SuperMac C600x User's Guide

UMAX Computer Corporation

Headquarters and   Sales
47470 Seabridge Drive
Fremont, California 94538 USA

Research and   Development
4800 Great America Parkway, Suite 200
Santa Clara, California 95054 USA

Web Site
www.supermac.com

Table of Contents

Introduction

Congratulations on your purchase of a new SuperMac C600x computer system by UMAX Computer Corporation (referred to herein as UMAX Computer). The SuperMac C600x uses a PowerPC™ 603e processor that handles your processing-intensive work easily.

The SuperMac C600x will run the Apple Mac™ OS system software version 7.5.3 revision 2 or later and Macintosh® applications. The Super-Mac C600x runs applications accelerated for Power Macintosh™ computers.

Registration

The first time you start up your computer, a registration window appears giving you an opportunity to register your SuperMac C600x computer. If you are connected to a modem, the transfer process takes less than a minute and the call is toll-free within North America. If you are not connected to a modem, you can print and mail the completed registration card to UMAX Computer Corporation. If you prefer, a pre-printed registration card is also included with your SuperMac C600x computer.

You will find other registration materials, including the registration for your Mac OS software, in the box as well. Be sure to complete and return all registration materials as instructed by the various providers.

About This Guide

Here's a brief summary of what you'll find in this guide:

Chapter 1, Unpacking and Setup, *explains how to unpack, set up, and connect your SuperMac C600x computer.*

Chapter 2, Fundamentals and Getting Help, *explains how to use the Macintosh Guide, and explains common features and terminology of the Macintosh operating system.*

Chapter 3, Connecting Additional Equipment, *explains how to connect external hardware that you may want to use with your SuperMac C600x computer.*

Chapter 4, Installing and Using Software, *explains how to install application you may want to use with your SuperMac 6600x computer, and considerations for the various types of applications.*

Chapter 5, Troubleshooting, *explains how to diagnose and correct problems you may encounter when working with your SuperMac 6600x computer.*

Don't miss instructions tagged Note, Important, or Warning. They add helpful hints to procedures, lessen the complexity or difficulty of operating your system, and warn of hazards to your system, your software, or you if you fail to follow the associated instruction.

Chapter 1

Unpacking and Setup

This chapter explains how to unpack and position your SuperMac C600x computer, and how to connect its various components and peripheral accessories.

Unpacking Your SuperMac C600x Computer

Choose a sturdy location near a grounded AC power outlet for your SuperMac C600x computer before you unpack it. Be sure to:

■ *Plan where to place your other components, like your display, a printer, speakers, or an external modem.*

■ *Place your display to one side of the computer: do not place your display or other heavy components on top of the SuperMac C600x.*

Choose a comfortable location that:

■ *Provides adequate ventilation so your system does not overheat.*

■ *Provides room to adjust the position of your display.*

■ *Is out of direct sunlight.*

Since you have reached this manual, you have already opened the outer box and one of its interior cartons. Remove any other cartons and your SuperMac C600x computer from the outer box. Open each carton and remove the keyboard, mouse, cable, software and manual(s). Compare the items you have with those listed on the included packing list. If you are missing any items, contact your UMAX Computer Reseller

Save your SuperMac C600x box and its packing materials. Use only the original packaging for safe shipment or relocation of your equipment.

Setting Up Your SuperMac C600x Computer

The diagram below illustrates the components you need to set up your SuperMac C600x. Carefully read and follow all the setup instructions in this chapter as you connect your SuperMac C600x and other compo-

nents.You must use shielded interface cables to comply with FCC requirements for radio-frequency interference. (All cables provided with your SuperMac C600x are properly shielded.)

Display

SuperMac C600x

Speakers

Keyboard

Mouse
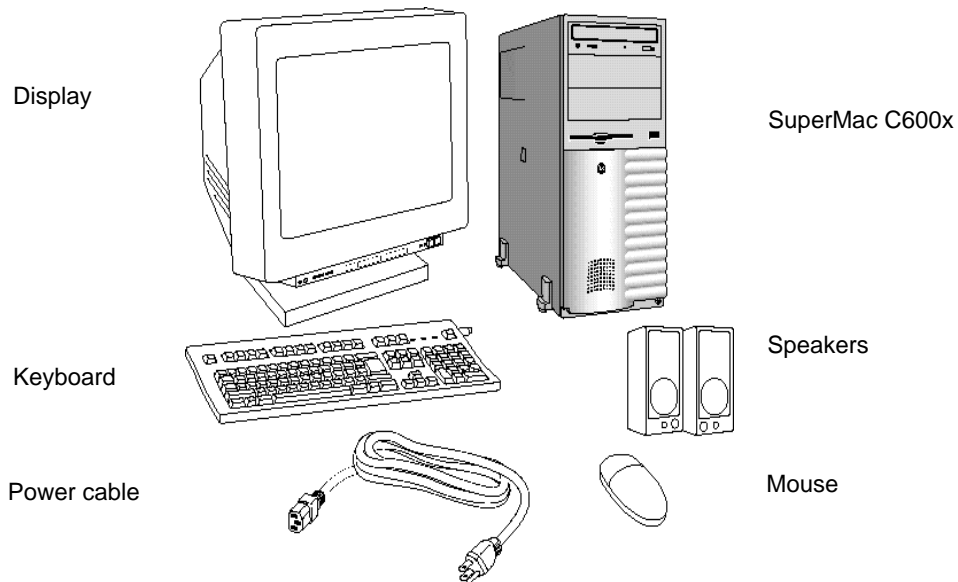
Power cable

Power and ADB cables for SuperMac C600x are included. Video and power cables for your display should be included with the display.

Connecting the Power Cable

Always make sure that your SuperMac C600x computer is plugged into a grounded AC power outlet before you connect a component to it. This properly grounds the computer.

To connect the power cord to your SuperMac C600x:

1. *Place the computer where you want it.*

   If your computer came with a modem card, you may want to set your computer near a phone jack so that you can connect the modem later.

2. *Make sure the voltage switch on the back of the computer is set correctly for the outlet which will be used.*

The voltage switch must be set correctly to avoid damaging your computer. If you need to change the setting, insert a screwdriver in the slot and slide the switch. Set the switch to "115" for voltages in the 100-130V range. Set the switch to "230" for voltages in the 220-240V range. 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.

Before you plug your computer in, check to see that the voltage switch on the back is properly set. If you need to change the setting, insert a small screwdriver here and slide the switch.

For operation in the USA, set this switch to show 115. For other countries, refer to the table later in this chapter.
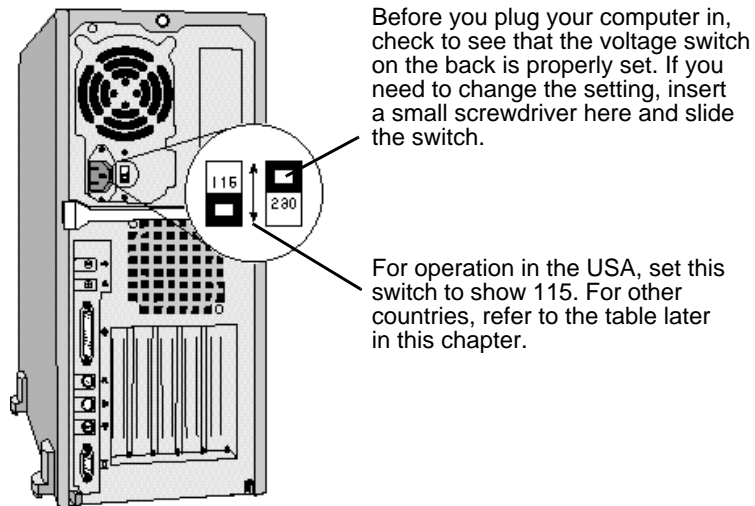
3. **Insert the end of the power cable with the socket into the recessed socket on the back of the computer.**

4. **Plug the other end of the   power cord into a three hole, grounded outlet or power strip.**

    WARNING: **Your SuperMac C600x computer is equipped with a three wire grounding plug. This equipment is intended to be electrically grounded. This plug will fit only a grounded AC outlet. If you are unable to insert the plug into the outlet that you want to use, contact a licensed electrician to replace the outlet with one that is properly grounded. Do not defeat the purpose of the grounding plug.**

5. Make sure the computer is turned off. If the illuminated power button light on the front panel comes on, press the illuminated power button to turn off the computer before you perform the other procedures in this chapter.

Illuminated power button
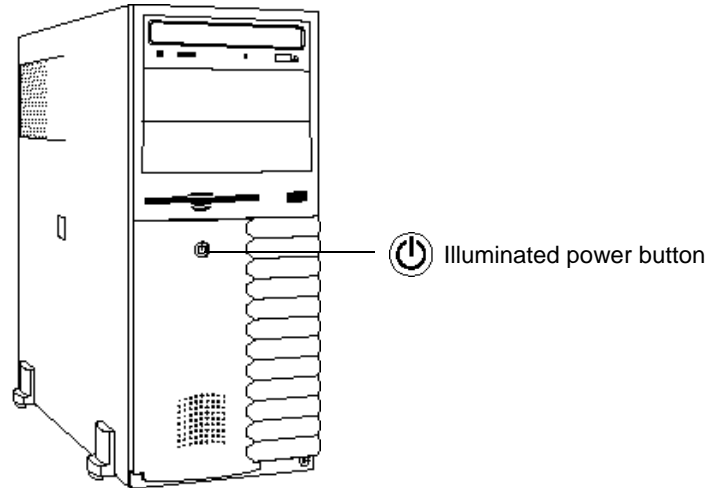
Voltages for Different Locations

IMPORTANT: In some countries, you may have one of two voltages. If you're not sure which of the two voltages you have, check with your electricity supply company before plugging in your Computer.

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

Country	Single voltage
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
Behrain, 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

Connecting Your Display

You can connect many types of displays to the built-in video support provided by your SuperMac C600x computer. This section provides instructions for connecting a typical display. For details about the setup and operation of your specific display, refer to the user manual that came with it.

In addition to the built-in video support, you can install graphics cards in any of the three internal Peripheral Component Interconnect (PCI) expansion slots. For information on installing video expansion cards, see Appendix B, Working Inside Your Computer.

In general, PCI 2.1 compliant cards designed for Apple's Power Macintosh 8600 and 9600 series computers will work with the SuperMac C600x computer. If you experience problems with a PCI compliant card, contact the card's manufacturer for assistance.

Connecting the Display Power Cord

Displays usually use two cords: a power cord and a video (display) cable. To connect the power cord:

1. *Connect the power cord to the display. On some displays, the cord is permanently attached. A typical power-cord connection is shown below.*

Connect to
grounded
A/C outlet

Power cord connections
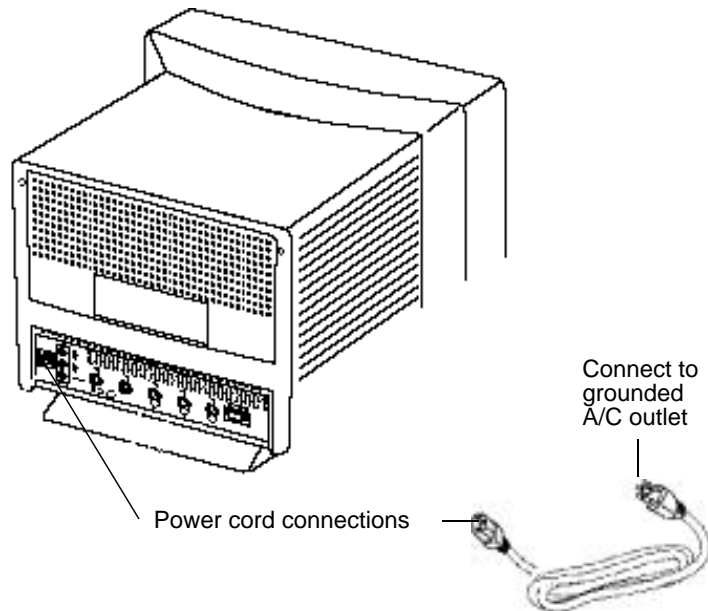
2. *Plug the other end of the power cord into a live, grounded AC power outlet.*

Connecting the Video Cable

To connect your display to your SuperMac C600x computer:

1. *Connect the video cable that is included with your display as shown in the manual for your display.*

    Some displays have a permanently attached video cable; some have BNC connectors; and others have a single DB-15 or HD-15 connector.

2. *Connect the other end of the video cable to the built-in video port on your SuperMac C600x computer.*

Note: Your display cable may require a DB-15 adapter to fit the graphics port on your SuperMac C600x.

Monitor
video port
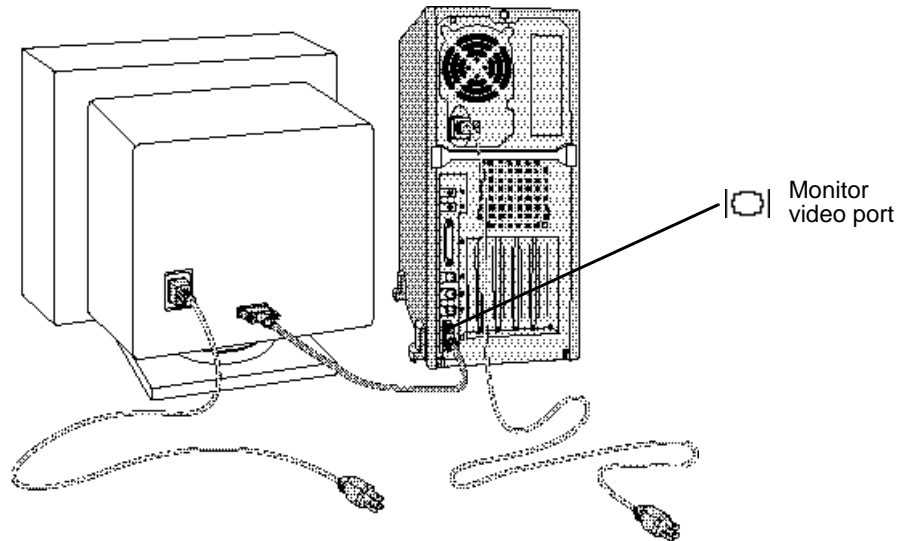
For information on installing video or graphics cards see "Installing Expansion Cards" in Appendix B.

3. *Tighten the thumbscrews to keep the cable from coming loose .*

Connecting the Keyboard and Mouse

The way you connect the mouse to the keyboard depends on whether there are ports on either side of the keyboard or a recessed port on the back of the keyboard. The way you connect the keyboard to your computer depends on whether the keyboard has a separate cable or a built-in cable that plugs into a port on the back of the computer.

To connect your keyboard and mouse:

1. *Depending on the type of keyboard you are using, do one of the following to plug the mouse cable into your keyboard:*

■ *Plug the mouse cable into the ADB (Apple Desktop Bus) port on either side of the keyboard. Most right-handed people prefer to use the mouse with the right hand; most left-handed people prefer to use the left hand.*
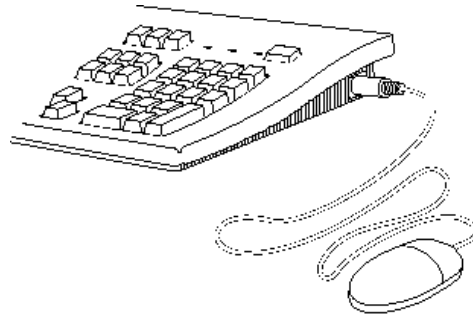
■ *Plug the mouse cable into the recessed ADB port on the back of the keyboard.*

2. *Connect the keyboard to the computer.*

■ *If the keyboard has a separate cable, first plug one end of the cable into the unused ADB port on the left or right side of your keyboard. Then plug the other end of the cable into the ADB port on the back of the computer.*
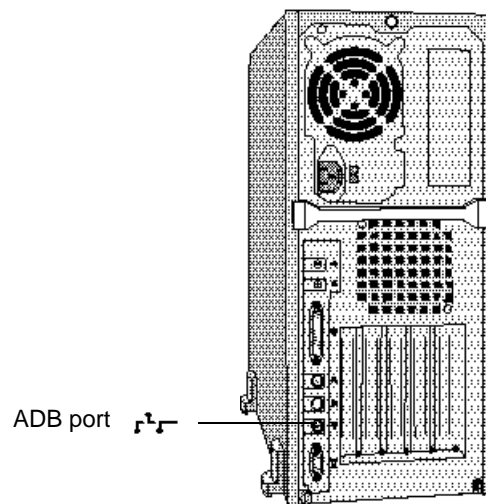
ADB port

■ *If the keyboard has a built-in cable, plug the free end of the keyboard cable into the ADB port on the back of your computer.*

Ethernet Card

If your C600x includes an Ethernet card, you can connect your computer to an Ethernet network. See "Connecting to an Ethernet Network" in Appendix B.

Modem Card

If your C600x includes a modem card, you can use the modem to send and receive faxes and telephone calls, to connect to the Internet, to access online service, and to communicate with other computer users. (You use the modem together with modem software. See your modem documentation for information on how to use the modem and software.)

To connect the internal modem:

■ *Using any standard phone cord, plug one end of the cord into your internal modem connector and plug the other end into a phone jack.*

Line splitter

Internal modem
connector

Phone jack
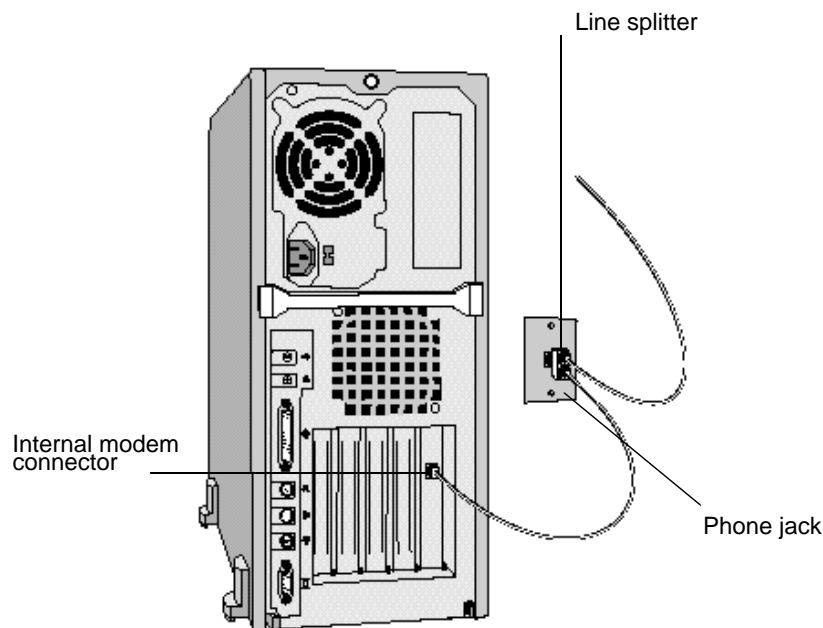
IMPORTANT: Make sure you connect the modem to an analog phone line–the kind used typically in homes. A digital phone line could damage the modem. If you're connecting the modem at home, you probably have an analog phone line. Your modem manuals contain more information about using your modem.

If you have only one phone line, consider purchasing a line splitter at an electronics supply store. The splitter allows you to plug your phone and modem into the same phone jack at the same time. Don't forget, if your phone and modem share a single phone line, you cannot use both the phone and modem at the same time. While you are using the modem, outside callers will get a busy signal; when the phone is in use, you cannot use the modem.

IMPORTANT: **Unplug your modem from the phone jack during lightning storms to prevent voltage overload.**

Connecting Peripherals

If you are new to working with the MacOS, it's a good idea to get some experience using your computer before you connect other equipment such as a printer, scanner, or modem. To learn basic SuperMac C600x computer skills, see Chapter 2.

When you are ready to connect other equipment to the external ports on your SuperMac C600x computer, see Chapter 3 for instructions.

In Summary

You've finished setting up your computer. Please continue with one of the following:

If you are...	Then...
A new user	See Chapter 2, "Fundamentals and Getting Help"
An experienced user new to the PowerMac	See "The Macintosh Guide" in Chapter 2 to learn about the Macintosh Guide. This is your main source of information for working with the Power-Mac.

If you need to...	Then...
Install more software	See Chapter 4 in this book for information on setting up programs and managing memory. You will need this information to properly set up any software designed specifically for SuperMac C600x computers.

If you need to...	Then...
Add more hardware	If you want to connect additional equipment, such as a scanner, to your computer, see Chapter 3 of this manual as well as the instructions that came with those devices.

Chapter 2

Fundamentals and Getting Help

Fundamentals of Operating Your SuperMac C600x Computer

Turning Your SuperMac C600x Computer On

To turn on the computer system for the first time:

1. *Turn on your display   .*

   See your monitor manual for the location of the power switch.

2. *If you have peripheral devices co   nnected to your computer system turn on the power for these devices.*

   Wait a moment for all the external devices (particularly hard disk drives) to reach their operating levels.

3. *Press the Power key on the keyboard to turn on the computer.*

   The Power key is marked with a left-facing triangle
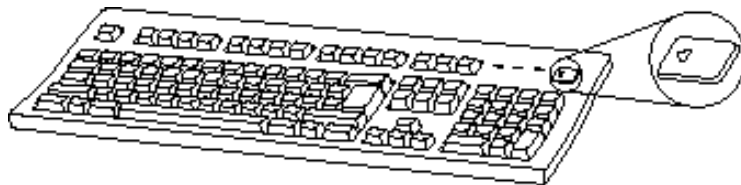
   You can also press the power button on the front of the computer to turn it on. See "Your Computer at a Glance" in Chapter 3.

4. **Check to see what's on your screen.**

   You see the "welcome screen" and the Launcher that you use to choose what you want to do next

   If you want to learn about the capabilities of your SuperMac C600x, click one of the tutorial buttons on your screen.

Close box ———

Click one of these buttons. (The buttons on your screen may be different.)

If you see a blinking question mark in a small diskette icon, see "Solutions to Common Problems" in Chapter 5. You may need to reinstall the System software on your computer's hard disk. (System software, a set of files that the computer uses to start itself, keep track of files, and run application programs, is pre-installed on you SuperMac C600 computer.) See Chapter 5 for instructions on reinstalling System software.

5. **If you prefer to use the Macintosh Desktop (Finder) to access your applications or documents, click the Close box in the upper left corner of the Launcher.**

   To keep the Launcher from opening automatically each time you turn on your computer, turn off "Show Launcher at system startup" in the General Controls Panel. (For information about using the Control Panels, see "Control Panels" later in this chapter.)

You will see the Macintosh desktop as pictured below.

Hard disk icon

Macintosh desktop
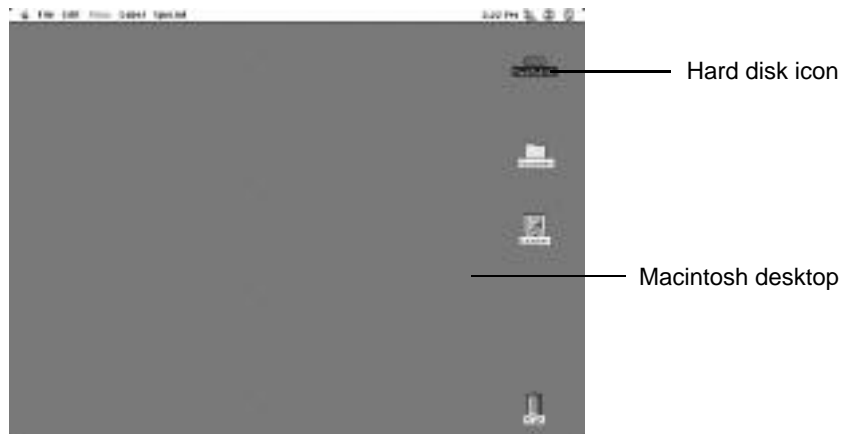
6. **If this is the first time you have started up your SuperMac C600x, customize the Energy Saver control panel.**

    For information on customizing the Energy Saver control panel, see "Using the Energy Saver Control Panel" later in this chapter.

If Your Monitor Screen Is Dark

If your display is blank or does not appear as described above, check the following items.Do not connect or disconnect cables while the computer is on. You could damage your equipment.

✔ *Is your computer turned on? The illuminated power-on button on the front of your computer should be lit. If not, press the illuminated power button or the keyboard's power key.*

✔ *Is the computer plugged into a power source? If it is plugged into a power strip, is the power strip turned on?*

✔ *Are the keyboard and mouse cables connected correctly? Review the connection procedures in this chapter.*

✔ *Is your display power cord plugged in?*

✔ *Is your display turned on? Check the power light on the front of the display.*

✔ *Is your display cable attached firmly to both the display and the SuperMac C600x computer?*

✔ *Are the brightness and contrast controls on your display adjusted high enough for you to see an image?*

Learning the Basics

The following illustration points out the elements on your screen with which you work on your computer.

Menu

Icon

Window
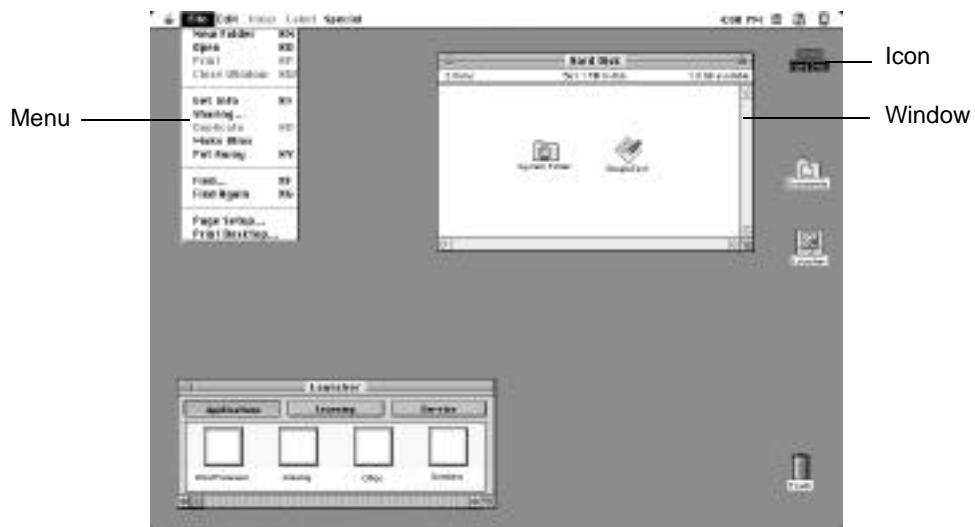
Mouse Techniques

Your computer responds instantly to every movement you make with the mouse. You use the mouse to start applications, open and create documents, and put them away.

■ *To select an icon, click it. Position the pointer over what you want to make active. Press and quickly release the mouse button.*

■ *To open an icon, double-click it. Position the pointer over the icon. Press and release the mouse button twice in rapid succession.*

■ *To drag an icon, position the pointer on an icon. Press and hold down the mouse button while you move the mouse. Release the mouse button.*

Menus

Along the top of the screen, in the menu bar, are the titles of the menus or lists of commands you can choose from. Menus stay out of sight until you need them. To open a menu, just position the pointer on the word or symbol in the menu bar and hold down the mouse button. (The menu will remain visible until you release the mouse button.) To choose a command from a menu, position the pointer on the menu title, press the mouse button and hold it down while you drag the pointer to the command you want, then release the mouse button.

File	
New Folder	⌘N
Open	⌘O
Print	⌘P
Close Window	⌘W
Get Info	⌘I
Sharing…	
Duplicate	⌘D
Make Alias	
Put Away	⌘Y
Find…	⌘F
Find Again	⌘G
Page Setup…	
Print Desktop…	

Types of Icons

Pictures that represent things like documents, applications, and trash cans are called icons. You can double-click any icon to open it and see what it contains.

This icon represents a hard disk that may contain the Mac OS.

This icon represents an application program which you use to create documents and do other work.

This icon represents a file created by an application program.

This icon represents a folder which you can open to see what files or folders it contains.

This icon represents the trash. To throw away an item, drag it to the Trash icon and choose Empty Trash from the Special menu.

Working with Windows

When you work with applications, windows appear on your desktop. These windows are boxes that display text, graphics, and icons. You can change the shape or position of a window, and close the window when you have finished working with it.

Close box
Click to close
a window

Title bar
To move a window, drag
it by the middle of the
title bar

Zoom box
Click to make the
window bigger or
smaller

Scroll arrow
Click a scroll arrow
to bring hidden
portions of the
window into view

Size box
Drag to change the
size of the window

Hard Disk

2 Items   561.1 MB in disk   1.8 GB available

System Folder   SimpleText
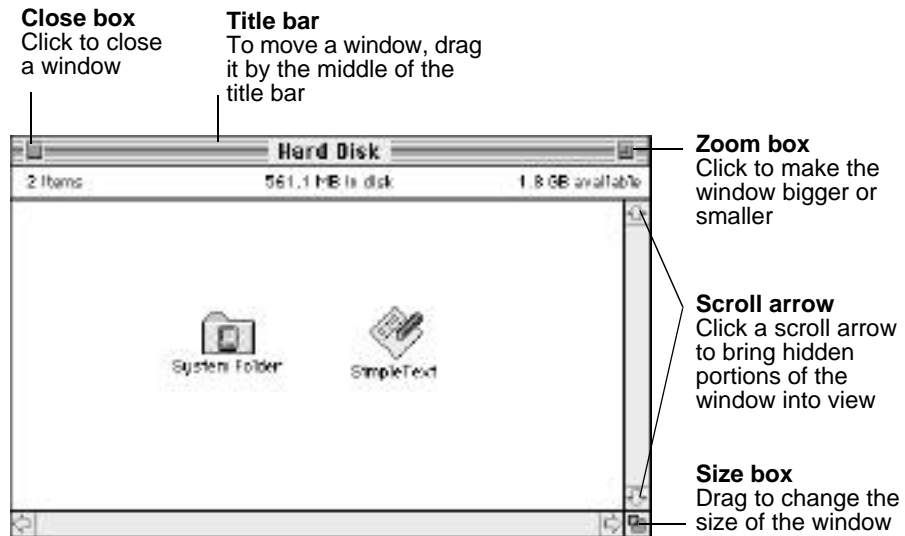
Control Panels

You can change many of the standard settings for your computer using the control panels. The Mac OS includes a General Controls panel for a variety of settings and separate panels for the mouse, keyboard, sound, and many other components of your system.

To open a control panel:

1. *Click the Apple menu at the left side of the menu bar.*

2. *Drag the pointer to the Control Panels command.*

   A submenu appears with a list of the control panels on your system. (The items listed on your control panel submenu may be different.)
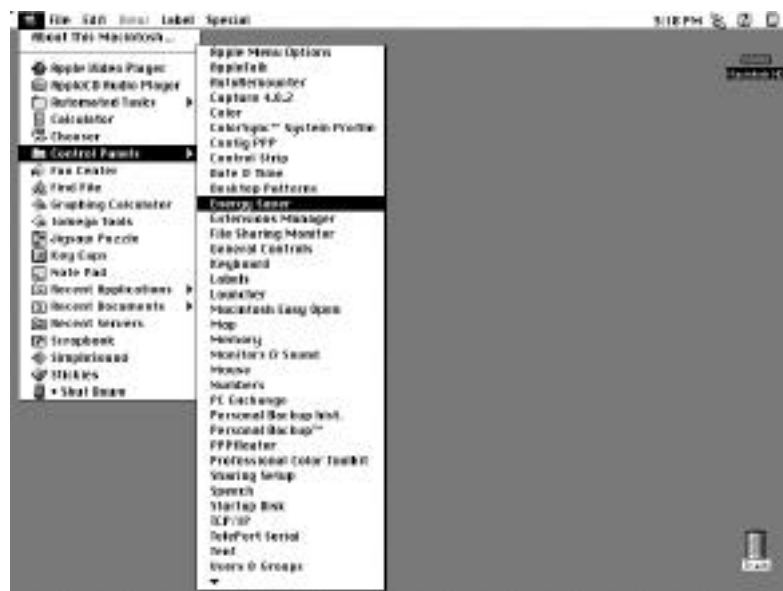
3. *Drag the pointer to control panel you want to open and release the mouse button.*

   The control panel opens.

Using the General Controls Panel

> **You use the General Controls panel to display or hide the Launcher at startup, to keep the System Folder and applications from being renamed or removed, and to set the blinking rate for the insertion point. To use the General Controls panel, open the control panel and choose the options you want to change.**
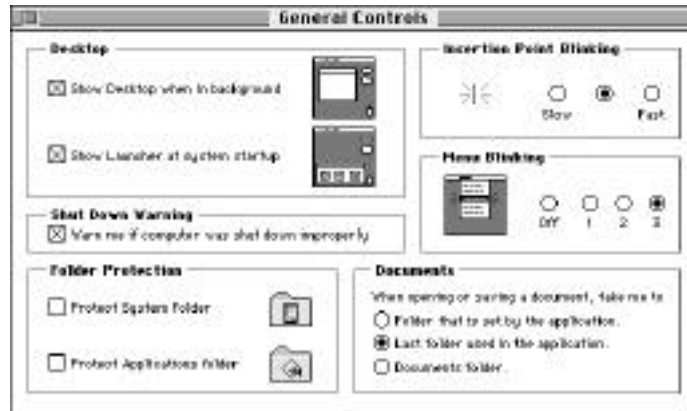
Using the Energy Saver Control Panel

> **You can customize the Energy Saver control panel to have your Super-Mac C600x go to sleep or shut down at a pre-selected time and thus reduce your energy consumption. This control panel enables your SuperMac C600x to comply with the U.S. Environmental Protection Agency's Energy Star initiative by conserving energy and saving money for you.**
>
> **Options exist that will allow you to set the time of inactivity after which your SuperMac C600x will go to sleep or shut down, or set the time of inactivity for a one-time shutdown or set the day and time at which you want your computer to shutdown. Added options exist that will tell the Energy Saver not to engage during certain activities that you might not want interrupted.**

Click here to set the
computer to sleep after
a period of inactivity

Click here to choose days and times
for the computer to start up or shut down
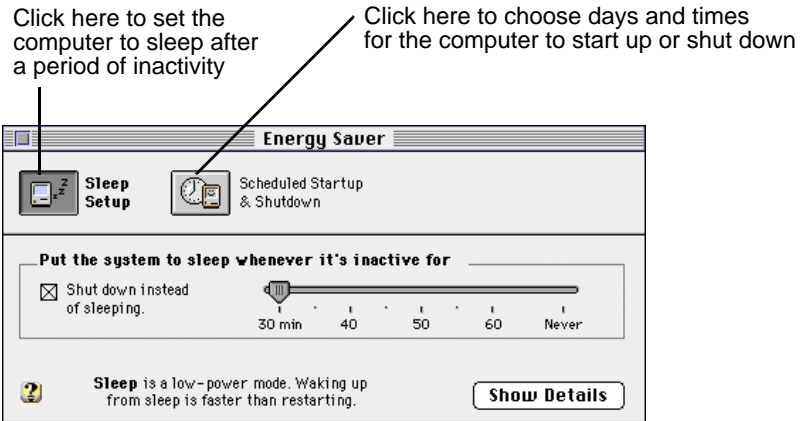
*Click the Show Details button to set separate times for the display and
hard disk to sleep.*
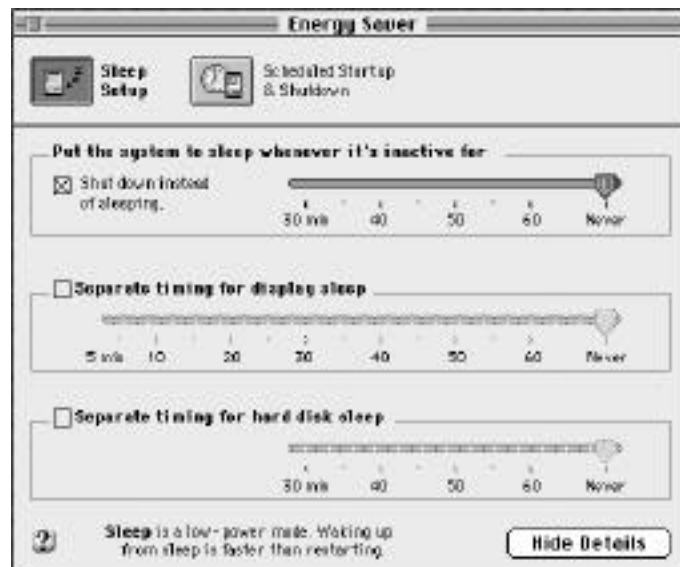
Using the Monitors & Sound Control Panel

In the Monitors and Sound control panel, you can designate the number of colors or shades of gray to be displayed and specify the resolution of your monitor.

Click here to see display options for adjusting the monitor's picture

Choose a resolution for the selected monitor

Choose the number of colors or shade of gray you want
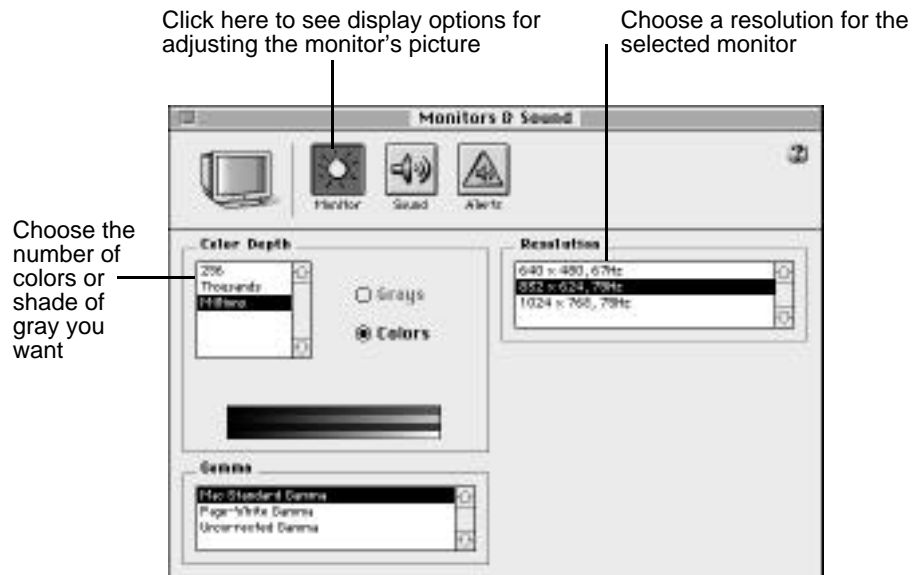
Using the Desktop Patterns Control Panel

You use the Desktop Patterns control panel to change the pattern of your desktop.

To move from pattern to pattern, click the left or right scroll arrow

To change the desktop pattern to the pattern displayed in the box, click this button
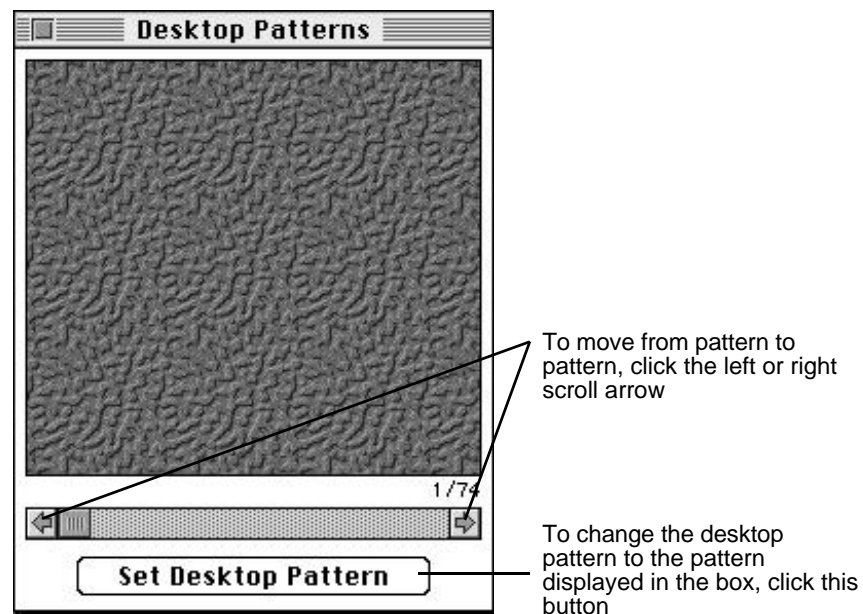
Using the Memory Control Panels

You use the Memory control panel to make changes in the cache size, turn the memory manager on and off, control virtual memory, and to configure the RAM disk.

To set the cache size, click the up or down arrows

Use these options to turn the modern memory manager on or off

Use these options to configure virtual memory

Use these options to configure a RAM disk
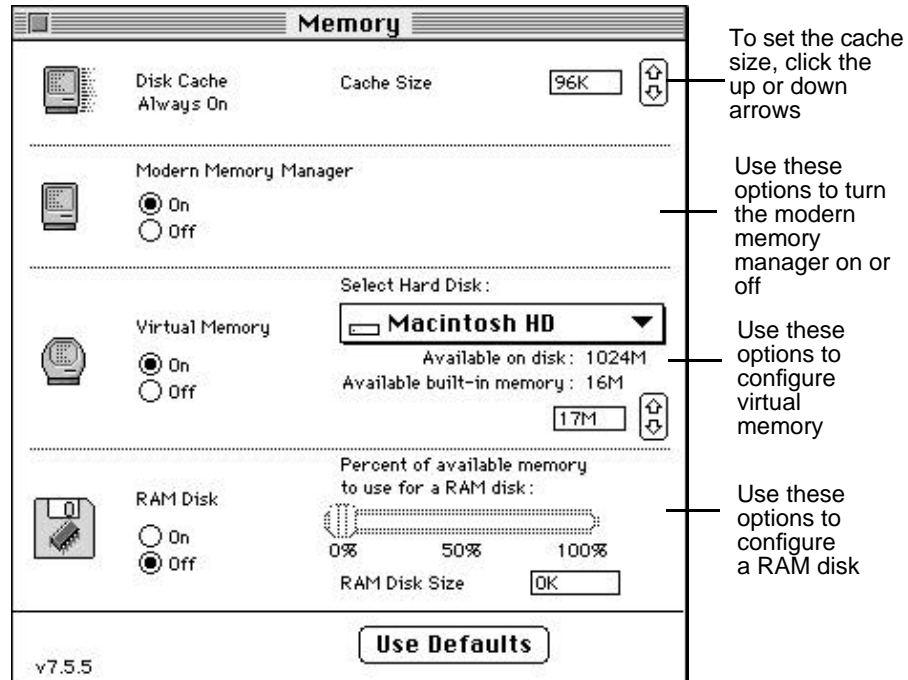
Using the Control Strip

The Control Strip that appears in the lower left corner of the desktop provides fast access to the control panels for color, sound, monitor resolution, file sharing, and AppleTalk®. To open one of these control panels, click the icon you want in the control strip.
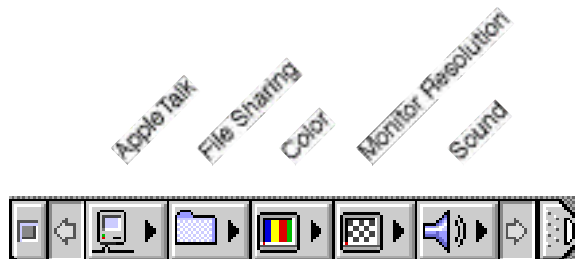
To display or hide the Control Strip, choose the Control Strip control panel from the Apple menu.

Turning Your SuperMac C600x Computer Off

To turn your SuperMac C600x computer off:

1. *Save any open documents and quit all applications.*

2. *Move the arrow to the word "Special" in the menu bar at the top of your display screen.*

   If the word "Special" does not appear at the top of the screen, you are working in an application. Pull down the Application menu (to the right of the Guide menu) and choose Finder™, or position the arrow on the desktop and click once.

3. *Hold down the mouse button and move (drag) the arrow down the Special menu until Shut Down is highlighted, then release the mouse button.*

You can also turn off your computer by using the Power key on the keyboard.

1. *If the computer is in sleep mode (the monitor is on but the screen is dark), press any key except Caps Lock to wake it.*

2. *Press and hold the Power key on the keyboard for about 2 seconds.*

   You see a dialog box confirming that you want to shut down your computer.
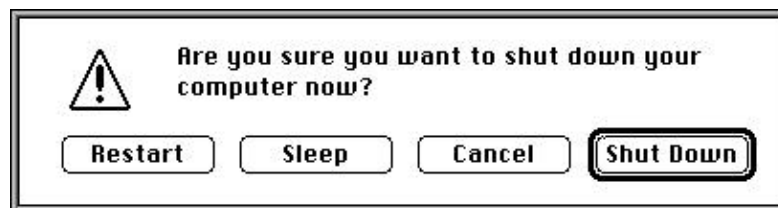
3. *Press the Return key on the keyboard (or click Shut Down in the dialog box).*

   Choosing Shut Down or using the Power key readies the hard disk for a fast restart next time you start your computer. It also prompts you to save any unsaved work on a disk before turning the power off. (Choosing Sleep puts the computer in a low-power system sleep, maintaining the contents of memory while conserving power. Waking up from sleep is faster than restarting. To wake the computer, press any key on the keyboard except Caps Lock.)

Problem Turning Off the Computer?

> *If your computer "freezes" so that the pointer does not respond to the mouse, you can turn off the computer by pressing the power button on the front of the computer.*
>
> IMPORTANT: *You could lose unsaved work if you use the power button on the front of the computer to turn it off. Only use the power button when there is a problem that a prevents the computer from being turned off with the Power key on the keyboard or the Shut Down command.*

Getting Answers to Your Questions

> *When you have questions about using your SuperMac C600x computer, there are several places you can look for answers.*
>
> ✔ *This manual: to help you set up your computer and learn about it or to find solutions to problems.*
> ✔ *The Macintosh Guide: found under the ? icon in the menu bar across the top of your screen, for information about the Mac OS.*
> ✔ *Other manuals: for answers to questions about other manufacturer's equipment or application programs.*
> ✔ *UMAX Computer Customer Technical Support: when you can't find an answer in provided materials. Refer to the Quick Setup card that came with your computer for on-line contact information, and other convenient support numbers. UMAX Computer Corporation maintains a World Wide Web home page on the internet where you can find answers to frequently asked questions:* **http://www.super-mac.com.**

The Macintosh Guide

> *The Macintosh Guide is your main source of information about the Mac OS. When you need a quick answer about a specific use for your computer, use the Macintosh Guide.*

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

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

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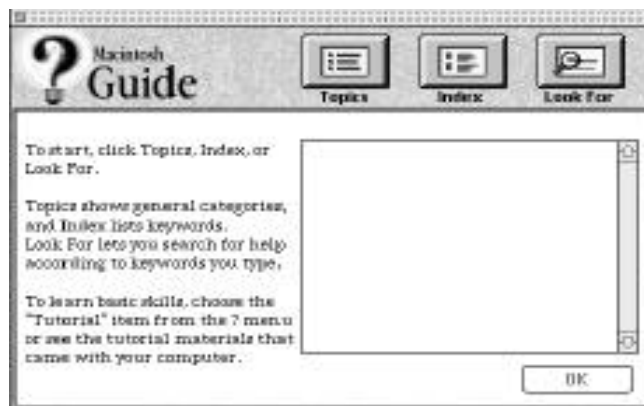
    Whenever you use Macintosh Guide, its window remains in front of other windows. If the window gets in your way, you can move it by dragging its title bar (the gray bar across the top of the window).

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

The Macintosh Guide gives you three ways of finding information:

■ *Topics lets you choose from a list of general subjects*

■ *Index lets you choose from an alphabetical list of more specific subjects*

■ *Look For lets you search for information related to a specific word or phrase that you type*

In the following sections you will practice using each method. If you have problems while using Macintosh Guide, see "Tips for Using Macintosh Guide" later in this chapter.

The Topics Button

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

A list of general topics appears on thdeft side of the Macintosh Guide window. (Depending on the hardware and software you have, the list of topics may look different.)
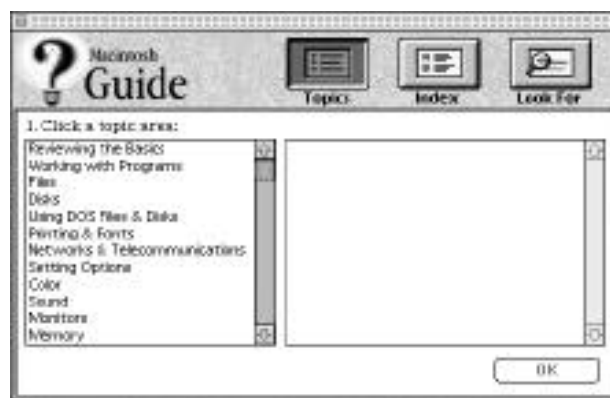
2. **Click a topic, like "Reviewing the Basics," in the list of topics.**

When you click any topic area, a list of related questions appears on the right side of the Macintosh Guide window.
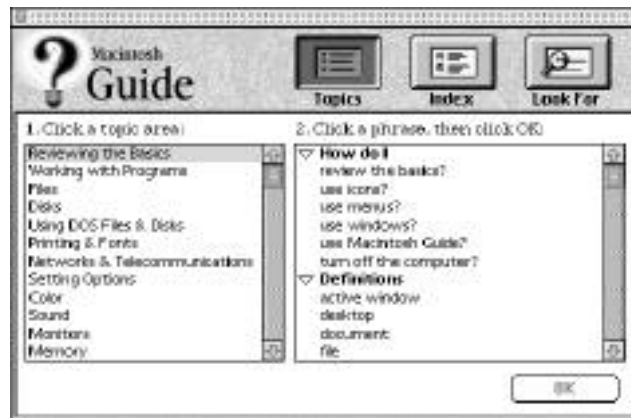
3. **Click a question, such as "How do I review the basics?", then click OK. (You can double-click the question if you prefer.)**

To get instructions, click a question...

...and then click OK.
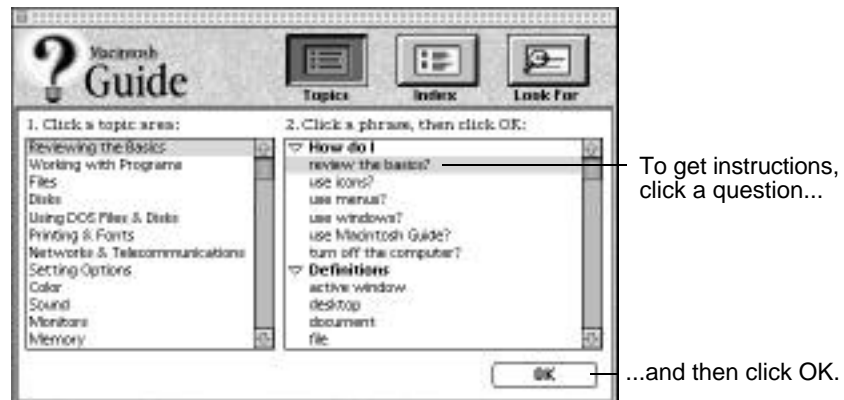
4. **Read and follow the instructions inside the window that appears.**

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

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

The Index Button

1. **In the Macintosh Guide window, click the Index button. An alphabetical list of index entries appears on the left side of the window.**
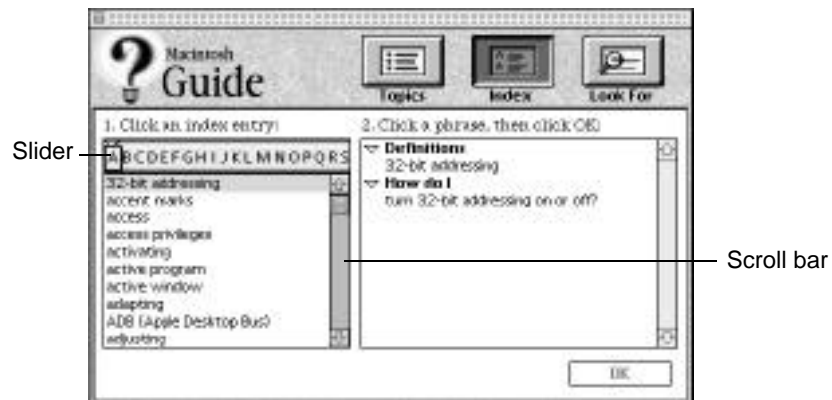
Slider

Scroll bar

2. **Scroll through the alphabetical list until the entry you want is visible.**

   You can drag the slider to the letter your desired entry begins with, click the letter, or use the scroll bar at the right of the list to locate an entry.

3. **Click the entry.**

   A list of phrases appears on the right side of the Macintosh Guide window.

4. Click a phrase, then click OK. (You can double-click the question if you prefer.)

To get instructions, click a question...

...and then click OK.

5. Read and follow the instructions inside the window that appears.

The Macintosh Guide provides step-by-step instructions to answer any questions you selected. When you complete each step, click the right arrow in the lower right corner to see the next step.

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

The Look-For Button

1. **In the Macintosh Guide window, click the Look-For button. A box appears on the left side of the window, where you can type text.**

Click here

Type a word or phrase here

Click here
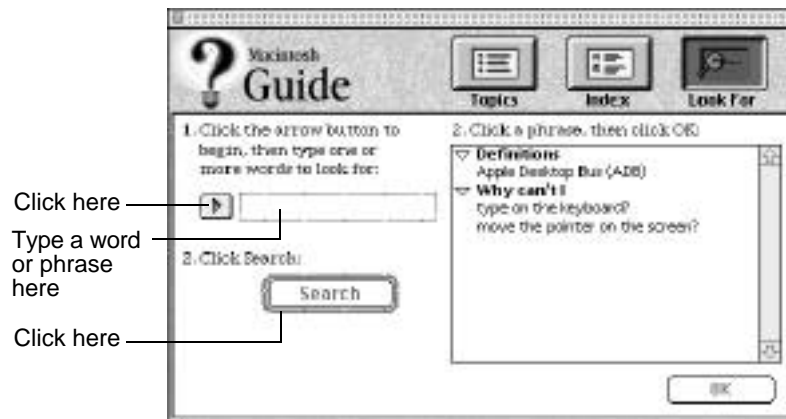
2. **Click the arrow   button to activate the text box.**

3. **Type a word, such as "sound", in the text box and click Search.**

    When you click Search, a list of questions related to the word or phrase you typed appears on the right side of the Macintosh Guide window.
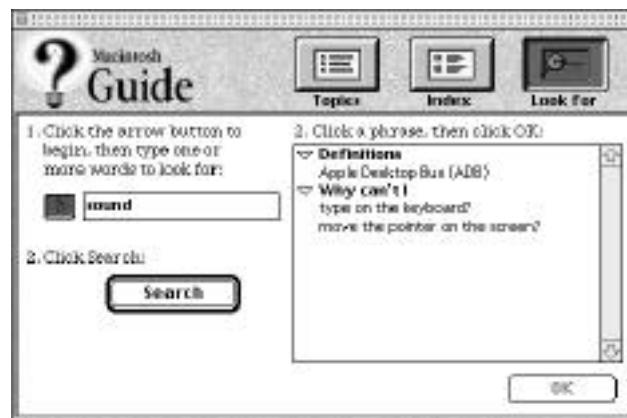
4. Click a question like "How do I play a CD audio disc?" and click OK. (You can double-click the question if you prefer.)

To get instructions, click a question...

...and then click OK.
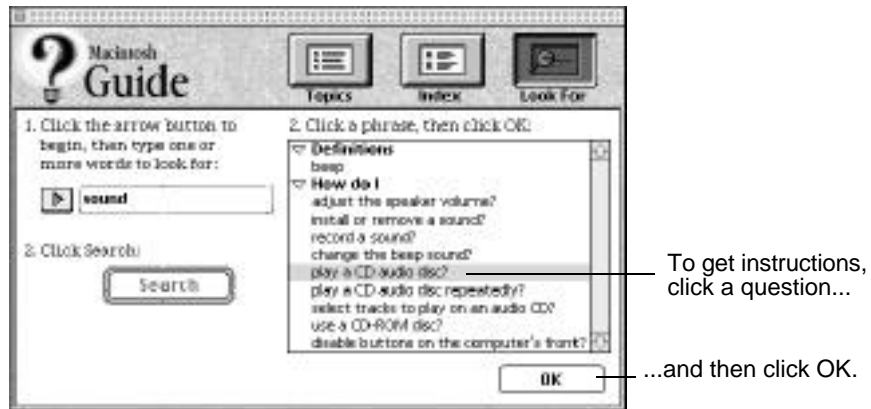
5. Read and follow the instructions in the window that appears .

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

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

Tips for Using Macintosh Guide

Here are a few tips for using the Macintosh Guide effectively:

- ◼ **The Macintosh Guide is available only from the Finder.**
- ◼ **When you work in an application, the Guide menu may offer information for that specific application.**
- ◼ **Unlike most windows, Guide windows stay at the front of the screen so that instructions are always visible. To move the Guide window out of the way, drag it by the title bar at the top of the window.**

  You can also move the window out of the way by clicking the zoom box. (The zoom box is the small square box at the top-right hand corner of the window.) Click the box once to shrink the window; click it a second time to expand the window to its original size.

- ◼ **To close the window, click the close box in the upper left corner of the window.**
- ◼ **Follow the steps as instructed so the computer can check to make sure you've done a step correctly. Do not skip or read ahead.**
- ◼ **Click the "Huh?" button for more information about an instruction or a term. (The "Huh?" button is dimmed if additional information is not available.)**
- ◼ **To return to the main Macintosh Guide window, click the Topics button in the lower left corner of the Guide window.**

Identifying Objects on the Screen

You can use a Mac OS feature known as Balloon Help to identify unfamiliar items on your screen. Balloon Help explains the function of icons, menus, commands, and other items on the Macintosh screen in balloons — like those you see in comic strips.

Follow these steps to use Balloon Help:

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

2. *Point to any object on the screen that you want to identify. A balloon appears next to the object. Point to the Trash, for example, to display a balloon that explains how to throw items away.*

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

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

    Not all applications support balloon help. If a balloon does not appear next to the object to which you are pointing, either that object does not have a help balloon or the application does not support balloon help.

Learning Useful Shortcuts

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

Follow these steps to learn keyboard and mouse shortcuts:

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

   The main Macintosh Shortcuts window appears.

2. *Click one of the category buttons. Another window appears, describing shortcuts for that category*

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

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

4. *When you finish reading about the shortcuts for your category, click the Topics button in the lower left corner to return to the main Macintosh Shortcuts window. (You may click the close box in the upper left corner to close the window if you prefer.)*

Chapter 3

Connecting Additional Equipment

Your Computer at a Glance

Chapter 1 described how to set up the basic components of your SuperMac C600x system. This chapter describes how you can expand your computer system by connecting peripheral devices to the back of your computer.

Audio In port

Audio Out port

SCSI port

Modem port

Printer port

ADB port

Video port

Communication port
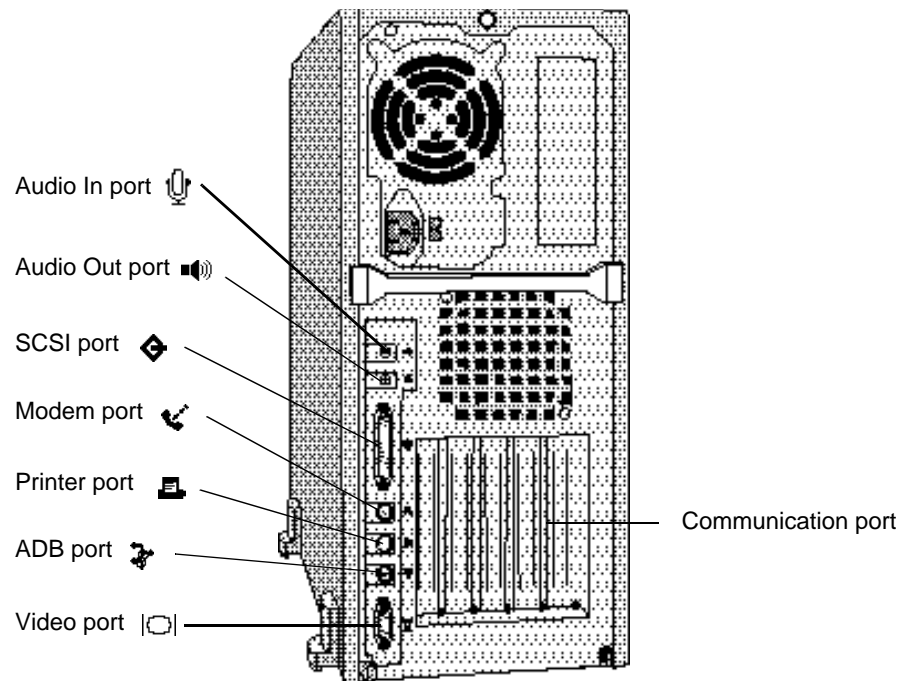
For detailed instructions on connecting audio equipment, refer to the next two sections of this chapter. For complete instructions on connecting other equipment, such as a scanner, see the manual that came with the equipment.

Connecting External Stereo Speakers

You can take advantage of your SuperMac C600x computer's stereo sound output by attaching external powered (amplified) speakers.

1. *Assemble the speakers and the cable you need.*

   You need a cable with stereo miniplugs at each end to connect one or both speakers to the computer. (Some speakers require a dual-plug adapter. Others accept a single stereo miniplug and are joined by standard speaker wires.)

2. *Plug a stereo miniplug into the* ◀))) *Audio Out port on the back of the SuperMac C600x computer.*

Audio Out
port ◀))

Amplified External Speakers
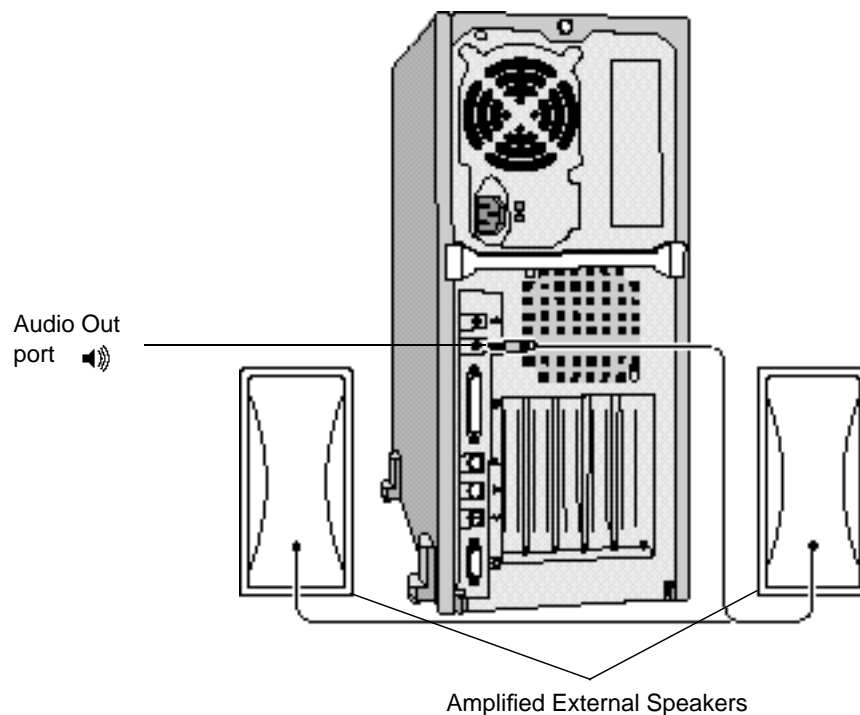
3. *Plug a stereo miniplug into the Audio In port on one of the s peakers.*

4. *Connect the speakers together with speaker wires, if necessary.*

   Now you hear the computer's sound through the external speakers.

5. *Connect one end of the AC power adapter to the main speaker .*

6. *Connect the other end of the AC power adapter to a grounded AC outlet.*

   To control the volume of your external speakers, open the Monitor & Sound control panel and click the Sound to view the sound controls. Use the Sound Out Level slider to adjust the volume for your external speakers. If you are playing an audio CD, you may also need to adjust the volume control in the program you're using to play CDs.

   If your monitor has built-in speakers, connect the monitor to the audio out port using stereo miniplugs. You may need to click the "Monitor Sound" icon at the Monitors & Sound control panel to display your monitor's sound controls and select its built-in speakers.

   See the "Sound" topic of Macintosh Guide, available in the Guide menu, if you need further instructions on controlling your speakers.

Adjusting Volume and Sound

You can adjust the volume on your computer with the

■ *volume control sliders in the Monitors & Sound control panel, as shown below. The Monitors & Sound control panel can be found in the Control Panels folder in the Apple menu.*

   The volume set in the Monitors & Sound control panel affects all sound volumes, including the volume of the audio CD.

■ *volume controls on front of your monitor if your monitor comes with built-in speakers.*

■ *volume control slider in the CDT Remote™ if you are playing an audio CD. The CDT Remote™ can be found in the Apple menu.*

Click here to view
sound controls

Use the slider to
adjust the volume

Click here for
more information

t
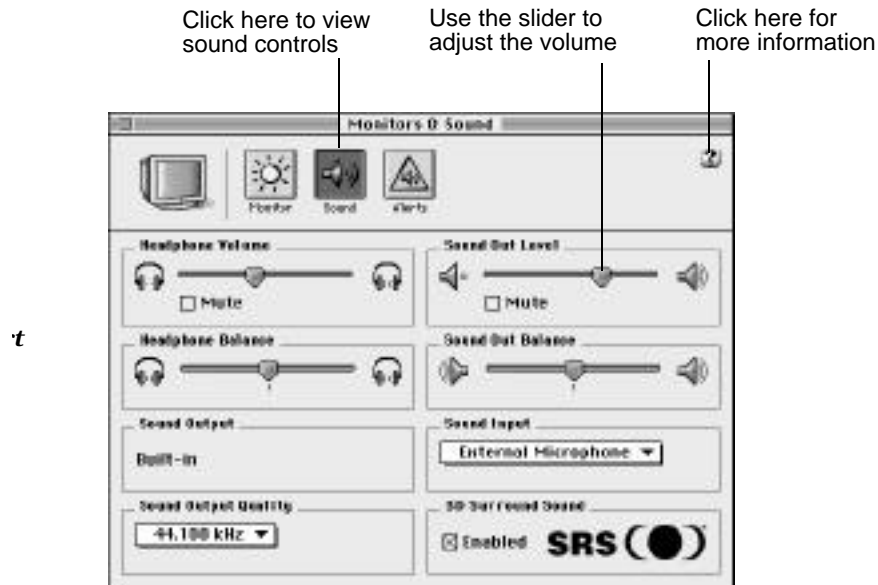
Some monitors also place a "Monitor Sound" icon at the top of the Monitors & Sound control panel.

If you set the Sound Out slider to the middle of the slider bar, you'll be better able to hear the adjustments you make in other ways—through the CDT Remote Player or through the volume controls on the CD-ROM drive or monitor—because the computer itself is set to the middle of the volume range.

For more information about sound, see the "Sound" topic of Macintosh Guide, available in the Guide menu.

3D Surround Sound

The 3D Surround Sound technology broadens the sound you hear if you attach external speakers or if your monitor has built-in speakers. 3D Surround Sound makes the speakers sound as if they are set wider apart, and you can hear many "points" of sound around you. (3D Surround Sound does not work through headphones.) Click to remove the checkbox next to "Enabled" in the Monitors & Sound control panel to disable 3D Surround Sound.

Connecting Audio Equipment

The SuperMac C600x can play and record stereo sound from a variety of sources. You can connect audio equipment to the Audio In port to digitize stereo sound and store that sound on your hard disk, and to play sound through the built-in speaker. Use the Audio Out port to transfer digitized sound from your hard disk to other equipment, or to play it through external speakers. (If you connect equipment to the Audio Out on the front of your computer, that connection overrides any connections made to the Audio Out on the back.) With an internal CD ROM drive, you can also use your computer to play and record sound from audio compact discs (CDs). (Select the CDT Remote™ program from the Apple menu and click play.)
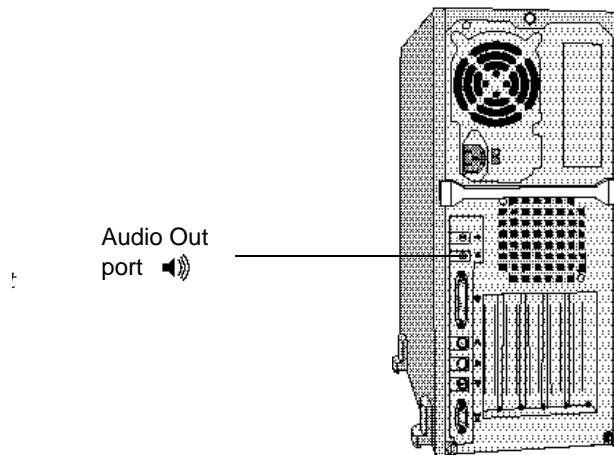
Audio Out
port 🔊

There is an Audio In port on the rear panel (marked with an icon of a microphone) which you can use to connect a PlainTalk or PlainTalk compatible microphone. There are two Audio Out ports, one on the front panel marked with an icon of headphones, and one on the back panel marked with an icon of a speaker. These sound ports accept a connector known as a stereo miniplug—the type used on headphones for a personal tape player. If your equipment has a different type of connector, purchase an adapter at an electronics supply store.

For information on using Macintosh software to choose audio input and output options, record an alert sound, or play audio CDs, see the "Sound" topic of Macintosh Guide, available in the Help menu.

For specific instructions on connecting a microphone, skip to the next section, "Connecting and Positioning a Microphone." For specific instructions on connecting speakers, see "Connecting External Stereo Speakers," earlier in this chapter.

To connect audio equipment to the SuperMac C600x computer:

1. *Make sure that the audio equipment has a cable with a stereo miniplug connector. If it does not, attach an adapter that has a ste reo miniplug.*

2. *Place the audio equipment near the SuperMac C600x computer.*

3. *Attach the cable to the audio equipment and to the appropriate audio port on your SuperMac C600x computer.*

   To record incoming sound on the computer, connect a PlainTalk or PlainTalk-compatible microphone to the Audio In port on the computer.

   To record the sound produced by the computer play that sound through external speakers, connect the input on the audio equipment to the Audio Out port on the computer.

Connecting and Positioning a Microphone

With appropriate software, you can use a microphone to record your voice or other sounds. An Apple PlainTalk® microphone for your SuperMac C600x is available from your UMAX Computer Reseller.

Using an Apple PlainTalk microphone and software, you will be able to use speech recognition technology with the SuperMac C600x computer. (You can't use the round microphone supplied with some Macintosh models.)

To connect and position the microphone,

1. *Plug the microphone's connector into the Audio In port on the front of the SuperMac C600x computer as shown.*

2. *Place the microphone at the top center of the display, so that the microphone's grille is facing you.*

   If you can't place the microphone on top of your display, place the microphone between 1 and 3 feet away from you and directly in front of you to minimize recording background noise.

3.   *Open the Monitors & Sound control panel in the Apple menu and click the Sound icon.*

4.   *Click the Sound Input pop-up menu and select "External Microphone."*

Click here to view sound controls

Select External Microphone from the pop-up menu

Click here for more information
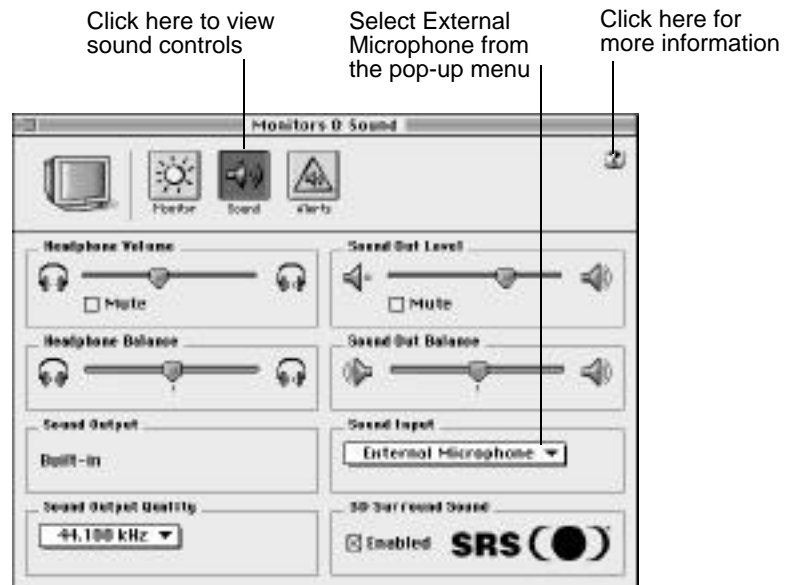
5.   *Click the close box in the upper-left corner of the Monitor & Sound control panel to close it. (The control panel does not have to remain open while you're recording.   )*

   You are ready to begin using the microphone.

Using the Monitor's Built-in Microphone

   If your monitor has a built-inPlainTalk microphone and you want to use it to record, plug the PlainTalk mini-plug into the Audio In port.

Connecting Headphones

You can connect headphones to the headphone jack on the front of the computer or to your monitor if it has a headphone jack.

Audio Out
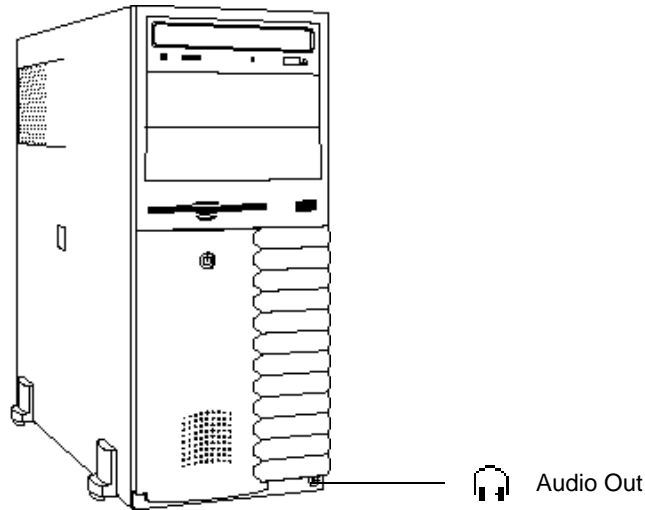
You may also want to disable 3D Surround Sound in the Monitors & Sound control panel if you are listening through headphones. Sometimes, 3D Surround Sound distorts the sound through headphones. To disable 3D Surround Sound, open the Monitors & Sound control panel in the Control Panels folder in the Apple menu and click the checkbox to remove the checkmark next to "Enabled."

Click here for
more information

Adjust
headphone
volume
here

Click here
to disable
3D Surround
Sound
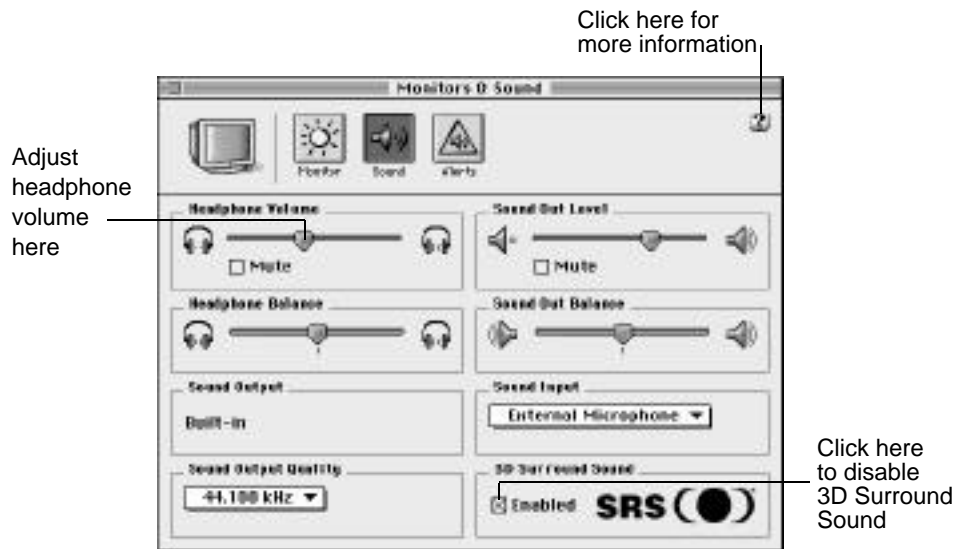
Expanding Your SuperMac C600x Computer

Your SuperMac C600x computer can grow with your needs. You can add new capabilities or improve its performance by connecting external devices to its ports, or by installing internal devices like PCI cards, a higher performance processor card, or additional memory. While you can connect most additional equipment to your computer yourself, if you prefer not to work inside your computer, have a UMAX Computer Reseller help you.

You can add:

✔ *A higher performance processor card with greater speeds.*

✔ *Additional dynamic memory (DRAM) up to a total of 144 MB (We strongly recommend asking your UMAX Computer Reseller to install this type of additional memory)*

✔ *Up to three PCI cards*

✔ *Three or four additional SCSI internal drives, or*

✔ *Up to six SCSI deviceson the computer's SCSI port*

Connecting External SCSI Devices

Your computer has a port for connecting devices that use the Small Computer System Interface (SCSI). SCSI devices commonly used with the SuperMac C600x include hard disk drives, CD-ROM drives, scanners, tape or cartridge backups, and some printers. 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 six external 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). The CD-ROM drive on your computer uses SCSI ID number 3. The computer itself (the main logic board inside it) uses SCSI ID number 7.

IMPORTANT: *The following sections contain general instructions for attaching SCSI devices to your computer. Make sure you follow the specific instructions that came with the SCSI device you are connecting to your SuperMac C600.*

Before You Connect a Device

Before you connect a SCSI device to your SuperMac C600, complete these tasks:

- *Make sure each SCSI device connected to your SuperMac C600 has its own unique ID number from 0 to 6. The computer itself (the main logic board inside it) has the ID number 7, and the internal CD-ROM drive has the ID number 3, making the numbers 0, 1,2,4,5, and 6 available for additional SCSI devices. Make sure other SCSI devices you add to the chain do not use ID numbers 3 or 7. See the instructions that came with each SCSI device for information on checking and setting its SCSI ID number.*

IMPORTANT: *If you use two or more devices attached to the same SCSI interface with the same ID number, your equipment could malfunction and you could lose data as a result.*

- *Make sure you have the appropriate cable for attaching the SCSI device to your SuperMac C600x.*

  If the device is the first or only one you are connecting, use a SCSI system cable to connect it to the computer's SCSI port.

  If the device is not the first one, use a SCSI peripheral interface cable to connect it to the last device in the chain.

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

■ *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.*

To ensure accurate transmission of information, a terminator must be at each end of a SCSI chain. Your computer's main logic board, which is the last device in the chain (ID=7), has a built-in terminator.

The internal CD-ROM drive, which is the first device on the chain, is also terminated.

Some external SCSI devices have built-in terminators. (Check the information that came with the device.)

If your SCSI device has a built-in terminator, have the extra built-in terminator removed.

If you must terminate another device on the chain, de-activate the termination on the CD-ROM drive.

If the device at the end of the SCSI chain does not have a built-in terminator, you need to attach an external terminator.

Connecting a SCSI Device

Be sure to read the previous section, "Before You Connect a Device," before following the instructions in this section.

Use these general instructions in conjunction with the instructions that came with your SCSI device.

1. *Turn off your computer.*

2. *Make sure the SC SI device is switched off.*

WARNING: *Do not connect or disconnect any device while the device or your computer is turned on. Doing so could damage the device, your computer, or both.*

3. *Use a SCSI cable to connect the device either to the computer's SCSI port or to the last SCSI device already in the chain.*

IMPORTANT: Make sure that the last (or only) device in the SCSI chain has a terminator and that no other external SCSI device has a terminator. Otherwise the computer may not be able to start up.

4. Turn o n all device s in your SCSI chain.

*IMPORTANT: **Always turn on any external SCSI devices connected to your computer before turning on the computer itself. Otherwise, your computer won't be able to recognize that the SCSI devices are connected to it and your computer may not be able to start up.***

5. Install any necessary device drivers (software that makes a device work with your computer.)

Drivers usually come on a floppy disk with the device. If no drivers come with the device, a driver my not be required or you may need to contact the device manufacturer.

If you experience problems after connecting a SCSI device, see the troubleshooting information in Chapter 5.

Upgrading the Processor Card

You can upgrade the performance of your SuperMac C600x by installing a higher performance processor card. If you want replace the processor card in your SuperMac C600x computer, see Appendix B or your UMAX Computer Reseller.

Expanding Memory

The random access memory (RAM) in your computer can be expanded. Installing additional RAM adds more memory chips to your computer and expands its capabilities. You can expand your SuperMac C600x computer up to 144 MB.

*WARNING: **To avoid damaging your Computer, have a qualified technician install any additional RAM. If you attempt to install additional RAM yourself, any damage you may cause to your equipment will not be covered by the warranty on your computer. See a UMAX Computer Reseller for additional information about this or any other warranty question.***

The computer includes two 168-pin DRAM DIMM sockets for memory expansion. You can use any DRAM configuration with DIMMs of these sizes: 8 MB, 16 MB, 32 MB, or 64 MB. You can increase your computer's DRAM to a maximum of 28 MB in addition to the 16 MB on the motherboard. DIMMs can be installed one at a time in any order in either of the sockets.

Your SuperMac C600x uses 64-bit, 168-pin RAM, Dual In-line Memory Modules (DIMMs). The DIMMs must be fast-paged mode or EDO, with 70 nanosecond (ns) RAM access time or faster. A list of approved DIMM manufacturers is available on UMAX Computer Corporation's home page on the internet: www.supermac.com.

Installing Internal Drives

Your SuperMac C600x computer contains four available bays, two 5-1/4" bays which can be used for removable media devices such as an Iomega Zip drive, and two 3-1/2" bays for non-removable media devices such as hard disk drives.

If you want to add an internal drive to your SuperMac C600x computer, see Appendix B or your UMAX Computer Reseller.

Chapter 4

Installing and Using Software

Your SuperMac C600x computer came with many applications already installed. You start these applications by clicking their buttons in the Launcher.

Backup copies of all your computer's preinstalled applications, and the Mac OS, are on the CD-ROM discs that came with your SuperMac C600x. These CD-ROM discs also contain some additional applications that you can copy to your hard disk.

If necessary, you can use the CD-ROM discs to start up your computer or to reinstall the system software. (See "Starting Up From a CD-ROM disc" and "Installing or Reinstalling System Software" in chapter 5.)

Installing Application Programs

You will probably want to install additional application programs. Use the manuals you receive with the programs for instructions on installing and using them.

You'll install an application program on your internal hard disk from floppy disks or from CDs that contain the program. The following illustration shows how to insert a floppy disk into your SuperMac C600x computer's floppy disk drive.

Insert the floppy disk metal end first, into the floppy disk drive.
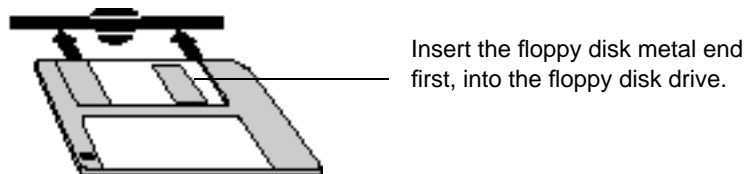
To open the CD-ROM drive tray, press the open/close button on the CD-ROM drive. Lower the disk, with the label facing up, into the tray. Push the open/close button again to close the drive tray.

Place the disk, label side up, into the tray.

To use your programs most effectively, follow these guidelines:

- *Put only one copy of each program on your hard disk. Having more than one copy can cause errors.*

- *Whenever you copy a program disk to your hard disk, be careful not to copy a System Folder. Always check to see what you've copied, and drag any extra System Folders to the Trash.*

- *If a program malfunctions consistently, try installing a fresh copy. If that doesn't help, find out from the software manufacturer whether your version of the program is compatible with the system software version you're using.*

- *It is always prudent to back up your files frequently.*

Working with Several Programs at a Time

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

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

The Finder or open application icon

Checkmark indicates active program

Commands to hide or display open windows

Hide Finder
Hide Others
Show All

✓ Finder
SimpleText
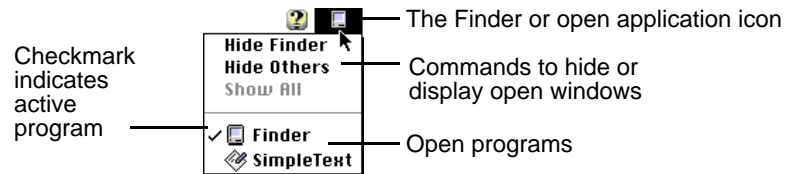
Open programs

Discovering Which Programs Are Open

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

Switching Programs

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

If a program's icon is dimmed in the menu, that means its windows are hidden. Choosing the program from the Application menu will display its window(s).

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

Hiding and Showing Windows on the Desktop

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

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

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

Backing Up Your Files

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

✔ *You can back up an entire floppy disk by copying it to another floppy disk, or to a hard disk.*

✔ *You can use a backup program to copy new and changed files from a hard disk to another storage device such as a tape drive, or to a series of floppy disks.*

✔ *You can back up files stored on your hard disk by copying them to floppy disks.*

✔ *If your SuperMac C600x computer is on a network, you can back up files by copying them to a shared disk on the network.*

Using Computer Application Programs

Your SuperMac C600x computer is compatible with most application programs intended for use with Mac OS compatible and Apple Macintosh computers. However, certain programs are designed especially for SuperMacC600x and Apple Power Macintosh™ computers. (These are sometimes called Power Macintosh "native" applications or applications that are"Accelerated for Power Macintosh.") You'll find that these programs take best advantage of your UMAX SuperMac C600x computer's speed and power.

Special Memory Requirements

Some Power Macintosh programs may be larger than other programs and may take up more memory. If you find that you are running out of memory when using programs designed for a Power Macintosh, you can use space on your computer's hard disk as additional memory. For instructions on how to use hard disk space as virtual memory, see the "Memory" topic of Macintosh Guide, available in the Guide menu. You can also add more memory to your computer, as described in "Expanding Memory".

Shared Libraries

Programs designed for the PowerPC processor use special files called shared libraries. These can help some Power Macintosh programs to run more efficiently, and can be used by more than one PowerPC program simultaneously. Any necessary shared libraries are installed automatically in the System Folder when you install Power Macintosh programs.

If a Power Macintosh program requires a shared library and there is not enough memory available for the shared library, you'll see a message that the program could not be opened because of insufficient system memory. If this happens, see the "Memory" topic of Macintosh Guide, available in the Guide menu, for instructions on turning on virtual memory.

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

Using Older Macintosh Programs

If you experience problems using an older Macintosh program, it may be incompatible with your SuperMac C600x computer (as well as Apple Power Macintosh computers). You may be able to use your older program if you turn off the Modern Memory Manager in your Memory control panel. For best performance when using PowerPC native or PowerPC accelerated applications, turn on Modern Memory Manager.

For detailed instructions on using older programs with your SuperMac C600x computer, see the "Working with Programs" topic of Macintosh Guide, available in the Guide menu.

Using the Built-in CD-ROM Drive

The CD-ROM drive provides access to large amounts of information. The CD-ROM drive can read the contents of CD-ROM discs, standard audio compact discs (CDs), and single-session or multisession Photo CDs. However, you cannot use the drive to save information on CD-ROM discs. ROM stands for read-only memory, meaning that the drive cannot "write" information on CD-ROM discs.

Inserting a CD-ROM disc

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

1. *Start up your SuperMac C600x, if it's not already on.*

2. *Press the Open/Close button to open the tray of the CD-ROM drive.*

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

   Make sure the disc is lying flat and centered in the tray.

Place the disk, label side up, into 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.

Ejecting a CD-ROM disc

Follow these instructions to eject a CD-ROM disc from your computer.

IMPORTANT: **You may not be able to eject a disc if it is being shared. To turn off file sharing, use the Sharing Setup control panel.**

1. **Open the tray.**

   There are several ways to open the tray of your CD-ROM drive.

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

   ■ **Select the disc icon on your screen and drag the icon to the Trash. (You won't lose information on the CD-ROM disc by dragging its icon to the Trash.)**

   IMPORTANT: **Do not select the disc icon and then choose Eject Disk from the Special menu. If you do this, the computer still remembers the CD-ROM disc in its memory and keeps asking you to reinsert it.**

   ■ **Click the disc icon, then choose the Put Away command in the File menu.**

   ■ **While the CDT Remote window is active, choose Eject CD from the File menu, or simultaneously press the Command and E keys. (CDT Remote is a program that allows you to control your CD-ROM player and is available in the Apple menu.)**

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

   ■ **Press the Open/Close button for your CD-ROM drive.**

2. **Take the CD-ROM disc out of the tray.**

   Store your disc in a safe place, away from heat, dust, and moisture.

3. **Push the tray in, or press the Open/Close button, to close the tray.**

   To avoid possible damage to the tray and the CD-ROM drive, keep the tray closed when you are not using it.

Chapter 5

Troubleshooting

UMAX Computer performs extensive testing with our systems, popular peripherals, and software to keep our systems compatible with third party hardware and software. If you should see an error message or have trouble with your computer, however, the solution to the problem may be 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. The Macintosh Guide has a Troubleshooting topic, as well as topics related to specific procedures.

If you need repair service, consult the service and support information on your Warranty/Registration card for instructions on how to contact UMAX Computer for assistance. Please see the additional literature included in your package for other manufacturers' support numbers.

Take Your Time

When you see an error message, you don't have to take action immediately. The message stays on the screen until you click the OK button or turn off the computer. To help diagnose and correct the problem, gather as much information on the situation as you can before starting over.

Make a note of exactly what you were doing when the problem occurred. Write down the message displayed on the screen and its ID number (if any). List the programs you were using and the names of any items you know were added to the System Folder after the system software was installed. If you need to contact a service provider, this information will help diagnose the problem. (It is helpful to keep a printed copy of the items in your System Folder. For instructions on printing the contents of a folder, see the "Printing & Fonts" topic of Macintosh Guide, available in the Guide menu.)

Ask other Mac OS compatible computer users about the problem you're having; they may have a solution for it.

Solutions to Common Problems

Problem: *The computer is turned on but the screen is dark.*

Cause 1:   **You have an Energy Saver or a screen saver program that darkens the screen when the computer has not been used for a certain period.**

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

Cause 2:   **The display's brightness control is not adjusted properly.**

Solution: **Check the display's brightness control and turn it up if necessary.**

Cause 3:   **The SuperMac C600x computer or the display is not getting power.**

Solution: **Check that the display is plugged in and turned on, and that the display cable is firmly connected to both the computer and the display.**

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

Tip: **If you have more than one display, and only one is dark, check that it is set up correctly in the Displays control panel. For information on using more than one display, see the "Displays" topic of Macintosh Guide, available in the Guide menu.**

Problem: *The computer's clock keeps time inaccurately.*

Cause: **Your computer has a clock that runs continuously. When the computer is turned off, a battery keeps the clock running. The battery has probably expired.**

Solution: **See "Safety Guidelines" in Appendix A**

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

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

Solution: **The Mac™OS System Software CD-ROM contains Apple's Macintosh system software. You can use the CD-ROM to start up your system if necessary, following these steps:**

- **Press the power key on your keyboard to start the computer.**

- **Immediately press the open/close button on the CD-ROM drive.**

- **Insert the Mac™OS System Software CD-ROM and close the platter.**

- **Hold down the Command-Option-Shift-Delete keys until the "Welcome to Power Macintosh" message appears.**

Problem: *You hear the sound of a "Crashing Car" and the computer won't start up.*

Cause: **Your computer cannot start up due to a system software or a hardware problem.**

Solution: **Eject any floppy disk by turning off the computer and then holding down the mouse button while you turn the computer on again. Try starting up with the CD ROM disc that contains system software. If you hear the "Car Crash" again, consult the service and support information that came with your computer for information on contacting UMAX Computer.**

Problem: *The hard disk icon does not appear on the desktop.*

Cause: **If the hard drive is external, the cable may not be properly or securely connected.**

Solution: **Shut down your computer and make sure that the cable is connected correctly. Restart your computer**

Tip: **If you cannot identify the problem, shut down your computer, wait at least 10 seconds, and then turn it on again.**

Tip: *If the hard disk is your startup disk, start your computer using the CD ROM disc that contains system software.*

Problem: *Icons do not appear correctly on your screen.*

Cause 1: *You need to rebuild the desktop—a process that helps your SuperMac C600x computer keep track of files and folders on your hard disk.*

Solution: *See the "Rebuild Your Desktop Regularly" instructions on page 69.*

Cause 2: *If icons do not appear correctly after you rebuild the desktop, a system extension conflict may be the problem.*

Solution: *Restart your computer as you hold down the Shift key to temporarily turn off system extensions. When you see the "Welcome to Power Macintosh—extensions off" message, release the Shift key. If your icons now appear correctly, you need to experiment with turning off individual extensions to identify which one(s) caused the conflict.*

Problem: *Your SuperMac C600x computer can't read a floppy disk.*

Cause 1: *If the disk has never been used, you may need to initialize, or format, it.*

Solution: *See the "Disks" topic of Macintosh Guide for instructions.*

Cause 2: *If you are using a DOS disk, it may not be formatted correctly. DOS computers let you format a standard double density disk in a high density (1440K) format, and vice versa. Mac OS compatible computers do not.*

Solution: *When you format disks on a DOS computer, always format standard double density disks in the 720K format. Always format high density disks in the 1440K format.*

Tip: *If your DOS disk has been formatted incorrectly, use a DOS computer to copy the contents to a correctly formatted disk.*

Tip: *Make your life easy and purchase pre-formatted disks.*

Problem: *The pointer (mouse arrow) freezes on the screen.*

Cause 1:　*Your mouse and/or keyboard cable may be loose or disconnected.*

Solution:　*Press the power button on the front of the computer. Once your computer is turned off, reconnect the cable(s). You will lose any unsaved work, but do not connect or secure cables while the power is on, or you could damage your computer.*

Cause 2:　*Signals from the mouse are not reaching the computer, either because mouse needs cleaning or because there is something wrong with the mouse.*

Solution:　*Clean the mouse according to the instructions in Appendix A.*

Solution:　*If you have another mouse or pointing device, try connecting and using it. (Always turn off the computer before connecting a mouse or pointing device.) If the new device works, there is something wrong with the mouse you replaced.*

Tip:　*Press Command-Option-Esc to quit the application program in use when the problem occurred. If this works, you can save the documents open in other programs, then restart.*

Cause 3:　*You may be using a software program or system extension that is incompatible with the system software.*

Solution:　*Make sure that any software you install on your computer is compatible with the system software.*

Solution:　*System extensions can be incompatible with your system software and with each other. To identify incompatible extensions, use the Extensions Manager control panel to turn off individual extensions. For information on using this control panel to manage system extensions, see the "Setting Options" topic of Macintosh Guide, available in the Guide menu.*

Solution:　*If the problem recurs, you may need to reinstall system software.*

If none of these procedures solve the problem, consult the service and support information that came with your computer for instructions on how to contact a UMAX Computer service provider.

Problem: *Nothing happens when you type on the keyboard.*

Cause 1: **You need to select text or set the insertion point.**

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

Cause 2: **Your keyboard cable may be loose or disconnected.**

Solution: **Press the power button on the front of the computer. Once your computer is turned off, reconnect the cable at both the keyboard and computer ends. You will lose any unsaved work, but do not connect or secure cables while the power is on, you could damage your computer.**

Cause 3: **The keyboard is damaged.**

Solution: **If you have access to another keyboard, try using it instead. (Turn the computer off before you connect or disconnect keyboards.) If the new keyboard works, there is something wrong with the one you replaced.**

Cause 4: **Your system has a software problem.**

Solution: **Restart your computer. This alone may solve the problem.**

Solution: **Check the startup disk and application program you were using when 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.**

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 UMAX Computer service provider for assistance.

Problem: *A dialog box with a bomb appears.*

Cause: **Your system has a software or hardware problem.**

Solution: **First, write down what you were doing when the message appeared, the text within the message, and its number (if there is one). You'll have to restart your computer, whatever the specific problem. Follow these steps to help diagnose what went wrong:**

■ *Restart your computer. This alone may correct the problem.*

■ *Check the application program you were using when the dialog box appeared. Make sure that your application is compatible with the system software. You may need to install a different version of the application.*

■ *Check your system extensions or control panels for compatibility with your system or application software. To identify incompatible extensions or control panels, use the Extensions Manager control panel to turn off individual extensions. For information on using this control panel to manage system extensions, see the "Setting Options" topic of Macintosh Guide, available in the Guide menu.*

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

Problem: *You can't start an application program or it quits unexpectedly.*

Cause 1:   **The program needs more memory.**

Solution: **Use the program's Info window to give it more memory. For instructions, see the "Memory" topic in the Macintosh Guide.**

Cause 2:   **The computer has used all of its memory with other programs.**

Solution: **Quit the programs that you have open and then open the program you want to use, or restart your computer**

Problem: *When you try to start a program, you see a message that not enough memory is available.*

Cause 1:   **The program needs more memory.**

Solution: **Use the program's Info window to give it more memory. For instructions, see the "Memory" topic in the Macintosh Guide.**

Tip: **Upgrade the RAM in your computer.**

Cause 2:   **The computer has used all of its memory with other programs.**

Solution:	*Quit the programs that you have open and then open the program you want to use, or restart your computer.*
Cause 3:	*The application is designed specifically for the Power Macintosh and needs to use Virtual Memory, but Virtual Memory is turned off.*
Solution:	*Turn on Virtual Memory in the Memory control panel. For instructions, see the "Memory" topic of Macintosh Guide.*

Problem:	*You see a message that an application program can't be found.*
Cause 1:	*You tried to open a document that came from another computer, created with an application that you do not have installed.*
Solution:	*Make sure that the Macintosh Easy Open control panel is enabled and that you have specified the alternative application programs you want to use to open your documents. To enable Macintosh Easy Open, choose Control Panels from the Apple menu and double-click the Macintosh Easy Open icon. In the Macintosh Easy Open control panel, click "On". For information on using this control panel to open your documents, see the Macintosh Guide available in the Guide menu.*
Solution:	*Some documents can be opened by more than one application program. Start a program that may be able to open the document (like SimpleText for a letter or Adobe Photoshop™ for a graphic), then use the File menu to open the document from inside that application. See the application's documentation for more information.*
Solution:	*Purchase and install the correct software, or find out if the creator of the document can convert it to a form that one of your programs can use.*
Cause 2:	*The document was originated on a DOS computer.*
Solution:	*Use the PC Exchange control panel to specify which application program will open the document. See the "Using DOS Files & Disks" topic in the Macintosh Guide for instructions.*
Cause 3:	*You may need to rebuild your desktop.*

Solution: *Hold down the Command and Option keys while you start up your computer. Keep holding down the keys until you see a message asking whether you want to rebuild the desktop. Click OK.*

Problem: *You can't open a DOS document using an application program.*

Cause: *You need to convert the file from DOS to Mac OS compatible format.*

Solution: *Use the PC Exchange control panel to specify which application program will open the document. See the "Using DOS Files & Disks" topic in the Macintosh Guide for instructions.*

Problem: *A DOS document is displayed incorrectly, or you see strange codes or characters in the document.*

Cause: *Some characters that can be displayed on a DOS computer may not display accurately on Mac OS compatible computers.*

Solution: *For more information about working with DOS documents on your SuperMac C600x computer, see the "Using DOS Files & Disks" topic of Macintosh Guide, or try opening the document in another program.*

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

Cause: *Some Power Macintosh programs (compatible with the SuperMac C600x computer) use special files called shared libraries. Any necessary shared libraries should be installed automatically when you install Power Macintosh application programs.*

Solution: *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.*

Problem: *You experience problems using an older Macintosh program.*

Cause: **The program is probably not completely compatible with Power Macintosh computers, such as the SuperMac C600x.**

Solution: **Open the Memory control panel and turn off Modern Memory Manager. For more detailed instructions, see the "Working with Programs" topic in the Macintosh Guide.**

Problem: *Your computer's performance decreases.*

Cause: **If you notice a decrease in your computer's speed and 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 Power Macintosh computers.**

Solution: **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. See page 72 in this chapter for more information.**

General Solutions

Restart

You frequently can solve a problem by restarting your computer. Save any open documents that you can first, but if your system is frozen or a "bomb" appears onscreen, you won't be able to follow these steps:

1. **Press Command-Option-Esc to quit the application program in use when the problem occurred.**

   If this works, you can save the documents open in other programs.

2. **Choose Restart from the Special menu or from the dia-log box that's on the screen.**

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

3. **If nothing happens, press the power switch on the front of your computer to turn the power off. Wait at least 10 seconds, then turn the power on again.**

4. **If the power switch does not turn off the computer, turn off any peripheral devices that you have attached to your computer, then unplug your computer.**

If you suspect that the problem is caused by other equipment, such as a printer or an external hard disk that is attached to your computer, turn that equipment off. After at least ten seconds, turn it on again and restart the computer.

Rebuild Your Desktop Regularly

Rebuilding the desktop helps your computer track data on your disks. Rebuild the desktop once a month or so.

To rebuild the desktop:

1. **Hold down the Command and Option keys while you start up your computer. Do not release the keys until you see a message asking whether you want to rebuild the desktop.**

2. **Click OK.**

Starting Up From a CD-ROM Disc

To initialize, test, or repair a hard disk, or to install system software on a hard disk, start up your computer from another disk. You can start up your computer using the System Software Disk containing system software that came with the computer.

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

1. **Turn your computer on.**

2. **When you see the desktop on the screen, press the Open/Close button on your CD-ROM drive, and insert the CD-ROM disc containing system software into the player.**

3. **Turn your computer off after the computer has finished starting up.**

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

4. **Restart the computer and hold down the Command-Option-Shift-Delete keys.**

Continue to hold down the key until you see the "Welcome to Mac-intosh" message.

Installing or Reinstalling System Software

Your SuperMac C600x 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 does not contain system software, or if you want to upgrade to a more recent version of system software on a hard disk, follow the steps in this section to do what is commonly called a "normal" installation of system software.

To do a normal installation of 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" 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.

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

3. *When Disk First Aid has finished checking your hard disk, choose Quit from the File menu.*

4. *Launch the MacOS Installer program.*

   The MacOS Installer program is designed to make the system install process as simple as possible.

5. *Start the four step process by selecting Step 1.*

6. *Be sure to read the important information contained in the "About This CD" ReadMe file.*

7. *Step 2 launches the Apple Drive Setup program which is used to update the disk driver of the hard drive.*

8. *Step 3 selects the destination hard drive that the MacOS will be installed on.*

9. *Step 4 initiates the installation of the MacOS.*

   Step 4 allows for a custom installation of several MacOS enhance-ments such as QuickDraw 3D, Open Transport PPP, and others. These items are not necessary for basic MacOS functionality.

10. *After selecting any addtional items for installation, click the 'Start' button.*

    IMPORTANT: Certain system extensions or application programs that were originally on your hard disk may not be installed with the Installer program. If you notice that a certain extension or program was not installed, you may need to install it separately. You can find these additional extensions and programs on the CD-ROM disc that contains system software. (Application programs from other vendors can be reinstalled from backup copies you made.)

11. *After a few moments the installation process will be complete.*

12. *Quit the installer program and restart the computer by selecting "Restart" under the "Special" menu.*

Doing a Clean Installation of System Software

If you can't determine what is damaged in your System Folder, you can do what is commonly called a "clean" installation of the system soft-ware. 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 con-tains system software.*

   See "Starting Up From a CD-ROM Disc" 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.

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

3. *When Disk First Aid has finished checking your hard disk, choose Quit from the File menu   .*

4. *Launch the MacOS Installer program.*

   The MacOS Installer program is designed to make the system install process as simple as possible.

5. *Start the four step process by selecting Step 1.*

6. *Be sure to read the important information contained in the "About This CD" ReadMe file.*

7. *Step 2 launches the Apple Drive Setup program which is used to update the disk driver of the hard drive.*

8. *Step 3 selects the destination hard drive that the MacOS will be installed on.*

9. *Step 4 initiates the installation of the MacOS.*

   Step 4 allows for a custom installation of several MacOS enhancements such as QuickDraw 3D, Open Transport PPP, and others. These items are not necessary for basic MacOS functionality.

10. *Click on the 'Options...' button and select the option to "Create a new System Folder".*

    Creating a new System Folder will result in the previous System Folder being renamed and saved. However, non-system extensions and control panels (screen savers, virus detectors, desktop enhancements, etc.) will need to be reinstalled.

11. *After a few moments the installation process will be complete.*

12. *Quit the installer program and restart the computer by selecting "Restart" under the "Special" menu.*

Extensions, Control Panels, and Utilities

If you notice a problem occurring after you add special software—a control panel, system extension, or custom utility—that software may simply not work well with Power Macintosh computers.

To find out if this is the problem, temporarily turn off the software. If the computer performs better with these items turned off, the software is likely to be the problem. Follow these steps:

1. *Hold down the Shift key while you restart the computer.*

This temporarily turns off your extensions, as well as certain control panels and utilities.

2. *Work with a document to see if you notice an improvement in your system's performance.*

3. *If performance improves, then drag the special items out of th e Control Panels and Extensions folders, located inside your System Folder.*

4. *Return them one at a time, restarting and checking your computer's performance each time until you identify which ones are causing the problems.*

5. *Remove the offending items from your System Folder.*

You also can use the Extensions Manager control panel to turn a system extension or set of extensions off and on. For detailed instructions, see the "Setting Options" topic in the Macintosh Guide.

If your computer performs better with an extension turned off, contact the extension's manufacturer for information or an upgrade.

Printer Notes

The following suggestions should work for all printer. Also refer to the manual that came with your printer.

■ *Make sure that the printer driver for your printer is turned on in the Extensions Manager control panel (in the Control Panels folder in the Apple menu). To find out the name of the printer driver—for example, LaserWriter—refer to the documentation that came with your printer. The printer driver should appear in the Extensions list and have a checkmark beside it. (Click to put a checkmark beside it, and then restart your computer.)*

■ *Check your printer settings in the Chooser (in the Apple menu), making sure you have selected the correct printer. If you are using a printer that is shared by other computer users (a printer on a local network), make sure that AppleTalk (in the lower-right corner of chooser) is active. If you are using your own printer (a serial printer connected to your computer), make sure that AppleTalk is inactive. Also make sure you've selected the correct port.*

■ *Turn off the computer and printer and check the printer cable connections.*

■ *If none of these suggestions solves the problem, you may need to reinstall the printer driver that came with your printer. Refer to the manual that came with your printer.*

Note: If you have an Apple printer, you need to determine which printer driver to install—the one that came with your printer or one of the drivers included on your System Software CD-ROM. Depending on when you bought your printer, one of these printer drivers will be more recent than the other. It is the newer one you want. Look at the date of the printer driver that came with your printer. (Usually, the printer driver comes on a floppy disk with the printer.) To see the date, insert the floppy disk, double-click its icon to open it, and choose "by Name" from the View menu. Then look for the same printer driver name on the System Software CD-ROM. Look for it in the Hard Disk Image folder, in the System Files folder, and in the Extensions folder. (Then chose "by Name" from the View menu to see the date next to it.) The drivers must have the same name. If they do, reinstall the printer driver with the most recent date next to it. If you use the printer driver on the System Software CD-ROM, drag the printer driver into the System Folder on your hard disk and then click OK. If you use the printer driver that came with the printer, see the manuals that came with the printer for instructions on reinstalling it.

Appendix A

Prudent Practices

Prevention

The most effective way to deal with computer-related injuries is to prevent them from happening. It makes good sense to examine your work area and make yourself more comfortable and thus less likely to suffer injury. Some changes, such as a correct chair, proper lighting, suitable elevations, and the practice of easy keyboard- and mouse-maneuvers, can be implemented at little or no expense.

Nothing contained in this user's guide is intended to be construed as medical advice.

To evaluate your work space, divide your setup into three main categories: the seating arrangement (your chair and desk), the computer setup (your display, input devices, and other hardware), and finally, environmental conditions (such as lighting and noise).

As you consider your office arrangement, remember that making all the components work together is the key to preventing or lessening computer-related injury.

Arm rests should be high enough to support your forearms but not so high as to raise your shoulders. Arm rests should also be directly under your arms and shouldn't bump against your work surface as you move close to it.

When you're using the keyboard, your forearms and wrists should form a straight line, and your fingers should adopt a comfortable, natural curve downward. As you type, don't apply too much pressure on the keys. Take frequent, short breaks. At least once an hour, stop what you're doing and get up and stretch your body, arms, and legs. To give your eyes a rest, look away from the screen every five minutes or so and stare into the distance. And of course, don't overwork or work when you're in pain.

Your Chair

Your chair should fit your body size and shape, and adjust for different activities (such as typing, writing, and talking on the phone). Your chair should help you maintain your spine's natural curves. Adjust your environment to fit you, alter your working positions throughout the day, and vary the tasks you do so you're not in any one position too long.

You should be able to sit all the way back against your chair's back and be able to move your knees and lower legs freely. The seat should be low enough for your feet to rest flat on the floor yet high enough to support your thighs. Choose a chair that you can adjust to suit your body, instead of changing your posture to fit the chair. Chairs with multiple adjustments are beneficial.

The chair should provide support to your lumbar region (at your waist). If you recline even slightly, you also should have support for your mid back, at the base of your shoulder blades. Ultimately, the design of your chair — and how well you use it — can have a significant effect on your comfort and health.

Taking frequent breaks to stand and move your head, neck, shoulders, arms, and legs is a simple routine you can do. Move your body to work out the kinks.

Work Surface

Like office chairs, desks and other work surfaces are available in a bewildering assortment of configurations, ranging from basic, utilitarian models to complicated designs with adjustable shelves and cubbyholes. No matter what style you prefer, choose one that's appropriate for your body size, and make sure that there's ample work area for your display, keyboard, and other peripherals.

If you use a desk, there should be at least 2 inches of clearance between the tops of your thighs and the underside of the desktop or the keyboard tray. Keyboard trays are helpful, particularly for desks that aren't adjustable, but they should have enough room for your keyboard and pointing device. Your desk or keyboard tray should leave enough clearance for your thighs but should not be so high that your wrists bend upward or you raise your forearms.

To keep your wrists straight, tilt the keyboard so the key tops form a plane in line with the slope of your forearms and wrists. Taller people may find a reverse (backward) tilt comfortable. If you have to raise your hands and arms to type, and you can't adjust your seat, keyboard, or desk to compensate, try moving the keyboard away and resting your forearms on the desk. If you don't use the mouse much, try placing the keyboard in your lap.

Keyboards

Keyboards have been singled out as contributing to many computer-related injuries, particularly problems with the fingers, hands, and wrists. Here's what you should pay attention to when you're looking for a keyboard.

✔ *Do the keys provide a comfortable level of resistance? The keys should require more than minimal force to activate, but not so much that they're hard to press.*

✔ *The keys should provide some auditory or tactile feedback. You can test this by watching the display as you type. Can you tell when you've pressed the keys firmly enough to activate them?*

✔ *Is the keyboard's angle adjustable? Some believe that the keyboard should lie flat, while others advocate a negative tilt, with the front row higher than the back row.*

✔ *Does the keyboard provide function keys to help you cut down on the number of keystrokes? Does it provide scrolling keys, such as page up and home to minimize mouse movements?*

Pads and other additions offer an inexpensive solution for some deficiencies in keyboards and other hardware. Padded wrist rests that sit in front of the keyboard are quite popular.

Pointing Devices

With all the attention paid to keyboards, don't forget your pointing device, like a mouse or a trackball. Each major category of pointing device has its own legion of supporters. Choose a device that feels comfortable to you and that works for the type of job you do.

When shopping for a trackball, consider how resistant the ball is to movement. If the ball moves too easily or not easily enough, you'll have to work harder to control it using the small muscles in your hands and fingers, which are more prone to injury.

Display

Your display is another component that plays an important role. Your display should be high enough (or you, low enough) so that your eyes are level with the top edge of the screen's image. Additionally, the display should swivel to help you get rid of annoying reflections. Sit at least 2 feet away from your screen.

Eliminate the source of the reflections. Position your display away from bright light. This will reduce the amount of light that is reflected from the screen. To reduce glare, overhead light should radiate from 50 to 90 degrees directly over your screen. Baffle light from other sources. Choose a display that's sharp enough to read without straining your eyes, and one that's bright enough to match the ambient lighting.

Operate your display only at a comfortable brightness. Do not adjust the brightness to its maximum setting for continuous operation. Running your display with the external-brightness adjustment at its maximum setting, especially when new, will result in an image that will eventually appear less clear. It will also reduce the overall life of your display.

Lighting

Generally, the light coming from the display itself should match the brightness of the ambient lighting: a screen that's too dim or too bright can cause eyestrain. You should try to avoid glare and bright spots, which can also cause eyestrain and headaches. In some cases, however, these symptoms may simply mean that you need new glasses or contact lenses.

If your overhead or other lights are too bright and are causing reflections or are overpowering your display, you can solve the problem inexpensively by making a shield for your display, wearing a baseball cap or eye shade, or changing the angle of the light. If your office has fluorescent lighting, try removing one or two bulbs from the fixture directly over your work area.

If your work space has an outside window, make sure the window is not in front of or behind the display screen. Daylight will overcome the display, making the screen hard to read and increasing your chance of eyestrain. Placing the display screen at a 90-degree angle from the window is the best choice.

Safety Guidelines

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

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

✔ *The power cord or plug becomes frayed or otherwise damaged*

✔ *You spill something into the case*

✔ *Your SuperMac C600x computer is exposed to rain or any other excess moisture*

✔ *Your SuperMac C600x computer has been dropped or the case has been otherwise damaged*

✔ *You suspect that your SuperMac C600x computer needs service or repair*

✔ *You want to clean the case (use only the recommended procedure described later in this chapter).*

Be sure that you always do the following:

✔ *Keep your SuperMac C600x computer away from sources of liquids, such as wash basins, bathtubs, shower stalls, and so on.*

✔ *Protect your SuperMac C600x computer from dampness or wet weather, such as rain, snow, and so on.*

✔ *Read all the installation instructions carefully before you plug your SuperMac C600x computer into a wall socket.*

✔ *Keep these instructions handy for reference by you and others*

✔ *Follow all instructions and warnings dealing with your system*

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

✔ *If your battery needs replacement, take the computer to a qualified service provider. Do not try to remove, dispose of, or reinstall the battery yourself.*

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

*VORSICH T: **Explosionsgefahr bel unsachgemäßem Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.***

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

Handling Your Computer Equipment

Follow these guidelines for handling your computer and its components:

✔ *When setting up your computer, place components on a sturdy, flat surface and carefully follow all setup instructions.*

✔ *When connecting or disconnecting a cable, always hold the cable by its connector (the plug, not the cord).*

✔ *Turn off your computer and all its components before connecting or disconnecting any cables to add or remove any component. Failure to do so could seriously damage your equipment.*

✔ *Never force a connector into a port. If the connector and port do not join with reasonable ease, they probably don't match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port.*

✔ *Protect the computer and its components from direct sunlight and rain or other moisture.*

✔ *Keep all ventilation openings clear and unobstructed. Without proper air circulation, components can overheat, causing damage or unreliable operation.*

*WARNING: **This equipment is intended to be electrically grounded. Your SuperMac C600 computer is equipped with a grounding plug. Insert the plug into a grounded outlet. Do not defeat the purpose of the grounding plug!***

Handling Your Display

Follow these procedures for handling a display:

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

✔ *You can also use a "screen saver" program, which dims or varies the image on the screen when the computer has been idle for a specified period of time. These programs are available from independent suppliers and user groups. (See "Energy Savings" in Chapter 2.)*

✔ *Make sure that the ventilation openings on the computer and the display are clear and unobstructed.*

✔ *Do not place your display on top of your SuperMac C600x computer. The SuperMac C600x is not designed to support a monitor.*

✔ *If there is interference on the display'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 a qualified service provider for repair.*

✔ *If you spill liquid that is greasy, sweet, or sticky, unplug the keyboard and take it to a qualified service provider for repair.*

Ejecting a Disk

For instructions on ejecting a floppy disk, a CD-ROM disc, or other removable media, see the "Disks" topic of Macintosh Guide, available in the Guide menu.

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

✔ *Hold down the Command and Shift keys and press the number l key on your keyboard to eject a disk in the internal floppy 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 SuperMac C600x computer on again.*

✔ *Locate the small hole near the disk drive's opening, and carefully insert the end of a large straightened paper clip into it. Push gently until the disk is ejected. Do not use excessive force.*

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

Power Supply

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

Cleaning Your Equipment

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

✔ *Use a damp, soft, lint-free cloth to clean the computer's exterior. Avoid getting moisture in any openings.*

✔ *Don't use aerosol sprays, solvents or abrasives.*

Cleaning the Computer Case

To clean the case, do the following:

✔ *Turn off the computer completely and then disconnect the power plug. (Pull the plug, not the cord.)*

✔ *Wipe the surfaces lightly with a clean, soft cloth dampened with water.*

Cleaning the Display

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

Cleaning the Mouse

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

To clean the mouse,

- ✔ *Turn off your computer.*
- ✔ *Turn the mouse upside down and turn the plastic ring on the bottom counterclockwise to disengage it.*
- ✔ *Turn the mouse right side up with one hand and catch the ring and the ball with your other hand.*
- ✔ *Clean the three small rollers inside the mouse with a cotton swab moistened with water. Rotate the rollers to clean all around them.*
- ✔ *Wipe the mouse ball with a clean, soft, dry, and lint-free cloth.*
- ✔ *If necessary, wash the mouse ball with warm soapy water (use a mild soap such as a dish washing liquid) and then dry the mouse ball thoroughly.*
- ✔ *Gently blow into the mouse case to remove any dust that has collected there.*
- ✔ *Put the ball and the ring back in place.*
- ✔ *Insert and turn the plastic ring on the bottom clockwise to engage it.*

Your mouse should roll smoothly across your mouse pad or desk. If it doesn't, try cleaning the mouse again.

Appendix B

Working Inside Your Computer

You can expand your computer's storage capabilities, performance, and flexibility by adding additional drives and expansion (graphics) cards inside your computer[1]. You can have these items installed by a qualified service provider. The instructions in this appendix explain the procedures for installation. However, attempts to perform such work yourself may void certain warranties otherwise available to you.

Removing and Replacing the Cover

Before you can work inside your computer, you have to get inside your computer.

To remove the cover:

1. *Turn off your computer and disconnect the power cord.*

2. *Loosen the large thumb-screw at the top edge of the back panel.*

Loosen this thumbscrew

---
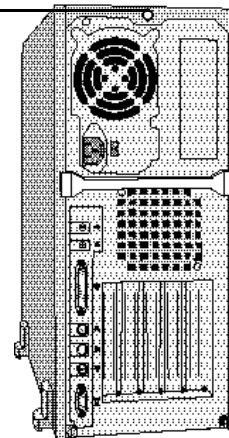
1. See Appendix A, "Prudent Practices."

3. *Press out on the "locking" tabs at the bottom rear cor-
ners of the cover and slide the cover a few inches
toward the rear of the computer.*
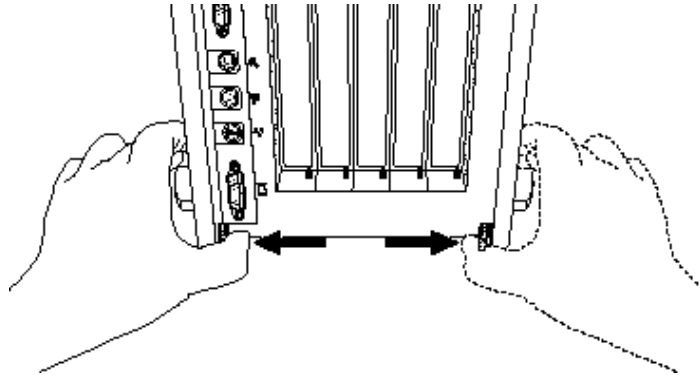
4. *Lift the cover up and off the computer.*

Slide the cover toward the rear
and lift it up and off the
computer.
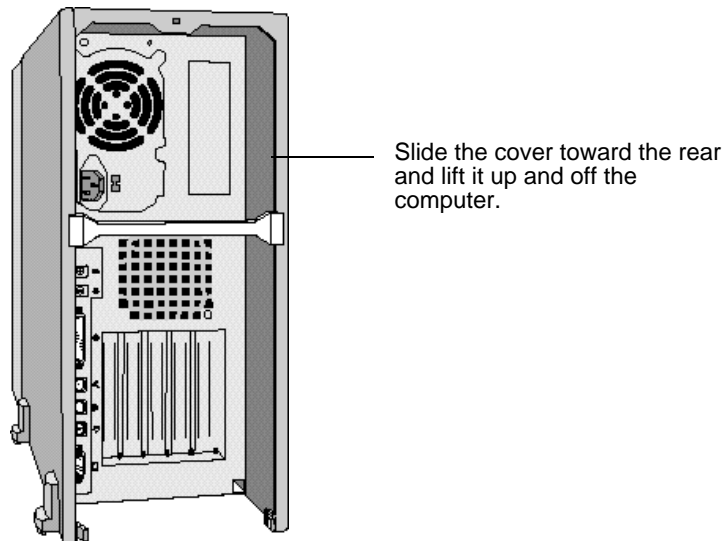
*With the cover removed, you can now install expansion cards,
DIMMs, a processor card, a cache memory module, or drives in the
four drive bays.*

*If you're installing an additional removable-media drive below the
factory-installed CD-ROM drive, you also need to remove the front
panel.*

To remove the front panel:

1. *Remove the cover   .*

2. *Press down the two tabs on the top corners of the front panel, and pull the top of the panel away from the computer.*
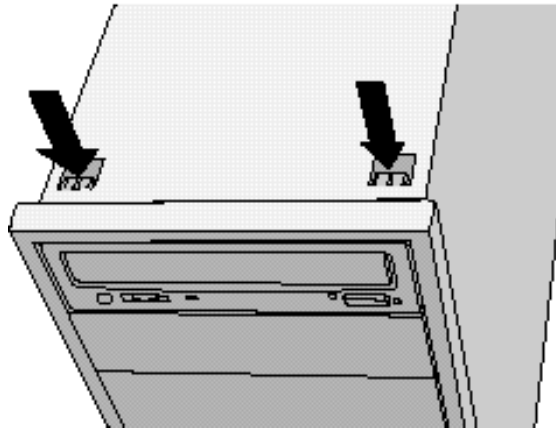
3. *Push in the lever on the right side and on the left side.*
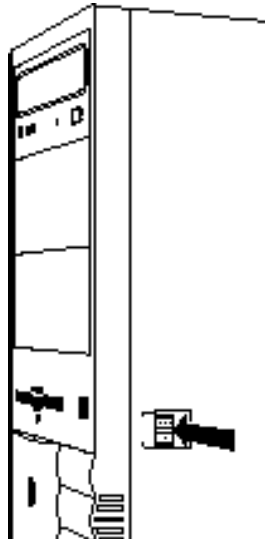
4. *Pivot the front panel down, and then pull it up and out.*

   With both the cover and front panel removed, you can now install an additional removable-media drive in your computer.

Always replace the cover and front panel when you complete an installation, before you turn the computer on.

To replace the cover and front panel:

1. *Engage the hooks on the bottom of the front panel and then swing it up and closed . Press gently until the two top tabs engage .*

2. *Lower the cover all the way down onto the case.*

3. *Push the cover back until it touches the front panel, making sure the two tabs at the bottom rear properly engage.*

4. *Reinsert the thumb-screw at the top edge of the back panel.*

Installing an Expansion Card

You can install expansion cards for video and graphics applications, networking and communications, additional processing power, or other purposes. These cards fit into the three PCI expansion slots located on a riser card inside the computer.

Comm slot (Communication Slot)

Riser Card

PCI Slot

Processor card

Inline cache module
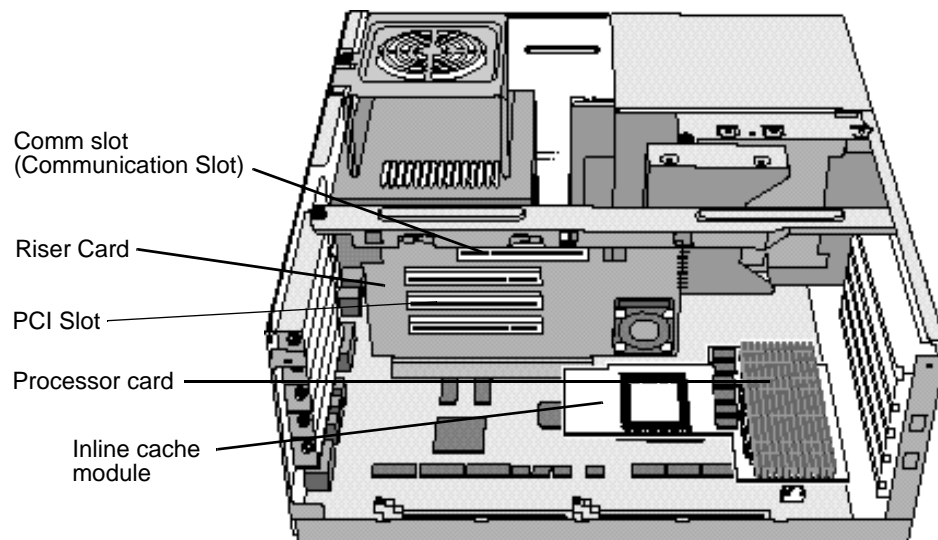
The combined power consumption of installed cards must not exceed the limits specified for your computer. If you have more than one card installed, check the information that came with your cards to make sure that their power consumption is within the limits specified in the bookletTechnical Specifications

Some cards may need to be installed by a qualified service provider. Check the information that came with the card to see if this is necessary. If you are uncomfortable working inside your computer, you may prefer to have a service provider install the card even if their assistance is not required.

To install an expansion card

1. *Turn the computer on its right side.*

2. *Remove the two Phillips-head screws from the top left and right corners of the bottom metal panel.*

3. *Slide the bottom panel up until the side tabs disengage.*
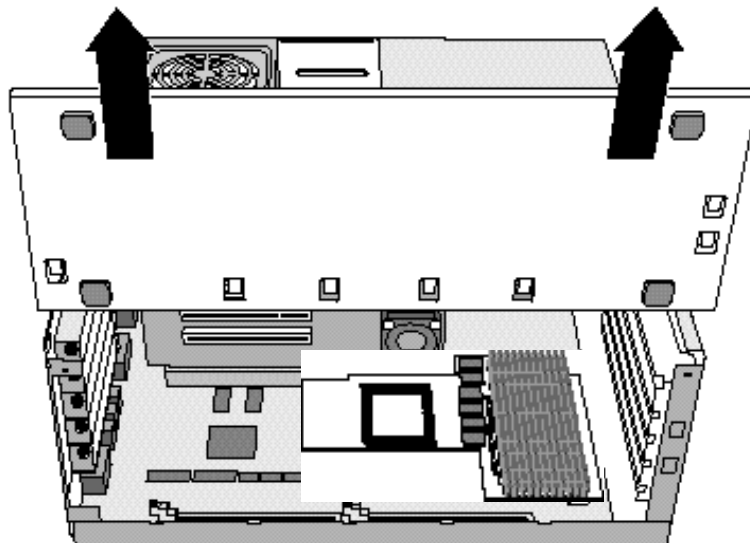
4. *Remove the metal access port cover behind the expansion slot you want to use .*

   Remove the mounting screw at the top of the metal access port cover, then lift off the cover plate and set it aside

5. **With the card on its side, align the connector on the card with the PCI slot on the riser card that you want to use.**
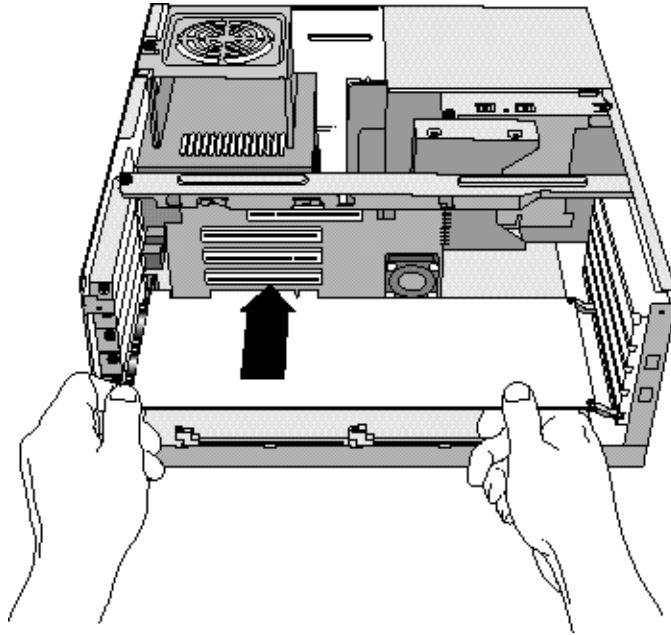
6. **Press the card straight into the expansion slot. Do not bend or force the card: if you meet resistance, pull the card out and try again.**

7. **Screw in the mounting screw on the I/O panel.**

8. **Replace the bottom panel of the computer.**

Engage the side tabs and slide the panel down into position. Then insert the two screws at the top corners.
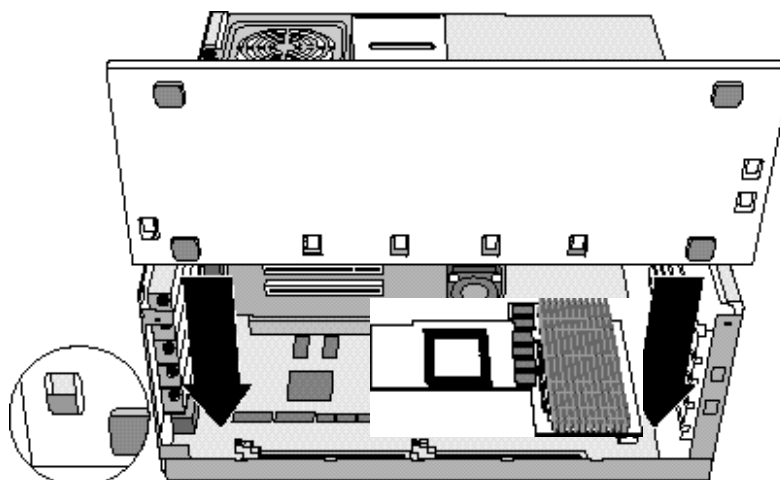
9. *Replace the cover on the computer.*

    See "Removing and Replacing the Cover and Front Panels."

You are now finished installing the card. Connect any cables and peripheral devices to the card. You may now turn on the SuperMac C600 computer and start using the new card. Install any new software you may need for the card or device.

Installing a Comm Slot Card (Communication Card)

You can install an Ethernet or internal modem card in the communication slot in your computer. You use an Ethernet card to communicate with other computers through a local area network. For example, this is what enables more than one computer to print on a shared printer and to access a document on a central shared server.

Note: Using a modem is not the same as being connected to a local area network. If you have an internal modem and the appropriate software that make use of it, you already have access to online services. You do not need an Ethernet card unless you need to connect your computer to other computers in an Ethernet network.

Some communication cards designed for other communication slots are not compatible with your computer and cannot be installed in its communication slot. You can tell by examining the placement of the notches on the card. Use the following illustration as a guide if you are not sure you have the correct type of card for the slot.

Compatible

Notches

Communication slot

Notches

Compatible

Notches

Not compatible
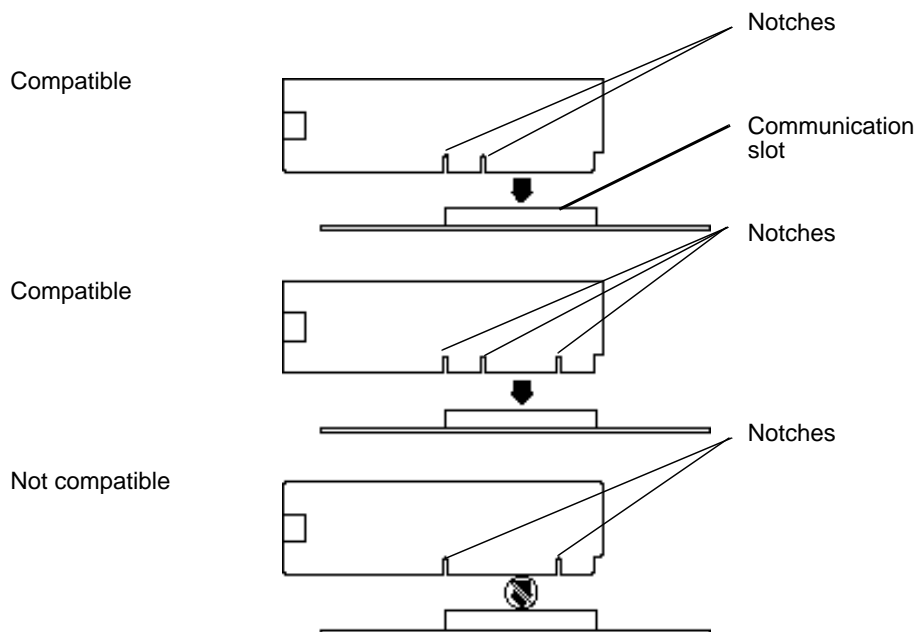
You install a communication card the same way you install an expansion card. Follow the steps in "Installing an Expansion Card" above.

If the communication card you installed is an Ethernet card, see if you need to install software with it. Install it if you need to.

If you installed an Ethernet card, change the network connection in the Network control panel.

When a modem card is installed in the communication slot, the external modem port is disabled.

See the manual that came with the card for more information. For instructions on how to select a network connection and other information about using your SuperMac C600 on a network, see the "Networks" topic of Macintosh Guide, available in the Guide menu.

Upgrading the Processor

You can upgrade the performance of your SuperMac C600x by installing a Processor card with higher speeds.

To upgrade the processor:

1. *Remove the cover, front panel, bottom panel, and all of the PCI cards from the computer. See "Installing an Expansion Card" earlier in this appendix.*

2. *With the computer on its right side, lift the lever above the processor module to a vertical position.*

   A heat sink is located on top of the module. Make sure the module is cool enough to touch.

Inline cache module

Lift this lever to a vertical position
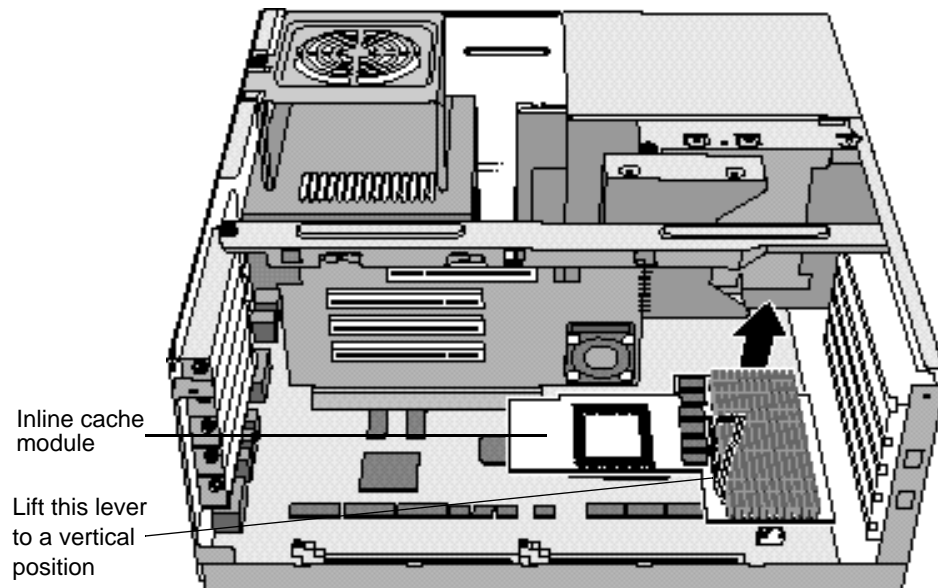
3. *Grasp the old module by the edges and pull it straight up out of the socket and set it aside.*

Lift this lever to a vertical position, then pull the module straight up.

4. *Grasp the new processor module by the edges and gently place it in the processor socket, seating its pins in the socket pin holes.*

    You may need to slowly move the processor module back and forth until the pins align with the socket pin holes.

5. *Press firmly on the processor module, applying even pressure.*

6. *Lower the lever above the processor module to a horizontal position until the lever snaps into place.*

7. *Reinstall the PCI cards, bottom panel, front panel, and cover.*

    Your processor upgrade is autoconfiguring during startup.

Expanding Memory

The dynamic random-access memory (DRAM) in your computer can be expanded. Installing additional DRAM adds more memory to your computer and expands its capabilities.

Memory for your computer is provided in packages called DRAM Dual Inline Memory Modules (DIMMs). SuperMac C600x DIMMs should be 168 pin, 70 ns maximum access time, 5 volt EDO or Full Page Mode DIMMs. A list of approved DRAM manufacturers is available in UMAX Computer Corporation's home page on the internet: www.super-mac.com.

IMPORTANT: Each DIMM socket has a retainer clip located at the back of the socket. Failure to release the retainer clip while removing a module may break the socket and cause damage to your computer.

You can use any DRAM configuration with DIMMs of these sizes: 8 MB, 16 MB, 32 MB, or 64 MB. You can increase your computer's DRAM to a maximum of 144 MB (128 MB in addition to the 16 MB on the motherboard). DIMMs can be installed one at a time in any order in either of the sockets.

To install additional DIMMs:

1. *Remove the cover of the computer.*

   See "Removing and Replacing the Cover and Front Panel."

DIMM Slots
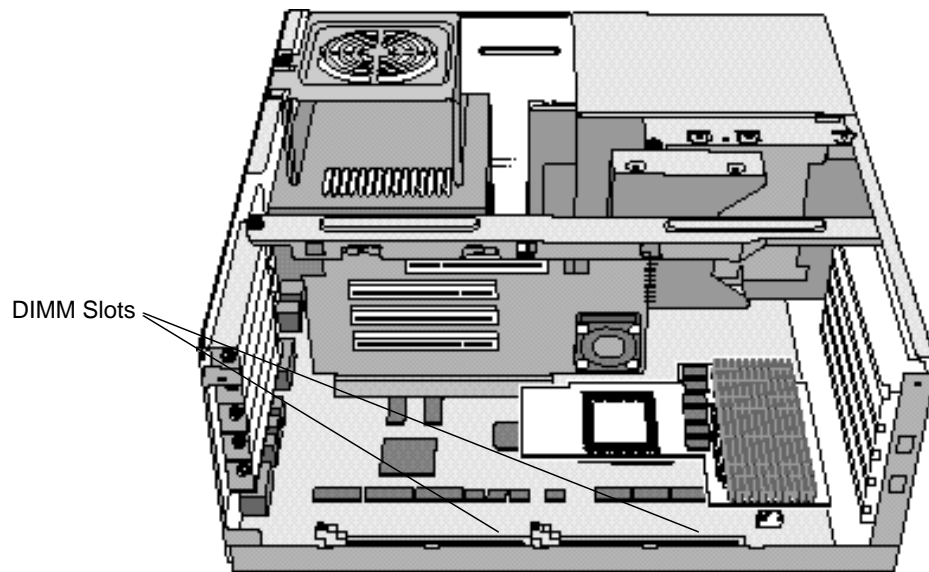
2. *Press the DIMM gently but firmly straight down into the socket until they are fully inserted. When the DIMM module is fully inserted, it is held in position by a retainer clip located on the end of the socket nearest the back of the computer.*

Retainer clip

DIMM socket
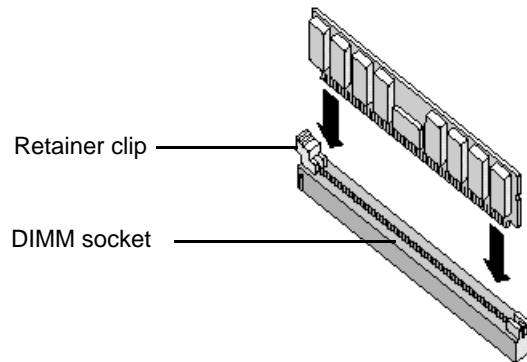
3. *Repeat this procedure to install a DIMM in the other bank.*

4. *Replace the cover of the computer.*

Installing Internal Drives

There are seven drive bays in your SuperMac C600. Counting from the top of the computer, bay 1 contains the factory-installed CD-ROM player. Depending on the specific C600x model you have, bays 2 and 3 may contain a removable media drive, such as a Zip drive. Bay 4 contains the floppy disk drive, bay 5 contains the IDE hard disk, and bays 6 and 7 are empty.

All additional drives must be SCSI drives, not IDE drives. All devices on the internal SCSI chain must have unique ID numbers from 0 to 7. On the internal SCSI chain, the computer itself has the ID number 7, and the factory-installed CD-ROM player has the number 3.

IMPORTANT: Set the SCSI ID for your additional drive before you install it in your computer. See the manual that came with your drive for instructions.

To ensure accurate transmission of information, a terminator must be at each end of a SCSI chain. The main logic board, which is the first device in the chain, has a built-in terminator. The CD-ROM drive,

which is the last device in the chain, also has a built-in terminator.
Make sure that no other internal SCSI device in the chain has a termi-
nator.

To install a drive in bay number 2 or 3:

1. **Remove the cover and front panel of the computer.**

2. **Remove the two screws that hold the metal shield which
   covers bays 2 and 3 in place.**

3. **Break the metal shield in two, and screw half of the
   shield over the port opening that you do not plan to
   use.**

4. **Attach the plastic rails that came with your system to
   both sides of the drive   .**

   **If you are installing a 5-1/4 inch drive, use the lower screw holes
   marked HD on the drive rails. If you are installing a 3-1/2 inch
   drive, you need to use an adapter available at your computer
   dealer.**

5. **Insert the drive, component side down, into the bay
   until it clicks into position.**

Attach the side rails and
insert the drive into the bay
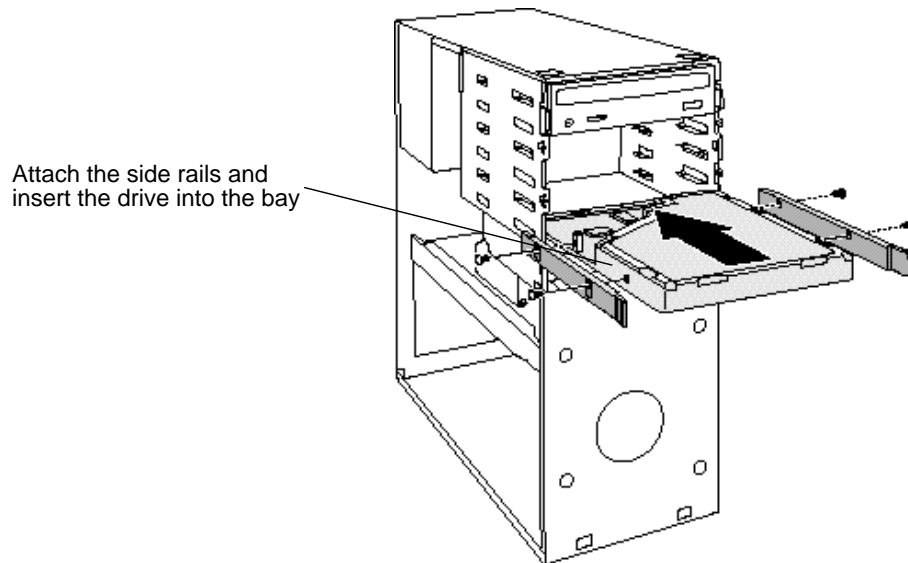
6. **Attach a SCSI connector to the drive.**

The SCSI cable runs from the motherboard to the CD-ROM player with four connectors between. Use a connector closest to the drive.

7. Attach a power cable to the drive.

   See "Attaching Cables to Internal Devices" later in this chapter

To install a 1-inch high, 3 1/2 inch hard drive in bay number 6 or 7:

1. Remove the screw from the rear of the cage.

2. Swing the cage out until it is vertical.

3. Insert the drive, component side down, connector facing the back of the computer, into one of the drive bays .
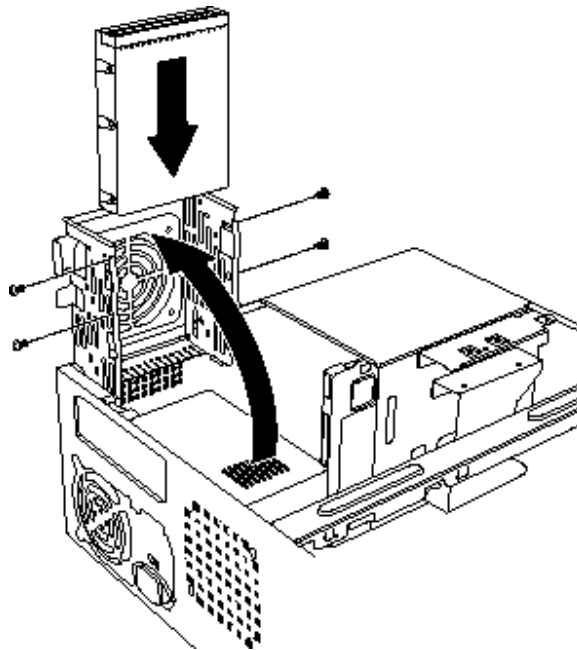
4. Align the 2 screw holes on the outside of the drive cage with the screw holes on the drive, and insert the screws.

5. Lower the drive cage.

6. Insert the screw in the rear edge of the cage.

7. Attach a SCSI connector to the drive.

The SCSI cable runs from the motherboard to the CD-ROM player with four connectors in between. Use a connector closest to the drive.

8. *Attach a power cable to the drive.*

   See "Attaching Cables to Internal Devices" later in this chapter.

Attaching Cables to Internal Devices

Inside your SuperMac C600x computer there is a SCSI ribbon cable with four connectors between the motherboard and CD-ROM player and two power cables available for use with additional internal devices. Attach the SCSI ribbon cable connector and one 4-pin power cable to each new device. Choose cables of a length most appropriate for the location of your new device.
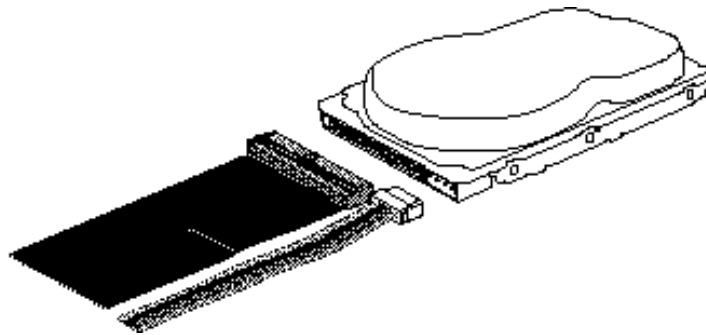
Appendix C

Warranty Agreement

Limited Warranty

LIMITED WARRANTY/LIMITATION OF LIABILITY AND REMEDY

UMAX COMPUTER CORPORATION ["UCC"] WARRANTS THAT THE PRODUCT SHALL BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF DELIVERY TO PURCHASER. UCC SHALL REPAIR OR REPLACE (OR HAVE REPAIRED OR REPLACED) ANY PRODUCT WHICH FAILS TO MEET THESE APPLICABLE WARRANTIES FREE OF CHARGE WITHIN THE RELEVANT ONE (1) YEAR PERIOD.

THESE ARE THE SOLE REMEDIES AND UCC'S SOLE LIABILITIES FOR PERFORMANCE OR FAILURE TO PERFORM OF THE PRODUCT. UCC RESERVES THE RIGHT TO CHANGE ITS WARRANTY POLICY AT ANY TIME FOR ALL PRODUCTS DISTRIBUTED AFTER THE DATE OF SUCH CHANGE IN WARRANTY. EXCEPT AS SET FORTH ABOVE, ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED.

UCC SHALL NOT BE LIABLE FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR RELATED TO THE USE OR PERFORMANCE OF THE PRODUCT, INCLUDING, WITHOUT LIMITATION, LOSS OF DATA OR USE OF DATA PROCESSING FACILITIES OR EQUIPMENT, REGARDLESS OF WHETHER UCC MAY HAVE BEEN ADVISED ABOUT THE POSSIBILITY OF SUCH DAMAGES. UCC'S MAXIMUM LIABILITY FOR ANY AND ALL DAMAGES ARISING OUT OF USE OF THE PRODUCT SHALL BE LIMITED TO THE AMOUNTS PAID BY PURCHASER FOR SUCH PRODUCT.

THE ABOVE WARRANTY SHALL NOT APPLY, AND UCC SHALL HAVE NO LIABILITY WHATSOEVER, IF THE PRODUCT IS MODIFIED FROM ITS ORIGINAL FORM AS DELIVERED BY UCC, OR THE PRODUCT IS USED, ABUSED, OR OPERATED OTHER THAN AS SPECIFIED BY UCC OR OTHER THAN IN THE ORDINARY COURSE.

Appendix D

End User Software License

YOUR UMAX COMPUTER CORPORATION ("UCC") COMPUTER SYSTEM HAS BEEN PRELOADED WITH VARIOUS COMPUTER SOFTWARE WHICH IS NOT THE PROPERTY OF UCC.

AS AN ENDUSER, YOU ARE GRANTED A LICENSE TO USE THE SOFT-WARE BY RESPECTIVE LICENSORS IF YOU AGREE TO ABIDE BY THE TERMS OF THEIR SOFTWARE LICENSE AGREEMENTS. THESE AGREE-MENTS ARE INCLUDED IN EITHER THE INSTALLATION CD OR THE UCC PACKAGING. PLEASE BE SURE TO READ EACH SOFTWARE LICENSOR'S AGREEMENT, WHETHER OR NOT IT IS IN ELECTRONIC OR WRITTEN FORMAT.

Apple Computer, Inc. System Software License

PLEASE READ THIS SOFTWARE LICENSE AGREEMENT "LICENSE" CAREFULLY BEFORE USING THE SOFTWARE. BY USING THE SOFT-WARE, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, PROMPTLY RETURN THE SOFTWARE TO THE PLACE WHERE YOU OBTAINED IT FOR A REFUND.

1. License.   The software and any fonts accompanying this License whether on disk, in read only memory, or on any other media (the "Apple Software") are licensed, not sold, to you by Apple Computer, Inc. or its local subsidiary, if any ("Apple"). You own the media on which the Apple Software is recorded but Apple and/or Apple's licen-sor(s) retain title to the Apple Software. The Apple Software in this package and any copies which this License authorizes you to make are subject to this License.

2. Permitted Uses and Restrictions.   This License allows you to install and use the Apple Software on a single Apple-labeled or Apple-licensed computer at a time. This License does not allow the Apple Software to exist on more than one computer at a time. You may make one copy of the Apple Software in machine-readable form for

backup purposes only. The backup copy must include all copyright information contained on the original. Except as permitted by applicable law and this License, you may not decompile, reverse engineer, disassemble, modify, rent, lease, loan, distribute, create derivative works from the Apple Software or transmit the Apple Software over a network. You may, however, transfer your rights under this License provided you transfer the related documentation, this License and a copy of the Apple Software to a party who agrees to accept the terms of this License and destroy any other copies of the Apple Software in your possession. Your rights under this License will terminate automatically without notice from Apple if you fail to comply with any term(s) of this License.

3. Limited Warranty on Media.   Apple warrants the media on which the Apple Software is recorded to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of original retail purchase. Your exclusive remedy under this paragraph shall be, at Apple's option, a refund of the purchase price of the product containing the Apple Software or replacement of the Apple Software which is returned to Apple or an Apple authorized representative with a copy of the receipt. THIS LIMITED WARRANTY AND ANY IMPLIED WARRANTIES AND/OR CONDITIONS ON THE MEDIA INCLUDING THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY OR SATISFACTORY QUALITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO NINETY (90) DAYS FROM THE DATE OF ORIGINAL RETAIL PURCHASE. SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THIS LIMITATION MAY NOT APPLY TO YOU. THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. APPLE SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY BY JURISDICTION.

4. Disclaimer of Warranty on Apple Software.   You expressly acknowledge and agree that use of the Apple Software is at your sole risk. The Apple Software is provided "AS IS" and without warranty of any kind and Apple and Apple's licensor(s) (for the purposes of provisions 4 and 5, Apple and Apple's licensor(s) shall be collectively referred to as "Apple") EXPRESSLY DISCLAIM ALL WARRANTIES AND/OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY OR SATISFACTORY QUALITY AND FITNESS FOR A PARTICULAR PURPOSE. APPLE DOES NOT WARRANT THAT THE

FUNCTIONS CONTAINED IN THE APPLE SOFTWARE WILL MEET YOUR REQUIREMENTS, OR THAT THE OPERATION OF THE APPLE SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE APPLE SOFTWARE WILL BE CORRECTED. FURTHERMORE, APPLE DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE APPLE SOFTWARE OR RELATED DOCUMENTATION IN TERMS OF THEIR CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY APPLE OR AN APPLE AUTHO-RIZED REPRESENTATIVE SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY. SHOULD THE APPLE SOFTWARE PROVE DEFECTIVE, YOU (AND NOT APPLE OR AN APPLE AUTHORIZED REPRESENTATIVE) ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. SOME JURISDIC-TIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THE TERMS OF THIS DISCLAIMER AND THE LIMITED WARRANTY IN PARAGRAPH 3 DO NOT AFFECT OR PREJUDICE THE STATUTORY RIGHTS OF A CON-SUMER ACQUIRING APPLE PRODUCTS OTHERWISE THAN IN THE COURSE OF A BUSINESS, NEITHER DO THEY LIMIT OR EXCLUDE ANY LIABILITY FOR DEATH OR PERSONAL INJURY CAUSED BY APPLE'S NEGLIGENCE.

5. Limitation of Liability. UNDER NO CIRCUMSTANCES, INCLUDING NEGLIGENCE, SHALL APPLE BE LIABLE FOR ANY INCI-DENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARIS-ING OUT OF OR RELATING TO THIS LICENSE. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THIS LIMITATION MAY NOT APPLY TO YOU. In no event shall Apple's total liability to you for all damages exceed the amount paid for this License to the Apple Software.

6. Export Law Assurances. You may not use or otherwise export or reexport the Apple Software except as authorized by United States law and the laws of the jurisdiction in which the Apple Software was obtained. In particular, but without limitation, the Apple Software may not be exported or reexported (i) into (or to a national or resident of) any U.S. embargoed country or (ii) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Department of Commerce's Table of Denial Orders. By using the Apple Software, you represent and warrant that you are not located in, under control of, or a national or resident of any such country or on any such list.

7. Government End Users.   If the Apple Software is supplied to the United States Government, the Apple Software is classified as "restricted computer software" as defined in clause 52.227-19 of the FAR. The United States Government's rights to the Apple Software are as provided in clause 52.227-19 of the FAR.

8. Controlling Law and Severability.   If there is a local subsidiary of Apple in the country in which the Apple Software License was purchased, then the local law in which the subsidiary sits shall govern this License. Otherwise, this License shall be governed by the laws of the United States and the State of California. If for any reason a court of competent jurisdiction finds any provision, or portion thereof, to be unenforceable, the remainder of this License shall continue in full force and effect.

9. Complete Agreement.   This License constitutes the entire agreement between the parties with respect to the use of the Apple Software and supersedes all prior or contemporaneous understandings regarding such subject matter. No amendment to or modification of this License will be binding unless in writing and signed by Apple.

Index

unexpected quit 65

Sound
input/output ports 39

Speakers
volume control 41

Support information 27

Surround Sound 42

System
turning extensions off 62, 72

System clock, troubleshooting 60

T

Technical support 27

Trademarks ii

Turning on the computer 13

Turning the computer off 26

U

Unpacking 1

V

Video cable connection 6

Voltage switch 3

Voltages for different locations 4

Volume, adjusting 41

W

Warranty 101

Warranty registration vii

Windows
desktop management 65