



Front Fan Assembly (Early 2008)

Removing and/or replacing the Front Fan Assembly.

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INTRODUCTION

Removing and/or replacing the Front Fan Assembly.

TOOLS:

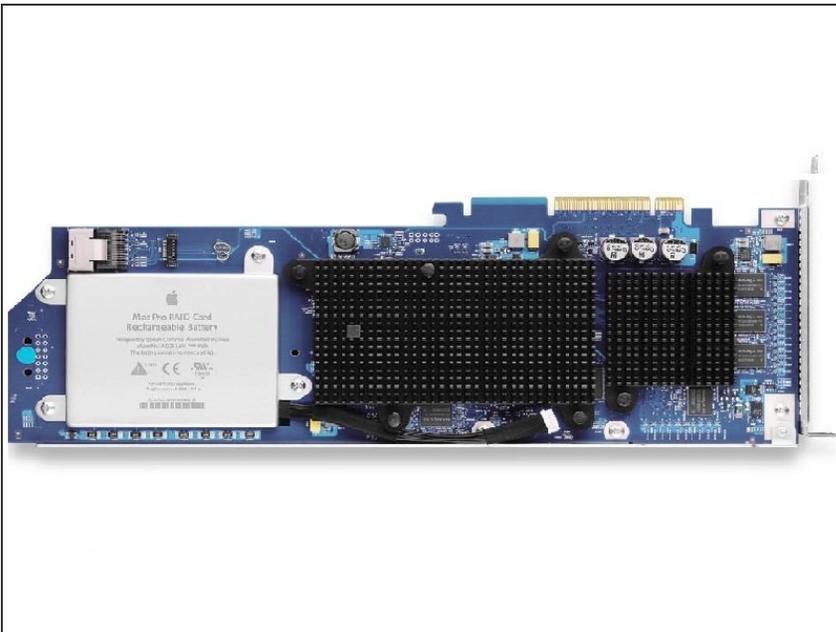
- [Phillips #1 Screwdriver](#) (1)
 - [Anti-Static Wrist Strap](#) (1)
 - [Phillips #1 Screwdriver "long-handled"](#) (1)
-

Step 1 — Hard drives and hard drive carriers (Early 2008)



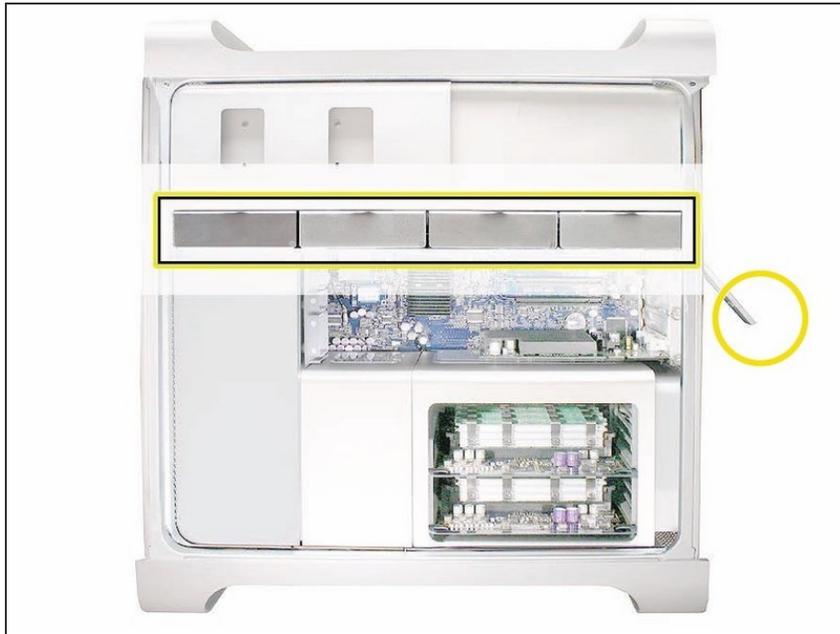
- i** The hard drives must meet the following specifications:
- Type: Serial Attached SCSI (SAS) or Serial ATA (SATA) 3 Gb/s
 - Width: 3.9 inches (102 mm)
 - Depth: 5.7 inches (147 mm)
 - Height: 1.0 inch

Step 2



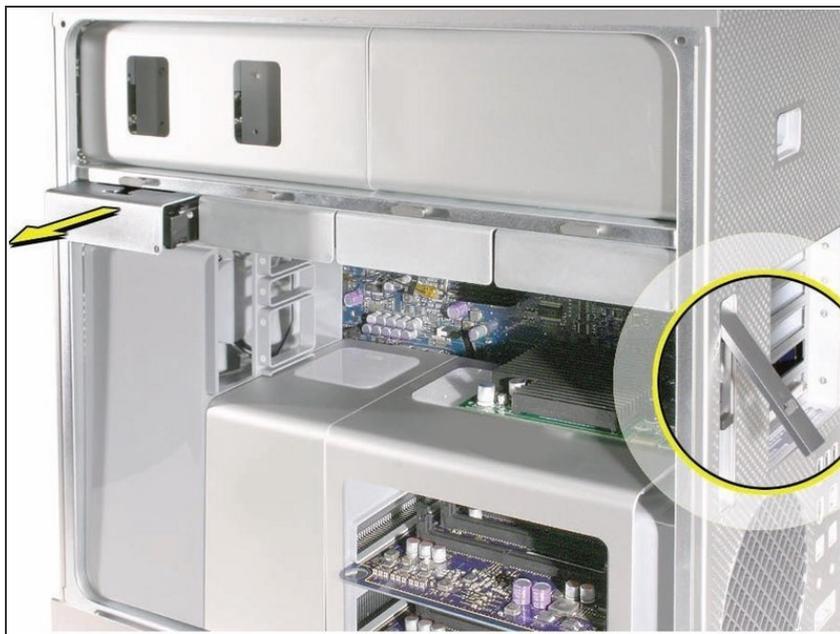
- !** Important: To install SAS drives in a Mac Pro (Early 2008) computer, you must also install the optional Mac Pro RAID Card.

Step 3



- Before you begin, open the computer, and lay it on its side with the access side facing up.
- ⓘ Important: Make sure the latch on the back panel is in the up position. When the latch is down, the hard drives and carriers are locked in place and you will not be able to remove them.

Step 4



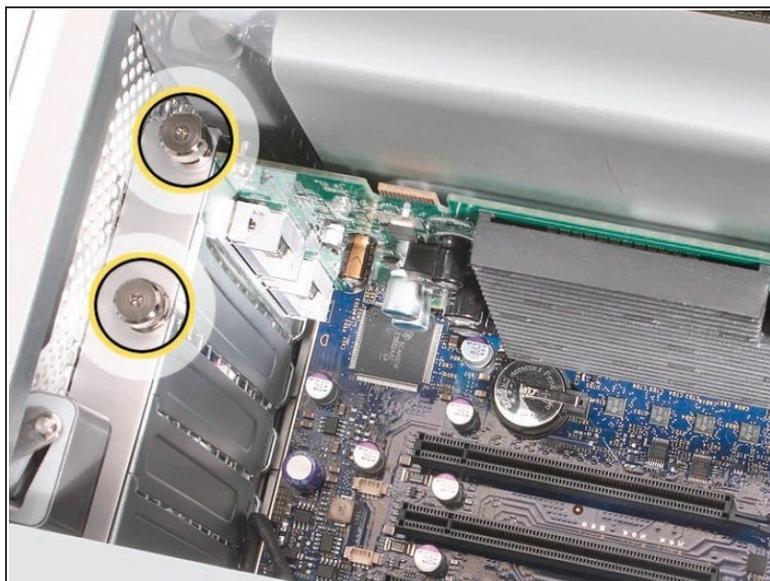
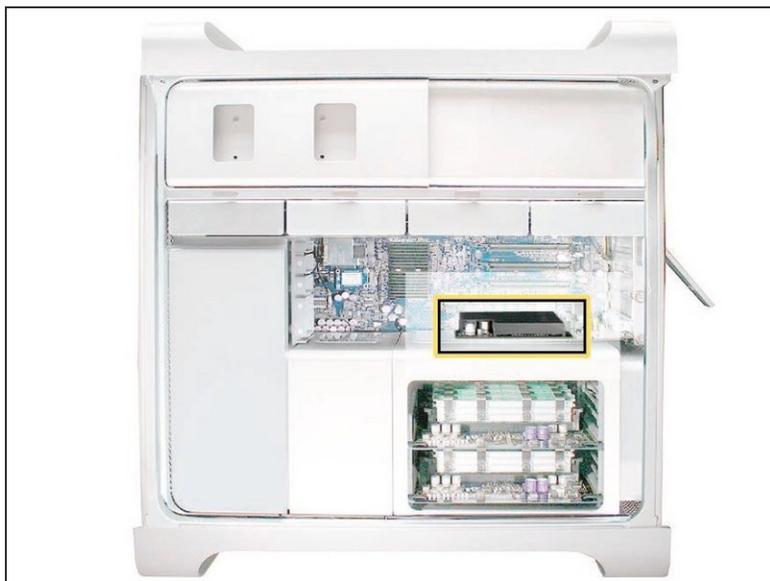
- Make sure the latch on the back panel is up, so that the drives and carriers are unlocked.
- Pull the hard drive out of the drive bay.

Step 5



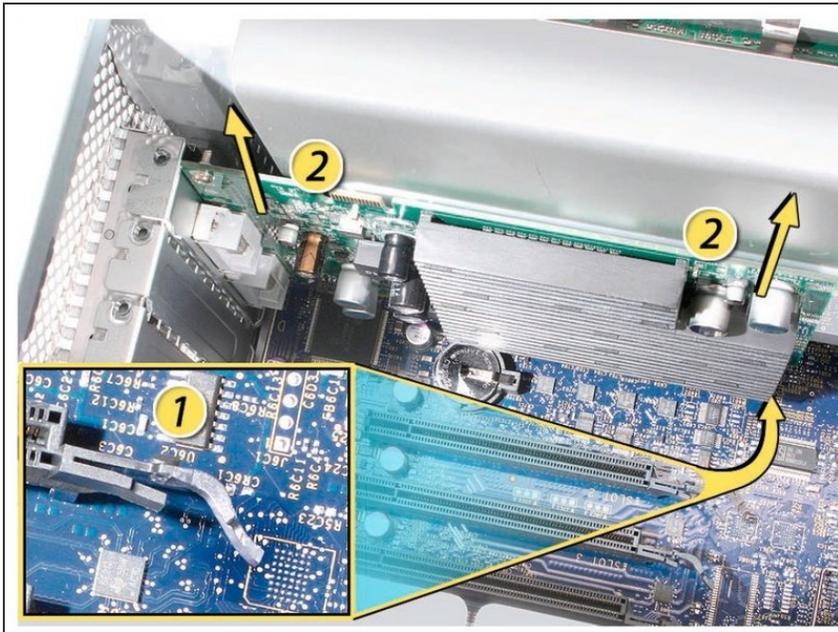
- If you are replacing the hard drive with a new drive, remove the four screws that mount the drive to the carrier and mount the new drive in the carrier.
- ⓘ Important: Hold the drive by its sides. Be careful not to touch the printed circuit board on the bottom of the drive.
- ⓘ Replacement Note: Slide the carrier and drive over the guides and into the drive bay, until you feel the drive snap into place.

Step 6 — Graphic Card for Mac Pro (Early 2008)



- This procedure explains how to remove a standard card and a card that includes a booster cable. Before you can remove either type of card, however, you must first loosen the two captive screws that secure the PCI bracket to the enclosure and remove the bracket.

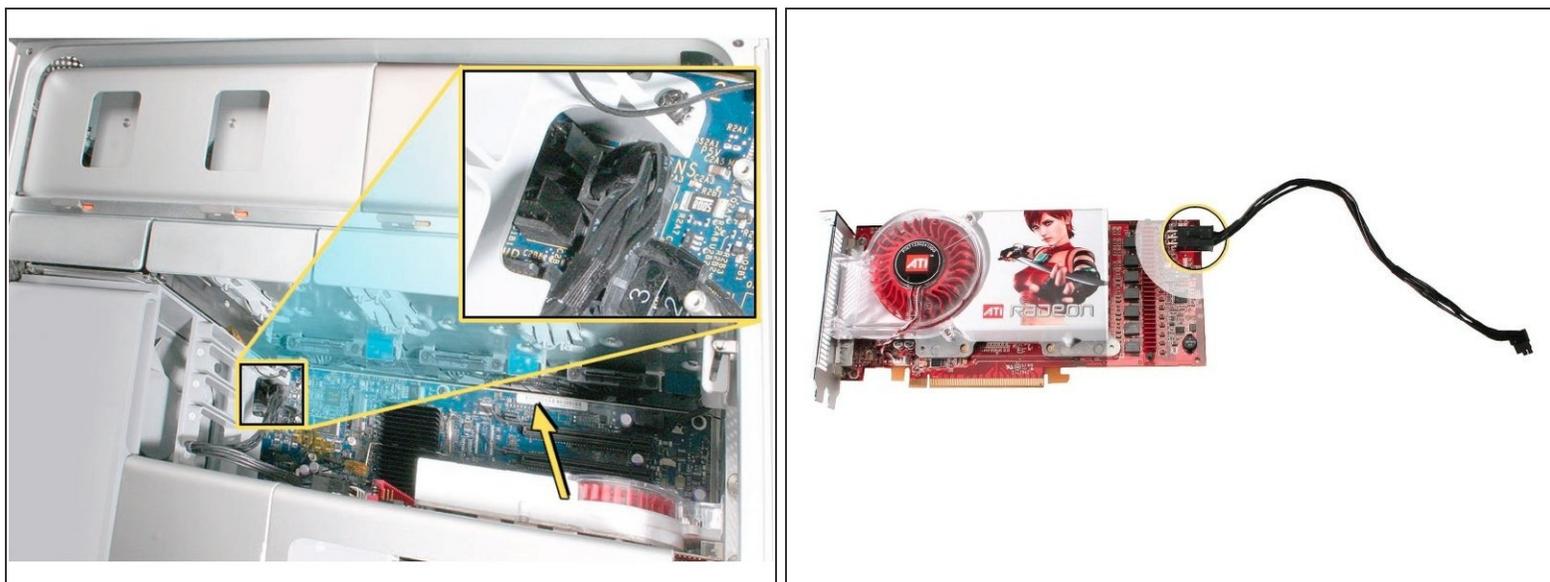
Step 7



⚠ Handle the card only by the edges. Do not touch its connectors or any of the components. Lift the card straight out from the connector to remove it, and insert it straight into the connector to install it. Do not rock the card from side to side and don't force the card into the slot. Once the replacement card is installed, pull on it gently to check.

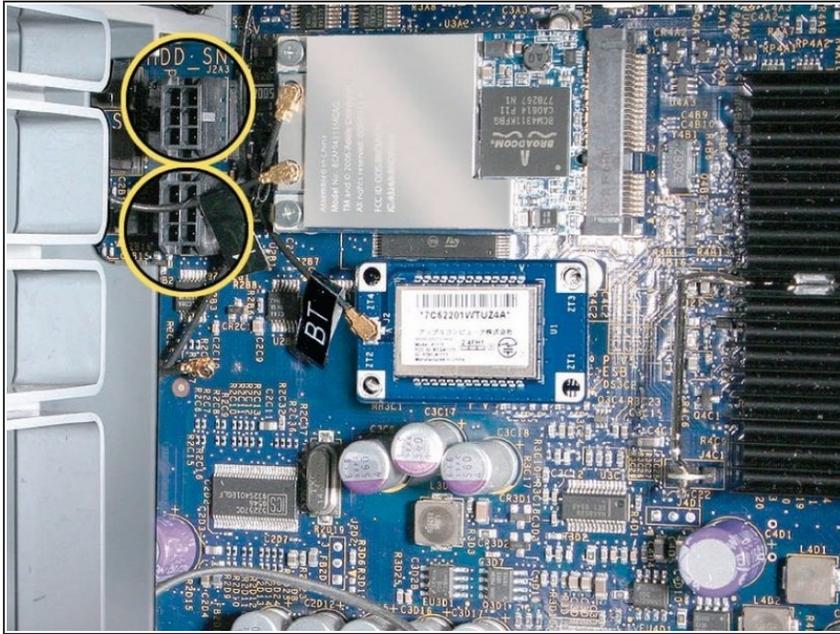
- 1) Release the small locking clip at the front of the card's logic board connector by pushing the clip up toward the media shelf.
- 2) Holding the card by the top corners, pull up the card and remove it from its expansion slot.

Step 8 — Card with Booster Cable



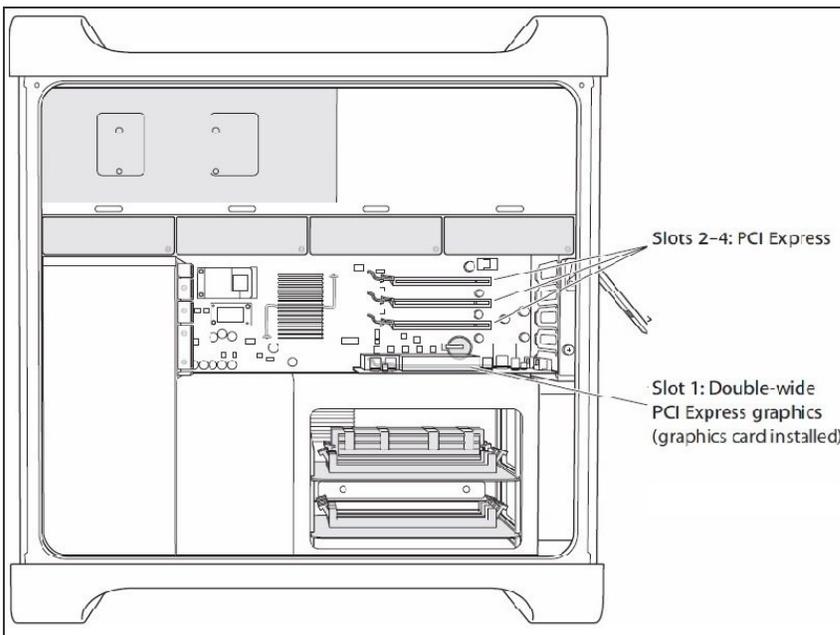
- ⓘ Some graphics cards require either one or two booster cables connecting the card to the auxiliary power connectors on the logic board.
- ⓘ The graphics card NVIDIA GeForce 8800 GT requires one booster cable; the graphics card NVIDIA Quadro FX 5600 requires two booster cables.
 - Disconnect the booster cable(s) from the logic board.
 - Release the small locking clip at the front of the card's logic board connector by pushing the clip up toward the media shelf.
 - Holding the card by the top corners, gently pull up the card and remove it from its expansion slot.
- ⓘ If you are replacing a booster cable with a new one, disconnect the cable from the card.

Step 9



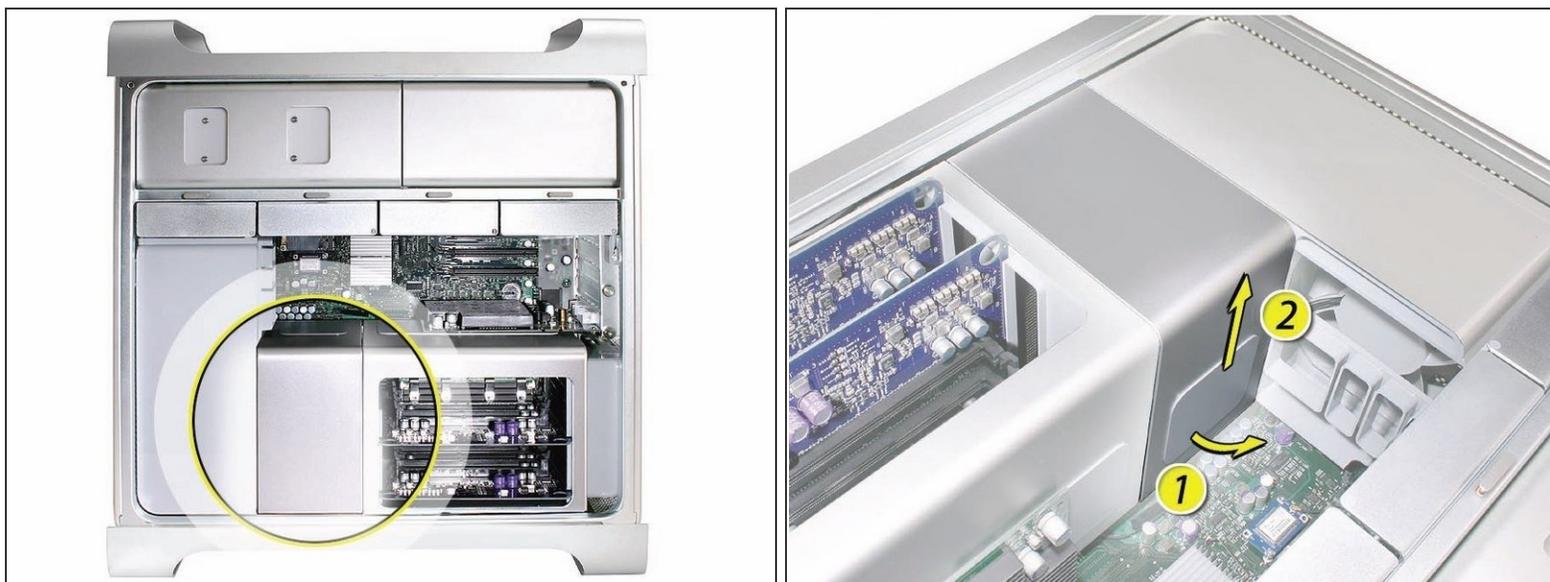
- i Replacement Note for Card Using One Booster Cable: Be sure to connect the card's booster cable to the correct auxiliary power connector on the logic board. Connect the booster cable for a card in PCI slot 1 to the lower connector. Connect the booster cable for a card in PCI slot 2 to the upper connector.
- i Replacement Note for Card Using Two Booster Cables: Connect both cables to the two auxiliary power connectors.

Step 10 — PCI Express Cards (Early 2008)



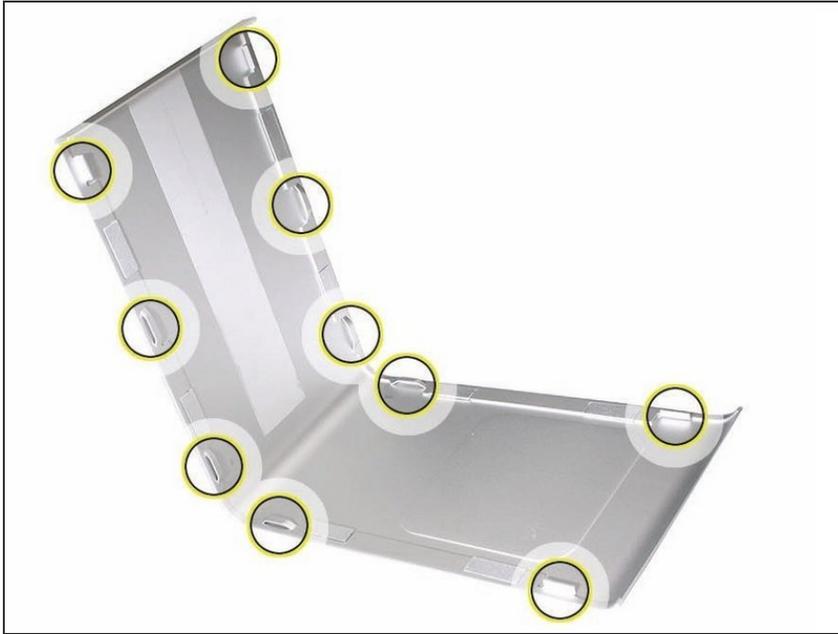
- i The procedure to remove the graphic cards is the same for PCI Express Cards for exception of minor card differences.
- ! Important: Combined maximum power consumption for all four PCI Express slots must not exceed 300 W.

Step 11 — Processor Heatsink Cover (Early 2008)



- ☑ Remember to check that all the PCI Express cards have been removed and properly stowed.
- ⓘ Note: The heatsink cover is held in place by a number of tabs and magnets on the underside of the cover. You must release the tabs before you can remove the cover from the enclosure.
 - Place the fingers of one hand under the lip of the heatsink cover nearest the logic board. Lift the lip slightly toward the media shelf to release the tabs and magnets under the top face of the cover.
 - With your fingers still under the cover's bottom lip, lift the cover straight up to release the remaining tabs and magnets under the front face of the cover
 - Remove the cover from the enclosure.

Step 12



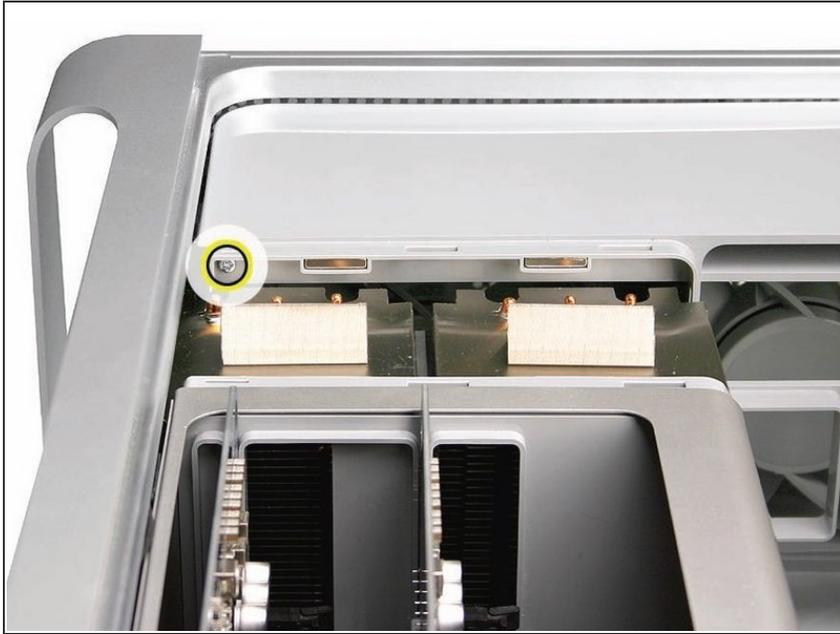
- i** Replacement Note: When reinstalling the processor heatsink cover, make sure the tabs on the underside of the cover align with the slots directly below them. (The slots are on the front fan and memory cage on either side of the heatsink cover.)

Step 13 — Front Fan Assembly (Early 2008)



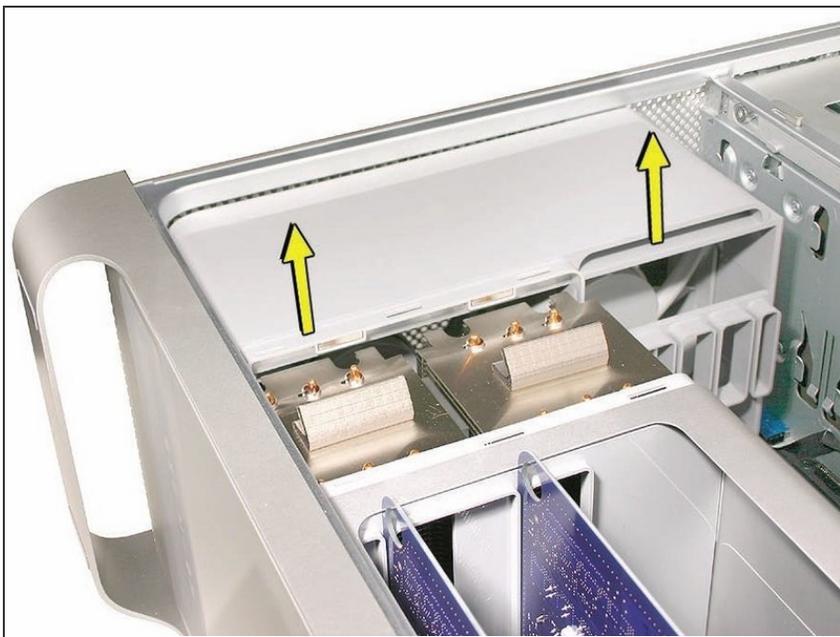
- ⚠** Remember: Before removing the Front Fan Assembly ensure that the first two bays of the hard drives are removed, All PCI express cards removed, and placed in a safe location.
- Using a long-handled, magnetized #1 Phillips screwdriver, remove the screw at the top rear of the front fan assembly that mounts the assembly to the logic board.

Step 14



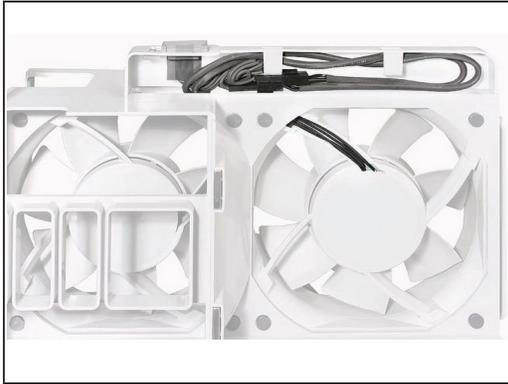
- Remove the second Phillips screw at the bottom front of the assembly.

Step 15



- Place one hand on each end of the fan, lift straight up, and remove the fan from the enclosure.

Step 16



- ⓘ Replacement Note: Before re-installing the front fan assembly in the enclosure, make sure that the fan cables are routed correctly in the fan channel.
- ⓘ Replacement Note: Make sure all AirPort and Bluetooth antenna wires are out of the way before lowering the fan assembly onto the logic board.
- ⓘ Replacement Note: When lowering the front fan into the enclosure, slide the guide on the base of the fan assembly into the channel on the speaker assembly.

Step 17



- Replacement Note: Also make sure the latch on the inside top left edge of the fan assembly engages with the slot on the inside lip of the enclosure

To reassemble your device, follow these instructions in reverse order.