OWC™

Multi-Mount for Mac Pro 2006-2008
3.5" to 5.25" Drive Bay Converter Bracket
2.5" to 3.5" Drive Bay Converter Bracket

Assembly Manual

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

BEFORE YOU BEGIN:

Your computer is a static-sensitive device. It is susceptible to invisible damage if not protected during installation.

We recommend proper grounding through the use of a grounding strap. Be sure to work in a clean and static-free area, and avoid wearing clothing that retains static charges. For more information, please visit: www.macsales.com/static

1.1 System Requirements

1.1.1 Computer Requirements
Any 2006 - 2008 Mac Pro system

1.1.2 Drive Requirements
  The OWC Multi-Mount is designed to work with any 3.5" or 2.5" SATA drive.
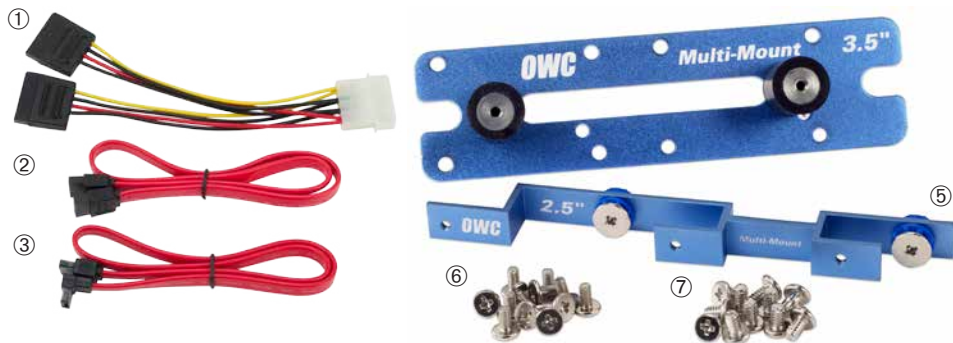
1.1.3 Tool Requirements
• Phillips #1 or #2 Screwdriver
• Needlenose Pliers or Hemostats

NEED TOOLS? OWC offers a 14-piece toolkit that provides the all of the tools required to perform the installations shown in this document.
http://eshop.macsales.com/item/NewerTech/TOOLKIT14/

1.2 Package Contents

① 4 Pin Power to SATA Power Y Cable or single SATA Power Cable*
② SATA Straight - Straight Cable*
③ SATA "L" - Straight Cable*
④ OWC Multi-Mount 3.5" Drive Bracket (2 pieces)
⑤ OWC Multi-Mount 2.5" Drive Bracket (4 pieces, 2 required per drive)*
⑥ Screws for 3.5" Bracket - Coarse Thread (16 pieces)*
⑦ Screws for 2.5" Bracket - Fine Thread (12 pieces)*
⑧ Assembly Manual (not pictured)

IMPORTANT: Depending on type of Multi-Mount kit you purchased, contents may differ. The brackets are sold as individual units and as complete sets. Please check your invoice for exact contents.

2.1 Mac Pro 667MHz Disassembly

Begin by removing the side door on your Mac Pro.

On the lower right, find the memory bay.

Remove the two riser cards, exposing the Phillips screws shown here.

Remove the two Phillips screws.

At the bottom of the memory bay there are two Phillips screws, shown above. Use a Phillips #0 screwdriver to remove the screws as shown below.
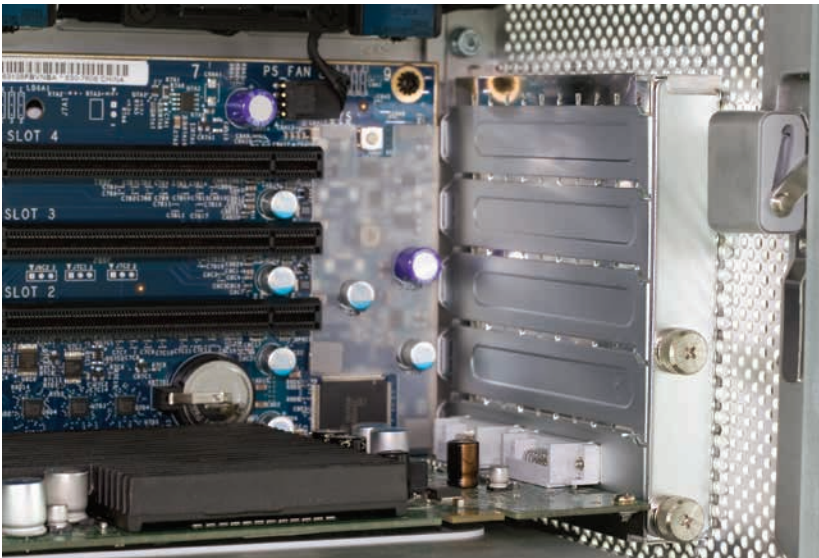

IMPORTANT: in many cases these specific screws were improperly installed. Instead of using loctite on the screw standoff, Apple used loctite on the screws themselves. This means when you try and remove the screws the standoffs themselves will turn instead of the screws. You may need to use a very thin pair of needlenose pliers, hemostats, or a thin, flat-blade screwdriver to hold the standoff tight while you loosen the Phillips screws.

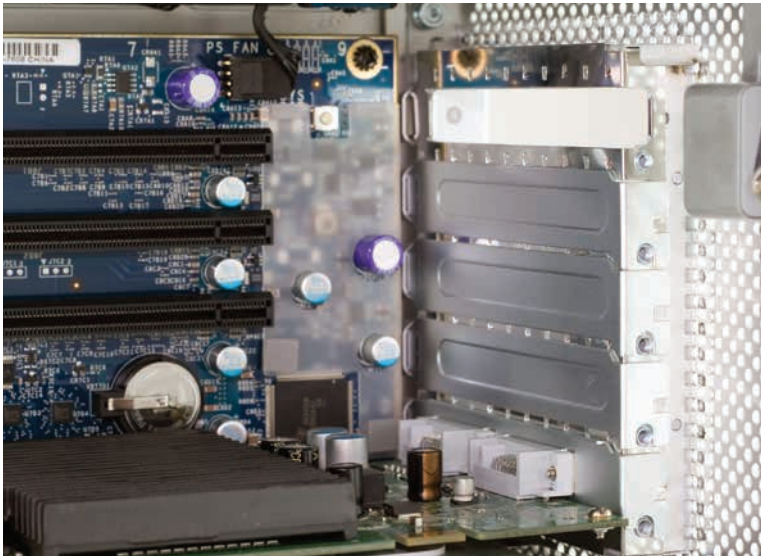Make sure the latch on the back of the Mac Pro is open, then remove all four of the drive sleds and set them aside.

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 #0 screwdriver, loosen the PCI Express cover retaining plate and remove it. There is a tab at the top that is connected to the plate; unscrew the two screws and slide the plate down, out of the tab.
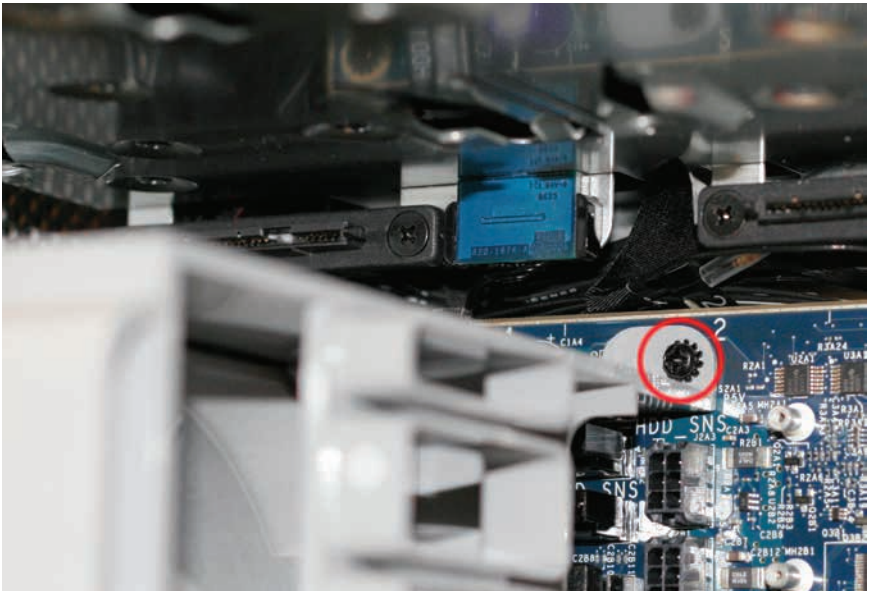

Once the metal retaining plate is removed, remove the top PCI Express plate cover from the top slot as shown. Set the plate cover aside; you will need it later.

Remove your Graphics Processing Unit (GPU). It should look similar to the green PCIe card shown above. At the rear of the PCI Express slot there is a small plastic tab -- lift it to unlock the PCI Express card. While doing this, pull gently on the card itself toward you and it will come free.

Immediately to the left of the PCI slots, at the top of the logic board, you will see a black screw (circled in red above); use a Phillips #0 screwdriver to 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.

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 a the base of the fan assembly. Unscrew it.

Take the L-shaped PCI plate you removed earlier. 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 (shown above). Start putting gentle force on the bracket, pulling on it.

Then, using your right hand, gently ease the entire fan assembly out of the computer. You may have to use a slight side-to-side motion as you pull in some cases. It attaches to the logic board via a connector that you don't need to worry about disconnecting, it's a pressure fit.
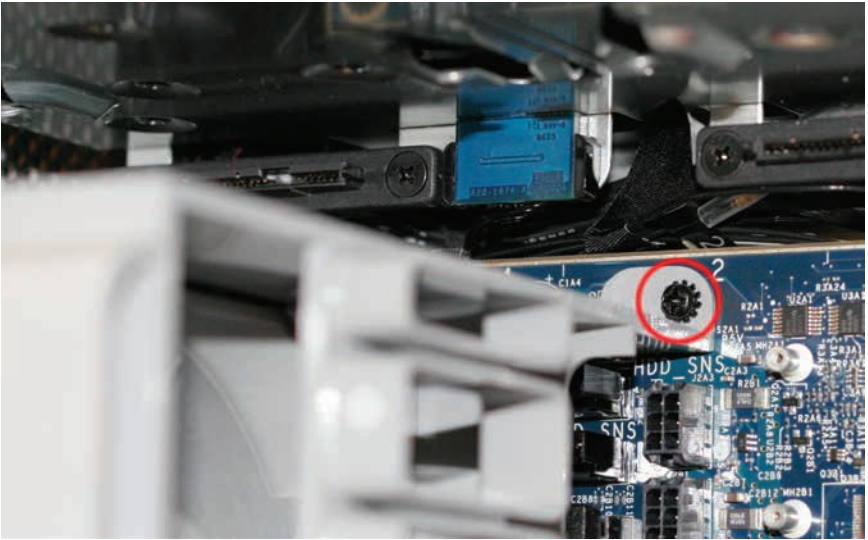
3.1 Mac Pro 800 MHz Disassembly

Begin by removing the side door on your Mac Pro.

Make sure the latch on the back of the Mac Pro is open, then remove all four of the drive sleds and set them aside.

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Immediately to the left of the PCI slots, at the top of the logic board, you will see a black screw (circled in red above); use a Phillips #0 screwdriver to remove it.

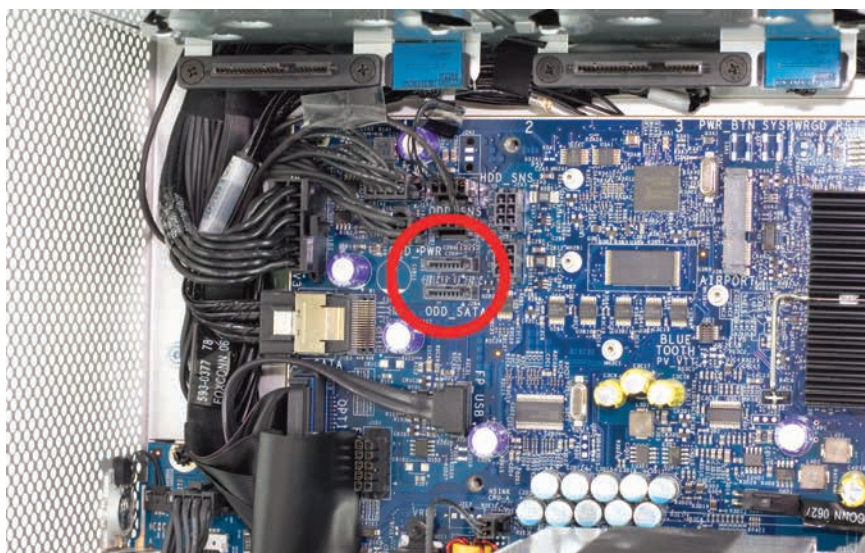Remove the CPU cover by pulling on it -- it is secured by magnets.

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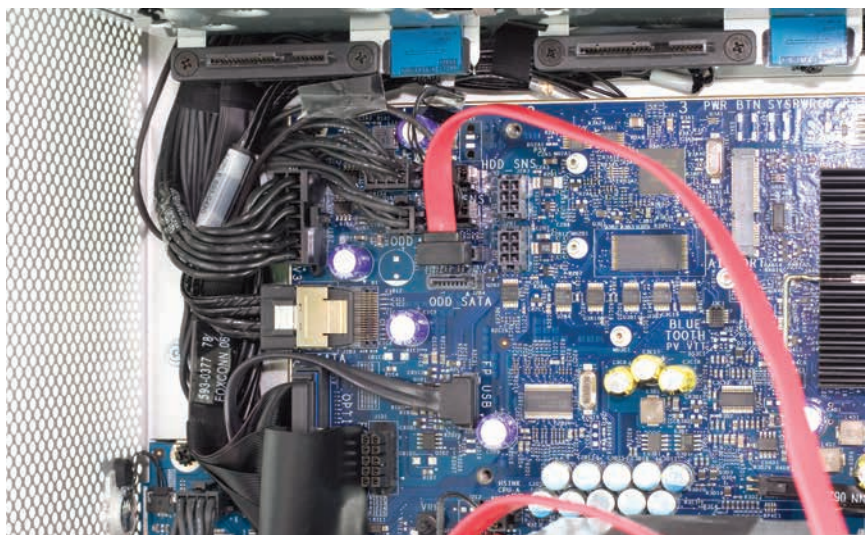

Then, using your right hand, gently ease the entire fan assembly out of the computer. You may have to use a slight side-to-side motion as you pull. The fan assembly has a pressure-fit connection to the logic board, it will release itself when the fan housing is free.
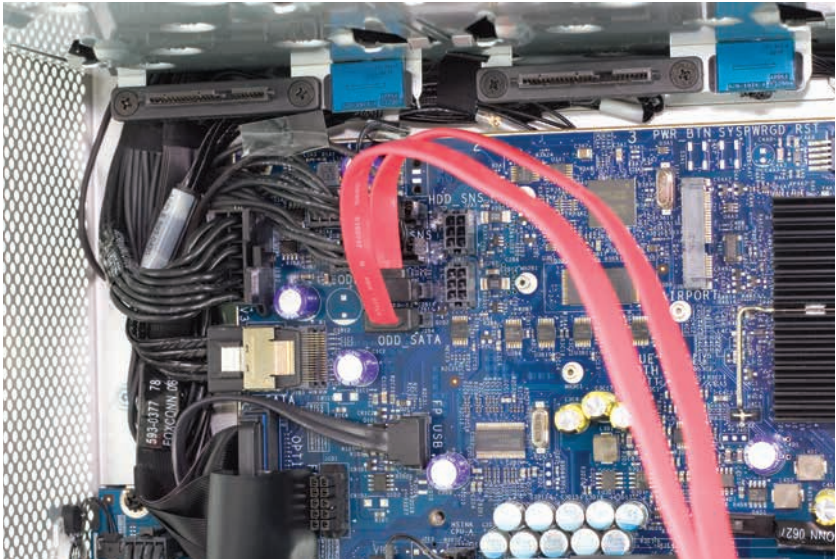
4.1 Cable Installation

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

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

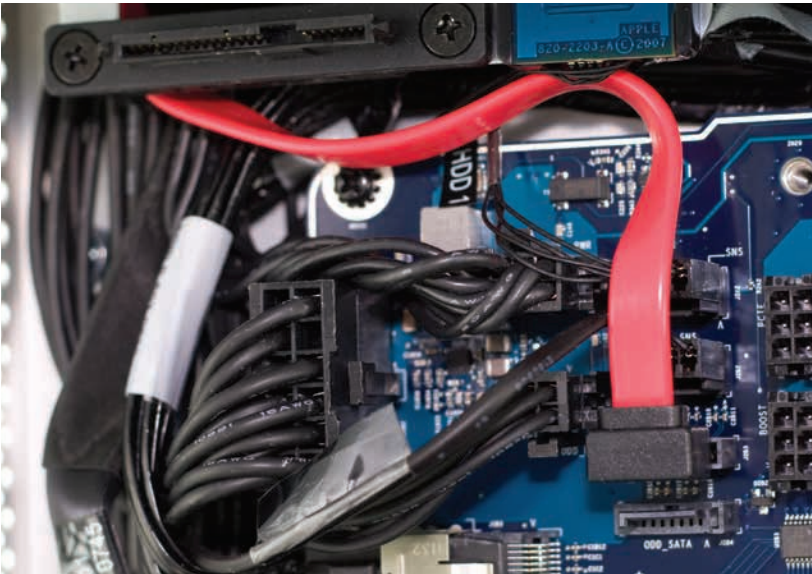Insert the other SATA cable into the bottom SATA port on the logic board.

PULL HERE

Grasp the optical drive carrier and pull straight out. The carrier may require gentle shaking to dislodge it. Disconnect the power and ATA cables from the back of the optical drive and set the carrier on a work surface.

Route the SATA cables (that you attached to the logic board earlier), up through the corner of the optical bay -- follow the existing wires.

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

5.1 Installing 3.5" Hard Disk Drives

Begin by positioning the bottom 3.5" Hard Disk Drive (HDD) with the connection ports facing away from you, then pick up the drive bracket labeled as OWC Multi-Mount 3.5".

Attach the Multi-Mount to the bottom 3.5" HDD using the center Phillips screw -- coarse thread -- but don't tighten it completely yet. Attach a second screw to one of the outside holes in order to center the bracket on the HDD. Afterward you can insert the third screw and tighten all three of them firmly.

If you intend to install a second 3.5" drive into the Multi-Mount, continue with installation of that drive following the same steps noted above. **Note:** installation of a second 3.5" drive requires the removal of your optical drive due to height restrictions.

Once you have the right bracket installed, rotate the hard drive and attach the left side bracket using the same method described earlier.

The OWC 3.5" Multi-Mount assembly is now ready to be installed into your system. Chapter 3 includes photos of common installation scenarios. **Note:** you also can add a 2.5" SATA drive using the OWC 2.5" Multi-Mount -- this configuration is covered in the next chapter.
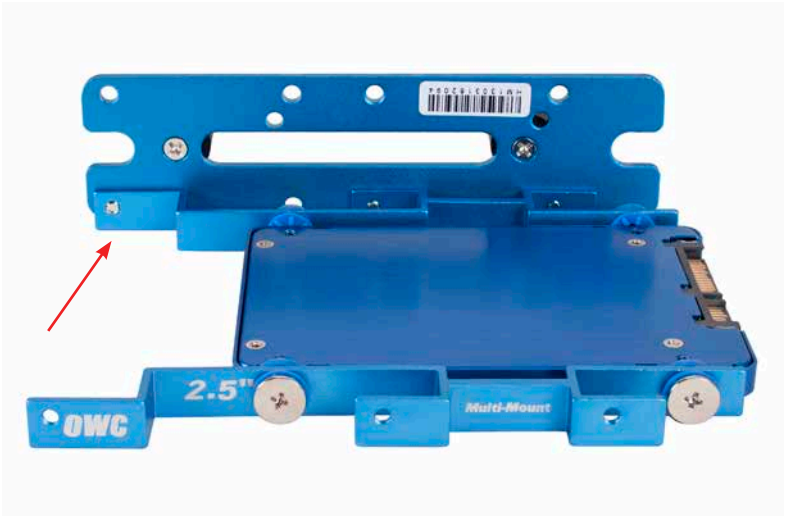
To install a 2.5" SATA drive into the Multi-Mount, place the 2.5" drive on the table in front of you, with the connection ports facing to the right side. Take the drive bracket and position it as shown above.

Use the large Phillips screws to affix the drive to the bracket. Note there are rubber grommets used in conjunction with the screws to reduce vibrations.

Once attached, rotate the drive and repeat using the other 2.5" drive bracket. Before moving forward, make certain that all four screws are firmly attached to the drive.
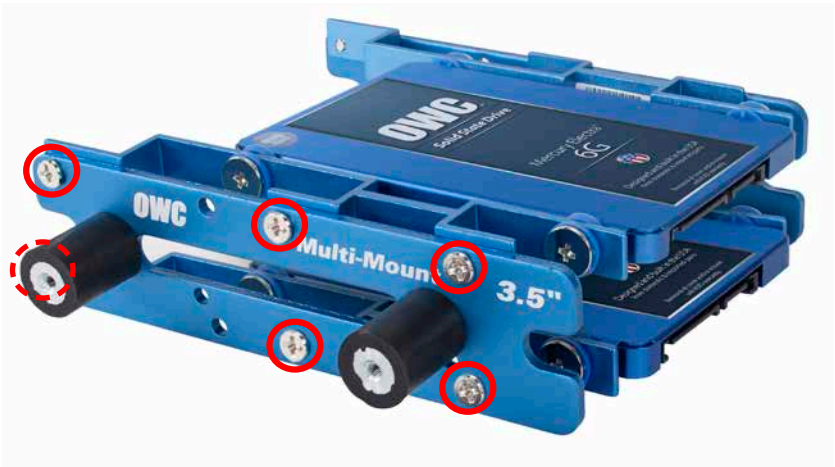
The OWC 2.5" Multi-Mount is now ready to install into a 3.5" drive bay, or into the OWC 3.5" Multi-Mount. Chapter 3 includes photos of common installation scenarios.
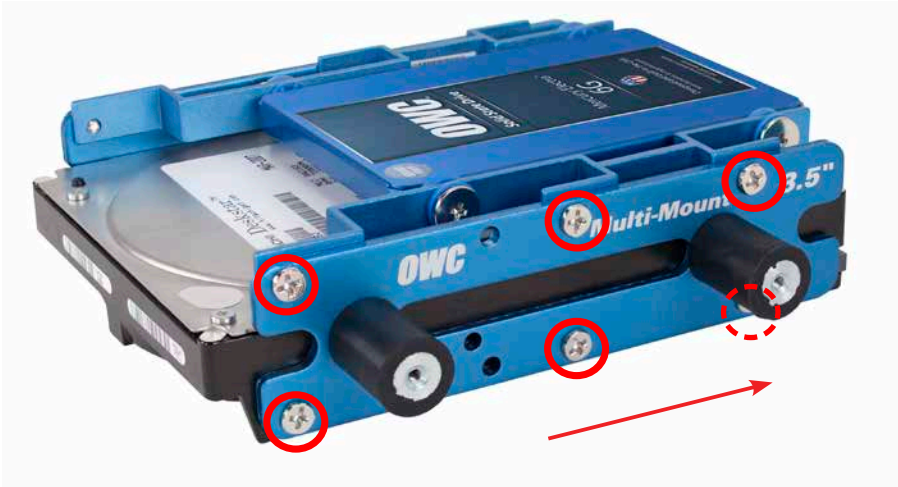
It is possible to install a total of two 2.5" drives onto the 3.5" OWC Multi-Mount bracket. Note the position of the bracket extension shown above (arrow) relative to the 3.5" bracket. This is important when creating a configuration with two 2.5" drives installed.

Note: this shows the underside of the top drive, prior to a second SSD being installed and the remaining brackets added (below).

This is a completed assembly comprised of one set of 3.5" OWC Multi-Mount drive brackets, and one set of 2.5"OWC Multi-Mount, all assembled into one unit. Be sure to orient the bracket so that the SATA ports both point towards the rear of the Multi-Mount.
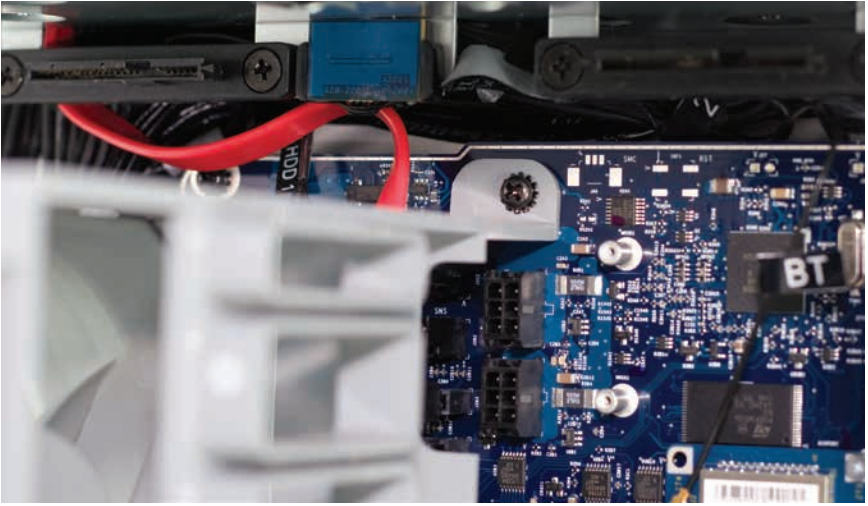
6.1 Installing the OWC Multi-Mount into a Mac Pro

First, attach the completed Multi-Mount assembly to the optical drive cage using the four screws that Apple supplies (attached to the cage). Once the Multi-Mount is secured, start sliding the cage back into the optical bay, threading the large cutouts on the bottom of the cage with the large screws on the bottom of the bay.

When the cage is about half way in, connect the SATA device's cables then slide the cage the rest of the way, making sure not to pinch the cables or bend them in the process. **Note:** the Mac Pro's optical bay can support a total of two SATA devices.

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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 -- ensure that the cable is not behind the mounting bracket when you tighten the screw.

Mac Pro 667MHz Owners: Turn to the end of Chapter 2 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 to finish the installation process.

7.1 Troubleshooting

Having problems installing? Go back and examine the steps and photographs. Most fit issues can be traced to missing a step or screw.

Double check that your brackets are facing the correct direction and that you are not orienting the drive backwards. You want to be sure that the SATA ports are pointing in the right direction for your case installation.

7.2 Usage Tips

Once you have installed your drives into the OWC Multi-Mount bracket system, route your cables using the shortest path possible, but do use any holes or grommets that your case has to offer. Don't pinch any cables and make certain to not route your wires over sharp edges or corners.

CHAPTER 8 - SUPPORT RESOURCES

8.1 Frequently Asked Questions
To access our online Knowledgebase including FAQs please visit:
www.macsales.com/faq

To access our formatting guides, please vsit:
www.macsales.com/format

8.2 About Data Protection
To ensure that your files are protected and to prevent the loss of your data, we strongly suggest that you keep two copies of your data: one copy on you primary hard drive, and a second copy on either your secondary internal hard drive or another storage medium, such as an optical backup, or on a second external hard drive. Any data loss or corruption while using the OWC Multi-Mount is the sole responsibility of the user, and under no circumstances will Other World Computing be held liable for compensation or the recovery of any lost data.

8.3 Contacting Techhnical Support

8AM - 8PM CT Monday - Friday
9AM - 4PM CT Saturday

Phone support:
(800) 275-4576 (North America only)
+1 (815) 338-8685 (International)

Live Chat is available during normal business hours:
www.macsales.com/livechat

Email Suppport is available at:
www.macsales.com/ts_email

Changes:

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Health And Safety Precautions:

• Use proper anti-static precautions while performing the installation.
• Read this user guide carefully and follow the correct procedures when setting up the device.

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