard disk and tells you how to do the initialization, if it's necessary.

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 one of the following is true:

- ☐ 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.

If the hard disk you want to initialize is not the startup disk, you can use the Drive Setup program to initialize it. Drive Setup is located on the CD-ROM disc that contains system software. For instructions, start Drive Setup and choose Drive Setup Guide from the Guide menu.

If the hard disk you want to initialize is the startup disk, follow the instructions in this section. First, start up from the CD-ROM disc. Then follow the instructions in *How to initialize a hard disk* later in this section.



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 *How to repair a hard disk or floppy disk*, earlier in this chapter.

Starting up from floppy disk

To initialize, test, or repair a hard disk, or to install system software on hard disk, you need to start up your computer from another disk. You can start up the computer using the Disk Tools floppy disk. In order to do this, you will first need to create that floppy disk. In order to do this, you will first need to create the disk. Find the Disk Tools Image in the Disk Images Folder on the CD-ROM disc and follow the instructions in the "Using Disk Copy" read me file.

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

1. Shut down your computer.
2. Insert the Disk Tools floppy into the disk drive.
3. Restart the computer.

How to initialize a hard disk

You initialize a hard disk by using a program called Drive Setup, which is on the CD-ROM disc that contains system software. (To initialize a hard disk from another manufacturer, use the utility software that came with the hard disk.)



Initializing a disk erases all information that may be on it. Before you initialize a damaged disk, try to repair it as described in *How to repair a hard disk or floppy disk*, earlier in this chapter.

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

See *Starting up from a CD-ROM disc* earlier in this section.

2. **Open the Drive Setup program.**

You may need to look in a folder called Utilities to find Drive Setup.



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 system provides system software on a CD-ROM disc. You can use the CD-ROM disc to install the system software on your system if you need to do so.

Note For instructions on reinstalling any additional software that originally came with your computer, refer to the Read Me file on your CD-ROM disc.

When should you install system software?

Your system 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 section.

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 *How to repair a hard disk or floppy 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 *Installing system software*, to reinstall system software on your startup hard disk.

7. When the update process is finished, quit Drive Setup.
8. Restart your computer from the CD-ROM disc that contains system software.

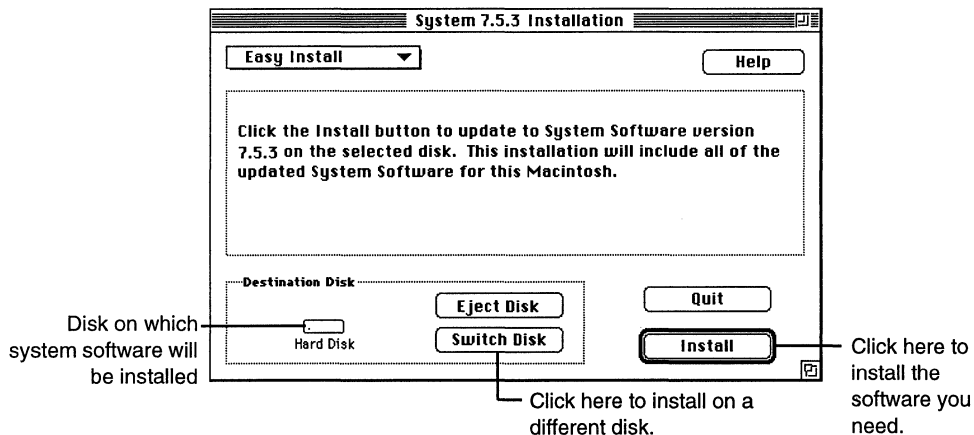
See *Starting up from a CD-ROM disc* in the section *Initializing a hard disk* earlier in this chapter.

9. Find and open the Installer program.

The Installer's Welcome screen appears.

10. Click Continue.

The Easy Install dialog box appears.



11. 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.

12. Click Install.

13. 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.

Doing a clean installation of system software

This section outlines what is commonly called a “clean” installation of system software. A clean installation allows you to discover which item in your System Folder is causing a problem. A clean installation creates a brand new System Folder and saves everything in your original System Folder in a different location. You can then follow the instructions in *Replacing your special software* later in this section to reinstall system extensions, control panels, and other special software one at a time from the old System Folder to the new System Folder. This procedure allows you to determine which item in the old System Folder was the source of the problem.

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 CD-ROM disc that contains system software.**

See *Starting up from a CD-ROM disc* 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.**

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

The following dialog box appears.

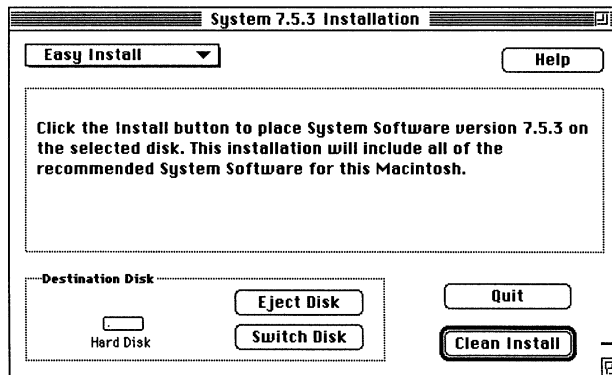


13. Click the Install New System Folder button and click OK.

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.

Note If you switch disks or change from Easy Install to Custom Install, the “Clean Install” Button will revert to “Install”. If this happens, repeat steps 12 and 13 before continuing.

14. Click Clean Install.



Click here to install the software you need.

15. Follow the instructions that appear on the screen.

It takes a few minutes to complete the installation.

Doing a custom installation

For most Mac OS 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 CD-ROM disc that contains system software.**

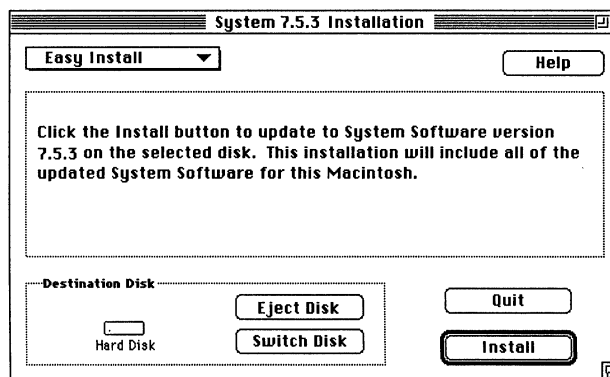
See *Starting up from a CD-ROM disc* in the section *Initializing a hard disk* earlier in this chapter.

2. **Open the Installer Program.**

The Installer welcome screen appears.

3. **Click OK.**

The Easy Install dialog box appears.



9. Restart your system.

The system software is installed and your computer is ready to use. Don't forget to eject the CD-ROM disc containing system software when you are finished.

Be sure that you always do the following:

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



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.

Handling a monitor

Follow these procedures for handling a monitor:

- ❑ Make sure the ventilation openings on the computer and the monitor are clear and unobstructed.
- ❑ Some large monitors cannot safely be placed on top of the computer. Check the instructions that came with the monitor for setup information.
- ❑ 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

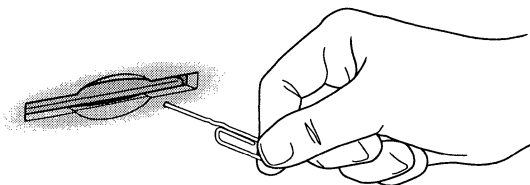
Take care not to spill any liquid on the keyboard. If you do, turn off your computer immediately.

- ❑ 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 Motorola-authorized service provider for repair.
- ❑ If you spill liquid that is greasy, sweet, or sticky, unplug the keyboard and take it to your Motorola-authorized service provider for repair.

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 to your Motorola-authorized service provider to have the disk removed.

- ❑ Do not force the tray open by hand.
- ❑ Do not wipe the lens with a paper towel or other abrasive surface. If you need to clean the lens, see a Motorola-authorized service provide for a lens cleaner.
- ❑ Never transport your computer with a disc inside the CD-ROM drive.
- ❑ Keep your computer equipment away from any source of liquid (such as wash basins, bathtubs, and shower stalls). If you drink coffee or other beverages while you're at your computer, take care not to spill.
- ❑ Avoid exposing your equipment to damp or wet weather. If your system is near a window, be sure the window is closed in rainy weather.

The tray on your CD-ROM drive automatically closes when you shut down your computer. You may want to open the tray and take your disc out before shutting down.

Power supply



Warning

To protect the power supply from damage, make sure the voltage switch on the back of the computer is set correctly before you plug the computer into a power outlet. Refer to Chapter 1 for instructions on setting the voltage switch.

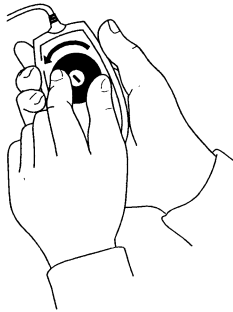
The power supply in your computer is a high-voltage component and should not be opened for any reason, even when the computer is off. If the power supply needs service, contact your Motorola-authorized dealer or service provider.

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.**



On some mouse devices, you may need to press the plastic ring (rather than turn it) to disengage it.

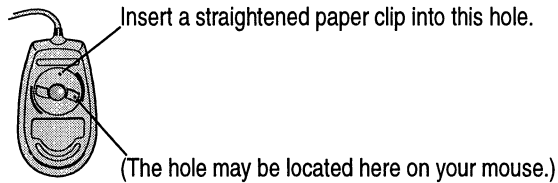
If the mouse is locked, see the next section, *Unlocking and locking the mouse*, for instructions on how to unlock it.

Unlocking and locking the mouse

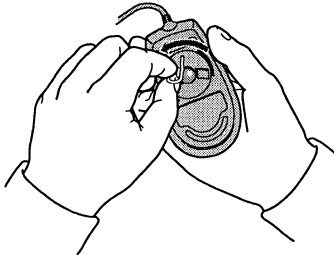
Some mouse devices can be locked so that the ball can't be removed. A locking mouse has a small hole on the plastic ring.

To unlock the mouse, follow these steps:

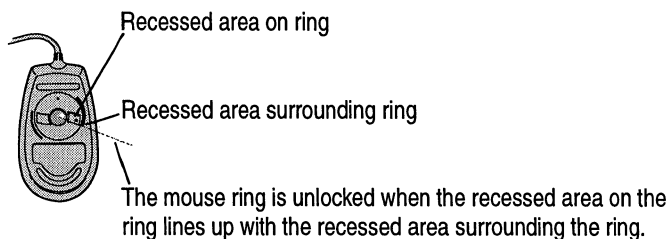
1. Insert a straightened paper clip into the hole on the plastic ring.



2. Press down on the paper clip while you turn the ring counterclockwise.



Turn the ring a very short distance. When the recessed area on the ring is lined up with the recessed area surrounding the ring, the mouse is unlocked.



Expansion card power requirements

The combined power consumption of expansion cards must not exceed the limits specified for your model. If you have more than one expansion card installed, check the information that came with your cards to make sure that their power consumption is within the limits specified in the *Technical Information* booklet.

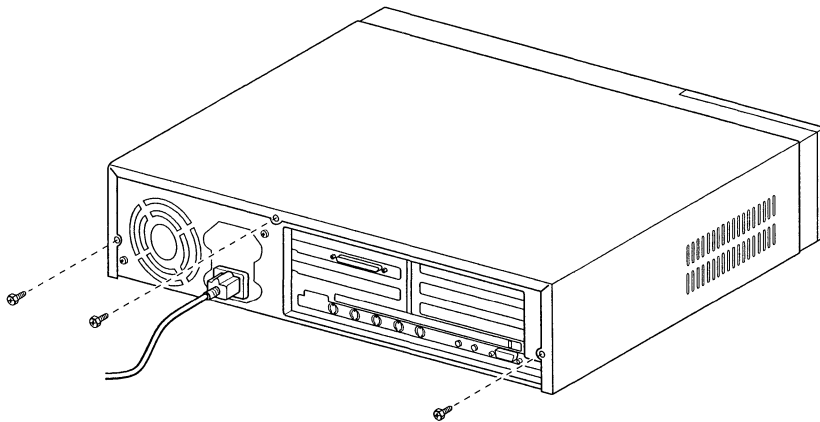
Card installation

1. Turn off the computer.

Leave the computer plugged in to ground it and protect its components from static electricity damage.

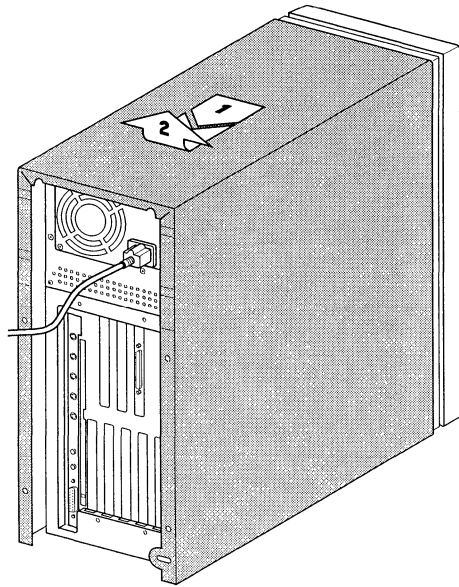
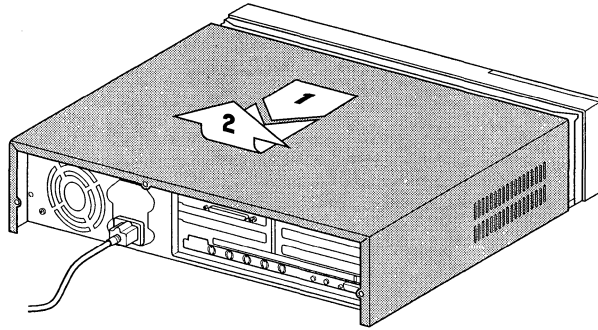
2. Remove the cover retaining screws.

The Motorola Desktop System has 3 retaining screws located on the rear panel.

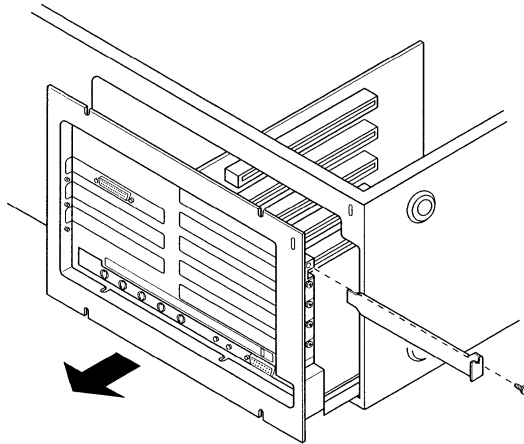
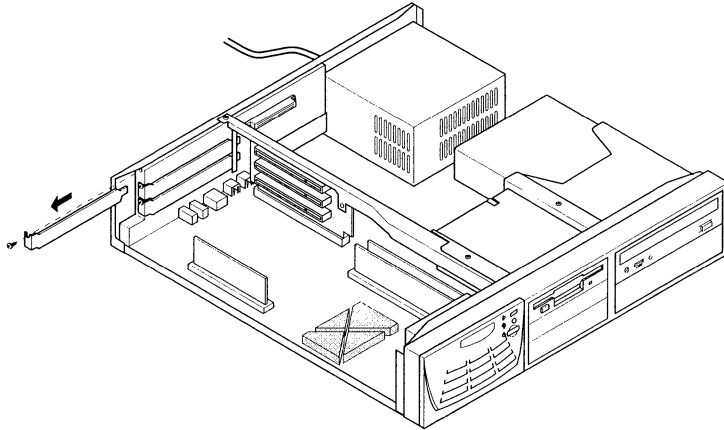


3. Remove the cover from the computer.

After you've slid the cover backward about one inch, lift it straight up and off the computer.

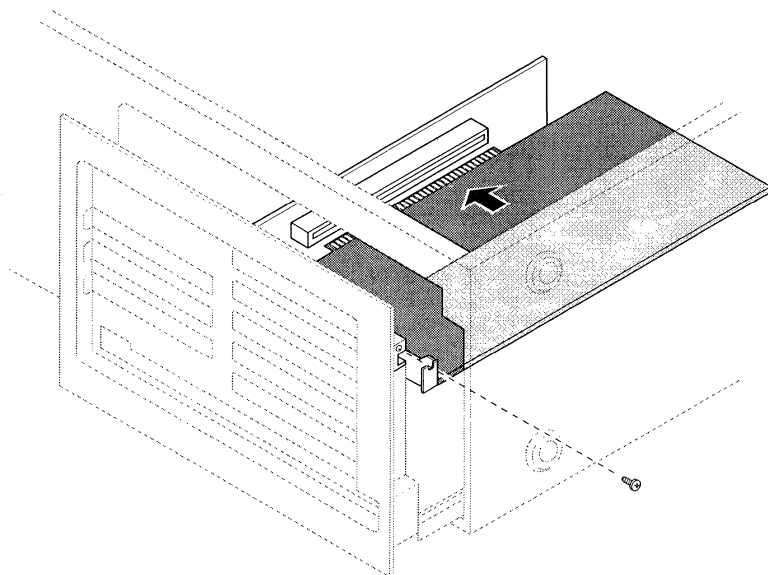


- B**
5. Being careful not to touch the sharp edges, remove the screw and port access cover from the expansion slot you want to use, and set the screw and access port cover aside.



Lay the computer down on its right side and slide the internal chassis outward by 1 inch before removing the screw and port access cover from the Minitower System.

B



8. Fix the card in place with the screw removed earlier.

If you have other cards to install, put them in now by repeating steps 5 through 8.

9. Replace the cover on the computer.

Lower the cover all the way down onto the case, leaving a one-inch gap. Slide the cover forwards until the forward edge aligns with the front bezel.

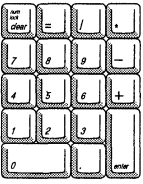
Replace the retaining screws to fix the cover in place.

You are now finished installing the card. You may turn on the computer and start using the new card.



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.

Enter key	 or 	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	 or 	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	 ,  or 	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, to put the computer to sleep, or to restart the computer.
Return key	 or 	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	 or 	Use to produce capital letters (or the upper character on the key).
Tab key	 or 	Use to move the insertion point to the next stopping place (such as a tab stop or field in a dialog box or program).
Other special keys	 or 	The function of these keys depends on the operating system and program you're using.

If you see rectangles: If you see rectangles instead of diacritical marks on some of the pictures of keys in Key Caps, try pressing Option-⌘ to see the diacritical marks. However, you only need to use the Option key (not Option-⌘) in combination with the other keys to type letters with diacritical marks.

If you press the Option key at the same time as a key for a specific diacritical mark and then release both keys, Key Caps outlines in bold the keys for letters that can be typed with that mark. (You'll see that most key combinations for diacritical marks can be used with the Space bar as well as letter keys—producing the mark without a letter.)

The most common diacritical marks and how to create them are summarized next.

Diacritical mark	Key combination
Grave accent (`)	Option-`, then type the character
Acute accent (´)	Option-e, then type the character
Circumflex (^)	Option-i, then type the character
Tilde (~)	Option-n, then type the character
Umlaut (¨)	Option-u, then type the character
The letter "c" with a cedilla (ç)	Option-c

- To type a letter or a space with a specific diacritical mark, press the Option key and the key for the mark simultaneously. Then type the letter that needs the mark.

If you are having trouble getting a mark and letter to appear together, try again. Be sure to press the Option key before (or at the same time as) the key for the mark; then, after you release both keys, type the letter to be marked.

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