Tech Info Library

Power Macintosh Upgrade Card READ ME File (7/94)

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TOPIC ---

This article is the Power Macintosh Upgrade Card READ ME file.

DISCUSSION ---

Important Information About Your Power Macintosh Upgrade Card

Congratulations on purchasing a Power Macintosh Upgrade Card. The information in
this document adds to and updates the information in your Power Macintosh
Upgrade Card User's Guide and the manuals that came with your computer. Read the
tips below as well as your manuals to take full advantage of the increased speed
and new capabilities your computer will have after you install the Power
Macintosh Upgrade Card.

Memory Requirements of Power Macintosh Application Programs

If you run out of memory when you use Power Macintosh programs, try one of the
following:

• Turn on virtual memory. (See "Turning on Virtual Memory," below.)

• Turn on the Modern Memory Manager in the Memory control panel. (Open the
  control panel and click On under Modern Memory Manager.)

• Have an Apple-authorized dealer or service provider install additional
  memory, as described in this document and in your Getting Started and
  Technical Information manuals.

Turning on Virtual Memory

Virtual memory is a feature of the Macintosh that lets you use part of your hard
disk as additional memory. If you are using an application program designed

especially for computers with Power Macintosh capabilities, turning on virtual memory may help you avoid running out of memory. (Power Macintosh programs are often larger and require more memory than other Macintosh programs.)

To turn on virtual memory, follow these steps:

1. Choose Control Panels from the Apple () menu and open the Memory control panel.

2. Click On under Virtual Memory.

3. Open the Select Hard Disk pop-up menu and choose a hard disk to use for virtual memory.

4. Click the Up Arrow or Down Arrow to set the amount of disk space to be used as virtual memory.

IMPORTANT The preset amount sets virtual memory to twice as much as the amount of built-in memory (RAM) installed in your computer. Instead of using the preset amount, however, try setting virtual memory to the size of your computer's RAM plus one. In other words, if built-in memory is 8M (8 megabytes), set virtual memory to 9M.

5. Choose Restart from the Special menu.

If you find that you still run out of memory when you try to open your Power Macintosh program, repeat the steps and increase the amount of virtual memory by 2 megabytes. (In other words, if you set virtual memory to 9M the first time, repeat the steps and set it to 11M.)

Keep increasing the amount of virtual memory until your Power Macintosh program opens and runs. It is best to set the size of virtual memory as small as possible. Increasing the virtual memory beyond the amount required to run your Power Macintosh program may slow your computer and take up unnecessary space on your hard disk.

Getting More Information About Memory Requirements

When virtual memory is turned on, a Power Macintosh program uses less memory than when virtual memory is turned off. If you check the program's Get Info box before and after turning on virtual memory, you'll see that the numbers in the Memory Requirements portion of the box have changed. This is because turning on virtual memory allows the program to use memory more efficiently.

To view a program's Get Info box, click the program's icon to highlight it, and choose Get Info from the File menu.

Note: Power Macintosh programs frequently use special files called shared libraries. The memory requirements of a program as reported in the program's Get Info box don't reflect the size of any shared libraries the program uses. You may need to turn on virtual memory, or increase the amount of virtual memory, if your Power Macintosh program uses a large shared library.

Adding Memory (RAM)

As an alternative to turning on virtual memory, you can install additional
random-access memory (RAM) in your computer. The Technical Information manual
that came with your computer describes how much additional memory can be
installed in your Power Macintosh.

To avoid damage to your computer, Apple Computer recommends that only an
Apple-authorized dealer or service provider install additional memory. Memory
for your computer is provided in packages called DRAM SIMMs. The SIMMs must be
the correct type for your computer. They should be installed in pairs of the
same size into paired slots in your computer. It is very important that the DRAM
SIMMs be correctly installed in your Power Macintosh. Incorrect installation can
result in errors, unpredictable results, and damage to your equipment and data.

IMPORTANT Do not remove any factory-installed cards from inside your computer.
Removing a factory-installed card at an angle can damage your equipment. Any
NuBus™ expansion cards installed in your computer will not operate properly if
the factory-installed card is removed. If a factory-installed card needs to be
removed, see an Apple-authorized service provider.

Installation and compatibility

The Minimal PowerPC Upgrade Enabler file, which is on both the Install Me First
and Disk Tools floppy disks, allows you to start the computer with either of
those disks. When you start up from a hard disk, you need the complete PowerPC
Upgrade Card Enabler on that disk. If you have installed your Power Macintosh
Upgrade software on your hard disk, the complete PowerPC Upgrade Card Enabler
was installed automatically. Don't try to use the Minimal PowerPC Upgrade
Enabler file in place of the complete enabler.

If you want to change the operating mode of your Macintosh, you must do so by
changing the settings in the Power Macintosh Card control panel. To change the
Power Macintosh Upgrade Card settings   choose Control Panels from the Apple
menu and open the Power Macintosh Card control panel. Click Off to turn the
card off and use the original Macintosh processor. Click On to turn the card on
and use the Power Macintosh processor.

IMPORTANT In order for the change to take effect, you must shut down your
Macintosh completely and then restart it.

Always unplug your computer before installing or removing the Power Macintosh
Upgrade Card. If you have installed the Power Macintosh Upgrade Card in (or
removed the card from) a Macintosh Quadra 900 or 950 computer and the computer
then fails to start up, try unplugging your computer and then plugging it in
again. (Or, you can turn the key switch on the front of the computer to the Off
position—indicated by the 'O' above the switch—and then to the On
position—indicated by the ' | ' above the switch.) Then reset the PRAM by
holding down the Command, Option, P, and R keys simultaneously while you start
up the computer. Do not release the keys until you hear the startup sound
twice.

CD-ROM Users

If you install the Power Macintosh Upgrade Card software on a Macintosh that has CD-ROM software version 5.0 installed, your system will contain two audio CD players, CD Remote and AppleCD Audio Player. You can use either player. If you want to get rid of one of the audio CD players, drag its icon from the Apple Menu Items folder to the Trash. If you get rid of the CD Remote player, also get rid of the CD Remote Init by dragging it from the Extensions folder to the Trash.

Installation Tips for Advanced Users

If you remove essential files from your original System Folder (to make it no longer a true System Folder), be sure to complete the installation of your new system (with its System Folder). If you cancel installation when you don't have a true System Folder, you won't be able to use your system. You'll need to start up your Macintosh in one of these ways:

• If you want to install new system software, use the Install Me First disk as your startup disk.
• If you want to put the files you removed back into the original System Folder, use Disk Tools as your startup disk.

If you experience problems installing software not designed especially for Power Macintosh computers, turn off the Power Macintosh Upgrade Card and reinstall the software.

Network Software

Please use the following versions of networking software with your Power Macintosh computer:

AppleShare Server 4.0.2
AppleTalk Internet Router 3.0.1
Inter•Poll 1.0.1
MacTerminal 3.0
Apple Remote Access 2.0 (Client; Personal Server) 2.0.1 (Multiport Server)

If you are using the Ethernet NuBus card or Twisted Pair NuBus card, use the latest Network Software Installer disk to install the required networking software. Turn off the Power Macintosh Upgrade Card before doing the installation.

What To Do If Your Computer's Performance Decreases

If you notice a decrease in your computer's speed and general performance after adding special software (a control panel, system extension, or custom utility), it may be because your special software does not work well with Power Macintosh computers.

• To find out if your special software is the problem, hold down the Shift key while you restart the computer. This temporarily turns off certain kinds of software. If the computer performs better without the special software, then that software is likely to be the problem.

- Drag the problem software out of the System Folder or remove it from
  your hard disk. (The software might be in the Control Panels or
  Extensions folders, which are inside the System Folder.) If the computer
  performs better when the software is removed, contact the software's
  manufacturer for information or an upgrade.

Serial Communications Compatibility

If you experience problems with software using high speed serial communications
connections on a Macintosh Quadra 900 or 950 with the Power Macintosh Upgrade
Card turned on, make sure the serial port is set to Compatible. (Open the
Serial Switch control panel and click Compatible.)

Using CloseView

CloseView does not work when virtual memory is turned on. To use CloseView, turn
off virtual memory in the Memory control panel. (Programs designed especially
for Power Macintosh may require that virtual memory be turned on. You can't use
CloseView with such programs.)

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