



iMac

Europe Service & Support

Revision: #1. - September 4th, 1998.

European Introduction: **September 5-12th 1998.**

European First Customer Ship: **September, 1998**

Marketing Part Numbers:

M6709_/A CPU IMAC AIO/233 32/4G/CD/2V/M new

iMac is the first Apple product to introduce:

- Translucent plastics in a new product all-in-one ID
- Open Firmware booting and Macintosh ROM-in-RAM
- USB (Universal Serial Bus) replacing ADB-SCSI-LocalTalk (Modem/Printer ports)
- Customer easy self-installation method for system software and application.
- Internet online ISP registration

Europe Service & Support

Warranty Strategy:

Standard Apple 1 year warranty with 90 days free phone Support from Apple hotlines.

Repair Strategy:

Standard Same Unit Repair by Apple Authorized Service Providers with Modules/Parts Replacement.

Service Source:

Europe Service Source September (available since early September) release contains iMac service Manual as well as an iMac diagnostic CD-ROM.

The USB test section of the diagnostic CD-ROM of the September Service Source CD has a bug which may cause a crash. A patched USB test section is available on the Service Source online web site and is also joined to this Service Plan (**DiagUSB v1.3.0**).

Comments:

iMac Update 1.0

Apple regularly provides updates to its software products to increase customer satisfaction and provide enhancements. Based on initial customer and developer feedback, Apple has made improvements to its USB software for iMac customers. The **iMac Update 1.0** includes these improvements, enhancing the customer experience with many USB peripherals. (This installer is available to download from the www.apple.com site at the following URL:

http://swupdates.info.apple.com/cgi-bin/http_lister.pl?Apple_Support_Area/Apple_Software_Updates/Worldwide/Macintosh/iMac

Who needs the iMac Update? Apple recommends that every iMac customer install this update. However, only iMac customers who use additional USB devices other than the Apple USB keyboard and Apple USB mouse included with their iMac are likely to notice the improvements after installation.

DRAM

The RAM DIMMs in the iMac computer must be SO-DIMMs that use SDRAM devices. SO-DIMMs that use EDO devices will not work. If the user installs an SO-DIMM that uses EDO devices, the computer will beep several times when the user attempts to restart the computer.

Total RAM capacity using devices currently available is 128 MB and is limited by the space available for the SO-DIMMs. The bottom slot can accommodate a 1.5-inch SO-DIMM. The top slot can accommodate a 2.0-inch SO-DIMM. In the iMac computer, the specified heights for the SO-DIMMs are maximum heights.

The RAM expansion modules used in the iMac computer are standard 144-pin 8-byte DRAM SO-DIMMs, as defined in

the JEDEC specifications.

VRAM

For expansion of video RAM, the iMac computer accepts one standard SO-DIMM that contains SGRAM devices. This is the same as the video expansion SO-DIMMs used in the Macintosh PowerBook G3 Series and the Power Macintosh G3 computers.

The iMac computer includes 2 MB of SGRAM for video on the main logic board. The video RAM can be expanded to 6 MB with an additional 2 MB or 4MB of SGRAM on a 144-pin SO-DIMM (small outline dual inline memory module). The mechanical design of the SGRAM SO-DIMM is defined by the JEDEC MO-190 specification.

Increasing the size of the installed video RAM from 2 MB to 4 MB increases the maximum color depth available at the highest monitor resolutions.

(TILjin article 30693) The iMac ships with 2 megabytes of VRAM, a configuration that allows 3D acceleration only at the lowest resolution, 640 x 480. Either reduce the resolution or install more VRAM (SGRAM).

To determine whether the iMac has more than 2 MB of VRAM installed, open the Monitors & Sound control panel and select the 1024 x 768 resolution shown. If "Millions" is an option provided in the "Color Depth" section of the control panel, the VRAM has been upgraded.

Other reasons why 3D acceleration may not be available:

The program may have installed extensions or other software of its own that did not load prior to running the program. Check with the program's documentation or manufacturer to confirm what software is required and where it should be installed.

When the program was installed, it may have replaced the iMac's existing ATI extensions with older versions.

The following extensions enable video, graphics, and 3D acceleration on the iMac:

ATI Video Memory Manager

ATI Video Accelerator

ATI Graphics Accelerator

ATI 3D Accelerator

Without them, or with older versions of them, acceleration may not become enabled

Preliminary Service Parts List:

Service P/N	Description	Category	Qty code
661-1342	"Hard Drive, 4 GB, IDE, 3.5""	MODULES	2
661-2061	"Board, Logic"	MODULES	2
661-2076	"CD-ROM Drive, 24X"	MODULES	1
661-2077	"Card, Processor, 233 MHz, 512K"	MODULES	2
661-2079	"SDRAM, SO-DIMM, 32 MB, 100 MHz"	MODULES	2
661-2080	"Board, Analog / Video"	MODULES	3
661-2081	"Board, Power Supply"	MODULES	3
661-2084	"Modem, 56K, Internal, Europe/Australia"	MODULES	2
076-0747	"Speaker Kit, Left and Right"	REPLACEMENT PARTS	2
742-0011	"Battery, Lithium, 3.6&emdash;3.9V, without Leads"	REPLACEMENT PARTS	1
922-3559	"Keyboard, USB"	REPLACEMENT PARTS	1
922-3560	"Mouse, USB"	REPLACEMENT PARTS	1
922-3566	Fan with Bracket	REPLACEMENT PARTS	2
922-3568	"Board, Power / Headphone"	REPLACEMENT PARTS	2
922-3574	"Board, Filter, Power"	REPLACEMENT PARTS	2
922-3579	Microphone	REPLACEMENT PARTS	4
922-3585	"Board, IrDA"	REPLACEMENT PARTS	2
922-3589	"Board, Audio / Video Interconnect with Shield"	REPLACEMENT PARTS	3
922-3590	"Cable, Audio, Interconnect to Logic Board"	REPLACEMENT PARTS	2
922-3591	"Cable, Video, Interconnect to Logic Board"	REPLACEMENT PARTS	2
922-3592	"Cable, IRDA, Interconnect to Logic Board"	REPLACEMENT PARTS	2
922-3593	"Cable, Hard Drive, Power"	REPLACEMENT PARTS	2
922-3594	"Cable, Data, Hard Drive / CD"	REPLACEMENT PARTS	1
922-3607	"CRT Assembly, Northern Hemisphere"	REPLACEMENT PARTS	4
922-3608	"CRT Assembly, Southern Hemisphere"	REPLACEMENT PARTS	3
922-3609	"CRT Assembly, Equator"	REPLACEMENT PARTS	3
922-3622	"Cable, Video, RGB"	REPLACEMENT PARTS	5
922-3623	"Cable, LED"	REPLACEMENT PARTS	2
922-3624	"Cable, Audio, 5 Connector"	REPLACEMENT PARTS	4

922-3625	"Cable, Power Supply"	REPLACEMENT PARTS	4
922-3628	"Cable, IRDA, Enclosure to A / V Interconnect Board"	REPLACEMENT PARTS	1
B922-3559	"Keyboard, USB, British"	REPLACEMENT PARTS	1
C922-3559	"Keyboard, USB, Canada"	REPLACEMENT PARTS	1
D922-3559	"Keyboard, USB, German"	REPLACEMENT PARTS	1
E922-3559	"Keyboard, USB, Spanish"	REPLACEMENT PARTS	1
F922-3559	"Keyboard, USB, French"	REPLACEMENT PARTS	1
J922-3559	"Keyboard, USB, Japan"	REPLACEMENT PARTS	1
S922-3559	"Keyboard, USB, Swedish"	REPLACEMENT PARTS	1
T922-3559	"Keyboard, USB, Italian"	REPLACEMENT PARTS	1
076-0743	"Foot Kit, Elevation, with Clips"	OTHER PARTS	
076-0746	I / O Panel Kit	OTHER PARTS	
076-0752	Heatsink Kit	OTHER PARTS	
076-0753	"Shield Kit, CPU"	OTHER PARTS	
076-0754	"Screw Cover Kit, Left and Right, Pkg. of 20"	OTHER PARTS	
520-0344	Battery Holder	OTHER PARTS	
922-2224	"Screw,SEMS 6-32X.250,Pkg.of 10"	OTHER PARTS	
922-3561	"Housing, Rear, Top"	OTHER PARTS	
922-3563	"Bezel, Outer, Front"	OTHER PARTS	
922-3564	"Panel, Front, Lower"	OTHER PARTS	
922-3572	"Door, I / O, with Grommet"	OTHER PARTS	
922-3573	"Cover, Access, Lower, with Handle"	OTHER PARTS	
922-3577	"Foot, Rubber, Pkg. of 4"	OTHER PARTS	
922-3578	"Housing, Bottom, Rear"	OTHER PARTS	
922-3586	"Chassis, Logic Board / Mass Storage"	OTHER PARTS	
922-3598	"Power Cord, 110 V, US"	OTHER PARTS	
922-3599	"Power Cord, Japan"	OTHER PARTS	
922-3600	"Power Cord, Europe"	OTHER PARTS	
922-3601	"Power Cord, UK"	OTHER PARTS	
922-3602	"Power Cord, Denmark"	OTHER PARTS	
922-3603	"Power Cord, Australia"	OTHER PARTS	
922-3604	"Power Cord, Swiss"	OTHER PARTS	
922-3605	"Bezel, CD-ROM Tray"	OTHER PARTS	
922-3610	"Frame, CRT, Top"	OTHER PARTS	
922-3611	"Screw, Philips, Self-Tapping, Pkg. of 10"	OTHER PARTS	
922-3612	"Screw, Philips, Machine, Pkg. of 10"	OTHER PARTS	
922-3613	"Screw, Philips, Self-Tapping with Washer, Pkg. of 10"	OTHER PARTS	
922-3614	"Screw, Philips, Machine, Small, Pkg. of 10"	OTHER PARTS	
922-3615	"Bezel, Inner, Front"	OTHER PARTS	
922-3616	"Carrier, Hard Drive"	OTHER PARTS	
922-3617	"Screwlocks, Pkg. of 6"	OTHER PARTS	
922-3618	"Ball, Mouse, Pkg. of 5"	OTHER PARTS	
922-3619	"Retainer, Mouse"	OTHER PARTS	
922-3620	"Standoff, Modem, Locking, 10mm, Pkg. of 10"	OTHER PARTS	
922-3621	"Grounding Wire, CRT"	OTHER PARTS	
922-3626	"Gasket, Cable, Rubber, Pkg. of 5"	OTHER PARTS	
922-3627	"Frame, CRT, Bottom"	OTHER PARTS	
922-3630	"Screw,PH,3.5X.5X14,PAN,Pkg.of 10"	OTHER PARTS	
922-3634	"Screw, Pan, 14mm, Crest Cup, Pkg. of 10"	OTHER PARTS	
922-3637	"Screw, CD bezel to CD"	OTHER PARTS	
922-3638	"Screw, Pan, M3X6MM, Crest Cup, Pkg. of 10"	OTHER PARTS	
922-3639	"Screw, M3X.5X6MM, Philips, Pkg. of 10"	OTHER PARTS	
922-3640	"Screw, Pan, 4-40X.25, Pkg. of 10"	OTHER PARTS	
922-3645	"Screw,M3.5X.6X8MM,PAN, Pkg.of 10"	OTHER PARTS	
011-0150	"Digital Monitor, Video Adjustment"	ADJUSTMENTS	