



Power Mac G4 Quicksilver Teardown

Teardown for the PowerMac G4 Quicksilver. This is not a repair guide.

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INTRODUCTION

The Powermac G4 "Quicksilver," The 2nd Major revision to Apple's Powermac G4 Series. It was released in 2001, and came with a 533Mhz-Dual 1Ghz Motorola PowerPC G4 CPU. This Supported up to 1.5GB of PC133 133Mhz Ram. This computer looks neat, and was the last apple computer to incorporate a possible ZIP Drive. It had AGP Graphics with a NVIDIA GeForce 2MX Mac Edition standard. This is incredibly silent compared to the G4 MDD and the G4 Graphite. Available CPU Speeds: 533Mhz, 667Mhz, 733Mhz, 800Mhz, 933Mhz, And 1.0Ghz . Most clock speeds were available in both single and dual configurations. This was the first Mac to reach 1.0Ghz. No wonder they call it the "Quicksilver."

TOOLS:

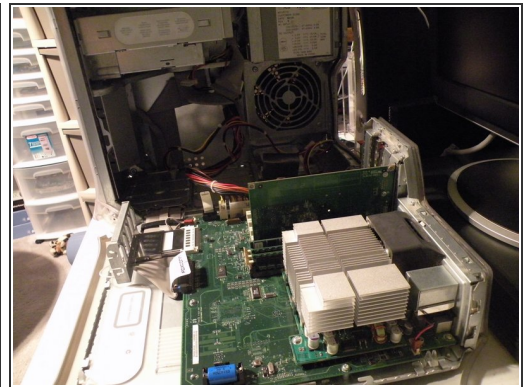
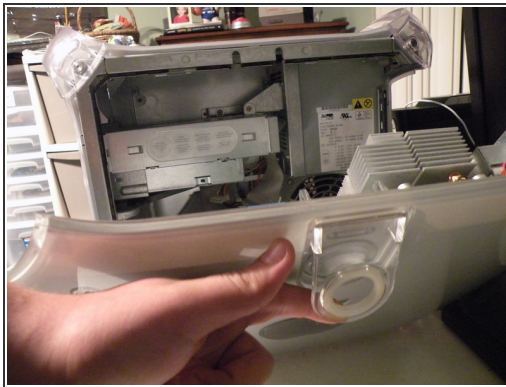
- [English size sockets](#) (1)
 - [Flathead Screwdriver](#) (1)
 - [Phillips #0 Screwdriver](#) (1)
 - [Ratcheting Socket Wrench](#) (1)
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Step 1 — Introduction



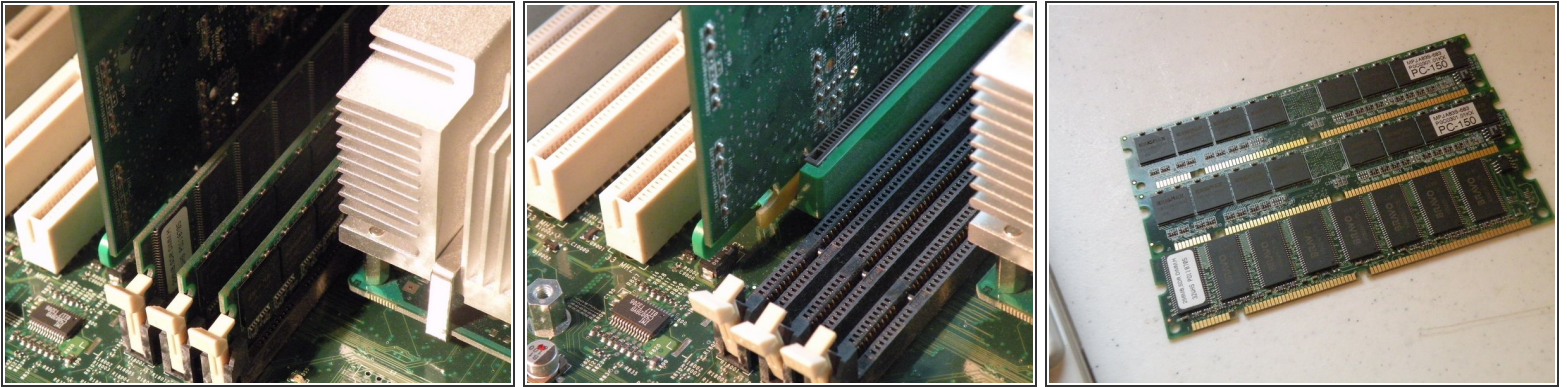
- The Powermac G4 "QuickSilver"
- Unfortunately, my zip drive bezel fell off.

Step 2 — Opening the Quicksilver



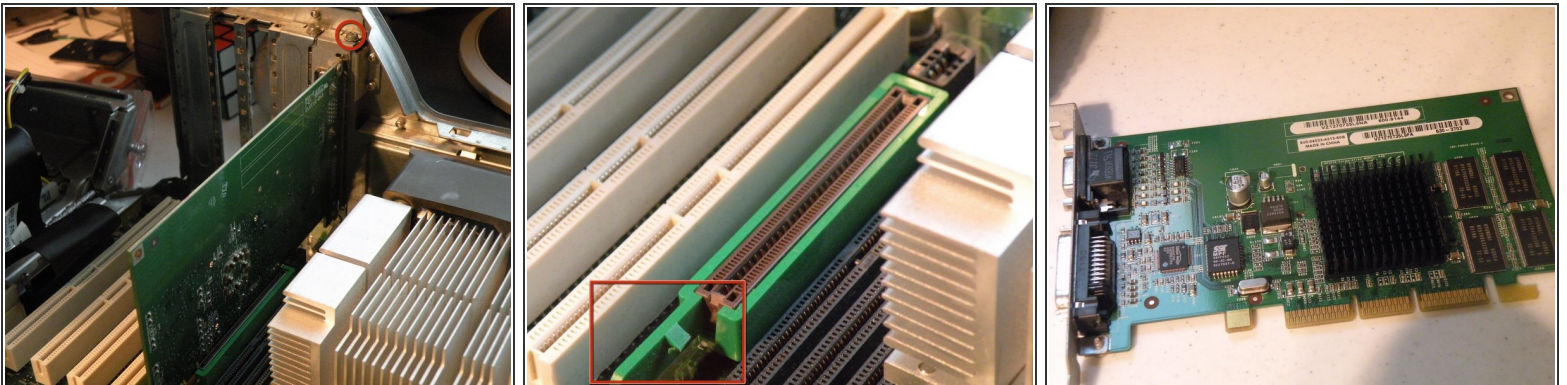
- Start by opening the case.
- The same way, the other powermac g3's and G4's open... Just lift the lever on the side of the case, and lower it down.
- This gives us access to the guts.

Step 3 — RAM



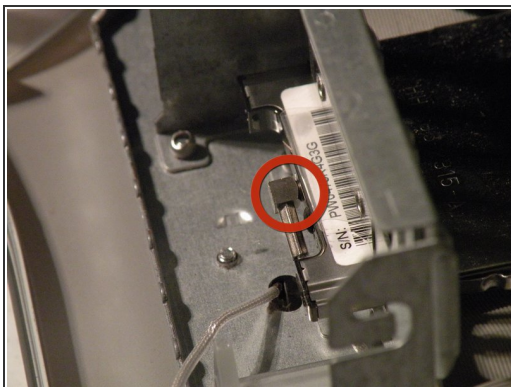
- Hidden between the CPU and the Graphics Card is the RAM.
- The Quicksilver uses PC133 133Mhz Ram and supports up to 1.5Gb, just like the cube.
- ⓘ The Original RAM is Labeled "KingMax." Some Type of Kingston Knockoff?

Step 4 — Graphics Card



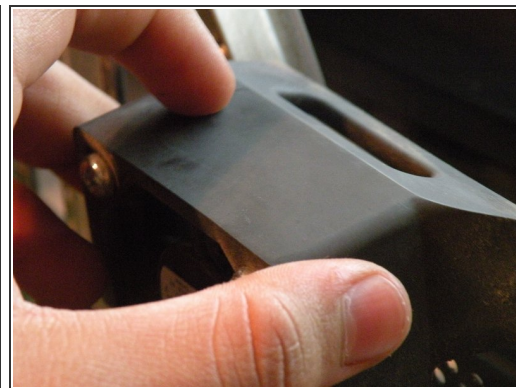
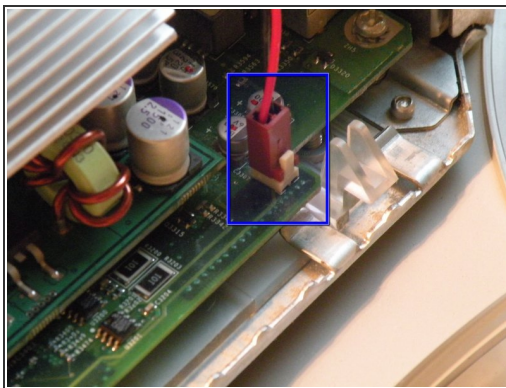
- Remove this screw, then push in this tab outward, and pull the card out.
- The Quicksilver came standard with this card, a 32MB NVIDIA GeForce 2MX AGP Mac Edition, this card supports the ADC Displays like the one we took apart last week.

Step 5 — AirPort Card



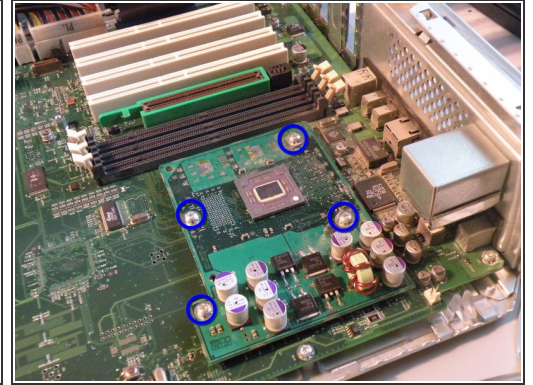
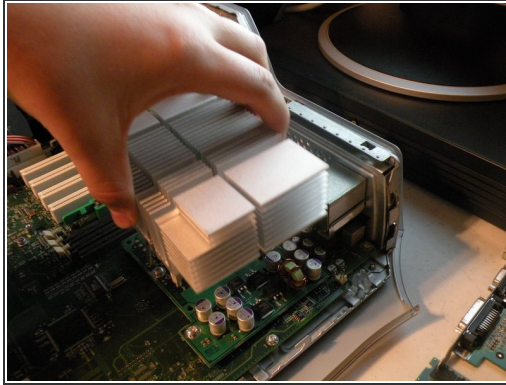
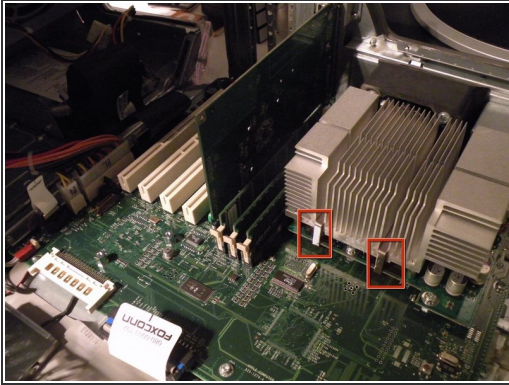
- Remove the AirPort Antenna by pulling it out of the back of the card
- Grab the plastic tab, and pull the card out.
- This is the same PCMCIA 802.11b Airport card found in every mac from 2000-2004, it is only wireless "B" so you only get 11Mbps, but that is enough for web browsing.

Step 6 — CPU Fan



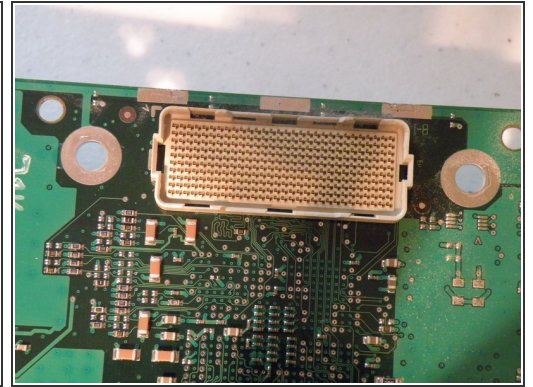
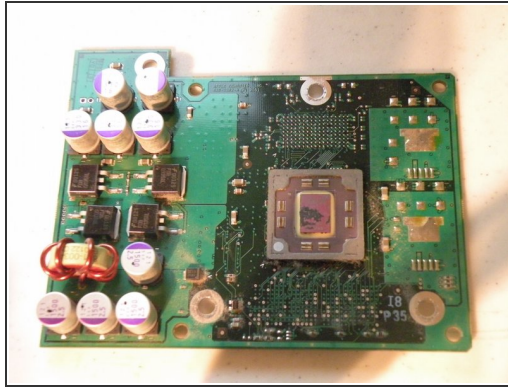
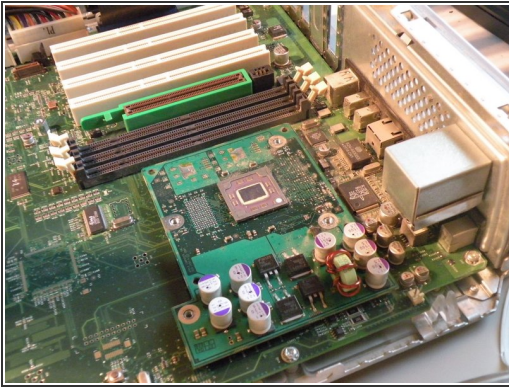
- Removing The CPU Fan
- Remove these 2 Phillips screws.
- Then Remove the fan connector.
- Then, remove the fan.

Step 7 — CPU



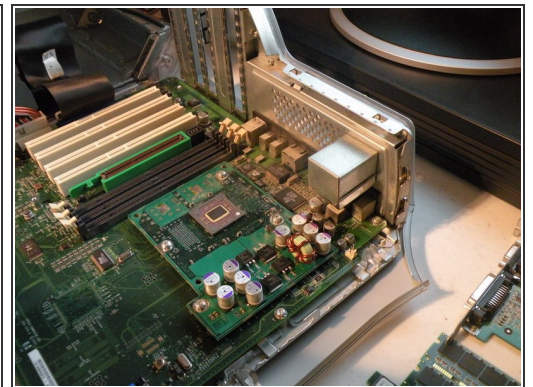
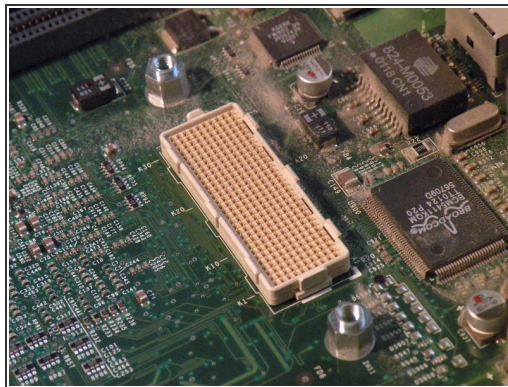
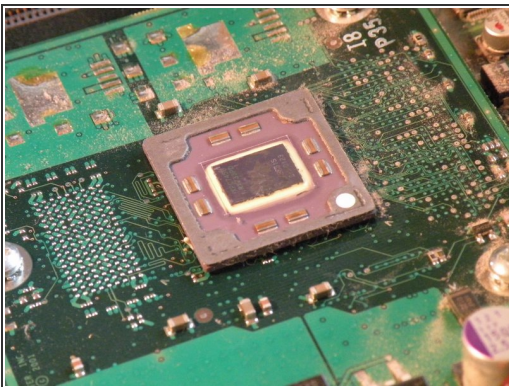
- This Computer boasts a 733Mhz Motorola PowerPC G4 CPU, though not fast enough to run leopard natively, it runs 10.4.11 "Tiger" fine.
- It has a 733Mhz Motorola PowerPC 7450 (G4).
- Start by removing the heatsink clamps with a flathead screwdriver.
- Do the same for the other side.
- Then Lift off the heatsink.
- This will reveal the CPU.
- Remove these screws.

Step 8 — Removing the CPU



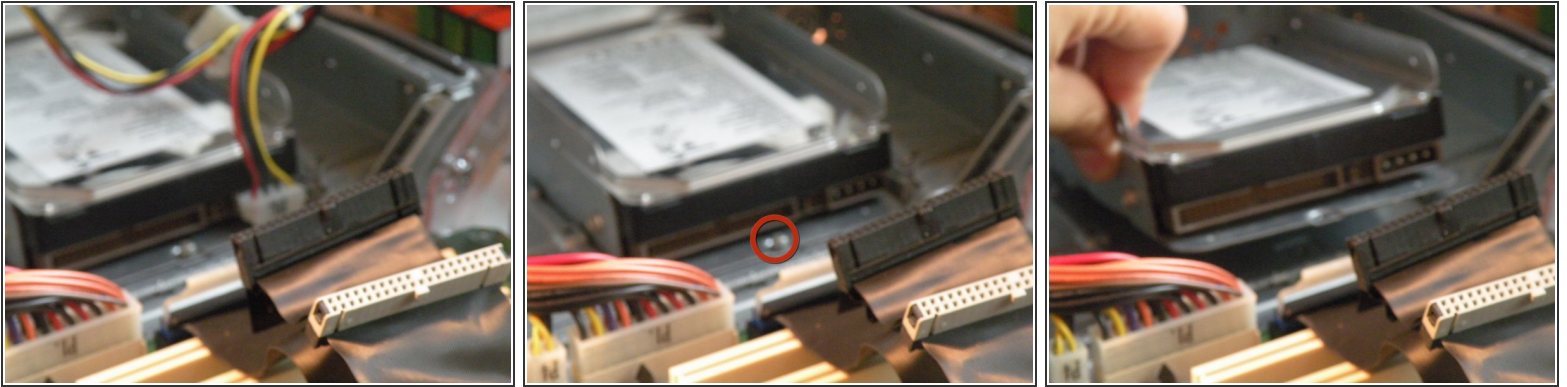
- Once those screws are removed, carefully remove the CPU.
- This is apple's 300-Pin connector, it is found on this Mac, and MDD's (This cpu won't work in an MDD) and similar to the one in PowerMac G5's.
- This connector is incredibly hard to remove, because of the way it connects, it is also very hard to remove without damaging it, if you don't pull it straight up, you will, most likely damage it.

Step 9 — CPU shots



 More CPU Shots

Step 10 — The Hard Drive Caddy



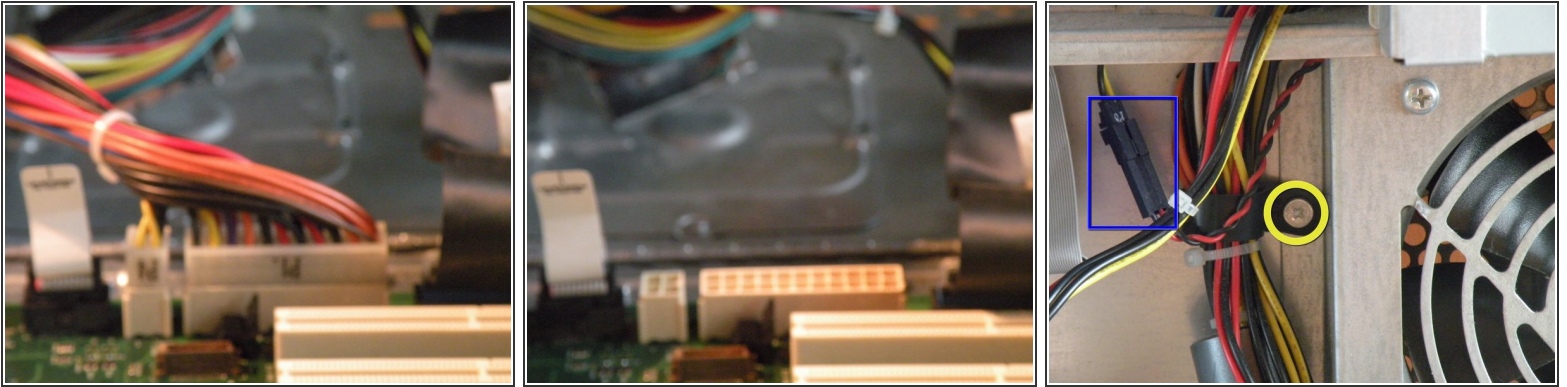
- Disconnect the IDE Cable and Power Cables from any hard drives.
- Remove this screw if present.
- Slide the caddy out, then set it aside.
- Many Apple Computers Including earlier versions of this one had a 128GB Limit on hard drives, only Quicksilvers made in 2002 and later will support hard drives larger than 128GB, but to bypass this, simply partition your hard drive in to multiple partitions under 128GB in Disk Utility.
- This computer uses standard IDE hard disks, and originally shipped with 40GB or 80GB.
- It will support up to 4 IDE drives, 2 Hard Disks, one Optical Drive, and one ZIP Drive.(You can put an IDE Hard Disk in the the ZIP Drive Slot if you wish, allowing for 3 Hard Drives).

Step 11 — Optical Drive / Zip Drive Cage



- Start by removing all of these screws.
- Then Slide the drive cage back, and pull it partially, then remove the IDE And Power Cables, and set it aside.
- Most Quicksilvers, Including Mine Shipped Standard With a DVD/CD-RW "ComboDrive"

Step 12 — Power Supply & Fan

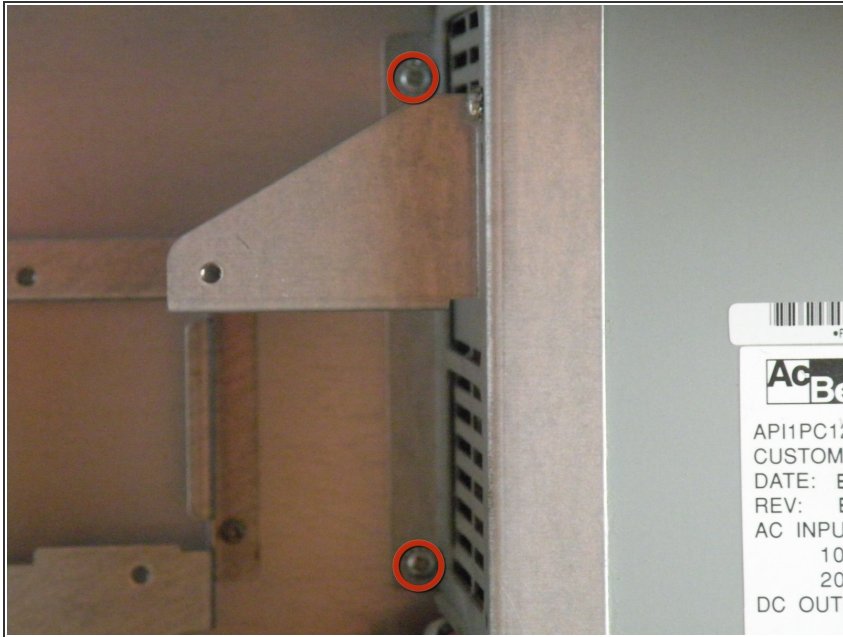


- This computer uses a non-standard 22-Pin Apple power supply, plus a 4-Pin 12V connector commonly found in some power supplies.
- Start by disconnecting the power connectors from the motherboard, and routeing them up to the level of the power supply.
- Also remove the fan connector, and route that up as well.
- Remove this Screw as well.
- Disconnect the Fan Connector.

⚠ Always be weary of power supplies, they can be harmful if handled wrong.

- Fan removal is only three screws. The one circled in yellow, one on the upper left of the frame cage (not shown), and one on the middle bottom of the frame (not shown).

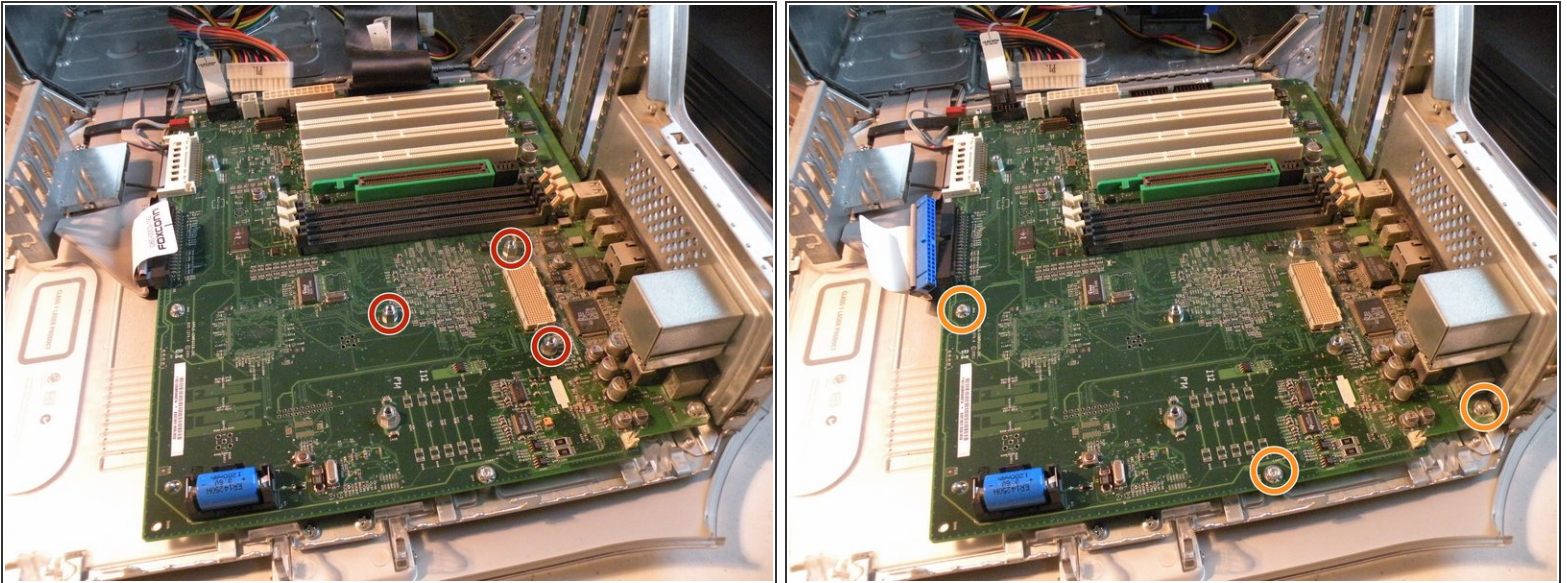
Step 13 — Power Supply



- Now, remove these 2 screws, and slide the power supply out of the case.

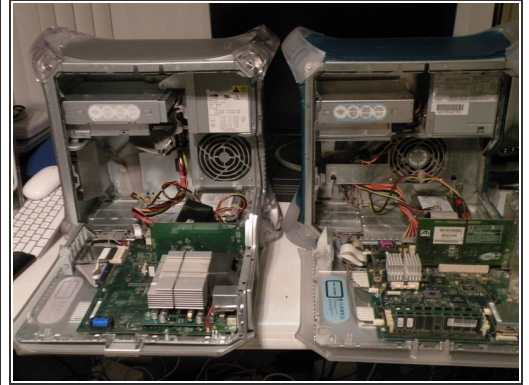
⚠ This isn't a standard PC Power Supply like the one in the G3 Blue And White, attempting to use an ATX PC Power Supply will fry the logic board!

Step 14 — Logic Board



- Start by disconnecting everything, cables, battery, etc.
 - There are three hex-shaped screws holding the board, which are right where the CPU was. These also provide the screw holes to screw and hold the CPU. Use an English 1/4" size socket to remove these three screws left behind from the CPU.
 - ⓘ I used a metric size socket(I believe it was 7mm), as I did not have an English size handy, and the metric seemed to work fine.
 - Then remove the 4 screws which are located around the edge of the board. If you have less than 4 screws, don't worry too much, if you don't have trouble removing the board at the next step, then you are fine.
- ⚠ **REMEMBER TO GROUND YOURSELF!** Use an [anti-static wrist strap](#) to prevent ESD damage to your logic board.
- Now, slide the logic board away from the rear of the case about 1/2 inch, and lift it out. It should not be difficult to pull out or up, if it is, go back, and make sure you have removed all screws. I did, however, have to pull out towards the front, then up, then back towards the back of the case before I could completely remove the board.

Step 15 — Comparison to the G3 Blue & White



- G4 Quicksilver (Left) (3rd Photo)
- G3 B&W (Right) (3rd Photo)
- The computers are exactly the same size, but the Quicksilver Weighs more than the G3, due to heavier plastics, more case metal, and a much larger heatsink.

Step 16



- Standard PC Parts That Will Work In This Computer:
- PC133 133Mhz Ram
- Standard IDE Hard Drives
- Standard IDE Optical Drives, Even DVD-Burning "SuperDrives"