

Installing the ZX Board in a Deskside or Data Cabinet System



This manual describes how to install the ZX board in a Sun deskside or data center cabinet, such as the SPARCserver 1000 or SPARCcenter 2000. Installation of the ZX board in a deskside server or data cabinet system requires that you replace standoffs on the system board.

The ZX board can be installed in the following SPARCserver machines:

- SPARCserver 1000
- SPARCcenter 2000

Only qualified Sun service providers should install the ZX board into a deskside or data cabinet system.

This chapter contains the following:

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Reference Information

Refer to the following Sun manuals for installation information:

Part Number	Manual Title
800-6366	<i>Installing SBus Cards in Deskside and Data Center Cabinet Systems</i>
801-2900	<i>SPARCserver 1000 System Board Manual</i>

Besides these documents, refer to the Service Manual that came with your system.

Notes, Cautions, and Warnings

Before trying to open any deskside or data center cabinet system, follow the safety rules described below.



Warning – This equipment contains lethal voltage. Accidental contact can result in serious injury or death.



Caution – Improper handling by unqualified personnel can cause serious damage to this equipment. Unqualified personnel who tamper with this equipment may be held liable for any resultant damage to the equipment.

Individuals who enter this equipment must observe all safety precautions and ensure compliance with skill level requirements, certification, and all applicable local and national laws.

Procedures contained in this document must be performed by qualified service-trained maintenance providers. Only people who have been trained by Sun Microsystems training facilities (or by Sun Microsystems affiliates) and have been certified as required by local and national laws are considered qualified.

Note – Before you begin, carefully read each of the procedures in the aforementioned manuals. If you have not performed similar operations on comparable equipment, **do not attempt** to perform these procedures.

Prepare the SBus Slots

1. **Power off the system and remove the System Board as described in the system manual.**
2. **Locate two adjacent empty SBus slots.**
The ZX board requires two adjacent SBus slots. See Figure 7-1.

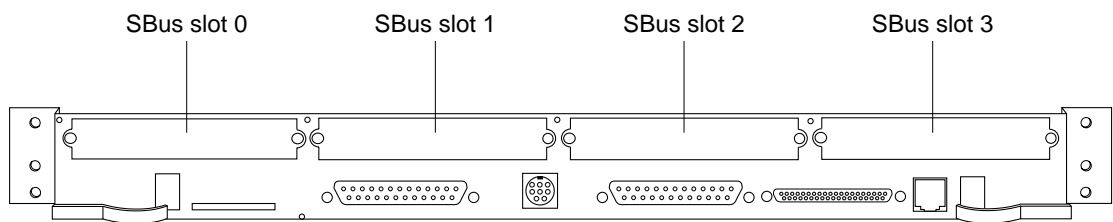


Figure 7-1 System Board SBus Slots

3. **Remove the two corresponding filler plates from the selected SBus slots.**
See Figure 7-2. Use a #1 Phillips screwdriver to remove the two flat-head Phillips screws that secure each filler plate to the back panel. Save the four screws and the two filler plates. You will need the screws later.

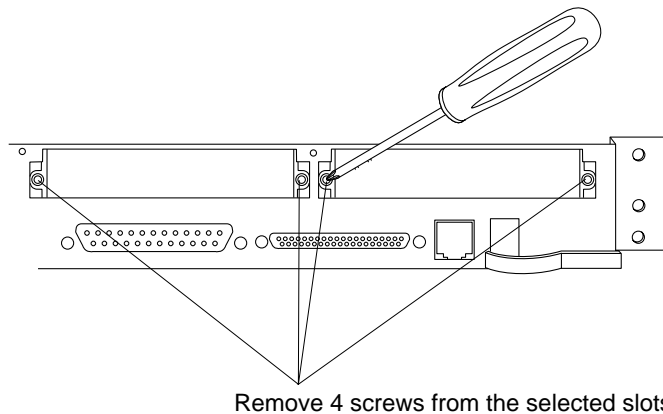


Figure 7-2 System Board SBus Slot Filler Plates

Attach the Antistatic Wrist Strap

The antistatic wrist strap is provided with the installation kit. The wrist strap provides grounding for static electricity between your body and the system unit chassis. See Figure 7-3.



Caution – Boards, modules, and components can be damaged by harmful electrical charges if you do not wear a wrist strap.

To use a wrist strap:

1. Wrap the grounding strap twice around your wrist.

Make sure the conductive adhesive tape is against your skin. See Figure 7-3.

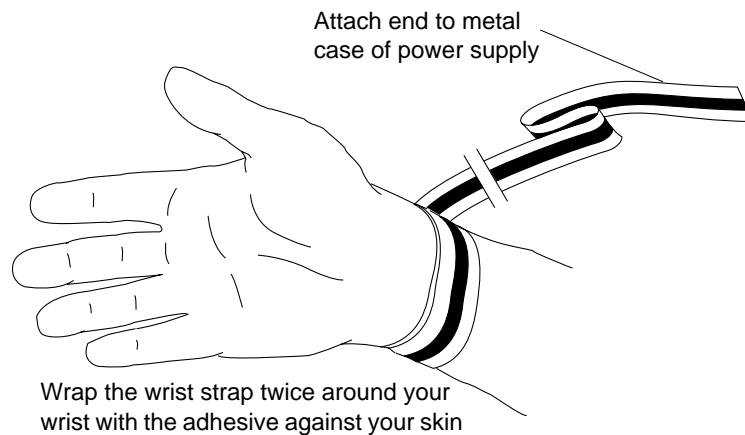


Figure 7-3 Attaching the Wrist Strap

2. Peel the liner from the copper foil at the opposite end of the wrist strap.

Attach this adhesive copper strip to the metal case of the system.

Replace the Standoffs on the System Board

1. **Remove the four standoffs from the selected SBus slots on the System Board.**

Remove the four standoffs by squeezing the bottom of the standoff on the opposite side of the board. See Figure 7-4.

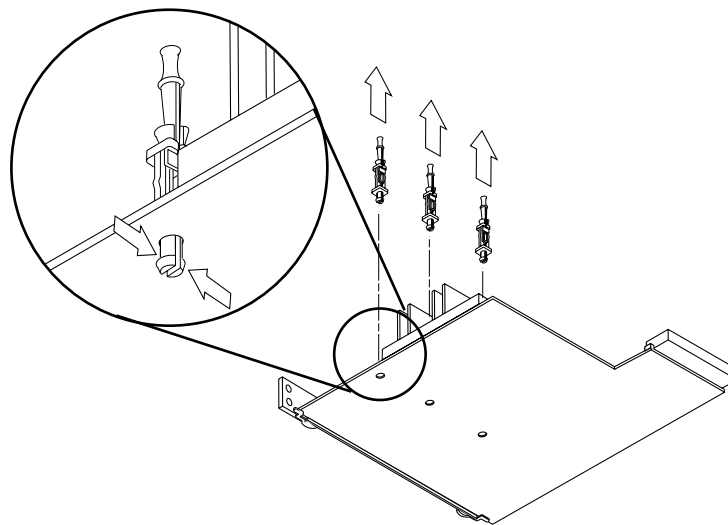


Figure 7-4 System Board Standoffs

2. **Remove the ZX board from its antistatic envelope.**
Hold the board by the edges as shown in Figure 7-5.

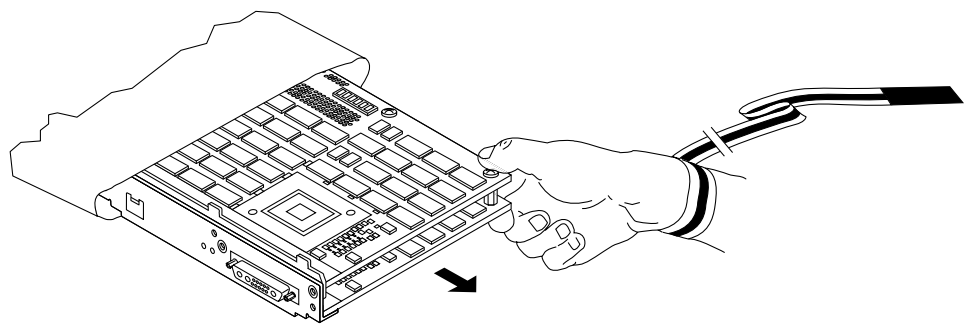


Figure 7-5 Removing the ZX Board from the Antistatic Envelope

3. Replace the three screws on the ZX Board with the three threaded standoffs provided with the ZX board installation kit.
See Figure 7-6.

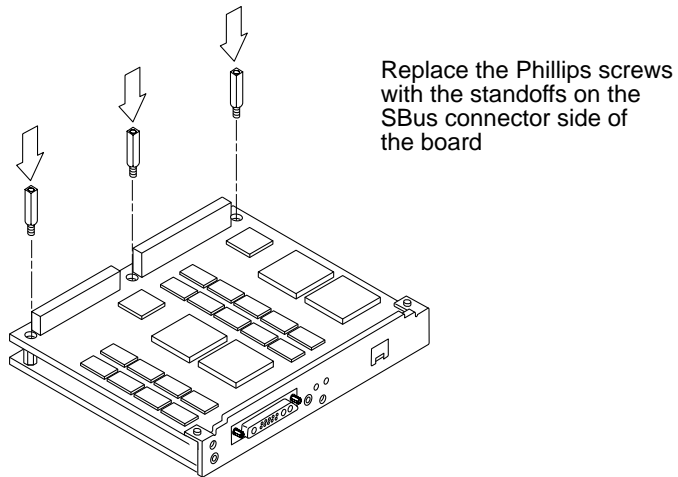


Figure 7-6 Install New Standoffs

Install the ZX Board

1. **Carefully guide the ZX board face plate under the springfingers and move the board against the rear face of the System Board back panel.**
See Figure 7-7. The monitor connector on the ZX board face plate should extend through the opening in the System Board back panel.

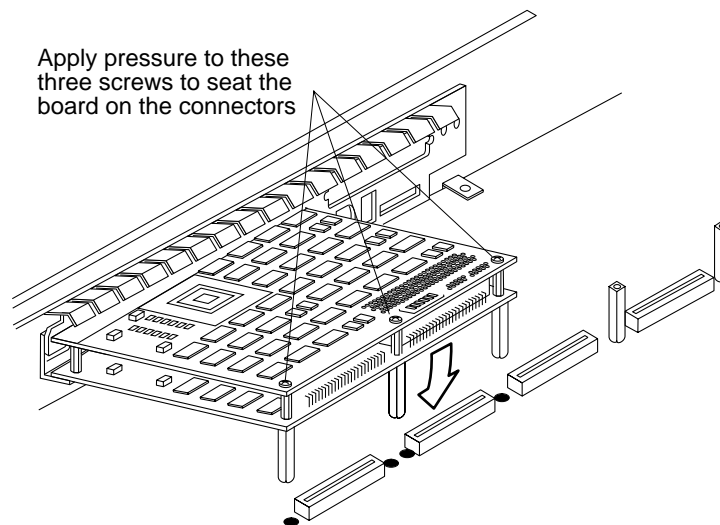


Figure 7-7 Installing the ZX Board on the System Board

2. **Check the alignment of the connectors on the ZX board back panel before you seat the ZX board.**
If necessary, align the board by gently pushing the board toward the back panel.
3. **Rotate the ZX board down until the ZX board SBus connectors are aligned with the SBus connectors on the System Board.**
See Figure 7-7.
4. **Gently press the board into the SBus slots.**
Apply pressure over the three screws to avoid bending the board.

5. **Attach the ZX board face plate to the System Board back panel with the four Phillips screws that you removed from the filler plates (in Step 3 on page 57).**
See Figure 7-8. Use a #1 Phillips screwdriver.

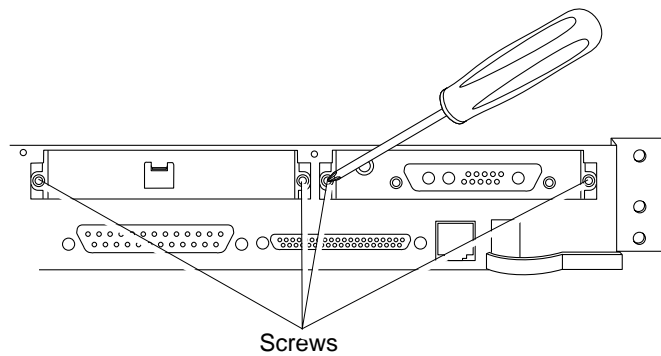


Figure 7-8 Attach the ZX Board to the System Board Back Panel

6. **Attach the ZX board to the System Board.**
See Figure 7-9. Use the three nylon screws provided in the installation kit. Insert the screws from the underside of the System Board to attach the ZX board to the System Board.

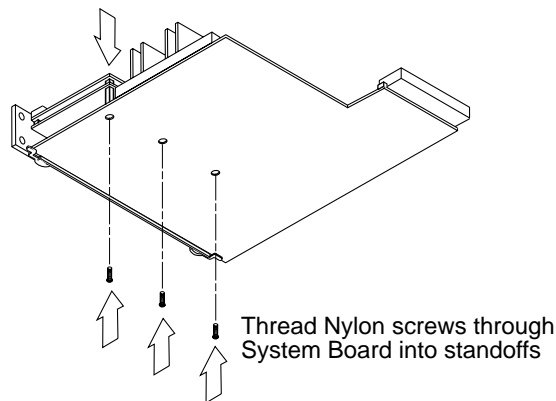


Figure 7-9 Attach the ZX Board Standoffs to the System Board

Finish Up

1. **Re-install the System Board in the enclosure as described in the system manual.**
2. **Attach the monitor cable between the ZX board monitor connector and the monitor.**
See Figure 7-10.

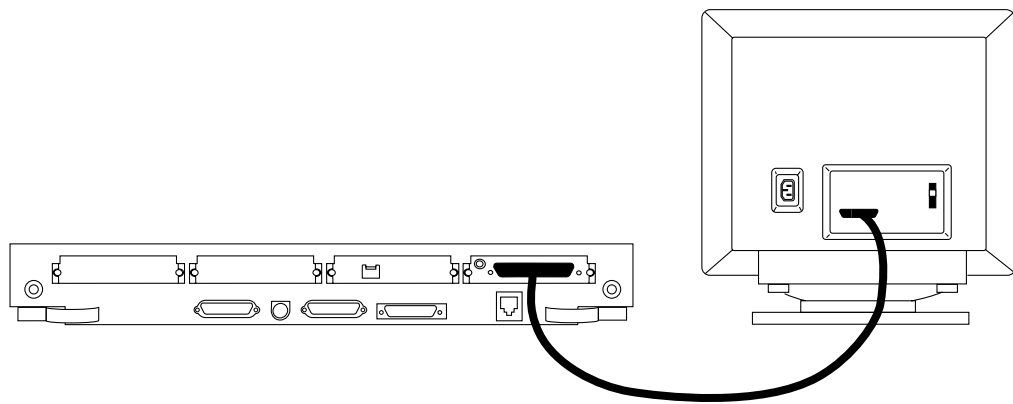


Figure 7-10 ZX Board Monitor Connector

3. **Power on the system as described in the system manual.**

Reconfigure the System

In Solaris 2.x, when an SBus board or peripheral device is added, the system does not recognize it automatically. You need to execute either the `touch /reconfigure` command before halting the system or `boot -r` command when the system is powered up after a device is added.

If the system did not recognize the normal halting procedure when you turned it off, you did not have the opportunity to execute the `touch /reconfigure` command. In that case, you need to execute the `boot -r` command which does the same thing as the `touch /reconfigure` command.

The `boot -r` command is executed after interrupting the boot process. It is assumed that you have installed a new SBus board in the system and the system power is off.

Follow this procedure to execute the `boot -r` command.

- 1. Power up the system and wait for the system banner to be displayed.**
The system starts to execute normal power up diagnostic and memory checking routines.
- 2. Abort the system by simultaneously pressing the L1-a key or the Stop-a key as appropriate for your keyboard.**
You will see the `ok` or "greater than" (`>`) prompt.
- 3. Type `boot -r` and press Return.**
A reconfiguration script is executed. The system then boots.

If you experience any trouble with the system at this point, see "Troubleshooting Procedure" on page 74.

What's Next

Configure the ZX Graphics Accelerator to work properly with your monitor, as described in Chapter 8, "Changing the Screen Resolution," on page 65.