

Silicon Graphics[®] Presenter 1280[™]
Owner's Guide

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Introduction

Congratulations on purchasing Silicon Graphics® Presenter 1280™, a full color, 1280 x 1024, flat-panel monitor with stereo speakers and overhead projection capability.

This guide assumes that the Presenter 1280 adapter board is installed in your workstation. If it is not, install it first, following the instructions in the manual that comes with the adapter board.

Chapter 1 explains how to set up Presenter 1280 as a monitor for your workstation and how to use it on the Silicon Graphics customized Dukane® Model 28A682 overhead projector.

Chapter 2 contains troubleshooting and product support information.

Chapter 3 tells you how to take care of the Presenter 1280 monitor and how to transport it. It also contains technical specifications and regulatory information.

Setting Up and Using the Presenter 1280 Monitor

To use the Presenter 1280 monitor with your workstation, the Presenter 1280 adapter board must already be installed. If it is not, install it first, following the instructions that came with the board.

This chapter explains how to set up Presenter 1280 as a monitor for your workstation, and how to use it on the customized Dukane 28A682 overhead projector to project images on a screen. It also includes information on using the Presenter 1280 software.

Caution: The Presenter 1280 monitor is designed to function at maximum performance and reliability with the customized Dukane 28A682 Overhead Projector. If you use another projector, cooling of the display, stable mounting, and brightness of the projected image will all be compromised. *A bright overhead projector without proper cooling of the display may cause permanent damage to the Presenter 1280 monitor.*

Setting Up the Presenter 1280 Monitor

To set up Presenter 1280 with the workstation, follow these steps.

1. Unpack the Presenter 1280 monitor.
 - Lift Presenter 1280 and the external cables from the box. It's a good idea to save the original shipping materials in the event that you need to return it for service.
 - Remove Presenter 1280 from the plastic bag.
2. Remove the protective film from the screen, being careful not to get fingerprints on the coated glass surface.

Caution: The display is made of glass, coated with optical films and is the most expensive component in the monitor. A sharp instrument such as a pen can scratch the surface. Striking the surface with a hard object can break the glass.

3. Tilt the base of Presenter 1280 to form a stand, as shown in Figure 1-1.
4. Place it on a flat surface.

Note: You can leave your regular CRT monitor connected to the workstation and turned on while using Presenter 1280.

You may want to take a moment to familiarize yourself with the following Presenter 1280 features, as shown in Figure 1-1 (front view), and Figure 1-2 (rear view).

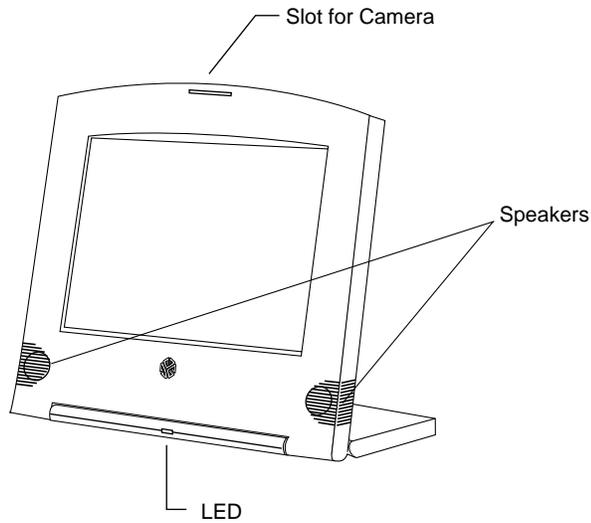


Figure 1-1 Front View of Presenter 1280

- LED—to show the status. When the Presenter 1280 monitor is on and enabled, the LED is solid green.
- Camera slot—to attach a camera.
- Front stereo speakers.

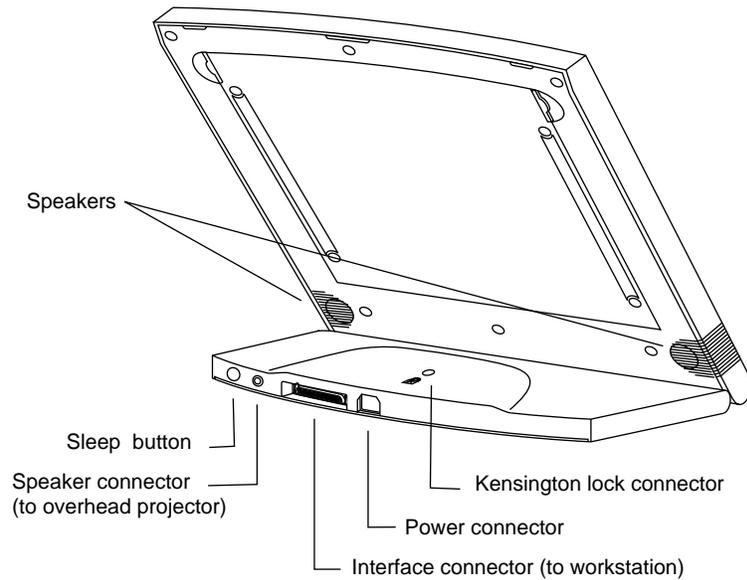


Figure 1-2 Rear View of Presenter 1280

- Rear stereo speakers.
- Sleep button—to enable and disable the display.
- Speaker connector—to connect the speaker cable to the Dukane 28A682 overhead projector.
- Interface connector—to connect the interface cable to the workstation.
- Power connector—to connect the power cable.
- Kensington[®] lock connector—to secure Presenter 1280 with a Kensington locking device.

You are now ready to connect the external cables.

Connecting the External Cables

If the Presenter 1280 board is not already installed in your workstation, install it now, referring to the installation manual that comes with it.

To use Presenter 1280, you must connect two cables—the interface cable and the power cable. The connectors have an elongated D shape. Make sure the D shapes match each other. If the cable is not installed correctly, the image on Presenter 1280 will be distorted.

Note: You do not need to turn off the workstation before connecting the cables. If you are using Presenter 1280 and either the power cable or the interface cable become disconnected, simply reconnect the cable and the software restarts Presenter 1280.

Follow these steps to connect the cables.

1. If you received an interface cable with a large connector at one end and a smaller connector at the other end, connect the smaller end to the base of Presenter 1280, as shown in Figure 1-3. Connect the larger end to the Presenter 1280 connector on your workstation.
2. If you received an interface cable with identical connectors at each end, connect either end to the base of Presenter 1280, as shown in Figure 1-3. Connect the other end to the Presenter 1280 connector on your workstation.

Tip: You hear a click as the cable connects. Tug lightly on the cable. It should not disconnect from Presenter 1280.

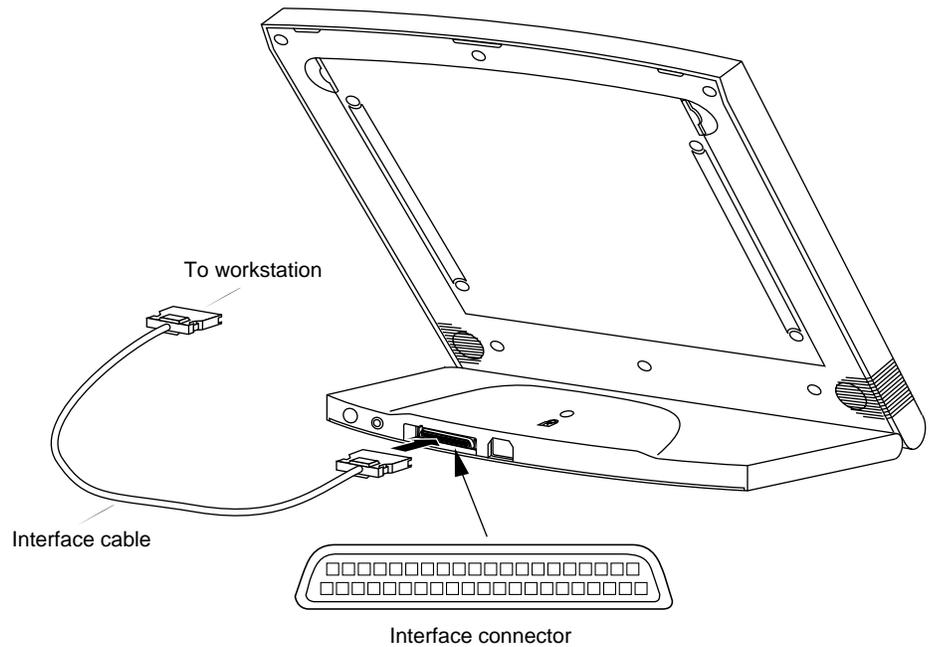


Figure 1-3 Connecting the Interface Cable to Presenter 1280

3. Connect the power cable to the Presenter 1280 monitor and then to an electrical outlet, as shown in Figure 1-4. (Figure 1-4 shows the power cable for the U.S.A. The power cable for your country may look different.)
 - Connect the socket end to the power connector on the base of the Presenter 1280 monitor.
 - Connect the other end to a three-pronged grounded electrical wall outlet or power strip.
 - Check that each end is seated firmly.

Once the system recognizes Presenter 1280, the LED on its base turns green. Now go to “Turning On the Presenter 1280 Monitor” on page 7.

Note: The power supplies for Silicon Graphics low-end workstations and for Presenter 1280 are auto-ranging. With the appropriate power cable or adapter for your country, you can plug the monitor into almost any power source (50-60 Hz, 110/220 VAC).

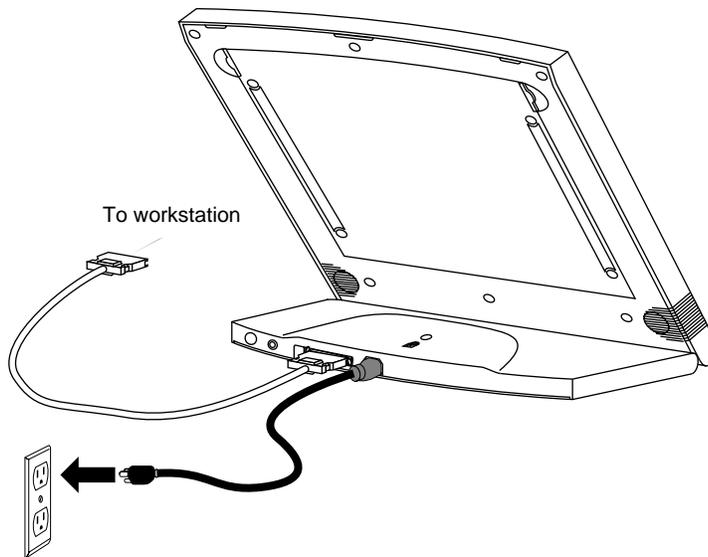


Figure 1-4 Connecting the Power Cable

Turning On the Presenter 1280 Monitor

If your workstation and CRT monitor were already on when you connected Presenter 1280, you start it from the Monitor Panel on the CRT monitor to initialize Presenter 1280's software. See "Starting Presenter 1280 With the Monitor Panel" on page 8.

If your workstation was off when you connected Presenter 1280, turning on the workstation automatically turns on Presenter 1280. The display takes about a minute to warm up, so the image may appear dim at first. Once the system recognizes Presenter 1280, the LED on its base is green.

If Presenter 1280 does not light up, and if the LED on the base of the display is flashing red, check that the interface cable is firmly attached to Presenter 1280. Check also that the interface cable is firmly attached to the correct connector on the workstation. See Chapter 2, "Troubleshooting" for more help. See also the troubleshooting section of the installation manual that comes with the Presenter 1280 board.

Starting Presenter 1280 With the Monitor Panel



Figure 1-5 Monitor Panel

If your workstation and CRT monitor were already on when you connected Presenter 1280, follow these steps to start it:

1. On the CRT monitor, open the Monitor Panel in either of the following ways:
 - From the Find menu in the Toolchest, choose “Control Panels,” and double-click the monpanel icon.
 - From a UNIX shell, enter:

```
monpanel
```

The Monitor Panel shown in Figure 1-5 appears.

2. Click the *Turn on Presenter* or *Restart Presenter* button.

If you have a root password set, you are prompted to enter it.

If you have a 1024 x 768 pixel CRT monitor, you see a message that turning on Presenter 1280 stops all running applications.

3. When you are ready for applications to be stopped, click the *Continue* button to turn on Presenter 1280.

For more information on using the Monitor Panel for Presenter 1280, see the reference (man) page. From a shell window, enter:

```
man monpanel
```

If you don't plan to use the Presenter 1280 monitor continuously, you should use the Sleep button to save power and backlight life. See the next section, “Turning Off the Presenter 1280 Monitor.”

Turning Off the Presenter 1280 Monitor

If you log out and do not disconnect Presenter 1280's cables, after thirty minutes of inactivity the workstation's power saving feature automatically turns off Presenter 1280 (unless you have disabled power saving, or changed the default time). To restore power, move the mouse or press a key on the keyboard.

If you want to turn off Presenter 1280 without waiting for power saving, you can turn it off by pressing the Sleep button on the rear, as shown in Figure 1-6. When you turn Presenter 1280 off this way, the LED on its base flashes green (sleep mode). When you're ready to use it again, press the Sleep button. The LED becomes solid green.

Another way to turn off Presenter 1280 is to turn off the workstation, which automatically turns off the display.

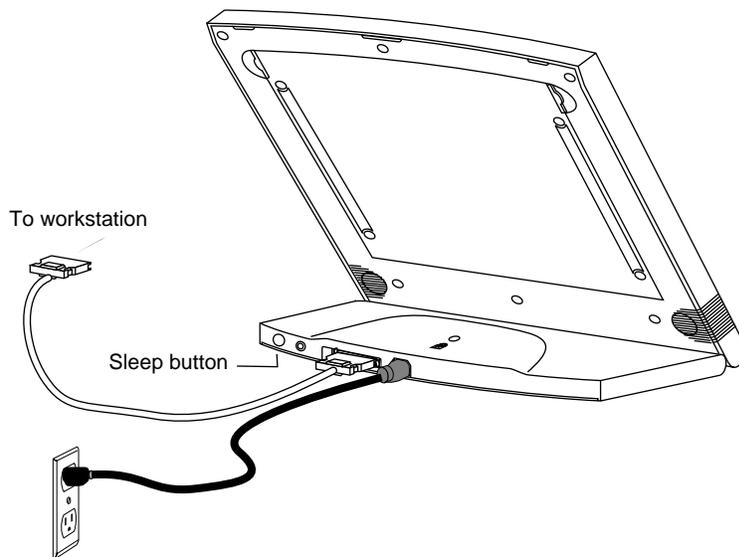


Figure 1-6 Locating the Sleep Button

Restarting the Presenter 1280 Monitor

The Presenter 1280 monitor’s power is controlled automatically by the system. If you log out and leave it connected to the workstation, and if there is no activity on it for some time, the system turns it off automatically. In this case, there is no color on the LED. To restart Presenter 1280, move the mouse or press a key on the keyboard. However, if Presenter 1280 has been put to sleep with the Sleep button, the LED is flashing green. Press the Sleep button to awaken it. (See Figure 1-6.) The LED then becomes solid green.

If the workstation is on and Presenter 1280 is disconnected, you can reconnect it and restart it from the Monitor Panel on the CRT monitor, or by pressing the Sleep button, without rebooting the workstation. Note that restarting Presenter 1280 resets the backlight and color bit mode to their original settings, that is, full backlight and 18-bit mode.

If you have no CRT monitor attached, but are on a network, you can still use the Monitor Panel to restart Presenter 1280. From another system on the network, log in to your system remotely, and enter `monpanel -restart` at the UNIX shell prompt.

Follow these steps to restart Presenter 1280:

1. Press the Sleep button on the rear of the Presenter 1280.
2. Or open the Monitor Panel in either of the following ways:
 - From the Find menu in the Toolchest, choose “Control Panels,” and double-click the `monpanel` icon.
 - From a UNIX shell, enter:
`monpanel`

The Monitor Panel shown in Figure 1-7 appears.

3. Click the *Restart Presenter* button.

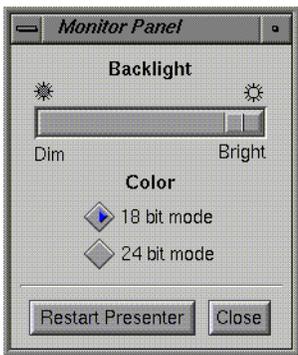


Figure 1-7 Monitor Panel

Setting Up Presenter 1280 on the Dukane Overhead Projector

Caution: The Presenter 1280 monitor is designed to function at maximum performance and reliability with the 28A682 Dukane overhead projector. It is possible to use Presenter 1280 with other projectors; however, cooling of the display, stable mounting, and brightness and completeness of the projected image may all be compromised. A high brightness overhead projector without proper cooling of the display may cause permanent damage to Presenter 1280.

Follow the steps below to set up Presenter 1280 on the Silicon Graphics customized Dukane 28A682 overhead projector.

Note: You can use Presenter 1280 on the Dukane 28A682 or the Dukane 28A681 overhead projectors. However the Dukane 28A681 projector does not have a speaker, and therefore the audio function is not available. Also, the viewing area is compromised.

1. Remove the overhead projector from its carrying case.
2. Raise the arm to its upright position, using the illustration on the overhead projector as a guide.
3. Lock the arm in place with the locking knob. See Figure 1-8.

4. Rotate the lens mechanism and raise the mirror, as shown in Figure 1-8.

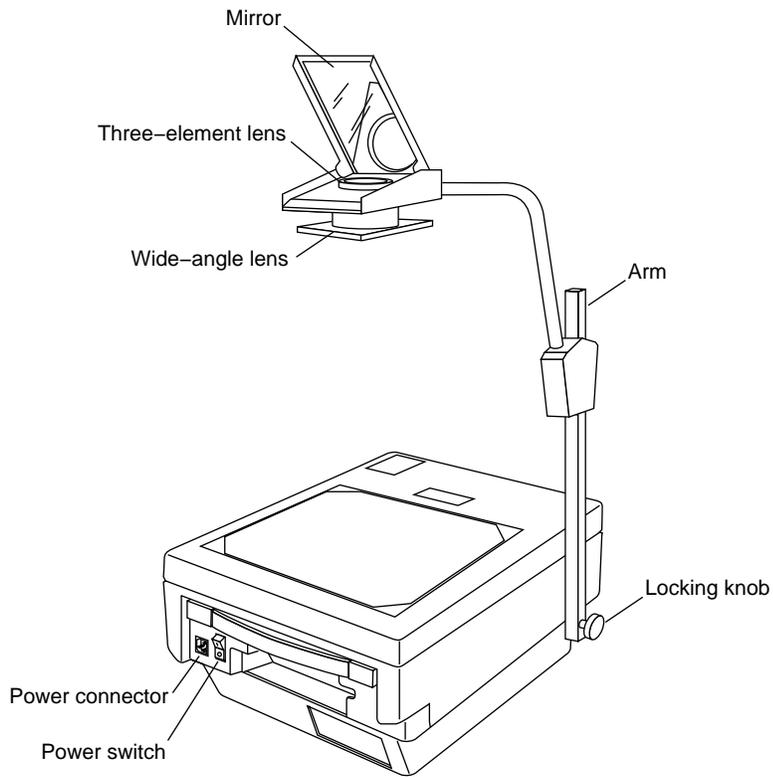


Figure 1-8 Setting Up the Dukane 28A682 Overhead Projector

5. Turn on the overhead projector. Note that it takes about a minute to warm up. It is normal to see an initial bright flash, followed by a dark interval before the brightness increases.
6. Choose the projector lens appropriate for your task.
 - If you are projecting over a distance of more than 6 feet, you probably won't want to use the projector's wide-angle lens with Presenter 1280. Rotate the wide-angle lens away from the standard lens.
 - If you are projecting a larger image from a short distance, use the wide-angle lens to avoid discoloration at the corners.



Figure 1-9 Monitor Panel

7. If the power cable and interface cable are not already attached to Presenter 1280 and to your workstation, connect them now. (See “Connecting the External Cables” on page 4 if necessary.)
It’s all right to move Presenter 1280 once the cables are attached, but do not extend the cables so much that you stress or loosen the connection.
8. If Presenter 1280 is not already on, turn it on or restart it in one of the following ways:
 - If you have a CRT monitor attached, open the Monitor Panel. From the Find menu in the Toolchest, choose “Control Panels,” and double-click the monpanel icon. The Monitor Panel shown in Figure 1-9 appears. Click the *Turn On* or *Restart Presenter* button.
 - If you have no CRT monitor attached and Presenter 1280 has been on since the system was booted, press the Sleep button to turn on Presenter 1280.
9. Remove the backlight panel:
 - Place Presenter 1280 face down on a flat surface.
 - Press in the latches on either side of the panel, tilt it up and remove it. This automatically turns off the backlight. See Figure 1-10.

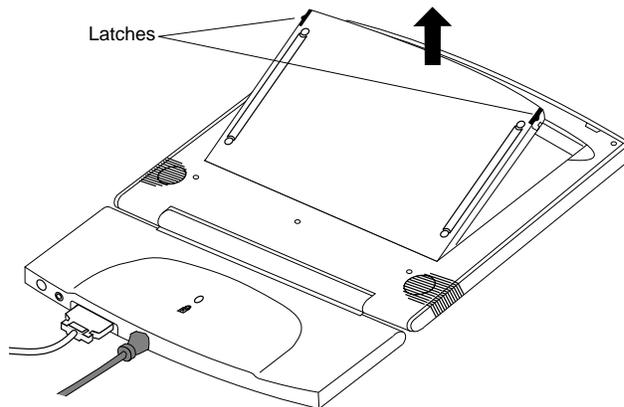


Figure 1-10 Removing the Backlight Panel

- Carefully place the backlight panel on a surface where it will not be damaged or scratched. Scratches will not affect performance, but if they are large enough, you will see them through the display. Do not touch the coated glass surface of the display with your hands or with any instrument. Even a pen tip can scratch the surface.

Caution: Do not place Presenter 1280 with the backlight panel attached on an overhead projector that is turned on. This causes overheating, and will damage the display.

- Place Presenter 1280 *face down* on the overhead projector so that only the back of the Presenter is visible, and slide it under the two clips on the projector to secure it. See Figure 1-11. *Make sure the backlight panel has been removed first.*

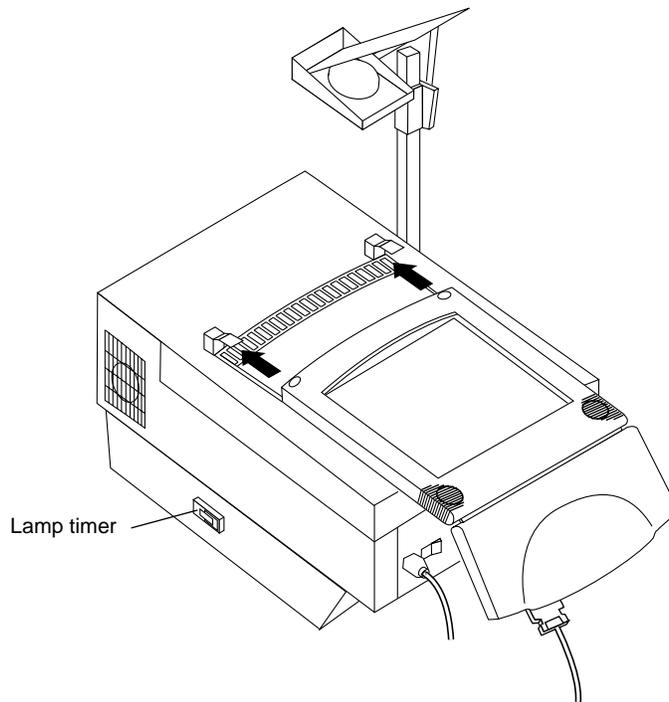


Figure 1-11 Placing Presenter 1280 on the Dukane Overhead Projector

Using Audio in Your Presentation

If you wish to use audio in your presentation, the Dukane 28A682 overhead projector has a speaker and speaker cable. The speaker on the projector is active only when the backlight panel of Presenter 1280 is removed.

You may receive two speaker cables. One has a small, mini-phone type of connector at one end and an RCA plug at the other end. The other has an RCA plug at each end.

Choose the cable with the connector that matches the speaker connector on the Presenter 1280 base. The RCA plug on either cable always connects to the overhead projector. See Figure 1-12 for the speaker connector locations.

Note: The default volume on the overhead projector speaker is fairly loud. The steps following the diagram explain how to turn it down.

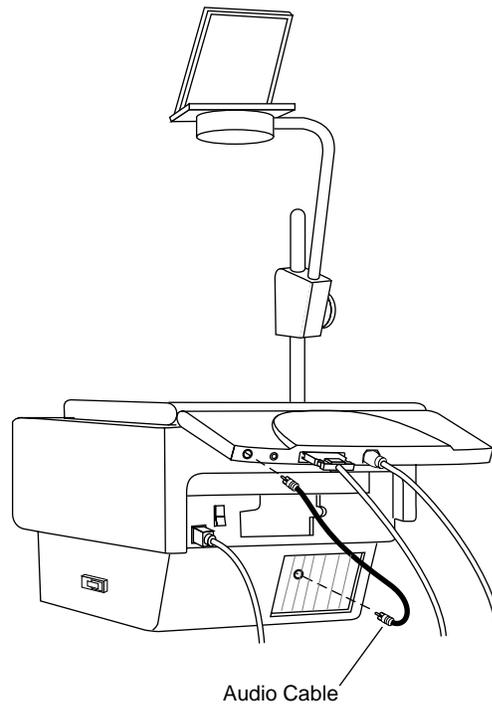


Figure 1-12 Connecting the Overhead Projector Speaker Cable

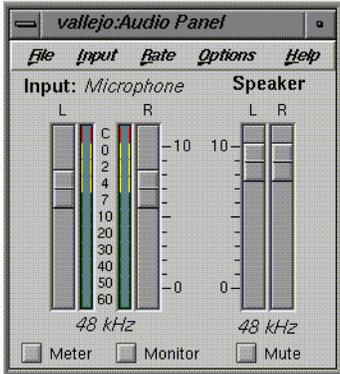


Figure 1-13 Audio Panel

1. Follow these steps to adjust the volume:

- From the Desktop menu in the Toolchest, choose “Audio Control.” The Audio Panel shown in Figure 1-13 appears.
- Adjust the volume by moving the sliders.

Adjusting the volume on the Audio Panel adjusts the volume on Presenter 1280 as well as on the workstation.

Note: Unless the Audio Panel is open, the audio controls on the front of the workstation do not affect the volume on the Presenter or overhead projector.

Replacing the Backlight Panel

When you are finished with your presentation, turn off the overhead projector, and replace the Presenter's backlight panel, as shown in Figure 1-14.

Caution: Make sure you turn the projector off before replacing the backlight panel. Leaving the Presenter 1280 with the backlight panel attached on an overhead projector that is on causes overheating, and can permanently damage the display.

1. To replace the backlight panel:
 - Tilt the backlight panel and insert the lower edge into the slots on the Presenter 1280.
 - Lower the panel over the Presenter, aligning the two catches.
 - Press down lightly until you hear a click as the catches engage.

Note that it takes a few minutes for the backlight to reach full brightness again.

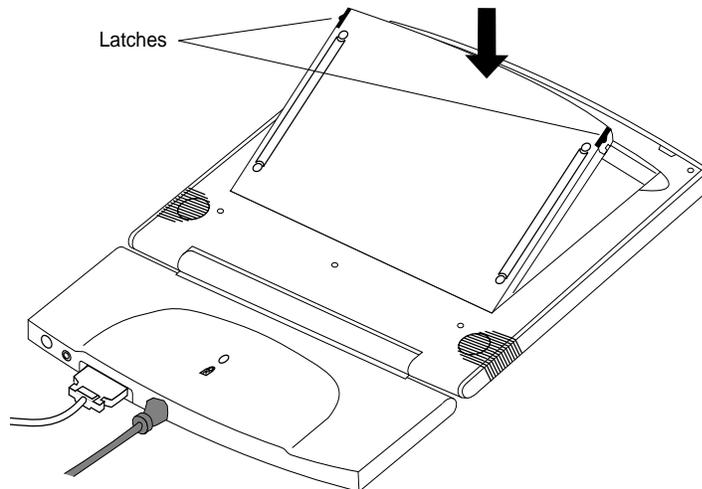


Figure 1-14 Replacing the Backlight Panel

2. Disconnect the overhead projector speaker cable from Presenter 1280.

3. Rotate the base up and slide Presenter 1280 out from under the two projector clips.

Presenter 1280 is now ready to be used as a desktop monitor.

Adjusting the Brightness



Figure 1-15 Monitor Panel

You can control the brightness on Presenter 1280 with the Monitor Panel.

Follow these steps to adjust the brightness of the display:

1. Open the Monitor Panel in either of the following ways:
 - From the Find menu in the Toolchest, choose “Control Panels,” and double-click the monpanel icon.
 - From a UNIX shell, enter:

```
monpanel
```

The Monitor Panel shown in Figure 1-15 appears.

2. To adjust the brightness of the display, move the slider.

Switching to 24-Bit Mode

The default color mode on Presenter 1280 is 18-bit. In this mode, some smooth shaded images appear banded. If you wish to decrease this banding, and if you have 24-bit graphics, you can switch to 24-bit mode. In that mode, however, some colors may flicker. So you may want to switch back and forth, depending on the types of images you are viewing.

When you choose 24-bit mode, the display creates additional colors by averaging the true colors it displays in 18-bit mode. The result is a palette of 15,990,784 colors, not quite the 16,777,216 in true 24-bit).

To switch between 18-bit and 24-bit mode, use the Monitor Panel. Follow these steps:

1. Open the Monitor Panel in either of the following ways:
 - From the Find toolchest, choose “Control Panels,” and double-click the monpanel icon.
 - From a UNIX shell, enter:


```
monpanel
```

The Monitor Panel shown in Figure 1-15 appears.

2. Click the *24-bit mode* button.

Adjusting the Volume and Tone of the Speakers

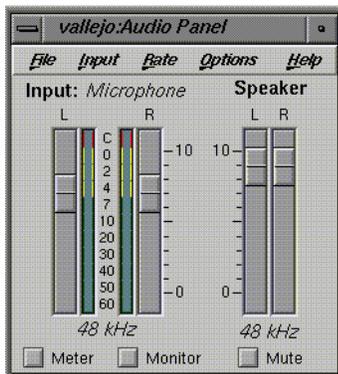


Figure 1-16 Audio Panel

The Presenter 1280 stereo speakers and the monaural speaker on the Dukane 28A682 overhead projector are designed to work with the standard speaker on your workstation. Adjust the volume and tone of Presenter 1280 and Dukane overhead projector speakers through the Audio Panel and the Presenter Audio Panel under the Options menu on the Audio Panel.

Follow these steps to adjust the volume and tone:

1. Open the Audio Panel in either of the following ways:
 - From the Desktop menu in the Toolchest, choose “Audio Control.”
 - From a UNIX shell, enter:


```
apanel
```

The Audio Panel shown in Figure 1-16 appears.

2. From the Options menu, choose “Presenter Audio.” The Presenter Audio Panel shown in Figure 1-17 appears.
3. Use the Speaker controls on the Presenter Audio panel to adjust the volume and tone.

While the Presenter Audio Panel is open, you can use the workstation’s front panel volume controls. Or you can adjust the volume of the Presenter 1280 speakers independently of the workstation speakers by selecting “Output Sliders Independent” from the Audio Panel Options menu.

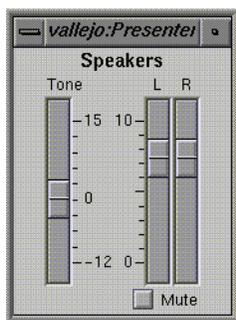


Figure 1-17 Presenter Audio Panel

4. To mute the Presenter 1280 and Dukane overhead projector speakers, click *Mute* on the Presenter Audio Panel.

For further information on the Audio Panel, refer to these sources:

- Select “On-line Books” from the Help menu in the Toolchest. Choose *Digital Media Tools User’s Guide* and search for “Audio Panel.”
- From a shell window, enter `man apanel` to see the reference (man) page.

Using Headphones

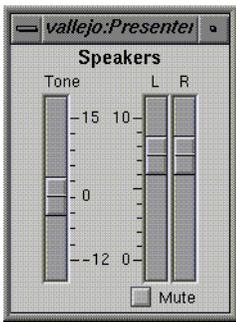


Figure 1-18 Presenter Audio Panel

If you use headphones, you will probably want to mute the Presenter 1280 stereo speakers temporarily. Follow these steps:

1. Open the Audio Panel in either of the following ways:
 - From the Desktop menu in the Toolchest, choose “Audio Control.”
 - From a UNIX shell, enter:
`apanel`
2. Select “Presenter Audio” from the Options menu. The Presenter Audio Panel shown in Figure 1-18 appears.
3. Click *Mute* on the Presenter Audio panel to mute the Presenter 1280 speakers. This also mutes the Dukane 28A682 overhead projector speaker.

Using a Screen Saver

Do not disable your workstation’s screen saver program when using Presenter 1280. As with any CRT monitor, leaving an image up without a screen saver for a long time may burn the image into the display.

If you are not planning to use Presenter 1280 for a few hours, it’s a good idea to turn it off. For further information, see “Turning Off the Presenter 1280 Monitor” on page 9. Leaving the display on for a long time shortens the life of the display’s backlight lamps.

Troubleshooting

This chapter contains information on solving problems that you may encounter when using Presenter 1280. For further troubleshooting information, see the manual that came with the Presenter board.

LED States

The LED on the base of the Presenter 1280 monitor (see Figure 2-1) indicates whether or not there is a problem. Table 2-1 explains the LED states and offers possible solutions.

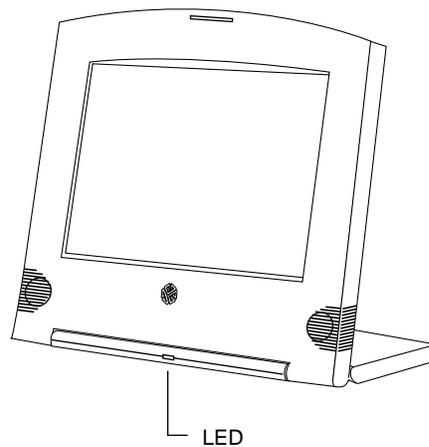


Figure 2-1 The LED on the Presenter 1280 Monitor

Table 2-1 Explanation of LED States

LED	Probable Cause
Flashing red	Interface cable is not connected.
Flashing green	Presenter 1280 is ON but is in sleep mode. Press the Sleep button on the rear of Presenter.
Solid green	Presenter 1280 is ON and enabled.
No LED	Power cable is not connected. Or system power saving has turned off Presenter 1280. (Move the mouse, touch the keyboard, or press the Sleep button to enable it.) Or system has not initialized Presenter 1280 because the workstation is turned off.

Common Problems

The following sections offer more detailed troubleshooting information.

Presenter 1280 Problems

If the problem persists after following the suggestions below, call your service provider.

No Image on Presenter 1280

1. Check that the power cable is connected securely to Presenter 1280 and to a working wall outlet or power strip. Check that the interface cable is connected securely to Presenter 1280 and to the correct connector on the workstation. (See “Connecting the External Cables” on page 4.)
2. Make sure that the workstation is turned on. The Presenter 1280 monitor takes about a minute to warm up to full brightness after you turn on the workstation.
3. If you recently installed the Presenter 1280 board in your workstation, the board may not be installed correctly, or it may be installed in the wrong slot. Follow the instructions in the installation manual that came with the board to make sure you have installed the hardware correctly.
4. If Presenter 1280 was not connected to the workstation via the interface cable when the workstation was turned on, connect the interface cable. Connect Presenter 1280’s power cable to a working wall outlet. Then, if you have a CRT monitor connected, use the Monitor Control Panel to restart the Presenter.
 - From the Find menu in the Toolchest, choose “Control Panels.”
 - Double-click the monpanel icon.

Otherwise, restart the workstation, and the Presenter comes up normally.

5. If Presenter 1280 doesn’t respond when you move the mouse or touch the keyboard, it is probably in Sleep Mode. Press the Sleep button on the rear to enable it.

Solid Green LED and No Image

If you are using the Presenter 1280 as a desktop monitor (that is, you are not using it on an overhead projector,) check that the backlight panel is fully seated. Full contact is required to turn on the backlight.

Flashing Green and No Image

If Presenter 1280 does not respond when you move the mouse or use the keyboard, it is probably in Sleep Mode. Press the Sleep button on the rear of the monitor to enable it.

Image Is Too Light or Too Dark

1. Flat panel backlights take about a minute to warm up after being turned on. Until Presenter 1280 has warmed up, the image may appear faded or dim.
2. Flat panel displays look different when viewed from different angles. If you view from above, the display appears dark. If you view from below, the display appears light.

The display is best viewed from slightly above, straight on. Tilt the display base forward or back to find the best view.

Faint Vertical Streaks Above or Below Edges of Windows

If you have several windows open on the screen, and are using Presenter 1280 as a desktop monitor (not on an overhead projector), you may see faint vertical streaks above or below the left or right edges of a window. Or you may see a light band across the bottom edge of the screen below a window.

This is caused by crosstalk between transistors in the panel, and is normal in liquid crystal display technology. The faint streaks should not detract from the functionality of the display. You can minimize them by rearranging the windows, choosing a different background, or adjusting the brightness of the display to about 90% of maximum through the Monitor Control Panel.

If the streaks become so bright as to detract when using the Presenter on an overhead projector, the Presenter may be defective. Contact your service provider.

No Sound From the Stereo Speakers

1. If the Presenter 1280 board for your workstation included a short, black audio cable, check that one end of the cable is connected to the audio port on the Presenter 1280 board, and the other end is connected to the Audio Out port on the workstation. If necessary, see the installation manual that came with the Presenter 1280 adapter board.

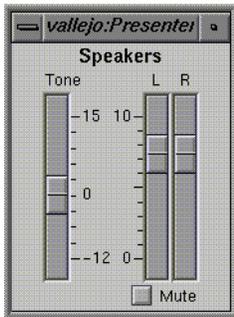


Figure 2-2 Presenter Audio Panel

2. The Presenter 1280 stereo speakers may have been muted in order to use headphones. To turn on the speakers:
 - From the Desktop menu in the Toolchest, choose “Audio Control.”
 - From the Options menu, choose “Presenter Audio.” The Presenter Audio Control Panel shown in Figure 2-2 appears.
 - If the *Mute* button is activated, click on it to turn on the speakers.

Audio Is Distorted

Check that the audio cable is connected at one end to the audio port on the Presenter 1280 board, and at the other end to the Audio Line Out port on the workstation. If the audio cable is connected to the wrong audio port, there will be a hum or the sound will be distorted. The Presenter 1280 board ships with a label to be placed under the audio ports on the rear of the workstation. The label will help you identify the Audio Out port.

Dukane 28A682 Overhead Projector Problems

If the problem persists after following the suggestions below, refer to the manual that comes with the overhead projector. Or call Dukane toll-free at the number listed under “Product Support: Dukane Overhead Projector” on page 28 in this manual.

No Image or Image Is Reversed

1. Check that the overhead projector is turned on and glowing brightly. It takes about a minute to warm up.
2. Check that Presenter 1280 is placed face down on the overhead projector.
3. Make sure that the Presenter 1280’s backlight panel has been removed.
4. The bulb in the Dukane overhead projector may be burned out. The bulb is a long-life bulb, but usually needs replacing after 750 hours of use. The Lamp Timer on the side of the projector tells you the number of hours of use.

Caution: Do not replace the bulb yourself.

To have the bulb replaced at a Dukane service center near you, call Dukane toll-free at the number listed under “Product Support: Dukane Overhead Projector” on page 28.

If you’re instructed to return the projector, pack it in its carrying case. Then place the carrying case in the original shipping carton and ship it as instructed by the Dukane service center.

No Sound From the Dukane 28A682 Overhead Projector Speaker

1. Check that the speaker cable is securely connected to Presenter 1280, and to the Dukane 28A682 overhead projector. See Figure 2-3. If the cable has dissimilar plugs at each end, make sure the end with the smaller, Mini Phone plug is connected to the Presenter.
2. Check that the backlight panel is removed. See Figure 1-10. When the panel is in place, the projector speaker is disabled.

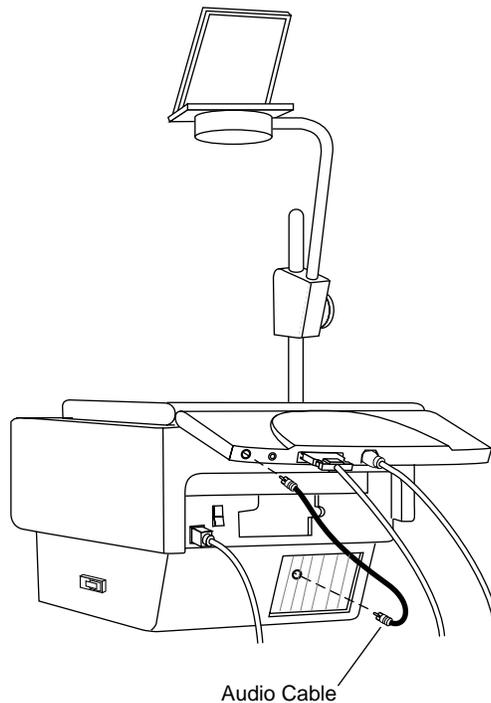


Figure 2-3 Connecting the Dukane 28A682 Overhead Projector Audio Cable

Diagnostics Tests For the Presenter 1280 Monitor

If, after following the suggestions in the previous sections, you still believe there is a problem with Presenter 1280, run the Confidence Test from your CRT monitor. Follow these steps:

1. From the System menu in the Toolchest, choose "Run Confidence Tests."

You see the Confidence Tests form.

2. Select the Presenter icon and click *Open*, or double-click the icon.
3. Follow the instructions on each screen to test the display, speakers, and board.
4. To close the confidence test, press <Esc>.

If any of the tests indicate a failure, contact your service provider for further instructions.

Returning the Presenter 1280 Monitor to Silicon Graphics

If diagnostic tests identify a problem with Presenter 1280, and your service provider instructs you to return it, follow these instructions:

1. Disconnect the power cable and interface cable from the rear of the Presenter 1280 monitor and the workstation.
2. Complete the Part Request Form from the last page of this manual.
3. Pack Presenter 1280 and the Part Request Form in the original shipping carton.
4. Ship the carton to your service provider.

Product Support: Presenter 1280 Monitor

Silicon Graphics provides a comprehensive product support and maintenance program for its products. If you are in North America and would like support for your Silicon Graphics supported products, contact the Technical Assistance Center at 1-800-800-4SGI or your authorized service provider. If you are outside North America, contact the Silicon Graphics subsidiary or authorized distributor in your country.

Product Support: Dukane Overhead Projector

For the Dukane service center near you, call Dukane toll-free at 1-800-676-2487 or 708-584-2300, extension 356, in the United States. Or send a fax to Dukane at 708-584-0984 in the United States. For Dukane international service, call 352-66-17-82 in Luxembourg, or send a fax to 352-67-64-60.

Your Dukane representative will instruct you where to return the projector.

The Dukane service centers are listed in the manual that comes with the overhead projector.

Maintenance, Technical Specifications and Regulatory Information

This chapter contains information on locking and taking care of your Presenter 1280 monitor, technical specifications, and regulatory information.

Securing the Presenter 1280 Monitor

The Presenter 1280 monitor has a built-in security connector for the Kensington MicroSaver Security System.

To secure the Presenter 1280 monitor, follow these steps:

1. Wrap the Kensington cable around any desk handle, closet rod, or other object that cannot be moved, as shown in Figure 3-1.
2. Insert the Kensington lock into the built-in security connector on the Presenter 1280 monitor.
3. Insert the key into the lock and turn it.

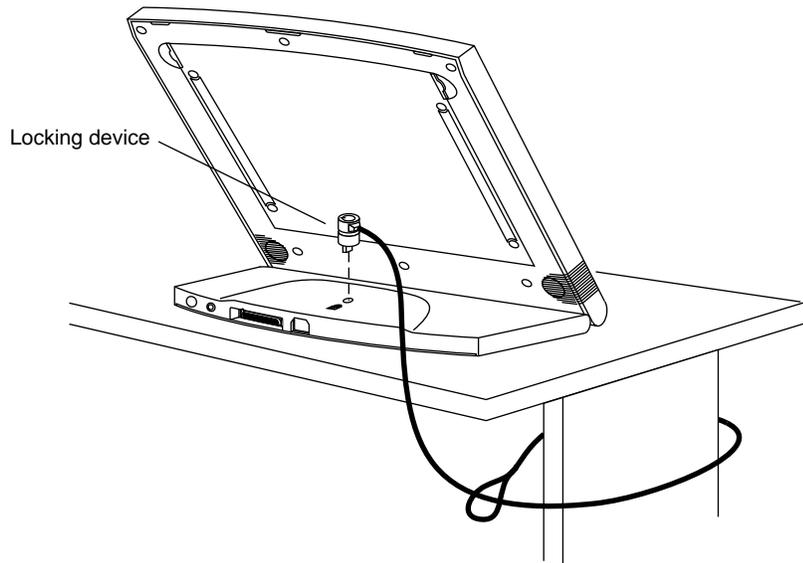


Figure 3-1 Attaching the Kensington Lock to the Presenter 1280

Cleaning and General Care of the Presenter 1280 Monitor

Handle your Presenter 1280 monitor with care. A sharp instrument such as a pen can scratch the display's surface. Do not place objects on the glass surface.

From time to time dust builds up on the surface of the display, and you need to clean it to get the best possible image. Follow the steps below to clean the display, using the cleaning kit provided.

Caution: It's important that you use the contents of the cleaning kit provided in this package to clean the display. Using other substances, abrasive cleaners, or cleaning pads to clean the unit will scratch or damage the display's surface.

There is no need to turn off the monitor or remove the external cables before cleaning, as long as you don't spray directly on the Presenter 1280's surface.

1. Spray the cleaning liquid lightly on the cloth provided in the cleaning kit. Do not spray directly on the coated glass surface, as the liquid may drip inside the unit and damage the components.
2. Wipe the front coated glass surface of the Presenter 1280 gently with the cloth.
3. Remove the backlight panel, if it's not already removed.
 - Place Presenter 1280 face down on a flat surface.
 - Press in the latches on either side of the backlight panel, and lift it up, as shown in Figure 3-2.

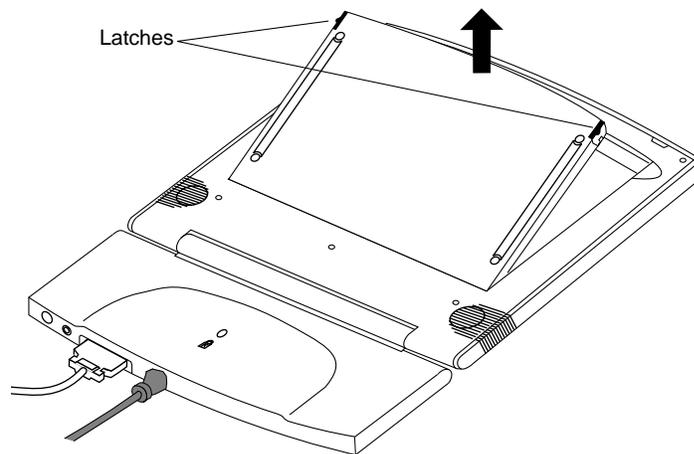


Figure 3-2 Removing the Backlight Panel

4. Use the cloth to wipe the coated glass surface gently.

5. Replace the backlight panel.
 - Tilt the panel and insert the lower edge into the slots on Presenter 1280.
 - Lower the panel over the monitor, aligning the two catches.
 - Press down lightly until you hear a click as the catches engage.

Transporting the Presenter 1280 Monitor

For some workstations, Silicon Graphics offers a carrying case in which you can pack both the workstation and Presenter 1280. These carrying cases are soft-sided, and *should not be used* to ship Presenter 1280. Also, do not check them in as baggage on an airline. The display is made of glass and may break if checked in as baggage.

See your service provider for information on the correct case. If you have to ship the Presenter 1280 monitor, do not use the carrying case alone. Use the original cardboard shipping container. See "Returning the Presenter 1280 Monitor to Silicon Graphics" on page 27.

To pack Presenter 1280 in the carrying case, follow these steps:

1. Disconnect the power cable from Presenter 1280 and from the wall outlet.
2. Disconnect the interface cable from Presenter 1280 and from the workstation.

3. Rotate the base so that Presenter 1280 and base are flat, as shown in Figure 3-3.

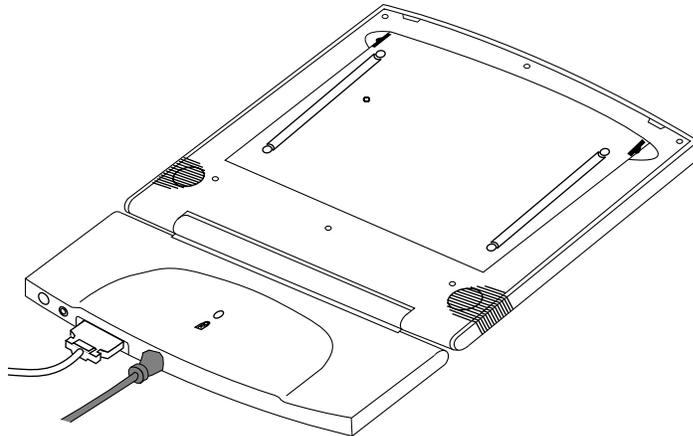


Figure 3-3 Packing the Presenter 1280 Monitor

4. Place Presenter 1280 and the cables in the carrying case.

Transporting the Dukane Overhead Projector

Although the overhead projector's carrying case is designed to withstand normal shock and handling, if it is mishandled by the airlines the projector may be damaged. To take the Dukane Overhead Projector with you when you travel, we recommend that you place it in its carrying case, and pack the carrying case in the original shipping carton with the packing materials. Then check it in as baggage or ship it. Using the carrying case alone may result in damage.

Technical Specifications

The table below lists the technical specifications for the Presenter 1280 liquid crystal display.

Table 3-1 Technical Specifications for the Presenter 1280 Monitor

Electro-Optical	Pixel resolution	1280 H (x3 RGB stripe) x 1024 V
	Color resolution	16 million simulated colors through Frame Rate Modulation (256,000 true colors)
	Color gamut	Red: x = 0.61, y = 0.36; Green: x = 0.27, y = 0.62 Blue: x = 0.13, y = 0.11
	Contrast ratio	100:1 minimum
	Brightness	80 Cd/m ² minimum
	Response time	≤50 ms maximum, rise + fall
	Viewing angle	Horizontal: ±45°; Vertical: +30°/-10° (optimized for 12:00)
	Display surface	Front: Anti-glare 3H hardcoat Rear: Clear 3H hardcoat
Video	Interface to workstation	Adapter board connects to video connectors on the graphics board, generating 24-bit high resolution digital video to drive the flat panel display
Audio	Interface to workstation	Analog stereo—front and rear firing
	Presenter 1280 Output	Stereo, .6 W per channel, 300 Hz to 18 KHz (used with workstation speaker)
	Overhead Projector output	1.5 W monaural, 150 Hz to 18 KHz (used with Dukane Model 28A682)

Table 3-1 (continued) Technical Specifications for the Presenter 1280 Monitor

Audio	Control	I ² C interface to control speaker volume, backlight brightness, tone, and stereo balance
	Master volume control	Audio control buttons on front panel of workstation control volume of Presenter 1280 speakers as well as workstation speaker
Power Requirements	Power	35 watts AC plus 3 watts @ 5 VDC for Presenter 1280 Adapter Board. AC to DC converter in display base
	Source	110/220 VAC 50-60 Hz
Cabling	Display	10-foot, shielded, 34 twisted pair conductors. Internal connector at display end
	Audio	Separate audio patch cord to drive overhead projector speaker (shipped with overhead projector)
	Power	IEC socket with removable 10-foot cable to wall outlet
Physical Characteristics	Size	Display: 13.6" h x 13.2" w x .75" d Base: 7.2" h x 13.2" w x 1.1" d
	Weight	8 lbs
	Color	Gray granite
	Hinge	Friction/clutch with 120° rotation
	Backlight	Removable light pipe assembly for use with Dukane Overhead Projector
	Desktop use	Integral base supports desktop use at 0° to -30° tilt
Operating Conditions	Temperature	+13°C to +35°C in direct view and overhead projector modes

Table 3-1 (continued) Technical Specifications for the Presenter 1280 Monitor

Operating Conditions	Relative humidity	10% to 80%, no condensation
Non-Operating Conditions	Temperature	-20°C to +60°C
	Relative humidity	5% to 90% RH, no condensation
	Vibration	0.02", 5-19 Hz 35 G, 5-500 Hz
	Shock	20G, 11 ms, half sine wave direction: X, Y, Z

Manufacturer’s Regulatory Declarations

Caution: This product has several governmental and third-party approvals, licenses, and permits. Do not modify this product in any way that is not expressly approved by Silicon Graphics. If you do, you may lose these approvals and your governmental agency authority to operate this device.

The Presenter 1280 monitor conforms to several national and international specifications and European Directives listed on the Manufacturer’s Declaration of Conformity. The CE mark insignia displayed on the device is an indication of conformity to the European requirements.

A Manufacturer’s Declaration of Conformity is available on the World Wide Web. Look on the system (regulatory) label on the rear or underneath your workstation to determine your CMN (model) number. You need this number to identify the Declaration of Conformity on the Web.

To locate the information on the World Wide Web, enter the following in your browser location window:

<http://www.sgi.com/Products/compliance/index.html>

Locate and print or save your Declaration of Conformity. Make a note of your CMN number and the date of the Declaration of Conformity here for future reference.

Regulatory Label

If you received a regulatory label with a graphics board upgrade, place the label beside the regulatory label on the rear or underneath your workstation.

Electromagnetic Emissions

This device complies with the Class A limits of Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

This device complies with Class A electromagnetic emissions limits of C.I.S.P.R. Publication 22, Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment, and with Japan's VCCI Class 1 limits.

この装置は、第一種情報装置（商工業地域において使用されるべき情報装置）で商工業地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。

従って、住宅地域またはその隣接した地域で使用すると、ラジオ、テレビジョン受信機等に受信障害を与えることがあります。

取扱説明書に従って正しい取り扱いをして下さい。

Figure 3-4 VCCI Class 1 Statement for Japan

Electrostatic Discharge

Silicon Graphics designs and tests its products to be immune to effects of electrostatic discharge (ESD). ESD is a source of electromagnetic interference and can cause problems ranging from data errors and lockups to permanent component damage.

It is important that while you are operating your workstation you keep all the covers and doors, including the plastics, in place. The shielded cables that came with the system and its peripherals should be installed correctly, with all thumbscrews fastened securely.

An ESD wrist strap is included with some products, such as memory and graphics upgrades. The wrist strap is used when installing these upgrades to prevent the flow of static electricity, and it should protect your system from ESD damage.

Shielded Cables

Silicon Graphics workstations are FCC-compliant under test conditions that include the use of shielded cables between the workstation and its peripherals. Your workstation and any peripherals you purchase from Silicon Graphics have shielded cables. Shielded cables reduce the possibility of interference with radio, television, and other devices. If you use any cables that are not from Silicon Graphics, make sure they are shielded. Telephone cables do not need to be shielded.

The monitor cable supplied with your system uses additional filtering molded into the cable jacket to reduce radio frequency interference. Always use the cable supplied with your system. If your monitor cable becomes damaged, a replacement cable should be obtained from Silicon Graphics.

About Liquid Crystal Display (LCD) Technology

Display

The key component in the Presenter 1280 is the active-matrix display module. It is composed of twisted nematic liquid crystal material, sandwiched between two sheets of glass, activated by electronic switches deposited on the inner surface of the glass. The electronic switches vary the voltage applied to the liquid crystal and thus change its transparency.

Vertical stripes of alternating red (R), green (G), and blue (B) colored filters made of organic dyes are located on the front glass plate, under a transparent indium tin oxide electrode. The intersection of each of these colored stripes with an active electronic element forms a sub-pixel of that color.

The electronic switches on the back glass are known as thin film transistors (TFTs) and are addressed in an x-y matrix from integrated circuit drivers. These drivers, bonded to flexible circuits by tape-automated bonding (TAB) techniques, are located around the display edges in the plane of the glass package. Conductive thermoplastic adhesive strips connect the TAB tapes and the electrodes on the TFT glass panel. The assembly is held together by a stamped metal bezel.

A backlight assembly behind the display glass consists of an acrylic light pipe, plastic diffuser, and cold cathode fluorescent (CCF) tubes. Four tubes, two at the top and two along the bottom, produce a bright image with high color saturation.

In Silicon Graphics' implementation, the acrylic light pipe is attached to a rear door that is removable by the user, so the display can be used with an overhead projector. When the door is removed, a switch opens that disables the CCF tubes and reverses the data stream to the display, causing the image to be flipped right to left. The display can therefore be placed face down,

instead of back down, on the projector stage. This is important because it places the color filter layer between the powerful projector beam and the somewhat light-sensitive TFT plate.

In operation, the TFT devices activate sub-pixel elements in the display by causing a voltage potential across selected portions of the liquid crystal material. These elements are used as variable shutters to control the intensity of white light coming from the CCF panel and reaching the red, green, or blue filters. Combinations of these sub-pixel elements produce a full pixel (RGB triad) of the proper hue, saturation, and brightness much like a cathode ray tube (CRT).

Differences Between LCD and CRT Technology

If you are accustomed to using a CRT monitor, you will notice that the Presenter 1280's flat panel display is remarkably different.

One of the most noticeable differences is the crispness of text. A CRT pixel is formed by a beam of electrons that scans across the screen. Thus pixels "bloom" at the fuzzy edge of the electron beam and smear into each other as the beam moves. The Presenter 1280's pixels are formed by a combination of light valve and color filter that produces an extremely crisp edge for each sub-pixel. You can actually see these red, green and blue sub-pixels when using Presenter 1280 in Overhead Projector mode if you stand very close to the projector screen.

Another difference is the lack of distortion in the image displayed by the Presenter 1280. There are two reasons a CRT cannot achieve this: the physics of creating glass tubes makes it almost impossible to make them flat, and the magnetics of controlling an electron beam makes it almost impossible to get straight lines everywhere on the CRT.

A third difference is the lack of flicker on the Presenter 1280's flat panel. CRTs flicker because the electron beam can be in only one place at a time. Thus each pixel on a CRT is being driven only about a millionth of the time. The phosphor has a "persistence" that causes it to emit light over a little longer period, but it still flickers. In the Presenter 1280's flat panel, all pixels are being driven all the time. Thus pixels that are not changing in value look perfectly stable.

A fourth difference, which actually works in the CRT's favor, is the electrical phenomenon of crosstalk between the pixels on a flat panel. In a flat panel, whole columns of pixels are powered from the same electronic source. That source bus is a very thin line that hides in the space between the pixels. The result is that with some displayed images, the pixels above or below the image do not receive enough electrons and thus appear lighter than they should. In the worst case, you may see faint vertical streaks on the display. You will probably only see them if you have a solid background and are using the Presenter as a desktop monitor. The streaks are normal in LCD technology. If they become so bright as to always detract from the display's performance, however, contact your service provider about a solution to the problem.

Quality

The resolution of the Presenter 1280 monitor is 1280 x 1024 pixels. Therefore there are 1280 x RGB x 1024, or 3,932,160 sub-pixels in your display—all in an area equivalent to 2.5 times that of a 6-inch silicon wafer. Current technology is not capable of producing a 100% defect-free active matrix display at reasonable costs, although yields are improving steadily. Presenter 1280 may exhibit a small number of isolated sub-pixel dropouts, which have been individually screened to make certain they are in unobtrusive locations.

Backlight Brightness

The output of a fluorescent lamp strongly depends on the minimum bulb wall temperature, because this temperature determines the mercury vapor pressure inside the lamp. The colder the temperature, the more mercury condenses on the inside of the bulb, resulting in decreased light output. At 25°C, the light output is at approximately 80% of its optimum temperature, but at 10°C, the light output could easily degrade to 30% of its maximum. Therefore it takes about one minute for the lamps to warm up to full brightness from a cold start.

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Part Request Form

RMA#
Closed _/_/_/

Company Name
Street Address
City/State/Zip Code
Contact
Phone
Fax
Purchase Order Number

Call ID #	Model Type	Warranty Y N	System Serial # (as found on back panel)
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System Configuration Information:

System S/W Version _____	Type of failure: <input type="checkbox"/> Solid <input type="checkbox"/> Intermittent	Peripherals: <input type="checkbox"/> DAT <input type="checkbox"/> CD-ROM <input type="checkbox"/> Floptical <input type="checkbox"/> Other_____	Voltage: <input type="checkbox"/> 110 <input type="checkbox"/> 220	Disk (MB/GB) _____	Memory (MB): _____
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Problem description (please describe symptoms, error messages and actions taken):

Date _____

Failed part information:

Part Number:	Revision:	Date:
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For fast service, please complete this form in its entirety!

Tell Us About This Manual

As a user of Silicon Graphics products, you can help us to better understand your needs and to improve the quality of our documentation.

Any information that you provide will be useful. Here is a list of suggested topics:

- General impression of the document
- Omission of material that you expected to find
- Technical errors
- Relevance of the material to the job you had to do
- Quality of the printing and binding

Please send the title and part number of the document with your comments. The part number for this document is 007-2932-001.

Thank you!

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