



Sun Storage J4200 Array SIM Board Replacement Guide

Sun Microsystems, Inc.
www.sun.com

Part No. 820-3226-11
April 2008, Revision A

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

Copyright 2008 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, 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 2008 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, AnswerBook2, docs.sun.com, 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.



Contents

Removing and Replacing a SIM Board 1

ESD Precautions 1

SIM Board Components 2

Removing and Replacing a SIM Board 3

- ▼ To Remove a SIM Board 3

- ▼ To Replace a SIM Board 5

- ▼ To Verify and Complete the SIM Board Replacement 6

Related Documentation 6

Service Contact Information 7

Removing and Replacing a SIM Board

This document describes replacement procedures for the SAS Interface Module (SIM) customer replaceable unit (CRU) installed in the Sun Storage J4200 array disk tray. This document assumes you have:

- Identified the disk tray containing the failed SIM board.
- Received the replacement SIM board.

This product is intended for restricted access whereby access is controlled through the use of a means of security (e.g., key, lock, tool, badge access) and personnel authorized for access have been instructed on the reasons for the restrictions and any precautions that need to be taken.

ESD Precautions

When performing this service action, observe the following electrostatic discharge (ESD) precautions:

- Remove all plastic, vinyl, and foam material from the work area.
- Wear an antistatic wrist strip at all times when handling any CRU.
- Before handling any CRU, discharge any static electricity by touching a grounded surface.
- Do not remove a CRU from its antistatic protective bag until you are ready to install it.
- After removing a CRU from the cabinet, immediately place it in an antistatic bag or antistatic packaging.
- Handle any card CRU only by its edges and avoid touching the components or circuitry.

- Do not slide a CRU over any surface.
- Limit body movement (which builds up static electricity) during the removal and replacement of a CRU.

SIM Board Components

Caution – Only trained service personnel should remove the covers on this equipment.

FIGURE 1 illustrates the location of the SIM board components and LEDs.

FIGURE 1 SIM Board

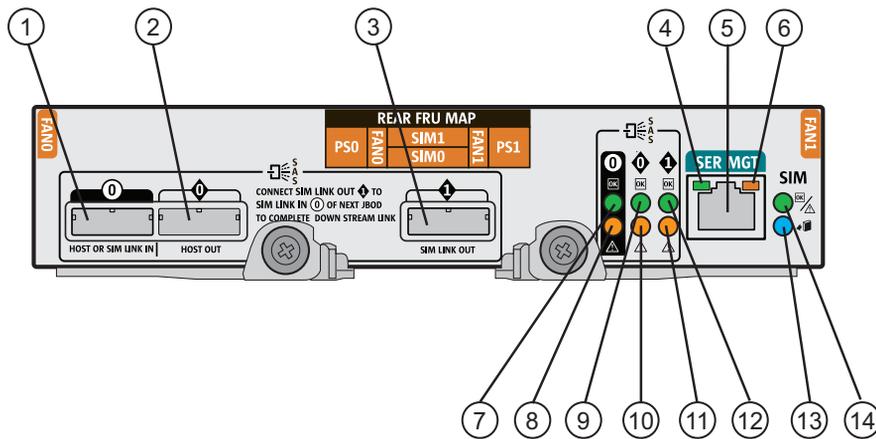


Figure Legend

- 1 Host or SIM Link IN—Outbound connection to a host, or inbound connection from another J4200 connection.
- 2 Host OUT—Outbound connection to a host.
- 3 SIM Link OUT—SAS outbound connector through which data is sent to another J4200.
- 4 Serial Management Connector—Left LED—Green—Reserved for Sun Customer Support Personnel
- 5 Serial Management Connector Serial port—Reserved for Sun Customer Support Personnel

Figure Legend

6	Serial Management Connector—Right LED—Amber—Reserved for Sun Customer Support Personnel
7	Host or SIM Link IN—Top LED—Green
8	Host or SIM Link IN—Bottom LED—Amber
9	Host OUT—Top LED—Green
10	Host OUT—Bottom LED—Amber
11	SIM Link OUT—Bottom LED—Amber
12	SIM Link OUT—Top LED—Green
13	SIM Locate LED—Blue (OK to remove)
14	SIM Power/Fault LED—Green/Amber

Removing and Replacing a SIM Board

This section describes how to remove and replace a SIM board.

Caution – Potential loss of data access - Never remove a SIM assembly unless the SIM Locate LED is blue. See [FIGURE 1](#).

Caution – The power supplies in this equipment can produce high energy hazards. Only personnel with authorized access to this equipment should remove and replace modules in the system.

▼ To Remove a SIM Board

1. From the back of the disk tray, locate the failed SIM. The SIM Locate LED is blue. (See [FIGURE 1](#).)

2. Label and then disconnect the tray interface cables.

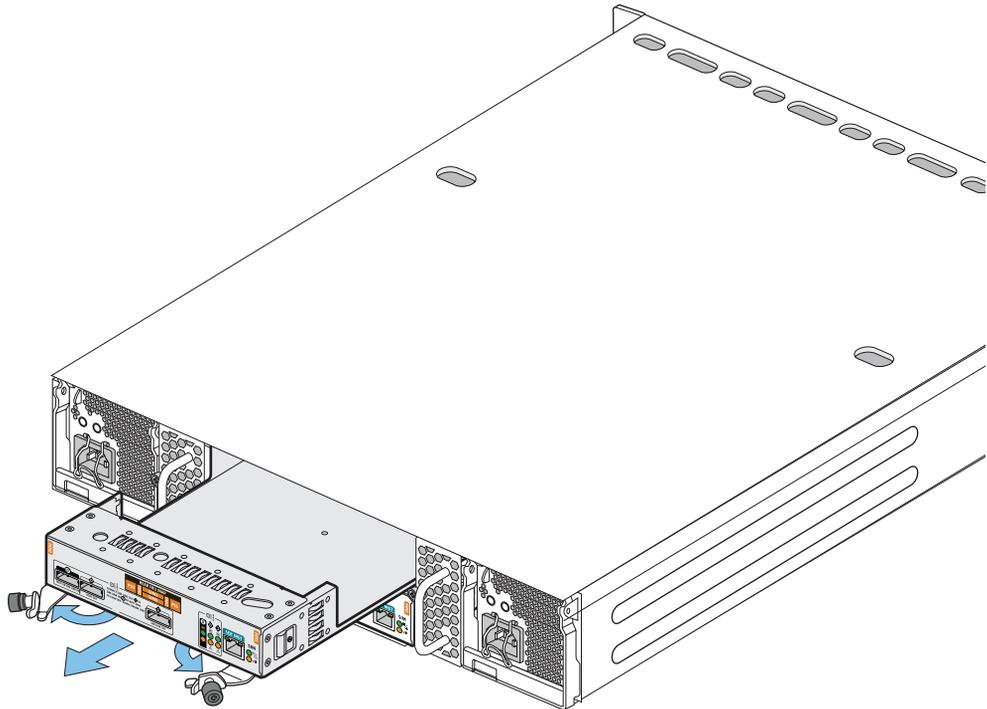
To disconnect the SAS cable use two hands. With one hand grasp the metal body of the connector, with the other hand firmly grasp and pull the tab. Pull the tab gently in toward the connector body and then with the other hand extract the connector from the bulkhead. *Do not twist or pull the tab in any direction other than parallel with the connector body* or you might break the tab. If the tab were to break, a small sharp object (such as a fine-tipped screwdriver) would be required to lift the metal spring at the top of the connector shell to unlatch it.

3. Loosen the two captive screws using your thumb and forefinger.

Note – If the captive screws are too tight to loosen by hand, use a #2 Phillips screwdriver to loosen each screw.

4. Push each ejector tab outward to release the SIM from the chassis. (See [FIGURE 2](#).)

FIGURE 2 Removing a Failed SIM Board



5. Grasp the middle of the SIM board and slide it out of the slot.

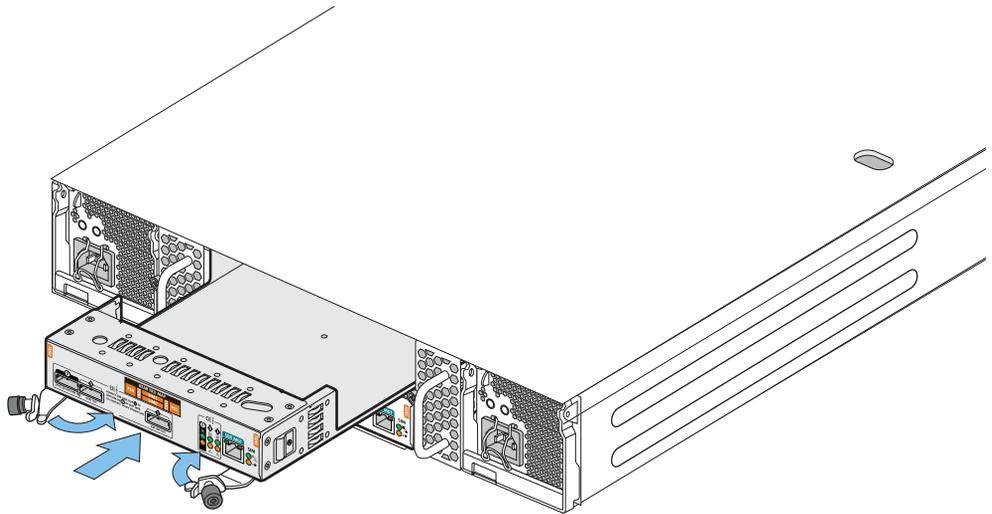
Caution – Use care when handling either the new or failed SIM board. Make sure all ESD precautions are being followed.

Caution – For products with multiple power cords, all power cords must be disconnected to completely remove power from the system.

▼ To Replace a SIM Board

1. **Unpack the new SIM board and do one of the following:**
 - Place the failed SIM board in the packing materials so that you can return it to Sun for proper disposal.
 - Properly dispose of the failed SIM board.
2. **Align the new SIM board with the open slot and slide it into the tray.**
3. **Push the assembly into the tray until it engages with the tray connectors. (See [FIGURE 3](#).)**
4. **Simultaneously push each ejector arm toward the middle of the board to seat the board.**
5. **Tighten each captive screw to secure the board.**

FIGURE 3 Replacing a SIM Board



6. **Reconnect the tray interface cables to their original locations.**

▼ To Verify and Complete the SIM Board Replacement

1. Wait approximately 60 seconds for the SIM board to complete its boot process, at which point ensure that the following is true:
 - The Power LED is solid green.
 - The SIM Locate LED is off. See [FIGURE 1](#).

Related Documentation

For additional information about the Sun Storage J4200 array disk tray, see the following product documentation:

Application	Title	Part Number
Regulatory and safety information	<i>Sun StorageTek Regulatory and Safety Compliance Manual</i>	96272, Revision A
Multilanguage safety information	<i>Important Safety Information for Sun Hardware Systems</i>	816-7190- <i>nn</i>
Site planning information	<i>Sun Storage J4200/J4400 Array Site Preparation Guide</i>	820-3219- <i>nn</i>
Installation at a glance	Sun Storage J4200 Array Setup and Installation Poster	820-3221- <i>nn</i>
Late-breaking information not included in the information set	<i>Sun Storage J4200/J4400 Array Release Notes</i>	820-2222- <i>nn</i>
Installation and use of the management software using a GUI	<i>Sun StorageTek J4000 Array Family Management Software Guide, Graphical User Interface</i>	820-3765- <i>nn</i>
Installation and use of the management software using a CLI	<i>Sun StorageTek J4000 Array Family Management Software Guide, Command Line Interface</i>	820-4419- <i>nn</i>
General operation and troubleshooting	<i>Sun Storage J4200/J4400 Array Overview</i>	820-3223- <i>nn</i>
Disk drive replacement procedures	<i>Sun Storage J4200/J4400 Array Disk Drive Replacement Guide</i>	820-3225- <i>nn</i>
SIM board replacement procedures	<i>Sun Storage J4200 Array SIM Board Replacement Guide</i>	820-3226- <i>nn</i>

Application	Title	Part Number
Power supply replacement procedures	<i>Sun Storage J4200 Array Power Supply Replacement Guide</i>	820-3227-nn
Fan replacement procedures	<i>Sun Storage J4200 Array Fan Replacement Guide</i>	820-3229-nn
Chassis replacement procedures	<i>Sun Storage J4200 Chassis Replacement Guide</i>	820-4413-nn
Rail kit installation procedures	<i>Sun Storage J4200/J4400 Array Rail Kit Installation Guide</i>	820-3764-nn

Service Contact Information

If you need help installing or using this product in the United States, call 1-800-USA-4SUN(872-4786), or go to:

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

