

Replacing Sun Fire V20z or Sun Fire V40z CPU Voltage Regulator Modules (VRM)

This document contains:

- [“Replacing a CPU VRM in a Sun Fire V20z Server” on page 1](#)
- [“Replacing a CPU VRM in a Sun Fire V40z Server” on page 3](#)

Refer to the Service Label, on the inside of the chassis cover, for the location of the component.

Replacing a CPU VRM in a Sun Fire V20z Server

To remove a CPU VRM:

1. Turn off the system, including any attached peripherals.
2. While pressing the cover latch release button with your right thumb (A), slide the cover towards the rear of the chassis until it contacts the stop (B).
3. Lift the cover up and remove it.

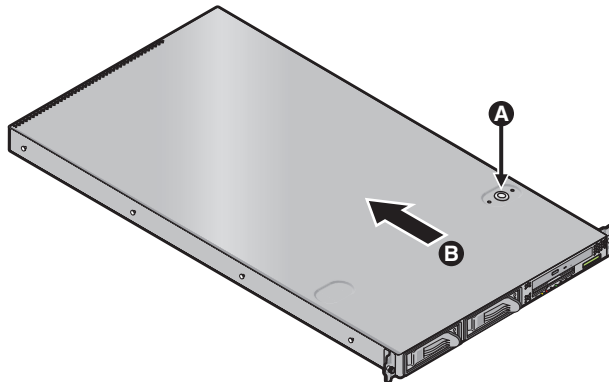


FIGURE 1 Removing the Cover

4. Identify the CPU VRM that needs to be replaced.
5. Remove the CPU VRM by pulling it straight up, out of its socket (see [FIGURE 2](#)).

Note – Do not rock the VRM, pull it straight up to avoid damaging its circuit board.

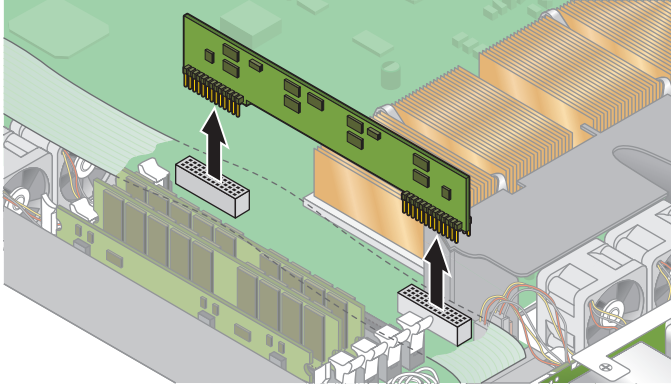


FIGURE 2 Removing a CPU VRM

To replace a CPU VRM:

- 1. Press the new VRM into the empty socket until it snaps into place, ensuring that the notch in the CPU VRM aligns with the key in the connector.**
- 2. When installing a VRM, ensure that pin "A1", on the VRM, is aligned with the "A1" reference designation on the motherboard.**
- 3. Check the routing of all cables for obstructions and then reinstall the cover.**

Replacing a CPU VRM in a Sun Fire V40z Server

This section contains:

- [“To Replace a CPU VRM on a Sun Fire V40z Motherboard”](#) on page 3
- [“To Replace a CPU VRM on a Sun Fire V40z CPU Card”](#) on page 4

To Replace a CPU VRM on a Sun Fire V40z Motherboard

1. Turn off the system, including any attached peripherals.

Refer to the *Sun Fire V20z and Sun Fire V40z Servers User Guide* for full instructions on powering off the server.

2. Loosen the captive screw on the cover latch, then rotate the latch toward the system rear to push back the cover.
3. Lift the cover up and remove it.

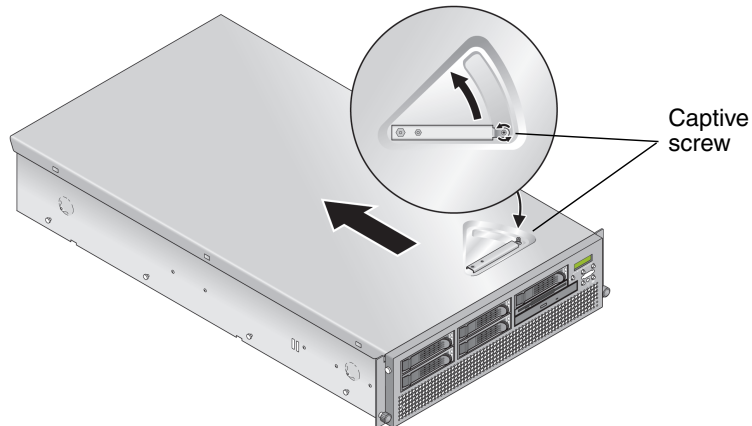


FIGURE 3 Removing the Sun Fire V40z Cover

4. Identify the CPU VRM that must be replaced.
5. Remove the CPU VRM by pulling it *straight up*, out of its socket (see [FIGURE 4](#)).

Note – Do not rock the VRM, pull it straight up to avoid damaging its circuit board.

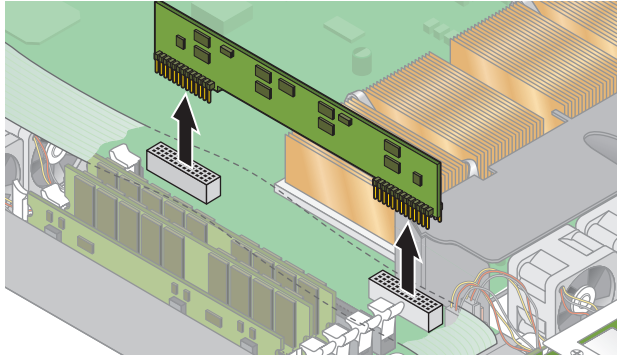


FIGURE 4 Removing a CPU VRM

6. Press the new VRM into the empty socket until it snaps into place, ensuring that the key in the CPU VRM aligns with the key in the connector.

Note – When installing a VRM, ensure that pin “A1”, on the VRM, is aligned with the “A1” reference designation on the motherboard.

7. Check the routing of all cables for obstructions and then reinstall the cover.

To Replace a CPU VRM on a Sun Fire V40z CPU Card

1. Remove the front bezel from the server by pressing in on the rubberized buttons on each side of the bezel, then swinging the bezel top downward (see [FIGURE 5](#)).

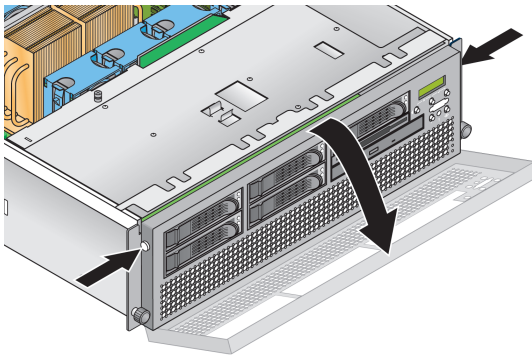


FIGURE 5 Removing the Front Bezel

2. Open the CPU card door, which is located under the hard drive bays, to access the CPU card. Press in the two buttons on the door and swing it downward so that it is open 180-degrees from the closed position (see [FIGURE 6](#)).

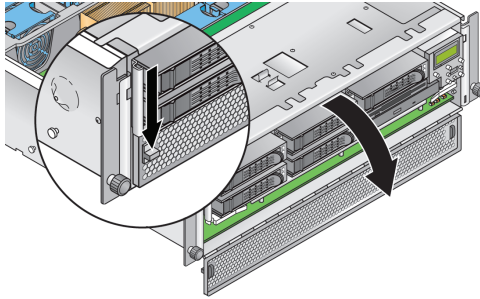


FIGURE 6 Opening the CPU Card Door



Caution – The electronic components and solder joints on the bottom of the CPU card are fragile. Use care to avoid scraping the bottom of the CPU card on the chassis or door when removing or installing it.

3. Open the two plastic levers on the CPU card corners *simultaneously* to release it from its backplane, then carefully pull it out of the server (see [FIGURE 7](#)).

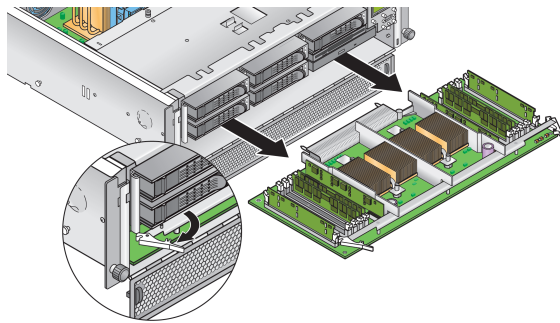


FIGURE 7 Removing the CPU Card From the Chassis

4. Set the CPU card on an ESD-resistant surface.
5. Remove the CPU VRM by pulling it straight up, out of its socket (see [FIGURE 4](#)).

Note – To avoid damaging the VRM, do not rock the VRM from side to side when removing or inserting it. Instead, pull straight up on both ends when removing the VRM and push straight down on both ends when inserting it.

6. To install the new CPU VRM, press it into the empty socket until it snaps into place, ensuring that the notch in the CPU VRM aligns with the key in the connector.
7. When installing a VRM, ensure that pin “A1”, on the VRM, is aligned with the “A1” reference designation on the motherboard.
8. Replace the CPU card into the server (see [FIGURE 8](#)):
 - a. Carefully align the rear corners of the CPU card with the plastic alignment tracks inside the server chassis, then slide the CPU card into the tracks.
 - b. Press in firmly and evenly on both corners of the CPU card until it engages the backplane.
 - c. Lock down the two plastic latches on the corners of the CPU card to secure it.

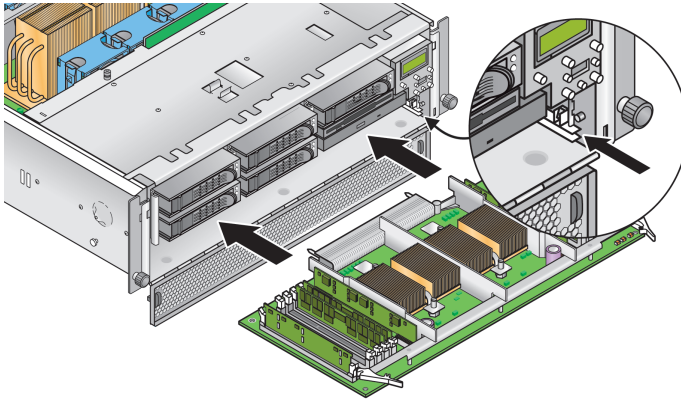


FIGURE 8 Installing the CPU Card Into the Chassis

9. Close the CPU door.
10. Replace the front bezel onto the server.

Part Number: 817-5264-11
May, 2004, Revision A

Copyright 2004 Sun Microsystems, Inc. All rights reserved. Use is subject to license terms. Third-party software, including font technology, is copyrighted and licensed from Sun suppliers. Portions may be derived from Berkeley BSD systems, licensed from U. of CA. Sun, Sun Microsystems, the Sun logo, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

Copyright 2004 Sun Microsystems, Inc. Tous droits réservés. Distribué par des licences qui en restreignent l'utilisation. Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun. Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. Sun, Sun Microsystems, le logo Sun, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays.