
Preparation

You need the following tools:

- #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 module only by the edges.
- Do not touch the connector pins.
- Place the CPU/Memory board on a padded ESD mat.

Hot-Plug



Caution – The peripheral power supply provides the precharge voltages required for hot-plug. Use `prtdiag(1M)` to determine the status of the peripheral power supply.



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 you install a hot-pluggable board in a running system, you must reboot to add the board to the system configuration. For more information on hot-plug, refer to your system reference manual.

For Maximum Performance

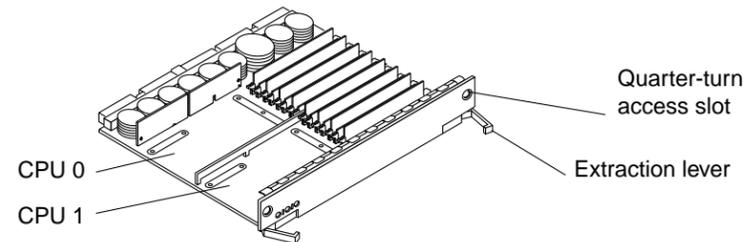
1. The CPU/Memory board should be in the lowest numbered slot.
2. All CPU 0 slots should be filled before using any CPU 1 slots.
3. After all CPU 0 slots are filled, use CPU 1 slots, starting with the CPU/Memory board in the lowest numbered slot.

Removing a CPU/Memory Board



Caution – Use a grounding wrist strap to prevent static damage.

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1. Read the requirements on the front of this guide before proceeding.
 2. Ensure the board is in low-power mode. A board is in low-power mode and ready for removal if one of the following is true:
 - a. All three board status LEDs are off.
 - b. The Service (🔌) LED is lit, and the Power (⊙) LED and the Running (⦿) LED are off.
 3. With the #1 Phillips screwdriver, turn the two quarter-turn access slots on the board to the unlocked position (■).



4. Pull both extraction levers simultaneously toward you to disconnect the board from the centerplane.
5. Pull the board out of the card cage and place it on the padded ESD mat, component-side up.
Do not let the components on the board catch on any surrounding surfaces as you pull out the board.



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

Installing the CPU Module

Install one CPU module through to the final torque requirement before moving on to the next CPU module installation.



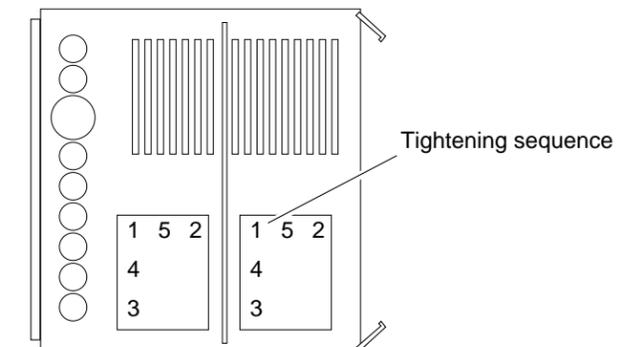
Caution – Use a grounding wrist strap to prevent static damage.

1. If applicable, remove the blue plastic tape from the white thermal pad and discard.

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1. Inspect the connectors on the board and the module for dust.
If necessary, clean the connectors with compressed air or the brush provided.
 2. Holding the module by the edges, align the module 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. Tighten the screws in three steps:
 - a. Tighten each screw in the sequence shown below until it reaches the metal plate.
 - b. Tighten each screw an additional 1/2 turn in the sequence shown.
 - c. Tighten the five screws to 6-inch pounds in the same 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

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

1. Orient the board, as follows:
 - Card cage with horizontal slots, rear slot: component side up

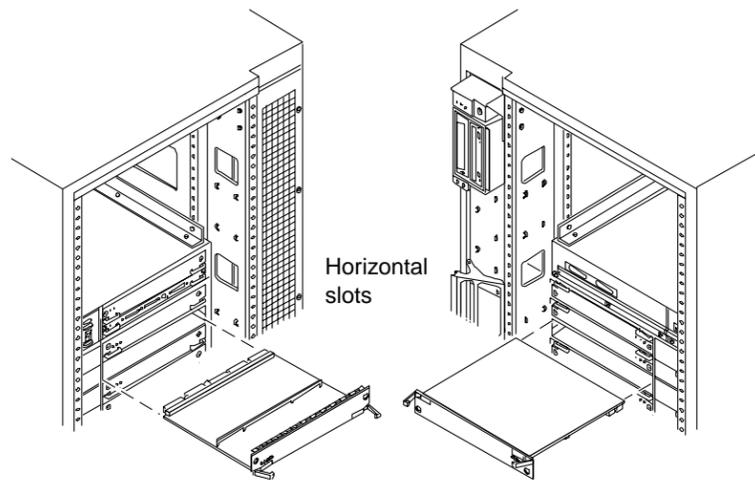
- Card cage with horizontal slots, front slot: component side down
 - Card cage with vertical slots: component side to the right
2. Push the board into the card cage with the extraction levers open, then simultaneously press both extraction levers to seat the board on the centerplane.



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.

Rear installation

Front installation



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

This screen output indicates that the system has detected the board and is in low-power mode. Subsequent `prtdiag(1M)` output will include information for board slot 5. However, the system will not use the board until the system is rebooted.

5. 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.

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Sun Enterprise™ xx00 Servers CPU Module Installation

Note – For installing processor modules on a Sun Enterprise™ 10000, refer to the *Sun Enterprise 10000 System Board Installation and Configuration Guide*, part number 805-7189.

Requirements

- Different speed modules *must not* be mixed in a system.
- If this is the first 4-Mbyte or 400-MHz module in your system, you require the clock board upgrade package (part number: UG-ENT-100MHCLOCKB) and flash PROM version 3.2.17, or compatible versions. For information contact your Sun service representative.
- If your system is running the Solaris 2.5.1 operating environment, you must install software patch #103640 (version -06 or higher) and software patch #104595 (version -03 or higher).



Caution – The heatsinks on the board can be damaged by improper handling. Do not touch the heatsinks while installing or removing a 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.

