

# *Introducing the ZX Graphics Accelerator*

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## *Overview*

The ZX graphics accelerator is a double-wide SBus, 24-bit color, 3D graphics accelerator designed for Sun desktop and desktside workstations. This Installation Guide contains the hardware installation instructions for installing a ZX Graphics Accelerator board in the workstation.

The ZX Graphics Accelerator is known by two names:

- The hardware is known as the ZX board or the ZX Graphics Accelerator.
- The “device” is known as leo (error messages and diagnostics refer to the leo device).

## *Systems Covered*

The procedures in this manual cover installation of the ZX board in the following Sun systems:

- Two-slot workstations, such as SPARCstation LX, and SPARCclassic (see Chapter 3)
- Four-slot workstations, such as the SPARCstation 10 and SPARCstation 20 (see Chapter 4)
- The Ultra™ 1 Creator Series workstations (see Chapter 5)
- The Ultra 2 Creator Series workstation (see Chapter 6)

- Deskside and data cabinet systems, such as the SPARCserver 1000 and the SPARCcenter 2000 (see Chapter 7)

The ZX board is not supported in the SPARCstation 2.

### *Software Requirements*

The ZX Graphics Accelerator requires the Solaris 2.2, or higher, operating system. For use on the Ultra series workstation, the ZX requires the Solaris 2.5.1, or higher, operating system.

### *Screen Resolution and Refresh Rate*

The ZX board automatically selects a default screen resolution and refresh rate (frequency) for the installed monitor upon initialization. The ZX board supports other screen resolutions and refresh rates, including stereo.

Table 1-1 lists the Sun monitors supported by the ZX Graphics Accelerator. Included in the table are the default and optional resolution and refresh rates. The default resolution is indicated in bold type. If the ZX board is unable to determine the monitor type, such as for non-Sun monitors, it defaults to a resolution of 1152 × 900 at 66 Hz.

To use other refresh rates or screen resolutions, see Chapter 8, “Changing the Screen Resolution,” on page 65. For a complete list of screen resolutions the ZX Graphics Accelerator supports, see Table 8-1 on page 66.

Table 1-1 Monitors Supported

Model	Sun Part Number	Type and Size	Monitor ID Sense Code	Supported Resolution and Refresh Rate
X248A	365-1068-01	Color 21"	2	<b>1280 × 1024 at 76 Hz</b>
GDM-20D10	365-1167-01	Color 20"	4	<b>1280 × 1024 at 67 Hz</b> 1280 × 1024 at 76 Hz 1152 × 900 at 76 Hz 1152 × 900 at 66 Hz 960 × 680 at 112 Hz (stereo)
GDM-1955A15	365-1081-01	Color 19"	3	<b>1152 × 900 at 66 Hz</b>
GDM-1962	365-1095-01	Color 19"	4	<b>1280 × 1024 at 67 Hz</b> 1152 × 900 at 76 Hz 1152 × 900 at 66 Hz
GDM-1962B	365-1160-01	Color 19"	4	<b>1280 × 1024 at 67 Hz</b> 1152 × 900 at 76 Hz 1152 × 900 at 66 Hz
GDM-1604A15	365-1079-01	Color 16"	3	<b>1152 × 900 at 66 Hz</b>
GDM-1662B	365-1159-01	Color 16"	6	<b>1152 × 900 at 76 Hz</b> 1152 × 900 at 66 Hz 1280 × 1024 at 67 Hz
CPD-1790	365-1151-01	Color 16"	3	<b>1152 × 900 at 66 Hz</b> 1024 × 768 at 76 Hz
X449A	365-1286-01	Color 15"	0	<b>1024 × 768 at 76 Hz</b>
GDM-20S5	365-1168-01	Grayscale 20"	2 or 4*	<b>1280 × 1024 at 76 Hz</b> or <b>1280 × 1024 at 67 Hz</b> 1152 × 900 at 76 Hz
17SMM4 A	365-1100-01	Grayscale 17"	6	<b>1152 × 900 at 76 Hz</b>
Non-Sun	--	Unknown	7	<b>1152 × 900 at 66 Hz</b>

Resolutions in **bold type** are the default resolution at power-on initialization.

\* Monitor ID sense code is user-selectable by switch on rear.

**Monitors not supported:**

M20P110	365-1099-01	Grayscale 19"	4	N/A
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