

Troubleshooting

This Appendix describes the troubleshooting procedures. Some procedures are simple and can be performed by an average user while the others are complex and should be performed only by an experienced user. This chapter contains the following:

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Troubleshooting Procedure

If you do not see any messages on the screen after restarting the system, it may indicate that the ZX board is defective or the installation procedure was not completed correctly. If this is the case, do the following:

- 1. Make sure that the system power switch is in the I (on) position.**
The system power light should be lighted.
- 2. Check the monitor.**
The monitor power plug should be attached to the monitor and the power outlet, and the monitor power switch should be in the I (on) position.
- 3. Make sure the monitor cable is properly connected to the monitor and the ZX board.**
- 4. Reboot the system.**

If you still encounter problems during the system restart, call 1-800-USA-4SUN (within the USA) or contact your Sun Sales Representative. If you are outside the USA, contact your nearest Sun Answer Center.

No Video Display

This problem can occur for a variety of reasons. If you do not see the video after booting up the system, proceed as follows:

- 1. Make sure the power is applied to the system and the system LED and the monitor LED are lit.**
- 2. Make sure the ZX board is installed properly and the cable is properly attached to the board and the monitor.**
- 3. Verify that you have the correct monitor and monitor cable.**
A 13W3 D-type monitor cable is required. Replace the monitor or the cable if necessary. See Table 1-1 on page 3 for a list of supported monitors.

No Dark Border on the Screen

Verify that the switch at the rear of the monitor is in the Underscan (–) position. If the switch is in the Overscan (+) position, change it to the Underscan (–) position.

Partly Hidden or Shifted Icons

Verify that the switch at the rear of the monitor is in the Underscan (-) position. If the switch is in the Overscan (+) position, change it to the Underscan (-) position.

Resolution Problem

The monitor may have poor resolution if

- The monitor was not attached to the system when the power was turned on.
- An improper monitor is attached to the system.
- The monitor cable is either defective or not installed properly.
- The monitor is defective.
- The ZX board is defective.

To solve this problem, do the following:

1. Make sure that you are using the right monitor, and that the monitor cable is installed properly.

See Table 1-1 on page 3 for a list of supported monitors.

2. Attach the proper monitor to the system and turn the CPU power off and on.

3. Try a different screen resolution.

See “Changing the Screen Resolution Temporarily” on page 67.

4. If the above steps do not resolve the problem, replace the monitor cable.

If the problem still exists, call **1-800-USA-4SUN** (within the USA) or contact your Sun Sales Representative. If you are outside the USA, contact your nearest Sun Answer Center.

Checking fcode-debug Parameter

Skip this information if you have not changed the fcode-debug parameter.

Note – The fcode-debug parameter is set to 'false' at the factory and does not need to be changed. If you have changed it to 'true' for CPU PROMs older than version 2.0, the system will not boot.

Refer to the following documents for details:

- 800-4251 *Open Boot PROM Toolkit User's Guide* which describes how to use your system's open boot PROM. This guide is for system administrators, software or hardware developers, and advanced users. Use this guide if your system boot PROM version is older than 2.0.
- 800-5674 *Open Boot PROM 2.0 Toolkit User's Guide* which describes how to use your system's 2.0 open boot PROM. This guide is for system administrators, software or hardware developers, and advanced users. Use this guide if your system boot PROM version is 2.0 or later.

Error Messages

Some early models of the SPARCstation 10 workstation may have an out of date version of the MSI chip. During the system boot, the ZX driver (leo) displays the following warning if it finds an old MSI chip:

```
WARNING: MSI revision 1 needs to be upgraded
Disabling picking on Leo
```

Also, when the XGL application is called, the XGL driver gives the following error message during its initialization:

```
Error number leo-17: Unable to allocate kernel pick buffer
```

If these error messages are encountered, the ZX Graphics Accelerator will continue to function normally, except that it will not do picking. System performance is not otherwise affected.

If you need picking and either of these error messages display, the MSI chip must be replaced with the latest version. Call **1-800-USA-4SUN** (within the USA) or contact your Sun Sales Representative. If you are outside the USA, contact your nearest Sun Answer Center.

Sundiag Diagnostics

SunDiag is an on-line exerciser that runs diagnostic hardware tests. It is used primarily with the OpenWindows GUI that enables you to quickly and easily set test parameters to run tests.

SunDiag 4.2 is released with the Solaris 2.2 operating system. SunDiag 4.2 is an optional, relocatable software package on the Solaris 2.2 CD. The default installation instructions place SunDiag in the `/opt/SUNWdiag/bin/sundiag` directory, but you may place it anywhere in your system's directory that has space for it.

You can run SunDiag through either the OpenWindows GUI interface or the tty interface. In Sundiag, the ZX Graphics Accelerator is identified as "Leo." See the *Sundiag 4.2 User's Guide* (801-3935) for details.

Field Replacement Units

The ZX does not have any field replacement components, rather the board assembly is a field replaceable unit (FRU). If the ZX board is defective, it should be replaced with a new one.

If a unit is defective and under warranty, call 1-800-USA-4SUN (within the USA) or contact your Sun Sales Representative. If you are outside the USA, contact your nearest Sun Answer Center.

If you need a new ZX board or other parts, call Sun Sales/Telemarketing. Table 9-1 lists the parts and part numbers of the FRUs and the systems in which they are used.

Table 9-1 Field Replaceable Units

2-Slot	Where Used				Part Number	Description
	4-Slot	Ultra 1	Ultra 2	Desk-side		
✓	✓	✓	✓	✓	501-1845-xx	ZX board assembly
✓	✓	✓	✓	✓	560-1302-01	ESD kit (antistatic wrist strap)
✓					250-1195-01	Bumpers (3)
✓					340-2349-01	Adapter bracket
✓					240-1821-01	Screws for adapter bracket (3)
		✓			530-2290-01	Ribbon cable assembly
				✓	240-2103-01	Standoffs (3)
				✓	240-2090-01	Nylon screws for standoffs (3)
		✓			150-2633-01	Ferrite core for stereo cable

2-Slot = SPARCstation LX, and SPARCclassic,
 4-slot = SPARCstation 10 and SPARCstation 20
 Ultra 1 = Ultra 1 Creator Series workstation
 Ultra 2 = Ultra 2 Creator Series workstation
 Deskside = SPARCserver 1000 and SPARCcenter 2000