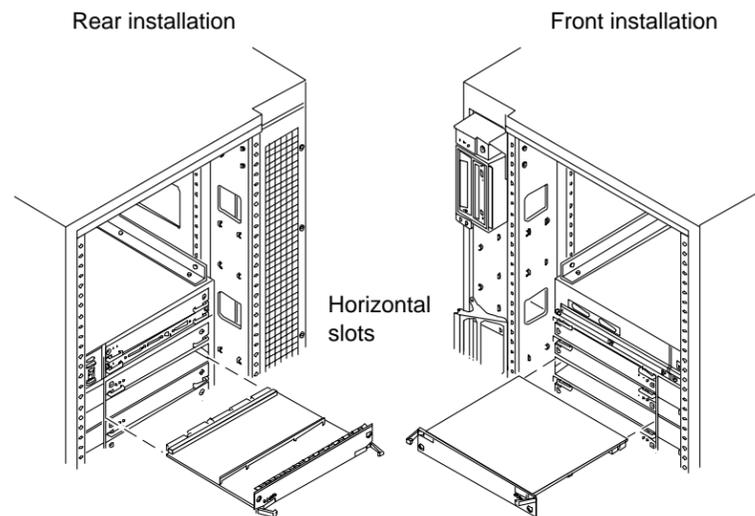


- Card cage with horizontal slots, rear slot: component side up
- Card cage with horizontal slots, front slot: component side down



- Card cage with vertical slots: component side to the right

3. Push the board into the card cage, then simultaneously press both extraction levers to seat the board on the centerplane.



**Caution** – When inserting a board into slot 4 or slot 10 of a 16-slot card cage, lift the board slightly to avoid damage to the centerplane connectors.

Pushing both levers simultaneously avoids twisting the board and bending the connector pins.

4. With the #1 Phillips screwdriver, turn the two quarter-turn access slots to the locked position (🔒).

5. If the system is running, look for a system message similar to the following example for a CPU/Memory board in slot 5:

```
NOTICE: CPU Board Hotplugged into Slot 5
NOTICE: Board 5 is ready to remove
```

6. Reboot the system or schedule a later time to reboot when system disruption will be minimized.

The system does not recognize the new board until the system is rebooted.

This completes the installation of the UltraSPARC II module.

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Part Number: 805-1150-12  
Revision A of April 1998



## 4 Mbyte UltraSPARC II Installation Guide

### Requirements

- The 4 Mbyte 250 MHz and 336 MHz UltraSPARC II modules must not be mixed with different speed UltraSPARC modules in a system.
- If this is the first 250 MHz or 336 MHz UltraSPARC module in your xx00 system, you also require the clock board upgrade package (part number: UG-ENT-CLOCKBD).
- If your system is running Solaris 2.5.1, you must install the software patch #103640 (version -06 or higher) and software patch #104595 (version -03 or higher).
- If your CPU/Memory board part number is either X2600A or 501-2976-xx, you must update the Flash PROM using the accompanying CD-ROM. This ensures that at least 2 Mbytes of cache will be used.



**Caution** – The heatsinks on the board can be damaged by incorrect handling. Do not touch the heatsinks while installing or moving the board. Hold the board only by the edges. If a heatsink is loose or broken, obtain a replacement board.



**Caution** – The heatsinks on the board can be damaged by improper packaging. When storing or shipping the board, ensure that the heatsinks have sufficient protection.



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## Preparation

You need the following to install the UltraSPARC II module:

- #1 Phillips screwdriver
- Hand Torque screwdriver (3/32 x 2" hex bit)
- Grounding wrist strap and padded ESD mat

## Precautions

- Use a grounding wrist strap for these procedures.
- Hold the UltraSPARC II module only by the edges (to prevent breakage of the CPU heatsinks).
- Do not touch the connector pins (to prevent corrosion).
- Place the CPU/Memory board on a padded ESD mat (to prevent breakage of parts on the board).

## Hot-Plug Feature



**Caution** – If the message: NOTICE: Hot Plug not supported in this system is displayed during boot, do NOT attempt to remove or install a board while the system is powered on.

If your system supports the hot-plug feature, a board is in low power mode and ready for removal if one of the following is true for the board status LEDs:

- All three status LEDs are off.
- The Service (🔧) LED is lit, and the Power (⊙) LED and the Running (⊙) LED are off.

If you install a hot-pluggable board in a running system, you must reboot to add the board to the system configuration.

## For Maximum Performance

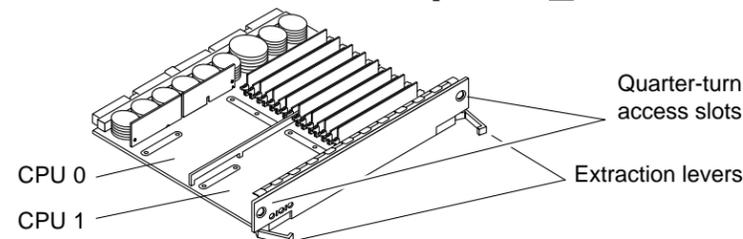
1. The CPU/Memory board should be in the lowest numbered slot.
2. All CPU 0 slots should be filled before using any CPU 1 slots.
3. After all CPU 0 slots are filled, use CPU 1 slots, starting with the CPU/Memory board in the lowest numbered slot.

---

## Removing a CPU/Memory Board

Read the requirements on the front of this guide before proceeding.

1. **If the board is in low power mode, skip this step and go to Step 2.** If the board is not in low power mode, halt the system and turn off power.
2. **With the #1 Phillips screwdriver, turn the two quarter-turn access slots on the board to the unlocked position (🔓).**



3. **Disconnect the board from the centerplane.** Pull both extraction levers simultaneously toward you to avoid twisting the board and bending the connector pins.
4. **Pull the board out of the card cage.** Do not let the components on the board catch on any surrounding surfaces as you pull out the board.



**Warning** – The heatsinks on the board may be hot. Handle with care.

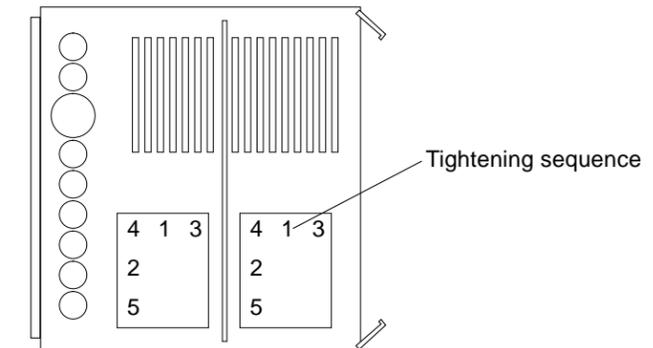
5. **Place the board on the padded ESD mat to protect components on the bottom of the board.**

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## Installing the UltraSPARC II Module

1. **Inspect the connectors on the board and the module for dust.** If necessary, clean the connectors with a dry, stiff toothbrush.
2. **Holding the module by the edges, align it over the connectors on the board.**

3. **Firmly but gently press the module straight down until the standoff post snaps into place and the connectors are fully seated.**
4. **Using the torque screwdriver, *partially tighten* the five 3/32 hex screws:**
  - a. ***Partially tighten* the screws just until they touch the compression connectors *in order*, beginning with screw 1.**
  - b. **Tighten the five screws an additional 1/2 turn in the same tightening sequence.**
  - c. **Finish the module installation by tightening *all* the screws to 6 inch-pounds in the same tightening sequence.**



**Caution** – Do not over torque or under torque the screws. Excessive force can warp the connector. Insufficient force can cause an incomplete electrical connection.

---

## Installing the CPU/Memory Board

If you are installing a new board, refer to your server system manual for rules for selecting a board slot.

1. **Open the board extraction levers by pulling the ends of both levers toward you.**
2. **Orient the board (orientation depends on the card cage the board is installed in) as follows:**

