



Mac Pro SATA Optical Drive

Installation Manual

Thank you for purchasing the Other World Computing Mac Pro Serial ATA Optical Kit! This guide will walk you through the installation process step by step and get you up and running using your new optical drive quickly.

Installation of the optical drive is straightforward but does contain some difficult procedures. We highly recommend you thoroughly read through this manual before beginning the installation to avoid any surprises along the way.



ATTENTION!
You will be working in close proximity to static sensitive components. Take precautions to not build up static electricity.

You will need the following tools to perform this installation:

- A Phillips P1 Screwdriver
- A Phillips P0 Screwdriver
- You may need a thin pair of needlenose pliers, or a pair of hemostats, depending on your Mac Pro and it's time of manufacture.

Bring your Mac Pro up to a desktop level so you can work on it. You'll be leaving it in an upright position for this installation, but you won't want to be on the floor to do this job.

This manual is broken into 3 parts.

• If you own a Mac Pro 667MHz system made between August, 2006 and January, 2008, turn to page #3

• If you own a Mac Pro 800MHz system made after January, 2008, turn to page #12

• The installation of the optical drive is the same for both of these models. That portion of the assembly guide begins on page #16

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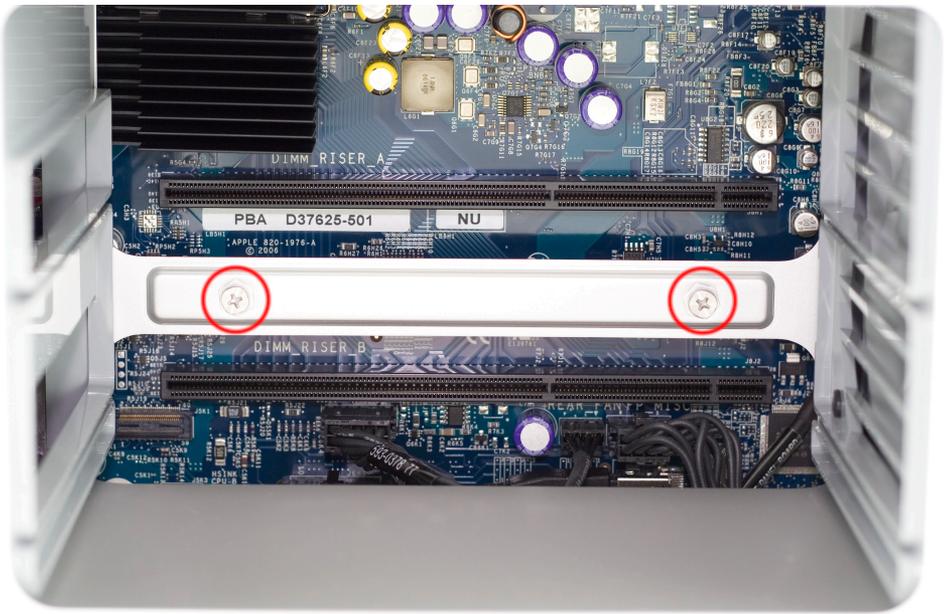
Mac Pro 667MHz - Cable Installation



Begin by removing the side door on your Mac Pro.



On the lower right, find the memory bay.



Remove the 2 memory riser cards, exposing the 2 Phillips screws shown here.



Remove the 2 Phillips screws. They are long and extend through the logic board and into the back of the computer.



At the bottom of the memory bay, there are 2 more Phillips screws. They are a smaller head than the ones inside the memory bay that you just removed. Use a Phillips #0 screwdriver to remove the screws.

There is one problem. On many machines, the screws were improperly installed. Instead of using loctite on the screw standoff, Apple used loctite on the screws themselves, into the standoffs - without loctite on the standoffs that thread into the Mac Pro's chassis.

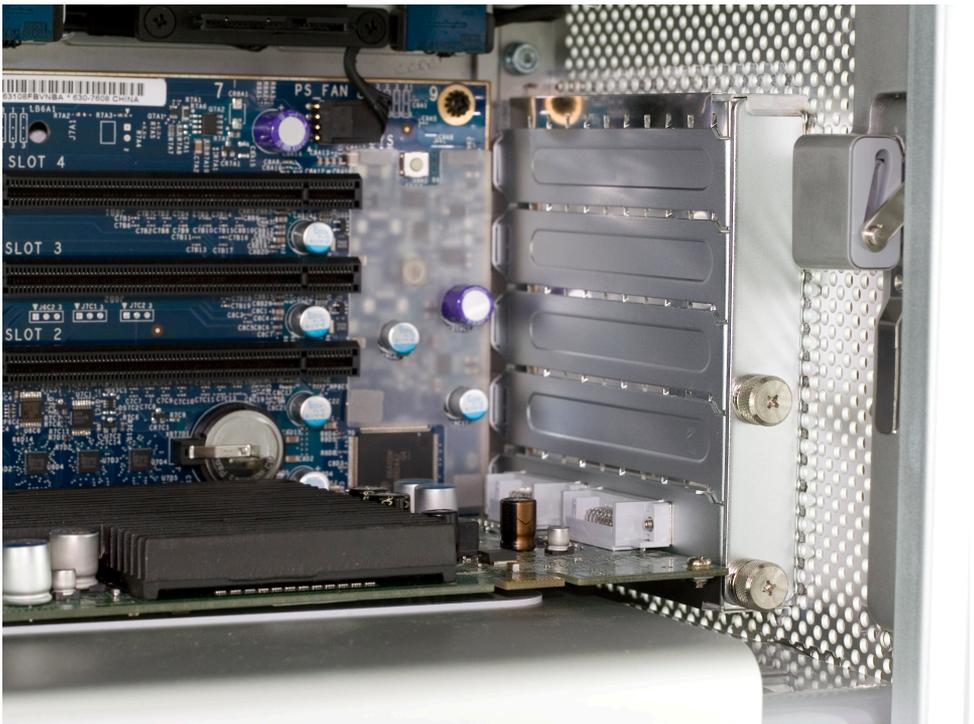
This means, when you try and remove the screws, the standoffs themselves that the screws are screwed into turn. You may need to use a very thin pair of needle-nose pliers, hemostats, or even a thin flat blade screwdriver to hold the hex-shaped standoff tight, while you loosen the Phillips screws.



A photo of this task being made look easy, at least if your screws are not improperly installed as described above. Try and not strip the Phillips screw heads.



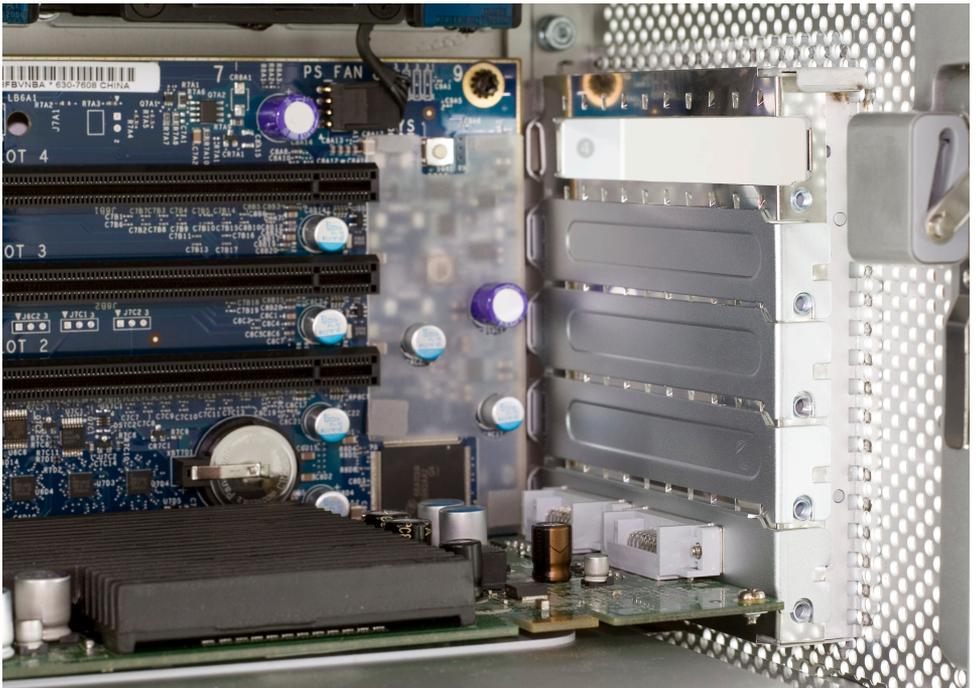
Make sure that the locking latch on the back side of the Mac Pro is lifted up. Then, remove all 4 of the drive bays and set them aside.



Look inside the PCI Express bay at the top right of the Mac Pro. You'll need to remove items from this location next.



Using a Phillips P0 screwdriver, loosen the PCI Express cover retaining plate and remove it. There is a tab at the top that the metal plate latches into, you'll need to unscrew the 2 screws and slide the plate down out of the tab.



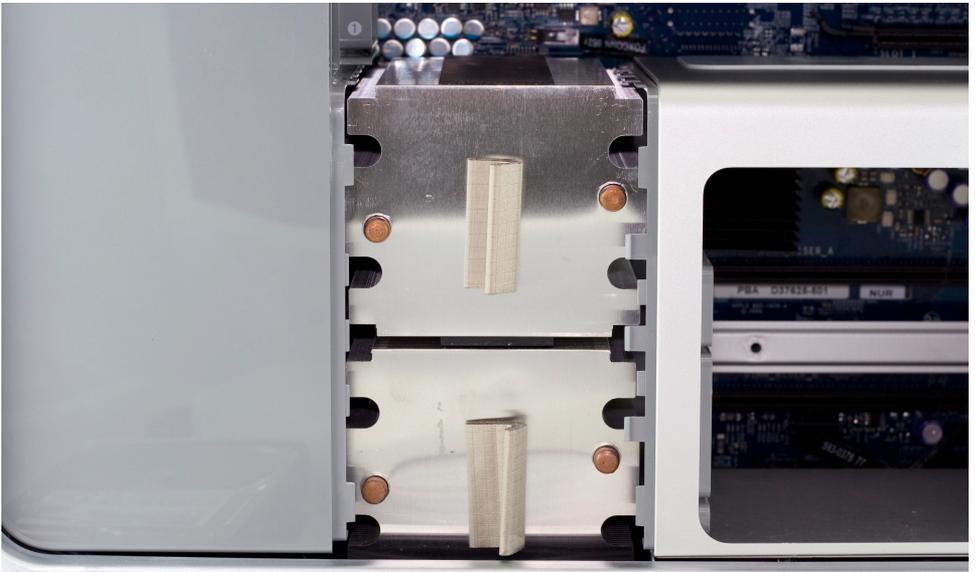
Once the metal retaining plate is removed, remove the top PCI Express dead plate cover from the top slot as shown. Set the dead plate cover aside, you'll be using it in a future step.



Take the memory bay and gently move it to the right, towards the back of the computer. You'll be able to gently shake it and it will pop loose and move just enough to expose a gap between the processor cover and the memory bay as shown.



Once the memory bay is moved, you can pull out on the bottom of the processor cover on the bottom right, and gently remove it from the computer. It hinges up and to the right as shown. It locks into the fan shroud on the left fairly tight.



A view of the processor heatsinks with the cover removed.

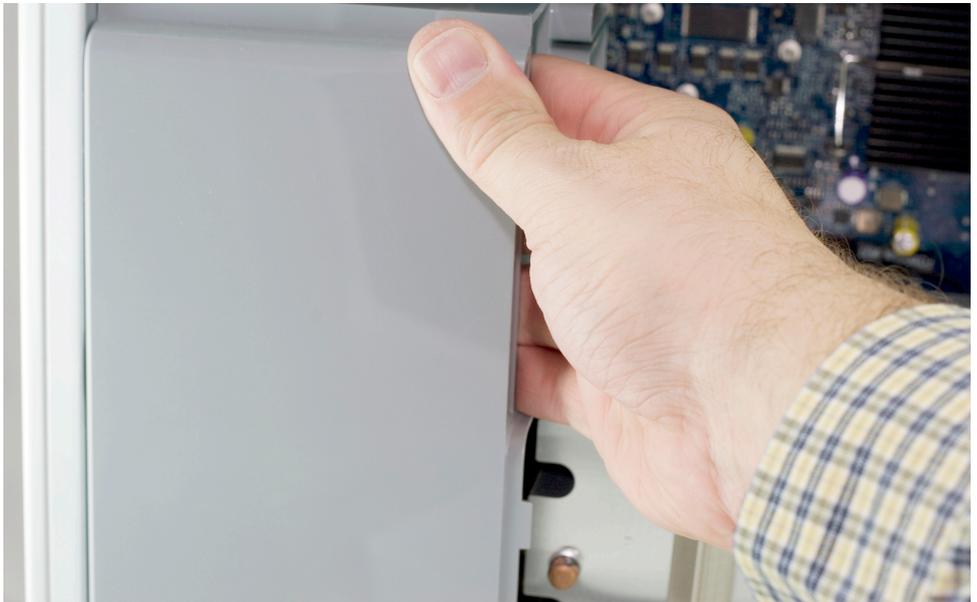


Some later model Mac Pro systems, especially 8-Core models, have a hidden Phillips screw located at the base of the fan assembly. If it's there, Unscrew it.



Take the L shaped PCI card deadplate you removed on page #7. Starting at the top of the fan shroud, work the short end of the bracket into the gap at the back of the Mac Pro, as shown above.

Once the bracket is inserted, you can use it as a hook to help pull the fan assembly out of the Mac Pro. Place the bracket at the bottom left like shown here. Start putting gentle force on the bracket, pulling on it. Then....



Using your right hand, wiggle, tug, and pull the entire fan assembly out of the computer. It attaches to the logic board via a connector that you don't need to worry about disconnecting, it's a pressure fit.

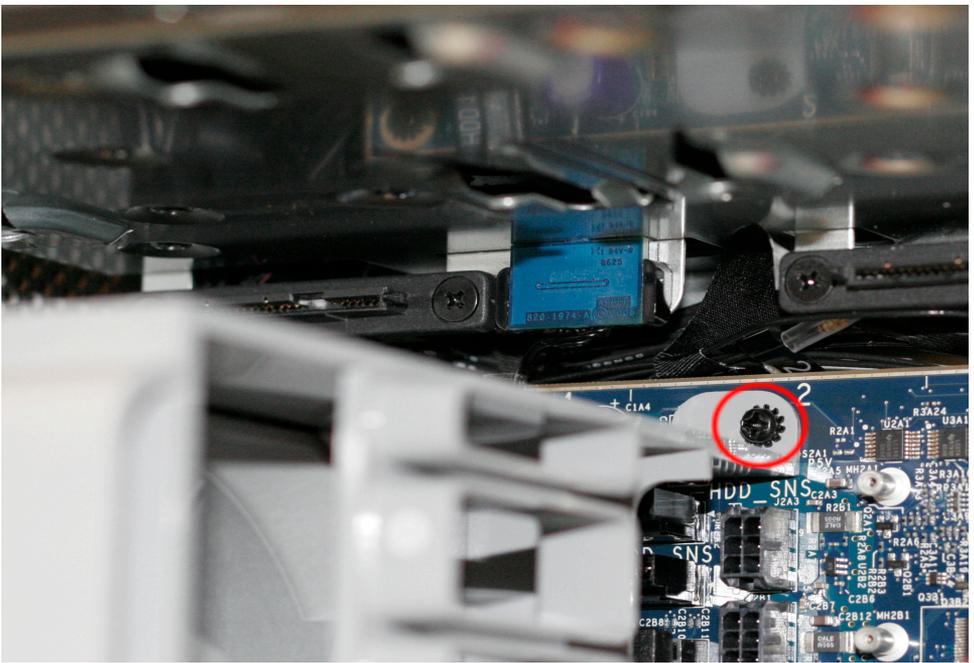
Mac Pro 800MHz - Cable Installation



Begin by removing the side door on your Mac Pro.



Make sure that the locking latch on the back right side of the Mac Pro. Then, remove all 4 of the drive bays and set them aside.



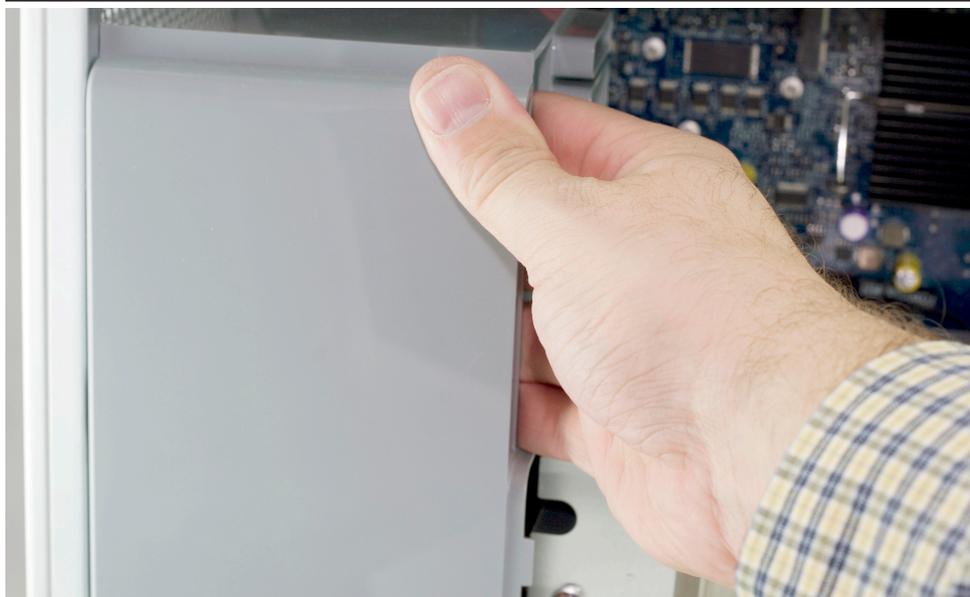
Immediately to the left of the PCI slots, at the top of the logic board, you will see this Phillips screw. Using a Phillips P0 screwdriver, remove it.



Remove the cover over the processors by pulling on it. There are magnets securing the cover in place.

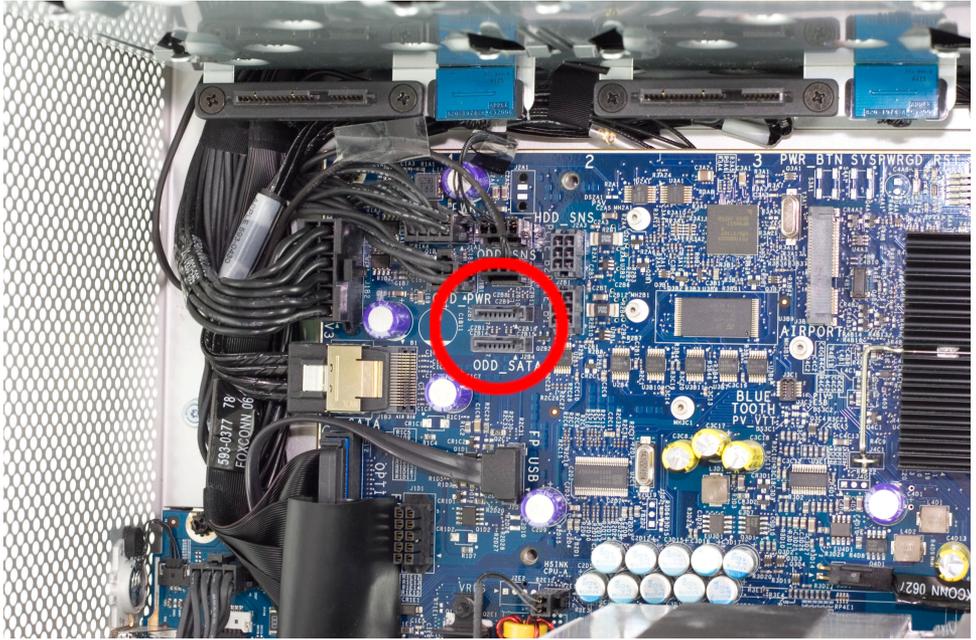


Remove the Phillips screw from the base of the fan assembly, located at the bottom left of the processor heatsinks.

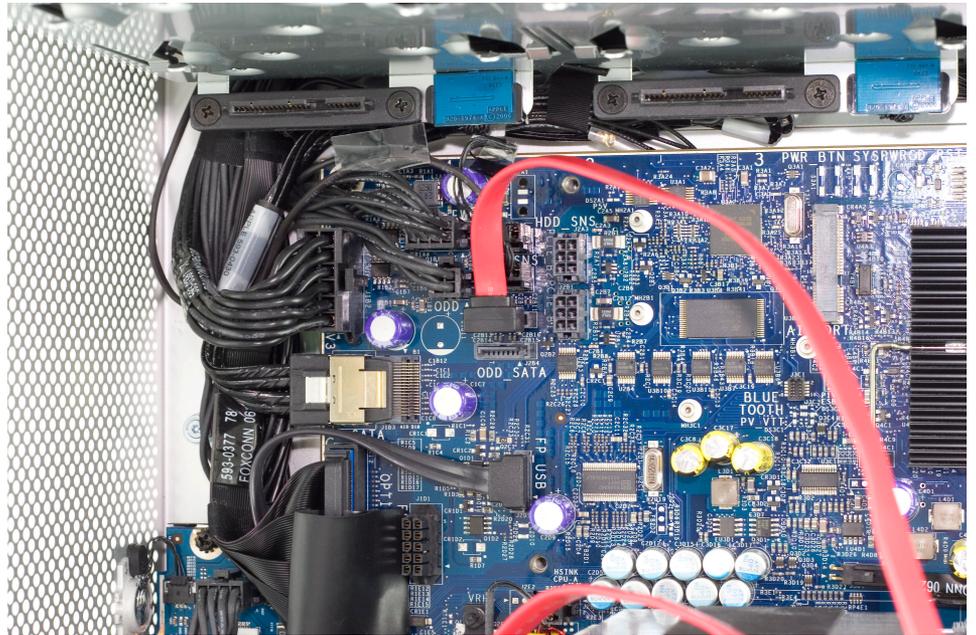


Using your right hand, wiggle, tug, and pull the entire fan assembly out of the computer. It attaches to the logic board via a connector that you don't need to worry about disconnecting, it's a pressure fit.

Optical Drive Installation - All Models



Now that you have fully exposed the logic board, look for the 2 SATA ports, circled here.



Insert the L shaped SATA cable into the top SATA port on the logic board.



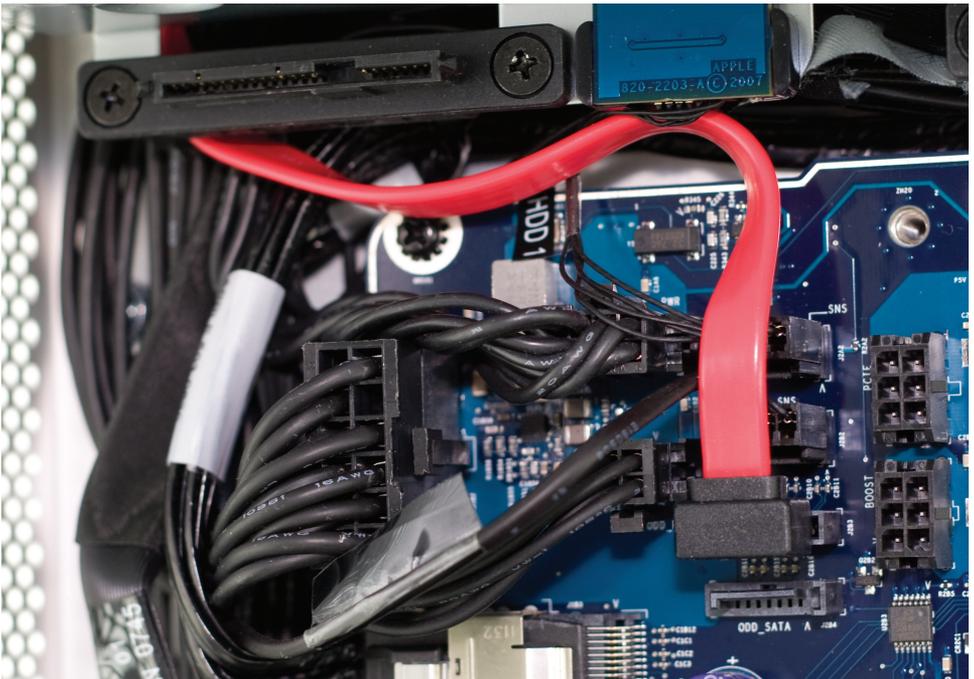
Grasp the optical bay with your fingers and pull straight out. The drive carrier may require a bit of shaking to dislodge it from its mounts but it will come right out. Disconnect the power and ATA cables from the back of the existing optical drive and set the carrier on a work surface in front of you.



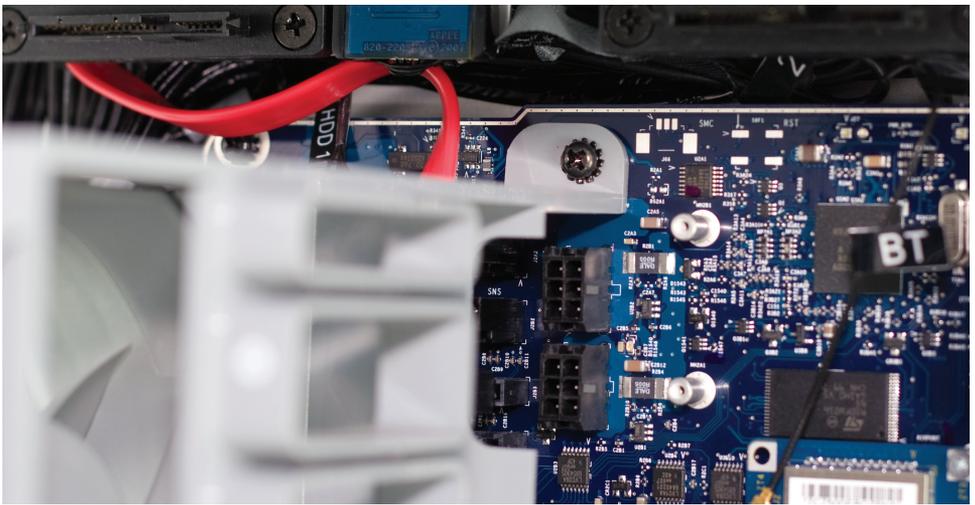
Insert your new SATA optical drive into the carrier in the empty lower bay. There are 4 screws provided by Apple already on the back side of the drive carrier. Remove them and use them to fasten the drive to the carrier.



Start routing the SATA cable that you have already attached to the logic board up through the corner of the optical bay, following the existing wires.



Here you see the proper routing of the SATA cable, behind drive tray #1's logic board connector. Make very sure you have the cable all the way tucked in behind the connector before proceeding.



Reinsert the fan module into the computer, sliding it on its base track and then reinserting its Phillips screw into the logic board. Take careful note of the location of the red SATA cable in this picture - you will need to make sure that the cable is not behind the mounting bracket when you tighten the screw.



Insert the SATA cable and the power converter cable into the drive. Connect the power converter cable into the secondary power connector already provided in the computer. Finally, reconnect the power cable and the ATA cable into the top optical drive.



Set the optical drive assembly into the optical drive bay, there are 2 screws that line up onto a track in the bottom of the bay. Carefully route the cabling so that it's not pinched or disconnected when fitting the carrier into the optical bay. Fully insert it so that it's flush into the computer again.



Mac Pro 667MHz Owners; Turn to page 11 and work backwards to complete reassembly of your Mac Pro.

Mac Pro 800MHz Owners: Reinsert the Phillips screw you removed from the base of the fan unit. Replace the processor cover. You're all set - enjoy your new optical drive!

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