



Mac Pro "Quad Xeon" eSATA Extender Cable *Installation Manual*

Thank you for purchasing the Newer Technology Mac Pro “Quad Xeon” eSATA Extender Cable! This guide will walk you through the installation process step by step and get you up and running using eSATA storage products quickly.

Installation of the Newer Technology eSATA Extender Cable 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
- (both of these are available in the Newer Technology 7 Piece Tool Set -
<http://newertech.com/products/7pctoolset.php>)
- 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.

- Replace the cover over the processors. Remember, this will latch into the fan assembly. You will need to pivot it down in front of the memory bay to get it in place.

- Slide the memory bay back over to the left, aligning the holes inside the memory bay for the 2 Phillips screws you need to install at the back of the bay into the logic board. Fasten them in place before reinserting the 2 Phillips screws into the bottom of the Mac Pro frame, into their standoffs underneath the memory bay.

- Put the 4 SATA hard drives back into the Mac Pro, starting with #1 on the left, and working your way over to #4 on the right. Make sure that the Mac Pro Quad Xeon eSATA Extender Cables do not interfere with the insertion of any of the 4 drives. The wires must be behind the black rectangular SATA drive connection fittings.

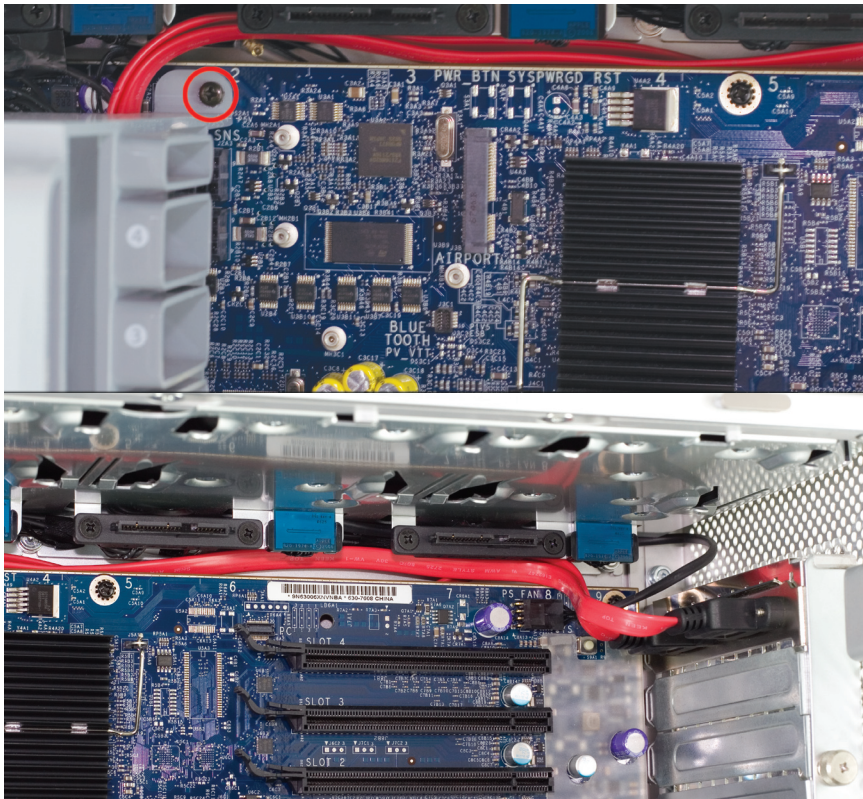
- Replace the 2 memory riser cards back into the memory bay. Make sure they are fully seated all the way into the bay.,

- Put the side door back onto the Mac Pro. Latch it closed.

Operating Notes:

- You can attach any 2 eSATA devices to the Mac Pro Quad Xeon eSATA Extender cables. These devices may be SATA I or SATA II.

- You must have the eSATA device attached when you boot the computer.
eSATA devices are not hot swappable and the machine must be rebooted for the device to be sensed by the computer and recognized.



Here are 2 pictures of the Mac Pro Quad Xeon eSATA Extender Cable completely installed. Finish routing the SATA cables and double check that you have them completely behind the rectangular black SATA drive connectors at the top of the Mac Pro.

Once you have the 2 wires completely routed, put the video card back into the machine in it's bottom PCI Express slot. Then, insert the PCI Express card retaining cover into the top of the locking tab, and insert the 2 Phillips screws that hold the PCI cover retaining cover in place.

You're now ready to reinstall the components that you removed to get to this point.

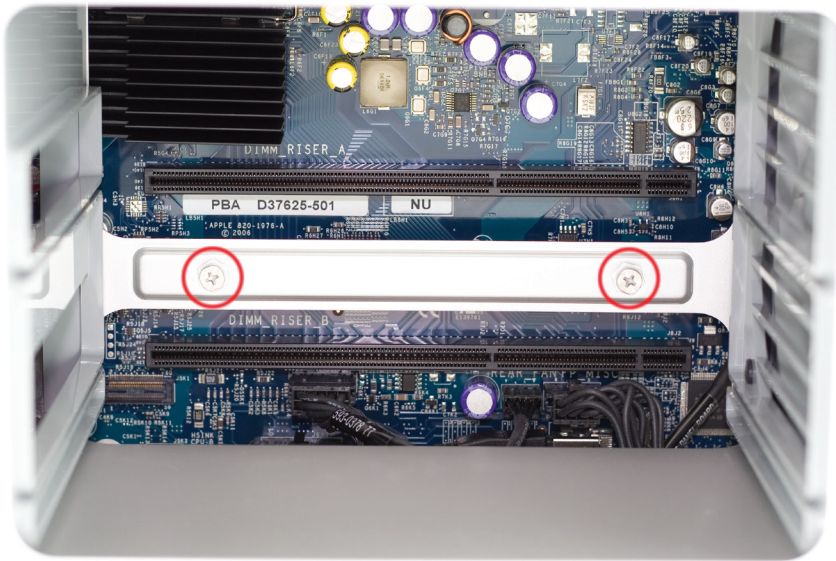
- Replace the fan assembly. It has a track at the bottom that the assembly slides into, then fully into the Mac Pro and it locks onto the logic board. At the top right of the fan assembly you need to reinstall the Phillips screw you removed. Note the Mac Pro Quad Xeon eSATA Extender cables will fit just inside the fan assembly. Note the top left of the upper photo on this page for reference on the routing of this cable.



Begin by removing the side door on your Mac Pro.



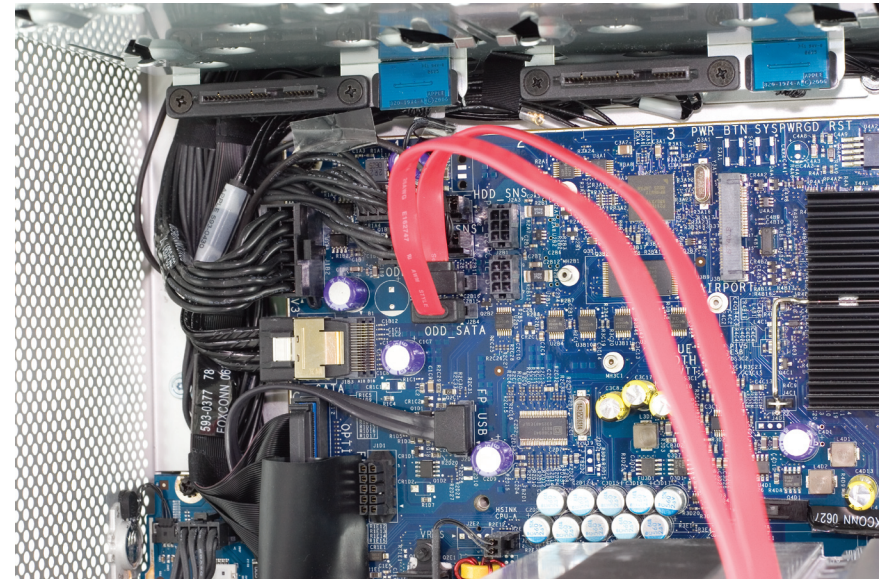
On the lower right, find the memory bay.



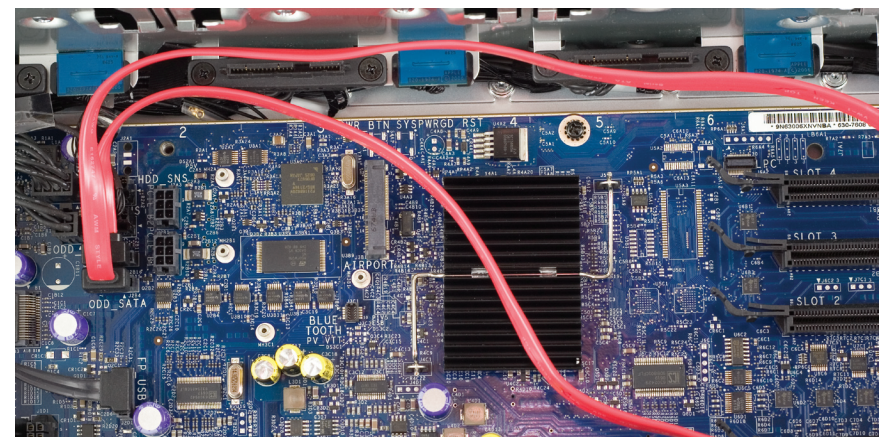
Remove the 2 memory riser cards, exposing the 2 Phillips screws shown here.



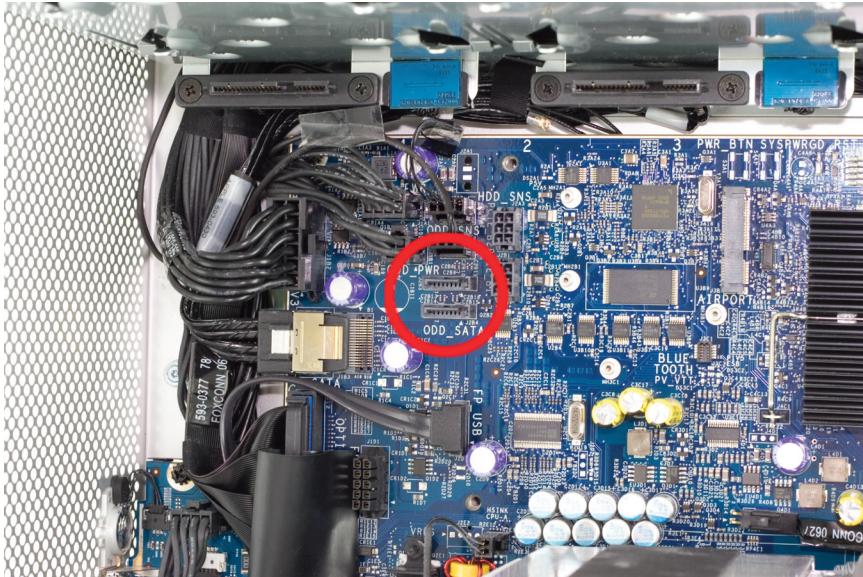
Remove the 2 Phillips screws. They are long and extend through the logic board and into the back of the computer.



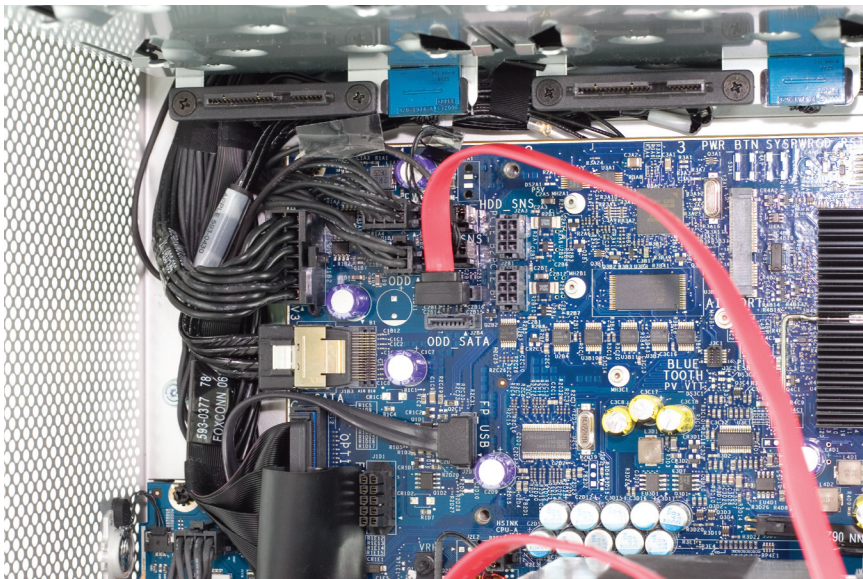
Attach the straight cable to the bottom logic board SATA port.



With the L shaped top cable closest to the logic board, and the straight cable above it, start working the cables to the top of the logic board, and tuck them in behind the black rectangular plugs that the 4 SATA drives plug into.



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



Take the Mac Pro Quad Xeon eSATA Extender Cable and attach the L shaped cable to the top internal SATA port on the logic board.



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 needlenose 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 right side of the Mac Pro. 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.



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.



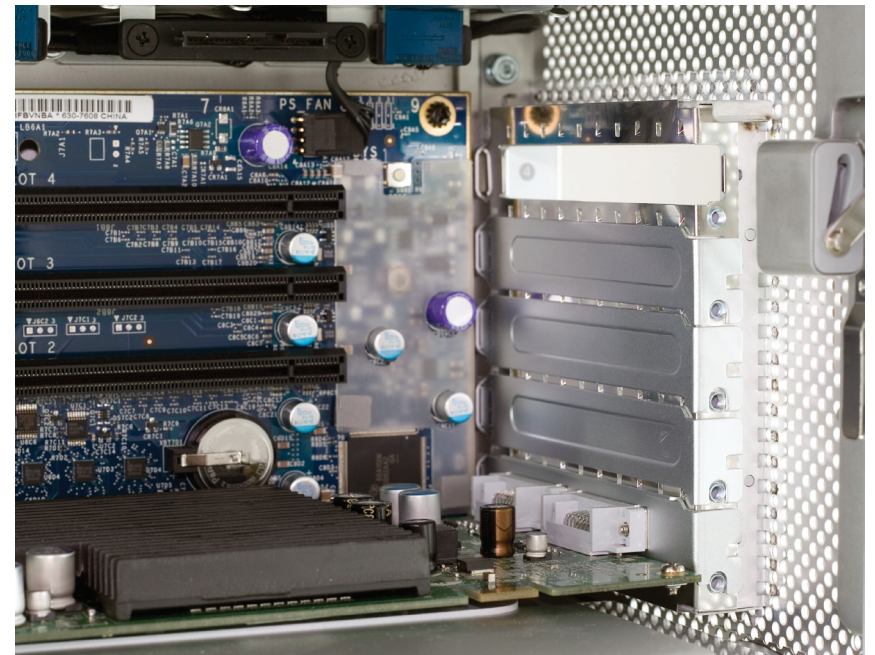
A view of the processor heatsinks with the cover removed.



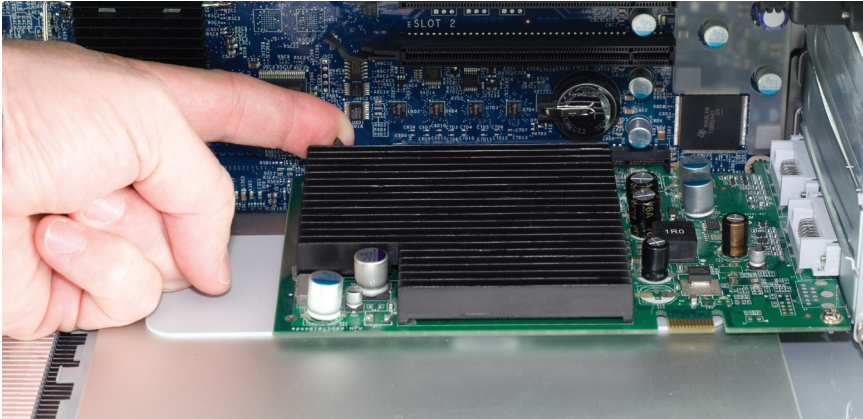
Using a Phillips P0 screwdriver, loosen the PCI Express cover retaining plate and remove it. There is a tab at the top that the metal plate latches into, you'll need to unscrew the 2 screws and slide the plate down out of the tab.



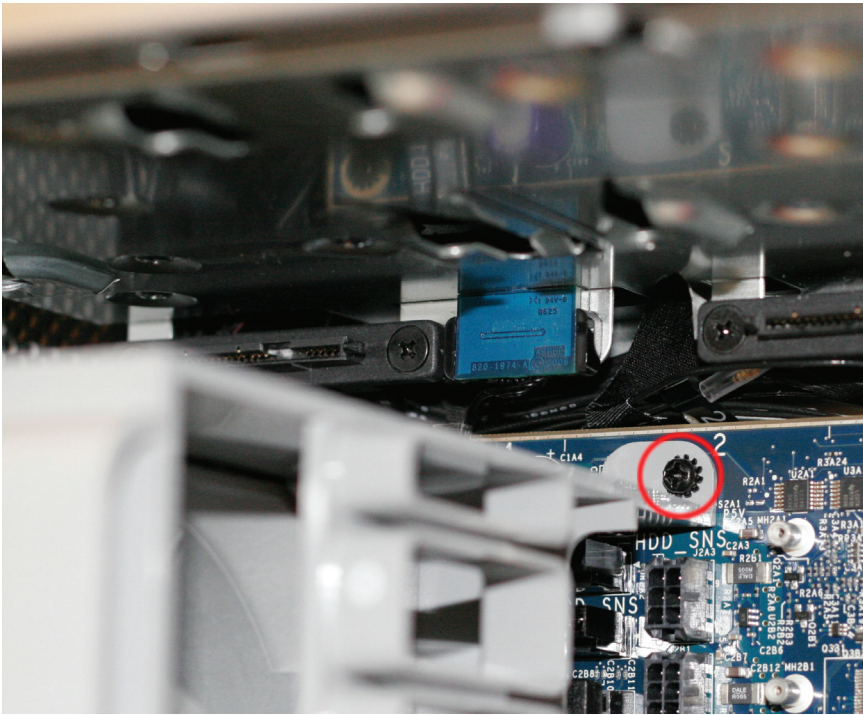
Take the L shaped PCI card deadplate and, starting at the top of the fan shroud, work the short end of the bracket into the gap at the back of the Mac Pro, as shown above.



Once the 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.



Remove your PCI Express video card. At the rear of the PCI Express slot, there is a small plastic tab that you need to lift up to unlock the PCI Express card. While doing this, pull gently on the card itself toward you and it will come free. Set the video card 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.



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.