

MAXPOWER G3

PowerPC 750 Internal Processor Upgrade Card
for Power Macs and Clones



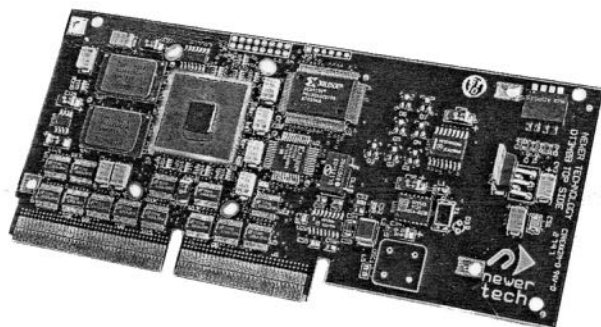
newer



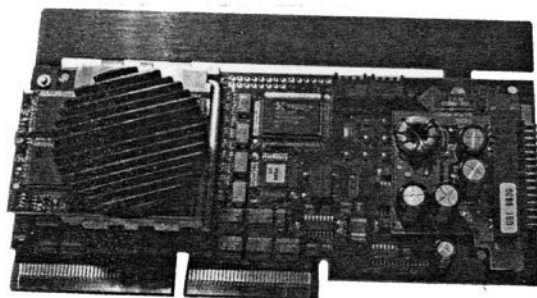
newer
technology

POWERPC 750 CPU UPGRADES

*for Apple PCI Power Macs and
upgradeable Mac OS compatibles*



MAXPOWER G3



MAXPOWER G3-CC

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OVERVIEW

Installation of the Newer Technology MAXpowr G3 CPU upgrade cards is easy. The computer case must be opened, the existing CPU card removed and the MAXpowr G3 installed in its place. Be sure to read the section of this manual that outlines the installation procedure for your specific computer model in greater detail. In general, follow these steps:

As with any major upgrade to your computer, be sure to BACK UP YOUR HARD DRIVE(S) prior to installation.

- 1) From the included floppy disk, launch the MAXpowr G3 Installer. A MAXpowr G3 Control control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpowr G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.
- 3) Shut Down the computer and make sure the power is off.
- 4) Remove the case top or cover and locate the CPU card.
- 5) Locate the computer's L2 cache slot and remove any cache that may already be inserted in the slot.
- 6) Pull the CPU card out of its motherboard socket. Compare the size of the old CPU card with the MAXpowr G3 card to determine whether or not you need to remove the metal bracket on the top of MAXpowr G3 (only necessary when upgrading low-profile Power Computing computers).
- 7) Press the motherboard reset button for about 10 seconds.
- 8) Install the MAXpowr G3 CPU upgrade card.
- 9) Replace the outer casing and restart.



- 10) When you "zap" the PRAM by pressing the motherboard reset button, standard settings get reset to defaults, which are rarely the most desirable. AppleTalk, Date & Time, General Controls and Mouse Control Panels are among the various settings you should recheck after the installation and boot. Disk Cache settings in the Memory Control Panel may be reset unusually low. In a test 7600, the default setting of 96K was 50% slower than the prior setting of 1024K. Check this setting and make adjustments accordingly, then reboot so that the changes can take effect.
- 11) Launch Newer Technology's freeware Gauge Series applications (Clockometer™ and Cache-22™) to check the MAXpowr G3's speed and cache memory.



Static electricity can be fatal to any computer component. Be sure to use the static strap provided with your MAXpowr G3 upgrade.

DIP SWITCH SETTINGS

Your MAXpowr G3 card comes with the DIP switches pre-set to factory specifications. These settings will give the best performance to the greatest number of users. If you have a Power Mac 8600 or 9600, see the section below. If you are installing a MAXpowr G3-CC carrier card upgrade, refer to page four. Please check for any addendum that may be included with your card, or check our web site for the latest information.

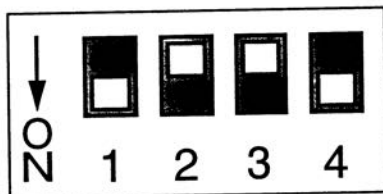
DIP SWITCH SETTINGS FOR 8600 AND 9600 POWER MAC OWNERS

If you own an 8600/300, a 9600/300, or a 9600/350, please follow the instructions below.

In order to utilize your new MAXpowr G3 CPU upgrade, you must make one small adjustment to your card's DIP switch settings. The top of the switches may be labeled "ON" or "OPEN". "OPEN" means off, please keep this in mind if your DIP switches do not look like this diagram.

DIP switch #2 and #3 should be in the "off" (or up) position.

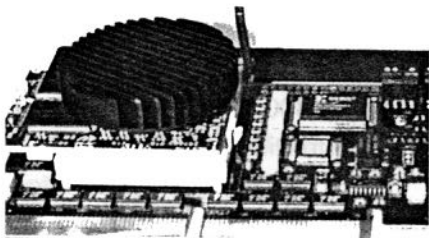
DIP switch #1 and #4 should be placed in the "on" (or down) position.



MAXpower G3-CC CARRIER CARD

If your Carrier Card came with a ZIF module already attached, or if you are going to remove and install the Newer ZIF module in your beige or blue & white Power Mac G3, verify the DIP switch settings from the chart on page seven and proceed with the installation as described below. If your carrier card has an empty ZIF socket for an Apple or Newer Technology ZIF module that you already possess, follow the instructions for installing a ZIF module onto the Carrier Card.

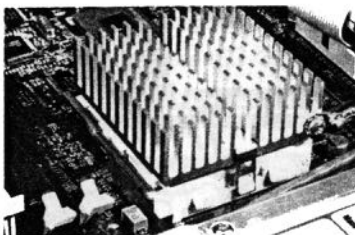
Removing a ZIF module from the Carrier Card



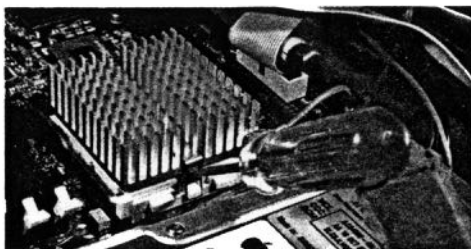
- 1) Put on the ground strap supplied with the MAXpower G3 ZIF module. Connect the grounding strap to the power supply housing or an accessible part of the metal framework of the computer.
- 2) Locate the ZIF socket on the Carrier Card and raise the locking lever of the socket on the Carrier Card.
- 3) Remove the ZIF module from the Carrier Card.

Installing a ZIF module onto the Carrier Card

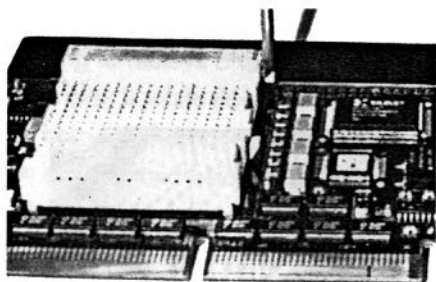
- 1) Put on the ground strap supplied with the MAXpowr G3 ZIF module. Connect the grounding strap to the power supply housing or an accessible part of the metal framework of the computer.



- 2) Disconnect the wire attached to the heat sink and to the logic board by removing the screw on the heat sink and the screw on the logic board. Replace the screw that held the wire to the logic board. You may put the wire and screw from the heat sink away for safe keeping as it will not be re-used.
- 3) Remove the heat sink retaining clip. It attaches to the mounting plate with two tabs. Lay the heat sink off to the side out of the way.
- 4) On one side of the retaining clip, there is a rectangular hole above the tab. Barely insert the flat blade of a small screwdriver into this hole and push down and away from the mounting plate. **DO NOT** use too much pressure as you are working very closely to the motherboard.



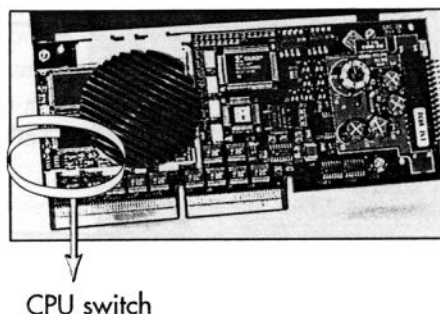
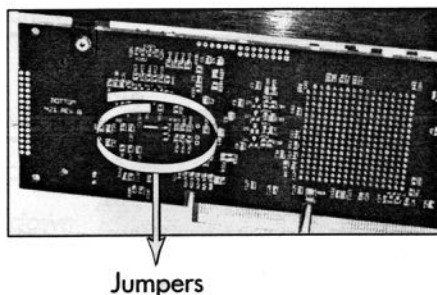
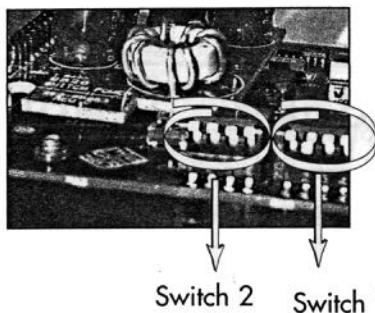
- 5) Raise the locking lever and remove the ZIF module



- 6) Locate the ZIF socket on the Carrier Card and raise the locking lever of the socket on the Carrier Card.
- 7) Please note that one corner of the socket appears to be missing a hole. Be sure to match this corner to the ZIF CPU module that does not have a pin in one corner. Insert the ZIF module.
- 8) With the ZIF module pushed down firmly in place, lower the locking lever of the ZIF socket on the Carrier Card.
- 9) Install the heat sink with the retainer clip on the ZIF module.
- 10) Install the Carrier Card with the ZIF module connected into your computer according to the section in this manual that pertains to your specific model.

MAXPOWER G3-CC CARRIER CARD SETTINGS

You will need to set the switches, jumpers and CPU switch identified below to maximize the G3-CC upgrade's performance.



Newer ZIF module switch settings

CPU/Bus/Multiple	Switch 2	Switch 1	CPU switch	Jumper setting
300/46.5/6.5X				
333/44.5/7X				
366/45.8/8X				
400/50/8X				

*Factory Setting

Apple ZIF module switch settings

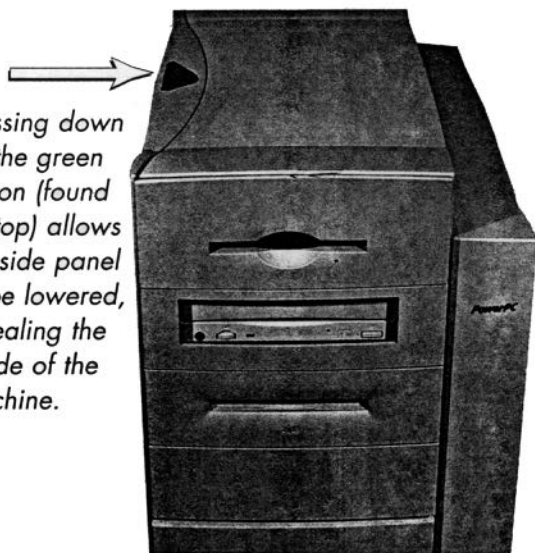
CPU/Bus/Multiple	Switch 2	Switch 1	CPU switch	Jumper setting
233/44/5X* *Runs at 220MHz			N/A	
266/44.5/6X			N/A	
300/46.5/6.5X			N/A	
333/44.5/7.5X			N/A	
350/43.8/8X			N/A	
366/44.5/7.5X			N/A	
400/50/8X			N/A	

POWER MACINTOSH 8600, 9600

Note: The 8600 and the 9600 share similar physical features, and therefore have been grouped together for the purposes of this manual.

- 1) From the included floppy disk, launch the MAXpowr G3 Installer. A MAXpowr G3 Control control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpowr G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.
- 3) Shutdown the computer and ensure that power is off. The computer power plug must be removed to disassemble the computer.

Pressing down on the green button (found on top) allows the side panel to be lowered, revealing the inside of the machine.



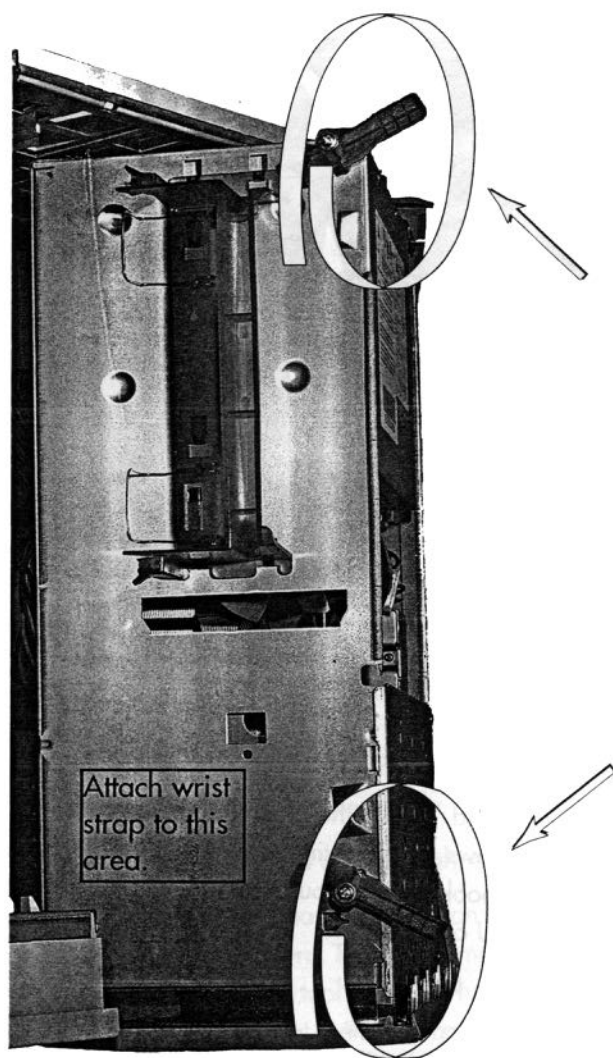
- 4) To open the Power Macintosh, press down on the green button found on top of the computer while pulling the side of the machine down.



- 5) Attach wrist strap to power supply (see photo on page 11). Pull the side case up and out to fully remove the side case and reveal the inside of the computer.

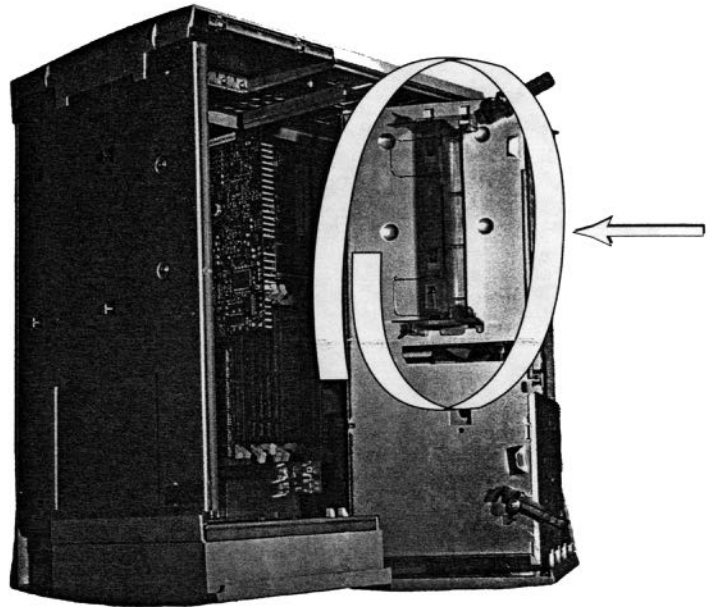


Flipping the green levers up and pulling on the green handle allows the case to swing open.



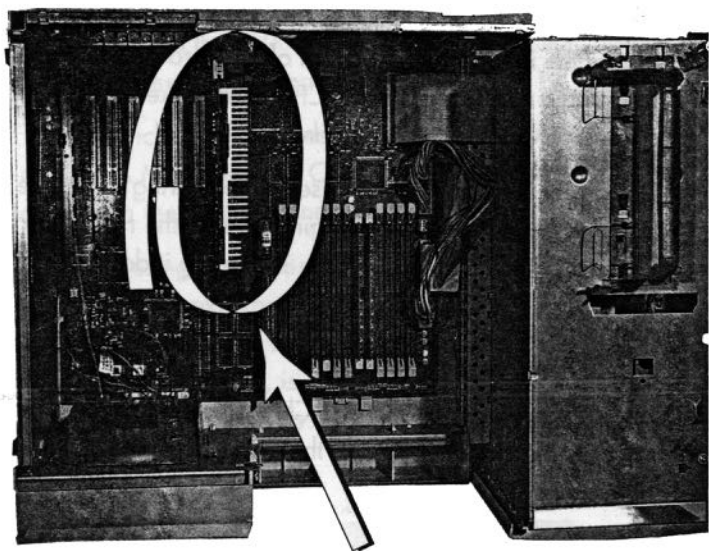
- 6) Locate the green levers on the side of the computer. They are found in the locked position. Flipping them to an upright position unlocks this side panel from the rest of the computer.

Grab the green handle, pull it away from the computer, and the case will swing open.



- 7) Once unlocked, pulling the green handle away from the machine allows for the entire case to swing open (similar to opening a book), giving you access to the motherboard and the CPU card.

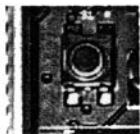
The Power Macintosh 9600 opened exposing the CPU card.



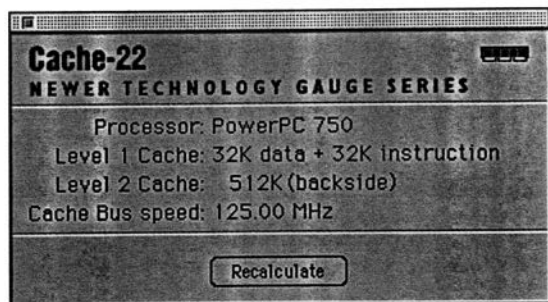
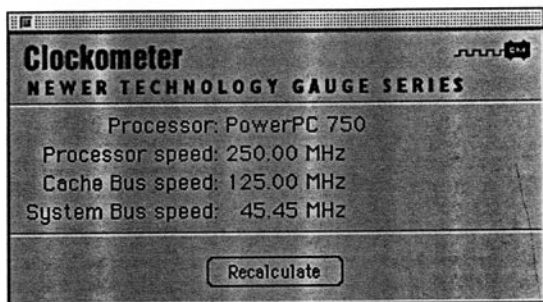
CPU card

- 8) Reattach the power cord to the power supply. Locate the CPU card. The large, aluminum finned heat sink is unique to the CPU card. Before handling the CPU card, touch the metal shielding at the bottom of the case to dissipate anti-static from your hands and body.
- 9) Pull the original CPU card straight out.
- 10) Locate the motherboard reset button (shown below) which is under the CPU card. Press this small button with a pen point or other small tool. This will help ensure that the CPU will be recognized at the next boot.

*Motherboard
reset button*



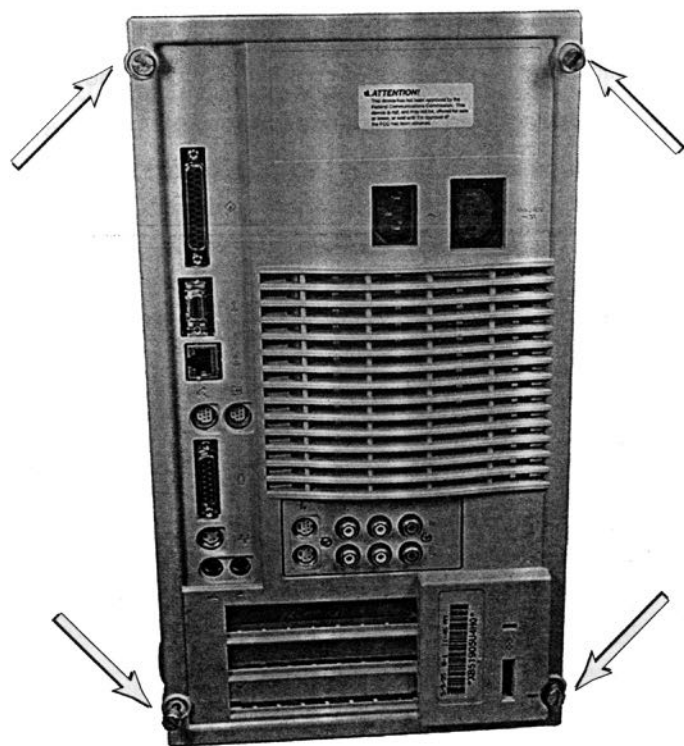
- 11) The Newer Technology MAXpower G3 card installs into the CPU socket by simply aligning the card edges with the cutouts in the case (just like putting "Part A into Slot B"). Notice the indents in the bottom of the card and how they fit with the notches inside the CPU card socket. Press the card firmly into the motherboard socket.
- 12) Unplug the power, shut the case, remembering to flip the green levers, locking the swinging case to the rest of the computer. Replace the side case by sliding it downward while pushing it inward.
- 13) Restart the computer.
- 14) Run the freeware applications Clockometer and Cache-22 to verify the clock speed and the backside cache of the MAXpower CPU.



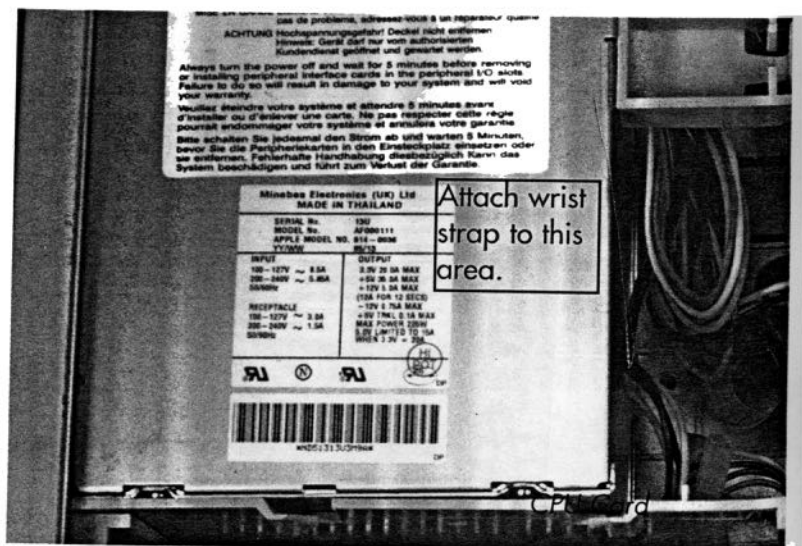
POWER MACINTOSH 8500, 9500

Note: The 8500 and the 9500 share similar physical features, and therefore have been grouped together.

- 1) From the included floppy disk, launch the MAXpower G3 Installer. A MAXpower G3 Control control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpower G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.

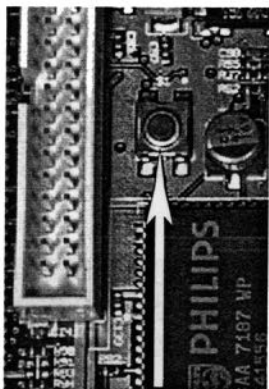


- 3) Shutdown the Power Macintosh and ensure that power is off. The computer should remain plugged in to an electrical outlet to help ensure proper grounding.
- 4) To open the case on a Power Macintosh, unscrew the four screws on the back (the ones found at each corner). There are six screws on the 9500.
- 5) Once the finger screws are loose, slide the case top and sides toward the front of the computer, lifting the case up and off in one piece. Attach wrist strap to power supply.
- 6) Locate the CPU card on the left side of the computer (see photo below). Lower the CPU card support assembly by pinching the top extensions together and rotating the assembly down from a vertical to a horizontal position (shown below). Prior to handling the CPU card, be sure to touch the metal shielding on the inside floor of the computer case. This dissipates any anti-static electricity which may be present that could kill your upgrade.

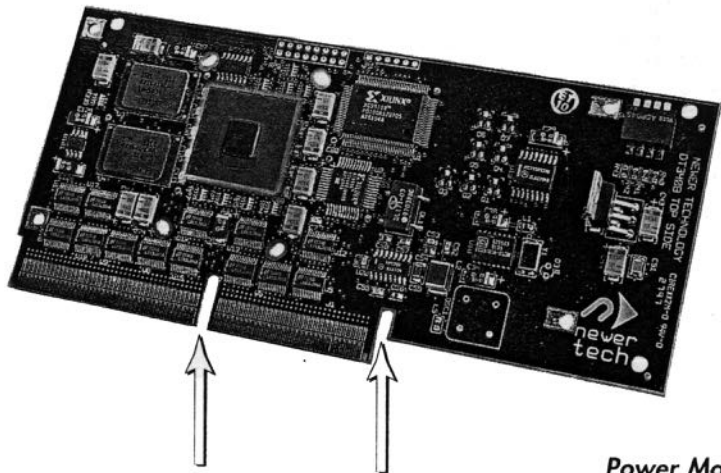


- 7) Holding the front edge of the CPU card at each end, carefully pull it straight out of the motherboard socket.
- 8) Locate the motherboard reset button which is under the CPU card. Press this small button with a pen point or other tool. This step helps to ensure that the CPU will be recognized at the next boot.

The reset button is in-line with the CPU card socket. The darker rear end of the CPU card socket is at the bottom of the photos.

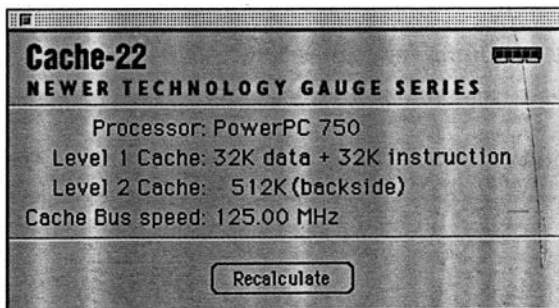
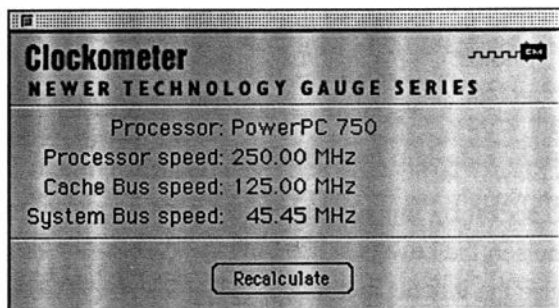


- 9) The Newer Technology MAXpower G3 card installs into the CPU socket by simply aligning the card edges with the cutouts in the case (just like putting "Part A into Slot B"). Notice the indents in the bottom of the card and how they fit with the notches inside the CPU card socket. Press the card firmly into the motherboard socket. Support the back side of the motherboard by laying the computer flat against a table.



These indents fit into the notches inside the CPU card socket on the motherboard.

- 10) Rotate the CPU support assembly back into its vertical and locked position. Replace the case top by sliding it back onto the base. Tighten the screws on the back of the case. Restart the computer.
- 11) Run the Clockometer and Cache-22 freeware applications to verify the CPU clock speed and the Level 2 backside cache memory.

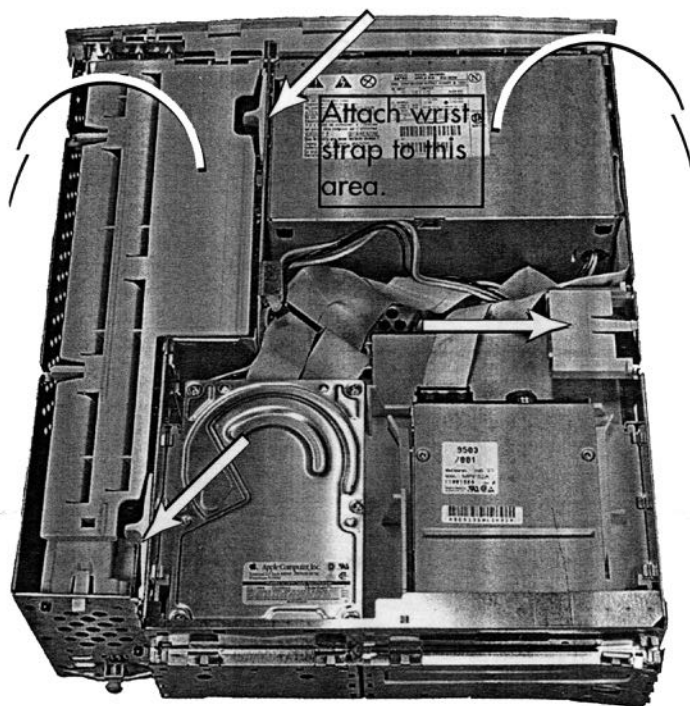


POWER MACINTOSH 7300, 7500, 7600

- 1) From the included floppy disk, launch the MAXpower G3 Installer. A MAXpower G3 Control control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpower G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.
- 3) Shutdown the computer and turn off the power using the power switch. Pull out the power cord from the rear of the computer.

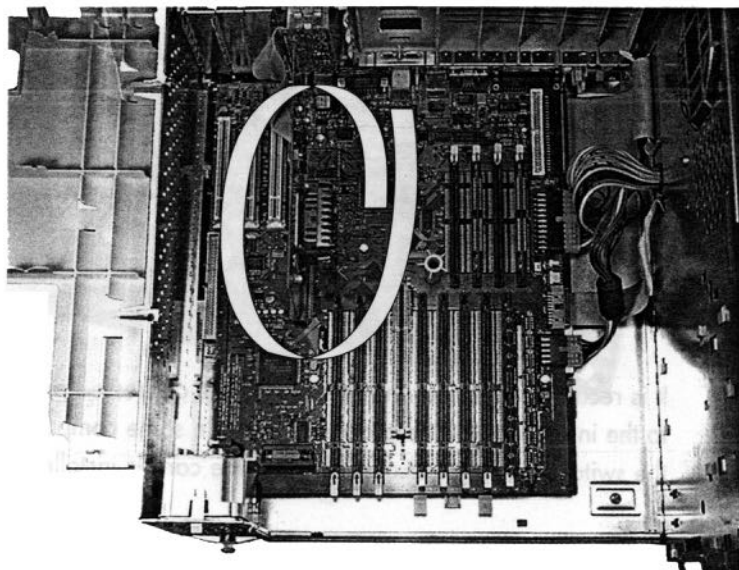


- 4) Remove the case top and sides by pressing up on the two release tabs just under the front bezel of the case. Pull the case off toward the front of the computer.
- 5) Attach wrist strap to power supply. With the case off, you can see the plastic cover over the PCI slots. It is rotated up and laid open to the left side as you face the computer (see below).



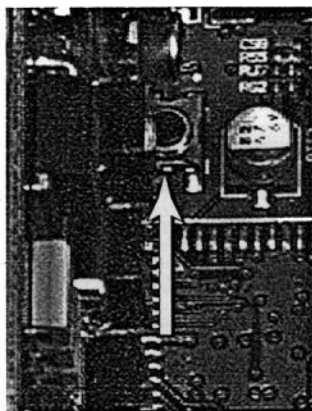
The PCI slots cover on the left side is rotated up and over to the left. The drive bay and power supply assembly is rotated up and over to the right once the two release tabs (small center arrows) are pressed toward the center. The computer opens similar to a book. The drive bay and power supply assembly is supported in an open position by the square plastic stand built into the assembly (right arrows).

- 6) The drive bay and power supply are housed in a single unit. This section is laid open by pressing the two release tabs toward the center of the computer and then lifting and rotating out to the right side of the computer. The assembly rests on a small plastic stand built into the right side of the assembly. Once completed, the entire motherboard is visible.
- 7) Locate the CPU card (see below).



- 8) Prior to handling the CPU card, reattach the power cord to the power supply, then touch the metal housing around the power supply/disk drives carriage to dissipate anti-static. Grab each end of the top edge of the CPU card, and pull it from its motherboard socket.

- 9) Locate the motherboard reset button which is under the CPU card. Press this small button with a pen point or other tool. This step helps to ensure that the CPU will be recognized at the next boot.

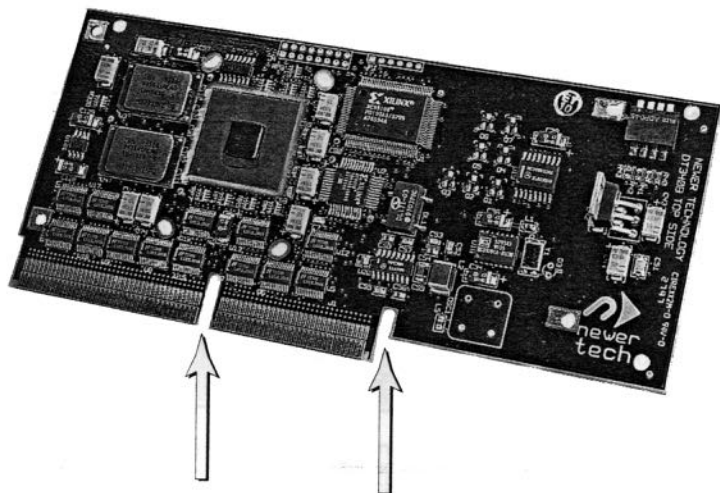


The 7500 reset button shown here just under the edge of the CPU card. With the CPU card removed, the button is easy to depress.

It is recommended that the reset switch be depressed prior to the installation of the processor card. In some computers the switch is nearly inaccessible after the card is installed.

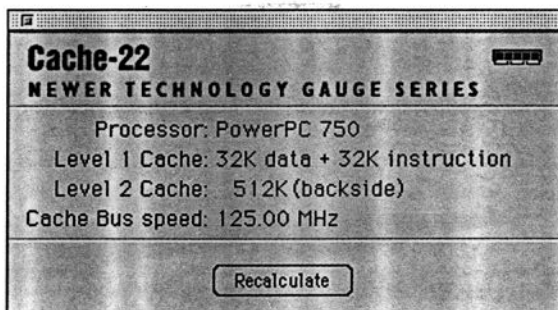
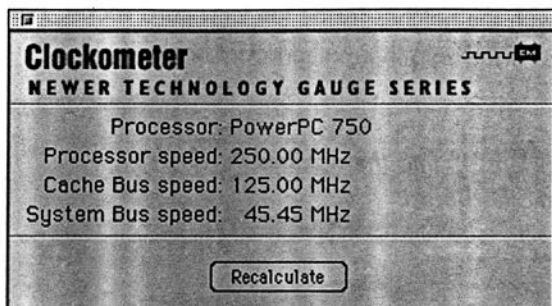
- 10) The Newer Technology MAXpower G3 card installs into the CPU socket by simply aligning the card edges with the cutouts in the case (just like putting "Part A into Slot B"). Notice the indents in the bottom of the card and how they fit with the notches inside the CPU card socket. Press the card firmly into the motherboard socket.

These indents fit into the notches inside the CPU card socket on the motherboard.



- 11) Detach the power cord from the power supply. Release (fold down) the plastic support bar that holds the drive bay vertically. Close the drive bay/power supply assembly by rotating it back into its closed position and making sure that release tabs are clicked into position.
- 12) Rotate the PCI slot cover back into its (working) closed position.
- 13) Replace the case top and sides. Reconnect the power cable to the back of the computer. Restart the computer.

- 14) Run the Clockometer and Cache-22 freeware applications to verify the clock speed and Level 2 backside cache memory.

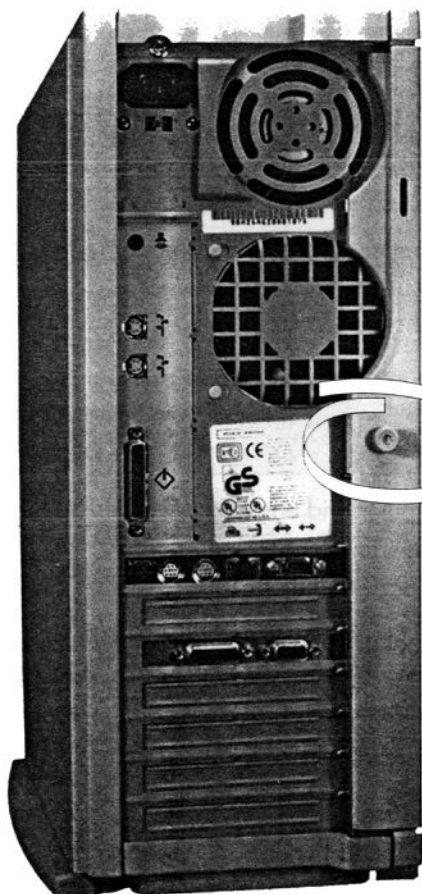


POWER COMPUTING: POWERTOWER PRO

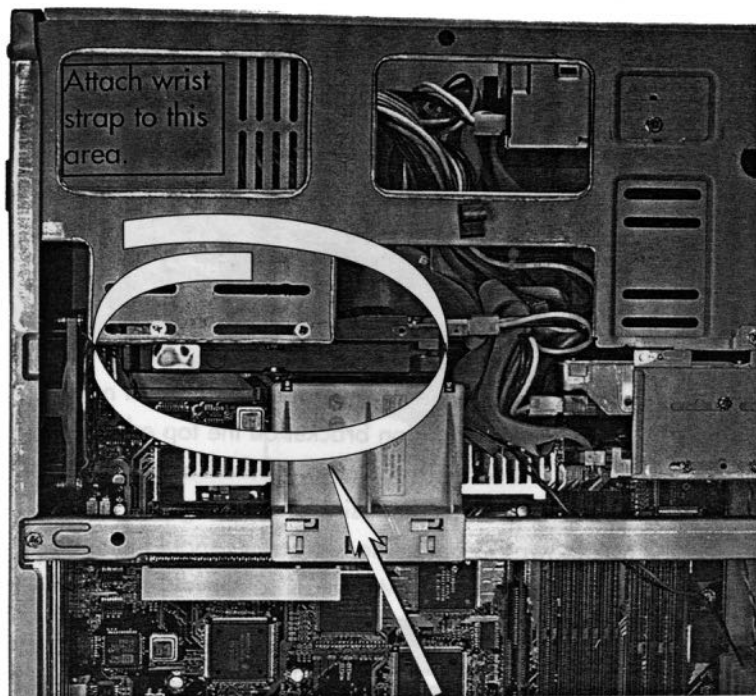
Note: For the purposes of this manual, the photographs used to illustrate the installation process for the PowerTower Pro are actually photographs of a PowerTower. The PowerTower Pro and PowerTower are quite similar in appearance (both inside and out) as are the PowerCenter and PowerCenter Pro. There are several subtle differences, but that should in no way distract from the ease of installing the MAXpowr G3 into your PowerTower Pro.

- 1) From the included floppy disk, launch the MAXpowr G3 Installer. A MAXpowr G3 Control control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpowr G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.
- 3) Shutdown the computer and ensure that power is off. The computer should remain plugged in to an electrical outlet to help ensure proper grounding.
- 4) Remove any external peripheral devices from your computer which connect the back of the motherboard – including external devices such as: hard disk(s), tape backup units, keyboard, modems, mouse, monitor(s), and printer(s).

- 5) To open the case on the computer, unscrew the four finger screws on the back (see photo below for positions of finger screws).
- 6) Once the screws are loosened, slide the case top and sides forward (toward back of the computer), lifting it up and off in one piece.



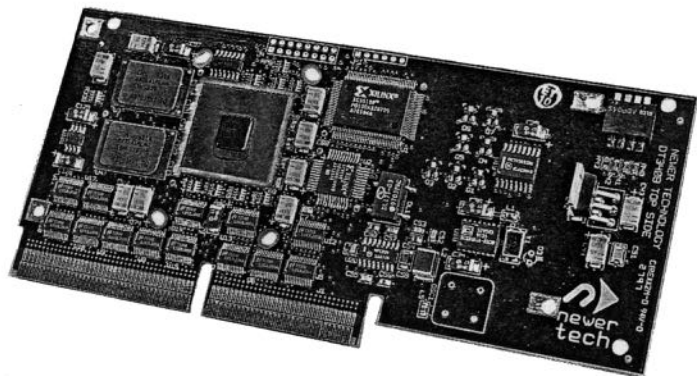
Removing the single screw on the backside of the computer allows for the top and side casing to be removed. For detailed instructions on case removal, refer to your Power Computing user's guide.



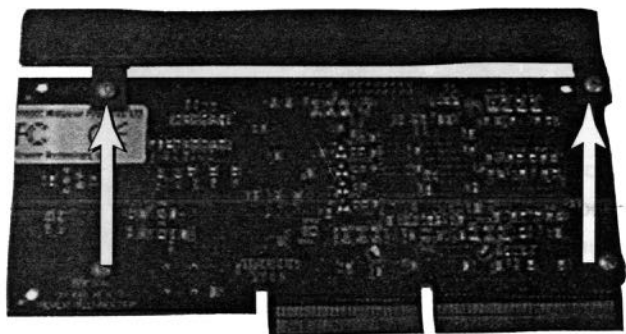
Support bracket

Remember, the picture to the left is of a PowerTower, not of a PowerTower Pro. The support bracket on your PowerTower Pro will be found on the far left side of the computer, and will look something like a crooked "L" shape. Removal of this "L" shaped support bracket will reveal the CPU.

- 7) Attach wrist strap to power supply. Remove the support bracket/fan assembly to reach the CPU card. Now, on your PowerTower Pro, the bracket you're looking for is found on the far left side of the machine. The support bracket is held in place with two screws (one in front and one on the side). Remove these screws, pull the bracket off, and the CPU should now be exposed.
- 8) Locate the CPU card. The large, aluminum finned heat sink is unique to the CPU card. Before handling the CPU card, touch the metal shielding at the bottom of the case to dissipate anti-static from your hands. The CPU card is removed by holding each end of the card and pulling straight out of the case.



- 9) With the low profile of the PowerTower Pro, you will need to remove the metal extension bracket on the top edge of the MAXpower G3 card. This is accomplished by removing the top two screws on the heat sink and pulling the bracket off the MAXpower G3 card. The two screws should then be replaced.

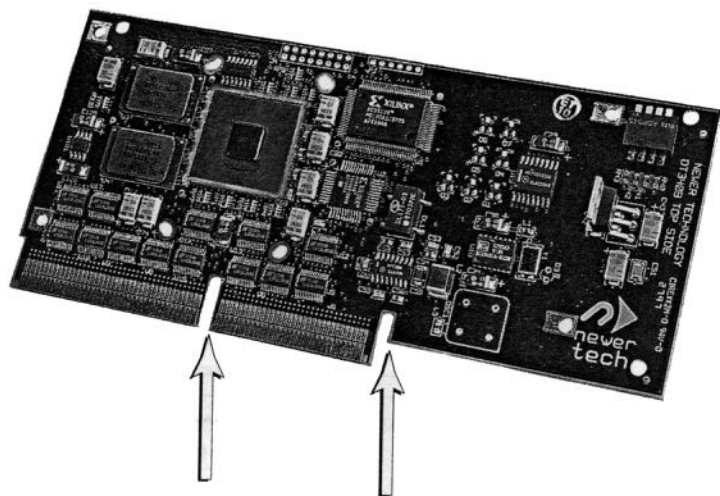


- 10) Locate the motherboard reset button (shown below). Press this small button when a pen point or other tool. This step helps to ensure that the CPU will be recognized at the next boot.



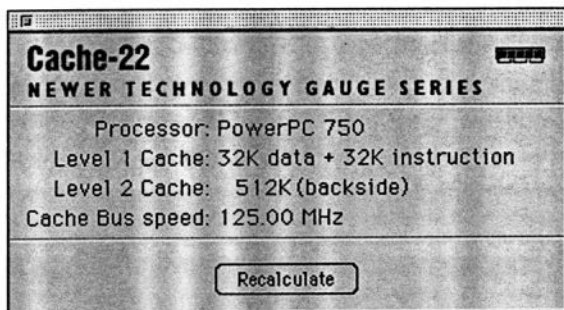
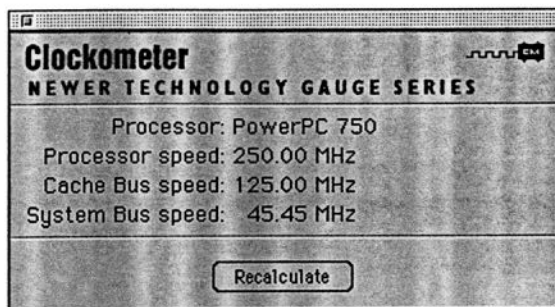
Refer to the users manual for the location of this reset button.

These indents fit into the notches inside the CPU card socket on the motherboard.



- 1.1) The Newer Technology MAXpower G3 upgrade card installs into the CPU socket by simply aligning the card edges with the cutouts in the case. Notice the indents in the bottom of the card and how they fit with the notches inside the CPU card socket. Press the card firmly into the motherboard socket. You may want to support the back side of the motherboard by applying pressure opposing the insertion force.
- 1.2) Replace the CPU support bracket/fan assembly. Replace case top being certain to press firmly forward to ensure cover fits tightly beneath front. Replace screws, reattach all external devices and cables disconnected earlier such as the monitor, keyboard, external drives, etc.
- 1.3) Restart the computer.

- 14) Run the Clockometer and Cache-22 freeware applications to verify the clock speed and Level 2 backside cache memory.



POWER COMPUTING

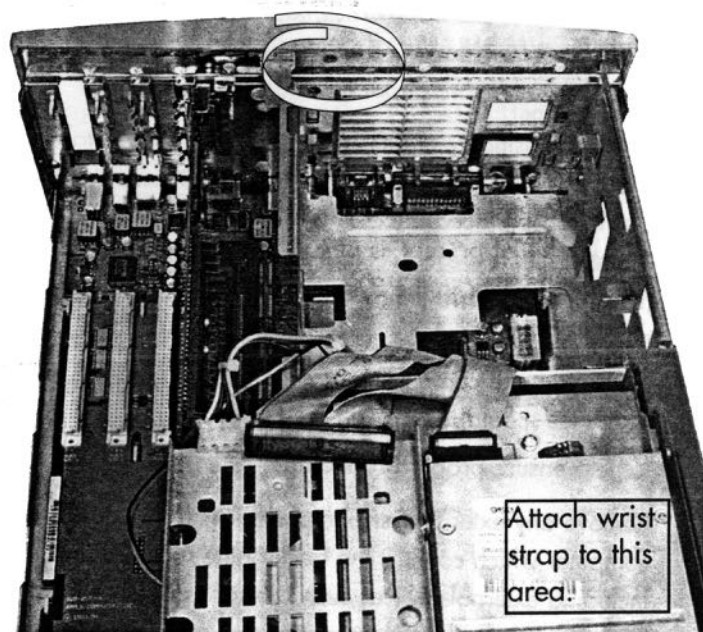
POWERWAVE

Note: For the purposes of this manual, the photographs used to illustrate the installation process for the PowerWave are actually Apple Power Macintosh 7100 photographs. The PowerWave and 7100 are quite similar in appearance (both inside and out), although the PowerWave has a more "boxed" shape than its Mac counterpart. However, these pictures should in no way distract from the ease of installing the MAXpowr G3 into your PowerWave. The PowerCenter and PowerCenter Pro are also similar in appearance.

- 1) From the included floppy disk, launch the MAXpowr G3 Installer. A MAXpowr G3 Control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpowr G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.
- 3) Shut Down the computer and ensure that power is off. The computer should remain plugged in to an electrical outlet to help ensure proper grounding.
- 4) Remove any external peripheral devices from your computer which connect the back of the motherboard, including external devices such as: hard disk(s), tape backup units, keyboard, modems, mouse, monitor(s), and printer(s).

- 5) To open the case on the computer, find the single screw located above the plug-in ports on the backside of the computer. Remove this screw.
- 6) Once the screw has been removed, gently pull the computer cover straight out a few inches and then up and away. Attach wrist strap to power supply.

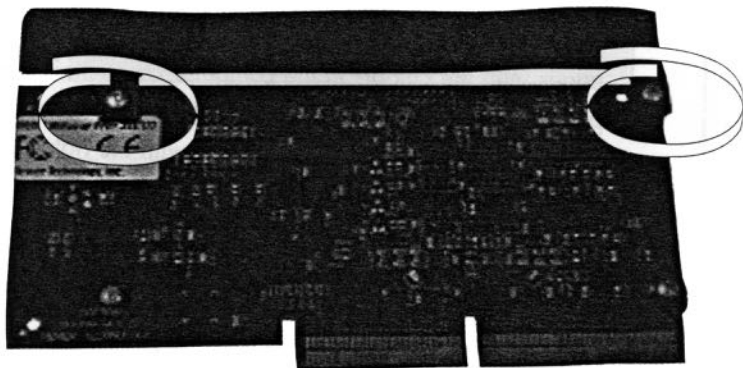
Removal of this one screw allows you to lift the cover up and off the computer.



- 7) Locate the CPU card. The large, aluminum finned heat sink is unique to the CPU card. Before handling the card, touch the metal shielding at the bottom of the case to dissipate anti-static from your hands. The CPU card is removed by holding each end and pulling the entire card straight out of the case.
- 8) Locate the motherboard reset button (shown below). Press this small button when a pen point or other tool. This step helps ensure that the CPU will be recognized at the next boot.

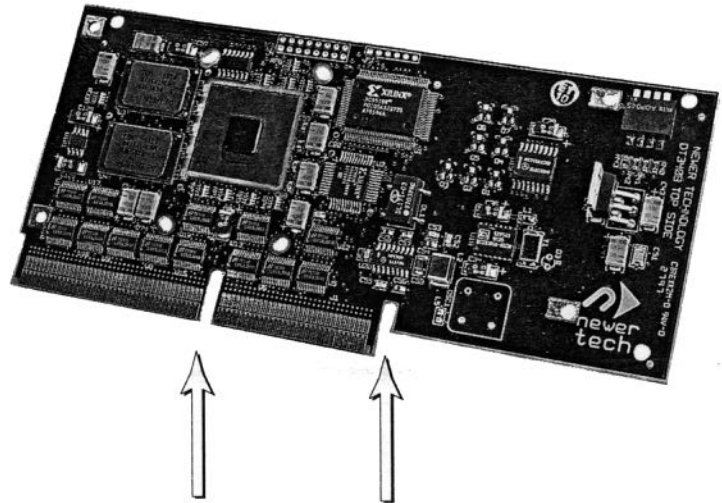


Refer to the users manual for the position of this reset button



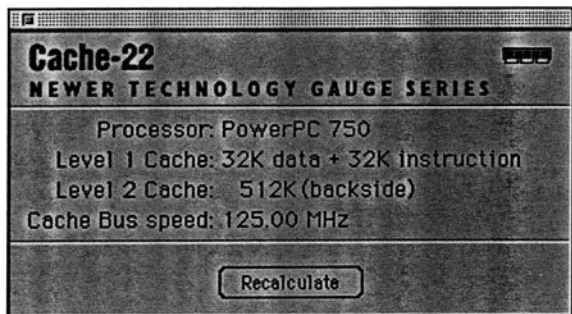
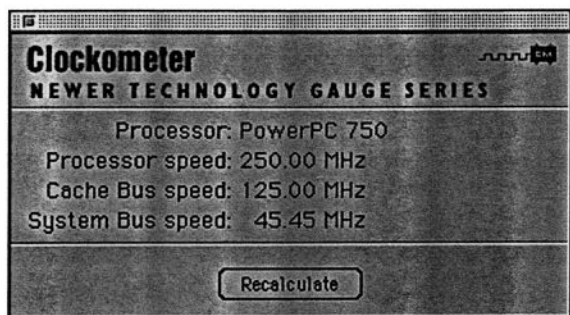
When upgrading low-profile clone computers, it will be necessary to adjust the size of the MAXpower G3 card. Remove the two screws holding the black metal bracket in place (shown above). Pull the metal bracket up and away from the card, and then replace the screws in their original position.

These indents fit into the notches inside the CPU card socket on the motherboard.



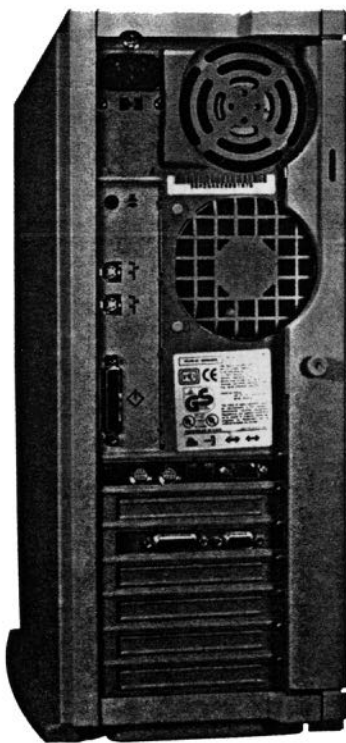
- 9) The Newer Technology MAXpowr G3 upgrade card installs into the CPU socket by simply aligning the card's edges with the cutouts in the computer case (similar to putting "slot A into slot B"). Notice the indentations in the bottom of the card, and how they fit with the notches inside the CPU card socket. Press the card firmly into the motherboard socket. You may want to support the back side of the motherboard by applying pressure opposing the insertion force (in other words, lay the computer flat against a table or support the back of the machine with your hand).

- 9) Replace the CPU support bracket. Replace case top being certain to press firmly forward to ensure cover fits tightly beneath front. Replace screws, reattach all external devices and cables disconnected earlier such as the monitor, keyboard, external drives, etc.
- 10) Restart the computer.
- 11) Run the Clockometer and Cache-22 freeware applications to verify the clock speed and Level 2 backside cache memory.



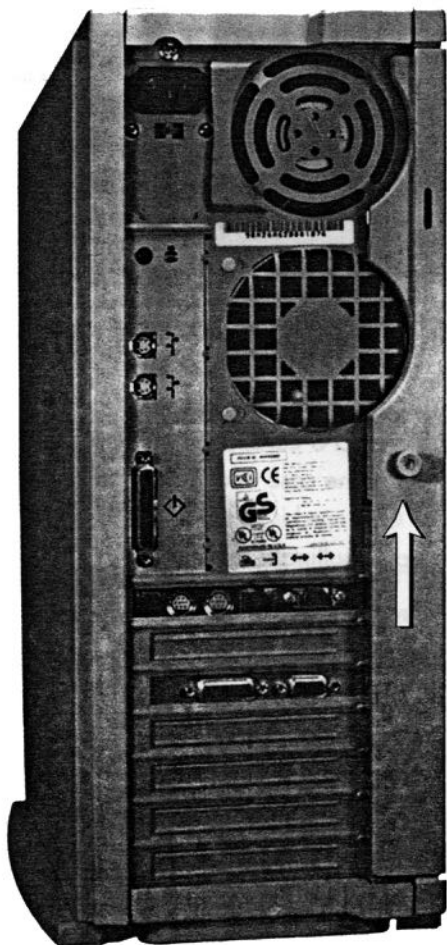
UMAX S900, J700

- 1) From the included floppy disk, launch the MAXpower G3 Installer. A MAXpower G3 Control panel is also installed in the control panels folder.
- 2) If you are using system 8.1 or earlier, LibMoto Installer should be run next. The MAXpower G3 Extension and LibMoto are placed in the Extensions folder. An original MathLib file, if present, is placed in the Extensions (Disabled) folder in the System Folder, should you ever need it.
- 3) Shutdown the computer and ensure that power is off. The computer should remain plugged in to an electrical outlet to help ensure proper grounding.

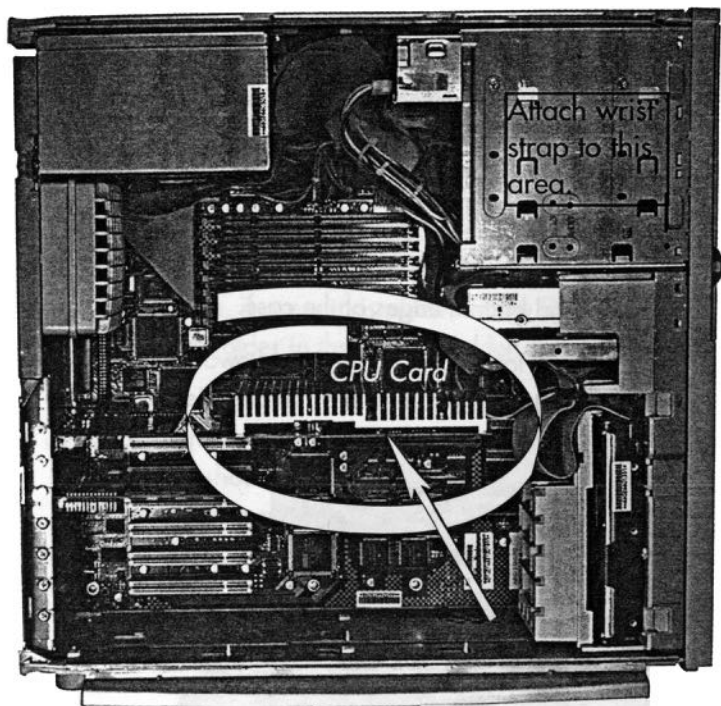


For detailed instructions on cover removal, refer to your UMAX/SuperMac guide.

- 4) Remove any external peripheral devices from your computer which connect the back of the motherboard – including external devices such as: hard disk(s), tape backup units, keyboard, modems, mouse, monitor(s), and printer(s).
- 5) To open the case on the UMAX S900 series, unscrew the finger screw on the back. Push in on the tabs found on the outer top and bottom edges of the case.
- 6) Slide the case top and sides forward (toward the back of the computer), lifting it up and off in one piece.



The finger screw and end tabs on the rear of the case allow the case top and sides to be removed.

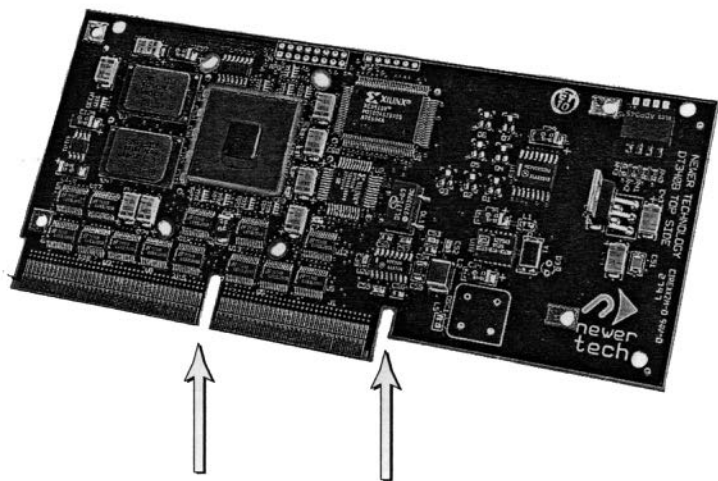


- 7) Attach wrist strap to power supply. Locate the CPU card. The large, aluminum finned heat sink is unique to the CPU card. Before handling the CPU card, touch the metal shielding at the bottom of the case to dissipate anti-static from your hands. The CPU card is removed by holding each end of the card and pulling it straight out of the case.
- 8) Locate the motherboard reset button (shown below). Press this small button when a pen point or other tool. This step ensures that the CPU will be recognized at the next boot. And that's important.

Refer to the users manual on your specific model for the position of this reset button.



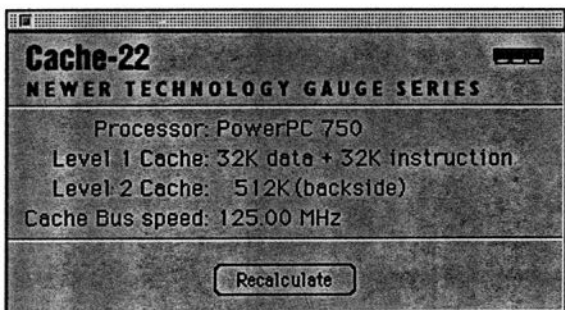
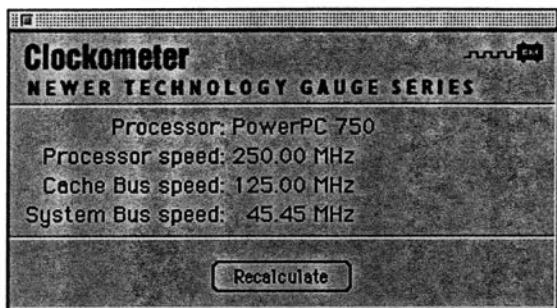
- 9) The Newer Technology MAXpowr G3 upgrade card installs into the CPU socket by simply aligning the card edges with the cutouts in the computer case (similar to putting "slot A into slot B"). Notice the indentations in the bottom of the card, and how they fit with the notches inside the CPU card socket inside the CPU card socket. Press the card firmly into the motherboard socket.



These indents fit into the notches inside the CPU card socket on the motherboard.

- 10) Replace the case top, being certain to press firmly forward to ensure the cover fits tightly beneath the front. Replace the screws, reattach all external devices and cables disconnected earlier such as the monitor, keyboard, external drives, etc.
- 11) Restart the computer.

- 12) Run the Cache-22™ and Clockometer™ freeware applications to verify the clock speed and the Level 2 backside cache memory.



TROUBLESHOOTING

If the computer does not boot when restarted, take a deep breath. Once that's been done, double-check the following:

- 1) Verify that the CPU card is installed fully into its socket on the motherboard. Often, considerable force is required to fully seat the card.
- 2) Recheck the video and/or other PCI cards and cables to make sure that they have not become loose during installation.
- 3) Verify that MAXpowr G3 Extension and LibMoto (for systems 8.1 or older) are in the Extensions folder and are loading at boot.
- 4) Press the motherboard reset button.
- 5) If you encounter a lack of speed once the upgrade has been installed, try turning off Virtual Memory which may be running. Virtual Memory can slow down any upgrade, no matter how fast it is.

Remember too that when you "zap" the PRAM by pressing the motherboard reset button, standard settings get reset to defaults, which are rarely desirable. AppleTalk, Date & Time, General Controls and Mouse Control panels are among the various settings you should check. Disk Cache settings in the Memory Control Panel may be reset to an unusually low setting. In a test 7600, the default setting of 96K was 50% slower than the prior setting of 1024K. Check this setting and make adjustments accordingly, then reboot so that the changes can take effect.

- 6) Check the DIP switch settings outlined in the following section of this manual. The default setting is all four switches in the OFF position.

The MAXpowr G3 Extension is "smart" in that it will not load if the MAXpowr G3 card is not installed.

Any computer that uses motherboard video, especially in Thousands mode, may display video artifacts in the highlight color as well as other non-typical anomalies. If you have video artifacts after installing MAXpower G3, upgrading to 60ns VRAM as well as turning off the 7200 Graphics Acceleration Extension (installed by Mac OS 8) can eliminate some or all video anomalies. Upgrading to a PCI video card guarantees the elimination of these video problems.

AV Power Mac Video Capture

When performing video capture on an AV Power Mac using the motherboard, you may find difficulty synching to NTSC input. Vertical roll and horizontal tearing are symptoms that can be corrected by reducing the bus speed from 50MHz to a slower setting.

Radius Video Cards

As with most upgrades, make sure that you are using the latest version of the driver software. Radius has a recent version of the ThunderColor video card driver, specifically, that provides compatibility with G3 processor upgrades.

BACK UP YOUR HARD DRIVE(S). As with any upgrade, only backup data that you don't wish to recreate after a problem.

CONTROL PANEL SETTINGS

The MAXpower G3 control panel is customizable to your computer. After installing the software and hardware, use the factory default cache bus speed setting for your G3 card. Once you have determined that everything is running correctly, you may alter the settings for peak performance. Changes made in the MAXpower G3 Control Panel take effect immediately. You instantly reset all options to default by: clicking the **Use Defaults** button at the bottom of the Control Panel window; holding the **Option** key when opening the MAXpower G3 Control Panel; or you can delete **MAXpower G3 Preferences** in the Preferences folder inside the System Folder.

The **cache speed** refers the cache bus speed of the backside cache on the MAXpower G3 upgrade card.

The **Copy-back (faster)** setting is the default and you should not have to change this setting.

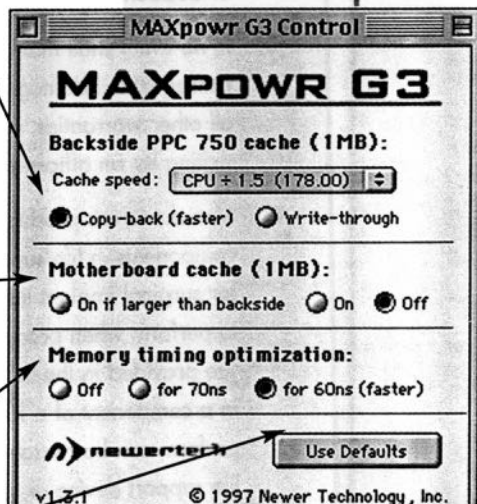
Almost every user will want to use the default setting of **On if bigger than backside** because this lets the software do the checking for you.. If you want to disable the motherboard cache, you may manually click the **Off** button. This works whether the cache is soldered or installed as a module in the motherboard cache socket.

It is possible to gain faster performance using 60ns memory. If you have all 60ns memory installed, be sure to check the for 60ns (faster) setting.

The **Use Defaults** button in the lower right corner is a convenient way to restore the MAXpower G3 factory settings after zapping the PRAM or removing the motherboard battery. By holding the Option key, the Use Defaults button turns into an Options button. This control allows you to select where the MAXpower G3 startup screen appears (see back of this sheet).

MAXPOWER G3

Backside PPC 750 cache (1MB):
Cache speed: CPU + 1.0 (267.00)
CPU + 1.5 (178.00)
CPU + 2.0 (133.50)
CPU + 2.5 (106.80)
CPU + 3.0 (89.00)
☒ Copy-back



LIMITED WARRANTY

Manufacturer warrants its product for a period of two years from the date of shipment to the initial user of the product to be free from defects caused by faulty materials or poor workmanship. The liability of manufacturer under this warranty is limited to replacement or repair at its option.

The foregoing warranty is subject to the following conditions (which must be met, or otherwise the manufacturer makes no warranty express or implied about the product or title):

- A) Manufacturer is promptly notified in writing within ten (10) days after discovery of such defect, AND
- B) The defective unit is returned to manufacturer, freight prepaid, within thirty (30) days of the discovery of such defect, AND
- C) Manufacturer's examination of such units shall; disclose to its reasonable satisfaction that such defects exist and have not been caused by misuse, neglect, improper installation, repair, alteration or accident caused by parties other than manufacturer.
- D) In no event shall manufacturer be liable to any party for collateral consequential damages of any nature. This warranty is in lieu of all other warranties, expressed or implied, unless modified in writing by an officer of manufacturer.
- E) Manufacturer's products are not authorized for use as critical components in life support devices or systems which are intended for surgical implant into the body or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling and be reasonably expected to result in a component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system or to affect its safety or effectiveness.

FREEBIES FROM NEWER TECHNOLOGY

GURU (GUide to RAM Upgrades) is a stand alone application that provides all of the system detail and specific memory configurations for every Macintosh, Power Macintosh, Performa, PowerBook, Power Macintosh as well as laser printer memory upgrades. Video memory upgrade options are included as well.

The Gauge Series™ software provides users with hard to measure system performance. **Cache-22™** tells you not only whether or not you have any Level 2 cache installed, but also the size of the cache. **Clockometer™** tells you the bus speed in addition to how fast your CPU is running in MHz. Clockometer is ideal for those who are in charge of multiple Macs and who need to know how each is configured.

GURU and the Gauge Series can be downloaded free from America Online or from our Internet WWW home page.

DECLARATION OF CONFORMITY

Newer Technology, Inc.

4848 W. Irving Street, Wichita, Kansas 67209

316-943-0222

declare under sole responsibility that the product

MAXpower G3

Beginning serial numbers: A120000 (MAXpower G3)
A130000 (MAXPowr G3)

Year of Manufacture: 1997

to which this declaration relates is in conformity with the following standard(s) or other normative document(s)

- EN 55022, Class B, Limits and methods of measurement of radio interference characteristics of information technology equipment, 1992.
- EN 50082-1, Electromagnetic compatibility - Generic immunity standard — Part 1: Residential, commercial and light industry, January 1992.

following the provisions of The Electromagnetic Compatibility Directive, 89/336/EEC.

CE

DECLARATION OF CONFORMITY

Newer Technology, Inc.
4848 W. Irving Street
Wichita, Kansas 67209 USA

316-943-0222

DECLARE THAT

MAXpowr G3

complies with FCC Part 15

Radio Frequency Interference Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15, Subpart B of the FCC Rules. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications.

The limits are designed to provide reasonable protection against such interference in a residential situation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the affected radio or television.
- Increase the separation between the equipment and the affected receiver.
- Connect the equipment and the affected receiver to power outlets on separate circuits.
- Consult the dealer or an experienced radio/TV technician for help.

MODIFICATIONS

Changes or modifications not expressly approved by Newer Technology could void the user's authority to operate the equipment.

SHIELDED CABLES

Shielded cables must be used with this equipment to maintain compliance with FCC Regulations.

as confirmed by test report #970231.REP, August 1997





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