

AccessionIndex: TCD-SCSS-T.20170830.002

Accession Date: 30-Aug-2017

Accession By: Dr.Mike Brady

Object name: Apple Macintosh Powerbook G3 Model M4573

Vintage: c.1998

Synopsis: Apple portable complete with carrying case, accessories and documentation, S/N: CK82747HD3D.

Description:

This item is a late-1990s 2nd generation Apple Macintosh PowerBook G3 Series computer, complete with the standard carrying case and accessories and documentation supplied by Apple.

It is a not yet known which Apple specification the M4573 in this collection conforms to, although it must be of the codename *Wallstreet-I* design introduced in May-1998.

The M4573 was available with a 233, 250 or 292 MHz PowerPC G3 CPU. The faster CPU options included a 1MB L2 cache. It had 16MB, 32MB or 64MB of SDRAM plus a user expansion 144pin DIMM slot for an extra 16, 32, 64 or 128MB. It also an ATI Rage LT graphics unit with either a 12.1" dual-scan LCD display with 800×600 pixel resolution refreshed from 2MB of SGRAM, or a 13.3" or 14.1" active-matrix TFT display with 1024×768 pixel resolution refreshed from 4MB of SGRAM. It had at minimum a 2GB hard drive.

For input/output the M4573 had two optional PCMCIA/Cardbus type I or II slots (in the M4573 in this collection an as yet unidentified PCMCIA card is installed). It also had an optional 56kbps modem and two optional expansion drive slots to take a 20x CDROM drive and/or a 1.44MB floppy disk drive. It had 16-bit stereo sound with two built-in stereo speakers. It also had ports for SCSI (HDI-30), 10Mbps Ethernet, Apple ADB, RS-232C, VGA and S-Video, audio and IrDA infrared. It has a 49Whr lithium-ion battery.

This M4573 was one of those given in 1998 to Royal College of Surgeons students on entry. It was shipped with Mac OS B1-8.1, and now runs Mac OS 9.2.1. *Wallstreet-I* designs supported up to Mac OS X v10.4.

Many thanks to Mike Brady for donating this item.

The homepage for this catalog is at: <https://www.scss.tcd.ie/SCSSTreasuresCatalog/>
 Click '*Accession Index*' (1st column listed) for related folder, or '*About*' for further guidance.
 Some of the items below are more properly part of the other categories of this catalog, but are listed here for convenience.

Accession Index	Object with Identification
TCD-SCSS-T.20170830.002.01	Apple Macintosh Powerbook G3, Model M4573, Apple Computer Inc, 1998 S/N: CK82747HD3D
TCD-SCSS-T.20170830.002.02	Apple Macintosh PowerBook 45W AC Adapter, Model M5159 (ADP-45LB A), Apple Computer Inc, 1998. S/N: R4189006887T
TCD-SCSS-T.20170830.002.03	Apple Macintosh Powerbook G3 Series Floppy Drive Expansion Module, Apple Computer Inc, 1998 Part No: 825-4156A
TCD-SCSS-T.20170830.002.04	RS-232C adapter. S/N:
TCD-SCSS-T.20170830.002.05	Global Village Fax/Modem Software Version 3.0 for Macintosh, Installation (floppy) Disk 1 of 2, Boca Research Inc, 1999. SWID: 139-BE7
TCD-SCSS-T.20170830.002.06	Global Village Fax/Modem Software Version 3.0 for Macintosh, Installation (floppy) Disk 2 of 2, Boca Research Inc, 1999. SWID: 139-BF7
TCD-SCSS-T.20170830.002.07	Apple Macintosh Powerbook G3 Carrying Case S/N:
TCD-SCSS-T.20170830.002.08	Macintosh PowerBook User's Manual, Apple Computer Inc, 1998 P/N: Z034-0645-A
TCD-SCSS-T.20170830.002.09	Technical Information, Specifications for Macintosh PowerBook G3 Series computers, Apple Computer Inc, 1998 P/N:
TCD-SCSS-T.20170830.002.10	56K PC Card User's Guide (for Macintosh), Global Village Communication, Boca Research Inc, Sunnyvale California 94089, 1998. P/N: 9411
TCD-SCSS-T.20170830.002.11	Emergency Handbook (for Mac OS 8.1), Apple Computer Inc, 1998 S/N: Z034-0607-A

References:

1. Wikipedia, *PowerBook G3*, see:
https://en.wikipedia.org/wiki/PowerBook_G3_series
Last browsed to on 30-Aug-2017.
2. Wikipedia, *Timeline of Macintosh models*, see:
https://en.wikipedia.org/wiki/Timeline_of_Macintosh_models
Last browsed to on 30-Aug-2017.



Figure 1: Apple Powerbook G3 Model M4573 in carrying case three-quarter view

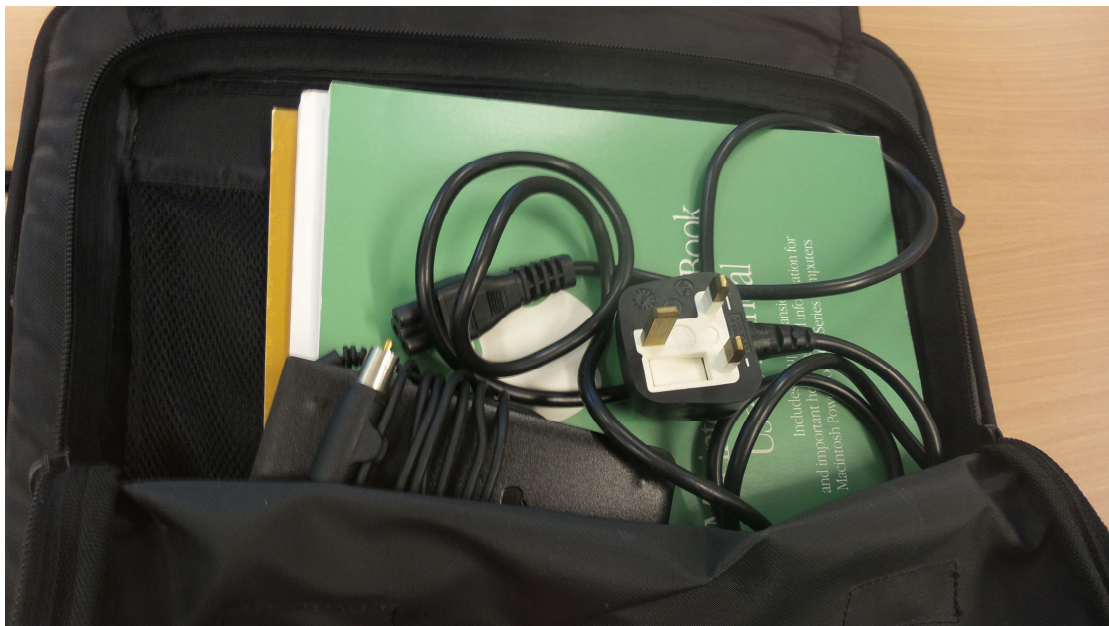


Figure 2: Apple Powerbook G3 Model M4573 carrying case front pocket opened



Figure 3: Apple Powerbook G3 Model M4573 carrying case opened



Figure 4: Apple Powerbook G3 Model M4573 left three-quarter view, closed



Figure 5: Apple Powerbook G3 Model M4573 left three-quarter view, open



Figure 6: Apple Powerbook G3 Model M4573 keyboard

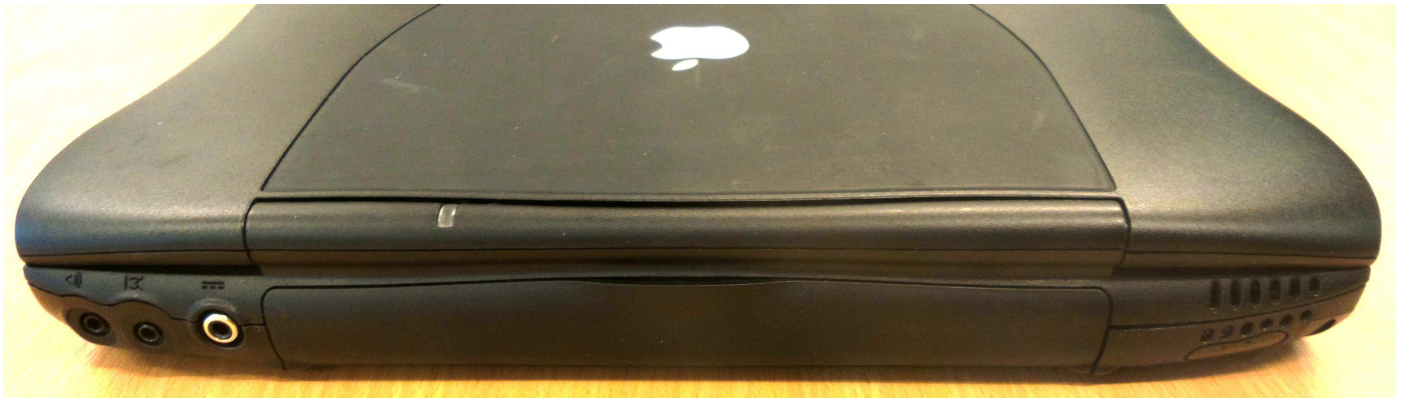


Figure 7: Apple Powerbook G3 Model M4573



Figure 8: Apple Powerbook G3 Model M4573

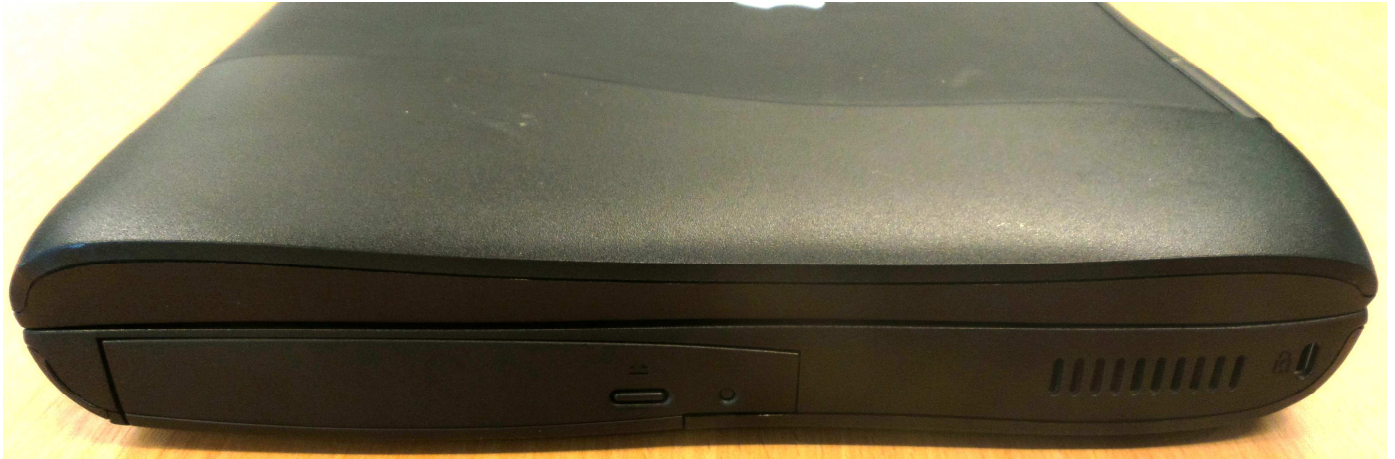


Figure 9: Apple Powerbook G3 Model M4573



Figure 10: Apple Powerbook G3 Model M4573

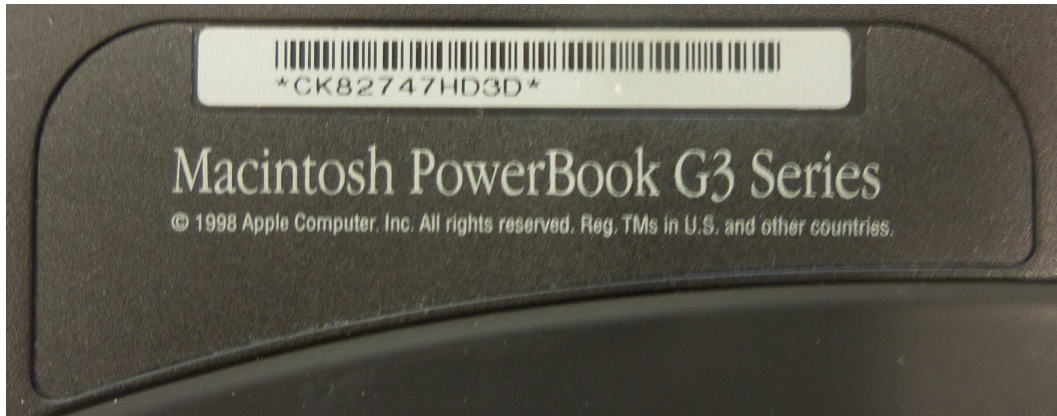


Figure 11: Apple Powerbook G3 Model M4573

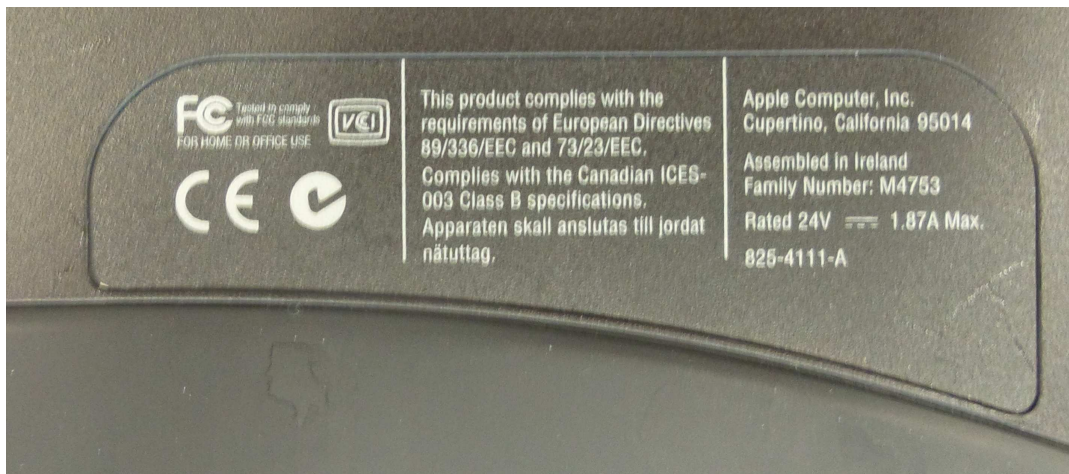


Figure 12: Apple Powerbook G3 Model M4573



Figure 13: Apple Powerbook G3 Model M4573



Figure 14: Apple Powerbook G3 Model M4573

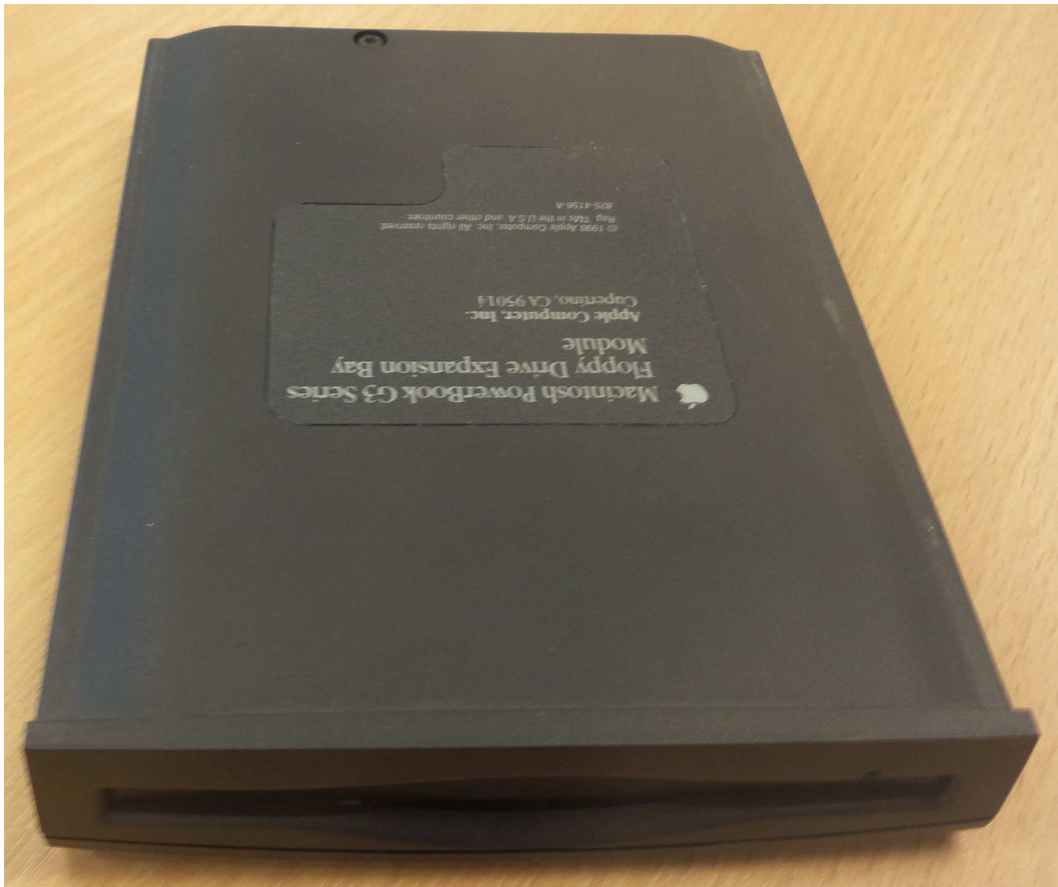


Figure 15: Apple Powerbook G3 Model M4573

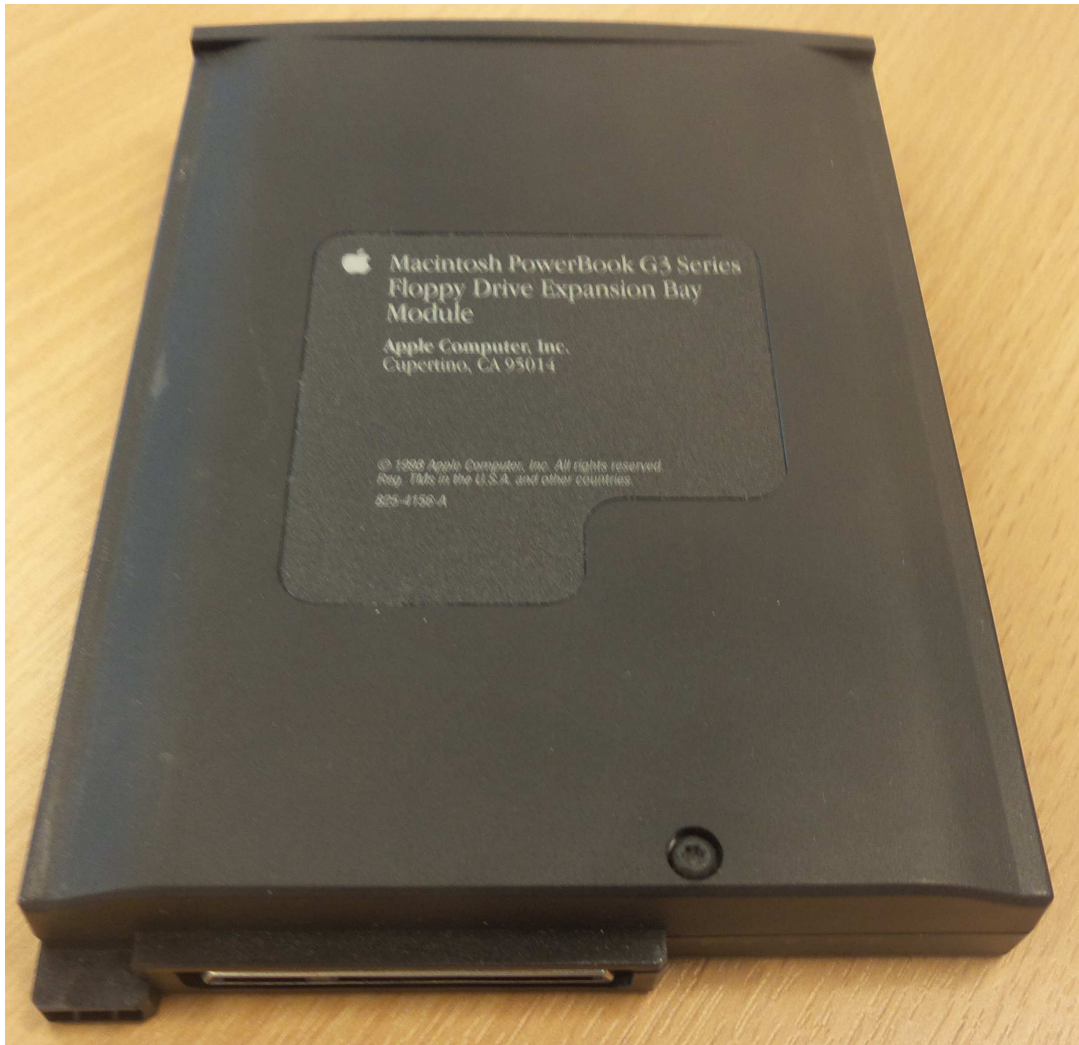


Figure 16: Apple Powerbook G3 Model M4573



Figure 17: Apple Powerbook G3 Model M4573



Figure 18: Apple Powerbook G3 Model M4573



Figure 19: Apple Powerbook G3 Model M4573

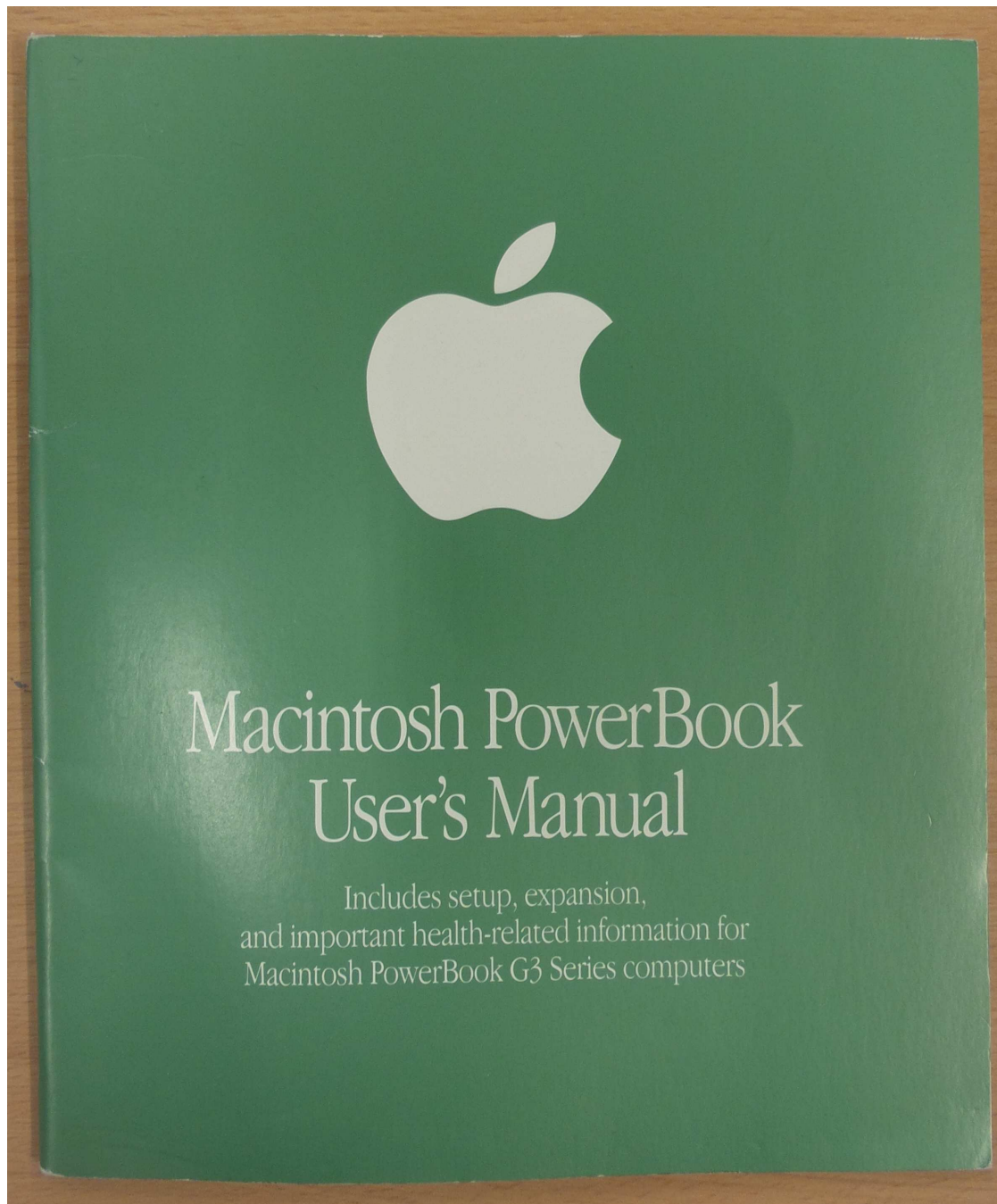


Figure 20: Apple Powerbook G3 Model M4573

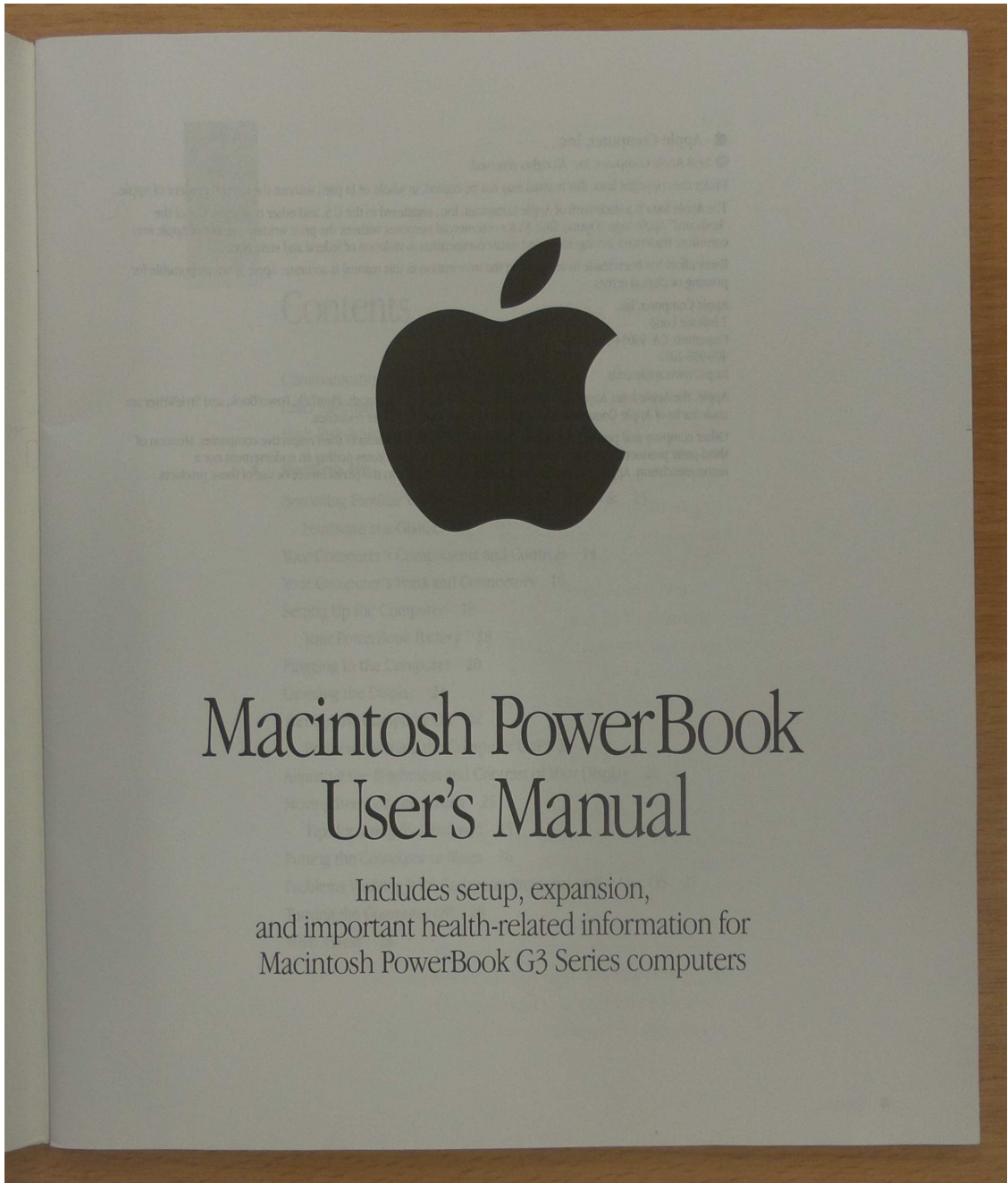


Figure 21: Apple Powerbook G3 Model M4573

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Macintosh PowerBook
User's Manual
includes setup, expansion
and important hardware information for
Macintosh PowerBook G3 Series computers

Figure 22: Apple Powerbook G3 Model M4573

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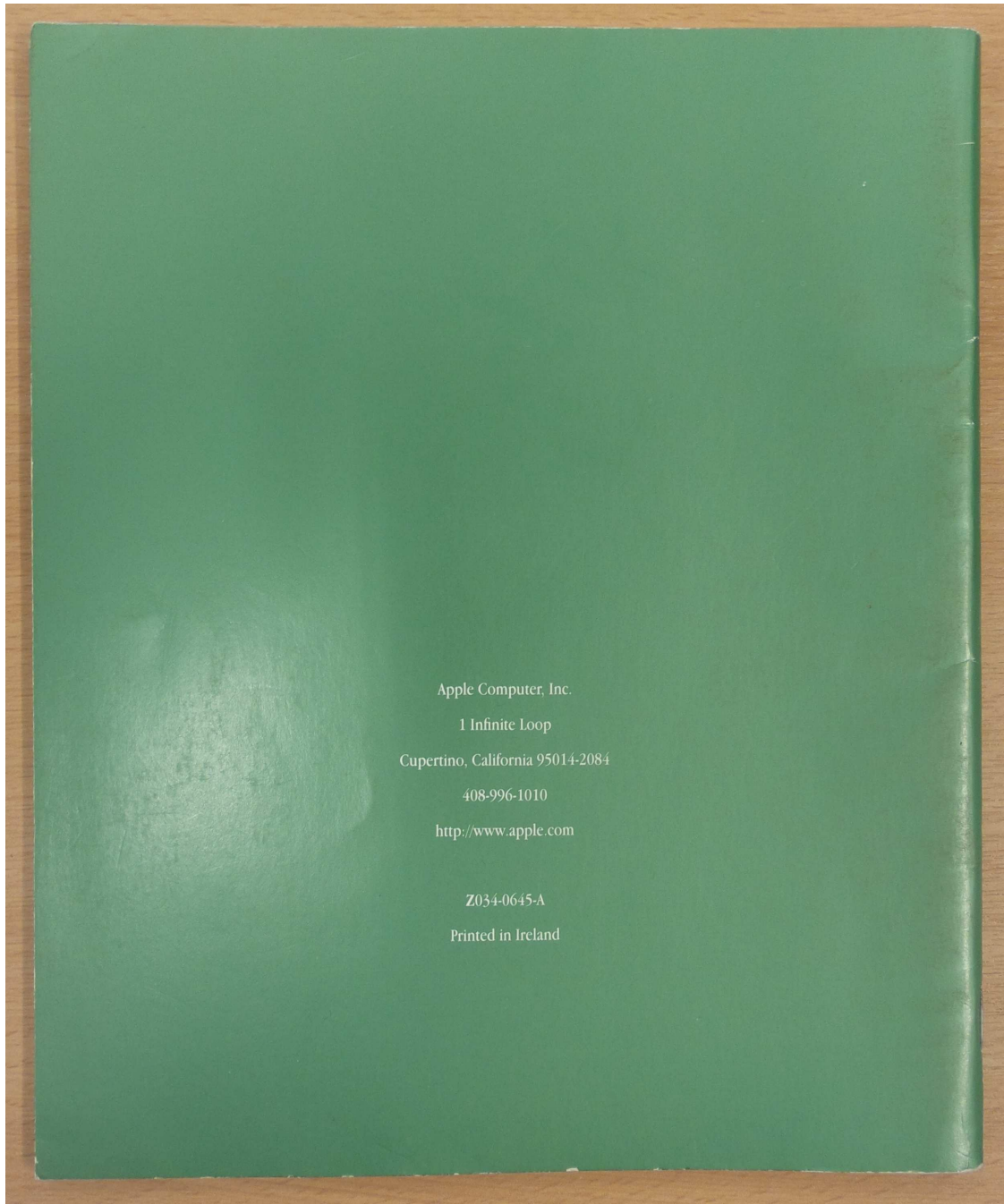


Figure 27: Apple Powerbook G3 Model M4573



Technical Information

Specifications for
Macintosh PowerBook G3 Series computers

Figure 28: Apple Powerbook G3 Model M4573

Processor

PowerPC G3 processor at one of the following speeds:

Processor Speed	System Bus Speed	Level 2 (L2) Backside Cache
233 megahertz (MHz)	66 MHz	None ¹
250 MHz	83 MHz	1 megabyte (MB) at 125 MHz
292 MHz	83 MHz	1 MB at 146 MHz

¹ L2 Backside Cache cannot be added.

To find out the exact speed of your PowerPC G3 processor, use Apple System Profiler, available in the Apple () menu.

Memory

The computer comes with either 16 MB, 32 MB, or 64 MB of Synchronous Dynamic Random-Access Memory (SDRAM) supplied in a removable Dual Inline Memory Module (DIMM) on the bottom portion of the system module (not accessible by the user). The top portion of the system module has one user-accessible expansion slot that can accept SDRAM modules in SO-DIMM format that meet the following specifications:

- 16, 32, 64, or 128 MB
- 144-pin

Note: If you ordered your PowerBook with additional memory, the expansion slot may already be filled.

To find out the amount of memory in your PowerBook, use Apple System Profiler, available in the Apple () menu.

Additional RAM cards are available from any Apple-authorized dealer. To increase your PowerBook memory to the maximum of 192 MB, a 128 MB DIMM needs to be installed in the user-accessible expansion slot and a 64 MB DIMM needs to be installed in the slot on the other side of the system module.

IMPORTANT A DIMM in the slot on the bottom portion of the system module must be installed or removed by an Apple-authorized service provider.

Figure 29: Apple Powerbook G3 Model M4573

Video Display and Video Memory

Built-in display with one of the following configurations:

Display Size	Display Type	Video Memory	Maximum Color Depth (Number of Colors on Screen)
12.1" diagonal	800 x 600 dual scan	2 MB	16 bpp ¹ (thousands)
13.3" diagonal	1024 x 768 active matrix	4 MB	24 bpp (millions)
14.1" diagonal	1024 x 768 active matrix	4 MB	24 bpp (millions)

¹ bpp = bits per pixel

External Monitor Support

2 MB or 4 MB of video memory (SGRAM) for up to 24 bpp resolution on an external monitor.

The following chart shows the maximum number of colors that can be displayed on an external monitor, based on the amount of video memory and the monitor resolution selected. (Not all monitors are capable of displaying all of the resolutions listed in this table.)

Resolution	Maximum Color Depth (Number of Colors)	
	2 MB Video Memory	4 MB Video Memory
512 x 384	24 bpp (millions)	24 bpp (millions)
640 x 480	24 bpp (millions)	24 bpp (millions)
800 x 600 ¹	16 bpp (thousands)	24 bpp (millions)
832 x 624	16 bpp (thousands)	24 bpp (millions)
1024 x 768 ²	16 bpp (thousands)	24 bpp (millions)
1152 x 870	8 bpp (256)	24 bpp (millions)
1280 x 960	8 bpp (256)	16 bpp (thousands)
1280 x 1024	8 bpp (256)	16 bpp (thousands)

¹ Simulscan ("video mirroring") for 800 x 600 dual scan displays.

² Simulscan ("video mirroring") for 1024 x 768 active matrix displays.

Figure 30: Apple Powerbook G3 Model M4573

TV Out Support (Some Models)

TV out for video display and recording using S-video or composite formats. (Composite video requires the composite to S-video adapter included with the computer.) The following resolutions are supported:

- 512 x 384, 60 Hz (NTSC)
- 640 x 480, 60 Hz (NTSC)
- 800 x 600, 60 Hz (NTSC)
- 512 x 384, 50 Hz (PAL)
- 640 x 480, 50 Hz (PAL)
- 800 x 600, 50 Hz (PAL)
- 832 x 624, 50 Hz (PAL)

Note: The preferred resolutions for video display on most devices are 640 x 480, 60 Hz for NTSC systems and 640 x 480, 50 Hz for PAL systems.

Internal Hard Disk

- 2 gigabyte (GB) or larger internal hard disk drive
- Certain PowerBook configurations come with larger hard disks. To find out the size of your hard disk, use Apple System Profiler, available in the Apple () menu.

Removable Expansion Bay Modules

- 1.44 MB floppy disk drive expansion bay module (included with some models), reads and writes Macintosh 800K and 1.4 MB floppy disks, as well as Windows, DOS, and OS/2 720K and 1.44 MB floppy disks
- CD-ROM drive expansion bay module (included with some models)
 - 20x speed (maximum)
 - for use in the right expansion bay only
- DVD-ROM drive expansion bay module (included with some models)
 - 1.5x speed when reading DVD-ROM discs
 - 12x speed (maximum) when reading CD-ROM discs
 - for use in the right expansion bay only

Battery

Rechargeable 49 watt-hour lithium ion (LiIon) battery provides 2–4 hours of operation, depending on battery-saving features used and machine configuration.

Figure 31: Apple Powerbook G3 Model M4573

Backup Battery

180 milliampere-hour (mAh) rechargeable lithium coin cell for calendar/clock maintenance. Also backs up the contents of RAM while you quickly change batteries when your Macintosh PowerBook is in sleep mode.

Sound

- 16-bit stereo sound in and out, supporting 44.1 kilohertz (kHz) (CD quality sound), 22 kHz, and 11 kHz sample rates
- Two built-in stereo speakers at the top of the keyboard

Interfaces

- Two PC Card (PCMCIA and CardBus cards) slots support two Type I or Type II cards, or one Type III card. The lower slot also supports zoomed video cards.
- Two dual-function expansion bays that accept removable expansion bay modules (1.44 MB floppy disk drive, CD-ROM drive, DVD-ROM drive, or other modules) or a PowerBook G3 Series battery

Note: Larger 5.25-inch expansion bay modules such as the CD-ROM or DVD-ROM drive can only be placed in the right expansion bay. Smaller 3.5-inch expansion bay modules and PowerBook G3 Series batteries can be placed in either expansion bay.

- Built-in infrared support for two types of transmission—230-kilobit-per-second IRTalk and up to 4-megabit-per-second IrDA
- Ethernet port for connection to a standard (10 Mbit) Ethernet network
- Internal communications slot that may be filled with an optional modem card
- Apple Desktop Bus (ADB) port for keyboard, mouse, or other input devices using a low-speed, synchronous serial bus
- Serial port for printer, modem, LocalTalk network, or other serial devices (RS-422)
- SCSI port (HDI-30 connector) for hard disk drives, scanners, printers, and other devices; also supports PowerBook SCSI disk mode
- Sound output port for external audio amplifier/powered speakers, stereo minijack, standard 3.5-mm stereo miniplug
- Sound input port for stereo sound input (line level), stereo minijack, standard 3.5-mm stereo miniplug. An Apple PlainTalk microphone can also be connected to the sound input port.
- Video port for up to 24-bit (millions of colors) video output to most Apple monitors (with the supplied adapter) and VGA monitors
- Some models come with TV out support (S-video or composite) for video display and recording on NTSC and PAL compatible devices.

Figure 32: Apple Powerbook G3 Model M4573

Power Adapter

- *Input:* AC 100–240 volts (V), 50/60 hertz (Hz)
- *Output:* DC 24 V, 1.875 A nominally

Trackpad

- Integrated, solid-state trackpad provides precise cursor movement.

Weight

- Macintosh PowerBook G3 Series with a 12.1-inch display, battery, internal modem, and CD-ROM expansion bay module: 3.27 kg (7.2 lb.)
- Macintosh PowerBook G3 Series with a 13.3-inch display, battery, internal modem, and CD-ROM expansion bay module: 3.45 kg (7.6 lb.)
- Macintosh PowerBook G3 Series with a 14.1-inch display, battery, internal modem, and CD-ROM expansion bay module: 3.54 kg (7.8 lb.)

Dimensions

- 323 mm x 265 mm x 51 mm (12.7 in. x 10.4 in. x 2.0 in.)

Laser Information

DVD-ROM Drive (Some Models)

When reading DVD-ROM discs

- *Type:* Semiconductor laser GaAs
- *Wavelength:* 658 micrometers (μm)
- *Output power:* 6 milliwatts (mW)
- *Beam divergence:* 8.5° (horizontal) 27° (vertical)

When reading CD-ROM discs

- *Type:* Semiconductor laser GaAlAs
- *Wavelength:* 790 micrometers (μm)
- *Output power:* 3.3 milliwatts (mW)
- *Beam divergence:* 12° (horizontal) 35° (vertical)

CD-ROM Drive (Some Models)

- *Type:* Semiconductor laser GaAlAs
- *Wavelength:* 785 micrometers (μm)
- *Output power:* 4 milliwatts (mW)
- *Beam divergence:* 11° (horizontal) 37° (vertical)

Figure 33: Apple Powerbook G3 Model M4573

Apple Desktop Bus (ADB) Power Requirements

- Maximum current draw for all ADB devices is 200 mA.

Note: The maximum number of ADB devices recommended in a daisy chain connected to the ADB port is three.

Microphone/Sound

- The internal microphone is an omnidirectional electret type.
- An external audio source may be used with this PowerBook if it generates line-level output. To input sound from audio equipment with line-level output, you need the appropriate adapters, which are available from most electronics stores.
- The Apple PlainTalk microphone may be used with PowerBook G3 Series computers.
- The Apple Omni microphone is not compatible with this computer.

Environment

- *Operating temperature:* 10°C to 35°C (50°F to 95°F)
- *Storage temperature:* -25°C to 60°C (-13°F to 140°F)
- *Relative humidity:* 20% to 80% noncondensing
- *Operating altitude:* 3048 m (10,000 ft.) maximum
- *Shipping (non-operating) altitude:* 4572 m (15,000 ft.) maximum

Options and Accessories

The following are available as options and accessories for your Macintosh PowerBook computer. (Part numbers have additional letters at the end to indicate international versions; asterisks are placeholders for those letters.)

IMPORTANT Always use the part number when ordering options or accessories for your PowerBook G3 Series computer. Options and accessories designed for older PowerBook computers with similar names may not be compatible with your computer.

Figure 34: Apple Powerbook G3 Model M4573

Item	Part Number
PowerBook G3 Series Power Adapter	M6384**/A or M6548**/A ¹
PowerBook G3 Series Lithium-Ion Rechargeable Battery	M6385**/A
PowerBook G3 Series DVD-ROM Expansion Bay Module	M6387**/A
PowerBook G3 Series Floppy Disk Drive Expansion Bay Module	M6396**/A
Apple HDI-30 SCSI Disk Adapter for SCSI disk mode	M2539**/A
Apple SCSI Peripheral Interface Cable for SCSI to SCSI connection	M0207
Apple HDI-30 SCSI System Cable for PowerBook to SCSI connection	M2538**/A

¹ Power adapters vary by region. Contact your Apple-authorized dealer for more information.

Internal Modem (Some Models)

The following specifications are for the optional PowerBook G3 Series internal modem.

Hardware Specifications	
Operating voltage and current	+5 volts (V) at 435 milliamperes (mA) +12 V at 30 mA
Operating temperature	0°C to 80°C (32°F to 176°F)
Operating humidity	10% to 95% noncondensing
Operating altitude	0 to 3084 m (0 to 10,000 feet)
Storage temperature	-40°C to +70°C (-40°F to +158°F)

Figure 35: Apple Powerbook G3 Model M4573

Data Communications Standards

56,000 bps	K56flex
33,600, 28,800, 26,400, 24,000, 21,600, 19,200, 16,800 bps	ITU V.34/V.FC
9600, 4800 bps	ITU V.32
2400 bps	ITU V.22 bis
1200 bps	Bell 212A
1200 bps	ITU V.22
1200/75 bps	ITU V.23
300 bps	ITU V.21
300 bps	Bell 103
Data Terminal Equipment (DTE)	Up to 230.4 Kbps

Group 3 Fax Communication Standards¹

14,400, 12,000 bps	ITU V.17
9600, 7200 bps	ITU V.29
4800 bps	ITU V.27 ter
2400	ITU V.21

¹ EIA-578 Class 1 command interface for fax data transmission and reception

Figure 36: Apple Powerbook G3 Model M4573

Miscellaneous Specifications

AT command set	Extended Hayes AT command set
Error control	ITU V.42 (LAP-M) MNP Classes 2-4
Data compression	ITU V.42 bis MNP Class 5
Data transmission and format	Full- or half-duplex operation Synchronous or asynchronous modes
Dialing capability	Tone or pulse dialing Automatic dialing
Call setup and handling	Voice/fax call discrimination Automatic answering

Figure 37: Apple Powerbook G3 Model M4573

**56K PC Card
User's Guide**



GLOBAL VILLAGE

For Macintosh®

Figure 38: Apple Powerbook G3 Model M4573

56K PC Card User's Guide

For Macintosh®



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COMMUNICATION

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Figure 39: Apple Powerbook G3 Model M4573

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PC Card User's Guide, Version 1.1

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This product may contain some used or refurbished parts.

Part number 9411, 9/98

Figure 40: Apple Powerbook G3 Model M4573

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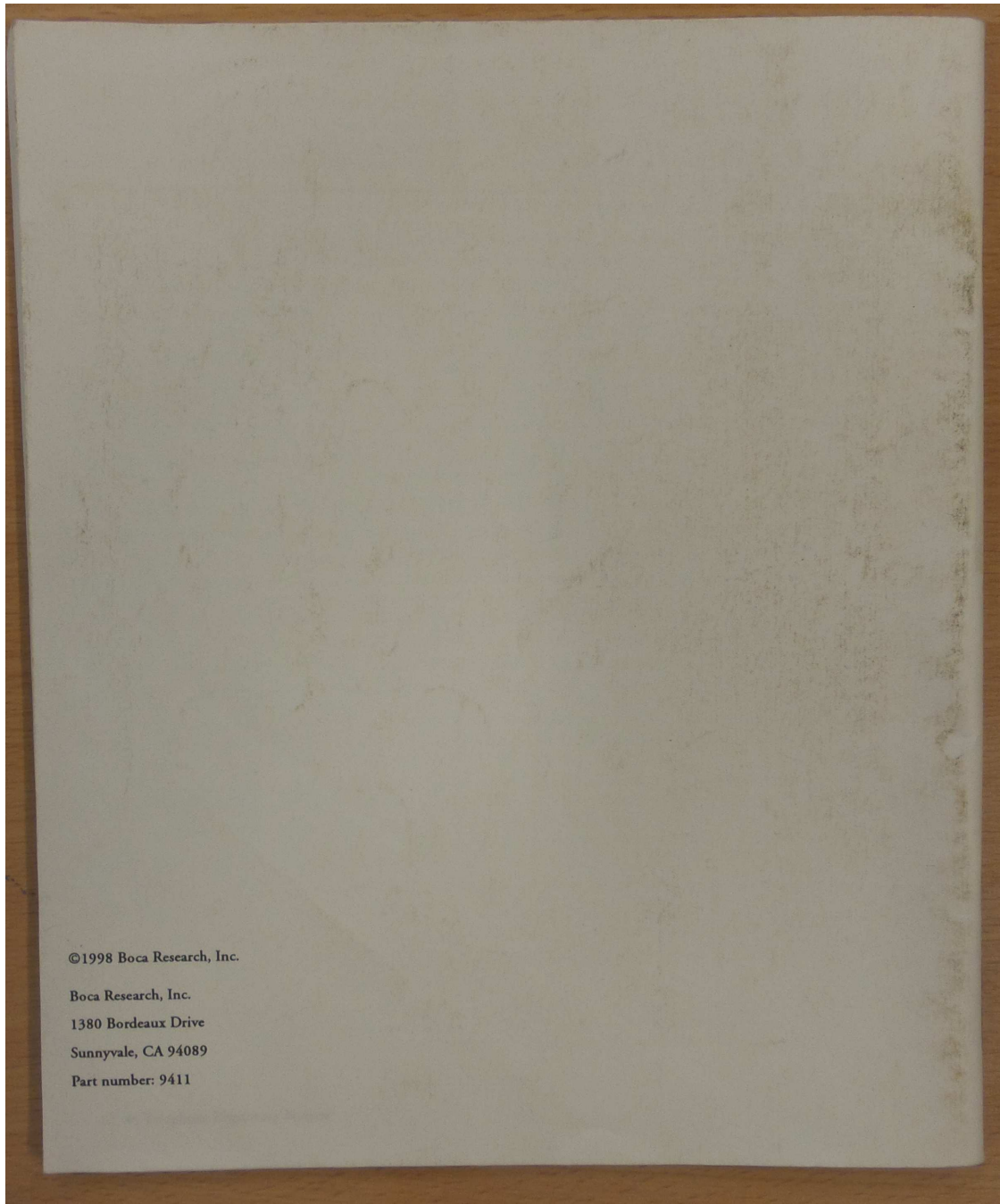
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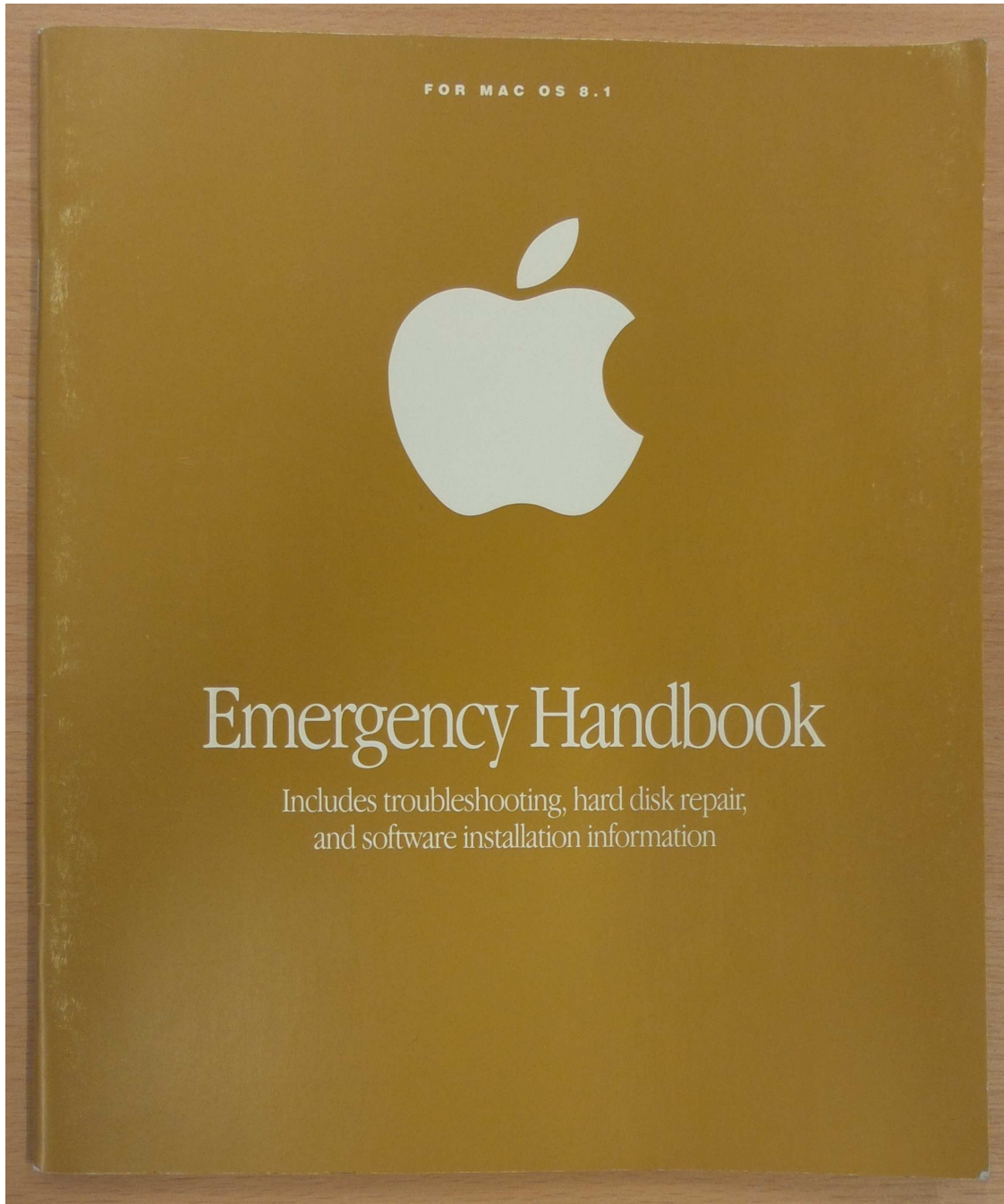


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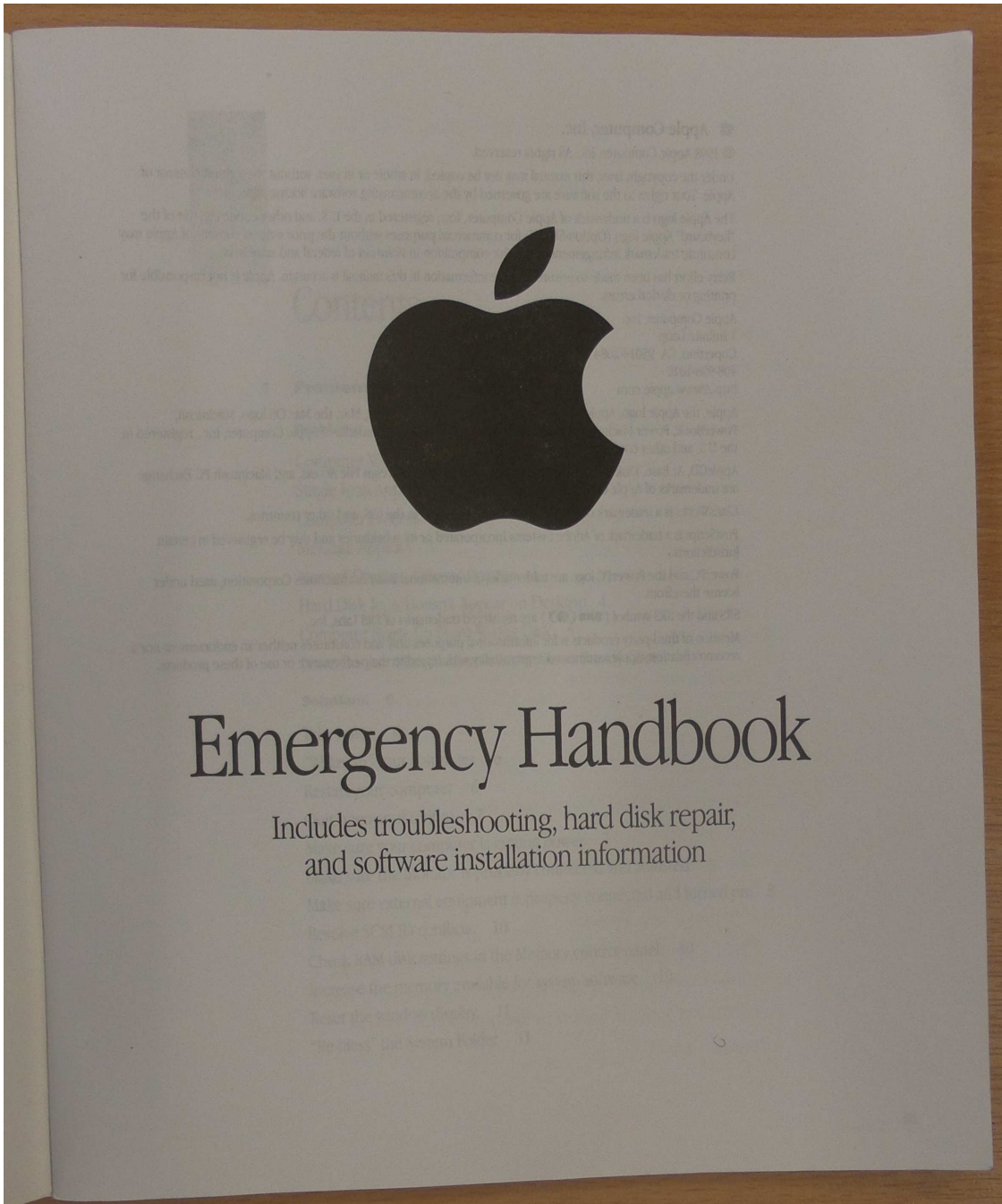


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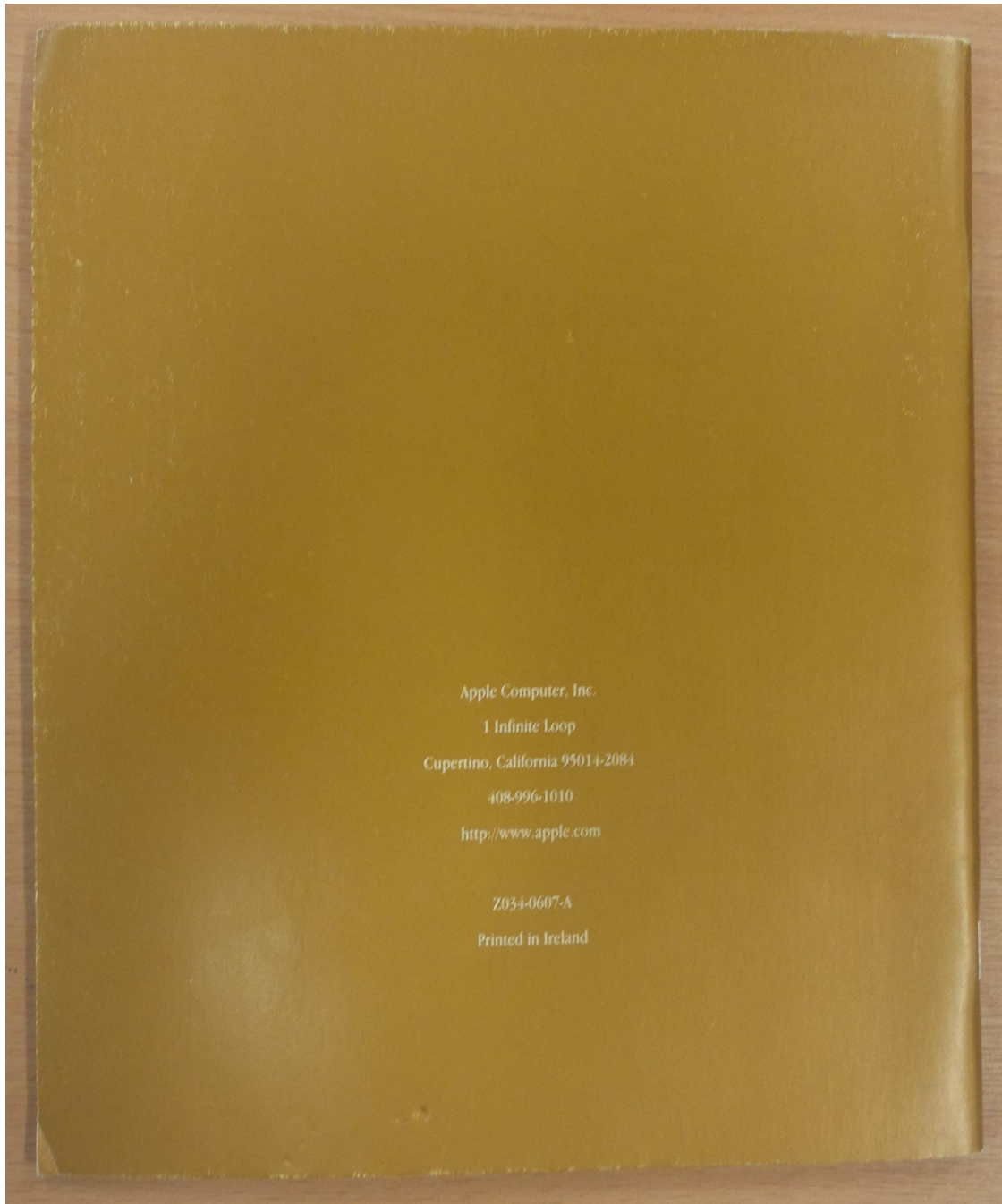


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