Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for APPLE POWERBOOK G4 15-INCH. You'll find the answers to all your questions on the APPLE POWERBOOK G4 15-INCH in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual APPLE POWERBOOK G4 15-INCH
User guide APPLE POWERBOOK G4 15-INCH
Operating instructions APPLE POWERBOOK G4 15-INCH
Instructions for use APPLE POWERBOOK G4 15-INCH
Instruction manual APPLE POWERBOOK G4 15-INCH

PowerBook G4 15-inch
Getting Started
Includes setup, expansion, and
troubleshooting information for
your PowerBook G4 computer

Manual abstract:

Patent Nos. 4,631,603, 4,577,216, 4,819,098 and 4,907,093 licensed for limited viewing uses only. Simultaneously published in the United States and Canada. 3 Contents Chapter 1 5 6 8 10 16 17 18 19 19 20 21 22 23 24 24 24 25 26 26 27 27 27 28 28 29 31 32 34 36 37 38 Getting Started Basic Features of Your PowerBook Additional Features of Your PowerBook Setting Up How Do I Turn My PowerBook Off? Calibrating Your Battery What's Next? The Basics Getting to Know Your New PowerBook Adjusting Your Display Using Your Power Adapter Using the Trackpad Using the Keyboard Using a Mouse Learning About Mac OS X Customizing Your Desktop and Setting Your Preferences Connecting to a Printer Monitoring Printing Playing a CD and Connecting Headphones Connecting a Camera or Other FireWire or USB Device Connecting to a Network Keeping Your Software Up to Date Using the Internet Transferring Files to Another Computer When an Application Freezes Using Your Computer Universal Serial Bus (USB) FireWire PC Cards Using Bluetooth Devices AirPort Extreme Wireless Networking and Internet Access Chapter 2 Chapter 3 3 39 40 40 41 43 47 50 Chapter 4 53 53 57 59 60 61 63 63 65 67 67 68 69 70 70 70 71 73 75 76 77 79 85 88 91 95 Index 101 Ethernet (10/100/1000Base-T) Using Your Modem Connecting Speakers and Audio Devices External Video Support (DVI, VGA, and S-Video) Using Your Optical Drive Battery Security Slot Adding Memory to Your Computer Installing Additional Memory Making Sure Your Computer Recognizes the New Memory Troubleshooting Problems That Prevent You From Using Your Computer Other Problems Restoring Your Computer's Software Locating Your Product Serial Number Specifications Safety, Use, and Care Information Safety Instructions for Setting Up and Using Your Computer Using Your PowerBook General Safety Instructions Battery Avoid Hearing Damage Apple and the Environment Ergonomics Connecting to the Internet Gathering the Information You Need Entering Your Information Dial-Up Modem With Point-to-Point Protocol (PPP) Connections DSL, Cable Modem, or LAN Internet Connections AirPort Extreme Wireless Connection Troubleshooting Your Connection Top Ten Questions Communications Regulation Information Chapter 5 Appendix A Appendix B Appendix C Appendix D 4 Contents 1 Getting Started 1 ® Your PowerBook is a full-featured notebook computer. S-video-to-composite adapter AC plug DVI-to-VGA adapter Phone cord Power adapter AC cord Important: Read all the installation instructions and safety information (see page 67) carefully before you plug your computer into a wall socket. 5 Basic Features of Your PowerBook AirPort Extreme/ Bluetooth antenna window AirPort Extreme/ Bluetooth antenna window Built-in speaker (located under speaker grille) Microphone ® ® Power button Built-in speaker Function key (Fn) Sleep indicator light Display release button Trackpad button Trackpad Slot-loading optical drive Standard function keys -- Mute control Video Mode Toggle key ¤ Brightness controls - Volume controls Num Lock key Keyboard illumination controls (not on all models) Media Eject key 6 Chapter 1 Getting Started¤ - Brightness controls Increase or decrease the brightness of your PowerBook display. Volume controls Increase or decrease the volume of the sound coming from the built-in speakers and headphone port. Keyboard illumination controls (not standard on all PowerBooks) Increase or decrease the brightness of your keyboard illumination. Num Lock key Activate the numeric keypad embedded in the PowerBook keyboard. When the numeric keypad is activated, a green light glows on the key.

Video Mode Toggle key Use this key to switch between dual-display mode (extending your desktop across the built-in and external display) and video-mirroring mode (presenting the same information on both the built-in and external display). Media Eject key Press and hold this key to eject a disc. Microphone Record sounds directly on your PowerBook hard disk with this built-in microphone (located under the left speaker grille). Built-in speakers (2) Listen to music, movies, games, and other multimedia. Function (Fn) key Press and hold this key to activate the function keys (F1 to F12).

Sleep indicator light A white light pulsates when the PowerBook is in sleep. Display release button Push this button to release your display and open your PowerBook. Trackpad Move the pointer on the PowerBook display. Slot-loading optical drive Your optical drive can read CD-ROM discs, Photo CDs, standard audio discs, DVD-ROM and DVD-R discs, DVD movies, and other kinds of media. It can also write music, documents, and other digital files on CD-R and CD-RW discs.

If you have a SuperDrive, you can also write to DVD-R discs. ® Power button Turn your PowerBook on and off or put it to sleep. AirPort Extreme/Bluetooth antenna window With an optional AirPort Extreme Base Station or other wireless hub, connect to the Internet wirelessly. You can also wirelessly connect to devices equipped with Bluetooth wireless technology, such as mice, keyboards, personal digital assistants, and cell phones. For additional information about AirPort Extreme or your optical drive, see Chapter 3, "Using Your Computer," on page 31. Chapter 1 Getting Started 7 Additional Features of Your PowerBook ® ¯ Power adapter port USB 2.0 port ƒ Headphone out port W Internal modem port Audio line in port PC Card slot ® FireWire 400 port G Gigabit Ethernet port (10/100/1000Base-T) Security slot USB 2.

0 port FireWire 800 port Æ S-video out port DVI port 8 Chapter 1 Getting Started Security slot Protect your PowerBook by connecting a security cable. ¯ W Power adapter port Plug in the included Apple Portable Power Adapter to recharge your PowerBook battery. Internal modem port Connect a standard phone line directly to the internal modem.

Two Hi-Speed USB 2.0 (Universal Serial Bus) ports Connect additional equipment to your PowerBook, such as printers, external storage devices, digital cameras, modems, keyboards, and joysticks. (Compatible with standard USB devices.) PC Card slot Expand the capabilities of your PowerBook. Accepts Type I or Type II PC Card and CardBus formats. Audio line in port Connect your PowerBook to a line-level microphone or other audio equipment. ƒ Headphone out (sound output) port Connect external speakers, headphones, or other sound output devices. Two FireWire ports Connect high-speed external devices, such as digital videocameras, and external storage devices. You can connect a standard 6-pin FireWire device directly to the FireWire 400 port, or you can use a 9-to-6-pin FireWire cable to connect the device to the FireWire 800 port. You can also directly connect a 9-pin FireWire device to the FireWire 800 port.

G Gigabit Ethernet port (10/100/1000Base-T) Connect to a high-speed 10/100/1000Base-T Ethernet network or connect to another computer and transfer files. The Ethernet port auto-sensing feature detects other Ethernet devices and doesn't require an Ethernet crossover cable in order to connect. TV out (S-video out) port Connect your PowerBook to a television, VCR, or other video device. You can use the TV out port for presentations or to play a DVD-Video on your television. DVI (external monitor) port Connect to an external monitor or projection device that uses a DVI connector, or use the included DVI-to-VGA adapter to connect a VGA monitor.

You can also use a DVI-to-ADC adapter (sold separately) to connect to an Apple flat-panel display. For additional information about these features, see Chapter 3, "Using Your Computer," on page 31. Æ Chapter 1 Getting Started 9 Setting Up Your PowerBook is designed so that you can set it up quickly and start using it right away. m Step 1: Plug In the Power Adapter Plug the AC plug of your power adapter into an outlet and the power adapter plug into the PowerBook power adapter port. AC plug Important: Be sure to snap the electrical prongs on your AC plug into their completely extended position before you plug the adapter into the outlet.

AC plug Power adapter plug ¯ Power adapter port ® AC cord To extend the reach of your power adapter, you can attach the AC cord if desired. See "Using Your Power Adapter" on page 21. 10 Chapter 1 Getting Started Step 2: Prepare to Get Connected The first time you start up your computer, a setup assistant welcomes you and takes you through the registration process. It will also help you set up your computer and Internet connection. Internet access usually requires an account with an Internet service provider (ISP). Fees may apply. Setting up your Internet connection usually requires you to supply information such as the account name your ISP gives you. If you're not ready to set up your connection yet, you can skip that process and come back to it later. See Appendix C, "Connecting to the Internet," on page 73 for information about how to set it up later. If you are ready, gather the information below for the type of connection you'll be using.

You can write information from your ISP or network administrator on these pages, then enter it in Setup Assistant. To set up a telephone dial-up connection, gather the following information: · Service provider name · User or account name · Password · ISP phone number · Alternate phone number · Dialing prefix to obtain an outside line m To set up a DSL, cable modem, LAN, or AirPort Extreme wireless connection: First, choose your connection method (ask your system administrator or your ISP, if you don't know): · Manually · Using DHCP with a manual address · Using DHCP · Using BootP · PPP If you're unsure which method to use, "Using DHCP" may be a good choice, because the network supplies most of the required information for you automatically. If you selected "Manually" or "Using DHCP with a manual address," gather the following: · IP address · Subnet mask · Router address Note: If you selected "Using DHCP with a manual addressg with your PowerBook, you can put your computer to sleep or shut it down. Putting Your PowerBook to Sleep If you will be away from your PowerBook for only a short time, put the computer to sleep. When the computer is in sleep, you can quickly wake it and bypass the startup process. To put the computer to sleep, do one of the following: · Close the display. · Choose Apple (K) > Sleep from the menu bar. · Press the Power button (®) and click Sleep in the dialog that appears. Warning: Wait a few seconds until the white sleep ligh The Basics 2 This chapter introduces important basics about your PowerBook that you'll want to know. Getting to Know Your New PowerBook Because your PowerBook is so thin and light, you can take it with you to the office, library, class, or wherever you work or play.

Whenever you stop using your PowerBook, wait a few moments to let the hard disk and any optical disc in your drive stop spinning before you transport the computer. Avoid jostling or bumping your PowerBook while discs are spinning. When using your PowerBook or when charging the battery, it is normal for the bottom of the case to get warm. For prolonged use, place your PowerBook on a flat, stable surface. The bottom of the case is raised slightly to allow airflow that keeps the unit within normal operating temperatures.

As you get to know your new computer, you may hear small noises during startup and when using your hard disk and optical drives. For example, your hard disk and optical drives may whir and click as they access information or load and eject discs. After the PowerBook runs for some time, a small fan may turn on to cool it, producing a faint sound. Small noises are part of the PowerBook's normal functioning. For more safety instructions about handling and using your PowerBook in different locations, be sure to see Appendix B, "Safety, Use, and Care Information," on page 67.

19 Adjusting Your Display Once you begin working with your new PowerBook, you may need to adjust your display so that the screen is easier to see. Use the keys labeled with the ¤ icon to adjust screen brightness. ¤ Brightness controls Keyboard illumination controls ALS sensor ® ALS sensor If the F8, F9, and F10 keys are marked with illumination icons, then your computer has keyboard illumination and an ambient light-sensing (ALS) system.

The ALS sensors are located under the speaker grilles and will automatically adjust the brightness of your display and keyboard illumination according to the light available in your current environment. You can also adjust the keyboard illumination using the F8, F9, and F10 keys. Important: Even when the keyboard illumination feature is on, the keyboard illuminates only in low-light situations. m To turn off the automatic display brightness feature: Choose Apple (K) > System Preferences from the menu bar. Open the Displays pane and deselect the automatic brightness checkbox. You can turn off the keyboard illumination feature in the Keyboard & Mouse pane of System Preferences or by pressing the F8 key. 20 Chapter 2 The Basics Note: Exposé is preset to use the F9 and F10 keys, the same keys that adjust your keyboard illumination.

To use Exposé to manage your desktop windows, hold down the Fn key and press F9 or F10, or open the Exposé pane in System Preferences and choose different function keys to manage windows. Changing the Size of Images on the Screen You can increase or decrease the size of images on your screen by switching from the standard resolution to a scaled resolution. Your PowerBook has a 15.2-inch TFT WXGA display with a default resolution of 1280 x 854. You can choose a resolution of 1152 x 768 or lower (called "scaled" resolutions) in the Displays pane of System Preferences. When you switch to a scaled resolution, items on the screen appear larger, making them easier to see. However, scaled resolutions may not be as sharp as the display's default resolution. m To adjust the resolution on your display: Choose Apple (K) > System Preferences from the menu bar. Open the Displays pane of System Preferences. To control your display settings using the Displays icon in the menu bar, click "Show displays in menu bar.

" Using Your Power Adapter Plugging in the power adapter provides AC power to the computer and recharges the computer's battery. Important: For optimal performance, use only the power adapter that came with your computer, or purchase an additional 65W Apple Portable Power Adapter. When you first connect your power adapter to your computer, a light glows green for a second to indicate power is available. An amber light indicates that the battery is being charged. A green light indicates that the battery is fully charged.

You can monitor the battery level using the Battery icon in the menu bar or by checking the battery level indicator lights on the bottom of the battery (see page 47). Chapter 2 The Basics 21 To extend the reach of your power adapter, remove the AC plug from the adapter. Attach the included AC cord to the adapter and insert the other end into a wall outlet. AC cord AC plug Warning: Make sure the power adapter is fully assembled before plugging it into an electrical outlet. If you're using the AC plug with your power adapter, make sure the two prongs are snapped into their completely extended position before plugging in the adapter.

Use only the AC cord that came with your power adapter. Make sure to push the power plug snugly into the power adapter port on the computer to ensure it is engaged and power is flowing to the computer. When disconnecting the power adapter from an outlet or from the computer, pull the plug, not the cord. For safety instructions about using your power adapter, see "Plugging In the Power Adapter" on page 67. Using the Trackpad The trackpad is sensitive to how quickly you move your finger. To move the pointer a short distance across the screen, move your finger slowly across the trackpad. The faster you move your finger, the farther the pointer moves on the screen. Tips for Using the Trackpad For best results when using the trackpad, keep in mind these tips: · Use only one finger. Using more than one finger may cause erratic pointer behavior. · Do not use a pen or any other object.

· Keep your finger and the trackpad dry. If the trackpad becomes moist from humidity or condensation, gently wipe it with a clean cloth before you use it. · Never use any kind of cleaning solution on the trackpad. For more information on using the trackpad, choose Help > Mac Help from the menu bar at the top of the screen. 22 Chapter 2 The Basics Instead of using the trackpad button, you can use your finger to click and double-click directly on the trackpad. You can turn on this and other trackpad options in the Keyboard & Mouse pane of System Preferences. Note: If you find that the pointer moves as you type because you accidentally brush the trackpad, you can avoid this problem by selecting the "Ignore accidental trackpad input" option in the Keyboard & Mouse pane of System Preferences. Using the Keyboard Your PowerBook keyboard has a numeric keypad incorporated in the standard keyboard keys. Keys used for the numeric keypad have a smaller secondary label. Num Lock key Numeric keypad ® To use the numeric keypad, press the Num Lock key.

The Num Lock key glows green, indicating that the keypad is active. When you're finished, press the Num Lock key again to turn it off. Important: If your keyboard doesn't seem to be working correctly, check the Num Lock key. When the numeric keypad is active, other keys and keyboard equivalents for menu commands (such as x-Q to quit) are deactivated. If you like to use keyboard shortcuts to work efficiently, open Mac OS Help and search for "shortcuts.

" You'll find quite a list of keyboard shortcuts for many common procedures and applications. Chapter 2 The Basics 23 Using a Mouse If you have an Apple mouse with a USB connection, you can insert the USB connector into the USB 2.0 port and use your mouse right away. You can purchase a USB mouse from an Apple Authorized Reseller or from the Apple Store website: www.apple.

com/store. Learning About Mac OS X Your computer comes with Mac OS X and features Classic, an environment for using Mac OS 9 applications while the computer is running Mac OS X. Note: Mac OS 9 cannot be installed as the primary operating system on your PowerBook. When you're ready to learn more about Mac OS X and your Apple applications, see the Mac OS X booklet that came with your PowerBook. Also open Mac OS Help and browse the information there. You'll find plenty of information for new users, experienced users, and people switching to the Mac. If you experience any problems while using Mac OS X, see the troubleshooting tips in the back of this book or choose Help > Mac Help from the menu bar at the top of the display. For information about the compatibility of software applications with Mac OS X, or to read more about Mac OS X, check the Apple website: www.apple.com/macosx.

Customizing Your Desktop and Setting Your Preferences You can quickly make your desktop look the way you want using System Preferences.

Choose Apple (K) > System Preferences from the menu bar. 24 Chapter 2 The Basics Feel free to make changes and experiment with the following: · Appearance: Select this preference pane to change the colors of buttons, menus, windows, and highlight colors, among other options. · Desktop & Screen Saver: Select this preference pane to change the background color or pattern of your desktop, or change it to a photo or image you like. You can also choose an eye-catching screen effect that will appear on your screen when the computer is left idle. · Dock: Select this preference pane to change the look, location, and behavior of your Dock. As you get to know your computer, explore the other System Preferences. It is your command center for most settings on your PowerBook. For more information, open Mac OS Help and search for "System Preferences" or for the specific preference pane you want to change. Connecting to a Printer To use a printer with your PowerBook, follow the instructions that came with the printer to install required software and connect the printer.

Many printers connect via a USB cable; others are accessed via a network connection, such as Ethernet. For more information about your USB ports, see "Universal Serial Bus (USB)" on page 32. For more information about a network or wireless connection, see "Ethernet (10/100/ 1000Base-T)" on page 39 and "AirPort Extreme Wireless Networking and Internet Access" on page 38. After connecting and setting up your printer, use the Print & Fax pane of System Preferences to select your printer for use. If you're connecting to a printer via a network, you may need to know the network name or address of the printer to select it.

If you have a USB printer connected to an AirPort Extreme Base Station, you can connect to the printer and print wirelessly. Chapter 2 The Basics 25 To set up a printer: 1 Open System Preferences and click the Print & Fax icon. 2 Click the Set Up Printers button. 3 Click the Add button. 4 Choose the type of connection for your printer (for example, USB, AppleTalk, and so on) from the pop-up menu.

To add a USB printer connected to an AirPort Extreme Base Station, choose Rendezvous from the pop-up menu. 5 Select or enter your printer information and click Add. Monitoring Printing Once you've sent a document to a printer, you can monitor printing and halt or put it temporarily on hold. m To monitor printing: Click the Printer icon in the Dock to open the Printer window. You can now see the print jobs in the print queue and work with them. For more information, choose Help > Mac Help and search for "printing." Playing a CD and Connecting Headphones If you'd like to listen to music while you work, insert a music CD in your optical drive. iTunes, an easy-to-use music player, appears automatically on the screen. You can also connect headphones with a minijack to the headphone port of your PowerBook for private listening. To learn more about iTunes, open iTunes and see the onscreen Help.

To learn more about your optical drive, see "Using Your Optical Drive" on page 43. Warning: Listening to music at high volume over extended periods of time can damage your hearing. 26 Chapter 2 The Basics Connecting a Camera or Other FireWire or USB Device If you have a digital camera, videocamera, scanner, or other device that has a USB or FireWire connector, you can connect it to your PowerBook. Follow the installation instructions that came with your device. For more information about FireWire, see "FireWire" on page 34. For more information about USB, see "Universal Serial Bus (USB)" on page 32. Connecting to a Network If you want to connect your PowerBook to an Ethernet network or a wireless network, see "Ethernet (10/100/1000Base-T)" on page 39 and "AirPort Extreme Wireless Networking and Internet Access" on page 38 for more information about setting up an Ethernet or AirPort connection. Also open Mac OS Help and search for "Ethernet" or open AirPort Admin Utility and choose Help > AirPort Help. Keeping Your Software Up to Date You can connect to the Internet and automatically download and install the latest free software versions, drivers, and other enhancements from Apple. When you are connected to the Internet, Software Update checks Apple's Internet servers to see if any updates are available for your computer.

You can set your Mac to check the Apple server periodically and download and install updated software. To check for updated software: 1 Open System Preferences. 2 Click the Software Update icon and follow the directions on the screen. · For more information, search for "Software Update" in Mac OS Help. · For the latest information on the Mac OS, go to the Mac OS website at www.

apple.com/macos. Chapter 2 The Basics 27 Using the Internet During the initial setup, you were instructed on how to connect to the Internet. If you need to change to a different type of connection, such as DSL, cable modem, Ethernet local area network (LAN), or AirPort Extreme network, you can find more information in Appendix C, "Connecting to the Internet," on page 73. Transferring Files to Another Computer If you want to transfer files or documents to or from your PowerBook, there are several ways of doing it.

· You can transfer files via the Internet using .Mac or another Internet account. · You can transfer files to another computer on a network. You can access another server or computer by clicking Network in the Finder Sidebar, or by choosing Go > Connect to Server from the Finder menu bar. · You can create a small Ethernet network by connecting an Ethernet cable from your PowerBook to another computer's Ethernet port. For more information, open Mac OS Help and search for "connecting two computers." · You can also connect to another Mac using a FireWire cable. Your PowerBook appears as a disk drive on the other computer and you can transfer files. For information about using FireWire to transfer files, see "FireWire Target Disk Mode" on page 35. · You can connect to an AirPort Extreme 802.

11g or 802.11b wireless network to transfer files. For more information, see "AirPort Extreme Wireless Networking and Internet Access" on page 38. · If you have access to devices that communicate via Bluetooth wireless technology, you can transfer files using Bluetooth wireless technology. For more information, see "Using Bluetooth Devices" on page 37. For general information about transferring files and documents, open Mac OS Help and search for the type of connection you need. 28 Chapter 2 The Basics When an Application Freezes On rare occasions, an application may freeze on the screen. Mac OS X provides a way to quit a frozen application without restarting your computer.

Quitting a frozen application may allow you to save your work in other open applications. To force an application to quit: 1 Press Command (x)-Option-Esc or choose Force Quit from the Apple (K) menu.

The Force Quit Applications dialog appears with the application selected. 2 Click Force Quit. The application quits, leaving all other applications open. If needed, you can also force the Classic environment to quit, which closes all Classic applications. You can also restart the Finder from this dialog.

If you're experiencing other problems, see Chapter 5, "Troubleshooting," on page 59. Chapter 2 The Basics 29 3 Using Your Computer 3 Your PowerBook has many built-in features and connection capabilities that you can customize and expand to fit your needs. These include the following: · Universal Serial Bus (USB) 2.0 ports for connecting additional equipment such as printers, scanners, and other devices to your PowerBook. See page 32.

· FireWire 400 and 800 ports for connecting high-speed equipment such as digital videocameras and external hard drives. See page 34. · A PC Card/CardBus slot. See page 36. · Bluetooth wireless connectivity, AirPort Extreme wireless networking capability, Ethernet networking capability, and a 56K modem for networking and communications. See page 37. · Audio line in and headphone ports for connecting headphones, speakers, microphones, and other audio equipment. See page 40. · DVI video output with included DVI-to-VGA adapter lets you use your PowerBook with an external monitor or digital flat-panel display, including support for videomirroring and extended desktop (dual-display) modes. Use the built-in S-video support to display content on your television.

See page 41. · Optical drive that allows you to play CDs and DVDs and burn CDs. If you have a SuperDrive you can burn DVDs as well. See page 43. · Security slot so that you can make sure your PowerBook stays where it should. See "Security Slot" on page 50. 31 Universal Serial Bus (USB) Your PowerBook comes with two USB 2.0 ports ( ), also referred to as Hi-Speed USB, which you can use to connect many types of external devices, including printers, scanners, digital cameras, game pads, joysticks, keyboards, and floppy disk drives. Your USB 2.0 ports are compatible with earlier USB devices. In most cases you can connect and disconnect a USB device while the computer is running. Once you connect the device, it is ready to use. You don't need to restart or reconfigure your computer. ® Using USB Devices To use a USB device with your computer, simply connect the device to the computer. Your computer automatically loads the correct software whenever you connect a new device.

Note: Apple has already included software to work with many USB devices. If your PowerBook cannot find the correct software when you connect a USB device, you can either install the software that came with the device or follow the onscreen prompts to use the Internet to locate, download, and install the correct software. USB Devices and Battery Power USB devices, such as joysticks and keyboards, that get power from the USB connection instead of a separate power adapter can be used with your PowerBook. However, these types of USB devices can cause your PowerBook battery to become depleted faster. If you are using the device for an extended period, it is a good idea to connect the PowerBook power adapter.

32 Chapter 3 Using Your Computer Using Multiple USB Devices at the Same Time If you want to use more than two USB devices at the same time, you can purchase a USB hub. The USB hub connects to an open USB port on your computer and provides additional USB ports (usually four or seven). Most USB hubs also have a power adapter and should be plugged into an outlet. ® USB hub For More Information on USB Additional information on USB is available in Mac OS Help. Choose Help > Mac Help in the menu bar and search for "USB." You can also find information on the Apple USB website at www.apple.com/usb. For information on USB devices available for your computer, check the Macintosh Products Guide at www.apple.

com/guide. Chapter 3 Using Your Computer 33 FireWire Your computer has one FireWire 400 and one FireWire 800 port ( ). With FireWire, you can easily connect and disconnect external high-speed devices--such as DV cameras, printers, scanners, and hard disks--without restarting your computer. You can connect a standard 6-pin FireWire device directly to the FireWire 400 port. You can use a 9-to-6-pin FireWire cable to connect the device to the FireWire 800 port. You can also connect 9-pin FireWire devices directly to the FireWire 800 port, for even faster connections. Both ports provide power to connected devices (so the devices don't need an additional power plug). FireWire 400 port (6-pin) ® FireWire 800 port (9-pin) These are some of the things you can do with FireWire: · Connect a digital videocamera and capture, transfer, and edit high-quality video directly on your computer using video-editing software such as iMovie or Final Cut Pro. · Connect an external FireWire hard disk and use it to back up data or transfer files. · Start up from an external FireWire hard disk.

Connect an external FireWire hard disk (with a valid operating system installed on it), open the Startup Disk pane of System Preferences, and click the FireWire hard disk. Restart your computer. Using FireWire Devices To use a FireWire device with your computer, connect the device to the computer and install any software that came with the device. Your computer automatically detects newly connected devices. 34 Chapter 3 Using Your Computer FireWire Devices and Battery Power FireWire devices, such as certain external hard disks, can get power from the PowerBook FireWire connection instead of a separate power adapter.

However, these types of FireWire devices will cause your PowerBook battery to become depleted faster. If a device will be connected for an extended period, it is a good idea to connect the PowerBook power adapter. Note: The FireWire ports are designed to support power for FireWire devices (up to 7 watts maximum). You can connect multiple devices to each other and connect the "daisy-chain" of devices to the FireWire port on your computer, but only one device should get power from the computer. The rest of the devices in the daisy-chain should be powered by separate power adapters.

Connecting more than one FireWire device that gets power from the port may cause problems. If a problem occurs, shut down the computer, remove the FireWire devices, and restart your computer. FireWire Target Disk Mode If you want to transfer files between your PowerBook and another FireWire-equipped computer, or you have a problem that prevents your computer from starting up, you can use FireWire Target Disk Mode to connect to another computer.

When you start up your computer in FireWire Target Disk Mode, the other computer can access your PowerBook as if it were a hard disk. Note: When using FireWire Target Disk Mode, it's a good idea to connect your power adapter to the PowerBook. To connect your PowerBook to another computer in FireWire Target Disk Mode: 1 Make sure that your PowerBook is shut down. 2 Use a FireWire cable to connect your PowerBook to another FireWire-equipped computer. You can use a FireWire cable with any combination of 6-pin and 9-pin connectors. 3 Start up your PowerBook and immediately hold down the T key. Your PowerBook display shows the FireWire logo.

The other computer's display shows the PowerBook internal hard disk icon. You can now drag and drop files between the computers. 4 When you are finished transferring files, drag the PowerBook hard disk icon to the Trash. 5 Press the Power button on the PowerBook to shut it down, and then disconnect the FireWire cable. For More Information on FireWire Additional information on FireWire is available in Mac OS Help. Choose Help > Mac Help in the Finder menu bar and search for "FireWire." You can also find information on the Apple FireWire website at www.apple.com/firewire. Chapter 3 Using Your Computer 35 PC Cards You can expand your computer's capabilities using the PC Card slot.

You can connect hard drives, compact Flash card readers, and more. Your PowerBook has one PC Card slot that accepts Type I and Type II PCMCIA cards, including CardBus-format cards. You can insert a PC Card when your computer is on, off, or in sleep. ® PC Card slot Eject button Important: The Apple AirPort Extreme Card is installed in a slot inside the computer. It doesn't go in the PC Card slot the way many third-party wireless cards do. The AirPort Extreme Card will not work if it is installed in the PC Card slot and will cause your computer to function improperly. Inserting and Ejecting a PC Card When inserting a PC Card, make sure the label is facing up and the card is level. You'll feel some resistance as you slide the card in. When the card is firmly seated in the slot, it clicks into place and an icon may appear on the desktop. You can eject a PC Card when your computer is on or off, but not when it is in sleep.

To eject a PC Card: 1 If the computer is turned on, drag the card's icon to the Trash. 2 Push the PC Card Eject button once to release the button. 3 Push the button again to eject the card. 4 Pull the card out of the slot and then push the Eject button again to set it flush against the computer. 36 Chapter 3 Using Your Computer For More Information on PC Cards For information on the PC Cards available for your PowerBook, check out the Macintosh Products Guide at www.apple.com/guide. Using Bluetooth Devices Your PowerBook can connect to and transfer information wirelessly to devices that use Bluetooth® wireless technology, such as cell phones and personal digital assistants (PDAs). Bluetooth wireless technology can help eliminate the need for the cables that traditionally connect devices together. Devices with Bluetooth wireless technology can connect to each other wirelessly within a 10-meter (33-foot) range.

Bluetooth wireless technology devices include: · Computers · Cell phones · Peripherals (keyboard, mouse, and so on) · PDAs With Bluetooth wireless technology, you can do the following: · Use your PowerBook to communicate with a mobile phone equipped with Bluetooth wireless technology. Your phone can act as a modem to connect you to a wireless service provider, at speeds of up to 56 kilobits per second (kbit/s), so you can use your mobile phone to access the Internet. · Communicate with your handheld PDA. Using iSync, you can perform a hot sync operation without cables or send your business card or calendar events directly to a colleague's PDA. · Transfer files between computers, even Mac to PC, using the transfer utility. Apple still recommends the use of AirPort Extreme wireless networking, however, for anything but the smallest files. For More Information on Bluetooth Wireless Technology You can get help using Bluetooth wireless technology by opening the Bluetooth File Exchange application (located in the Utilities folder within the Applications folder) and choosing Help > Bluetooth Help. You can also find information on the Apple website at www.apple.com/bluetooth.

Chapter 3 Using Your Computer 37 AirPort Extreme Wireless Networking and Internet Access Your PowerBook has an AirPort Extreme Card installed. AirPort Extreme offers an easy and affordable way to provide wireless Internet access anywhere in the home, at work, or in the classroom. Instead of using traditional cables, AirPort Extreme uses wireless local area network (LAN) technology to provide wireless communication between multiple computers. Through a wireless network you can set up access to the Internet, transfer files, play multiplayer games, and more. The AirPort Extreme Card is compatible with both the Apple AirPort Extreme Base Station and the original Apple AirPort Base Station and any 802.

11b or 802.11g compliant products. Note: Wireless Internet access requires an AirPort Extreme Card, an 802.11b or 802.11g access point such as an AirPort Extreme Base Station or AirPort Base Station, and Internet access (fees may apply).

Some Internet service providers are not currently compatible with AirPort. Range may vary with site conditions. How AirPort Extreme Provides Wireless Internet Access With AirPort Extreme, you set up a wireless connection to a device known as a base station, which has a physical connection to the Internet. AirPort Extreme technology works like a cordless telephone. The AirPort Extreme Card in the computer makes a wireless connection to the base station, which is connected to the telephone line or a DSL or cable modem. Connection to the Internet AC outlet AirPort Extreme Base Station ® For More Information on AirPort Extreme To purchase an AirPort Extreme Base Station, contact your Apple Authorized Reseller or go to the Apple Store at www.apple.com/store. 38 Chapter 3 Using Your Computer Additional information on AirPort Extreme is available in AirPort Help. Choose Help > Mac Help from the menu bar, then choose Library > AirPort Help from the menu bar.

You can also find information on the Apple AirPort website at www.apple.com/airport or at www.apple.com/support. Ethernet (10/100/1000Base-T) Your computer comes with built-in 10/100/1000 megabit per second (Mbit/s) twistedpair Ethernet networking capability, which you can use to connect to a network, including a Gigabit Ethernet network, or to a cable or DSL modem. ® Connecting to a network gives you access to other computers. You may be able to store and retrieve information; use network printers, modems, and email; or connect to the Internet. You can also use Ethernet to share files between two computers or set up a small network.

The Ethernet port on your PowerBook automatically detects other Ethernet devices.

You don't need an Ethernet crossover cable when connecting to other Ethernet devices. · Use 2-pair category 3 (or higher) Ethernet cables to connect to a 10Base-T Ethernet network. · Use 2-pair category 5 (or higher) Ethernet cables to connect to a 100Base-T Ethernet network. · Use 4-pair category 5 (or higher) Ethernet cables to connect to a 1000Base-T Ethernet network. Chapter 3 Using Your Computer 39 For More Information on Using Ethernet Additional information, including setting up an Ethernet network and transferring files using Ethernet, is available in Mac OS Help.

Choose Help > Mac Help from the menu bar and search for "Ethernet" or "network." For information on networking products you can use with your PowerBook, check the Macintosh Products Guide at www.apple.com/guide. Using Your Modem Your computer comes with an Apple 56K v.

92 modem installed. To connect the modem, plug one end of the phone cord or RJ-11 cable into the modem port on the computer and the other end into a standard RJ-11 telephone wall jack. Make sure you connect to an analog phone line--the kind used typically in homes. The modem will not work with a digital phone line. Warning: Do not connect a digital telephone line to the modem as it could damage the modem. Contact your telephone service provider if you are unsure whether you have a digital telephone line. For information on how to establish an Internet connection, see Appendix C, "Connecting to the Internet," on page 73. More information about the internal modem is also available in Mac OS Help. Connecting Speakers and Audio Devices Your PowerBook comes with two built-in speakers, a built-in microphone, an audio line in port, and a headphone out port. Note: While devices are plugged in, sound won't come through your built-in speakers.

Unplug any headphones or speakers to hear the computer speakers. You can connect external speakers, headphones, and other sound output devices to the headphone out port. The headphone out port is a stereo 3.5 mini-phono jack. You can record sound onto your hard disk using the built-in microphone located under the left speaker grille. You can also connect external microphones or other audio equipment to the audio line in port. The audio line in port is a stereo 3.5 mini-phono jack, which does not provide power to a connected device, so you must use selfpowered peripherals. For applications, such as iMovie, that can record sounds, use the Sound pane of System Preferences to select the audio input device you want to use, including microphones connected via USB. 40 Chapter 3 Using Your Computer The volume controls on your keyboard allow you to easily change volume.

You can also access these controls from the Sound pane of System Preferences. For more information about using or troubleshooting sound on your computer, choose Help > Mac Help from the menu bar and search for "sound." External Video Support (DVI, VGA, and S-Video) Your computer has an external monitor (DVI) port that allows you to directly connect a display or projector with a DVI port. Use the included DVI-to-VGA adapter to connect your PowerBook to monitors and projectors that have VGA connectors. The TV out port (also known as an S-video out port) on your computer lets you connect to a television, videocassette recorder (VCR), or video projection system using an S-video cable.

You can use TV out to display images on a television, record computer images on a VCR, or play DVD-Video discs on your television. If the device you want to connect has a composite port rather than an S-video port, you can use the S-video-to-composite adapter that came with your PowerBook. DVI port ® S-video out port When an external monitor or television is connected, you can either have the same image appear on both the internal display and the external monitor (known as videomirroring) or use the external monitor to extend the size of the Mac OS desktop (known as dual-display mode). By default, your PowerBook starts up in dual-display mode. Press the F7 ( ) key to switch between dual-display and video-mirroring modes.

Chapter 3 Using Your Computer 41 If you want sound to come from the external display, such as a projector or TV, you need to connect an audio cable from the computer's headphone out port to that device. Note: Because of the display limitations of most televisions, images displayed on the television screen will be of lower quality than those on the built-in display or an external monitor. Connecting an External Display or Projector To connect an external display or projector with a DVI connection to your computer: 1 Turn on the external display or projector. 2 Make sure the display cable is connected to the external projector or display. 3 Connect the display cable to your PowerBook. Your PowerBook automatically detects the external display. 4 Adjust the resolution on the external display by using the Displays pane of System Preferences or the Displays icon in the menu bar. To connect an external display or projector with a VGA connection to your computer: 1 Turn on the external display or projector. 2 Make sure the display cable is connected to the external projector or display. 3 Connect the DVI-to-VGA adapter that came with your PowerBook to the VGA connector of the external display or projector.

4 Connect the DVI-to-VGA adapter to your PowerBook. Your PowerBook automatically detects the external display. Important: To ensure that your PowerBook automatically detects the external display or projector, be sure the DVI-to-VGA adapter is plugged into the external display or projector first. 5 Adjust the resolution on the external display by using the Displays pane of System Preferences or the Displays icon in the menu bar. Using Your PowerBook With the Display Closed You can use your PowerBook with the display closed if the computer is connected to an external monitor, keyboard, and mouse, and the power adapter is plugged into the PowerBook and an outlet. Important: To use your PowerBook with the display closed, the power adapter must be plugged into the PowerBook and an outlet. To operate your computer with an external monitor attached and the display closed: 1 Connect a USB keyboard and mouse to your PowerBook. 42 Chapter 3 Using Your Computer 2 Connect the power adapter to the PowerBook and an outlet. 3 Close the PowerBook display to put the computer to sleep. 4 Follow the steps in the previous section to connect your PowerBook to an external display.

5 Wait a few seconds and then press any key on the external keyboard to wake the PowerBook. Connecting a Television, VCR, or Other Video Device To connect a TV, VCR, or other video device to the PowerBook: 1 Connect an S-video cable to the TV out (Æ) port on your PowerBook (or use the S-video-to-composite adapter to connect a composite video cable) and connect the other end to your device.

2 If you want to send the sound from your PowerBook to the device, connect a miniplugto-RCA cable (not included) from the headphone out (f) port on your PowerBook to the audio input ports on your device. 3 Turn on the external device. 4 To detect the TV or other external device, hold down the Command (x) key and press the F2 key.

5 To adjust how the images are displayed on the device, use the Displays pane of System Preferences. Connecting an Apple Flat-Panel Display You can connect your PowerBook to an Apple flat-panel display using a DVI-to-ADC adapter, available from your Apple Authorized Reseller, an Apple retail store, or the Apple Store at www.apple.com/store. For More Information on Using an External Monitor or TV Additional information on using and configuring an external monitor is available in Mac OS Help.

Choose Help > Mac Help from the menu bar and search for "monitor." Using Your Optical Drive You can install or use software from CDs or DVDs using your optical drive. You can play multimedia on CD discs and music from audio CDs. Your optical drive can write music, documents, and other digital files onto CD-R and CD-RW discs. You can also play DVD movies and use most DVD discs. If you have a SuperDrive, you can also record information on blank DVD-R discs. Important: The optical drive on your PowerBook supports standard circular 12 cm discs. Irregularly shaped discs or discs smaller than 12 cm are not supported. Noncircular discs may become lodged in the drive. Chapter 3 Using Your Computer 43 Inserting a CD or DVD Disc To install or use programs from a CD or DVD disc: 1 With the computer turned on, insert the disc (with the label facing up) into the drive slot until you feel the drive catch the disc and take it the rest of the way in.

The disc may need to be inserted nearly all the way in before the drive takes it in the rest of the way. This is normal. Note: Some DVD discs are two-sided. To use the second side, you need to flip the disk over. ® 2 When the icon for the disc appears on the desktop, the disc is ready to use. 44 Chapter 3 Using Your Computer Ejecting a Disc To eject a disc, do one of the following: · Drag the disc icon to the Trash. · Press and hold the Media Eject ( ) key on the keyboard until the disc ejects. Allow the disc to fully eject before removing or reinserting it. If you can't eject the disc, quit any applications that may be using the disc and try again. If that doesn't work, restart the computer while holding down the trackpad button.

Playing DVD Discs To play a DVD-Video disc on your PowerBook, insert the DVD disc. DVD Player opens automatically. You'll find DVD Player provides easy-to-use controls for starting, stopping, and viewing DVDs. If your PowerBook is connected to a TV so that you can watch a DVD-Video on the TV screen, select 720 x 480 NTSC (in the United States) or 720 x 576 PAL (in Europe and other regions) in the Displays pane of System Preferences. You can easily connect your PowerBook to your stereo system.

Use a miniplug-to-RCA cable (not included) to connect the headphone out (f) port on your PowerBook to the audio input ports on your stereo. Recording CD-R and CD-RW Discs You can record data on CD-R and CD-RW discs. To record data on a CD-R or CD-RW disc: 1 Insert a blank disc into the optical drive. 2 In the dialog that appears, enter a name for the disc. An icon for the disc appears on the desktop.

3 Drag files and folders to the disc icon. 4 Click the Burn Disc icon beside the disc name in the Finder Sidebar. You can also record music on CD-R or CD-RW discs right from your iTunes library. Chapter 3 Using Your Computer 45 To record music from your iTunes library: 1 Click the iTunes icon in the Dock. 2 Select the playlist you want to record. 3 Insert a blank CD-R or CD-RW disc. 4 At the top of the iTunes window, click Burn CD. For More Information · For information about how to use iTunes to record music files on a CD-R or CD-RW disc, open iTunes and see the onscreen Help. · For instructions on using DVD Player, open DVD Player and choose Help > DVD Player Help from the menu bar at the top of the display. Recording Information on a DVD If you have a SuperDrive, you can record your own digital movies on a blank recordable DVD disc.

You can also record other kinds of digital data, such as backing up files onto a recordable DVD disc. With applications like iDVD, you can create your own customized digital media project, burn it on a blank recordable disc, and play it on most standard DVD players. To burn an iDVD project onto a blank DVD-R disc: 1 Open iDVD and open your completed iDVD project. 2 Click the Burn button. 3 Insert a blank recordable DVD disc into the drive when prompted. 4 Click the Burn button again. To record data on DVD-R discs: 1 Insert a blank recordable DVD disc into the drive. 2 In the dialog that appears, enter a name for the disc and select the format you want to create. An icon for the DVD appears on the desktop. 3 Double-click the DVD icon, then drag files and folders to it.

4 Click the Burn Disc icon beside the disc name in the Finder Sidebar. For more information about how to use iDVD, open iDVD and see the onscreen help. Important: If your battery runs down when you are burning a DVD, the burn may fail and the DVD disc will not be able to be used again. To avoid this, always use your power adapter when burning a DVD. 46 Chapter 3 Using Your Computer Battery When the external power adapter is not connected, your computer draws power from its battery.

Depending on the applications you use and external devices connected to your PowerBook, you may find that the length of time that you can run your PowerBook off one battery charge varies. Turning off certain features such as AirPort Extreme or Bluetooth® wireless technology can help to conserve battery charge. For more information about using your battery, see "Battery-Conservation Tips" on page 49. You can determine the charge left in your battery by looking at the battery level indicator lights on the battery itself. Press the button next to the lights and the lights glow to show how much charge is left in the battery.

The indicator lights remain lit for a few seconds after you press the button. You can check the charge with the battery in or out of your PowerBook. If your battery runs low while you are working, you can put your PowerBook to sleep and replace the battery with a charged one. The internal backup battery provides enough power to maintain the contents of RAM for up to three minutes while you change the battery. Note: If you have installed additional memory in your PowerBook, the backup battery may provide power for less than three minutes. Also, changing batteries several times in a short period can shorten the length of time the backup battery can maintain data if the backup battery hasn't had time to fully recharge. Important: If only one flashing light is on, very little charge is left.

If no lights are visible, the battery is completely drained and the computer will not start up unless the power adapter is connected. Plug in the power adapter to let the battery recharge, or replace the drained battery with a fully charged battery (see page 48). Battery LEDs Battery Chapter 3 Using Your Computer 47 If the battery icon in the Finder menu bar is set to show the percentage of charge, you may sometimes notice that the battery does not maintain a full charge of 100% when the power adapter is attached.

When the battery level eventually drops below 95 percent, it will charge all the way to 100 percent. This saves battery life as charging is not continuously cycled on and off. Removing and Replacing the Battery To remove the battery: · Shut down your PowerBook. Turn it over and locate the battery latch. Use a coin to turn the latch one quarter turn clockwise to unlock the battery, and gently remove it. Latch To replace the battery: · Place the right side of the battery into the battery compartment. Gently press the left side of the battery down until the battery latch locks into place. 48 Chapter 3 Using Your Computer Note: Dispose of batteries according to your local environmental laws and guidelines. For more information, see "Battery Disposal Information" on page 96. Charging a Battery When the power adapter that came with your computer is connected, the battery recharges whether the computer is off, on, or in sleep. However, the battery recharges more quickly if the computer is off or in sleep. You can monitor the battery charge level using the Battery status icon in the menu bar. The battery charge level displayed is based on the amount of power left in the battery with the applications, peripheral devices, and system settings (display brightness, Energy Saver settings, and so on) you are currently using. To make more battery power available, close applications and disconnect peripheral devices not in use, and adjust your Energy Saver settings (see the next section). Battery-Conservation Tips The amount of work time your PowerBook battery can provide before you need to recharge depends on the applications and peripheral devices you're currently using and the steps you take to conserve power while you work.

For the best conservation of battery power, do the following: · Disconnect bus-powered USB or FireWire devices when they are not in use. · If you have an AirPort Extreme Card installed, turn AirPort off when not in use (use the AirPort status icon in the menu bar). · Turn off your Bluetooth wireless module when not in use. · Quit open applications that you are not using. · Remove CD and DVD discs when they are not in use.
· Reduce screen brightness using the brightness controls on the PowerBook keyboard. · Set the hard disk to spin down after a short time. In the Energy Saver pane of System Preferences, select the "Put the hard disk to sleep when possible" option. · Set your PowerBook to sleep after inactivity of five minutes or less. Chapter 3 Using Your Computer 49 To further save battery power, select the following options in the Energy Saver pane of System Preferences: · Set your computer to modify its processor speed based upon the required amount of processing activity. You can set your PowerBook to automatically reduce its processing speed during periods of light processing activity, thus reducing power usage. During periods of high processing activity, your computer will automatically switch to a higher processing speed. @@@@@@@@@@@@@@@@@@@@@@@Disconnect the power adapter, phone cord, and any other cables connected to the computer. @@@@@4 If you already have a memory card installed in the slot, remove it. Spread the tabs in the slot away from the notches in the memory card.

@@@@If the memory card does not latch, do not force the card down. @@@@Place the left side of the battery into the battery compartment. @@To check the computer's memory: 1 Start up your computer. @@@@@@@@@Be aware of the conditions that led up to the problem.
@@@@@@@@@@@@@@@@@If the problem occurs frequently, choose Help > Mac Help from the menu bar at the top of the screen. Search for the word "freeze" to see help for instances when the computer freezes or doesn't respond. If the problem occurs only when you use a particular program, check with the program's manufacturer to see if it is compatible with your computer. If you know an application is compatible, you may need to reinstall your computer's system software or, if you're using Classic, you may need to check for incompatible system extensions. See the next topic for instructions. If the computer freezes during startup or you see a flashing question mark Try using Disk Utility to repair your hard disk.
1 Insert the first software install and restore disc into your computer. Then restart your computer and hold down the C key as it starts up. 2 Choose Installer > Open Disk Utility. When Disk Utility opens, follow the instructions in the First Aid pane to see if the utility can repair your disk. If using Disk Utility doesn't work, you may need to reinstall your computer's system software.
For instructions, see page 63. If you are using the Classic environment in Mac OS X, you might have an incompatible extension. (Mac OS X does not use system extensions.) Try turning off your system extensions to see if that solves the problem. To turn off extensions in Classic, open System Preferences, click Classic, click the Advanced tab, and choose Turn Off Extensions from the pop-up menu.
Click Restart Classic. If turning off extensions appears to solve the problem, you may need to identify and eliminate or reinstall the extension that is causing the problem. Open the Extensions Manager control panel and turn off the extensions you suspect are causing the problem. Then restart Classic with the extensions turned on again. 60 Chapter 5 Troubleshooting If the computer won't turn on or start up · Make sure the power adapter is plugged into the computer and into a functioning power outlet. Be sure to use the power adapter that came with your computer. · Check if your battery needs to be recharged. Press the small button on the battery. You should see one to four lights indicating the battery's level of charge. If only one battery level indicator light is flashing, allow the power adapter to charge the battery until at least one indicator light is glowing continuously.

· If that does not work, press the Power button (®) and immediately hold down the Command (x), Option, P, and R keys until you hear the startup sound a second time. · If you recently installed additional memory, make sure that it is correctly installed and that it is compatible with your computer. See whether removing it allows the computer to start up (see page 53). · If you are still unable to start up your computer, see the service and support information that came with your PowerBook for information on contacting Apple for service.