Sun Enterprise™ 10000, 6x00, 5x00, 4x00, 3x00 System and CPU/Memory Boards Thermal Pad Installation Guide

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Thermal Pad Replacement Procedures

Perform these procedures to replace the old exposed thermal pads or the newer wrapped thermal pads on Sun Enterprise™ 10000, 6x00/5x00/4x00/3x00 system and CPU/memory boards. These procedures must be performed by a Sun certified technician.

Related Documentation

Application	Title	Part Number
Service	*Sun Enterprise™ 10000, 6x00, 5x00, 4x00, 3x00 System and CPU/Memory Boards Cleaning Guide*	806-4561-10

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Thermal Pad Kit Contents

The thermal pad kit contains the following items:

- Thermal Pad Placement Template
- Four Thermal Pads

Note – Four thermal pads will install on one Sun Enterprise 10000 system board or two Sun Enterprise 6x00/5x00/4x00/3x00 CPU/memory boards.

Tools Required

The following tools are necessary to remove, install, and handle the components:

- Phillips #1 screwdriver
- 3/32 Hex driver
- Grounding wrist strap
- Padded ESD mat

Remove Selected Components

1. **Attach a grounding wrist strap.**
2. **Remove the system or CPU/memory board and place it on the padded ESD mat.**

Caution – The heatsinks on the processor modules can be hot. Remove the processor modules carefully or permit them to cool to avoid burns.

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3. **Remove five 3/32-inch hex-head screws from the processor module compression connectors.**

4. **Lift the processor module straight from the system or CPU/memory board mating surface and the single standoff (for Sun Enterprise 6x00/5x00/4x00/3x00 CPU/ memory boards only) that locks the module to the board.**

   Use pressure applied with fingers to assist in removing the module from the standoff.

Note – The standoff is present only on Sun Enterprise 6x00/5x00/4x00/3x00 CPU/ memory boards.

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5. **Place the processor module on the padded ESD mat.**

6. **Repeat Step 3 through Step 5 to remove all modules present.**

Note – If the old style exposed thermal pad is being replaced on the Sun Enterprise 10000 system board by newer individual wrapped thermal pads, then all four processor modules must be removed.

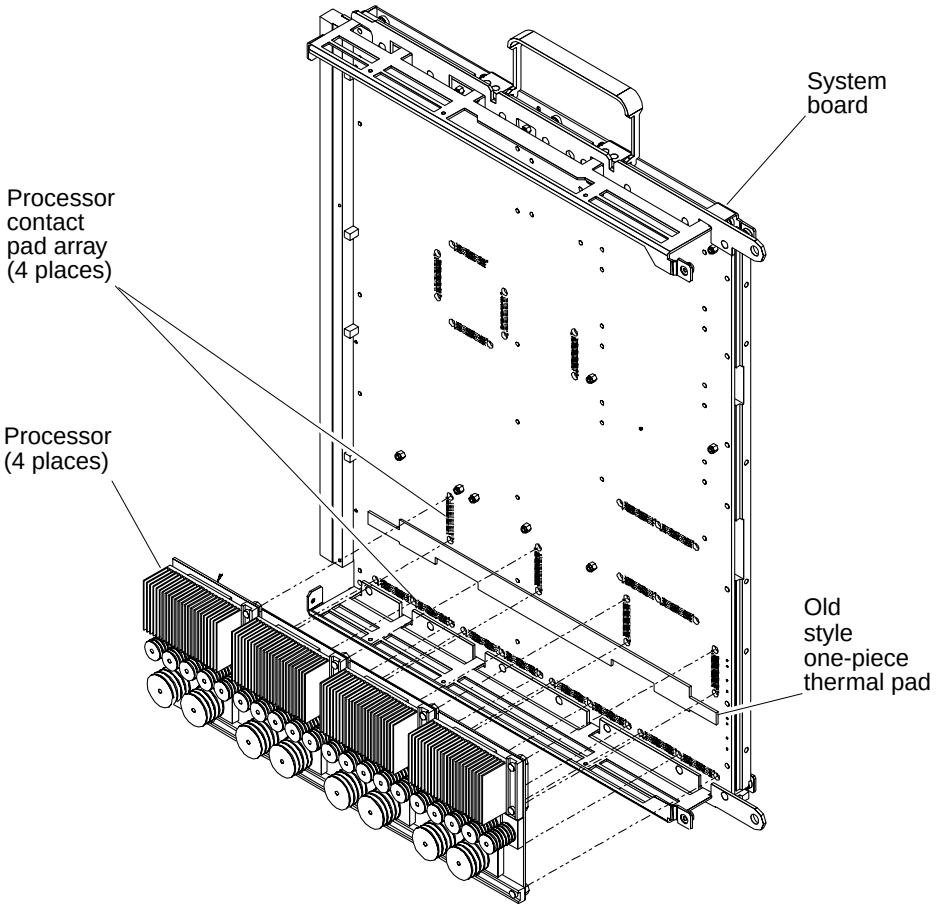

FIGURE 1 Sun Enterprise 10000 System Board

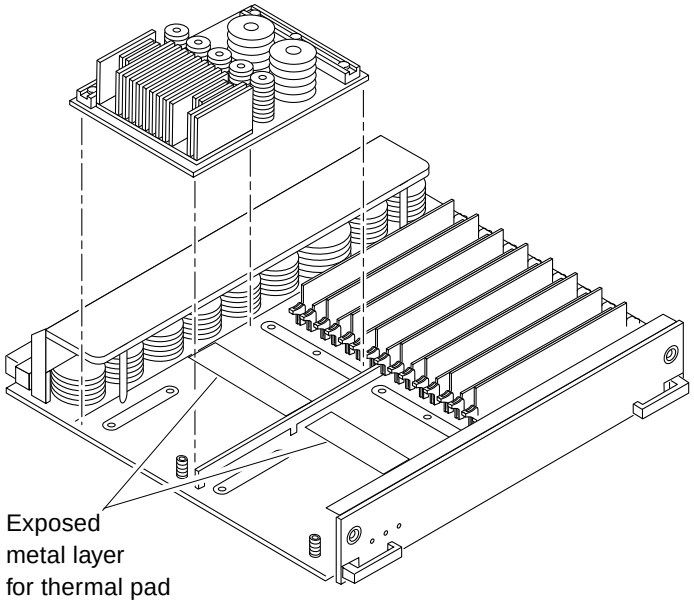

FIGURE 2 Sun Enterprise 6x00, 5x00, 4x00, 3x00, CPU / Memory Board

Remove the Old Thermal Pad(s)

1. **Peel away the old thermal pad or pads from the exposed metal layer on the system or CPU/memory board.**

   Discard the removed thermal pads.

2. **Clean the silicone buildup from the back of the processors and the system or CPU/memory board surface. Clean the connector pads and contact pins.**

   Use the SunShine Cleaning kit and refer to the *Sun Enterprise 10000, 6x00,5x00,4x00,3x00 System and CPU/Memory Boards Cleaning Guide*.

Install the New Thermal Pads

Note – The Sun Enterprise 10000 system board requires the use of the template to install the thermal pads in the proper location on the exposed metal layer.

1. **Install the thermal pad placement template on the Sun Enterprise 10000 system board in place of the processor (**FIGURE 3**).**

   The side to face up is marked on the template and the holes align with the fastener standoffs on the system board.

2. **Peel away the paper strip from the adhesive on the back of the new thermal pads.**

3. **Center the thermal pad in the opening of the template for a Sun Enterprise 10000 system board (**FIGURE 3**). Center and place each thermal pad directly on the exposed metal layer strip of the Sun Enterprise 6x00/5x00/4x00/3x00 CPU/memory board.**

   Apply pressure across the pad to ensure the adhesive on the pad makes complete contact with the metal layer.

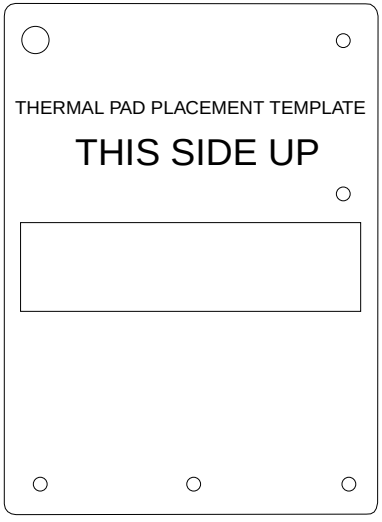

FIGURE 3 Sun Enterprise E10000 Thermal Pad Placement Template

4. **Repeat Step 1 through Step 3 as needed until all processor sites have the wrapped thermal pad installed.**

   For subsequent thermal pads, allow the template to rest over the adjacent installed thermal pads.

Install the Processor Modules

1. **Hold the processor module by the edges and align it over the fastener holes.**

   Make sure the thermal pad placement template is removed from Sun Enterprise 10000 system boards.

2. **Rest the module on the board standoff (for Sun Enterprise 6x00/5x00/4x00/3x00 CPU/memory boards only) and align the compression connectors with the screws.**

   Firmly but gently press the module straight down until the standoff post snaps into place and the module connectors are fully seated.

   Note – The standoff is present only on Sun Enterprise 6x00/5x00/4x00/3x00 CPU/memory boards.

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3. **Engage all captive connector screws clockwise with the 3/32 in. hex head torque driver.**

   a. **Tighten the captive connector screws in the sequence shown in** FIGURE 4 **until they touch the metal plate.**

   b. **Tighten each captive connector screw in the sequence shown in** FIGURE 4 **an additional 1/2 turn.**

   c. **Tighten the captive connector screws to a final torque of 0.68 Nm (6.0 inch pounds) in the pattern shown in** FIGURE 4**.**

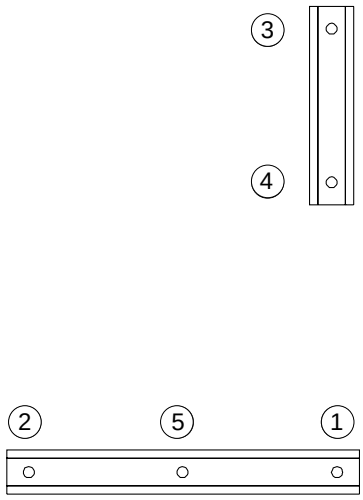

FIGURE 4 Tightening Pattern for the Processor Module

4. Install the system or CPU/memory board.