

CHAPTER 1-CARE AND TRAVEL

Protecting The Portable While In Use

The Macintosh Portable is durable but not indestructible. Take the following common-sense precautions while using your computer:

- Do not drop or jar the computer.
- Do not move the computer while you can hear the hard disk spinning.
- Do not block the air vents on the top or back.
- Keep dirt and water away from the ports on the back panel.
- Do not use the computer in wet or dusty environments.
- Clean the screen with soft, lint-free paper or cloth and a mild glass cleaner. Do not spray the glass cleaner (or any other liquid) directly on the screen.
- Use your computer only in temperatures that range between 10° C and 40° C (50° F and 104° F).
- Whenever possible, recharge the battery to its full capacity (rather than recharging it partially).
- When recharging the battery, use only the power adapter supplied with your computer. Similar adapters for other electronic devices may not work with the Macintosh Portable.

Traveling With The Portable

Take this handbook along when you travel with your Macintosh Portable.

Turn off the Portable before transporting it by choosing Sleep or Shut Down from the Special menu.

Keep the following travel tips in mind:

- Bring along backup system software on floppy disks, in case you need to reinstall it.
- Pack your Macintosh Portable in its carrying case for trips outside your home or office.
- Do not check your Macintosh Portable as baggage. Hand-carry it with you into the passenger compartment.
- At security checkpoints, do not allow your Macintosh Portable or any hard disks or floppy disks to pass through x-ray machines. Have security officials manually inspect your computer and disks.
- Be prepared to show security officials that your Macintosh Portable is indeed a working computer. Have a charged battery or power adapter ready to use.
- Some airlines may restrict or prohibit the use of computers in flight.

Check ahead of time to find out what restrictions, if any, apply.

- Do not expose the computer to wet or dusty environments.
- Do not expose the computer to very low (below -25° C/-13° F) or very high (above 60° C/140° F) temperatures. If it has been in a cold place for several hours, let it warm up to room temperature before you use it.
- Clean the carrying case with a soft dry cloth or with mild soap and water. Do not immerse the carrying case in water.
- If the carrying case must be stored temporarily in a hot place such as the trunk of a car, avoid placing it against hard or sharp objects, which may deform the case.

To get service on the road, contact any local authorized Apple service provider.

If you're in North America, call 800-538-9696 for the name of an authorized service provider near you. If you're elsewhere, check the local telephone directory.

If your computer is malfunctioning but does not appear to be damaged, leave it in system sleep (preferably with the power adapter plugged in) until you can get help.

If you know or suspect that your Macintosh Portable is physically damaged, disconnect the power adapter, remove the battery, and do not use the computer until it can be repaired.

Take the necessary plug adapters if you're going overseas.

If you're traveling outside North America with your computer, you may need one or more plug adapters to use with the Macintosh Portable's power adapter in the countries you're visiting.

You do not need a voltage transformer. The power adapter can handle 90 volts to 260 volts AC (48 to 62 Hz).

To determine which plug adapters you'll need, ask your travel agent.

Storing The Portable

Use the power adapter to connect the computer to an electrical outlet whenever possible, even in storage. If you plan to leave the computer unused for longer than two weeks and don't want to leave the power adapter plugged in or have no access to an electrical outlet during that time, store the computer as described below.

To store your computer:

1. Save all your work onto a hard disk or floppy disks (do not save it onto your RAM disk, if you use one).
2. Choose Shut Down from the Special menu.
3. If you have access to an electrical outlet, recharge the battery.

4. Remove the battery or, if you kept the plastic sheet that came with the computer, insert the plastic sheet between the battery and the Portable's internal circuitry.

5. Store the computer in its carrying case in a cool, dry place. Keep the battery and other accessories in the same storage area. Storage temperatures should stay between 10° C and 40° C (50° F and 104° F).

Recharge the battery every six months (you may not be able to recharge it if it's kept in storage for longer than six months without being recharged).

When you're not using the carrying case, store it in a cool, dry place.

CHAPTER 2-SETUP

Making Sure The Battery Is Connected

The Macintosh Portable left the factory with a plastic sheet between the battery and its internal circuitry to prevent the battery from running down during shipping and storage. You have to remove the plastic sheet before you can use the computer the first time.

To remove the plastic sheet:

1. Remove the battery.
2. Remove the plastic sheet at the bottom of the battery compartment. Keep it in the Portable carrying case for reuse in case you store the computer for longer than two weeks without removing the battery or plugging in the power adapter.
3. Replace the battery.

Turn on the computer by opening the display and pressing any key except Caps Lock.

Adjusting The Display

To adjust the angle of the display, tilt the display up or down on its hinge.

To adjust the brightness of the display:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.
2. Drag the Screen Brightness slide control up or down to increase or decrease brightness, which is provided by the display's backlight. You see the effects of your adjustments as you make them.

To set a keyboard shortcut for adjusting screen brightness, click Shortcut below the slide control. A dialog box appears. You can use any combination of the Control, Shift, and Option keys with the Left Arrow or Right Arrow key to adjust screen brightness.

!! IMPORTANT: Because the display's backlight consumes power, the brighter you set the display, the more quickly the battery is depleted. !!

3. Close the Control Panel.

Using The Trackball Or Mouse

The trackball functions like a mouse but requires less space.

You roll the trackball to move the pointer on screen and press the button (the short bar in front of the ball) to click or drag.

You can have the trackball either to the left or right of the keyboard (it's to the right when the computer leaves the factory). If you want it to the left, have your authorized Apple dealer or service provider switch the trackball's position for you.

If you do not know how to use a trackball, go through the Trackball Skills section of the Macintosh Basics disk that came with your computer.

If you prefer to use a mouse instead of the trackball (for example, if you choose to have the numeric keypad installed in the trackball's place next to the keyboard), connect the mouse that came with your Portable to the Apple Desktop Bus (ADB) port on the computer's back panel.

Using Other ADB Devices

Connect any ADB devices you want to use to the ADB port on the computer's back panel.

If you want to use the numeric keypad in the trackball's place, have an authorized Apple service provider install it for you.

!! IMPORTANT: ADB devices designed specifically for the Macintosh Portable are marked with a low-power icon. Other devices may quickly drain the battery; plug in the power adapter if you're using such devices. **!!**

Reinstalling System Software

You may need to reinstall system software if the system software on the Portable's internal hard disk is damaged.

To reinstall system software:

1. Restart the computer.
2. Insert the Macintosh System Startup floppy disk that came with your computer into the floppy disk drive so that it (and not the internal hard disk) becomes the startup disk.
3. Open the Installer program and follow the directions on screen to install system software on your internal hard disk.

If the Installer does not recognize your internal hard disk, your hard disk needs to be initialized. See "Managing Disks and Disk Drives," in the Macintosh Reference for information on initializing your hard disk. Return to step 1 of this procedure after you've initialized your hard disk.

4. Quit the Installer.
5. Choose Restart from the Special menu. The internal hard disk becomes the

startup disk.

6. Insert the Macintosh Portable Update floppy disk that came with your computer into the floppy disk drive.
7. Open the floppy disk icon and locate the Portable icon.
8. Drag the Portable icon to the System Folder on your internal hard disk.
9. Click OK in the dialog box that asks if you want to replace items that have the same names as the selected items. (You are replacing the Portable Control Panel with its updated version).
10. Choose Restart from the Special menu.

If you want to reset your Control Panel settings, choose Control Panel from the Apple menu.

CHAPTER 3- POWER

Turning The Portable On

Press any key except the Caps Lock key.

If the battery is connected, pressing any key except Caps Lock "wakes" the computer when it's been shut down or put into a power-conserving state called system sleep. Pressing the Caps Lock key, moving the trackball, or pressing the trackball button does not wake the computer.

To check if the battery is connected, see the "Setup" document.

If no battery is installed, see "Replacing or Removing the Battery" later in this document.

To set a time in the Portable Control Panel when you want the computer to wake from system sleep:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.
2. Click the checkbox next to the time and date in the Automatic Wake-Up box.
3. Click the time or date. Up and down arrows appear.
4. Click the up and down arrows to set the time and date when you want the computer to wake from system sleep.

If you have an internal modem and you want the computer to wake in response to an incoming call, click the checkbox next to When Phone Rings (see the "Modems" document).

5. Close the Control Panel.

Turning The Portable Off

You can "turn off" your Macintosh Portable in two ways. You can put it into a

power-conserving state called system sleep, and you can cut off all power by removing the battery and disconnecting the backup battery. Most often, you can put it into system sleep (when taking a break or ending a work session, for example).

When you put the Macintosh Portable into system sleep, your computer consumes only the power it needs to maintain the contents of random-access memory (RAM). Depending on how much power is in the battery, the contents of RAM are maintained for at least 5 days and as long as 4 weeks. When you wake the computer by pressing any key (except Caps Lock), you find your work the way it was when you left it.

When you cut off all power to the computer, the contents of RAM, including any RAM disk you may have created, are lost.

To put your Macintosh Portable into system sleep, do any of the following:

- Choose Sleep from the Special menu.
- Click Sleep in the Battery desk accessory.
- Leave the computer unused for as long as the interval you've set in the Portable Control Panel for automatic system sleep.
- Choose Shut Down from the Special menu. The computer closes any open application programs and prompts you to save your work before it goes into system sleep. Shut down the computer before connecting or disconnecting any peripheral devices.

To set how soon you want the Macintosh Portable to go into system sleep automatically when it isn't being used:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.
2. In the Minutes Until Automatic Sleep box, drag the System slide control to set how many minutes you want the Macintosh Portable to remain idle before it goes into system sleep.

The sooner your Macintosh Portable goes into system sleep when it's idle, the better you conserve power.

If you have the power adapter connected, you can prevent system sleep by clicking "Stay awake when plugged in."

3. Close the Control Panel.

You can also use the Portable Control Panel to set how soon you want the internal hard disk to stop spinning (to conserve power) when it isn't being accessed by the system. See the "Files and Disks" document.

To cut off all power to your Macintosh Portable, remove the battery.

Remove the battery when you're installing or removing expansion cards.

Letting The Portable Rest

To conserve power, the Macintosh Portable's internal operating speed slows

down from a clock speed of 16 MHz to an effective rate of about 1 MHz when it's been idle for 15 seconds. This slowed-down state is called system rest.

The computer comes back up to speed instantaneously when you resume using it. But if you notice that an application program you're using slows down when it performs a calculation or function that takes longer than 15 seconds, you may want to prevent the computer from going into system rest.

To prevent system rest:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.
2. Hold down the Option key as you click the words "Minutes Until Automatic Sleep." A dialog box appears.
3. Click Don't Rest. (Click Rest to turn system rest back on.)
4. Click OK.

!! IMPORTANT: If you turn off system rest, remember to turn it back on when you're finished using the program you turned it off for. !!

Restarting The Portable

Choose Restart from the Special menu.

Restarting the computer by choosing Restart is like shutting it down and then waking it. Any open programs are closed, and you are prompted to save your work. The contents of RAM are lost, except for the contents of any RAM disk you've created.

Usually (when you want to switch startup disks, for example), you restart your computer by choosing Restart from the Special menu. But you may have to use the reset or interrupt keys to restart if the software you're using crashes or "hangs up," or if the Macintosh Portable does not wake from system sleep.

To restart the computer using the reset key:

Restarting the computer with the reset key clears the contents of RAM but preserves any RAM disk you've created and its contents. You are not prompted to save your work, and you may have to reset your Control Panel settings.

The reset and interrupt keys are on the left side of the Macintosh Portable. A locking switch protects them from being pressed accidentally.

1. To unlock the reset and interrupt keys, slide the locking switch toward the back of the computer.
2. Press and then release the reset key (the one marked with a triangle). The Macintosh Portable should restart.

!!IMPORTANT: Pressing the reset key erases any data not saved on a disk.!!

3. Slide the locking switch to its original position, toward the front of the computer.

To restart the computer using the reset and interrupt keys:

Take these steps only if pressing the reset key alone has no effect.

1. Unlock the interrupt and reset keys.
2. Press both the interrupt key and the reset key at the same time.
3. Release the interrupt key.
4. Then release the reset key. The computer should go into system sleep.
5. Press any key (except Caps Lock) to wake the computer.

If nothing happens, contact your authorized Apple service provider.

Conserving Power

When fully charged, the 5.0 ampere-hour battery that came with your computer lasts between 3 and 6 hours, depending on the ADB devices and expansion cards you use with it, your automatic sleep and screen brightness settings, and other factors.

The better you conserve power, the longer you can work without having to recharge the battery.

To conserve power:

- Whenever you aren't using the computer, even for a brief interval, put it into system sleep.
- If you're working near an electrical outlet, plug in the power adapter.
- Turn off the display's backlight when you don't need it. And don't set the backlight any brighter than you need it.
- In the Portable Control Panel, set the Minutes Until Automatic Sleep controls for both the system and the hard disk to the shortest interval that you can tolerate. See "Turning the Portable Off" in this document, and also the "Files and Disks" document.
- Use a RAM disk as your startup disk. See the "Files and Disks" document.
- Use only low-power ADB devices, marked with the low-power icon.
- Leave any SCSI device you use turned on and plugged into its own power source.
- Quit any program that uses a modem unless you're actually using the program for telecommunication. As long as the program is open, your Macintosh Portable's modem circuitry may be consuming power.

Watching The Battery

The Battery desk accessory lets you estimate how much power is left in your battery and determine whether the battery is recharging. It also has a button that you click to put the computer into system sleep.

To open the Battery desk accessory, choose Battery from the Apple menu.

If you leave the Battery desk accessory open, you can estimate how quickly you're consuming power as you work.

The battery level indicator shows the approximate amount of power in your battery.

A lightning bolt appears above the indicator when the power adapter is plugged in and the battery is recharging.

Recharge or replace the battery when it is running low.

See "Recharging the Battery" later in this document.

If you can't recharge or replace the battery immediately after you get the first message that it's running low on power, save your work and put the Macintosh Portable into system sleep.

If you continue to work without recharging the battery, you get two more low-power messages and your screen brightness setting is automatically dimmed. Your Macintosh Portable then goes into system sleep to protect the contents of RAM.

You may not be able to wake the computer again until you replace the battery or begin recharging it. (If the battery is badly depleted, you may have to let it recharge for a half-hour or so before you can wake the computer.)

The contents of RAM are retained in system sleep for at least 5 days. If you recharge or replace the battery within 5 days, you should be able to wake the computer and pick up where you left off.

!! WARNING: Recharge a depleted battery as soon as possible. Leaving a depleted battery in the Portable for longer than two weeks without recharging it may damage the battery so that it cannot be recharged. !!

Recharging The Battery

Plug in the power adapter.

The power adapter lets you recharge the battery without taking the battery out and while you continue to use the computer.

Your Macintosh Portable uses battery power even when the power adapter is plugged in. (The power adapter merely recharges the battery; it does not replace the battery as a power source.)

!!WARNING: Do not use the power adapter without a battery in the computer.!!

A lightning bolt appears in the Battery desk accessory above the battery level indicator when the power adapter is plugged in and the battery is recharging.

The battery is recharged faster than it's depleted. Recharging time while the computer is in use depends on the ADB devices and expansion cards you're using, your automatic sleep and screen brightness settings, and other factors. If you're not using the computer at all and depending on how much the battery has been discharged, the 5.0 ampere-hour battery that came with

your computer takes up to 3 hours to be almost fully recharged and up to 10 hours to be fully recharged.

If you plan to use your Macintosh Portable abroad, you need a plug adapter (but not a voltage transformer) for the power adapter. The power adapter can handle 90 volts to 260 volts AC (48 to 62 Hz), which means that you can use the power from most electrical outlets in most countries (see the "Care and Travel" document).

!! IMPORTANT: Use only the power adapter that came with your computer. Similar adapters for other electronic devices may not work with the Macintosh Portable. !!

To use the (optional) external recharger:

1. Take the battery out of the computer.
2. Place the battery in the charging unit.

The recharger has two parts: a charging unit and a power adapter (the power adapter is identical to the one supplied with your Macintosh Portable). You can buy a recharger from any authorized Apple dealer or service provider.

3. Plug the power adapter into an electrical outlet.

Depending on how much it's been discharged, the 5.0 ampere-hour battery that came with your computer takes up to 3 hours to be almost fully recharged and up to 10 hours to be fully recharged.

Replacing Or Removing The Battery

The life of the battery depends on how much you use it, how often you recharge it, and how badly it's depleted before it's recharged.

If the battery no longer holds a charge, it's dead and must be replaced. You can buy a new battery from your authorized Apple dealer or service provider, who will properly dispose of the dead battery.

If you have a spare battery and the optional external recharger, you can replace the battery with the recharged spare.

To replace the battery:

1. Save your work.
2. Put the computer into system sleep.
3. Close the display.
4. Remove the back cover.

Press the square tabs on the back of the computer and lift off the back cover.

5. Remove the battery cover.

Use the thumb and forefinger of each hand to release the tabs on the cover from the hooks on the battery compartment.

Removing the battery cover activates the backup battery, so the contents of RAM are preserved while you remove and replace the main battery.

6. Take out the depleted battery and put the new or spare battery in its place. If you are replacing a dead battery, take it to your authorized Apple service provider for proper disposal.

If you are removing the battery in order to store the Macintosh Portable or to install or remove expansion cards, set the battery aside.

!! WARNING: The Macintosh Portable uses a sealed lead-acid battery, which contains toxic materials (lead and sulfuric acid). If you replace a dead battery, take it to your authorized Apple service provider for proper disposal. Do not dispose of toxic waste materials improperly.

The battery is sealed, but small amounts of sulfuric acid may leak if the battery is damaged. Sulfuric acid can cause severe burns to the skin and eyes. If you touch a damaged battery, immediately wash your hands and any other affected skin areas with water for at least 5 minutes. !!

To avoid damaging the battery:

- Handle the battery carefully.
- Recharge the battery only as described in this handbook and only in ventilated areas.
- Do not leave a battery in the Portable for longer than two weeks without plugging in the power adapter.
- Do not leave a battery in storage for longer than 6 months without recharging it.
- Do not short-circuit the battery terminals. Doing so can cause an explosion or fire.
- Do not drop, puncture, disassemble, mutilate, or incinerate the battery.

7. Replace the battery cover.

Position the battery cover over the compartment so that the tabs on the cover are aligned with the hooks on the compartment, then slide the cover forward until the tabs snap into place.

Replacing the battery cover turns off the backup battery. Doing so without a battery in the battery compartment cuts off all power to the computer and clears the contents of RAM, including any RAM disk you've created and its contents.

8. Replace the back cover.

Tilt the curved edge of the cover down into the display hinge, then lower the rear edge until the tabs snap into place.

If possible, plug in the power adapter in case the replacement battery is not fully charged.

If you installed a spare battery and have the optional external recharger,

recharge the depleted battery in the recharger.

Replacing The Backup Battery

In addition to the main battery, the Macintosh Portable has a standard 9-volt backup battery. The backup battery maintains the contents of RAM for up to an hour while you replace the main battery. The backup battery is activated automatically when you remove the battery cover. You cannot use the computer on the backup battery alone.

The backup battery should last several years, but you should replace it once a year to make sure you don't lose the contents of RAM when you replace or remove the main battery.

To replace the backup battery:

1. Save your work.
2. On a piece of paper, write down any Control Panel settings you want to keep. You will have to reset them after you replace the backup battery.

!! IMPORTANT: Replacing the backup battery cuts all power to the computer. You lose the contents of RAM, including any files on a RAM disk, and any changes you may have made to Control Panel settings. !!

3. Choose Shut Down from the Special menu.
4. Close the display.
5. Remove the back cover.
6. Remove the battery cover.
7. Take the backup battery out of its compartment.

The backup battery is toward the rear of the computer, directly behind the main battery.

8. Carefully take the connector off the backup battery terminals.
9. Snap the connector onto the replacement battery.

Note that the connector has snaps that correspond to the battery's positive and negative terminals.

10. Put the replacement battery into the compartment.
11. Replace the battery cover.
12. Replace the back cover.

CHAPTER 4- FILES AND DISKS

Using A RAM Disk

A RAM disk is a portion of your computer's memory that you set aside for use

as a temporary storage device. Using a RAM disk conserves power because when the Macintosh Portable goes to a RAM disk to store or retrieve information, it consumes less power than when it goes to the internal hard disk or a floppy disk (also, the computer can access a RAM disk more quickly than it can a hard disk or a floppy disk).

The Macintosh Portable's RAM disk and its contents are preserved when you choose Shut Down or Restart from the Special menu or put the the Macintosh Portable into system sleep. You can remove the RAM disk and its contents only by doing so in the Portable Control Panel or by taking out the battery and disconnecting the backup battery.

!! IMPORTANT: Do not store your only copy of an irreplaceable file on a RAM disk. Before using a program on a RAM disk, test it on the internal hard disk or a floppy disk to make sure it works properly with the Macintosh Portable.
!!

To use a RAM disk efficiently, you need at least 2 megabytes of RAM (4 megabytes is preferable). See the "Expansion Cards and Monitors" document if you need more memory.

To create a RAM disk:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.
2. Click the box labeled "RAM disk size" and hold down the mouse button to see a menu of available RAM disk sizes.
3. Drag to choose the RAM disk size you want.

If you want to specify a size that's not on the menu, choose Other. Then click the arrows to set the size you want.

Choose a size large enough for the programs and documents you plan to put on the RAM disk.

!! IMPORTANT: Memory set aside for a RAM disk cannot be used by the Macintosh Portable for running programs. Remember to leave enough RAM free for that purpose. !!

4. Click OK.
5. Close the Control Panel.
6. Choose Restart from the Special menu.

To resize or remove a RAM disk:

1. Copy any programs or documents that you want to save onto the internal hard disk or a floppy disk.
2. Drag everything in the RAM disk to the Trash.
3. Choose Empty Trash from the Special menu.
4. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.

5. Click the box labeled "RAM disk size" and hold down the mouse button to see a menu of available RAM disk sizes.

6. Drag to choose the RAM disk size you want. If you want to specify a size that's not on the menu, choose Other and then click the arrows to set the size you want. Choose None if you want to remove the RAM disk.

The RAM disk icon disappears from the desktop when you've made your choice.

7. Click OK in the dialog box that appears.

8. Choose Restart from the Special menu.

If you resized your RAM disk, a new RAM disk icon appears on your desktop. No RAM disk icon appears if you removed your RAM disk.

To erase a RAM disk:

- Select the RAM disk icon and choose Erase Disk from the Special menu, or
- Drag everything on the RAM disk to the Trash and choose Empty Trash from the Special menu.

To make a RAM disk the startup disk:

Because the computer often goes to the startup disk to store and retrieve information, the most efficient way to use a RAM disk is to make it your startup disk.

1. Create a RAM disk.

2. Open the Installer program and then click Install to install a minimal System Folder on the RAM disk.

The Installer is on the Macintosh System Startup floppy disk that came with your computer. (See Chapter 2 of the Macintosh Reference for more information on using the Installer.)

3. Choose Restart from the Special menu.

4. Choose Control Panel from the Apple menu and click the Startup Device icon. The Startup Device Control Panel appears.

5. Select the RAM disk as your startup device.

6. Close the Control Panel.

7. Choose Restart from the Special menu.

8. Keep a backup copy of your startup RAM disk on a floppy disk in case you lose the contents of your RAM disk.

Using The Hard Disk

To conserve power, the internal hard disk goes into hard disk sleep (that is, it stops spinning) when it isn't being used. The hard disk starts spinning again when the computer needs it to store or retrieve information.

To set how soon you want the internal hard disk to go into hard disk sleep automatically when it isn't being used:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.
2. In the Minutes Until Automatic Sleep box, drag the Hard Disk slide control to set how many minutes you want the Macintosh Portable to remain idle before it goes into hard disk sleep.

The sooner the internal hard disk goes into hard disk sleep when it's idle, the better you conserve power.

If you have the power adapter connected, you can prevent hard disk sleep (and avoid waiting for the hard disk to start spinning again) by clicking "Stay awake when plugged in."

3. Close the Control Panel.

You can also use the Portable Control Panel to set how soon you want the computer to go into system sleep when it isn't being used. See the "Power" document.

You cannot set the interval before hard disk sleep to be greater than the interval before system sleep (because there would be no reason for the hard disk to be spinning if the computer has gone into system sleep).

In all other respects, using the Macintosh Portable's internal hard disk is identical to using any other hard disk.

!! WARNING: Do not move the computer while the internal hard disk is in use. When you put the computer into system sleep, wait until the screen is blank before you move the computer. !!

Using Floppy Disks

The SuperDrive 1.4-megabyte floppy disk drive in your Macintosh Portable can initialize and use 400K, 800K, and 1.4 MB (high-density) Macintosh disks.

!! IMPORTANT: Do not use 1.4 MB (high-density) floppy disks in 800K or 400K floppy disk drives. !!

If you plan to use the same floppy disks in different drives, use disks prepared for the drive of the lowest capacity. For example, if you use the same disks with your Macintosh Portable as you do with a Macintosh that has an 800K floppy disk drive, initialize the disks for the 800K drive.

The SuperDrive can also initialize and use 720K and 1.4 MB disks in MS-DOS and OS/2 format, and 400K and 800K disks in ProDOS (Apple II) format. For information on translating files from one format to another, see the following section.

Translating File Formats

Apple File Exchange (AFE) is a Macintosh program that lets you translate documents created under the MS-DOS, OS/2, and ProDOS operating systems into Macintosh format. AFE is in the Apple File Exchange folder on the internal hard disk.

To translate a document:

1. Open Apple File Exchange. It shows a directory of all the files on your internal hard disk.
2. Insert the disk containing MS-DOS, OS/2, or ProDOS files into the floppy disk drive. AFE then shows a directory of the translatable files on the floppy disk.
3. In the directory of translatable files on the floppy disk, locate and select the documents you want translated into Macintosh format.
4. In the directory of the files on your internal hard disk, open the folder where you want to store the translated files (or create a new folder by clicking New Folder).
5. Click Translate. AFE translates the selected files and saves them on your internal hard disk.
6. Quit AFE.

For more information on using AFE, see Appendix C of your Macintosh Reference.

CHAPTER 5-NETWORKS

Connecting To A LocalTalk Network

Like other Macintosh models, the Macintosh Portable has built-in AppleTalk networking capability. You can connect the computer to a LocalTalk network through the printer port on the back panel.

Before connecting the computer to a LocalTalk network, ask the network administrator to help you do the following:

- Make sure that you've installed the same version of AppleShare software and of any printer drivers that are used by others on the network.

You do not need to have the same version of the System and Finder as others on the network. Keep the version of the System and Finder supplied with your Macintosh Portable. Earlier versions may not work properly with your computer.

- Determine the least disruptive time and place on the network to make your connection.

You can connect the Macintosh Portable to the end of a network without breaking any connections between computers and other devices on the network.

- Obtain (1) a LocalTalk connector box and (2) a LocalTalk network cable.

To connect the computer to a LocalTalk network:

1. Put the Macintosh Portable into system sleep.
2. Shut the display.

3. Plug your network cable into one of the two ports on your connector box.
4. If you're at the end of the network, plug the other end of your network cable into the empty port on the connector box attached to the last device on the network.

If you are not at the end of the network, (1) disconnect a network cable from the connector box attached to a network device, (2) connect that cable to the free port on your connector box, and (3) plug the other end of your network cable to the free port on the network device's connector box.

If you need help, see the network administrator or the documentation that came with your LocalTalk equipment.

5. Plug your connector box cable into the Macintosh Portable's printer port.

To use a file server, printer, or other network device:

1. Open the display.
2. Press any key (except Caps Lock).
3. Select the Chooser from the Apple menu.
4. In the Chooser, click the AppleTalk Active button.
5. Choose the file server, printer, or other network device that you want to use.
6. Close the Chooser.

Icons representing any file servers you've chosen should appear on the Macintosh Portable desktop. For more information on using the Chooser, see Chapter 7 of your Macintosh Reference.

If you have problems gaining access to files and folders or using printers and other network devices or services, check with the network administrator.

Disconnecting From A LocalTalk Network

To disconnect the computer from a LocalTalk network:

1. Find out from the network administrator the least disruptive time to disconnect your Macintosh Portable from the network.
2. Put the Macintosh Portable into system sleep.
3. Close the display.
4. Disconnect your connector box from the Macintosh Portable's printer port.
5. If you intend to connect to the network regularly (and with the approval of the network administrator), leave your connector box and network cable connected to the network. Doing so does not break network connections.

If you have to leave the network as you found it, proceed with step 6.

6. If you're at the end of the network, disconnect your network cable from

the connector box attached to the last device on the network.

If you're not at the end of the network, (1) disconnect your network cable from the connector box attached to a network device, (2) disconnect your connector box from the network cable leading to the next device on the network, and (3) reconnect that cable to the free port on the first network device's connector box.

If you need help, see the network administrator or the documentation that came with your LocalTalk equipment.

Remember to return your connector box and network cable if the network administrator loaned them to you.

CHAPTER 6- PRINTERS

Connecting A Printer

The best way to connect the Macintosh Portable to a LaserWriter II or Personal LaserWriter NT printer is over a LocalTalk network. If you're using a Personal LaserWriter SC, you make the connection through the SCSI port (see the "SCSI Devices" document). If you're using an ImageWriter II or ImageWriter LQ printer, you make the connection through the printer or modem port on the Macintosh Portable's back panel.

To connect the computer to a LaserWriter printer:

1. Connect the Macintosh Portable to the LocalTalk network (see the "Networks" chapter).

Make sure that you've installed the same version of the LaserWriter printer driver used by others on the network.

2. Open the display.
3. Press any key (except Caps Lock).
4. Select the Chooser from the Apple menu.
5. In the Chooser, click the AppleTalk Active button.
6. Click the LaserWriter icon in the box in the upper left.
7. If necessary, choose a network zone in the box in the lower left.
8. In the box in the upper right, click the name of the LaserWriter printer that you want to use.
9. Close the Chooser.

To connect the computer to an ImageWriter printer:

1. Make sure you've installed the appropriate ImageWriter driver in your System Folder. If the driver isn't in your System Folder, copy the appropriate driver from the Macintosh System Additions floppy disk that came with your computer.

2. Put the Macintosh Portable into system sleep and close the display.
3. Make sure the printer is turned off.
4. Connect the ImageWriter printer cable to the printer or modem port.

Use the printer port unless the computer is already connected to a LocalTalk network; in that case, use the modem port.

5. Turn on the printer.
6. Open the Macintosh Portable display.
7. Press any key (except Caps Lock).
8. Select the Chooser from the Apple menu.
9. Click the ImageWriter icon in the box in the upper left.
10. In the box in the upper right, click the icon representing the port you're using for the printer.
11. If you're using the printer port, click the AppleTalk Inactive button.

If you're using the modem port and you have an internal modem, (1) open the Portable Control Panel and (2) click External Modem to activate that port.

CHAPTER 7- MODEMS

You can install an internal modem as an expansion card in the Macintosh Portable, connect an external modem to the modem port, or both. You can also set the Macintosh Portable to wake from system sleep when its internal modem gets a call.

Connecting A Modem

To install an internal modem, see the "Expansion Cards and Monitors" document.

To connect an external modem:

1. Put the Macintosh Portable into system sleep and close the display.
2. Make sure the modem is turned off.
3. Connect the modem cable to the modem port. If the modem port isn't available, use the printer port.
4. Turn on the modem.
5. Open the Macintosh Portable display.
6. Press any key (except Caps Lock).

If you do not have an internal modem, your external modem is ready to use. If you have an internal modem in addition to your external modem, follow the

rest of these instructions.

7. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.

8. Click External Modem in the lower right.

These modem controls appear in the Portable Control Panel only if you have an internal modem installed or connected. Before you use the internal modem, click Internal Modem in the Portable Control Panel to activate that expansion slot.

9. Close the Control Panel.

Using The Internal Modem To Wake The Computer

To have the Macintosh Portable wake from system sleep when its internal modem gets a call:

1. Choose Control Panel from the Apple menu and click the Portable icon. The Portable Control Panel appears.

2. In the Automatic Wake-up box, click When Phone Rings.

3. Close the Control Panel.

CHAPTER 8-SCSI DEVICES

Setting Up SCSI Devices

Most peripheral devices (such as external hard disk drives, CD-ROM drives, scanners, and even a few printers) that work with the Macintosh Portable are SCSI devices. (SCSI, pronounced SKUH-zee, is the acronym for Small Computer System Interface.) Up to six such devices can be "daisy-chained" to the Macintosh Portable through its single SCSI port, which you can identify by its SCSI icon (the same icon marks the ports on SCSI devices).

Setting up a SCSI device to use with your Macintosh Portable involves installing any necessary device drivers, setting the device's SCSI ID number, and connecting the device to the computer.

To install a device driver, follow the instructions provided with the SCSI device.

The device drivers needed for a SCSI device are usually on a floppy disk that comes with the device, and you install them by dragging their icons to the System Folder on your startup disk. Most SCSI hard disks come with a floppy disk containing an installer program that installs the device driver for you. You may have to restart the computer to activate the device driver.

To set the SCSI ID number:

If you have a third-party SCSI device, see the documentation that came with that device for instructions on setting the SCSI ID number.

If you have an Apple SCSI device, follow these instructions.

1. Make sure the device is switched off.
2. Choose a number between 1 and 6 that hasn't been assigned to any other SCSI device connected to the computer.

Each device in a chain of SCSI devices connected to your computer must have its own ID number that distinguishes it from other devices in the chain. The ID number must be between 1 and 6 (the internal hard disk's ID number is preset to 0, and the Macintosh Portable itself has the ID number 7).

3. Insert the end of a straightened paper clip into the small hole directly below the ID number indicator (usually on the back panel of the SCSI device). The small hole gives you access to the ID number switch.
4. Push the ID number switch repeatedly until the number you want appears in the ID number indicator.

To connect a SCSI device:

1. Choose Shut Down from the Special menu.
2. Close the display.
3. Make sure the SCSI device is switched off.

!! WARNING: Do not connect, turn off, or disconnect any SCSI device while the device is turned on or while the Macintosh Portable is operating. Doing so can damage the Macintosh Portable, the SCSI device, or both. !!

4. Make sure the device has a unique ID number.
5. If the device is the first one in the SCSI chain (or the only SCSI device you're connecting), use a SCSI system cable to connect it to the Macintosh Portable's SCSI port.

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

!! IMPORTANT: The length of a SCSI chain should not exceed 6 meters (20 feet). !!

6. Make sure that the last SCSI device in the chain has a cable terminator, and no other device has one.

There must be a terminator at each end of a SCSI chain. The Macintosh Portable's internal hard disk -- the first device in the chain -- has a built-in terminator. You may, therefore, need to add a terminator to the device you just connected, and remove a terminator from another device in the chain.

!! IMPORTANT: A SCSI chain should have a cable terminator at each end and none in between. !!

If the device you're connecting has a built-in terminator, you don't need to add another cable terminator; just attach the device to the end of the chain and remove any terminator that may be attached to another device in the chain.

If the device you're connecting doesn't have a built-in terminator (external SCSI devices from Apple Computer do not), you must attach a cable terminator.

If you need to remove a built-in terminator from another device (because that device is no longer the last one in the chain), take the device to your authorized Apple service provider.

7. Turn on the SCSI device.
8. Open the Macintosh Portable display and press any key (except Caps Lock).
9. If you haven't yet done so, install any necessary device drivers. You may have to restart your computer to activate the device drivers.

For more information on connecting SCSI devices, see Chapter 9 of the Macintosh Reference.

Shut down the Macintosh Portable before switching off or disconnecting any SCSI device.

CHAPTER 9- EXPANSION CARDS AND MONITORS

Installing An Expansion Card

You can install four types of expansion cards in the Macintosh Portable:

- a RAM card for additional memory
- an internal modem card
- a ROM card for upgrading your Macintosh Portable
- a processor-direct card to support specific peripheral devices or enhance performance and functionality

To install an expansion card:

1. Write down any Control Panel settings that you want to restore after you've installed the card.

Installing a card requires that you cut all power to the computer, including the power supplied by the backup battery to maintain the part of RAM that remembers your Control Panel settings.

2. Unplug the power adapter.
3. Remove the battery and set it aside (see the "Power" document).
4. With the battery compartment empty, replace the battery cover. This step disconnects the backup battery and cuts off all power to the computer.
5. Locate the appropriate slot for the expansion card that you're installing.

If you're installing a card in the RAM slot, you first have to remove the RAM card already installed in that slot. (A Portable that comes with 2 or 4

megabytes of RAM has a factory-installed 1-megabyte or 3-megabyte pseudostatic RAM card in the RAM slot.)

If you're installing an internal modem, push out the telephone jack cover on the Macintosh Portable's back panel.

!! WARNING: Static electricity, which builds up on your clothes and body, can damage the electronic components on expansion cards. Carefully follow the next few steps in handling your expansion card to avoid damaging it. !!

6. Take the card out of its antistatic bag.

Handle the bag before you touch the card (to equalize any static electrical charge between you and the card).

Hold the card only by its edges. Do not touch the connector on the bottom edge of the card.

7. With the card in one hand, touch the metal surface inside the rear compartment of the Macintosh Portable with your other hand (to equalize any static electrical charge between the card and the computer).

8. Align the connector over the appropriate slot.

The top edge of most cards is angled to match the dimensions of the Macintosh Portable's rear compartment. The taller end of the card should point toward the back of the computer.

9. Firmly press down on the top edge of the card to push the connector into its slot.

You can carefully rock the card back and forth (along its length), but do not wiggle it from side to side.

10. Check that the card is securely in place by gently trying to lift it. It should resist and stay in place.

11. Remove the battery cover.

12. Put the battery back in its compartment.

13. Replace the battery cover.

14. Replace the Macintosh Portable's rear cover.

15. Open the display and press any key (except Caps Lock).

16. Restore any Control Panel settings you wrote down at the the start of this procedure.

If you installed additional memory, go to the Finder and choose About the Finder from the Apple menu to confirm that the computer recognizes the additional memory.

If you installed an internal modem, open the Portable Control Panel to confirm that Internal Modem is selected. (These modem controls appear in the Portable Control Panel only if you have an internal modem installed or connected.)

If you installed a ROM card or a processor-direct card, install any associated drivers or other software into your System Folder. See the documentation that came with the card for information on installing the software.

Using An External Video Monitor

If you have the appropriate video adapter, you can connect your Macintosh Portable to an external video monitor, which will show a larger version of the image displayed on the Portable's screen.

To use an external video monitor:

1. Turn the computer off by choosing Shut Down from the Special menu.
2. Close the display.
3. Connect the appropriate video adapter to the video port on the Macintosh Portable's back panel.
4. Connect the other end of the adapter to the external video monitor. Refer to the documentation that came with your video adapter for any additional instructions.
5. Turn on the monitor.
6. Open the Macintosh Portable display.
7. Press any key (except Caps Lock) to wake the computer.

CHAPTER 10- TROUBLESHOOTING

Travel-Related Problems

You can't plug your power adapter into electrical outlets overseas.

You may need a plug adapter to connect your power adapter to electrical outlets in another country.

- Obtain the appropriate plug adapters for the countries you're visiting.
- Inquire about the availability of standard North American electrical outlets if you're staying in a "Western-style" hotel.

Programs you obtain overseas don't seem to work properly.

You may need a special international version of the Macintosh Portable's System and Finder to properly run programs from overseas.

- Check the documentation that came with the programs or ask the nearest authorized Apple service provider if you need an international version of the Macintosh Portable's system software.

Power-Related Problems

You can't turn on the computer.

The computer went into system sleep in the last 30 seconds, the battery may be disconnected or discharged, there may be a temporary glitch in the computer's circuitry, or the computer may be connected to a SCSI device that isn't turned on.

- Wait at least 30 seconds, then try to turn the computer on again.
- Make sure the battery is connected.
- Recharge the battery.
- Restart the computer using the reset key.
- If any SCSI device is connected, make sure that it's turned on before you wake the computer.

The computer won't go into system sleep automatically.

The networking program Responder is installed in your System Folder (the Portable does not go into system sleep automatically when the Responder is installed because doing so would disrupt network services when the computer is connected to a network).

- Remove the Responder from the System Folder by dragging its icon to the Trash.

The computer or the hard disk keeps turning itself off.

The computer is set to go into system sleep or the hard disk is set to go into hard disk sleep after too short an interval.

- Open the Portable Control Panel and change the Minutes Until Automatic Sleep setting for the system or the hard disk to a longer interval.

The battery starts running low sooner than you expect.

You may be using a mouse or other ADB device that isn't designed for the Macintosh Portable, you may be using an expansion card that draws a lot of power, you may be using the internal hard disk or an internal modem more frequently than usual, your screen brightness setting may be too high, or the battery may be old.

- Make sure you're using low-power ADB devices.
- Keep the power adapter plugged in whenever possible (even when the computer is in system sleep).
- Open the Portable Control Panel and change the Minutes Until Automatic Sleep setting for the hard disk to a shorter interval.
- Quit any communications program unless you're actually using the modem (the Macintosh Portable supplies power to the modem circuitry as long as a communications program is open).
- Adjust your screen brightness setting.
- Recharge the battery or replace it.

You can't seem to recharge the battery.

The power adapter connections may not be secure, the electrical outlet you're using may not be working properly, or you may have a dead battery (which cannot be recharged).

- Check the connections between the power adapter and the Macintosh Portable and between the power adapter and the electrical outlet.
- Check that the electrical outlet is working properly. If the outlet is controlled by a switch, make sure that it's switched on.
- Obtain a replacement battery from your authorized Apple dealer or service provider and replace the dead battery.

Display-Related Problems

The screen image seems blurred and out of focus.

Your viewing angle is not optimal.

- Adjust the angle of the display by tilting it up or down on its hinge.

The screen seems dark.

The ambient light is bright and the backlight is set too low, or the battery may be running low.

- Adjust the display's backlight.
- Recharge the battery.

The screen display has ghost images or black dots.

You may have left the Macintosh Portable on for a couple of days, causing ghost images and other defects to temporarily appear on screen.

- Leave the Macintosh Portable in system sleep. The longer the computer was left on, the longer it will take for the ghost images and other defects to fade. They will eventually disappear.

You can't adjust screen brightness in the Portable Control Panel.

You may have an obsolete version of the Portable Control Panel.

- Install the Portable Control Panel that's on the Macintosh Portable Update disk by dragging the Portable icon on the update disk to the System Folder on your startup disk.

Problems Using Files And Disks

You run out of memory while using a program, or don't have enough memory to open one.

If you're using a RAM disk, its size may not leave enough memory available to run programs.

- Reduce the size of your RAM disk.

- Quit any applications you're not using.
- Install additional RAM.

Certain programs seem to slow down after running an operation for a few seconds.

The computer is going into system rest.

- When using the affected programs, turn off system rest.

A floppy disk you use in the Macintosh Portable is not recognized when you use it in another Macintosh.

The disk is a high-density, 1.4 MB disk, and the other Macintosh does not have a SuperDrive.

- Copy the files on the high-density, 1.4 MB disk to an 800K or 400K disk.
- If you plan to use floppy disk drives of different capacities, initialize your disks for the drive of the lowest capacity.

A high-density, 1.4 MB floppy disk you use in another Macintosh is not recognized when you use it in the Macintosh Portable.

You may have inadvertently initialized the disk as a 400K or an 800K disk. The SuperDrive cannot recognize a high-density disk that's been initialized as other than a 1.4 MB disk.

- On a Macintosh without a SuperDrive, copy the files on the misinitialized disk to a 400K or 800K floppy disk.

You can't save, delete, or copy files on a particular floppy disk.

The disk is locked, or a particular file is locked.

- Unlock the disk by sliding the write-protect tab so that it covers the hole near the upper-right corner of the disk (with the disk label facing you).
- Unlock the file by selecting its icon and choosing Get Info from the Edit menu. In the dialog box that appears, click the Locked checkbox to remove the X mark.

Modem-Related Problems

The external modem or other device connected to the modem port doesn't seem to be working.

The modem or other device isn't turned on, the circuitry in the modem port hasn't been activated, or the connections between the modem and the telephone line are loose.

- Make sure that the modem or other device is turned on.
- If you also have an internal modem, open the Portable Control Panel and make sure that External Modem is selected.
- Check the connections between the modem and the telephone line.

The internal modem doesn't seem to be working.

The circuitry in the modem expansion slot hasn't been activated, or the connections between the modem and the telephone line are loose.

- Open the Portable Control Panel and make sure that Internal Modem is selected.
- Check the connections between the modem and the telephone line.

The modem doesn't seem to work in your hotel or in certain office buildings.

The hotel or office building may have a digital telephone system, or you may need to dial a prefix to get an outside line.

- Inquire about the availability of analog telephone lines for use with modems.
- Add any necessary prefix to the telephone number that your communications program dials.

The computer does not stay connected during a telecommunication session.

The computer may be going into system sleep while it waits for messages from the other computer, network, or information service.

- Open the Portable Control Panel and change the Minutes Until Automatic Sleep setting for the system to a longer interval.

The data you get via modem is garbled and unintelligible.

The settings in your communications program may not be correct.

- Make sure that your settings for transmission rate, parity, and other communications parameters are correct.

Problems Related To Printers And Networks

You can't print your documents.

The printer you want to use isn't properly selected in the Chooser.

- Open the Chooser and click the icon of the printer you want to use.

Your printouts have fonts that are different from the fonts you used in your original document.

The laser printer does not have your fonts in its memory and is substituting other fonts.

- Ask the network administrator whether the fonts you want to use are available in another printer on the network.
- Reformat your document with the fonts that are available.
- Turn off Font Substitution in the Page Setup dialog box.

The laser printer you're using keeps restarting.

The version of the printer driver you have installed may be different from the versions used by others on the network.

- Check with the network administrator to ensure that you're using the correct version of the printer driver.

None of the printers or file servers on the network appear in the Chooser.

AppleTalk may not be set to Active in the Chooser, the Macintosh Portable's connections to the network may be loose, or the version of the AppleShare software you're using may be different from the version used by others on the network.

- Open the Chooser and make sure that AppleTalk is set to Active.
- Check the Macintosh Portable's network connections.
- Check with the network administrator to ensure that you're using the correct version of the AppleShare software.

You can't open the volumes or folders that you want to use on the network's file servers.

You don't have the appropriate access privileges to the volumes or folders you want to use.

- Ask the network administrator to let you log on to the volumes you want to use.
- Select the folder you want to use and choose Get Privileges from the File menu to find out who can give you access privileges to that folder.

Problems Related To SCSI Devices

You can't turn on the computer after connecting a SCSI device.

The SCSI device isn't turned on.

- Turn on the SCSI device and wait a few seconds before turning on the computer.
- Make sure that the SCSI chain has one cable terminator on the last device and no others except for the built-in terminator on the internal hard disk.

The computer doesn't recognize a SCSI device.

The SCSI connections may be loose, the device may be switched off, the device may need to be initialized (if it's a hard disk drive), you may need to install the required device drivers, more than one SCSI device may have the same ID number, or the wrong number of cable terminators may be in the SCSI chain.

- Check the SCSI connections.
- Make sure the device is turned on.
- If the device is a hard disk drive, make sure that it's been initialized.

- Make sure that you've installed the device drivers required by the device.
- Make sure that each SCSI device has a unique ID number.
- Make sure that the SCSI chain has one cable terminator on the last device and no others except for the built-in terminator on the internal hard disk.