Congratulations on purchasing your Macintosh computer. Since you chose the components of your computer, parts of it may differ from what's described in the manual that came with it. This update addresses the differences and also includes information on additional components not covered in the manual.

## **10/100Base-T Network Connection**

If your computer came with the 10/100Base-T Ethernet option, a 10/100Base-T Ethernet card is installed in one of your computer's PCI slots. You can connect a cable for a 10Base-T or a 100Base-T Ethernet network to this card.



*Note:* The type of twisted-pair cable you use depends on whether you connect to 10Base-T or 100Base-T Ethernet. Category 5 twisted-pair cable must be used to connect to 100Base-T if you want to get the maximum speed from this connection.

#### Checking the Status of a 10/100Base-T Network Connection

If you connect your computer to a network using the 10/100Base-T Ethernet card, you can check the card's LED indicators to monitor network activity. There are four indicators:

- ACT (Activity): Blinks when the 10/100Base-T Ethernet card is active
- *COL (Collision):* Glows when a network collision has occurred (a temporary condition that occurs when two computers on a network try to send data simultaneously)
- *LNK (Link):* Glows when a reliable 10 megabit (Mbit) or 100 Mbit network connection has been established
- 100Mb: Glows when a reliable 100 Mbit link is established

#### **10/100Base-T Ethernet Card Specifications**

- Open Transport: Mac OS 7.5.2 or later, AppleShare, AppleTalk, NetWare for Macintosh, TCP/IP
- Connector: RJ-45 (for 10Base-T and 100Base-T)
- Media, 10Base-T: Cat 3, 4, or 5 UTP on 2 pairs up to 100 meters (m)
- Media, 100Base-T: Cat 5 UTP on 2 pairs up to 100 m
- Bus interface: PCI revision 2.0 and 2.1, share interrupt A
- Channel speeds: IEEE Auto Negotiation of 10Base-T and 100Base-T
- Communications: IEEE 802.3u 100Base-T; IEEE 802.3i 10Base-T
- Controllers: DECchip 21140, 32-bit internal processor per channel
- Power: 1.2 amperes (A) @ 5 volts (V) typical

# **Ultra Wide SCSI Hard Disk Drive and PCI Card**

If your computer came with an Ultra Wide SCSI hard disk drive, it includes some or all of the following components:

- an internal Ultra Wide SCSI hard disk drive
- in certain configurations, additional internal Ultra Wide SCSI hard disk drives
- an Ultra Wide SCSI card in one of your computer's PCI slots
- an internal Ultra Wide SCSI cable that supports up to three internal devices (including your pre-installed Ultra Wide hard disks)

**Warning** Do not connect any SCSI devices to the external 68-pin SCSI-3 connector or to the internal 50-pin SCSI-2 connector on the PCI card that supports the internal hard disk. Connecting even one external SCSI device to the external 68-pin connector extends the overall cable length of the SCSI bus beyond the limit for which error-free operation can be guaranteed; the combined length of the internal cable and the external cable reduces the reliability of all the devices connected to the Ultra Wide SCSI bus. Connecting a device to the internal 50-pin SCSI-2 connector will cause your Ultra Wide SCSI devices to transfer data at the slower, SCSI-2 rate.

#### **About the Ultra Wide SCSI Bus**

Up to three internal devices can be connected to the Ultra Wide SCSI bus on this card.

All devices on the same SCSI bus must have unique ID numbers, but devices on different SCSI buses may use the same SCSI ID number. (For example, you could have a removable media drive with ID number 3 connected to the computer's built-in regular SCSI-1 bus and a hard disk with ID number 3 connected to the Ultra Wide SCSI-3 bus.)

The hard disks installed in your computer at the factory and the SCSI card have reserved certain SCSI ID numbers on the Ultra Wide SCSI bus. Other ID numbers are available for assignment to SCSI devices that are added later, as described in the following table.

Ultra Wide SCSI ID Number	Device
0	Factory-installed hard disk drive (terminated)
1 through 6	Available <sup>1</sup>
7	SCSI PCI card (terminated)
8 through 15	Available

<sup>1</sup> If your computer came with two or more Ultra Wide SCSI hard disk drives, use the System Profiler program (available in the Apple menu) to find out the SCSI ID numbers of your drives.

**Important** The factory-installed internal hard disk and the SCSI card are both terminated. Other SCSI devices that you install and connect to the Ultra Wide SCSI bus must not be terminated. If you attach a terminated device to the internal SCSI interface, the computer will malfunction.

You use the internal ribbon cable with the 68-pin connector to connect an internal SCSI device to the Ultra Wide SCSI bus.



68-pin connector

### **Ultra Wide SCSI Card Specifications**

- Automatic termination
- Advanced Data Streaming Technology (ADS)
- RAID-ready
- Embedded RISC I/P processor
- Ultra SCSI connector: Fine pitch 68-pin "P"
- Flash ROM BIOS
- PCI 2.1 compliant

- Large command FIFO
- Supports disconnect/reconnect
- Asynchronous I/O support
- Multiple initiator support
- SCSI-3 tagged command queuing
- SCSI Manager 4.3 compatible

## **RAID Disk Volume Management Software**

Certain Power Macintosh G3 configurations are supplied with RAID disk volume management software. This software enables your hard disk drives to be striped or mirrored.

The *Power Macintosh G3 RAID Software* CD can be used as a startup disk. You can restart from it and use the RAID application to initialize and stripe or mirror your hard disks. You can also use the RAID Installer to place a copy of the RAID application on one of your hard disks.

To restart your computer from the *Power Macintosh G3 RAID Software* CD, insert the CD and hold down the C key while you restart.

Refer to the documentation supplied on the *Power Macintosh G3 RAID Software* CD for full instructions on how to set up and maintain RAID volumes.

#### **Using Disk Utilities and Formats With RAID**

**Important** Drive Setup, the disk utility from Apple Computer, should not be used with RAID volumes. You must manage your RAID volumes using the RAID application.

To set up your RAID volumes to take advantage of Mac OS Extended (HFS Plus) format:

- 1 Create and set up your RAID volumes using the RAID application.
- 2 Quit the RAID application and return to the Finder.
- **3** Select the new RAID volume and choose Erase Disk from the Special menu to reformat the volume in Extended format.

**Warning** This process will erase all the data on your RAID volume. Be sure you back up your files before reformatting RAID volumes.

## **128-Bit 2D/3D Graphics Accelerator Card**

If your computer came with an additional graphics card, you have the following options for connecting an external monitor to your computer:

- Connect an external monitor to the built-in monitor port (shown in the manual that came with your computer)
- Connect an external monitor to the graphics card installed in one of the PCI slots
  There are two ports on the optional graphics card. One is the type found on the back of most
  Macintosh computers; the other is a VGA port so you don't need an adapter for a VGA monitor.

*Note:* You cannot use both ports on the optional graphics card at the same time.

Connect two external monitors to your computer

You can connect one monitor to the built-in monitor port and the other monitor to one of the ports on the graphics card, which is installed in one of the PCI slots.



**Important** To capture video using the video input ports on the optional Power Macintosh Audio/Video card, a monitor needs to be connected to the built-in monitor port. If you have only one monitor connected to the optional 128-bit 2D/3D graphics accelerator card, you will not be able to capture video. If you want to capture video, switch your monitor to the built-in monitor port or connect a second monitor. When performing video capture with two monitors connected to your Power Macintosh, make sure that the video capture window is displayed on the monitor that is connected to the built-in monitor port.

#### **Display Modes and Color Depths**

Resolution <sup>1</sup>	Color Depths	Vertical Refresh Rate (Hertz)
512 x 384	256, thousands, millions	60
640 x 480	256, thousands, millions	60, 67, 75, 85, 120
640 x 870	256, thousands, millions	75
800 x 600	256, thousands, millions	60, 72, 75, 85
832 x 624	256, thousands, millions	75
1024 x 768	256, thousands, millions	60, 70, 75, 85
1152 x 870	256, thousands, millions	75
1280 x 960	256, thousands, millions	60, 75, 85
1280 x 1024	256, thousands, millions	60, 75, 85
1600 x 1024	256, thousands, millions	76
1600 x 1200	256, thousands, millions	60, 65, 70, 75, 85
1920 x 1080	256, thousands, millions	60, 72
1920 x 1200	256, thousands	76

<sup>1</sup> The resolutions that appear in the Monitors & Sound control panel are dependent upon the type of monitor you are using.

# **Graphics Card Specifications**

- 260 megabytes (MB) per second sustained image scroll rate
- 4.2 gigabytes (GB) per second sustained color fill rate
- Up to 1.2 million Gouraud shaded polygons per second
- 240 megahertz (MHz) RAM digital-to-analog converter (RAMDAC)
- 8 MB VRAM (*Note:* Additional VRAM cannot be added.)
- Supports QuickDraw 3D
- QuickTime video playback (video scaling and color space conversion handled in software)

# Video Memory (SGRAM)

The manual *Setting Up Your Power Macintosh* and the *Technical Information* booklet state that your computer only has 2 MB of video memory built into the computer's main logic board and that you can add video memory by installing a Small Outline (SO) Dual Inline Memory Module (DIMM) in a slot on the logic board. However, if your computer came with 6 MB of video memory, a 4 MB SO-DIMM has already been installed in the expansion slot on the logic board. You will not be able to add any more video memory.

## **Apple FireWire Card**

The optional Apple FireWire Card is designed to work with digital video camcorders and decks that use the DV format and have a FireWire port (sometimes marked IEEE 1394 or DV IN/OUT). The included hardware and software, together with a nonlinear editing application, allow you to capture DV movie clips to your hard disk. You can view the clips in MoviePlayer or other QuickTime 3.0 applications, and edit and render the DV movies. If you are using a video editing application with an export function, you can send (print or record) movies back to the tape in your camcorder or deck. The software also allows the FireWire device to be controlled from the computer.

#### **The FireWire Bus**

FireWire is a serial bus that can support high-performance devices, such as DV cameras and printers. Devices can be connected in any combination of branching and chaining, as long as no loops are formed. A FireWire bus can support up to 16 consecutive cable hops of 4.5 meters each. There are no SCSI-style ID numbers to set and no termination requirements.

The Apple FireWire Card is designed to keep the network alive even if the Macintosh is shut down. Loss of power to the Macintosh will not affect the operation of a FireWire card as long as it can draw power from other cards on the bus.

Each card provides power which is available to other devices on the network. This means that a system shutdown will not result in interrupted transmission over a FireWire network.

**Important** For more information about cable management and power issues, please refer to the FireWire ReadMe file on the *Apple FireWire Card* CD.

## **Apple FireWire Hardware**

If you ordered the Apple FireWire Card with your computer, you have received the following items:

- the Apple FireWire Card, installed in one of your computer's PCI slots
- a FireWire cable, 4-pin to 6-pin, 2 meters long
- a FireWire software installation CD

Your Apple FireWire Card has three FireWire ports, as shown in the following illustration.



To connect your Macintosh to a DV camera, plug the 6-pin connector into the Apple FireWire Card and the 4-pin connector into the camera's DV port. Both of these connectors snap into place when properly engaged. If you want to connect two computers together (or if your device has a 6-pin FireWire port), you can obtain cables through an AV equipment retailer or electronics store.



4-pin 1394 (FireWire) connector 6-pin 1394 (FireWire) connector

## **Apple FireWire Card Software**

To install the Apple FireWire Card software:

- **1** Insert the *Apple FireWire Card* CD.
- **2** Double-click the Installer icon.
- **3** Follow the onscreen instructions.
- **4** Restart your computer.

**Important** An extension called FireWire Support may be located in a folder titled FireWire in the Apple Extras folder on your Macintosh. Do not move this older extension to your Extensions folder, as it may interfere with the operation of the new Apple FireWire software.

#### **DVD-ROM Drive**

If you chose the DVD-ROM option for your computer, you have a DVD-ROM drive in place of the CD-ROM drive. This type of drive is used in the same way as a CD-ROM drive, but allows you to use a wider range of disc formats:

- DVD-ROM
- CD-ROM (Modes 1 and 2)
- CD-ROM XA (Mode 2, Forms 1 and 2)
- CD-I (Mode 2, Forms 1 and 2)
- CD-Audio
- Photo CD
- Video CD

Disc speeds and capacities vary depending upon the type of disc used.

*Note:* This DVD-ROM drive supports the use of DVD movie titles. However, third-party MPEG-2 hardware is required for actual playback.

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