



Sun Fire™ Entry-Level Midrange Systems CPU/Memory Board Installation Guide

Sun Fire™ E2900 System

Sun Fire™ V1280 System

Netra™ 1280 System

Sun Microsystems, Inc.
www.sun.com

Part No. 817-2675-11
April 2004, Revision A

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

Copyright 2004 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, AnswerBook2, docs.sun.com, 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 2004 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 ena.

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, AnswerBook2, docs.sun.com, 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.



UltraSPARC CPU/Memory Board Installation Procedures

This document presents the hardware installation procedures for installing an UltraSPARC™ CPU/Memory board as an additional or upgrade board in a Sun Fire™ E2900/V1280/Netra 1280 system.



Caution – Before installing this CPU/Memory board, refer to the *Sun Fire E2900/V1280 and Netra 1280 Systems CPU/Memory Board Upgrade Requirements Guide* that is included with the board. The board might not function if the system does not meet the firmware and software requirements.

Removing the CPU/Memory Board

Note – The CPU/Memory board can be inserted into a powered-on system. The board will not be recognized by the system until the system has been rebooted or dynamically reconfigured using the `cfgadm` command to include the board. Refer to the system administration manual for your system.

1. **Unconfigure any resources in use by the board and ensure that the board has been detached, powered off, and the board OK to remove LED is lit.**

Refer to the system administration manual for your system.

Note – Be sure that you have the replacement board or filler board ready to install.

2. **Extend and lock the rack stabilizer bar (if fitted).**

3. Place a padded ESD mat on a work surface close to the system.

The padding should support the middle of the board to prevent flexing that can damage the board.

4. Wear an ESD strap and connect it to the system.

5. Loosen the captive screws on the front of the system, and gently pull the system out of the rack.

6. Unlock the ejector levers on the CPU/Memory board with a Phillips No. 2 screwdriver.

The ejectors will pop out slightly.



Caution – The CPU/Memory board is heavy and weighs approximately 27 pounds (12 kg). Take care when handling the board.

7. Raise the ejector levers simultaneously until they are 90 degrees straight out from the board.

This action unseats the board from the baseplane connector.

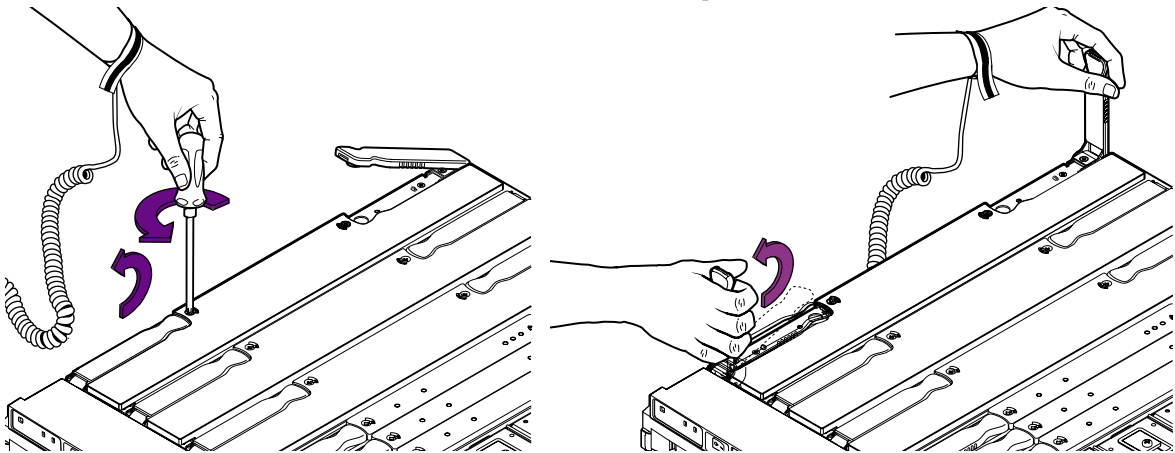


FIGURE 1 Unlocking the Ejector Levers

8. Grasp the ejector levers and pull upwards to raise the CPU/Memory board until the green panels are visible.

The antigravity clutch holds the board in position so that it can be released without the board sliding down into the system.

9. Hold the green panels and raise the CPU/Memory board out of the system.

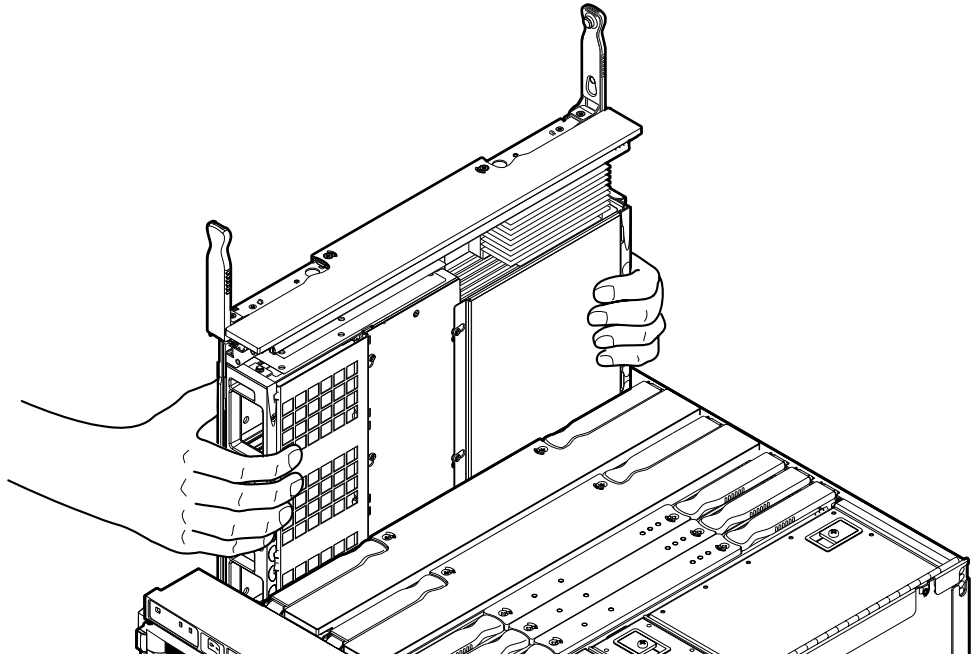


FIGURE 2 Removing the CPU/Memory Board

10. Place the CPU/Memory board on a grounded ESD mat.

Transferring DIMMs to the New Board

If the new CPU/Memory board does not already have DIMMs, transfer the DIMMs from the old board to the new board.

Tip – If your workbench has enough space, work on both boards simultaneously to minimize handling of the DIMMs. The shipping box of the new board can be used as a second padded ESD mat.

1. Remove the four screws retaining the DIMM cover and then remove the cover.

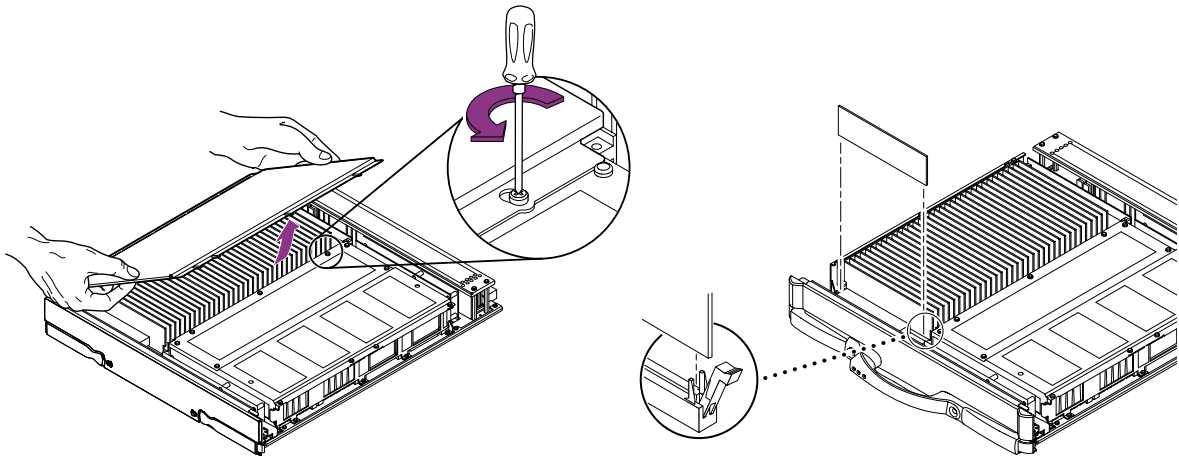


FIGURE 3 Removing DIMMs

- 2. Eject each DIMM by pressing down on the ejection levers on both sides of the DIMM connector.**
- 3. Hold the DIMM by the edges and remove it from the slot, then place it on an antistatic surface.**
- 4. Align the short-side key on the DIMM with the short side of the DIMM connector on the new board.**

Note – If you are installing four DIMMs, insert them into the same bank. Note that each DIMM group consists of two banks. The slots of one bank are interleaved with the slots of the second bank.

- 5. Place your thumbs on the top edge of the DIMM, and push the DIMM firmly down into its connector. Do not rock the DIMM from side to side.**

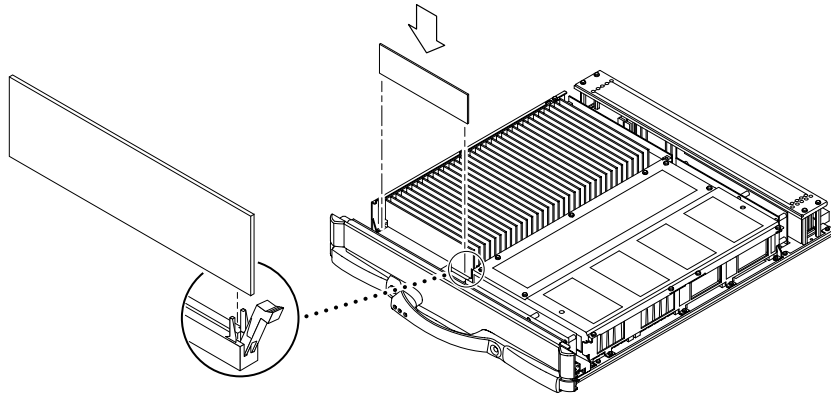


FIGURE 4 Installing a DIMM

6. Replace the DIMM cover and secure it using the four screws.

Installing the CPU/Memory Board



Caution – DO NOT FORCE any board into a slot; it can cause damage to the board and system. The board should insert and seat smoothly. If it binds, remove the board and inspect the card cage slot for any obvious obstructions. Also inspect both the board and the baseplane for bent pins or other damage.



Caution – Ensure that the protective covering is removed from the replacement CPU/Memory board connectors prior to installation of the board or damage to the board and or baseplane connectors can result.

1. Extend and lock the rack stabilizer bar (if fitted).
2. Loosen the captive screws and gently pull the system out of the rack.
3. Attach a wrist strap or foot strap and place a grounded ESD mat close to the system.

4. Remove the plastic protector from the connector.

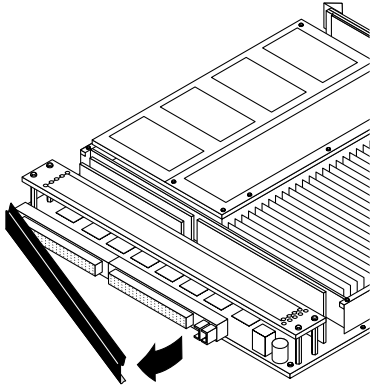


FIGURE 5 Removing the Plastic Protector

5. Hold the green side panels and gently insert the CPU/Memory board into the grooves until the antigravity clutch is engaged.

The antigravity clutch holds the board in position so that it can be released without the board sliding down into the system.

6. Slowly push down from the center top of the CPU/Memory board until the top face of the board is approximately three to four inches from the top of chassis.

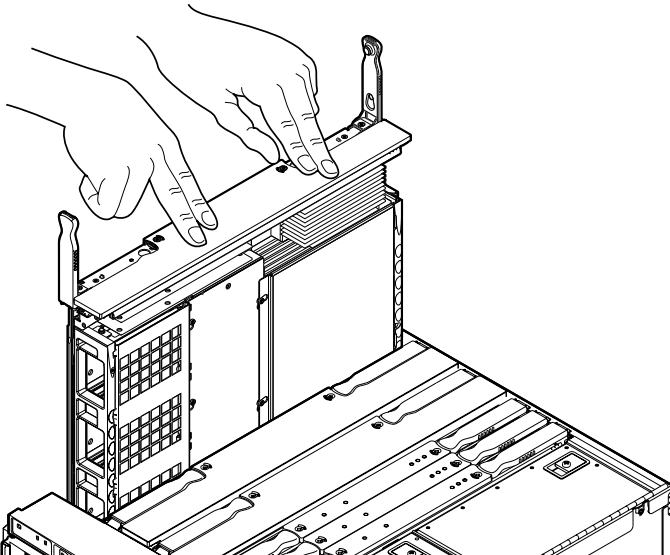


FIGURE 6 Pushing Down on the CPU/Memory Board

7. When the board is approximately three to four inches from the top of the chassis, change your grip and grasp the ejector levers so that they are oriented in the vertical position, 90 degrees straight out from the board.

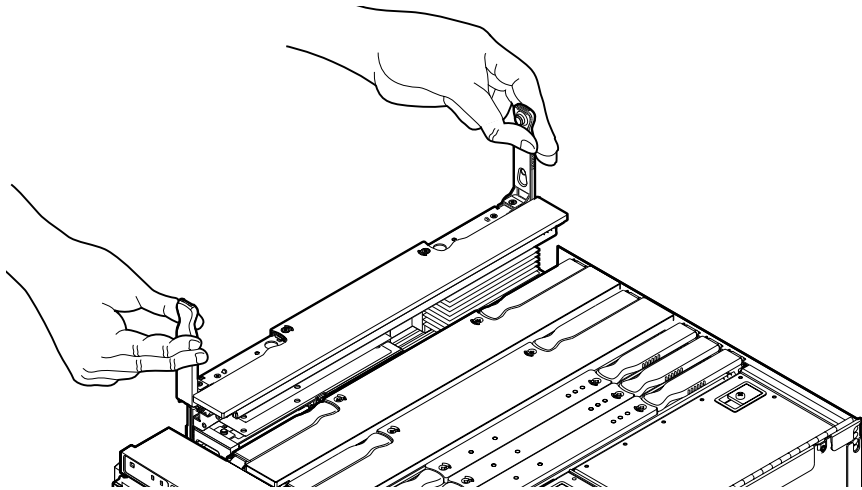


FIGURE 7 Orienting the Ejector Levers



Caution – Metal pins on the underside of the ejector levers help to cushion the CPU/Memory board after the antigravity clutch is released. If the levers are not 90 degrees straight out from the top of the board there is a chance the connectors could be damaged.

Note – Simultaneously with the board nearing its fully seated position, the ejectors will be forced mechanically to a position approximately 45 degrees towards board center.

8. To complete the seating, lower the board using the ejector levers until the levers are forced approximately 45 degrees towards the inside of the board.
9. Reposition your grip on the levers and then push down on the levers to lock them into place.
10. Reconfigure the CPU/Memory board back into the system.
Refer to the system administration manual for your system.

Accessing Sun Documentation

You can view, print, or purchase a broad selection of Sun documentation, including localized versions, at:

<http://www.sun.com/documentation>

Contacting Sun Technical Support

If you have technical questions about this product that are not answered in this document, go to:

<http://www.sun.com/service/contacting>

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. You can submit your comments by going to:

<http://www.sun.com/hwdocs/feedback>

Please include the title and part number of your document with your feedback:

Sun Fire Entry-Level Midrange Systems CPU/Memory Board Installation Guide, part number 817-2675-11