

Processor Replacement Instructions

Follow the instructions in this sheet carefully. Failure to follow these instructions could damage your equipment and void its warranty.

Note: Online instructions covering customer-installable parts are available at <http://www.info.apple.com/installparts/>.

Tools Required

The only tool required for this procedure is a Phillips screwdriver.

Opening the Server

The server slides open from the front of the rack. The top cover remains in place in the rack while the bottom housing (containing all internal components) should be placed on a sturdy, flat surface.

1. Alert users that the server will be unavailable for a period of time.
2. Shut down the server.

Warning: To avoid damaging internal components or causing injury, always shut down the server before opening it. After you shut down the server, internal components can be very hot. Let the server cool down before continuing.

3. Write down the server's serial number, which is located on the back panel. If it is necessary to set up the server's software after you replace the processor, you will be asked for the serial number at login.

4. If the server is in the locked position (the yellow security LED on the front panel is on), use the Allen key that came with the server to unlock it.
5. If the cable management arm is not in use, unplug all external cables except the power cord.
6. Touch the server's metal case to discharge any static electricity.

Important: Always ground yourself by touching the server's case before you touch any parts or install any components inside the server. To avoid static electricity building back up in your body, do not walk around the room until you have completed your work and closed the computer.

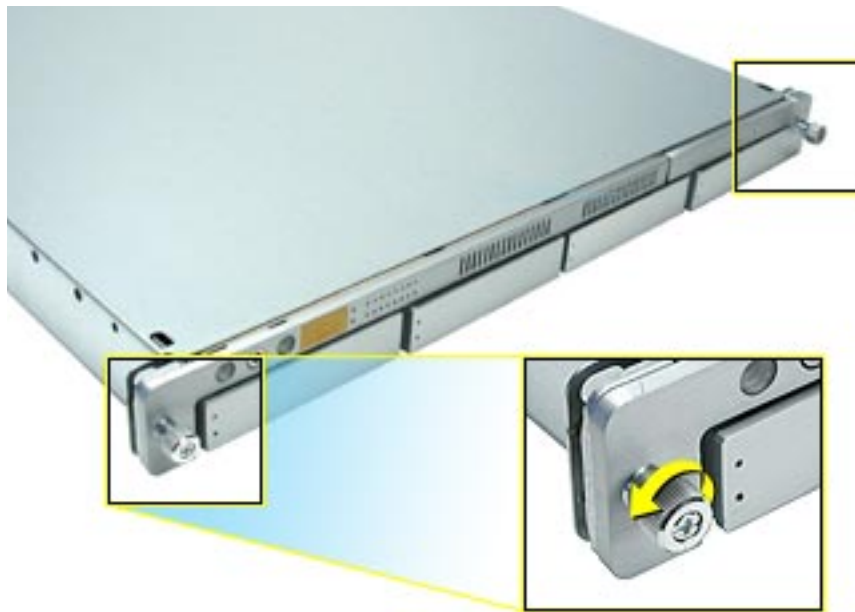
7. Unplug the power cord.

Warning: The power supply in the server is a high-voltage component and should not be opened for any reason, even when the server is off.

8. Release the two thumb screws at the front of the server. **(Figure 1)**

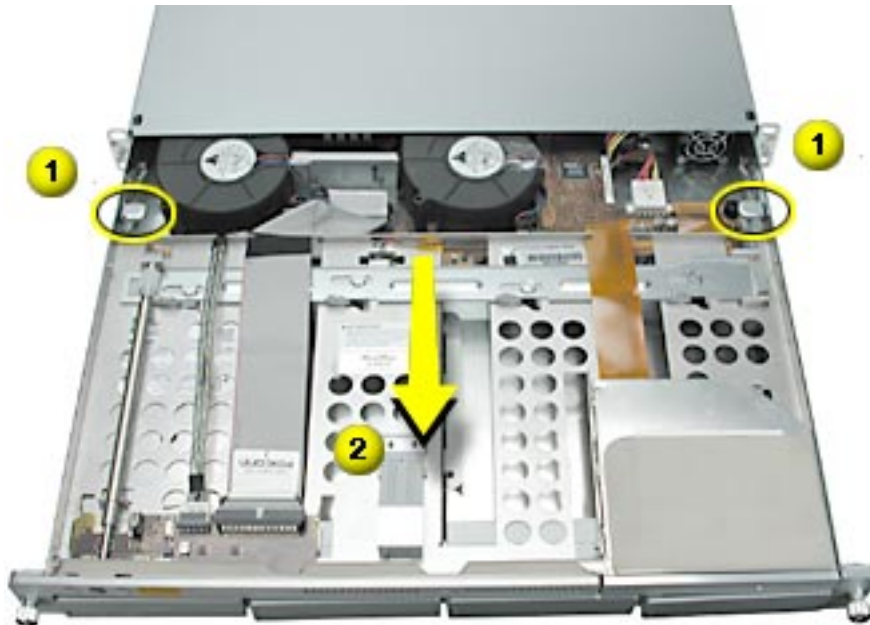
Note: The thumbscrews are captive and do not separate from the bottom housing.

Figure 1



9. Grasp the thumbscrews and slide the bottom housing forward part way to expose the two chassis levers. **(Figure 2)**
10. While depressing both levers, pull the bottom housing all the way forward and remove it from the rack.

Figure 2



11. Place the bottom housing on a sturdy, flat surface and ESD mat.
12. Put on the ESD wrist strap.

Removing the Installed Processor

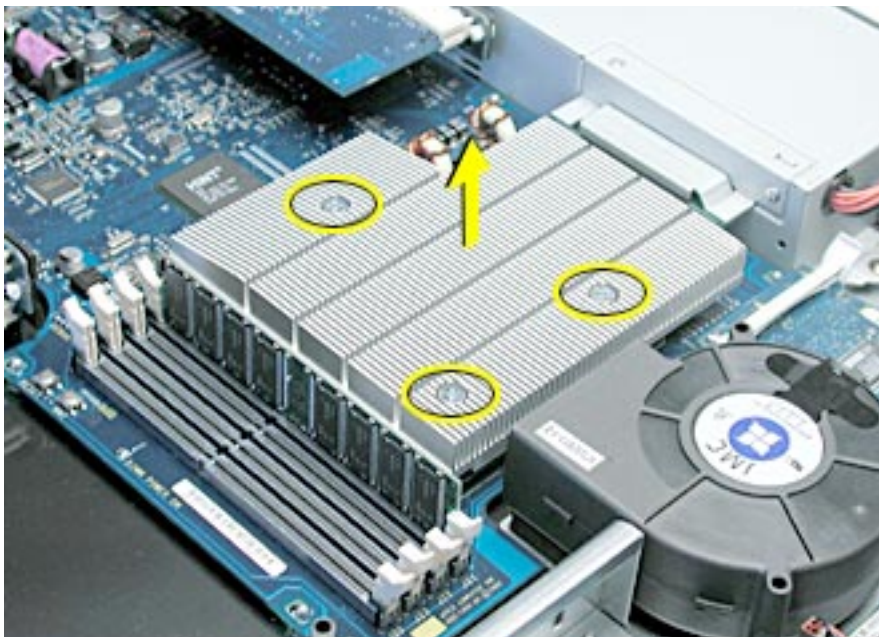
1. Release the latch on the heatsink duct (**Figure 3**), and remove the duct from the server.

Figure 3



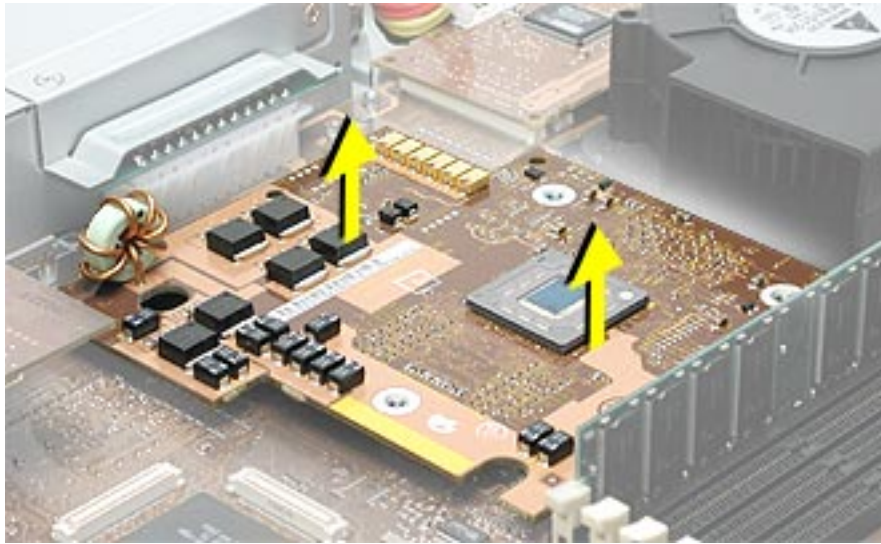
2. Release the three captive screws that secure the heatsink. (**Figure 4**)
3. Lift the heatsink straight up and remove it from the server.

Figure 4



4. Lift the processor straight up to disconnect it from the logic board and remove the processor from the server. **(Figure 5)**

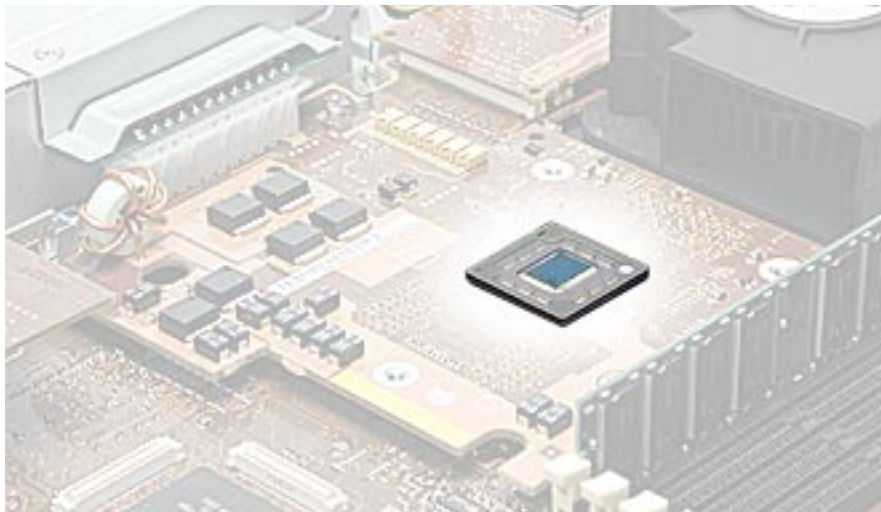
Figure 5



Installing the Replacement Processor

1. Position the replacement processor over its logic board connector and press down, being careful not to touch any chips on the board or processor.
2. Using the alcohol pad included with the replacement processor, clean off any used thermal grease from the MPU **(Figure 6)** and the bottom of the heatsink.

Figure 6



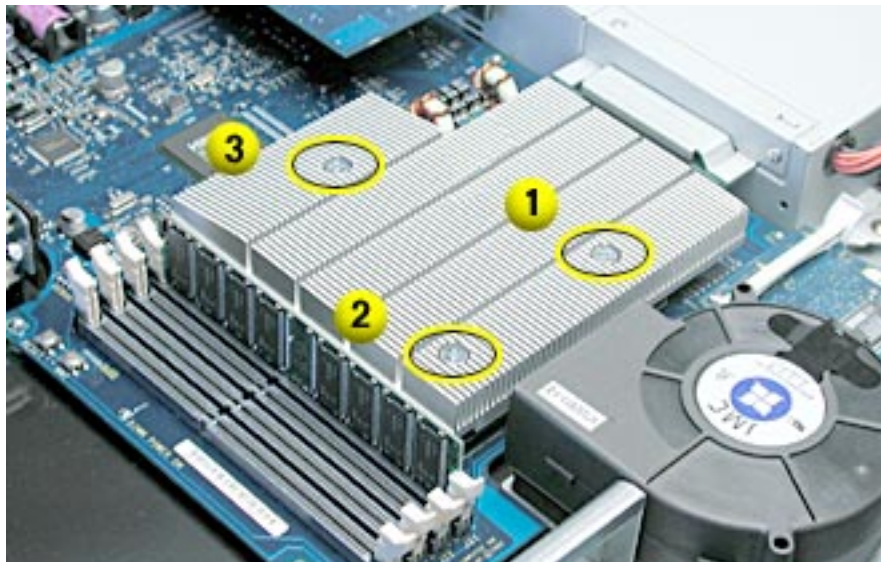
- Using the thermal grease included with the replacement processor, apply one dot of fresh grease to the middle of the MPU (or both MPUs if the server is a dual processor).



WARNING: Before reinstalling the heatsink, you must be sure to apply thermal grease to the MPU.

- Spread the grease evenly across the MPU(s) to a thickness of approximately 1 mm.
- Carefully align the posts on the heatsink with the holes in the processor card, and lower the heatsink straight down onto the processor.
- To ensure the grease spreads evenly over the processor, lightly tighten the screws in the order indicated. **(Figure 7)**
- Again tighten the screws in the order indicated to affix the heatsink securely to the processor.

Figure 7



- Replace the heatsink duct on the heatsink.

Closing the Server

1. Carefully slide the bottom housing back into the rack.
2. Tighten the front thumb screws to secure it.

Warning: Never turn on the server unless all of its internal and external parts are in place and it is closed. Operating the server when it is open or missing parts can damage it or cause injury.

Apple Computer, Inc.

© 2002 Apple Computer, Inc. All rights reserved.

This document is protected under U.S. Copyright Law and International Treaties, and no part of this document may be reproduced in any form without written permission from Apple.

Apple is not responsible for typographical, printing, or inadvertent errors.

Apple Computer, Inc.
1 Infinite Loop
Cupertino, CA 95014-2084
USA
+ 1 408 996 1010
<http://www.apple.com>

Apple, the Apple logo, Mac, Macintosh, and the Mac logo are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. Xserve is a trademark of Apple Computer, Inc.