System Board Overview

10.1 Damage Prevention



Caution – Use the ESD kit provided when working on SPARCserver 1000 boards. Instructions are printed on the ESD mat.

Note - A disposable ESD kit can lose effectiveness after a single use.

10.2 Handling System Boards and Subassemblies



Caution – The system chassis power must be turned OFF, and the AC power cord must remain plugged in to ensure a proper ground.

Caution – The system board and its modules and cards have surface-mount components that can be broken by flexing the board.

To minimize the amount of board flexing, observe the following precautions:

- Hold the system board only by the edges near the middle of the board, where the board stiffener is located. Do not hold the board *only* at the ends.
- When removing the board from an antistatic bag, keep the board vertical until you lay it on the Sun ESD mat.

*10*Ξ

- Do not place the system board or SBus cards on a hard surface. Use a cushioned antistatic mat. The board connectors and components have very thin pins that bend easily.
- Do not use an oscilloscope probe on the components. The soldered pins are easily damaged or shorted by the probe point.
- Transport the board in an antistatic bag.

10.3 System Board Description

Figure 10-1 shows the major components on the system board.



Figure 10-1 System Board Three-Quarter View

All system boards are basically the same. No jumper changes are necessary.

Minimum configuration for the board in slot 0, the system master, is a SuperSPARC module in location A. See the note below.

SPARCserver 1000 System Service Manual—June 1996

Note – A system board can be moved to any slot, especially during troubleshooting. However, by convention, the system master is in slot 0. The factory ships systems in this configuration. It is possible POST may assign a new system master in a different slot if the original system master fails. If this occurs, correct it and install a fully functional system board in slot 0.

If a serial-interface console is used, it must be plugged into RS232 connector A on the system master. If a color monitor is used, a color-graphics interface card must be installed in SBus slot 1 on the system master.

Also, by convention, install system boards in the lowest card cage slot numbers first. Fill all SuperSPARC module A slots before installing modules in the B slots. Install all group 0 SIMMs before installing any group 1 SIMMs.

For comprehensive slot assignment rules and configuration priorities, See Appendix E, "General Rules for System Configuration."

=10

10.4 System Board Block Diagram

Figure 10-2 is a block diagram of the system board. The SPARC modules, SIMMs, and optional SBus cards are removable and can be replaced or moved to another SPARCserver 1000 system board.



Figure 10-2 System Board Block Diagram

Components shown in solid outlines are not field replaceable; if diagnostics report that a non-removable component failed, replace the entire system board.

SPARCserver 1000 System Service Manual—June 1996