



Sun Storage J4400 Array SIM Board Replacement Guide

Sun Microsystems, Inc.
www.sun.com

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Removing and Replacing a J4400 Array SIM Board

This document describes replacement procedures for the SAS Interface Module (SIM) customer replaceable unit (CRU) installed in the Sun Storage J4400 Array. 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 (for example, 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 strap 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 that is part of a 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 Components and LEDs

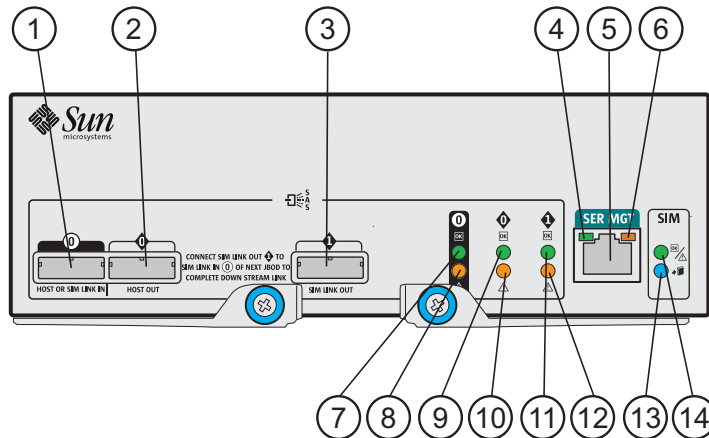


Figure Legend

- 1 HOST OR SIM LINK IN—Outbound connection to a host, or inbound connection from another J4400 array.
- 2 HOST OUT—Outbound connection to a host.
- 3 SIM LINK OUT—SAS outbound connector through which data is sent to another J4400 array.
- 4 Serial Management Connector LED (green).

Figure Legend

5	SER MGT—Serial Management Connector.
6	Serial Management Connector LED (amber).
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—Top LED (green).
12	SIM LINK OUT—Bottom LED (amber).
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 board unless the SIM Locate LED is blue (see [FIGURE 1](#)).

Caution – Electrical Power Hazard -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

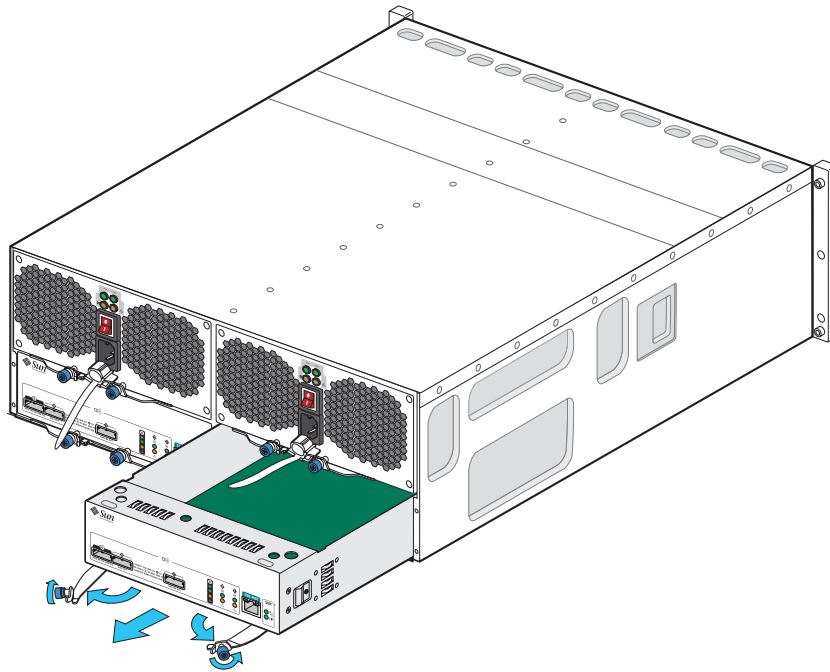
1. **From the back of the disk tray, locate the failed SIM. The SIM Locate LED is blue (see [FIGURE 1](#)).**
2. **Label and then disconnect the tray interface cables.**

Use two hands to disconnect the SAS cable. Grasp the metal body of the connector with one hand and firmly grasp and pull the tab gently toward the connector body with the other, then pull the connector body outward to extract it from the bulkhead.

Caution – 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 breaks, use a small sharp object (such as a fine-tipped screwdriver) to lift the metal spring at the top of the connector shell to unlatch it.

3. Loosen the two extraction arm captive screws using your thumb and forefinger. If the captive screws are too tight to loosen by hand, use a #2 Phillips screwdriver to loosen each screw.
4. Pull each ejector tab outward and push to the sides to release and partially eject 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.

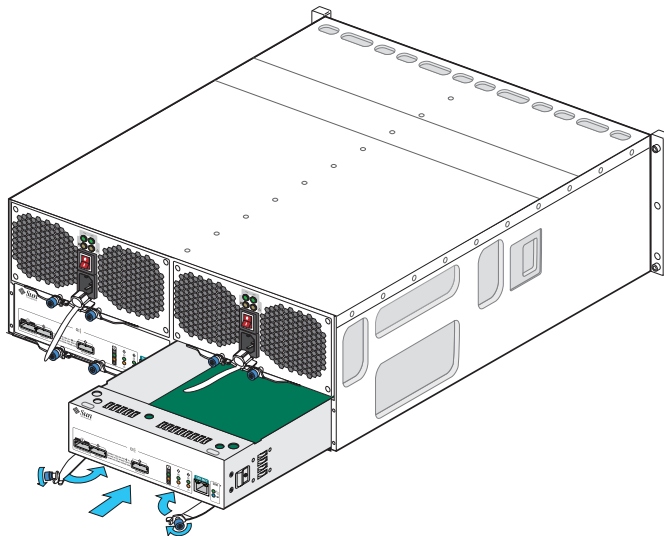
Note – The SIM boards are hot-swappable and you do not need to disconnect power from the system or other components in order to replace one of these components.

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. **Pull the ejector arms to the full open position.**
3. **Align the new SIM board with the open slot and slide it into the tray until the ejector arms contact the tray connectors and begin to swing closed (see [FIGURE 3](#)).**

FIGURE 3 Replacing a SIM Board



4. Simultaneously swing both ejector arms in until they are flush with the SIM board panel to seat the board.
5. Tighten both captive screws to secure the 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 J4400 Array, see the following product documentation:

Application	Title	Part Number
Regulatory and safety information	<i>Sun Storage 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	<i>Sun Storage J4200 Array Setup Poster</i>	820-3221- <i>nn</i>
Installation at a glance	<i>Sun Storage J4400 Array Setup Poster</i>	820-4691- <i>nn</i>
Complete details of the hardware components, rail and tray installation, and cabling.	<i>Sun Storage J4200/J4400 Array Hardware Installation Guide.</i>	820-3218- <i>nn</i>
Late-breaking information not included in the information set	<i>Sun Storage J4200/J4400 Array Release Notes</i>	820-3222- <i>nn</i>
Installation and use of the management software using a GUI	<i>Sun Storage Common Array Manager User Guide for the J4000 Array Family</i>	820-3765- <i>nn</i>
Installation and use of the management software using a CLI	<i>Sun Storage Common Array Manager CLI Guide for the J4000 Array Family</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>
SIM board replacement procedures	<i>Sun Storage J4400 Array SIM Board Replacement Guide</i>	820-4600- <i>nn</i>
Power supply replacement procedures	<i>Sun Storage J4200 Array Power Supply Replacement Guide</i>	820-3227- <i>nn</i>

Application	Title	Part Number
Fan replacement procedures	<i>Sun Storage J4200 Array Fan Replacement Guide</i>	820-3229- <i>nn</i>
Power supply and fan replacement procedures	<i>Sun Storage J4400 Array Power Supply/Fan Replacement Guide</i>	820-3228- <i>nn</i>
Chassis replacement procedures	<i>Sun Storage J4200 Chassis Replacement Guide</i>	820-4413- <i>nn</i>
Chassis replacement procedures	<i>Sun Storage J4400 Chassis Replacement Guide</i>	820-4601- <i>nn</i>
Rail kit installation procedures	<i>Sun Storage J4200/J4400 Array Rail Kit Installation Guide</i>	820-3764- <i>nn</i>

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>