



Heatsink Field Replaceable Unit Installation Guide

System Board Installation Supplement for:

Sun Fire™ V125

Sun Fire V210

Sun Fire V240

Netra™ 210

Sun Microsystems, Inc.
www.sun.com

Part No. 817-4048-13
September 2006, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, Sun Fire, Netra, 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. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

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.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, Californie 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. a les droits de propriété intellectuels relatants à la technologie qui est décrit dans ce document. En particulier, et sans la limitation, ces droits de propriété intellectuels peuvent inclure un ou plus des brevets américains énumérés à <http://www.sun.com/patents> et un ou les brevets plus supplémentaires ou les applications de brevet en attente dans les Etats-Unis et dans les autres pays.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

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. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Sun Fire, Netra, 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. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciées de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Adobe PostScript

Heatsink Field Replaceable Unit Installation Guide

This document contains instructions for replacing the heatsink field replaceable unit (FRU) on the Sun Fire™ V125, V210, and V240 servers, and the Netra™ 210 server.

Required Tools

You will need the following tools to replace the heatsink FRU:

- No. 1 Phillips screwdriver
- Antistatic wrist strap
- Clean, lint-free cloth
- Cleaning solvent (isopropyl alcohol)



Caution – The system board is extremely sensitive to static electricity. To prevent damage to the board, properly ground yourself by using an antistatic wrist strap.

Thermal Interface Material

The CPU and heatsink FRU are separated by a thermal interface material (TIM). The TIM affects both the timing and process of removing the heatsink FRU. Therefore, before you start to remove the heatsink FRU, you must determine which type of TIM is separating the CPU and heatsink FRU.

The following list will help you identify the TIM:

- TIM1 is used on 1.0 GHz and 1.28 GHz servers

TIM1 is a glue backed foil material and is likely to have glued itself to the CPU. You should remove the heatsink FRU within ten minutes of having shut down the server while the CPU is still warm and the glue is workable.

- TIM2 is used on 1.34 GHz and 1.5 GHz servers

TIM2 is a gray paste. You should wait at least ten minutes after you shut down the server before you remove the heatsink FRU. TIM2 is a solid at room temperature, and the bond can be easily broken. Above 100 degrees Fahrenheit, TIM2 becomes a sticky paste and is hard to remove.

Replacing the Heatsink FRU

Replacing the heatsink FRU does not require the removal of the system board. However, it does require getting the server ready for service, the removal of power, the removal of the top cover, and the removal of any components that interfere with the removal of the heatsink FRU.

▼ To Remove the Heatsink FRU

1. **Get the server ready for service by following the appropriate procedures in the server's service manual.**
2. **Remove all power to the server by disconnecting the power cords.**
3. **Remove the top cover.**
4. **Connect an antistatic wrist strap to your wrist and to a properly grounded chassis or grounded receptacle.**
For complete antistatic precautions, refer to the server's service manual.
5. **Remove any components that would interfere with the removal of the heatsink FRU.**
6. **Locate the heatsink FRUs on the system board (FIGURE 1).**

Depending on the system board, it will have either one or two heatsink FRUs.

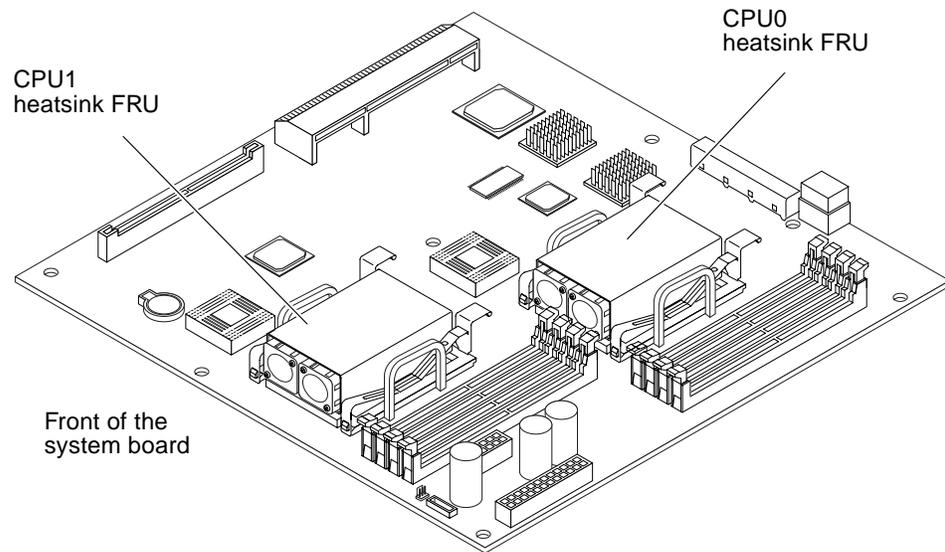


FIGURE 1 Location of the Heatsink FRU on the System Board

- 7. Detach the fan power cable connectors from the system board (FIGURE 2).**
Follow the fan power cables from the fans to the cable connectors on the system board.

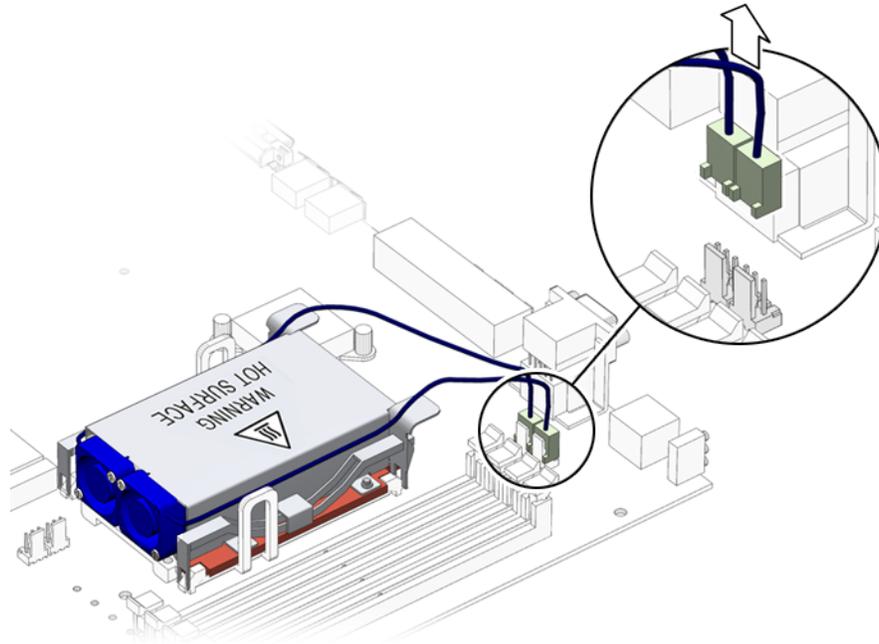


FIGURE 2 Detaching the Fan Power Cables

Note – The connectors for the CPU0 heatsink fans are labeled P0 F0 and P0 F1 on the system board, and the connectors for the CPU1 heatsink fans are labeled P1 F0 and P1 F1.

8. **Unlock the heatsink FRU from the CPU socket by first pressing down on the fasteners securing the heatsink FRU and then lifting them up (FIGURE 3).**
Repeat this step for both fasteners on the heatsink FRU.

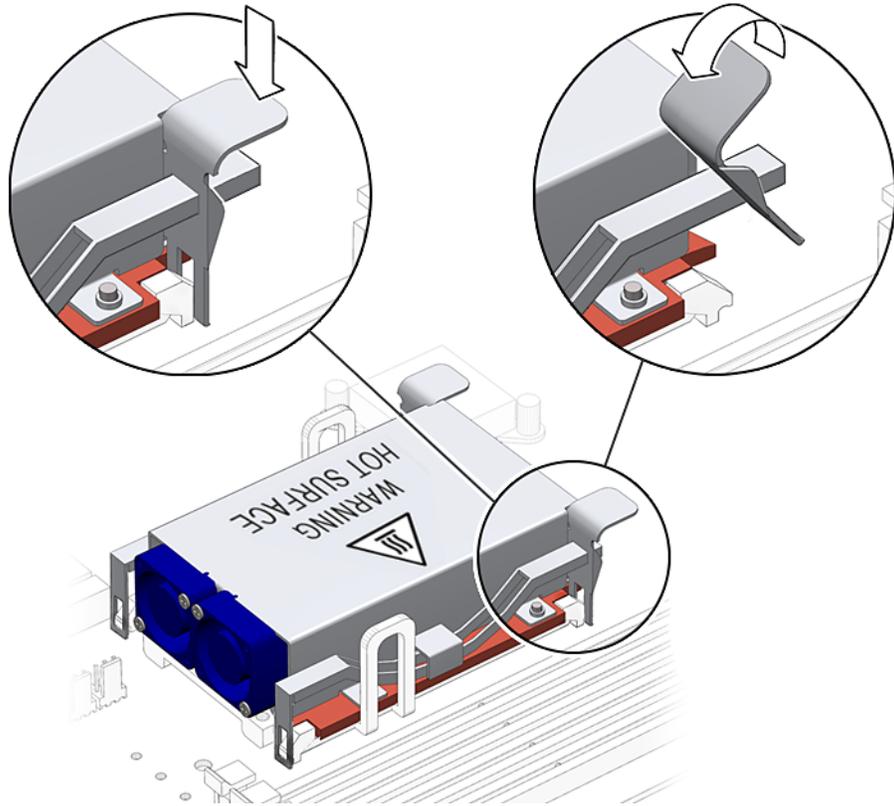


FIGURE 3 Unlocking the Heatsink FRU Fasteners

9. Remove the heatsink FRU by:

- a. Twisting the heatsink FRU 1 degree in a clockwise then 1 degree in the counter clockwise direction until the heatsink FRU is loose (FIGURE 4).**
- b. Lifting the heatsink FRU off of the CPU.**

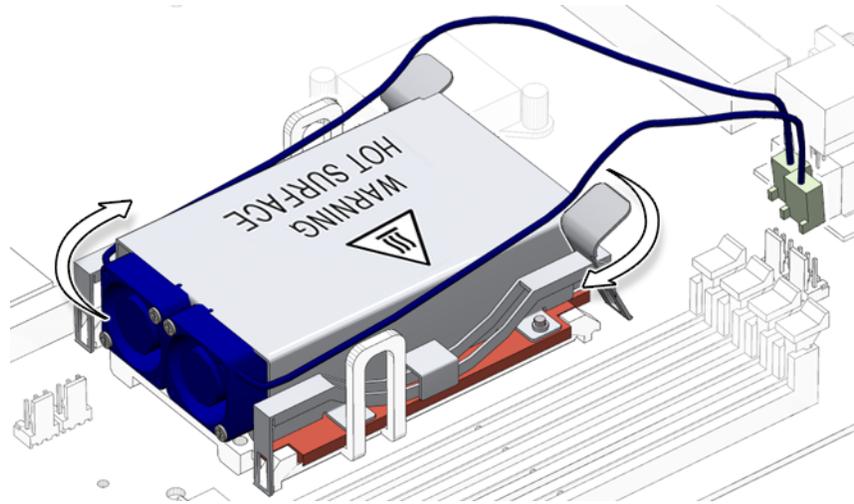


FIGURE 4 Removing the Heatsink FRU From the CPU Socket

10. Use a clean, dust-free cloth with cleaning solvent (isopropyl alcohol) to clean any residue left by the TIM from the top of the CPU.



Caution – TIM2 residue might irritate your skin. Read the MSDS before coming in contact with it.

11. If the system board has two CPUs, repeat Step 7 through Step 10 for the second heatsink FRU.

▼ To Install the Heatsink FRU

1. Remove the heatsink FRU from the packaging.
2. Carefully remove the protective liner on the TIM on the bottom of the heatsink FRU, ensuring that you do not damage the TIM.



Caution – Do not contaminate the TIM with dirt before you install the heatsink FRU onto the CPU.

3. Place the heatsink FRU on the CPU socket and secure the heatsink FRU by first attaching the rear clips and then pushing down the two front fasteners to the CPU socket (FIGURE 5).

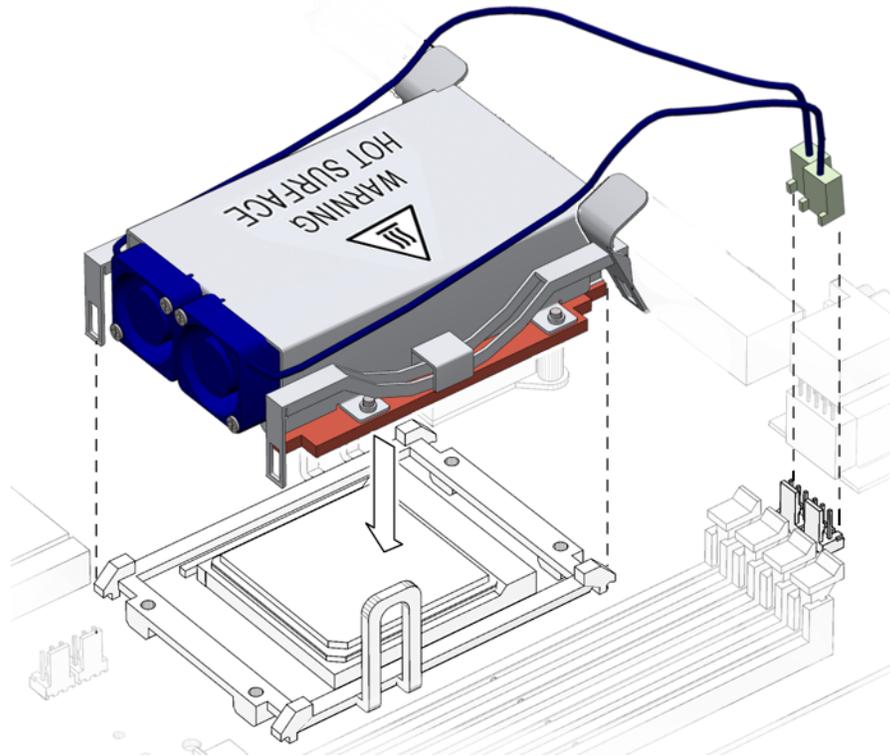


FIGURE 5 Replacing the Heatsink on the CPU Socket

4. Connect the fan connectors.
5. If the system board has two CPUs, repeat Step 1 through Step 4 for the second heatsink FRU.
6. Replace all of the components that you removed to access the heatsink FRU.
7. Remove the antistatic strap, and replace the top cover.
8. Reconnect the power cords.
9. Return the server to its original position in the rack, if applicable.

You can now log into the server to check the performance of the heatsink FRU by using the appropriate commands or user interface.

