nstalling Mac OS 8.1

This document describes how to install Mac OS 8.1. It includes compatibility information, instructions for installing Mac OS 8.1, and basic installation troubleshooting.   Updating your system using the downloaded Mac OS 8.1 Update image requires that you already have Mac OS 8.0 installed.   If you are using the Mac OS 8.1 Reference CD, you may install onto Mac OS system versions 7.5 to 8.1.

For more detailed information, see the Mac OS 8 installation manual.

WARNING   PowerTalk is not compatible with Mac OS 8.1. After you install any version of Mac OS 8, you won't be able to access your PowerTalk mail or catalogues, nor will you be able to use your keychain or other PowerTalk services. See the Mac OS 8 installation manual for more information.

WARNING   Application programs that use QuickDraw GX may not be able to print due to changes in the version of QuickDraw GX included with Mac OS 8. See the file About QuickDraw GX for more information.

Before you install

IMPORTANT In order to install Mac OS 8.1 on PowerPC machines with less than 16 MB of RAM, it will be necessary to reboot with extensions off (by holding the shift key until you see the Welcome to Mac OS message).

IMPORTANT If Apple Remote Access 3.0 (ARA 3.0) Personal Server is installed, make sure answering is off before upgrading to System 8.1.   To ensure answering is off in ARA 3.0, make sure the answering option is unchecked in the ARA Answering dialogue.   To get to the dialogue, open the Remote Access control panel and select Answering… from the Remote Access menu.   After the 8.1 update installation has successfully completed, turn answering back on from the same dialogue.

NOTE: If you want to create and use a Mac OS Extended format volume, make sure that you read the file "About Mac OS Extended format."

• Turn off any security software that you may have installed on your computer.

• Turn off any virus-protection software that you may have installed on your computer.

• If you have a PowerBook, make sure that it is plugged into AC power and set not to go to sleep.

• If you have AppleShare software earlier than version 3.6.4, you should upgrade to version 3.6.4 or later before installing Mac OS 8.1 over a network. See the document in the AppleShare folder in the Utilities folder for instructions.

• When doing a clean install, write down your current Internet settings, such as the IP address, subnet mask, name server, and so on from the TCP/IP, PPP and Modem control panels. After installation, the Internet Setup Assistant will ask you to enter this information.

IMPORTANT Apple recommends that you make a Disk Tools floppy disk; if you have downloaded the Mac OS 8.1 Update from the Apple Internet website, make sure that you also download the Disk Tools for PPC disk image. For all Mac OS compatible computers with a 68040 processor, except the PowerBook 190, use the "Disk Tools 1" disk.   If you have a Mac OS 8.1 CD-ROM disc, you will find this disk image in the Disk Tools Images folder.   To make a Disk Tools floppy disk :

 • Run the Disk Copy 6.2 program
 • From the "Utilities" menu select "Make a Floppy …"
 • Find the disk image "Disk Tools for PPC" and select it
 • Press the Open button
 • When requested insert a 1.4 MB high density floppy disk
 • When asked if you are sure that you want to erase the floppy, press the "Yes" button
 • After the floppy disk is finished copying, remove it from the drive
 • Select "Quit" from the "File" menu

NOTICE The amount of disk space required to do a full install of Mac OS 8.1 will vary greatly depending on several factors, as outlined below.

• The First factor is the size of the hard disk volume being used.

For Mac OS Standard format volumes, a larger volume will require a greater amount of space. This is because the minimum file size supported on a Mac OS

Standard format volume increases as the size of the volume increases.

For Mac OS Extended format volumes, the amount of space needed is the same regardless of volume size because the minimum file size is constant.

• The Second size factor is the number of optional software packages that you choose to install. Apple has preselected some optional software packages, but you can choose to select others or to deselect the preselected packages.

• The Third size factor depends on the method used to start the computer. If the computer was started up from the volume that is being updated rather than from the Mac OS 8.1 CD, Disk Tools Floppy or another volume such as an external Hard Disk, more space will be required. When the computer is started up from the volume that is being updated, the installer must create temporary files that are used until the computer is restarted, thereby using more space.

• The Fourth size factor is the type of computer that you have. Each model requires a slightly different set of Mac OS system components to be installed for it to function correctly.

• The Final size factor depends on whether or not the volume onto which you are installing already has Mac OS system files, and if the "clean install" option was selected.

Below are tables which suggest requirements for easier installation, as well as space used after installation process is complete.

• An Install of just the base Mac OS system software with all of the optional items deselected:

Volume Size	Format	Needed for Install	Used after restart
2 GB	Standard	135 MB	68 MB
1 GB	Standard	120 MB	58 MB
500 MB	Standard	115 MB	50 MB
Any size	Extended	118 MB	56 MB

• An Install of the base Mac OS system software and the Apple preselected optional software using the Mac OS 8.1 CD to start up the computer:

Volume Size	Format	Needed for Install	Used after

```
restart
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2 GB	Standard	152 MB	140 MB
1 GB	Standard	139 MB	129 MB
500 MB	Standard	127 MB	117 MB
Any size	Extended	132 MB	122 MB

• An Install of the base Mac OS system software and the Apple preselected optional software onto the volume that was used to start up the computer: (Note: This is not a recommended method.)

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Volume Size      Format     Needed for Install    Used after
restart
```

2 GB	Standard	190 MB	140 MB
1 GB	Standard	176 MB	129 MB
500 MB	Standard	162 MB	117 MB
Any size	Extended	172 MB	122 MB

When doing a "clean install", the space required should be added to the amount used by the current system folder.

• Start up your computer using the Mac OS CD-ROM disc or an appropriate Disk Tools floppy disk. See your installation manual for instructions.

If you can't start up with the Mac OS 8.1 CD or Disk Tools floppy disk, be sure to do the following additional steps:

• Disable all non-Apple extensions and control panels. If you have System 7.5 or later, use the Extensions Manager control panel to select the System 7.x or Mac OS 8 base set of extensions and control panels. See the installation manual for more details.

• Restart your computer before installing Mac OS 8.1.

Although compatibility problems are not expected, you can ensure a smooth upgrade by checking with the manufacturers of any non-Apple software you use to make sure it is compatible with Mac OS 8.1. If you do experience a problem, see the troubleshooting chapter in your installation manual for more information on isolating compatibility problems.

• When re-installing Mac OS 8.1 onto a volume which already contains a Mac OS 8.1 system file, after selecting the volume a dialogue will appear asking if you want to re-install or if you want to perform a custom install/remove. If you select the re-install option, the Mac OS 8.0 installation program will display a series of dialogues stating that newer versions of some components are already present. In order to perform a re-install, you must press continue for each of these dialogues. After the Mac OS 8.1 installation program finishes, the Mac OS 8.1 updater will re-install the previously mentioned components.

Compatibility information

• Computers with 68040 processor upgrade cards
Computers upgraded to 68040 with a processor upgrade card are not supported by Mac OS 8.

• Performa or Power Macintosh 5000 and 6000 series computers
Some Performa or Power Macintosh 5200 series, 5300 series, 6200 series, and 6300 series models cannot use Mac OS 8.1 until a hardware problem is fixed. The repairs are covered under the Apple repair extension program.   To see if your computer has this hardware problem, use the 5xxx/6xxx Tester utility in the Utilities folder on the CD before installing Mac OS 8.1.

IMPORTANT The Power Macintosh or Performa 6320, 6360, and 5260 do not have this hardware problem. If you have a Power Macintosh or Performa 6320, 6360, or 5260, you do not need to use the tester program.

• Installing Mac OS 8.1 on accelerated NuBus PowerPC computers
If you have a Power Macintosh 6100, 7100, 8100, or 9150 with a third-party accelerator that increases the clock speed of your computer, the Installer might refuse to install Mac OS 8.1 because it doesn't recognise your system. You may need to remove the third-party accelerator before installing Mac OS 8.1.

• MacODBC and Mac OS 8.1
If you use MacODBC, you should either install it before installing Mac OS 8.1, or perform a custom install of MacODBC and make sure the ASLM extensions are not selected. The MacODBC installer installs older versions of ASLM extensions that are incompatible with Mac OS 8.

• Third-party Finder and utility software
Some third-party programs that extend or add features to Mac OS 8 may be incompatible. Examples include programs that change the way menus work,

change how files are stored, or alter the way you work with files in the Finder. Contact the software's manufacturer for information about using such programs with Mac OS 8.1. This is especially important if you're using a program that automatically alters the way files are stored (such as compressing them) because you might not be able to access those files until you obtain updated software for use with Mac OS 8.1.

• 400K floppy disks and Mac OS 8.1
The 400K MFS floppy disk format is not supported by Mac OS 8.1. If you have information or programs on obsolete 400K floppy disks that you want to access, copy the files to your hard disk, an 800K floppy disk, or a 1.44 MB floppy disk before installing Mac OS 8.1.

Using the Install Mac OS 8.1 program

To ensure a successful upgrade, use the Install Mac OS 8.1 or the Update to Mac OS 8.1 program to install the software. This program performs all the tasks recommended for a successful installation and simplifies the installation process. Refer to the Mac OS 8 installation manual and the onscreen help in the program for more information.

If you select the information button for a component in the installer, while doing a custom install, the installer may report an earlier version number than the component that is actually installed.   For example, the information button for Apple Video Player will report the version to be installed as 1.6.2. This is incorrect. Version 1.7.1 of Apple Video Player will actually be installed.

Troubleshooting suggestions

Some Apple-branded disks manufactured by third parties, including the Apple 365 MB external hard disk, are not supported by the Apple disk utilities.   If your disk cannot be updated with the Apple utilities, you'll need to use a third-party disk utility to update the driver.

If you see a message that your disk has problems and cannot be repaired, turn off file sharing if it is on, then try installing again. If that doesn't work, try using another disk-repair utility. If you don't have another utility, or if that utility also doesn't work, you may need to re-initialise the disk. Copy all your files to another disk first, as re-initialising erases the disk. For more information about re-initialising, see the manual that came with your computer.

If you experience problems during installation, be sure to start up with the Mac OS 8.1 CD-ROM disc or the Mac OS 8.1 Disk Tools floppy disk. See your installation manual for instructions.

If you're installing over a network, or if you have a non-Apple CD-ROM drive and can't start up with the CD or disk, turn off all extensions that weren't provided with your system software. Then restart the computer.

See the troubleshooting chapter in your installation manual for additional suggestions.

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