

Installing the ZX Board in a Four-slot SPARCstation



This chapter describes how to install the ZX board in the SBus slot of a four-slot SPARCstation system unit and connect the monitor.

Installation Summary

Installation of the ZX board requires about 30 minutes. The following is an overview of the installation steps:

<i>Shut Down the System</i>	<i>page 28</i>
<i>Remove the Monitor</i>	<i>page 28</i>
<i>Remove the System Unit Top Cover</i>	<i>page 29</i>
<i>Attach the Antistatic Wrist Strap</i>	<i>page 31</i>
<i>Remove Existing Frame Buffer Board</i>	<i>page 32</i>
<i>Select the SBus Slots</i>	<i>page 33</i>
<i>Remove the Filler Plates</i>	<i>page 34</i>
<i>Install the ZX Board</i>	<i>page 35</i>
<i>Replace the System Unit Top Cover</i>	<i>page 37</i>
<i>Connect the Monitor</i>	<i>page 38</i>
<i>Power On the System</i>	<i>page 39</i>
<i>Reconfigure the System</i>	<i>page 40</i>

Shut Down the System

If powering down the system affects other users or clients, the system administrator should warn them that the system is about to be powered down. Shut down the workstation as described on page 8.

Remove the Monitor

If a monitor is currently attached to the system, and you do not intend to attach a second monitor to the system, remove the monitor as follows:

- 1. Remove the monitor cable from the system unit.**
The monitor cable is attached to an SBus card. (Refer to your system *Installation Guide* for the locations of all the ports and connectors.)
- 2. Remove the monitor from on top of the system enclosure and put it aside.**
Get someone's help if necessary. Beware of the static discharge from the monitor's face.



Warning - After the monitor is turned off, there is a residual charge of static electricity built up on the monitor's picture tube. The monitor power cord should be left connected at least one minute to allow static discharge after turning off the monitor power. Lifting the monitor too soon after turning off the power may result in static discharge to the body which may cause you to *drop* the monitor. Please note, a 19" color monitor may weigh as much as 75 pounds. Get someone's help if you cannot move it easily.

Do not disconnect the power cord from the system unit. Connection to the power outlet provides the ground path necessary to safely install the ZX board.

Remove the System Unit Top Cover

Make sure that the power is turned off to your system unit, but that the power cord remains plugged into the system unit and to the power source. To remove the system unit top cover:

1. Use a Phillips screwdriver to loosen the captive screw on the top right corner of the back panel.

See Figure 4-1.

2. Press a Phillips screwdriver against the plastic cover snap through the hole in the top left corner of the back panel.

Slightly lift the rear cover from the rear side while applying pressure on the cover snap until it is free from the plastic tab on the system chassis.

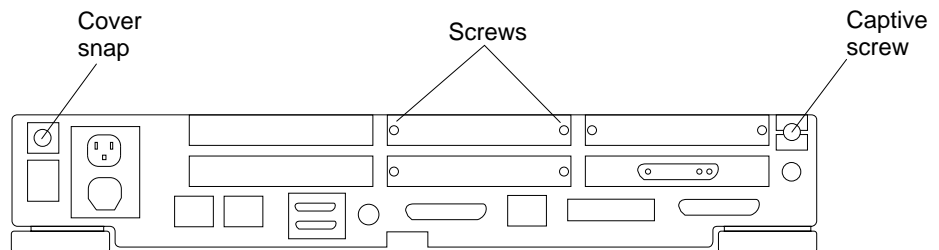


Figure 4-1 SPARCstation 10 System Rear Panel

Note - When removing or installing the cover of a SPARCstation 20 system, grasp the cover by the rear and front edges only.

3. Grasp the sides of the cover at the rear.

Tilt the cover up at an angle, as shown in Figure 4-5.

4. Push the cover forward until the hinge tabs are clear of the chassis.

Lift up to remove the cover.

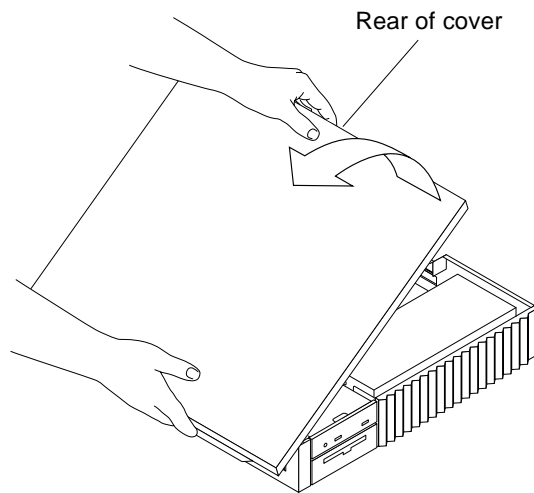


Figure 4-2 Removing the SPARCstation 20 System Unit Cover

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 4-3.



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 4-3.

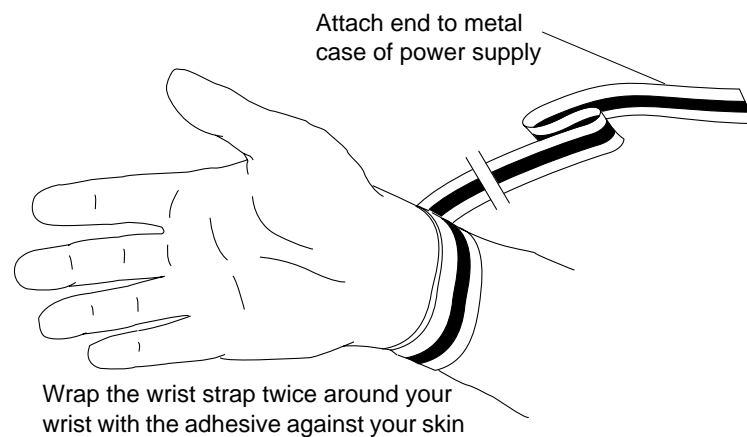


Figure 4-3 Attaching the Wrist Strap

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 unit power supply.

Remove Existing Frame Buffer Board

If you are upgrading a SPARCstation 10 to a ZX board, you must first remove the existing frame buffer board as described below. If you are not upgrading a SPARCstation 10 or if you are configuring a dual-monitor system, skip this step and proceed to “Select the SBus Slots” on page 33.

To remove an existing frame buffer board:

1. Remove screws and washers from the backplate.

Attach the SBus card retainer to the card if necessary to provide a secure grip for your fingers.

2. Disengage the rear card retainers.

Gently pull the card upward using the card edges and the SBus card retainer and disengage the tabs from the back panel (see Figure 4-4).

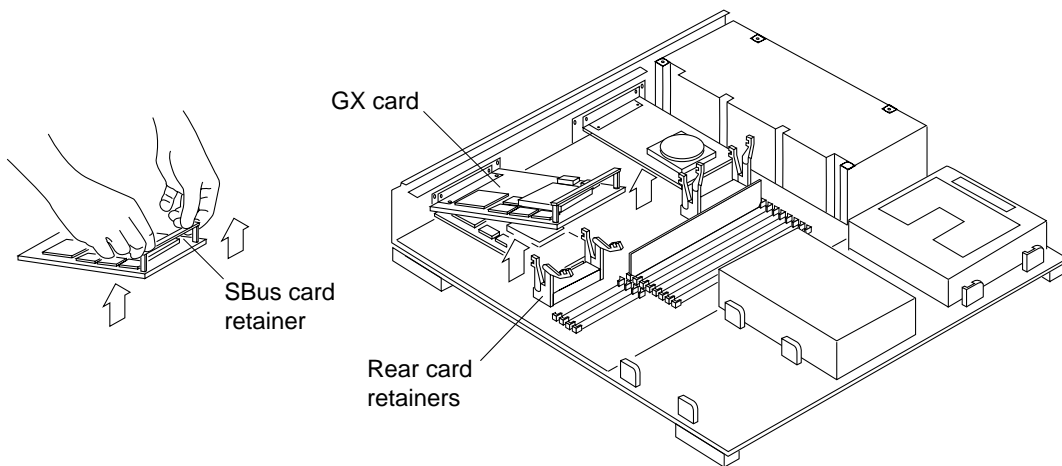


Figure 4-4 Removing the GX Card from the SPARCstation 10 System Unit

Select the SBus Slots

Figure 4-5 shows the SBus slots and the internal view of the system where the ZX board is installed. If you have a choice between installing the board in the upper or lower slots, install it in the upper SBus slots for improved reliability.

The ZX board is a double-wide assembly, requiring a pair of adjacent SBus slots, such as 1 and 3.

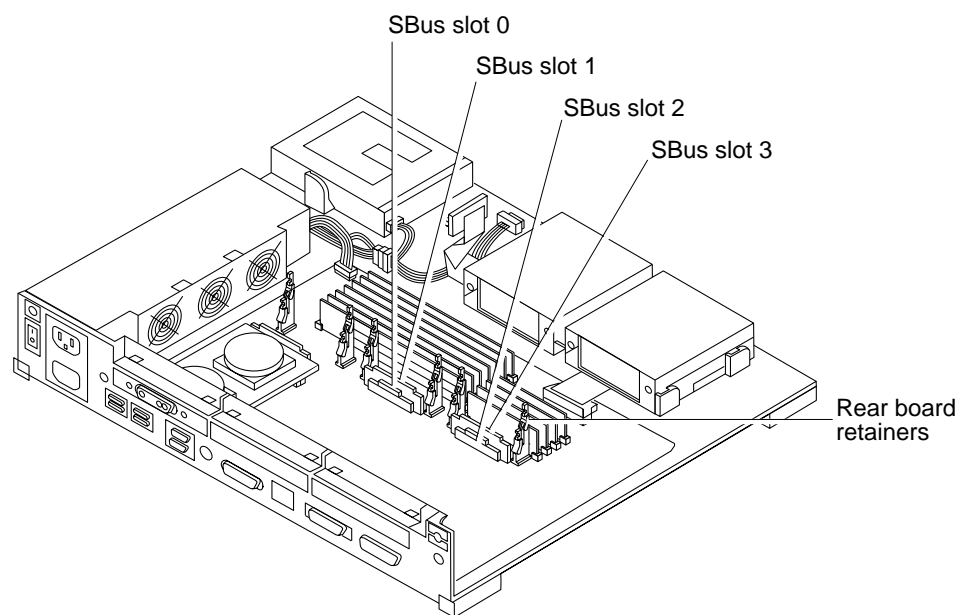


Figure 4-5 Open SPARCstation 10 System Unit SBus Slots

Remove the Filler Plates

Remove the two rear panel filler plates as follows:

- 1. Remove both Phillips screws and washers from each filler plate.**
Save the screws and the washers. You will need them later.
- 2. Remove the filler plate by pushing down on the filler plate tabs with your fingers one at a time and press inward on the outside of the filler plate.**
The filler plate releases towards the front of the system, as shown in Figure 4-6).

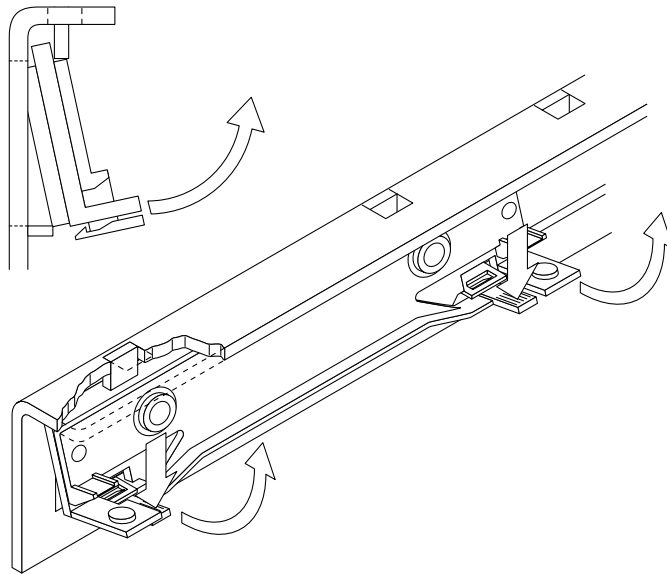


Figure 4-6 Removing the SPARCstation 10 Rear Panel Filler Plates

Install the ZX Board

Install the ZX board in the upper SBus slots.

- 1. Remove the ZX board from its antistatic envelope.**
Hold the board by the edges as shown in Figure 4-7.

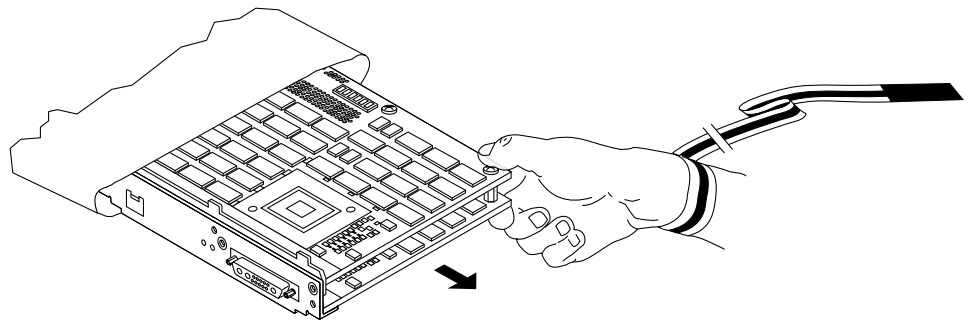


Figure 4-7 Removing the ZX Board from the Antistatic Envelope

- 2. Make sure the system is turned off and the wrist strap is attached to your body and the metal part of the power supply as described on page 31.**
- 3. Slide the board at an angle into the system unit back panel.**
- 4. Align and engage the board backplate under the lip on the system unit back panel.**
- 5. Push the board's monitor connector towards the back so that the backplate is flush with the system unit back panel.**
See detail ① in Figure 4-8.
- 6. Holding the ZX board in place against the back panel, align the ZX board's SBus connectors with the corresponding SBus slots.**
See Figure 4-8 (detail ②).
- 7. Gently press the board into the SBus slots.**
Apply pressure over the three screws to avoid bending the board.
- 8. Engage the four rear board retainers to fasten the board to the SBus slots.**
See Figure 4-8.

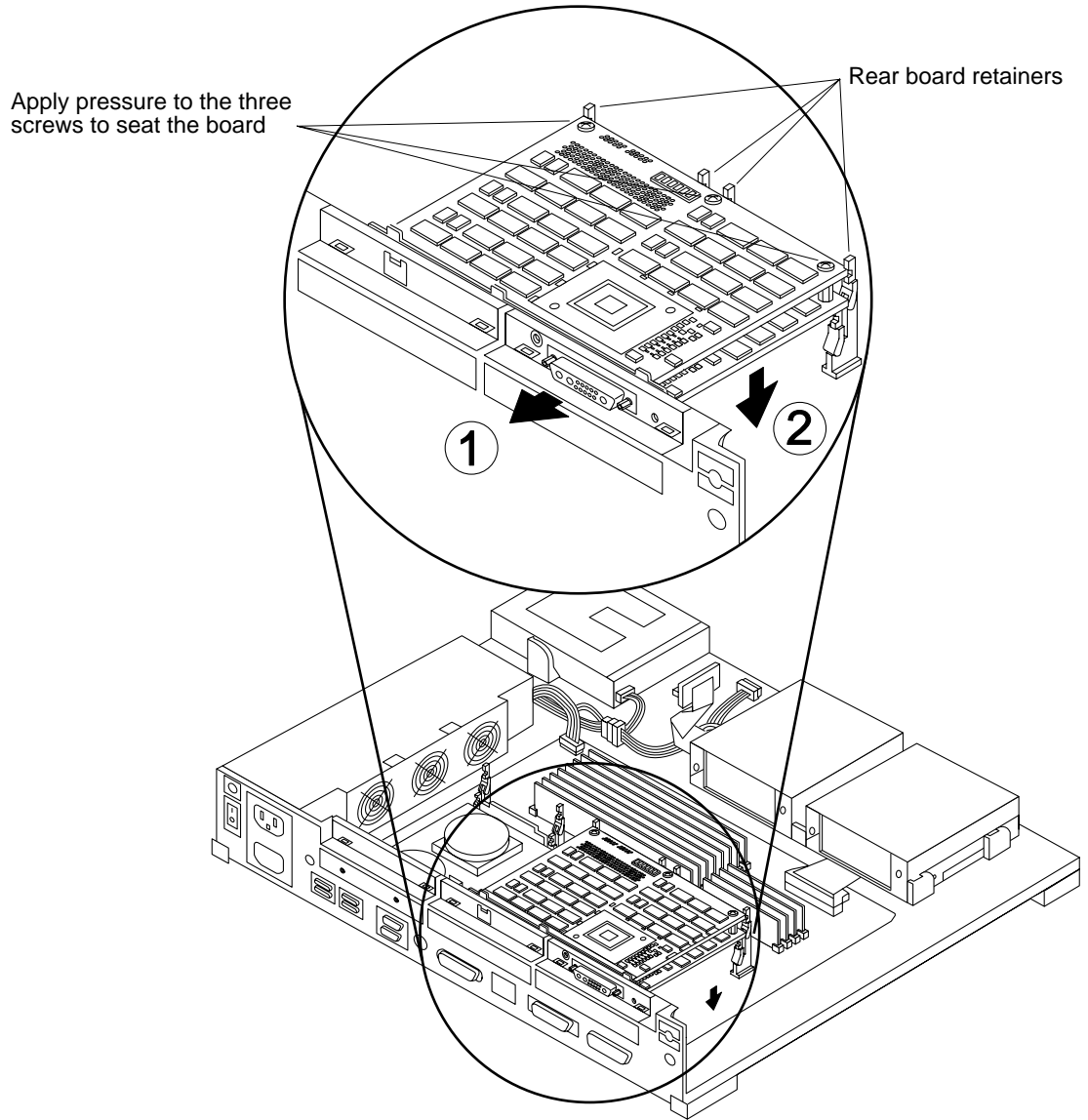


Figure 4-8 Installing the ZX Board in the SPARCstation 10

- 9. Install the screws and washers that you removed from the filler plates.** See Figure 4-1. These screws and washers need to be installed for compliance reasons.

Replace the System Unit Top Cover

To replace the system unit top cover:

- 1. Remove the wrist strap from your wrist and the power supply.**
- 2. Hold the top cover at an angle as shown in Figure 4-9.**
Guide the tabs on the front of the cover into the tab slots on the front of the chassis. Continue to hold the cover.
- 3. Lower the cover.**
Be sure the security tab clears the diskette drive and seats into the slot on the bottom of the chassis. Make sure the cover fits over the ends of the back panel. Gently press the cover so that the cover snap is engaged under the metal tab on the rear of the chassis. The cover snap should click, securing the cover to the unit bottom.
- 4. Tighten the captive screw with a Phillips screwdriver.**
Be careful not to overtighten the screw as excessive force may strip the screw.

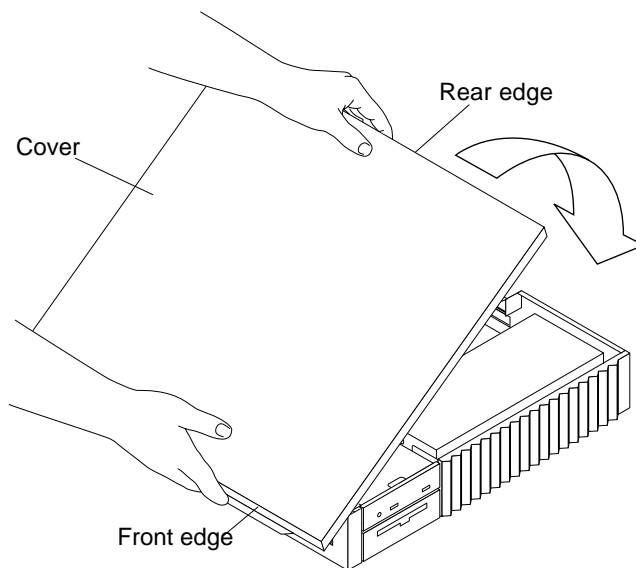


Figure 4-9 Replacing the SPARCstation 20 System Unit Top Cover

Connect the Monitor

- 1. Remove the monitor from the packing container, if this is a new monitor.**
Save the packaging material in case the monitor needs to be returned in the future.
- 2. Connect the monitor to the system unit.**
See Figure 4-10.

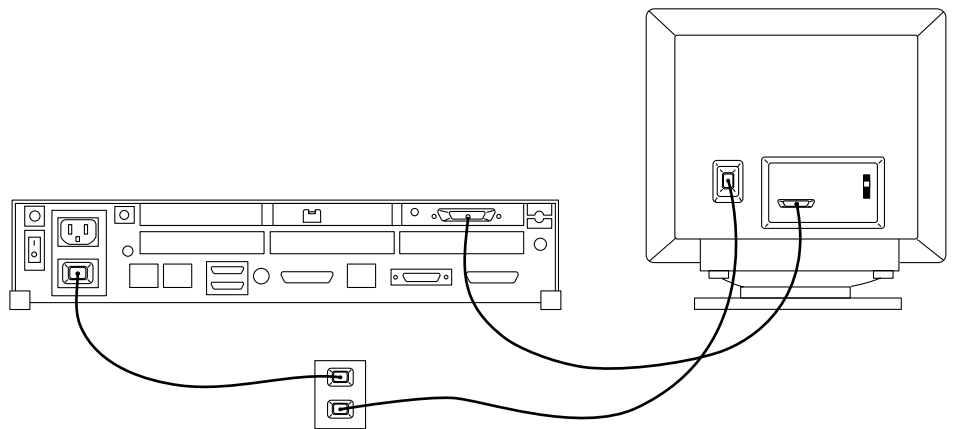


Figure 4-10 Connecting the Monitor to the SPARCstation 10

- 3. Connect the power cable to the electrical outlet.**

Power On the System



Warning – Before powering on the system unit, you must replace the cover and secure it. Failure to take this precaution may result in personal injury and system damage.

Turn the power on in this order:

1. Monitor
2. All peripherals
3. System unit

Refer to your system *Installation Guide* for the power-on procedure if your system is part of a network.

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 about one minute.

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 `ok` 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.