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Polaview 305 Projector

User Guide



FCC Statement

Warning: This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with limits for a Class "A" computing device pursuant to Subpart B of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be necessary to correct the interference.

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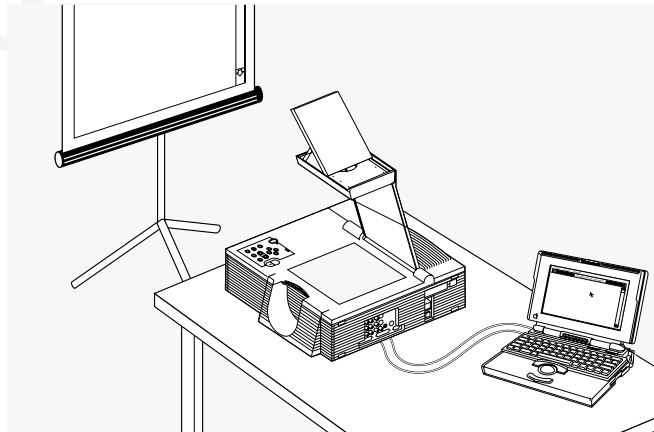
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1 Introduction

The Polaroid Polaview projector family consists of portable, color data and video LCD desktop projectors that make sharing data and presenting information as easy as connecting your computer to your monitor.

The Polaview Model 305 Projector is a high-resolution multimedia LCD projector that offers the highest, brightest image quality available. It is compatible with a wide range of computers; from 640 x 480 personal computers to 1280 x 1024 workstations.

*The Polaview
Model 305
Projector in use*



Cyclops interactive pointer system

The Polaview Model 305 Projector comes Cyclops-ready. The Cyclops interactive pointer system functions like a cordless mouse, and allows you control your computer and software by pointing at the projection screen.

Introducing the Adobe Acrobat Player System

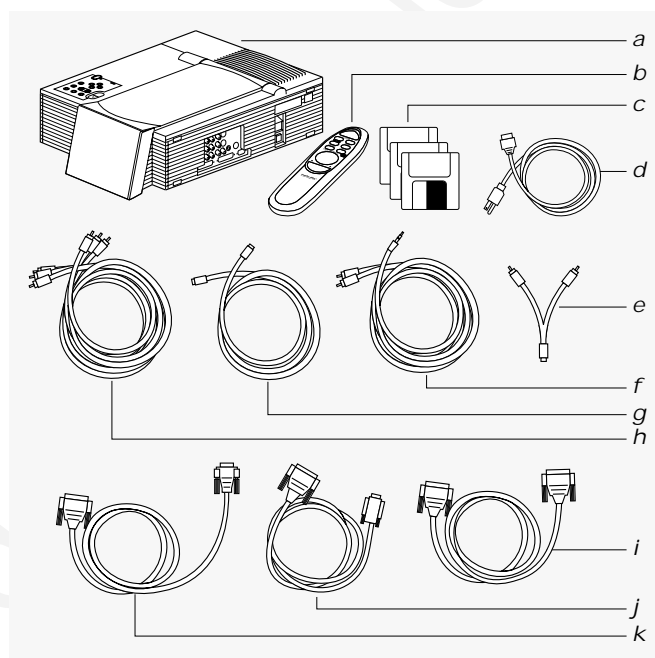
The Adobe Acrobat Player Image Display System brings the functionality of computers and projectors closer together by eliminating the need to hook a computer up to the projector. Print your presentation from whatever application you are using to a special file called a PDF file, and copy or store the file on a disk. Then place the disk in the Adobe Acrobat Player System disk drive, and start the presentation.

If you would like to order the Adobe Acrobat Player System, contact your local dealer or refer to *Appendix B: Parts* for ordering information.

What's in the box?

After you open the box and remove the projector and the shrink-wrapped accessory packs, make sure you have all of the items shown below.

*Items included
with the Polaview
Model 305
Projector*



a Polaview Model 305
Projector

b Remote control

c Polaroid F/X disks

d Power cord (U.S.)

e Mini-jack-to-RCA cable

f Computer audio cable

g S-video cable

h Composite video/audio
cable

i 13C3-to-LCD cable

j Macintosh-to-LCD cable

k VGA-to-LCD cable

*Also included but
not shown*

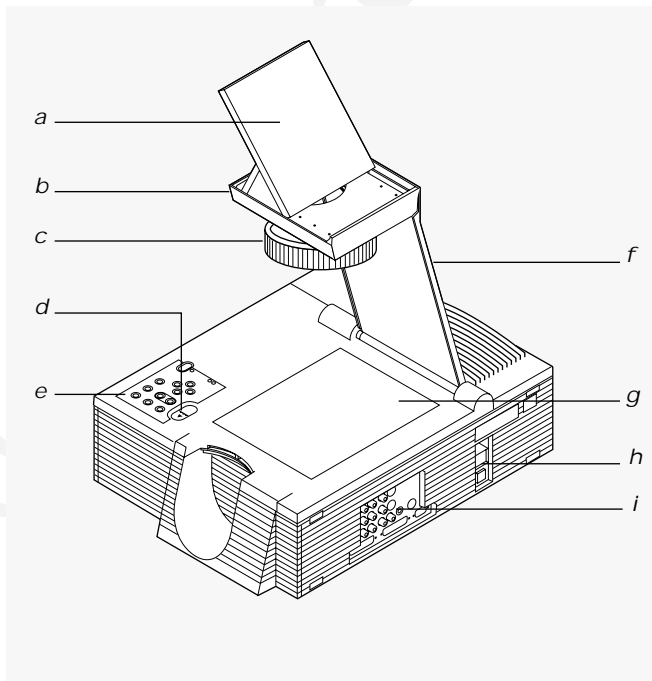
- Macintosh-to-LCD adapter
- SGI-to-LCD cable and adapter
- DEC 3C3-to-LCD cable and adapter
- Macintosh and PC serial cables
(included with remote)
- 2 AAA alkaline batteries
- User's Guide
- Product registration card
- European, U.K., and Italian power cords

Quick start

To connect the projector to your computer, read the section appropriate for your hardware in the following *Quick start* section (or read Chapter 2, *Detailed setup*, which lists these steps in greater detail).

Take a moment to identify the parts of the projector.

*The Polaview
Model 305
Projector*

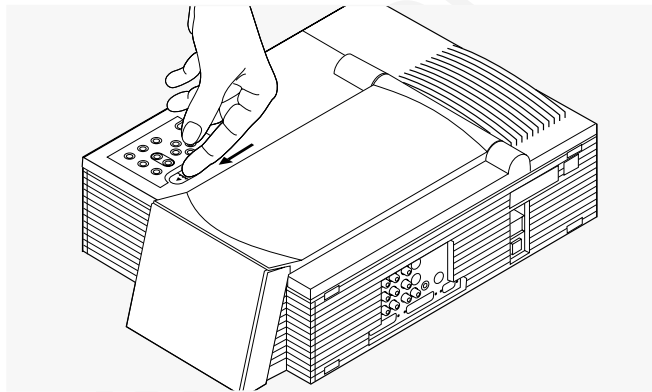


- | | |
|------------------------------------|----------------------------|
| <i>a</i> Flip mirror | <i>f</i> Projection arm |
| <i>b</i> Flip-mirror-release lever | <i>g</i> Projection window |
| <i>c</i> Projection lens | <i>h</i> Power switch |
| <i>d</i> Arm-release lever | <i>i</i> Connector panel |
| <i>e</i> Control panel | |

*Setting up
the projector*

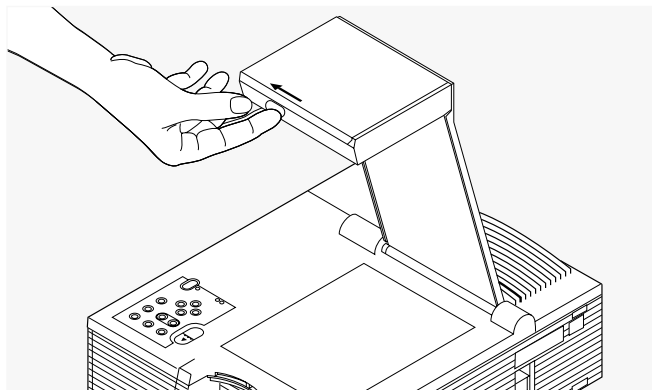
- 1 Place the projector on a solid, flat surface.
- 2 Position the projector so that the side with the handle is facing the projection screen.
- 3 Locate the arm release lever. Slide it gently in the direction of the arrow (see the illustration below).

*Sliding the lever
to release the arm*



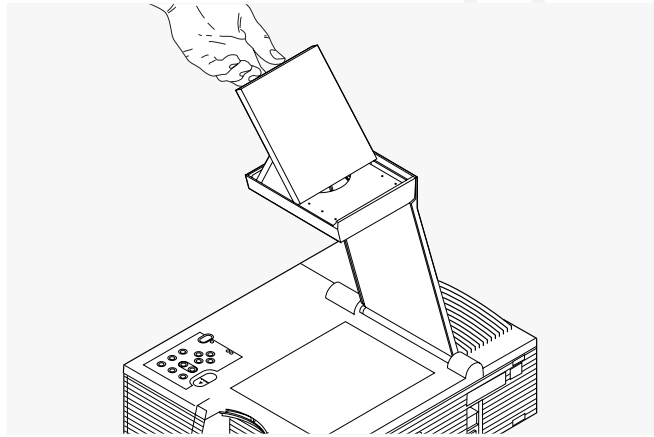
- 4 The arm pops up. Gently lift the arm until it is fully extended. *Do not force the arm farther.*
- 5 Locate the flip-mirror-release lever on the top of the arm. Slide it in the direction of the arrow (in the illustration) as you pull up on the lift tab. This releases the mirror.

*Sliding the lever to
release the flip mirror*



- 6 Gently tilt the flip mirror approximately 45°. (You can adjust the angle later to raise or lower the projected image.)

Tilting the flip mirror to a 45 degree angle



Caution: Never push on or force the mirror. Always use care when opening the mirror assembly. Avoid touching the surface of the mirror with your fingers.

Connecting the computer

Follow the instructions specific to your hardware.

Connecting PCs

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the VGA OUT connector on the projector.
- 3 Use the Polaview VGA-to-LCD connector cable (part number C800-6) to link the projector to the computer. Connect the end of the cable marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the computer video-output connector.

Proceed to the section *Connecting video and audio*.

Macintosh computers

Connecting a Macintosh monitor requires the Polaview VGA /MAC (part number C804) adapter and the existing monitor cable. Use the Polaview adapter only.

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the Polaview VGA/MAC adapter.
- 3 Connect the free end of the Mac-to-LCD adapter to the projector VGA OUT connector.
- 4 Use the Polaview Mac-to-LCD connector cable (part number C802-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the computer video-output connector.

Proceed to the section *Connecting video and audio*.

Notebook computers

- 1 Connect the end of the video cable marked COMPUTER to the external monitor connector on your notebook computer (or to the video cable adapter supplied with your notebook computer).
- 2 Connect the end of the video cable marked LCD to the FROM COMPUTER connector on the projector.

Proceed to the section *Connecting video and audio*.

Silicon Graphics workstations

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the SGI to LCD adapter
- 3 Connect the free end of the SGI-to-LCD adapter to the projector COMPUTER OUT connector.

- 4 Use the SGI 13C3-to-LCD connector cable (part number C943-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the SGI workstation video-output connector.

Proceed to the section *Connecting video and audio*.

Workstations with 13C3 connectors (except SGI)

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the projector COMPUTER OUT connector.
- 3 Use the 13C3-to-LCD connector cable (part number C801-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the computer video-output connector.

Proceed to the section *Connecting video and audio*.

Workstations with BNC connectors

- 1 Note which BNC connectors you are currently using with the monitor. (You always use the R, G, and B connectors, but the way you use the H and V connectors depends on the computer configuration.) Disconnect your computer-to-monitor cable at the monitor (BNC) end.
- 2 Connect the free BNC end to the optional BNC block-to-LCD connector cable (part number C942-2), connecting the same BNC connectors used on the monitor. Plug the LCD end of the cable into the projector COMPUTER IN connector.
- 3 Connect the optional BNC-to-LCD connector cable (part number C803-6) to the projector COMPUTER OUT connector and the monitor BNC-video input. Use the same BNC connections used with the monitor.

Proceed to the section *Connecting video and audio*.

DEC workstations

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the DEC 3C3-to-LCD adapter (part number C946).
- 3 Connect the free end of the DEC 3C3-to-LCD adapter to the projector COMPUTER OUT connector.
- 4 Use the DEC 3C3-to-LCD connector cable (part number C946-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the workstation video-output connector.

Proceed to the next section, *Connecting video and audio*.

Connecting video and audio


Connect audio and video sources to the projector, using this table as a guide. If you need more information, see the appropriate section in Chapter 2, *Detailed setup*.

<i>To set this up:</i>	<i>Connect this cable:</i>	<i>From here:</i>	<i>To here:</i>
Video from VCR/ laserdisc	Composite audio/video cable (C497-6)	VIDEO 1, 2 ports on projector	RCA port on VCR marked VIDEO OUT or something similar
Video from S-video device	S-video cable (C466-6)	S-VIDEO 1, 2 ports on projector	VIDEO OUT port on S-video device
Audio from VCR/laserdisc	Composite audio/video cable (C497-6)	AUDIO IN 1, 2 ports on projector (red = right, white = left)	AUDIO OUT port on VCR (red = right, white = left)
Audio from computer	Computer audio cable (C498-6)	Left/right COMPUTER AUDIO IN ports on projector	AUDIO OUT port of the Mac or the sound card of a PC

<i>To set this up:</i>	<i>Connect this cable:</i>	<i>From here:</i>	<i>To here:</i>
External speakers	Mini-jack-to-RCA cable adapter (C5105) and mini-jack cable (included with speakers)	AUDIO OUT 1, 2 ports on projector	Mini-jack cable included with speakers.
Stereo system	RCA stereo cable (comes with stereo)	AUDIO OUT port on projector	Left/right AUDIO IN ports on amplifier
Microphone	Microphone cable supplied with microphone	MIC port on projector	Amplified microphone

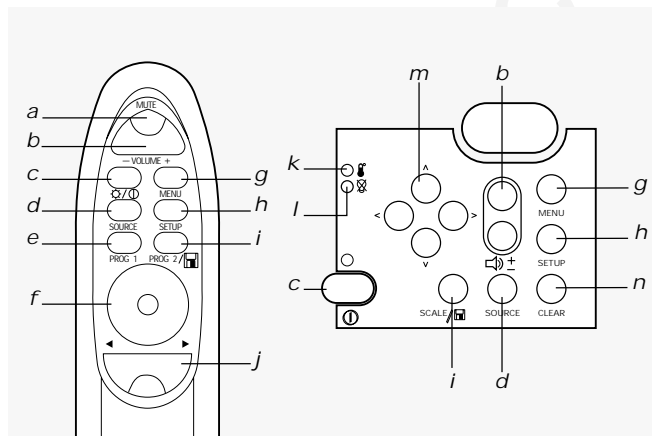
Turning on the projector



Once you connect the computer and any video or audio sources, turn on the power:


- 1 Plug the power cord into the projector power receptacle. Plug the other end into a properly-grounded wall outlet or surge protector.
- 2 Move the switch power on the rear of the projector to the "on" position.
- 3 Press the  lamp on/off key to ignite the lamp. The lamp lights slowly.
- 4 To raise or lower the image, tilt the mirror assembly accordingly.
- 5 Rotate the ring at the base of the projector lens to focus the image.



The remote control and the control panel

The remote control and the control panel



Key	Function
a MUTE (remote control only)	Mutes the audio, or returns the sound.
b $\leftarrow \rightarrow \pm$ VOLUME +/-	Adjusts the audio level.
c  (Lamp on/off)	On the remote, press this key once to clear a black screen. The lamp stays on. On both the remote control and the control panel,  turns the lamp off if you hold it down for more than 2 seconds. On the control panel, the green indicator light above this key illuminates when the lamp is on.
d SOURCE	Cycles through the various input sources, including video, computer, the Adobe Acrobat Player System mode.
e PROG 1 (remote control only)	Executes the function you define in the Preferences menu.

<i>Key</i>	<i>Function</i>
<i>f</i> MouseDisk (remote control only)	Emulates a left-button mouse click when you press the center of the disk. Acts like an arrow key when you press the edges of the disk. Toggles between Draw and Move modes in the Draw tool, and controls the mouse pointer. In Adobe Acrobat Player System menus, controls the mouse pointer.
<i>g</i> MENU	Turns the menus on and off.
<i>h</i> SETUP	Adjusts the sync, contrast, brightness, tint, and image position settings.
<i>i</i> SCALE/PROG 2 	In computer or video mode, the SCALE key enlarges or compresses the image to fit the image to fit the 1024 x 768 resolution of the projector. To return the image to its original size, press this key again. For the Adobe Acrobat Player System mode, this key selects the current object. Set the function of the PROG 2 key (remote control only) in the Preferences menu.
<i>j</i> Reverse/ Forward/ Pause < > (remote control only)	In an Adobe Acrobat Player System presentation, Reverse/Forward moves to the next/previous slide. Pause suspends the current slide in an Adobe Acrobat Player System presentation. Pause opens See-it/Show it in Polaroid F/X.

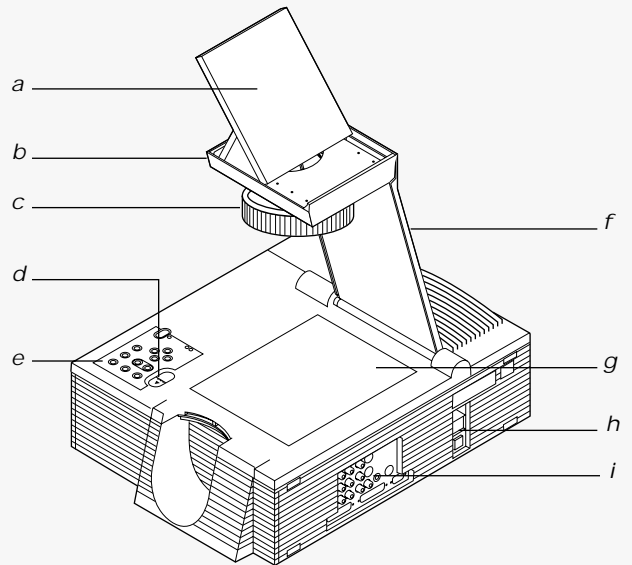
	<i>Key</i>	<i>Function</i>
<i>k</i>	 Over-temp indicator (control panel only)	Illuminates if the projector is too hot, or if the fans malfunction, indicating that the lamp was automatically turned off. For over-temp conditions, see Chapter 6, <i>Troubleshooting</i> for more information.
<i>l</i>	 Replace lamp (control panel only)	Flashes for 90 seconds after you turn off the lamp. Illuminates when the recommended lamp life is exhausted.
<i>m</i>	Arrow keys (control panel only)	Move right/left among menus; move up/down on menu items. In Adobe Acrobat Player System presentations, right/left moves to the next/previous slide. In Adobe Acrobat Player System menus, these keys navigate the menus. Pan and position the computer image.
<i>n</i>	CLEAR (control panel only)	Clears the display to white, for use with overhead transparencies. Clears the screen to black if you press CLEAR for two seconds.

2 Detailed setup

Setting up your projector

*The Polaview
Model 305
Projector*

Before you begin, take a moment to identify the parts of the projector.



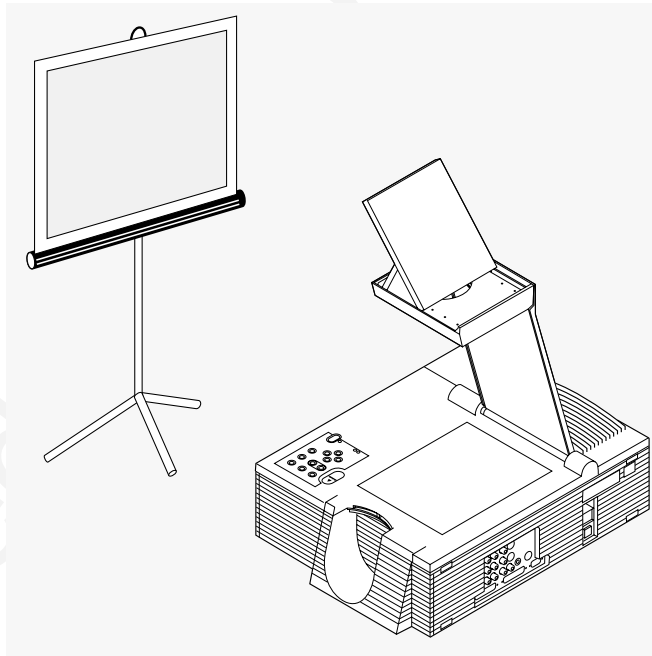
- | | |
|------------------------------------|----------------------------|
| <i>a</i> Flip mirror | <i>f</i> Projection arm |
| <i>b</i> Flip-mirror-release lever | <i>g</i> Projection window |
| <i>c</i> Projection lens | <i>h</i> Power switch |
| <i>d</i> Arm-release lever | <i>i</i> Connector panel |
| <i>e</i> Control panel | |

Getting started

Opening the projector To open the projector:

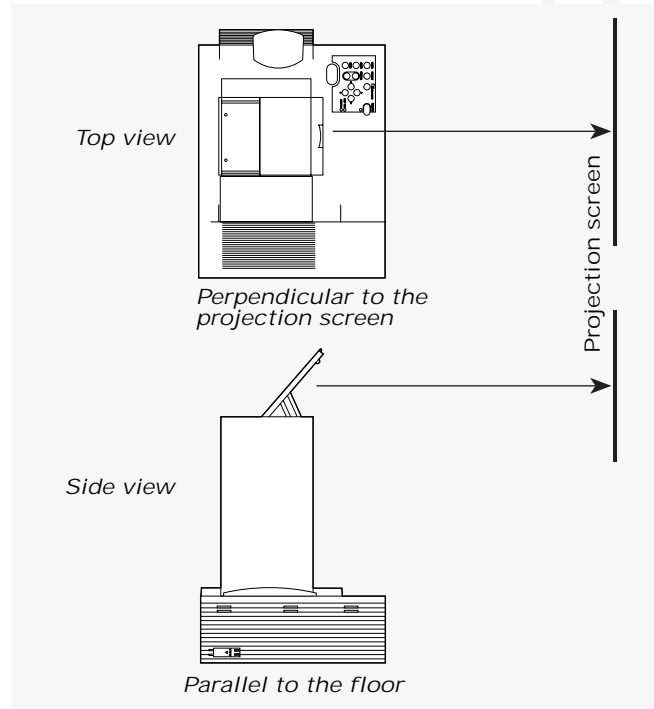
- 1 Place the projector on a solid, flat surface.
- 2 Position the projector so that the side with the handle is facing the projection screen. The connector panel faces away from the projection screen, as illustrated below.

Positioning the projector in front of the projection screen



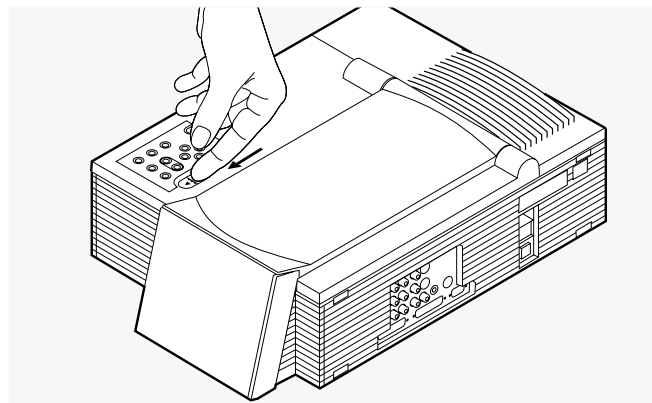
- 3 The projector must be parallel to the floor. If you use a media cart, make sure the wheels are locked to prevent it from moving.

Top and side views of the projector



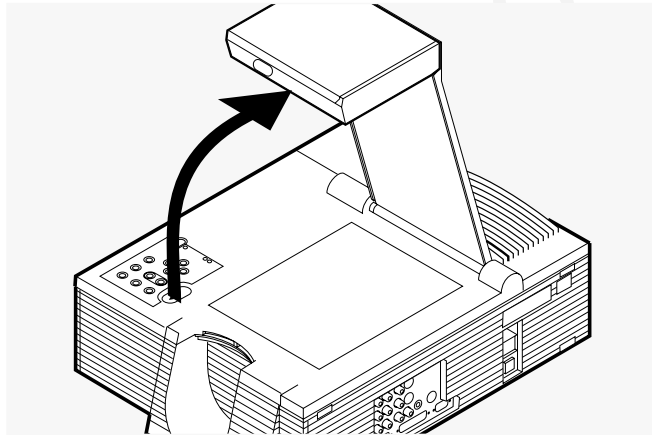
- 4 Locate the arm release lever beside the control panel, on the top of the projector. Slide it gently in the direction of the arrow.

Sliding the lever to release the arm



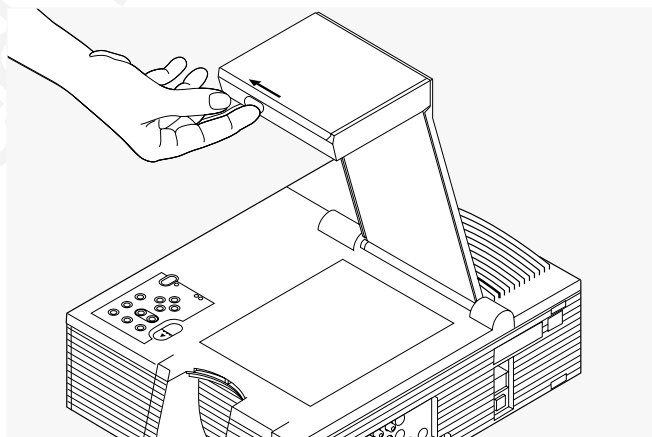
- 5 The arm pops up. Gently lift the arm until it is fully extended. *Do not force the arm farther.*

The arm pops up



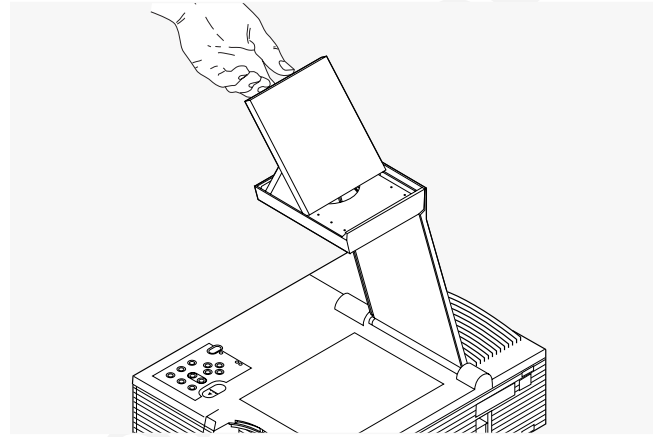
- 6 Locate the flip-mirror-release lever on the top of the arm. Slide it in the direction of the arrow while pulling up on the lift tab. This releases the mirror.

The flip-mirror-release lever



- 7 Gently tilt the flip mirror open approximately 45° (you can adjust the angle of the mirror later, to raise or lower the projected image).

*Opening the
flip mirror*



Caution: Never push on or force the mirror. Always use care when opening the mirror assembly. Avoid touching the surface of the mirror with your fingers.

Closing the projector

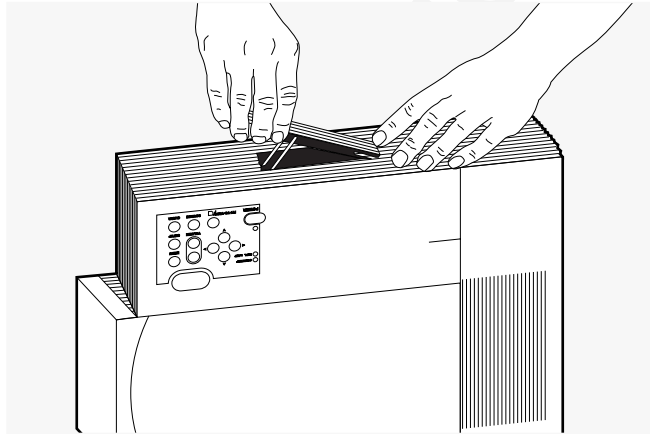
To close the projector, reverse the opening procedures.

- 1 Tilt the mirror down into the arm until it latches.
- 2 Gently swing the arm down until it clicks into place. The latch should click when the arm is completely retracted.

Moving the projector

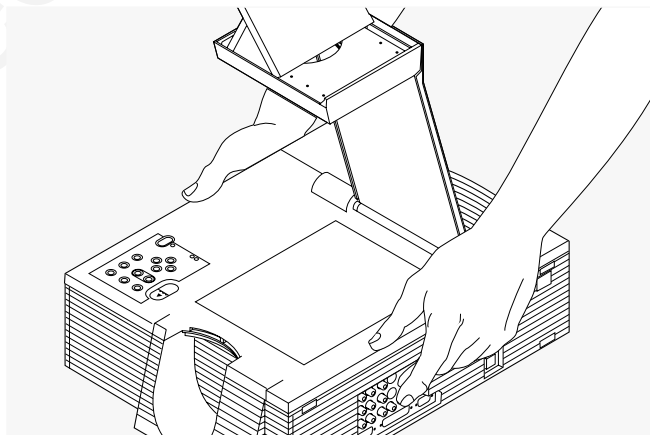
You should be sure to close the projector securely and disconnect all cables before moving it. The projector has a recessed carrying handle on its side. To gain access to the handle, just push one side of it in; the other side automatically releases (as illustrated below).

Gaining access to the recessed handle



If you must move the projector while it is open, grasp it securely at the sides, by the lower part of the housing, to support the weight of the projector.

Moving the projector while it is open

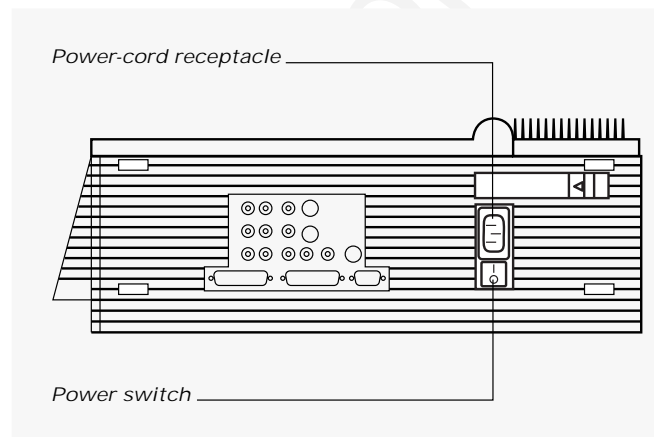


Turning on the projector

The projector and the external monitor (should you use one) should be turned on before you turn on your computer. This ensures that the computer properly senses the display during the start-up process.

On the rear panel of the projector there is a power-cord receptacle and a power switch.

The power switch



To turn on the projector

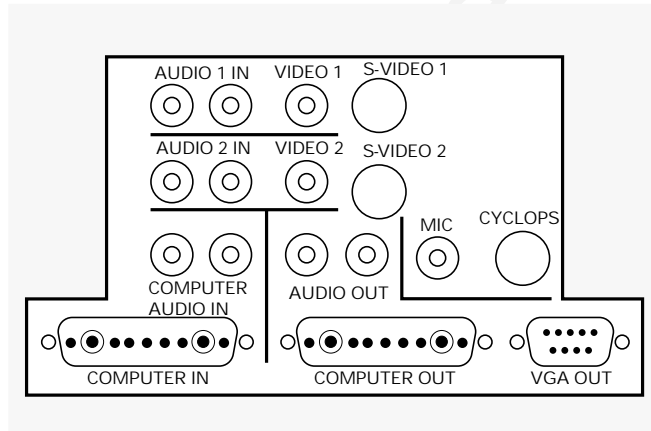
- 1 Plug the power cord into the power-cord receptacle.
- 2 Plug the other end of the power cord into a properly grounded electrical outlet.
- 3 Move the power switch to the "on" position.
- 4 Press the \odot key to turn on the lamp. The lamp ignites slowly.
- 5 If you have not already done so, connect the projector to your computer and external monitor (if you use one).
- 6 Turn on your computer and external monitor (if you use one). You should see a projected image of your computer screen.

Note: The projector consumes 800 watts of power. Most circuits surge protectors support 1,200 watts. Be sure to connect any peripheral equipment to a separate circuit or surge protector.

Connecting the projector to your computer

Take a moment to review the projector connector panel.

The connector panel of the projector



Port	Connects to	Cable
AUDIO 1 IN AUDIO 2 IN	Left and right ports connect to a video source, bring audio into the projector.	Composite audio/video cable.
VIDEO 1 VIDEO 2	Connects the projector to a video camera, laserdisc player, television, or a VCR (NTSC/ PAL/SECAM source) to bring video from these sources into the projector.	Composite audio/video cable.
S-VIDEO 1 S-VIDEO 2	Connects the projector to an S-video source to bring video into the projector.	S-video cable.
COMPUTER AUDIO IN	Left and right ports connect to the computer; bring audio into the projector.	Computer audio cable.

<i>Port</i>	<i>Connects to</i>	<i>Cable</i>
AUDIO OUT	Connects to external speakers or an external sound system to send stereo audio out.	Audio cable.
CYCLOPS*	Connects to the computer to use the Polaroid F/X software or the optional Cyclops interactive pointer system.	RS-232 cable, (PC, Mac, or Workstation).
MIC	Connects an external microphone to the projector.	External microphone cable.
COMPUTER IN	Connects to the computer to bring computer video into the projector.	PC, Mac, Sun, SGI, or DEC.
COMPUTER OUT	Connects a workstation monitor to the projector for simultaneous display.	Existing monitor cable.**
VGA OUT	Connects a PC or Macintosh monitor to the projector for simultaneous display.	Existing monitor cable.**

* Instructions for connecting to this port are also included in the Cyclops User's Guide.

** You may also need to use an adapter.

To connect the projector to virtually any PC, Macintosh, or workstation, choose the Polaview cable(s) that matches your existing computer-to-monitor connection.

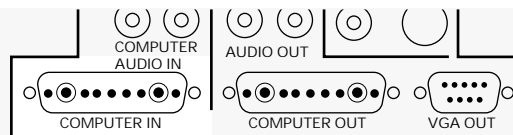
You normally need only one Polaview cable. Use this cable to connect the projector to your computer video-output connector. Use the existing computer-to-monitor cable if you also want to connect your monitor.

Note: You do not need to shut off power to either the computer or projector when you connect the two units to one another. Available cables include:

- 13C3-to-LCD connector cable (part number C801-6)
- VGA-to-LCD connector cable (part number C800-6)
- Mac-to-LCD connector cable (part number C802-6)
- Mac-to-LCD adapter (part number C804-0)
- SGI 13C3-to-LCD connector cable (part number C943-6)
- SGI-to-LCD adapter (part number C947-12)
- DEC 3C3-to-LCD connector cable (part number C948-6)
- DEC 3C3-to-LCD adapter (part number C947-10)
- Optional BNC block-to-LCD connector cable (part number C942-2)
- Optional BNC-to-LCD connector cable (part number C803-6)

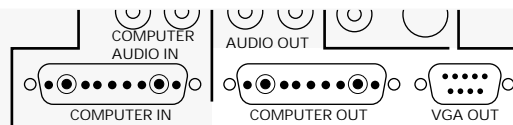
Computer video always connects to the COMPUTER IN connector (13C3) on the projector.

The COMPUTER IN connector



You can display data on a separate monitor in addition to the projector. COMPUTER OUT connections can be made with the projector and computer power on.

The video output connectors



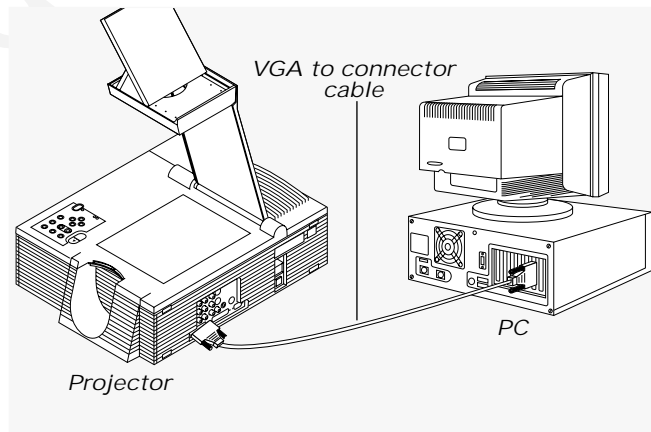
Projecting without an attached monitor

Some display cards rely on sense-line information from the monitor to configure themselves for the correct display resolution. The absence of sense-line information causes some display cards to output a default video signal and actually prevents some video cards from outputting video at all.

If you connect the projector to a computer without a monitor, turn on your system and check to see if the display resolution is acceptable. If it is not, you need to set the sense lines to make the projector emulate a monitor (see *Appendix C: Sense lines*).

PCs

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the VGA OUT connector on the projector.
- 3 Use the Polaview VGA-to-LCD connector cable (part number C800-6) to link the projector to the computer. Connect the end of the cable marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the computer video output connector.

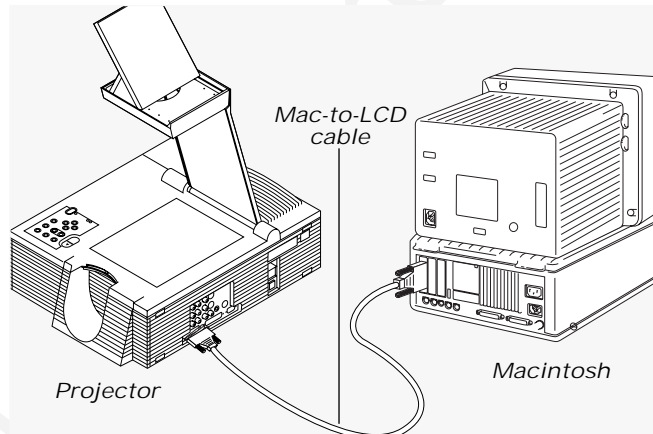
PC video-out connection to the projector

Macintosh computers

Connecting a Macintosh monitor requires the Polaview VGA/MAC adapter (part number C804) and the existing monitor cable. Use the Polaview adapter only.

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the Polaview VGA/MAC adapter.

The Macintosh-to-LCD connection

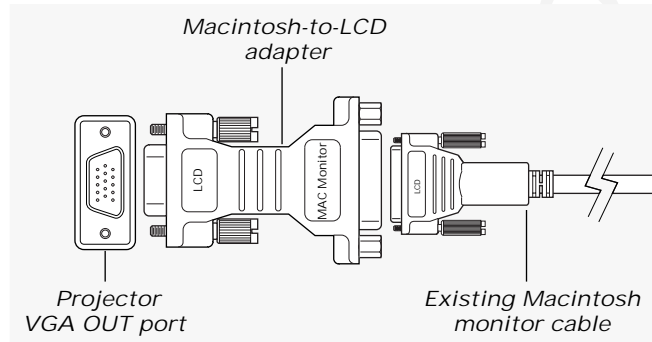


- 3 Connect the free end of the Mac-to-LCD adapter to the projector VGA OUT connector.

Note: Macintosh users that do not connect an external monitor may need to set Model 305 sense lines to achieve the desired display resolution. See *Appendix C: Sense lines* for more information.

- 4 Use the Polaview MAC to LCD connector cable (part number C802-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the computer video output connector.

*The Polaview
Macintosh-to-LCD
adapter*

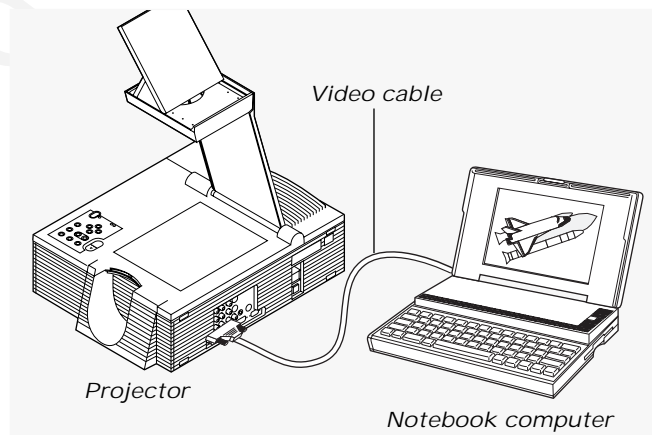


*Notebook
computers*

Use the appropriate Polaview video cable to connect your notebook computer to the projector.

- 1 Connect the end of the Polaview video cable marked COMPUTER to the external monitor connector on your notebook computer (or to the video cable adapter supplied with your notebook computer).
- 2 Connect the end of the Polaview video cable marked LCD to the COMPUTER IN connector on the projector.

*Notebook
computer
connections*



Workstations

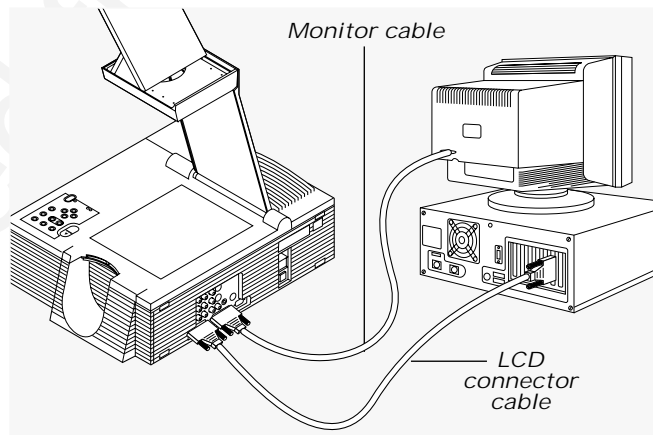
Note: Some notebook computers require that you press a combination of keys or use a control panel to set the projector as an external monitor. Refer to your notebook computer manual for more information.

*13C3 video connections
(except Silicon Graphics workstations)*

If your workstation has a 13C3 connector at the computer video port:

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the projector COMPUTER OUT connector.
- 3 Use the Polaview 13C3-to-LCD connector cable (part number C801-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the computer video-output connector.

*Workstation
video-out connection
to the projector*



Silicon Graphics 13C3 video connections

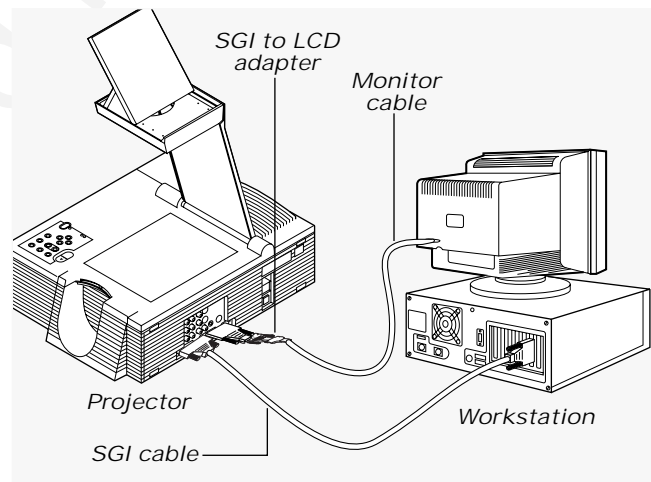
If you have a Silicon Graphics workstation with 13C3 connectors at the computer and monitor video ports:

- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the Polaview SGI-to-LCD adapter.
- 3 Connect the free end of the SGI-to-LCD adapter to the projector COMPUTER OUT connector.

Note: SGI workstation users that do not connect an external monitor need to set Model 305 sense lines to achieve the desired display resolution. Refer to *Appendix C: Sense Lines* for more information.

- 4 Use the Polaview SGI 13C3-to-LCD connector cable (part number C943-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the SGI workstation video-output connector.

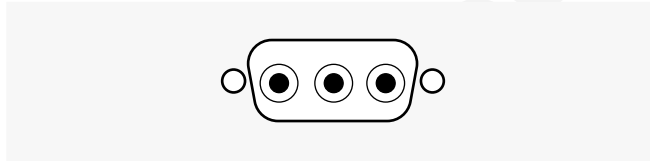
Silicon Graphics workstation connections



DEC 3C3 video connections

If you have a DEC workstation with 3C3 connectors at the computer and monitor video ports:

3C3 connector



- 1 Disconnect your computer-to-monitor cable at the computer end.
- 2 Connect the free end of the monitor cable to the Polaview DEC 3C3-to-LCD adapter (part number C947-10).
- 3 Connect the free end of the DEC 3C3-to-LCD adapter to the projector COMPUTER OUT connector.
- 4 Use the Polaview DEC 3C3-to-LCD connector cable (part number C948-6) to link the projector to the computer. Connect the end marked LCD to the projector COMPUTER IN connector, and the end marked COMPUTER to the workstation video-output connector.

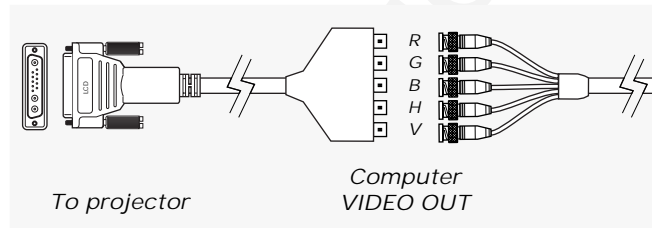
BNC video connections

If your workstation does not have a 13C3 video-port connector at the computer video port, but has a BNC connector at the monitor, you need the optional Polaview BNC cables.

- 1 Note which BNC connectors you are currently using with the monitor. (You always use the R, G, and B connectors, but the way you use the H and V connectors depends on the computer configuration.) Disconnect your computer-to-monitor cable at the monitor (BNC) end.

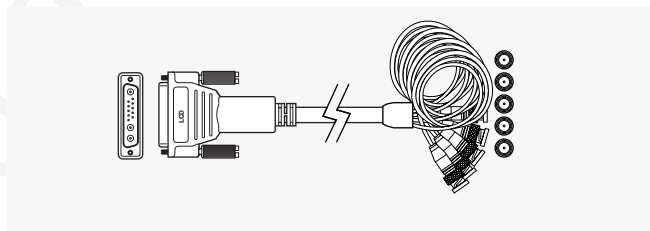
- 2 Connect the free BNC end to the optional Polaview BNC block-to-LCD connector cable (part number C942-2), connecting the same BNC connectors used on the monitor. Plug the LCD end of the cable into the projector COMPUTER IN connector.

*Using the BNC
block-to-LCD
connector cable*



- 3 Connect the optional Polaview BNC-to-LCD connector cable (part number C803-6) to the projector COMPUTER OUT connector and the monitor BNC video input. Use the same BNC connections used with the monitor.

*BNC-to-LCD
connector cable*



Connecting the Cyclops interactive pointer system

The Cyclops interactive pointer system uses a built-in camera to function like a cordless mouse. With the Cyclops system, you can control your computer cursor by moving the hand-held Cyclops wand or optional laser pointer. Instructions for setting up your Cyclops system are included with your Cyclops kit.

Connecting the Adobe Acrobat Player System

The Adobe Acrobat Player Image Display System brings the functionality of computers and projectors closer together by eliminating the need to hook a computer up to the projector. Print your presentation from whatever application you are using to a special file called a PDF file, and copy or store the file on a disk. Then place the disk in the Adobe Acrobat Player System disk drive, and start the presentation.

To connect the Adobe Acrobat Player System to the projector, see the installation card that comes with your Adobe Acrobat Player System package for instructions.

Connecting video and audio to the projector

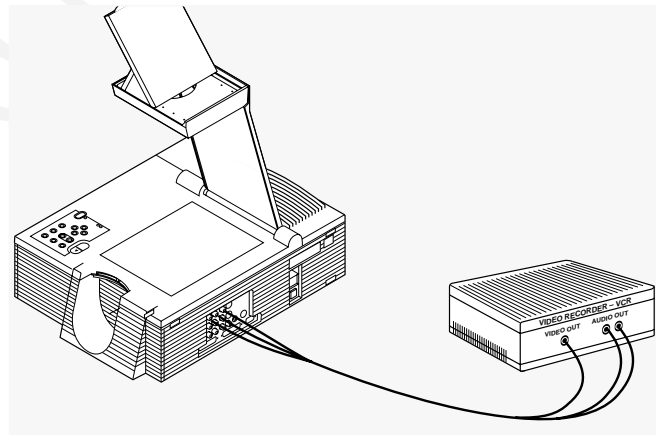
This section describes how to connect audio and video to your projector. The Polaview Model 305 Projector has multiple inputs for audio and video. If you are connecting only one audio or video source to your projector, use the VIDEO 1 and AUDIO 1 ports. Make sure that you connect your audio and video to the corresponding group. If you connect video to group 1 and audio to group 2, you cannot hear the audio. Even though you connect both COMPUTER AUDIO IN and AUDIO IN, only one of them is active:

- If you select computer video, COMPUTER AUDIO IN is active.
- If you select NTSC/PAL/SECAM/S-video, AUDIO 1 IN is active.

Connecting video from a VCR

The projector can project video from NTSC, PAL or SECAM sources (i.e., VCRs, laserdisc players and video cameras).

The projector connected to a VCR



The composite audio/video cable (part number C497-6) has a yellow, red, and white RCA plug at each end. To connect an NTSC, PAL, or SECAM source to your projector, make the appropriate cable connections, as indicated in the following chart:

<i>Cable</i>	<i>Projector port</i>	<i>VCR connector</i>
Yellow	VIDEO 1 or 2	VIDEO OUT, TO MONITOR, etc.
White	AUDIO 1 or 2 IN (white plug)	L AUDIO OUT
Red	AUDIO 1 or 2 IN (red plug)	R AUDIO OUT

*Connecting video
from S-video sources*

The projector can also project video from an S-video source.

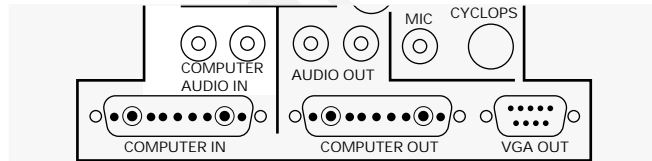
- 1 Connect one end of the S-video cable (part number C466-6) to the VIDEO OUT connector on the video source. The cable has identical, round 4-pin connectors on either end.
- 2 Connect the other end of the cable to the projector S-VIDEO 1 port.

*Connecting audio
from the computer*

Use the COMPUTER AUDIO IN port to connect audio from a computer.

- 1 Insert the mini jack end of the computer audio cable (part number C498-6) into the AUDIO OUT connector of a Macintosh or the sound card of a PC.
- 2 Insert the RCA jacks at the other end of the computer audio cable into the projector left and right COMPUTER AUDIO IN ports.

*The projector
COMPUTER
AUDIO IN port*



*Connecting a
microphone*

To use a microphone while projecting an NTSC, PAL, SECAM or S-video image, plug an amplified or wireless microphone equipped with a line level output (maximum 1 volt, peak-to-peak) into the MIC port.

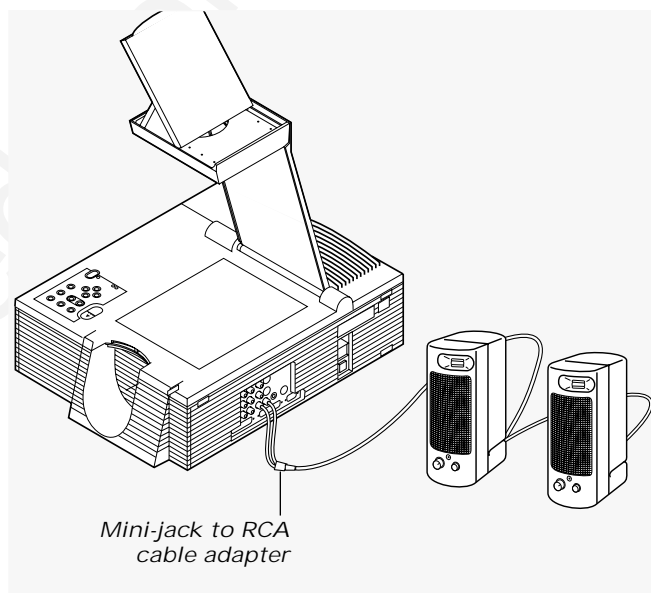
Connecting external speakers

The projector contains an internal stereo system consisting of an amplifier and two speakers. Although this system provides high-quality stereo output, a multimedia presentation may require external speakers or an external sound system.

When connecting external speakers, use the optional Polaview loudspeaker system (part number A55) or a similar system.

- 1 Insert the two RCA plugs of on the mini-jack-to-RCA cable adapter (part number C5105) into the projector AUDIO OUT ports.
- 2 Connect the other end of the mini-jack-to-RCA cable adapter to the speaker cable, included with your speakers
- 3 Connect speaker A to speaker B using the cables supplied with the speaker system.

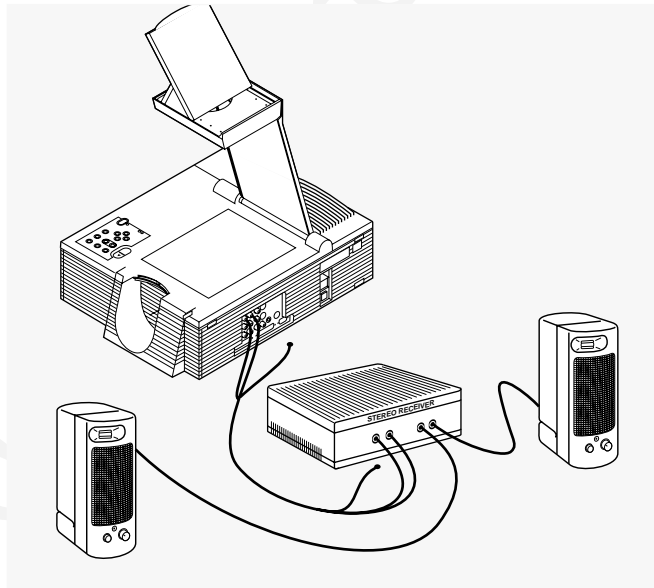
Connecting external speakers



Connecting an external stereo system

- To connect the projector to an external stereo system,
- 1 Using the computer video/audio cable (C497-6), insert the white and red RCA plugs into the left and right AUDIO OUT ports of the projector.
 - 2 Insert the white and red RCA plugs at the other end of the cable into the left and right AUDIO IN ports of the external amplifier.

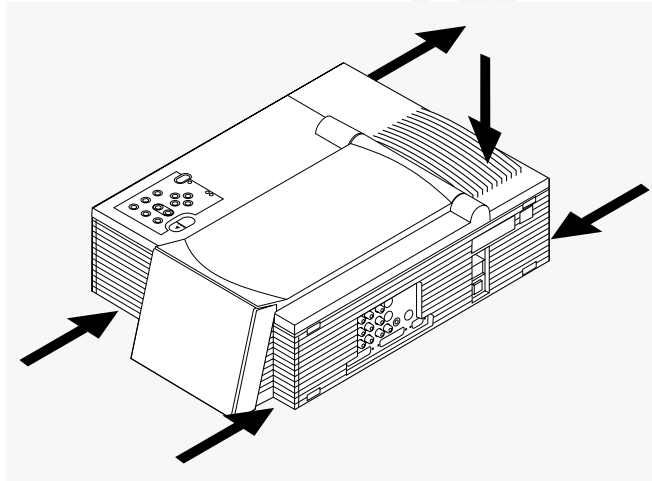
External stereo system connections



Important precautions


To avoid any potential hazards to the projector, make sure not to obstruct the air-intake and exhaust grills. Do not operate the projector if these areas are clogged or blocked.

Allow sufficient air flow

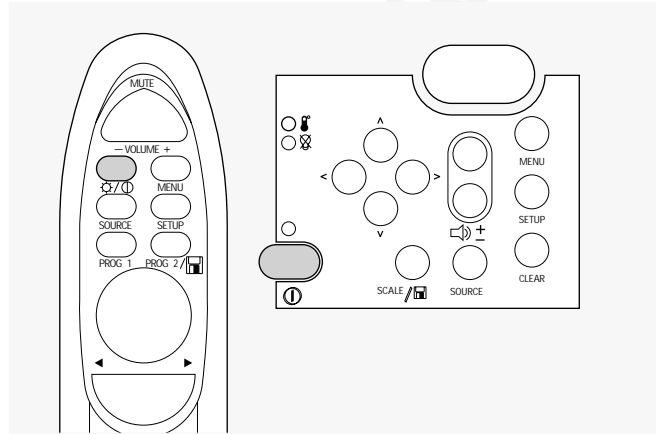



Caution: The lamp chamber gets very hot during operation, especially the ceramic sockets at each end of the lamp. Be careful when you open the lamp chamber or change the lamp. To allow that area to cool down, press the \odot button to turn off the lamp and let the fan cool the projector for at least five minutes before you touch any of those components. See Chapter 5, *Maintenance*, for more information.


Turning the lamp on and off

The lamp is off when you first turn on the projector. Press the  key (shaded gray in the illustration below) on the remote control or control panel to turn the lamp on. The green power-indicator light illuminates. It takes a few seconds for the lamp to warm up.

The key

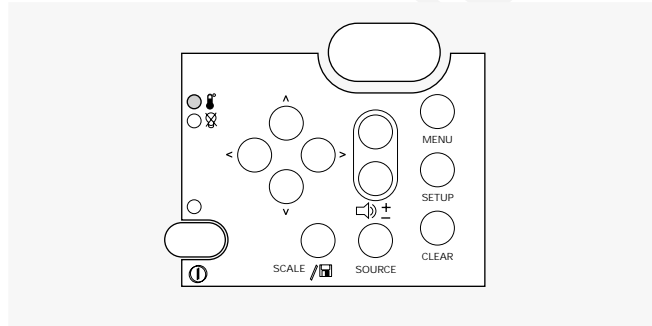


To turn the lamp off, press and hold the  key for about two seconds. When you turn the lamp off, the projector fans continue to run for about two minutes. Allow the fans to run until they automatically turn off. This lengthens the lamp life and helps ensure that the projector cools properly. Turning the lamp off does not turn off the projector. To turn the power off, move the power switch on the back of the projector to the "off" position.

After you turn off the lamp, you can immediately turn it back on within five seconds. If you wait longer than five seconds, you must then wait 90 seconds before turning it back on. This is a built-in safety feature that helps prevent damage to the lamp. Press the  key again to turn on the lamp once more. The lamp illuminates slowly, to prolong lamp life.

The projector has safeguards built in to protect it from overheating. In the rare event that the projector overheats, the lamp shuts off automatically and the over-temp indicator (shaded gray in the illustration below) on the control panel illuminates.

The over-temp indicator light



In the unlikely event that an over-temperature condition occurs, see Chapter 6, *Troubleshooting*, for information on restarting your projector.

Adjusting the image

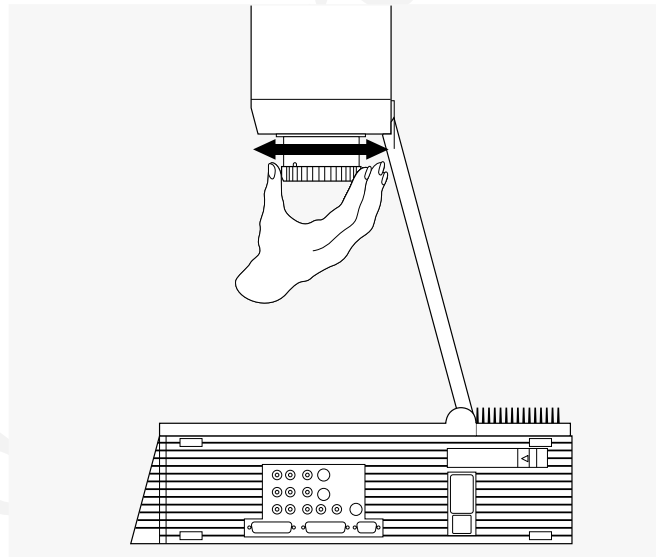
Raising or lowering the image

To raise or lower the projected image, tilt the mirror on top of the arm up, to move the image higher, or down, to move the image lower.

Focusing the image

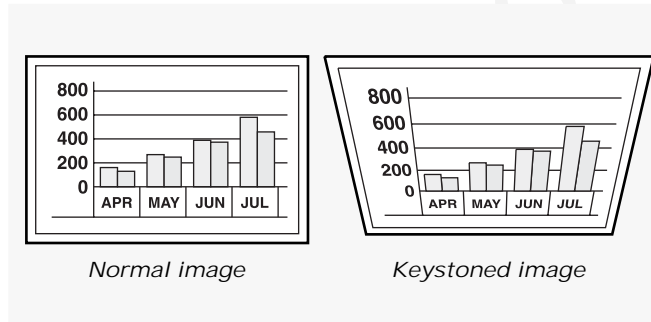
To focus the image, rotate the ring just below the projection lens, beneath the mirror, until the image is sharp and clear.

Rotating the focus ring



Correcting keystoneing

The normal projected image has a rectangular shape. A keystone image has a trapezoidal shape (as illustrated below).

A normal vs. a keystone image

Keystoneing occurs when the front of the projector is not perpendicular to the projection screen (the vertical plane) or when the projector is not parallel to the floor (the horizontal plane). Keystoneing can also occur when the projector is tilted sideways.

To correct keystoneing, make sure that the projector is at a right angle to the projection screen.

To project images high enough for the entire audience to view, the projector has a built-in 4.5° correction for keystoneing.

Image size

The size of the projected image depends on the distance between the projector and the projection screen. The following table shows the projected image size, measured diagonally, based on this distance.

<i>Distance from screen</i>	<i>Diagonal image size</i>
4 ft/1.2 m	46 inches
6 ft/1.8 m	69 inches
8 ft/2.4 m	92 inches
10 ft/3.0 m	115 inches
12 ft/3.6 m	138 inches

3 Using the projector

Using your projector

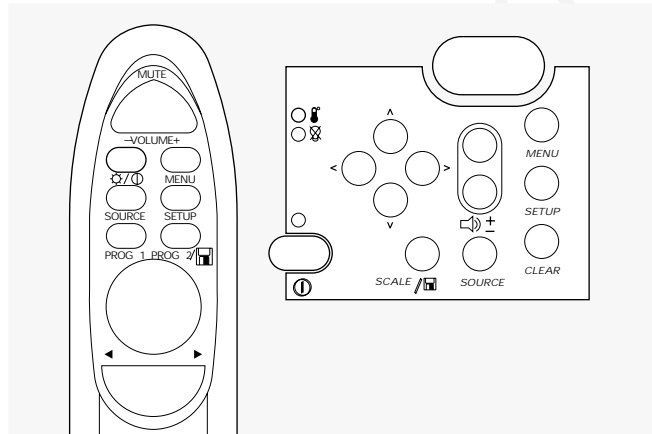
The Polaview Model 305 Projector is designed with ease of use and simplicity in mind. With the remote control or the control panel, most of the common functions are right at your fingertips.

To execute most of the functions you need during your presentation, such as adjusting or muting the volume and proceeding from one slide to the next, just press the appropriate button on the remote control or the control panel.

This chapter describes keys on the remote control and control panel and their functions. It also describes how to use the various projector and menu settings.

Using the remote control and the control panel

The keys on the remote control and the control panel



SOURCE key

Use the SOURCE key to switch between the various video input sources you connect, such as the computer video input, NTSC/PAL/SECAM video input, S-video input, or Adobe Acrobat Player System input.

SETUP key

Use the SETUP key to make your pre-presentation adjustments, such as sync, brightness, contrast, tint, and image position.

 */+ VOLUME-*

Use the VOLUME keys to adjust the volume from the projector internal speakers and any connected external speakers.

*PROG 1 and
PROG 2 keys*

Use these keys to execute the function you define in the Preferences menu. In the Adobe Acrobat Player System dialog boxes, the PROG 2 key selects the highlighted item.

Reverse/Forward/Pause

In an Adobe Acrobat Player System presentation, these keys reverse or advance to the next slide. The Pause key suspends the timer for a slide during an Adobe Acrobat Player System presentation. It also opens See-it/Show-it in Polaroid FX.

MouseDisk

When you press the center of the MouseDisk, it functions like a mouse click. When you press the edges of the Mouse Disk, it functions like an arrow key.

In the Draw tool, this key toggles between Draw and Move modes. It also controls the mouse pointer. In Adobe Acrobat Player System dialog boxes, press the edges of this button to move the mouse pointer, and the center to select options.

MUTE key

Use the MUTE key to turn off the sound from the internal or external speakers. Press it again to restore the sound.

MENU key

Press the MENU key to activate the on-screen menus. Press it again to exit the menus.

 *(Lamp on/off)*

This key turns the lamp on and off. On the remote control, press and release this key once quickly to display a black screen. To turn the lamp off, press and hold this key for at least two seconds. This key does not turn off the projector.

*Arrow keys
(control panel only)*

When the projector menus are displayed, the arrow keys on the control panel move the mouse pointer from menu to menu (left and right arrow) and to items on the current menu (up and down arrow).

When the projector menus are not displayed, these keys pan or position the image in computer or video mode.

When the Adobe Acrobat Player System menus are displayed, these keys navigate those menus and dialog boxes.


SCALE/  *(Adobe Acrobat Player System)*

The SCALE key enables you to fit a projected image on the screen while your system displays at a higher resolution. Press this key to scale images larger than 1024 x 768 or to enlarge 640 x 480 images. Press this key a second time to return to the normal display.


In the Adobe Acrobat Player System mode, this button has multiple functions. See your Adobe Acrobat Player System user's guide for more information.

CLEAR

Press the CLEAR key to clear the screen to a bright white background. This is useful when you want to show a transparency during your presentation. Press and hold the CLEAR key for approximately two seconds to clear the screen to black. To display video once more, press the CLEAR key again.

 (Over-temp indicator light, control panel only)

This light illuminates if the projector becomes too hot or when one of the fans malfunctions. When this light illuminates, the lamp automatically shuts off. In the unlikely event of an over-temperature condition, see Chapter 6, *Troubleshooting*, for more information.

 (Lamp-indicator light, control panel only)

This light illuminates when the lamp needs to be replaced. It also flash for about 90 seconds after you turn off the lamp.

Switching input sources

With some presentations, you have multiple input sources connected to the projector. Input sources are VCRs, computers, laserdisc players, the optional Adobe Acrobat Player System system, or any piece of hardware that produces images you want to project through your projector. For example, you may have a VCR, the Adobe Acrobat Player System, and your computer connected.

To switch from one of source to another, just press the SOURCE key. Use the SOURCE key to scroll through the various sources currently connected to your projector.

Using the menus

Before starting your presentation, you want to fine-tune the image to get the sharpest, clearest image possible. The handful of settings you use the most are easy to access; just press the SETUP key and make your adjustments. For the settings you use less frequently, gain access to the projector menus to make your adjustments. To open the menus, press the MENU key once.

Each menu command offers a list of related settings. Each setting is described in detail later in this chapter. For now, it is important to know how to choose a menu and adjust the various settings.

To navigate through the menus, press the edges of the MouseDisk on the remote control or use the optional Cyclops wand or laser pointer. (On the projector control panel, press the up and down arrow keys.) As the cursor moves up and down the main menu, additional options appear to the right.

For most settings, you make incremental adjustments by moving a slide bar. To move a slide bar, press the edges of the MouseDisk, press the up and down arrow keys on the projector control panel, or use the optional Cyclops wand or laser pointer.

Changing the language on the menus

To change the menus to a different language, choose Language on the Preferences menu. Then choose the language you prefer. You can select from English, Spanish, French, German, and Italian. The menus change instantly to the language you select.

Saving your settings

You save your current settings when you exit each menu. You also save your settings if you hold $\text{\textcircled{O}}$ key for two seconds (to turn off the lamp).

If two or more presenters want to save their settings separately, see *Advanced features*.

Reverting to the factory defaults

If you want to revert to the original factory settings for a specific computer source, choose Image, Factory Defaults, Reset.

To reset the projector itself, press the CLEAR key, then press each of the four arrow keys on the projector control panel once. The power LED indicator blinks twice to indicate the projector has been reset.

Adjusting the image

Press the SETUP key to gain access to most of the settings you need to adjust the image.

Note: The choices on the Setup menu vary, depending on your current input source.

Adjusting the brightness

To adjust the brightness, press the SETUP key until the Brightness slider appears. Press the edges of the MouseDisk, use the optional Cyclops wand or laser pointer, or press the left and right arrow keys to move the slider.

You can also adjust the brightness by opening the projector menus and choosing Bright from the Image menu.

Adjusting the contrast

To adjust the contrast, press the SETUP key until the Contrast slider appears. Press the edges of the MouseDisk, use the optional Cyclops wand or laser pointer, or press the left and right arrow keys to move the slider.

You can also adjust the contrast by opening the projector menus and choosing Contrast from the Image menu.

Correcting shimmering or streaks

If your projected image has horizontal streaks, or seems to shimmer slightly, adjust the Sync setting. (This setting is only active when the source is your computer.)

Press the SETUP key until the Sync slider appears. Press the edges of the MouseDisk, use the optional Cyclops wand or laser pointer, or press the left and right arrow keys to move the slider. Repeat until the streaks disappear.

*Correcting
vertical banding*

You can also adjust the sync by opening the projector menus and choosing Sync from the Image menu.

If the projected image has vertical black lines or bands, adjust the Dot Clock (DotClk..) setting on the Image menu to eliminate them. (This setting is only available when the source is your computer.)

*Adjusting the color
tint and saturation*

To correct the tint, press the SETUP key and adjust the slide bar for the Tint setting (availability depends on your current input source).

If you prefer, you can also adjust the Red, Green, and Blue settings on the Image menu (while the computer or Adobe Acrobat Player System is the input source) or the Tint setting (while video or S-video is the input source).

*Adjusting image
position*

To move the on-screen image, press the SETUP key and adjust the slide bar for Hor. Pos. (Horizontal Position) or Vert. Pos. (Vertical Position). You can also find these settings on the Advanced menu.

*Switching to rear
projection mode*

To switch to rear projection mode (projecting from behind the projection screen instead of in front of the screen), choose Projection, Rear from the Projector menu.

Adjusting the audio

	<p>You can adjust the volume from the remote control, the control panel, or the menus. The Audio menu contains additional audio controls.</p>
<i>Displaying and hiding the volume indicator</i>	<p>You can display a volume indicator while you increase or decrease the volume of the internal speakers. To display the volume indicator, choose Preferences, On-Screen, Display. To suppress this visual indicator, set On-Screen to Hide.</p>
<i>Adjusting the volume</i>	<p>To adjust the volume of the internal speakers and any external speakers you connect, press the + or - VOLUME key on the remote control or control panel. You can also make adjustments through the Audio menu.</p>
<i>Muting the audio</i>	<p>To mute the audio, press the MUTE key on the remote control, or choose Mute from the Audio menu.</p> <p>To turn the sound back on, press the MUTE key a second time or choose Mute, Normal from the Audio menu.</p>
<i>Adjusting bass and treble</i>	<p>To adjust the level of bass or treble, choose the corresponding command on the Audio menu, then move the slide bar in the appropriate direction.</p>
<i>Adjusting fade and balance</i>	<p>The fade slider allows you to choose between the internal speakers in your projector and an external loudspeaker system like the Polaview loudspeaker system (part number A55). The balance slider allows you to control the level of sound from the left and right sides of your sound system.</p> <p>To adjust the fade and balance, choose the corresponding command on the Audio menu, then move the slide bar in the appropriate direction.</p>
<i>Adjusting the volume of the microphone</i>	<p>To increase or decrease the volume of the microphone, choose Mic. Volume from the Audio menu, then move the slide bar in the appropriate direction.</p>
<i>Switching between stereo and monaural mode</i>	<p>To switch between stereo and monaural mode, choose Audio mode from the Audio menu, then choose the appropriate setting.</p>

Adjusting the remote-control mouse tracking

Use this setting to adjust how fast the pointer moves. To increase or decrease the remote-control mouse tracking, choose Mouse Tracking from the Tools menu and move the slider in the appropriate direction.

Presentation features

Once you adjust the image and audio settings, you are ready to start your presentation. This section describes some of the features of the Polaview Model 305 Projector that you may want to use during your presentations.

Using the Draw tool

The Draw tool is a unique feature that lets you draw or annotate on the projected image. You can choose from three styles:

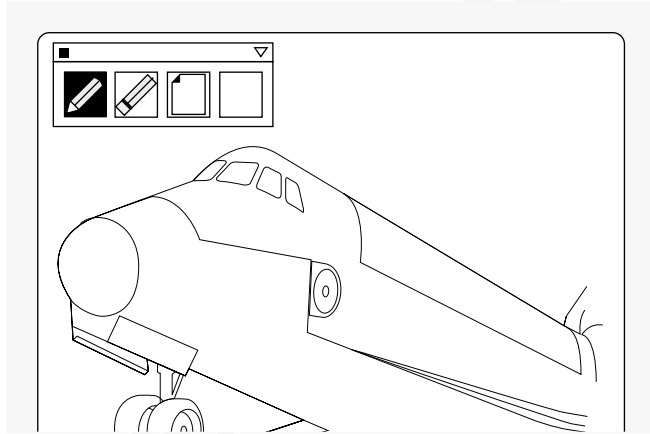
- Overlay lets you highlight or draw on top of the projected image.
- WhiteBoard clears the screen and provides a bright background for drawing.
- BlackBoard clears the screen and provides a dark background for drawing.





To use the Draw tool:

- 1 Open the menus and choose Tools.
- 2 From the Tools menu, choose Draw mode, then specify whether you want the Overlay, WhiteBoard, or BlackBoard.

- 3 From the Tools menu, choose Draw, On. The Draw toolbar appears in the upper left corner of the projected image. It has four buttons:

The Draw toolbar



<i>Button</i>	<i>Function</i>
	Click this button to select the Draw tool.
	Click this button to select the Eraser. You can erase any of your annotations.
	Click the Clear All button to erase all previous annotations.
	Click this button to select a new color. This button displays the currently selected color.

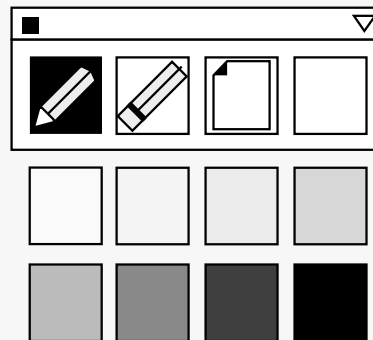
Note: If you use the optional Cyclops interactive pointer system, you can also click above the image to activate the Draw tool.

- 4 Select one of these buttons, then use the Cyclops wand, laser pointer, or the MouseDisk to draw on the projected image.

To open the color palette:

- 1 Click the Color box or the icon in the upper right corner of the projected image. Eight color-selection boxes appear.

The color-selection boxes



- 2 Click the color you want to use, then click the Color box or icon again to hide the color-selection boxes.

To draw, click and hold the MouseDisk for approximately two seconds, then release it. Use the edges of the MouseDisk to draw on the screen. When you are in Draw mode, the cursor is black. When you are in Move mode, the cursor is white.

To draw with the optional Cyclops interactive pointer system, click and hold the Cyclops wand button while you move the cursor around the screen. Release the button to end the drawing.

You can move the Draw toolbar to another spot on the projected image. Click and hold the title bar of the toolbar, drag it to a new location, and release the button. See *Programming the remote control* later in this chapter, for more information.

When you finish using the Draw tool, click the close box in the upper left corner of the Draw toolbar.

If you use Draw features frequently, consider programming either the PROG 1 or PROG 2 key, so you can open the Draw tool quickly with the press of a key.

Setting the timer (for intermission)

The Polaview Model 305 Projector includes a break timer, for lunch breaks, intermissions, question-and-answer sessions, or any other timed pause. Your audience can see a countdown displayed of the number of minutes remaining.

To use the timer, first set the length of the break. Choose Tools, Break Timer Value, then indicate the length of the break, in minutes. You can set a break for up to one hour.

After you indicate the length of the break, choose Tools, Break Timer, On to start the timer. To turn the Break Timer off, press the Menu key on the remote or control panel.

Projecting transparencies

The CLEAR key clears the projected image, allowing you to project transparencies in the middle of your presentation.

You can clear to either a white or black background. Press the CLEAR key once quickly to clear to a white background. Press and hold it for at least two seconds to clear to a black background. Press CLEAR again once quickly, to return the projected image.

Note: The panel area on the projector is 6 x 8 in., slightly smaller than the panel area of most overhead projectors (typically 8.5 x 11 in.). You must adjust the focus to display transparencies.

Using the SCALE key to zoom, reduce, and pan images

The SCALE key lets you fit larger images on one screen. Use this key to compress 1280 x 1024 or 1152 x 900 images to fit the 1024 x 768 screen resolution, or to enlarge a 640 x 480 image to fit the screen. Press the SCALE key a second time to return the image to its original size.

To pan an image that does not fit on the screen (images larger than 1024 x 768), press the arrow keys on the projector control panel.

Note: You can set the top and left pan limits by adjusting the Advanced, Horiz. Pos. (horizontal), Vert. Pos. (vertical) settings in the projector menus.

Advanced features

The Polaview Model 305 Projector offers several advanced features to enhance your presentations. For example, you can program two keys on the remote control, assigning them specific functions. You can also save setting profiles, allowing two presenters that use the same projector to save customized settings.

Programming the remote control

You can program two keys on the remote control, PROG 1 and PROG 2, to execute commonly-used functions or to gain access to a setting that you frequently need to adjust.

To program the PROG 1 and PROG 2 keys, open the projector menus and choose Preferences. Choose the key you want to program (PROG 1 or PROG 2) and assign the function or setting you want to use.

Note: If you want to assign one of the Polaroid F/X effects to one of the programmable keys, you must select Host in the Preferences menu.

Saving a user profile

The Polaview Model 305 Projector permits two presenters to save their settings and recall them each time they give presentations.

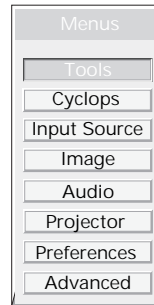
To save current video settings as a profile, open the projector menus and choose Advanced, User. Then select User A or User B, and adjust each setting you want to save. By exiting the projector menus, you save your settings as a profile.

Note: You cannot save sense-line and front/rear settings as part of the profile. Sense-line settings are automatically set when you turn on the monitor that is connected to the projector.

When you want to use your profile, open the projector menus and choose Advanced, User then select your profile (User A or User B). The settings take effect immediately.

Menus and keys

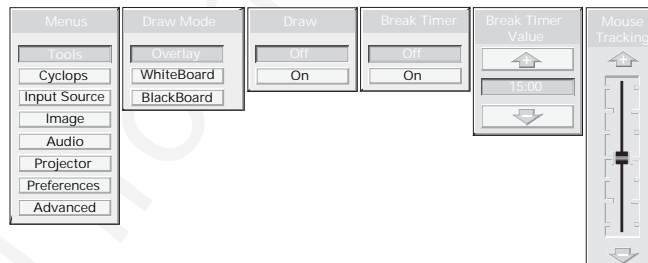
The Main menu



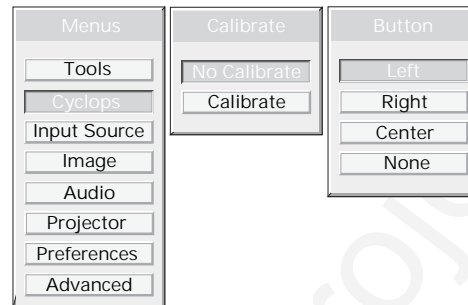
<i>Menu</i>	<i>What it contains</i>
<i>Tools</i>	Settings for the Draw tool, Break Timer, and mouse tracking.
<i>Cyclops</i>	Commands for calibrating the Cyclops interactive pointer system and button selection.
<i>Input Source</i>	Settings for computer video, S-video and Adobe Acrobat Player System input sources, and a display-only screen of current VSync, HSync, Lines, and Sense measurements.
<i>Image</i>	Settings for brightness, sync, tint, saturation, contrast, color, dot clock, and interlace assignment.
<i>Audio</i>	Settings for volume, mute, balance, bass, treble, fade, microphone volume, and mono/stereo modes.
<i>Projector</i>	Settings for front/rear projection and the lamp-hours counter.

<i>Menu</i>	<i>What it contains</i>
<i>Preferences</i>	Settings for colors, language, on-screen indicators, and Program key functionality. Also contains the settings for projecting in reverse video for DOS screens.
<i>Advanced</i>	Settings for custom profiles, horizontal and vertical image position, VCO gain, and sense lines.

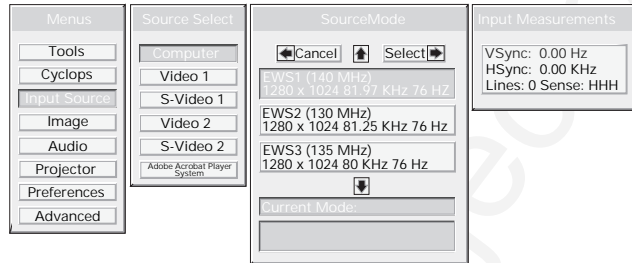
The Tools menu



<i>Option</i>	<i>Function</i>
<i>Draw Mode</i>	Sets the background for Draw: <ul style="list-style-type: none"> • Overlay (transparent) • WhiteBoard (white background) • BlackBoard (black background)
<i>Draw</i>	Turns the Draw tool on and off.
<i>Break Timer</i>	Starts the timer or turns it off.
<i>Break Timer Value</i>	Sets the break timer interval, from 1-60 minutes.
<i>Mouse Tracking</i>	Sets the speed of the mouse.

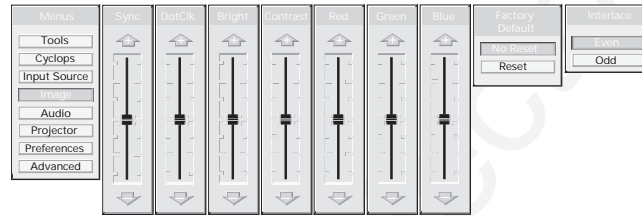
The Cyclops menu

<i>Option</i>	<i>Function</i>
<i>Calibrate</i>	Starts the Cyclops calibration procedure.
<i>Button</i>	Sets the Cyclops wand or laser pointer to emulate a left, right, or center mouse button (or none).

The Input Source menu

<i>Option</i>	<i>Function</i>
<i>Source Select</i>	Select the input source: <ul style="list-style-type: none"> • Computer • Video 1 • S-Video 1 • Video 2 • S-Video 2 • Adobe Acrobat Player System (optional)
<i>Source Mode</i>	Select from a list of video standards: <ul style="list-style-type: none"> • NTSC • PAL • SECAM • Computer compatibility
<i>Input Measurements</i>	View projector readings for the selected input source: <ul style="list-style-type: none"> • VSync (vertical sync frequency) • HSync (horizontal sync frequency) • Lines (number of h-sync pulses per v-sync) • Sense (monitor input sense line levels)

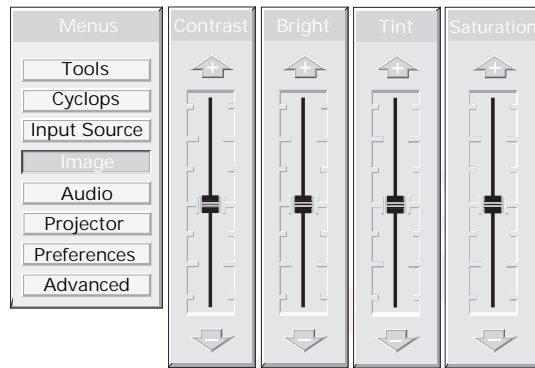
*The Image menu
(computer or
Adobe Acrobat
Player System
input source)*



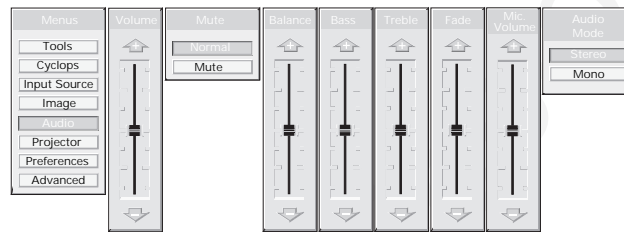
<i>Option</i>	<i>Function</i>
<i>Sync*</i>	Adjusts the sync setting.
<i>DotClk..*</i>	Adjusts the dot clock setting.
<i>Bright</i>	Adjusts the brightness of the image.
<i>Contrast</i>	Adjusts the RGB bias levels.
<i>Red</i>	Adjusts the red level.
<i>Green</i>	Adjusts the green level.
<i>Blue</i>	Adjusts the blue level.
<i>Factory Default</i>	Resets the source mode to the initial factory settings.
<i>Interlace</i>	Sets the interlace even/odd frame assignment: <ul style="list-style-type: none"> • Even sets frame 0 as even. • Odd sets frame 0 as odd.

*Not available in Adobe Acrobat Player System mode.

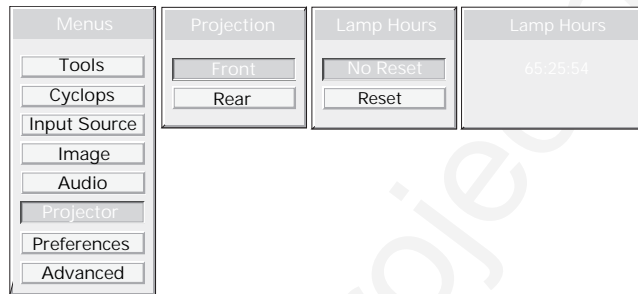
*The Image menu
(video or S-video
input source)*



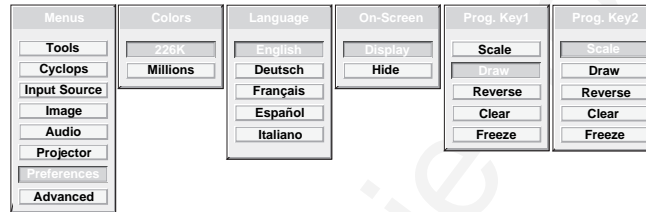
<i>Option</i>	<i>Function</i>
<i>Contrast</i>	Adjusts the video contrast.
<i>Bright</i>	Adjusts the video brightness.
<i>Tint</i>	Adjusts the video tint.
<i>Saturation</i>	Adjusts the video color saturation.

The Audio menu

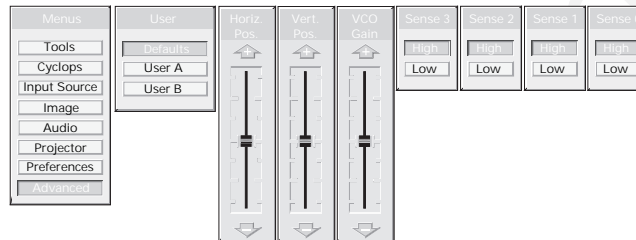
<i>Option</i>	<i>Function</i>
<i>Volume</i>	Adjusts the audio volume.
<i>Mute</i>	Mutes the audio or turns it back on.
<i>Balance</i>	Adjusts the left/right audio balance.
<i>Bass</i>	Adjusts the bass.
<i>Treble</i>	Adjusts the treble.
<i>Fade</i>	Adjusts front/rear audio balance.
<i>Mic. Volume</i>	Adjusts the volume of the microphone.
<i>Audio Mode</i>	Switches between Stereo and Mono modes.

The Projector menu

<i>Option</i>	<i>Function</i>
<i>Projection</i>	Switches between front and rear projection.
<i>Lamp Hours</i>	Resets the lamp hours counter. Use this option after you change the lamp.
<i>Lamp Hours</i>	Displays the number of hours elapsed on the lamp-hours counter.

The Preferences menu

<i>Option</i>	<i>Function</i>
<i>Colors</i>	Sets the number of colors to use.
<i>Language</i>	Sets the default language for the menus.
<i>On-Screen</i>	Displays or hides the slide bars for sync, volume, contrast, tint, horizontal position, and vertical position.
<i>Prog Key1</i>	<p>Sets an operation for the PROG 1 key on the remote control. Choose from the following options (described elsewhere in this guide):</p> <ul style="list-style-type: none"> • SCALE • Draw • Reverse • CLEAR • Freeze • Colors • WhiteBoard • BlackBoard • Overlay • Button right, left, center • Title screen
<i>Prog Key2</i>	Sets an operation for the PROG 2 key on the remote control (same choices as PROG 1 key).

The Advanced menu

<i>Option</i>	<i>Function</i>
<i>User</i>	Sets a user profile of projector settings: <ul style="list-style-type: none"> • Defaults • User A (user defined) • User B (user defined)
<i>Hor. (Horizontal) Pos (Position)</i>	Adjusts the horizontal position of the image on the screen.
<i>Vert. (Vertical) Pos (Position)</i>	Adjust the vertical position of the image on the screen.
<i>VCO gain</i>	Sets the VCO gain parameter of the PLL.
<i>Sense 3, 2, 1, and 0</i>	Set the level of the four sense pins: <ul style="list-style-type: none"> • High does not drive this pin • Low drives the pin low See <i>Appendix C, Sense lines</i> , for more information

4 Polaroid F/X

Your Polaview Model 305 Projector comes with Polaroid F/X software effects that you can use to make your presentations more interesting and effective. For example, you can use the Spotlight to call attention to specific areas on the image, use the Zoom or Magnify effects to focus on important information in the image, or use See-it/Show-it to preview images on your computer without distracting your audience.

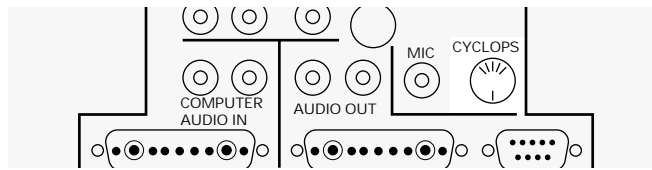
You can use Polaroid F/X with either the remote control that comes with your projector or the optional Cyclops interactive pointer system, or both at the same time.

Note: You can only run Polaroid F/X on Windows with IBM PC systems and compatibles. It is not available for Macintosh or UNIX systems.

Note: You cannot use Polaroid F/X with the Adobe Acrobat Player System.

To use Polaroid F/X, follow these steps:

- 1 Use the serial cable appropriate for your system (PCs: C936-6 or Macs: C470-6) to connect the serial port on your computer to the CYCLOPS port on the projector.



- 2 Install the Polaroid F/X software.
- 3 Start Polaroid F/X, customize the effects, and assign them to specific keys on the keyboard or to the remote-control keys.
- 4 Minimize the Polaroid F/X main screen. To start an effect during your presentation, simply press the assigned key

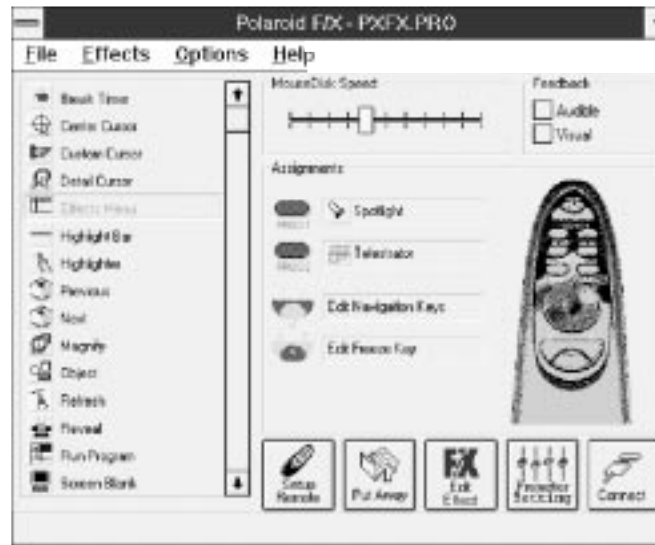
Getting started

- Installing Polaroid F/X* Follow these steps to install the Polaroid F/X software:
- 1 Insert the disk labeled Polaroid F/X into your computer floppy drive.
 - 2 Complete this step as it applies to your specific computer system:
 - In Windows 95, choose Start, Run, then type a:\setup.exe (or the drive letter for your floppy drive).
 - In Windows 3.x, choose File, Run, then type a:\setup.exe (or the drive letter for your floppy drive).
 - 3 Follow the on-screen instructions.

- Starting Polaroid F/X* After installing the software:
- In Windows 3.x or Windows 95, double-click on the Polaroid F/X icon to start the program.
- The first time you start the software, Polaroid F/X displays a Projector Setup Tutorial (Wizard). Follow the instructions that appear on your screen. When you finish configuring your system, restart Windows.

The main screen of the F/X program appears:

Polaroid F/X special effects



On the left side of this window is a list of the special effects. The Assignments area in the middle of the window offers options that let you customize your remote control and software.

Note: Opening a menu or using the Draw tool suspends operation of Polaroid F/X.

Using Polaroid F/X

The Assignments area The Assignments area displays the custom remote-control keys and their current assignments. To modify the custom remote-control keys:

- 1 Highlight the effect you want to assign.
- 2 Double-click on the box next to the customer remote-control key in the Assignments area.

The Assignments area also contains the five following buttons:

<i>Button</i>	<i>Function</i>
<i>Setup Remote</i>	Lets you switch the assignments display between the remote control (included) and the optional Cyclops wand or laser pointer.
<i>Put Away</i>	Minimizes the F/X screen.
<i>Edit Effect</i>	Allows you to assign a shortcut key to the effect. You can also use this option to customize an effect.
<i>Projector Setting</i>	Allows you to adjust image, audio, and general settings on your projector.
<i>Connect</i>	Allows you to choose the COM port to which you plan to connect your projector.

In addition, the Assignments area allows you to control the MouseDisk speed on your remote control, and gives you check-boxes to turn on audible and visual feedback.

Customizing effects

Options are available to let you tailor most effects to meet specific presentation requirements. For example, you can customize the Spotlight effect to specify the shape and size of the spotlight. You can also change the name of each effect (for example, you can change the name from “Spotlight” to “Headlight”).

You can assign each effect to a key on the keyboard or to a remote-control key. Use this key to start the effect.

To customize an effect:

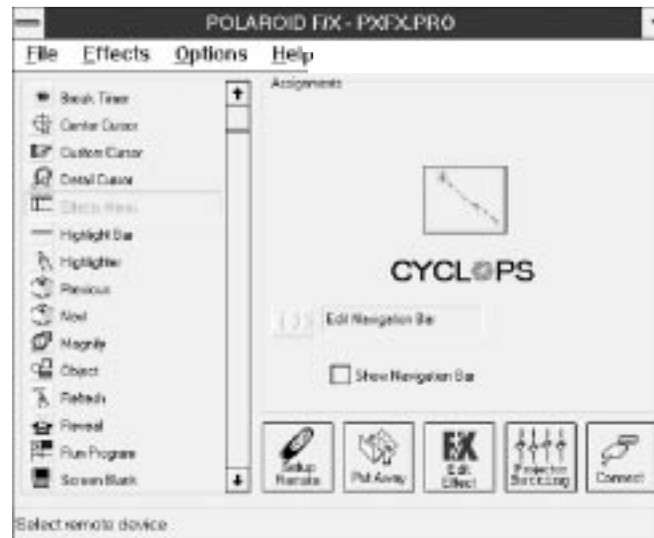
- 1 Right-click on the name of the effect and choose Edit from the menu. You can also select the desired effect and click on the Edit Effect button to make your changes.
- 2 Adjust the settings in the appropriate dialog box and click OK.
- 3 When you finish customizing the effect, choose File and Save to save your settings.
- 4 Click on the control box in the upper left corner to minimize the Polaroid F/X main screen.

Note: To gain access to effects assigned to the PROG 1 and PROG 2 keys, assign the settings for those keys to Host (in the Preferences menu of the projector).

*Using the Cyclops
interactive pointer
system*

*The Cyclops
interactive pointer
screen*

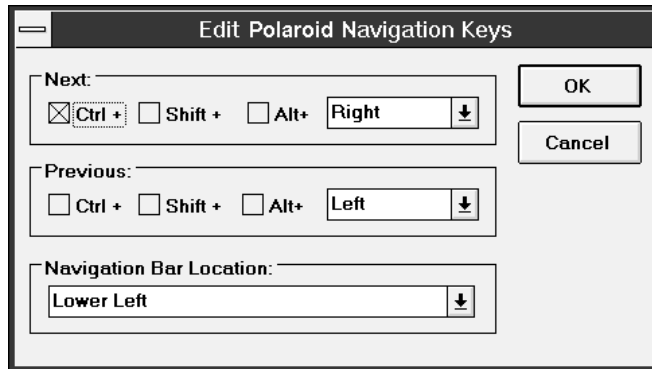
You can use the Cyclops interactive pointer system with Polaroid F/X. To set up the software, click on Setup Remote in the Assignments area of the main screen. Choose Cyclops Wand or Laser Pointer. The following screen appears:



Click on the Show Navigation Bar check-box to enable the navigation-bar feature. The navigation bar offers you a quick way to scroll through your slide show with the Cyclops wand or laser pointer.

Click on the Edit Navigation Bar button. The following screen appears:

*Edit Polaroid
Navigation Keys
screen*



The screenshot shows a dialog box titled "Edit Polaroid Navigation Keys". It contains three main sections for configuration:

- Next:** A section with three checkboxes: Ctrl +, Shift +, and Alt+. To the right is a dropdown menu currently showing "Right" and a downward arrow.
- Previous:** A section with three checkboxes: Ctrl +, Shift +, and Alt+. To the right is a dropdown menu currently showing "Left" and a downward arrow.
- Navigation Bar Location:** A section with a dropdown menu currently showing "Lower Left" and a downward arrow.

On the right side of the dialog box, there are two buttons: "OK" and "Cancel".

Use this screen to assign different functions to the navigation bar. To assign a new function to the navigation bar, click on the Next or Previous areas and select a function, using the list boxes to the right.

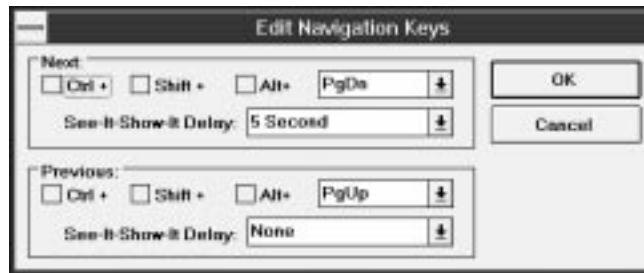
You can also use this screen to determine where the navigation bar appears on your display. The default is Lower Left.

See-It/Show-It

See-It/Show-It is a feature of Polaroid F/X that lets you freeze your projected image while you preview the next image on your computer monitor.

To use See-It/Show-It:

- 1 Click Edit Navigation Keys in the Assignments area of the Polaroid F/X main screen. The following screen appears:

Edit Navigation Keys screen

- 2 Select a countdown time for the Forward or Reverse (Next: and Previous:) keys, or both. When you select a countdown time, you automatically disable See-It/Show-It.
- 3 To disable See-It/Show-It, select None from the Forward and Reverse key list boxes.

To switch to See-It/Show-It, press the Forward or Reverse key once quickly. To end See-It/Show-It, press the Forward or Reverse key a second time. The counter disappears and the next image appears immediately.

Freeze

The Freeze option freezes the image on your projector so you can use your remote control to control your computer. This feature lets you work on your computer without distracting your audience's attention away from your presentation. To edit the Freeze key settings, click the Edit Freeze Key option in the Assignments area. The following screen appears:

Edit Freeze Key screen

To use Freeze:

- 1 Press Pause on your remote control.
- 2 Use any of the remote control keys to control your computer.
- 3 Press Pause again when you are ready to return to your presentation.

Once you freeze your screen, all keys on your remote control are available to control your computer. You can edit your current presentation, display slides from another presentation, or open another application—all without distracting your audience.

Note: If you adjust the projector settings from your computer while you are in Freeze mode, your changes do not display until you exit Freeze mode.

Starting an effect

Once you customize an effect, you are ready to use it.

- 1 Before the presentation, start Polaroid F/X, then minimize the main screen.
- 2 During your presentation, press the key or button you assigned to each effect to start the desired effect.

The Presentation effects

The following are the Presentation effects. To end any of the effects, press the Esc key on your keyboard or the key on the remote control that you assigned for that effect.

Break Timer is a digital timer that counts down from a duration you set. Once you start the timer, click the MouseDisk once to lengthen the duration.

You can also use Break Timer to play a sound or select a background color or picture. If your computer is equipped with a sound card, you can select a WAV file and play it continuously while the timer is running, or use it as an alarm that sounds when the timer expires.

Center Cursor centers the mouse pointer on the screen. This helps prevent “losing” the cursor.

Custom Cursor changes the appearance of the mouse pointer to one of 30 images. Only the standard arrow pointer changes. The other standard icons (such as the hour-glass) are not affected.

Detail Cursor magnifies the area around the pointer in a small rectangle.

Effects Menu displays a list of effects. Use this feature to start effects not assigned to a button or key. To start an effect, double-click its name. Press Esc on the keyboard to close the list without starting an effect.

Highlight Bar draws a horizontal bar across the screen. Move the bar up or down to draw attention to different areas on the screen. You can also change the color and width of the bar.

Highlighter works like a highlighter pen on your computer screen, by overlaying a semi-transparent color on your screen. You can change the color and width of the "pen."

Magnify enlarges a rectangular area around the mouse pointer. You can choose from three levels of magnification (200 percent, 400 percent, or 800 percent).

Note: To enlarge the entire screen, use the Zoom effect.

Next/Previous advances to the next or previous slide.

Object allows you to draw rectangles, squares, ellipses, and circles. You can change the color and width of each shape.

Refresh repaints the projected image. Use this feature to erase "remnants" of Stamp and Telestrator effects.

Reveal hides the image, then lets you incrementally reveal more and more of the image. You can specify a color for the hidden area, a horizontal or vertical effect, and the size of the Reveal window.

Run Program starts a program that you choose.

Screen Blank blanks the screen to a color that you choose.

Sound plays a WAV file when you press a button. You can play the sound repeatedly or just once.

Note: You must have a sound card to use this effect.

Spotlight dims all of the image except for the area around the mouse pointer. You specify the shape and size of the spotlight (circular, square, or bar). Once you start Spotlight, press the MouseDisk to change its size. Another setting makes the Spotlight visible against a black background.

Stamp allows you to choose from 15 bitmaps to “stamp,” or paste, over the projected image. You can choose to play a sound each time you stamp.

Switch to F/X switches to the Polaroid F/X main screen.

Telestrator turns the mouse into a freehand drawing tool. You can customize the color and width of the line and “constrain” the drawing to only horizontal or vertical lines.

Ticker Tape displays a scrolling text message across the image. Just specify the text of what you want to appear, the typeface, and the point size. You can play a sound file each time the message runs across the image, and customize the background color and picture.

Title Screen projects an image from a BMP file. You can use this effect to show a predefined image with transition effects during a presentation. You can also play an associated sound. Just specify which file to play and indicate whether to play it when the image appears or continuously.

Zoom enlarges the entire image to 200 percent, 400 percent, or 800 percent of its original size. You choose whether to show the mouse pointer during a Zoom and indicate the level of magnification. If you check the Show Cursor During Zoom check box, click on the left mouse button to cancel the zoom. If you and the right mouse button to perform a mouse click .

Note: Most effects have an option that lets you rename the command itself.

*Menu commands**File menu*

The File menu offers the following commands for working with profiles of effects.

<i>Menu item</i>	<i>Function</i>
<i>Reset to defaults</i>	Resets the F/X options to the factory defaults.
<i>Open</i>	Opens a previously-saved profile of settings.
<i>Save</i>	Saves recent changes to the current profile (prompts for a name if the file has not been named).
<i>Save As</i>	Saves the profile settings under a name and location you specify.
<i>Exit</i>	Quits the F/X program.

Effects menu

The Effects menu lets you change the items in the effects list.

<i>Menu item</i>	<i>Function</i>
<i>Edit</i>	Allows you to edit F/X options.
<i>Test</i>	Tests the current effect.
<i>Add</i>	Allows you to add an effect.
<i>Duplicate</i>	Allows you to copy an effect.
<i>Delete</i>	Allows you to delete an effect.

Options menu

The Options menu offers commands that allow you to set up assignments on the remote control, wand, or laser pointer; change the look and feel of the cursor; and change the COM port settings.

<i>Menu item</i>	<i>Function</i>
<i>Show Remote</i>	Allows you to display the assignments area for the remote control or the optional Cyclops wand or laser pointer.
<i>Cursor Options</i>	Changes the look and feel of the cursor. Also includes an option that lets you apply one of the Polaroid F/X custom cursor options to Windows.
<i>Connect</i>	Allows you to edit the COM port settings for your computer.

5 Maintenance

Periodic maintenance keeps your projector in top working condition.

Cleaning the lens and mirror

To clean the projection lens and mirror:

- 1 Take a piece of lens tissue and form it into a loose swab. Wet it with lens cleaning fluid or denatured alcohol, and gently wipe it over the surface of the lens or mirror.
- 2 Take another clean piece of lens tissue and repeat the process, wiping it over the lens or mirror in the opposite direction.

Repeat this process until you can no longer detect smudges or particles on the lens. *Do not look directly into the lens when the lamp is on!*

Caution: Do not use acetone to clean the lens; it may remove paint from areas around the lens or mirror and leave a residue on the glass.

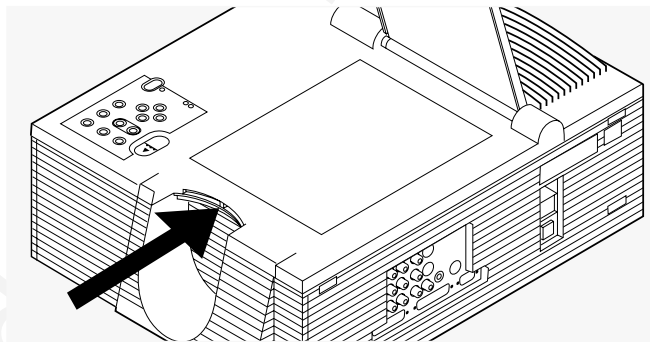
Cleaning the projection window

The projection window is the surface through which the LCD image is projected. To ensure that the projector maintains a clear, sharp image, you should clean the projection window from time to time.

To clean the surface of the projection window:

- 1 Use a can of compressed air to blow dust off the LCD panel inside the projector. Point the can into the opening in the top center of the right side of the projector (see the illustration below).

*Blowing air into
the projector*



- 2 Take a piece of lens tissue and form it into a loose swab. Wet it with a solution of approximately ten percent Isopropyl alcohol and water, and gently wipe it over the surface of the projection window.
- 3 Take another clean piece of lens tissue and repeat the process, wiping it over the projection window in the opposite direction.
- 4 Repeat if necessary.

Caution: Do not use lens cleaning fluid to clean the projection window. It may damage the surface.

Replacing the lamp

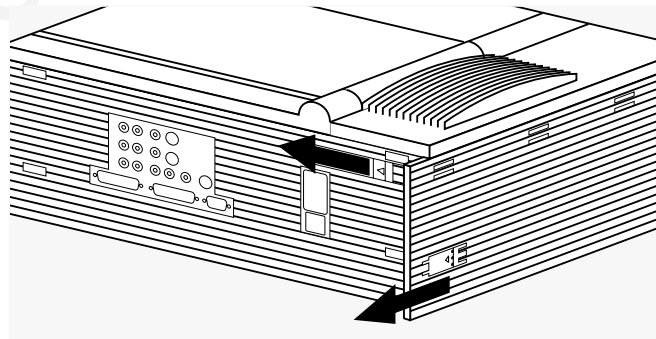
For best performance, you should replace the lamp after 700 hours of operation.

Note: Do not touch the lamp with your bare hands. Use gloves or a soft cloth and handle it using the metal ends only.

Removing the old lamp

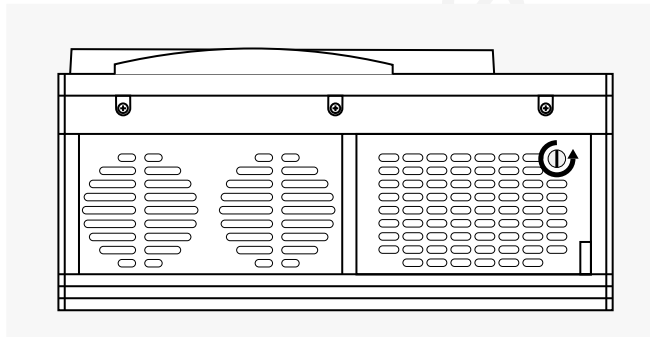
- 1 Leave the projector running with the lamp off for at least five minutes before you change the lamp. This allows the fan to cool the lamp chamber.
- 2 After the lamp has cooled sufficiently, turn off the projector and unplug the power cord. (As a safety feature, you cannot open the lamp chamber until you disconnect the power cord.)
- 3 Slide the AC lock button in the direction of the arrow. You cannot move this button until you disconnect the power cord from the projector.
- 4 As you slide open the AC lock button, remove the left side cover by sliding it about 1/4 of an inch to the left. When the cover releases, pull it straight off.

Sliding the rear panel off of the projector



- 5 Locate the door to the lamp chamber on the right side of the left panel. It has one slotted, captive screw. With a screwdriver or coin, loosen the screw, then open the lamp-chamber door.

*Opening the
lamp-chamber door*



- 6 Locate the thumbscrew on the right side of the lamp and unscrew it. When the thumbscrew is loose enough, gently pull the lamp from the right socket. Then slide it out from the left.

*Installing
the new lamp*

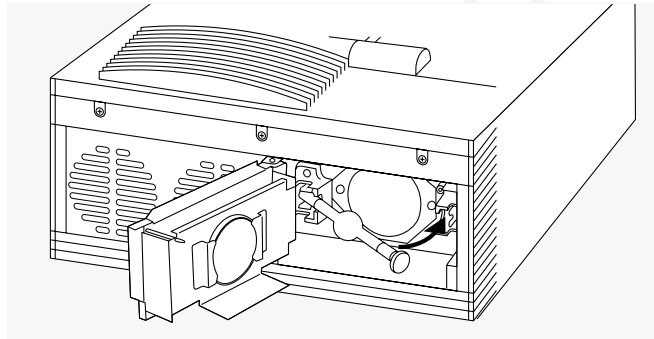
Caution: Make sure to wear gloves or use a soft cloth to handle the new lamp. Never touch the lamp with your bare hands, as this can significantly shorten the life of the lamp. If you do touch a portion of the lamp with your bare hands, wipe it off with a soft cloth moistened with denatured alcohol.

To install a new lamp:

- 1 Remove the lamp from the package.
- 2 The lamp has thumbscrews on both ends. Remove the thumbscrew from the end of the lamp that has no printing. Discard the thumbscrew.

- 3 Slide the end of the lamp without the thumbscrew into the slot on the left side of the lamp chamber (see below).

Sliding the lamp into place



- 4 Slide the end of the lamp with the thumbscrew into place, with the glass pinch-off on the lamp pointing up, and tighten the thumbscrew. Make sure to tighten the thumbscrew as snugly as possible. Pull the lamp to make sure that it is securely seated.
- 5 Close the lamp-chamber door and tighten the captive screw.

Cleaning/changing air filters

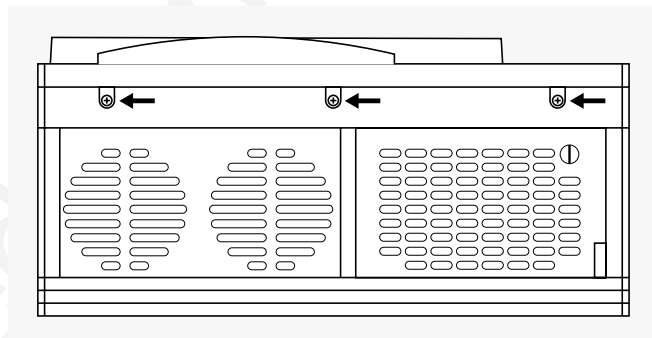
To make sure that your projector operates safely and efficiently, you should change or replace the filters after every 250 hours of operation. It is best to change or clean all of the filters at one time. To clean the filters, wash them in a solution of warm, soapy water.

Your Polaview Model 305 Projector has three air filters.

Access to the top filter To gain access to the top filter:

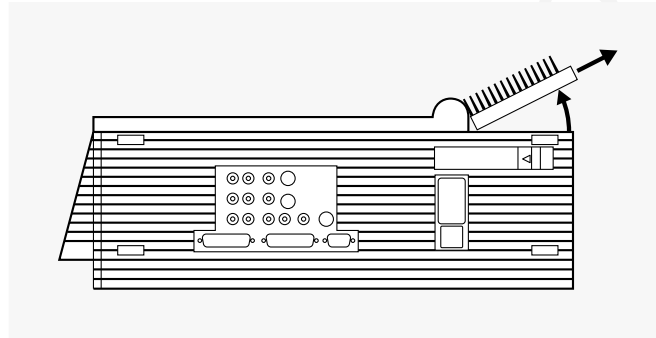
- 1 Remove the left side door, as described in the previous section.
- 2 Unscrew the three screws located at the top of the left side area (see the illustration below).

The three left-top retaining screws



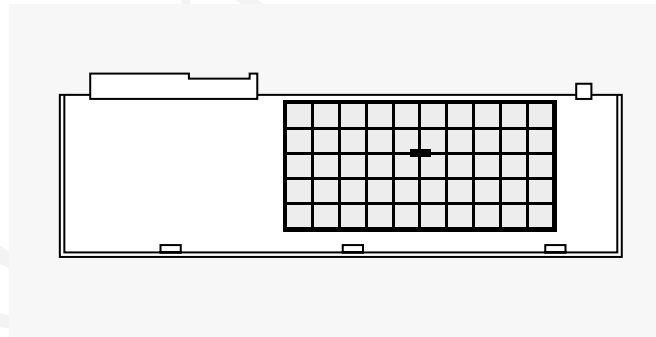
- 3 Unsnap the top left cover by lifting it up and pulling it out (see the following illustration).

Lifting the top left cover out



The filter is located on the inside of the top left cover (see the illustration below).

The top cover filter



- 4 There is a plastic grill covering the filter. Pull on the handle in the center of the grill to access the filter.

To replace the top cover, reverse steps 1 through 3, taking care to align the cover before snapping it into place.

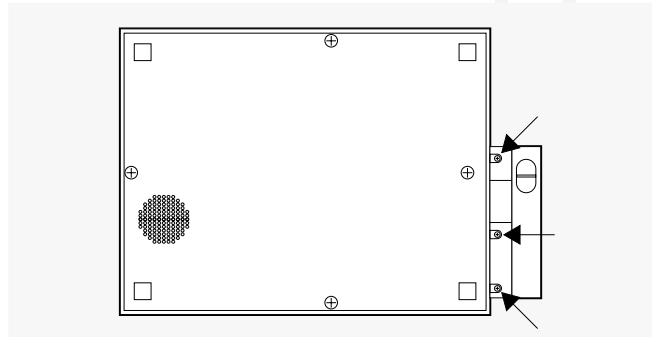
Access to the right filters

Before you can gain access to the right filters, you must remove the left side door and top left cover. See steps 1 through 3 in the previous section for more information.

To gain access to the right filters:

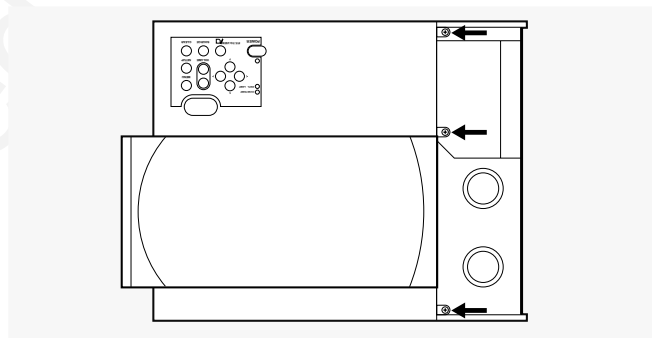
- 1 With the projection arm down and locked, turn the projector on its side, with the handle facing up.

- 2 Locate the screws on the bottom side of the right panel. Loosen the three screws (see the illustration below).



- 3 Turn the projector back to its base and raise the projection arm.
- 4 Locate the screws holding the main top cover in place (see the illustration below). Remove the three screws and lift up on the screw mountings until the cover is loose. Gently pull the cover up and to the left of the projector until it releases.

The three top-cover screws

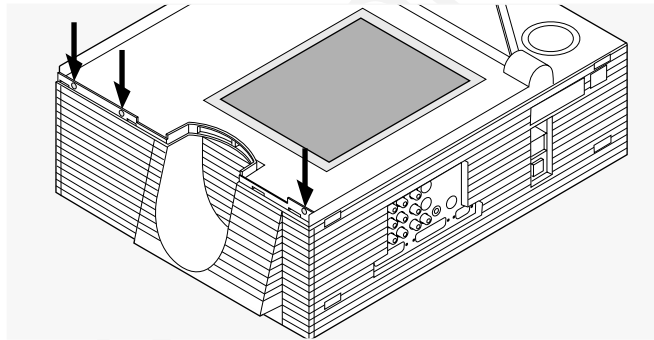


- 5 While still holding the cover, remove the ribbon cable on the underside of the control panel. Place the cover on a soft cloth.

Caution: Never touch the LCD panel located underneath the top-cover projection lens. Use caution when changing the filters.

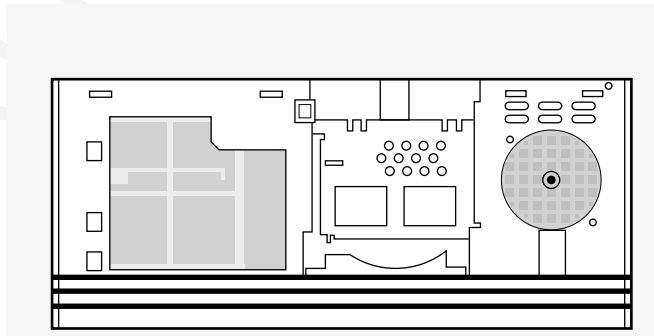
- 6 Locate the three screws at the top of the right side panel (see the illustration below). Remove the screws and unsnap the panel, from the rear first.

The screws at the top of the right side panel



- 7 The filters are now exposed (see the illustration below).

The two right side filters



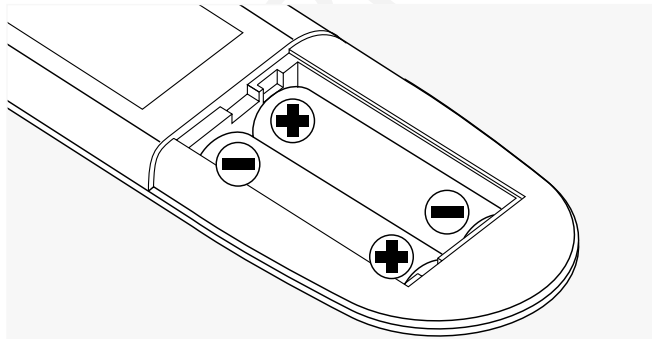
Remove the retaining screw to gain access to the filters. Pull the front filter out

To replace the covers, reverse steps 1 through 5, taking care to align the top and side covers. Make sure to reattach the ribbon cable before you replace the top cover. The ribbon

cable is keyed, so it only reattaches on one side. Also, make sure that the arm release lever is in the release position (fully to the left) before you replace the top cover.

Replacing the batteries in the remote control

- 1 Locate the battery compartment on the end of the remote control. Press down while you slide the cover off of the compartment.



- 2 Remove the old batteries and replace them with new ones. Make sure you align the batteries in the proper direction.
- 3 Slide the cover back onto the battery compartment, snapping it into place.

Temperature extremes

Do not store your projector in temperatures in excess of 140°F (50°C). The maximum operating temperature is 80°F (27°C).

If you happen to expose the projector to extremely cold temperatures, you should let it warm up to room temperature before you begin your presentation. In general, the recommended maximum operating temperature drops 1°C for every 1000 feet (305 meters) above sea level.

6 Troubleshooting

This chapter provides answers to some commonly asked questions about the Polaview Model 305 Projector.

Please refer to the troubleshooting chart before calling your dealer for assistance.

Troubleshooting guide

<i>Symptom</i>	<i>Cause</i>	<i>Solution</i>
No computer image projected	Loose cable	Check and secure cable connections
	No power to computer	Turn on computer
	Incompatible video system	If possible, check computer with another monitor
	No power to projector	Power switch; AC cord plugged in (both ends); outlet on
	External video port not activated	Activate the external video port on your notebook computer. Cycle the power on your notebook computer with your projector connected and turned on.

<i>Symptom</i>	<i>Cause</i>	<i>Solution</i>
No image on computer screen	Loose cable	Connect cable
	Wrong video cable	Use correct video cable
	BNC cable not connected correctly	Make sure cable is correctly attached at both ends
Monochrome on color monitor	Computer was turned on before projector	Turn projector on Restart computer
Streaks on monitor	Video cable plugged into computer is upside-down	Check and reset cable connections
Faint screen	Low contrast	Adjust CONTRAST
Jittery, fuzzy letters	Out of sync	Adjust SYNC control
Image off center	Position controls (arrow keys) or the Hpos/Vpos controls in the menu	Adjust position controls; if image does not center, check for compatibility problems
Cannot get entire image on screen; scrambled image	The default resolution for all images larger than 1024 x 768 is 1024 x 768	Press the SCALE key to see the entire image, or use the arrow keys to pan the image
	Compatibility problems	Make sure your system is compatible with the standards listed in <i>Appendix A, Specifications</i>
Black border appears around 800 x 600 images	The full 800 x 600 image is displayed in 1024 x 768 mode. The black area is not used.	The projector is functioning normally. Disregard.
Image appears to have lines "swapped"	Incorrect interlace signal selected	Select the opposite interlace signal (even/odd)

<i>Symptom</i>	<i>Cause</i>	<i>Solution</i>
One or more colors "shimmer" on-screen	SYNC, BRIGHTNESS, or CONTRAST is out of adjustment	Adjust SYNC, BRIGHTNESS or CONTRAST settings
No video image projected	Video source(s)	Check video source(s) (composite or S-video) for power and proper operation
	Loose/improper cabling	Secure cabling between video source(s) and panel
Colors weak in video (NTSC/PAL/SECAM) mode	Video source(s)	Check for faulty video source, bad connection, or frayed cable
	CONTRAST setting may be too low	Adjust CONTRAST level
Getting excess white or washout in video mode	Video signal level too high	Adjust CONTRAST level
Black and white image from color SECAM input	Ambiguity in video signal	Activate Input Source menu and select SECAM as the video source mode
Remote control does not work	Batteries upside-down or old	Check battery placement or replace with new batteries
Tiny dim or colored points of light	This is a normal LCD LCD effect	None
Over-temp light is illuminated	Airflow is blocked	Ensure that the shorter sides are unobstructed. Cycle the power and try again
	Filters are clogged	Clean or replace filters
	Fan is malfunctioning	Projector needs service

<i>Symptom</i>	<i>Cause</i>	<i>Solution</i>
Rainbow image	Lamp pinch-off not pointing up	Adjust lamp position to point pinch-off straight up Ensure that thumbscrew is very tight
Discolored image	Lamp is not seated properly	Adjust lamp to ensure it is firmly seated in the clamps Ensure that thumbscrew is very tight

Polaview Model 305 Projector parameter adjustments

If the auto-selected computer source parameters are incorrect for your application, or the computer system you are using is not one of the many stored in the Model 305 (refer to the *Compatibility list* later in this chapter), it may be possible to select a closer source mode.

- 1 Open the Polaview Model 305 Projector Input Source Menu and record the H Sync and V Sync values in the Input Measurements window for the incoming video signal.

Input Measurements window

<p>Input Measurements V Sync: 72.00 Hz H Sync: 78.00 KHz Lines: 1057 Sense: HLHL</p>
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- 2 If possible, consult your computer technical documentation for your system Video Data Rate (dot Clock) specifications.
- 3 After you determine your video specifications, find the closest computer parameter entry in the compatibility list. Next, open the Polaview Model 305 Projector Source mode menu and scroll up or down through selections to find the closest source mode. Use the right arrow key to load the mode of choice.

Further parameter adjustments may be required to correct image problems for the best input source selection. A basic explanation of the adjustment functions follows.

Note: Parameter modifications are saved each time you close the menus or turn off the power.

Adjusting contrast and brightness

Adjust the contrast so that the colors (particularly the gray shades) are right for the projected image. Buttons should look three-dimensional, as they do on your monitor. Adjust the Brightness to make the image clear.

Adjusting sync

Adjust the SYNC control to shift the dot clock phase to match the phase of incoming video signal. An incorrect sync setting causes "sparkles" and horizontal streaks randomly across the screen.

Adjusting the dot clock

The Dot Clock control adjusts the projector dot-clock frequency to match the incoming video signal frequency. An incorrect dot clock adjustment causes faint, uniformly-spaced vertical lines of video distortion/shading.

Adjust the Dot Clock control slowly in the direction that causes the lines/bands of shading to get wider and fewer in number. There are no bands of distortion/shading when correctly adjusted.

Adjusting the horizontal position

The Hor. Pos. (horizontal position) control adjusts the amount of blanking before each horizontal line. Incorrect horizontal position adjustment can cause either side of the projected image to extend beyond the viewing area, end-of-line wrap around, or a half-normal display size.

Adjusting the vertical position

The Vert. Pos. (vertical position) control adjusts the amount of blanking before each video frame. Incorrect vertical position adjustment can cause the projected image to extend above or below the viewing area, video-frame overlap (lines from the bottom of one frame superimposed on the top of the next frame, or a horizontal or vertical double image).

Adjusting the VCO gain

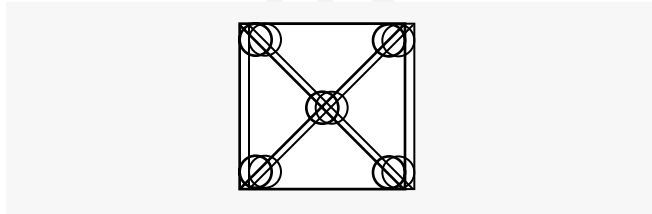
The Voltage Control Oscillator (VCO) gain affects how well the Dot Clock locks to the incoming horizontal sync signal. Incorrect VCO gain is indicated by lines shooting through the display or by severely compressed or shifted displays.

Adjusting your display

Horizontal double image

Adjusting the Horiz. Pos control usually corrects this problem.

Adjusting the horizontal position



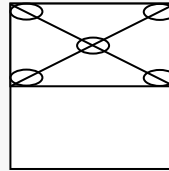
Use the arrow keys on the control panel, the SETUP key, or the following procedure:

- 1 Press the MENU key to display the Main menu.
- 2 Select Advanced.
- 3 Select Horiz. Pos. (horizontal position).
- 4 Press the down arrow key until the image is properly aligned.

Note: There are separate vertical position values for NORMAL and SCALE modes. Adjustments in one mode are not made in the other.

Half-normal height display

Adjusting the half-normal height display



Use the arrow keys, the SETUP key on the control panel, or use the following procedure to adjust the half-normal height display:

- 1 Press the MENU key to display the Main menu.
- 2 Select Advanced from the Main menu.
- 3 Select the Hor. Pos. (horizontal position) slide bar.
- 4 Press the down arrow key until the image is properly aligned. (If this adjustment does not correct the problem, reset the Hor. Pos. control.)

Note: There are separate Hor. Pos. and Vert. Pos. values for NORMAL and SCALE modes. Adjustments in one mode are not made in the other.

- 5 Press the right arrow key to select the Vert. Pos. (vertical position) slide bar.
- 6 Press the down arrow key until the image is displayed properly. (If this adjustment does not correct the problem, reset the Hor. Pos. control to the default.)

If neither parameter corrects the problem, you must find the correct Dot Clock value to prevent image distortion. Make changes to this parameter slowly to avoid skipping over the desired value. This may require some trial and error.

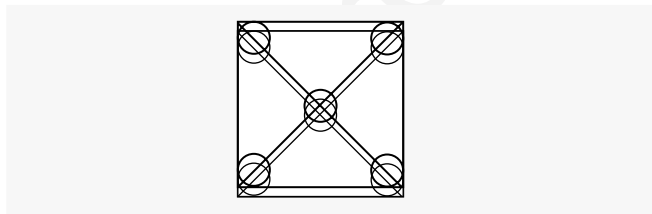
- 7 Select IMAGE on the Main menu.
- 8 Select the Dot Clock slide bar with the right arrow.

- 9 Move the slide bar up or down until the image is displayed properly.

If none of these adjustments corrects the problem, try a different Source mode selection. Make sure the selection has the correct resolution and the closest V-sync and H-sync values.

Vertical double image

Adjusting the vertical position



Use the SETUP key or the following procedure to adjust the Vert. Pos. control.

- 1 Open the Main menu.
- 2 Select Advanced.
- 3 Select Vert. Pos. (vertical position).
- 4 Press the down arrow key until the image is properly aligned.

Note: There are separate Vert. Pos. values for Normal and Scale modes. Adjustments in one mode are not made in the other.

If this adjustment does not correct the problem, try a different Source mode setting. Make sure the selection has the correct resolution and the closest V-sync and H-sync values.

Faint, vertical lines of distortion

- 1 Use the remote control to adjust the sync first. If the lines of distortion move uniformly across the screen as you adjust the sync, there is a dot clock problem.
- 2 Adjust the dot clock slowly so that the shading gets farther and farther apart, until it is gone. This may require trial and error as you must avoid skipping over the correct value.

Dark, vertical lines of distortion

You may detect dark, uniformly-spaced vertical lines (sometimes with smaller lines on either side of each dark line) in Scale or Normal mode, or both. Any of the following steps may eliminate this problem.

Dark Lines in Scale mode only

- 1 With the menus closed, use the arrow keys on the control panel or the MouseDisk on the remote control to pan the image down until it stabilizes.
- 2 Adjust the contrast.
- 3 Change the colors to 512.
- 4 Change the computer-screen background colors; certain colors may cause this pattern to appear in Scale mode.

Dark lines in Normal mode only

- 1 Adjust the contrast.
- 2 Change the colors (Preferences menu; Colors) to 512.
- 3 Change the computer screen background colors; certain colors may cause this pattern to appear in Scale mode.

*Noise, flickering
pixels, or distortion*

- 1 Use the remote control to adjust the sync first. Make sure you use the entire range of sync adjustments before you proceed to step 2. You can correct many severe-looking distortions by using sync.

Note: There are separate sync values for NORMAL and SCALE modes. Sync adjustments made in one are not applied to the other. Make adjustments in both.

- 2 If sync does not correct the problem, adjust the Dot Clock. Make changes to this parameter slowly to avoid skipping over the desired value. This may require some trial and error.
- 3 If the problem still exists, adjust the VCO gain.

Unknown/Unrecognized video source

Occasionally, you may encounter an unknown or unrecognizable video signal while using the projector. If this should happen, use the following steps to connect and adjust the projector:

- 1 Connect the projector to the video source and make sure that the power is on.
- 2 Select User A or User B for a custom setting (Advanced menu).
- 3 If it is not already selected, select Computer input from the Source menu.
- 4 Check the Input Measurements window and record the V Sync, H Sync, and Lines values for the incoming video signal. Consult your computer documentation for the Video Data Rate (dot clock) specifications.

Input measurement window

Input Measurements V Sync: 72.00 Hz H Sync: 78.00 KHz Lines: 1057 Sense: HLHL

Note: The Lines value is larger than the vertical lines of data displayed. This is due to additional vertical lines that are sent by the video system for video processing timing purposes.

- 5 In the Source mode menu, select the source mode closest to the values recorded in the preceding step.
- 6 Make adjustments as necessary to fine-tune your display.
- 7 Close the menus to save these settings.

Compatibility list

The following pages list the workstation/computer video signal characteristics stored in the Polaview Model 305 Projector memory.

This list is subject to change as more platforms are supported. If your system is not listed, call Polaroid for more information.

<i>Label</i>	<i>Manufacturer</i>	<i>Model/Video System</i>	<i>Resolution</i>	<i>Dot Clk (MHz)</i>	<i>H Sync (KHz)</i>	<i>V Sync (Hz)</i>
EWS1	SGI	Indy, Indigo2, XL, XZ, Extreme	1280 x 1024	140	81.97	76
EWS2	Intergraph	TD-2, TD-4, TD-5, G90	1280 x 1024	130	81.25	76
EWS3	Generic		1280 x 1024	135	80	76
EWS4	Sun	SPARC 2, GX, Turbo GX	1280 x 1024	135	80	76
VESA	Generic		1280 x 1024	134.3	78.43	74
EWS5	HP	735/125, 735	1280 x 1024	135	78	72
VESA	Generic		1280 x 1024	128	77	72
EWS6	DEC	3000/300	1280 x 1024	132.6	76.8	72
EWS7	SGI	Indy, Indigo2, XL, XZ, Extreme	1280 x 1024	130	76.9	72
EWS8	Sun	SPARC2 GX+	1280 x 1024	117	72	67
EWS9	DEC	3000	1280 x 1024	119.8	70.3	66
EWS10	Tadpole	SPARCbook 3	1280 x 1024	111.77	64.5	60
VESA	Generic		1280 x 1024	114.6	64	60
EWS11	IBM	RS6000	1280 x 1024	111.5	63.36	60

* Denotes interlaced models

<i>Label</i>	<i>Manufacturer</i>	<i>Model/Video System</i>	<i>Resolution</i>	<i>Dot Clk (MHz)</i>	<i>H Sync (KHz)</i>	<i>V Sync (Hz)</i>
EWS12	SGI	Indy, Indigo2, XL, XZ, Extreme	1280 x 1024	107.35	63.9	60
EWS13	Intergraph	TD-2, TD-4, TD-5, G91	1280 x 1024	106	63.8	64
MAC	Apple	Power PC	1280 x 1024	135	80	75
MAC	Apple		1280 x 960	63	75	75
EWS14	Tadpole	SPARCbook	1152 x 900	105.5	71.8	76
EWS15	Tadpole	SPARC 2	1152 x 900	105.5	71.8	76
EWS16	Sun	SPARC 2	1152 x 900	100	71.7	76
VESA	Generic		1152 x 900	106	70	74
MAC	Apple	Quadra 605, PowerMac	1152 x 870	100	69	75
VESA	Generic		1152 x 900	103.8	68	72
EWS17	Sun	SPARC 2 GX, GX+	1152 x 900	94.5	62	67
EWS18	Tadpole	SPARCbook 3	1152 x 900	93	62	66
EWS19	NeXT	NeXT station	1152 x 870	98.8	60.6	68
VESA	Generic		1152 x 864	109.4	76	80
VESA	Generic		1152 x 900	85	55.5	60
EWS25	Sun	SPARC 2 Turbo GX	1152 x 900	94.5	61.7	66
VESA	Generic		1152 x 900	98.8	66	70
EWS20	Intergraph	TD-2, TD-4, TD-5, G90, G91	1024 x 768	104	81.25	99.328
VESA	Generic		1024 x 768	80	63	75

* Denotes interlaced models

<i>Label</i>	<i>Manufacturer</i>	<i>Model/Video System</i>	<i>Resolution</i>	<i>Dot Clk (MHz)</i>	<i>H Sync (KHz)</i>	<i>V Sync (Hz)</i>
VESA	Generic		1024 x 768	84.5	62.5	78
EWS21	Tadpole	SPARCbook 3	1024 x 768	81.3	61.2	76
MAC*	Apple	PowerPC	1024 x 768	80	60	75
XGA	Apple	Quadra 605 (19"), PowerMac	1024 x 768	74.7	56.4	70
XGA	Generic		1024 x 768	80	53.3	67
VESA	Generic		1024 x 768	64.3	48.88	60
VESA	Generic		1024 x 768	77.3	58.1	72
VESA	Generic		1024 x 768	65	48.5	60
EWS22	SGI	Indy, Indigo2, XL, XZ, Extreme	1024 x 768	64.3	48.88	60
EWS23	HP	735/125, 735	1024 x 768	65	48.5	60
EWS24	RDI	RDI Lite	1024 x 768	50	46.5	60
VESA	Tadpole	SPARCbook 2, SPARCbook 3	1024 x 768	65	47.5	60
VESA	Generic	*	1024 x 768	50	37.8	46
Laptop	Toshiba	T4500C*	1024 x 768	45	35.4	43
8514A	IBM	8514A*	1024 x 768	43.6	34.5	43.5
Laptop	Toshiba	2150 CDT	1024 x 768	44	35.4	43
MAC	Apple		1024 x 768	80	60	75
SVGA	Apple	MAC	800 x 600	51	48.14	72
VESA	Generic		800 x 600	40	37.9	60
Laptop	Tadpole	SPARCbook 3GX	800 x 600	36.3	36	57.5

* Denotes interlaced models

<i>Label</i>	<i>Manufacturer</i>	<i>Model/Video System</i>	<i>Resolution</i>	<i>Dot Clk (MHz)</i>	<i>H Sync (KHz)</i>	<i>V Sync (Hz)</i>
VESA	Generic		800 x 600	36	35.16	56
SVGA	Apple	MAC	800 x 600	36	35.24	56
Laptop	Toshiba	T4500	800 x 600	36.7	35	56.4
VGA	Generic		640 x 480	25	31.5	60
VGA	Generic		640 x 480	31.5	38	72
VGA	Generic	Text Mode	720 x 480	25	31.5	70
VGA	Toshiba	2150 CDT	640 x 480	25	31.9	60
VGA	Generic		640 x 480	32	38	75
VGA	Toshiba	2150 CDT	800 x 600	40	39	62.5
MAC	Apple		832 x 624	57.3	49.73	74.5
MAC	Apple	LC	640 x 480	31.4	35	67
MAC	Apple	13"	640 x 480	30.3	35	66
VGA	Apple	MAC	640 x 480	30	34.7	66
VGA	Generic		640 x 480	25	31.5	60
VGA	Tadpole	SPARCbook 2, SPARCbook 3	640 x 480	25	30.65	59.3

* Denotes interlaced models

Where to get help

If at any time you need help with your projector:

- 1 Check the Troubleshooting Chart.
- 2 Call your dealer's technical support line and explain your problem.
- 3 Call Polaroid Corporation (see pages 113-114).

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Polaroid Corporation warrants your Polaview Projector equipment against defects in manufacture for a period of one year from the date of purchase. To verify the warranty period, you should keep the sales slip or other proof of the purchase date.

Should this product, or any component or accessory included with it, become defective at any time during the warranty period, Polaroid Corporation will, at its discretion, either replace or repair this item, without charge, provided the product is returned to a designated servicing location (prepaid and insured). To ship the unit, pack the carrying case in the original carton or equivalent, with plenty of padding.

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Before you return your equipment for repair, please call Polaroid Electronic Imaging Technical Support from within the U.S.A. at 1-800-432-5355, Monday through Friday, 8 a.m. to 8 p.m., Eastern Time. In Canada, call 1-800-268-6970.

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Note: No user-serviceable parts inside, with the exceptions of the lamp and air filters which can be replaced as described in this manual. Attempts to modify mechanical or electronic parts inside will void your warranty, and may be hazardous.

Appendix A: Specifications

<i>Color</i>	16.7 million colors
<i>Display technology</i>	LCD: active matrix 1024 x 768
<i>Resolution</i>	Multiple graphics modes (640 x 480, 800 x 600, 1024 x 768, 1152 x 900, 1280 x 1024, 72 Hz)
<i>Contrast ratio</i>	100:1 typical
<i>Video compatibility</i>	NTSC M 3.58 MHz; PAL B, G, H, I 4.42 MHz; SECAM 4.43 MHz; S-VIDEO
<i>Projection lamp</i>	575 watt metal halide
<i>Brightness</i>	300 ANSI lumens (typical)
<i>Keystone correction</i>	4.5 degrees
<i>Audio system</i>	Digital stereo sound, two built-in 3 watt speakers
<i>Inputs</i>	1 computer video 2 composite video (NTSC, PAL, SECAM) 2 S-video 1 computer stereo audio 2 composite video stereo audio 1 microphone Cyclops interactive pointer system

<i>Outputs</i>	Stereo audio (2 RCAs) 1 computer audio 1 monitor
<i>Power source</i>	90-265 VAC, 50-60 Hertz
<i>Dimensions</i>	Closed - 13.8 in. (H) x 19.8 in. (W) x 7.3 in. (D) (35 x 50.2 x 18.5 cm) Open - 13.8 in. (H) x 19.8 in. (W) x 25.1 in. (D) (35 x 50.2 x 63.75 cm)
<i>Weight</i>	31.6 lbs. (14.3 kg)
<i>Projection distance</i>	4 ft. to 12 ft. (1.22 m to 3.7 m)
<i>Compatibility</i>	IBM PC, PS/2 and compatibles Apple: Macintosh II, LC, Quadra, Centris, Performa, and PowerBook. Apple Macintosh Classic, Classic II, compact Macintosh family. Workstations: Sun, Hewlett-Packard, IBM RS/6000, Silicon Graphics, DEC Alpha, Intergraph, NeXT.

Appendix B: Parts

<i>Replacement product</i>	<i>Part No.</i>
Remote control	622190
Power cord, IEC, North America	C1002-10
Power cord, IEC, Europe	C1001-10
Power cord, IEC, Italy	C1003-10
Power cord, IEC, UK	C1004-10
VGA-to-LCD cable	C800-6
Mac-to-LCD adapter	C804-0
Mac-to-LCD cable	C802-6
Mac ADB cable	C470-6
13C3-to-LCD cable	C801-6
SGI-to-LCD adapter	C947-12
SGI 13C3-to-LCD cable	C943-6
DEC 3C3-to-LCD adapter	C947-10
DEC 3C3-to-LCD cable	C948-6
DEC 3C3 cable/adapter (A38) kit	623402
S-video cable	C466-6
Computer audio cable	C498-6
Serial cable	C936-6
Composite audio/video cable	C497-6
Mini-jack to RCA cable adapter	C5105
BNC cable (A37) kit	622188

<i>Replacement product</i>	<i>Part No.</i>
Polaroid F/X diskettes (Windows version 3.x)	080-00866-1
Polaroid F/X diskettes (Windows 95)	080-00867
Lamp assembly	623403
Adobe Acrobat Player System	621822
Cyclops interactive pointer system	622189
Laser pointer	623404
Loudspeaker system	A55
Polaview projector hard case	612306

You can order accessories and replacement parts through your local dealer or by contacting Polaroid (see pages 113 and 114).

Appendix C: Sense lines

What are sense lines?

This appendix explains how to adjust the projector if you have trouble connecting to a computer with no external monitor.

Certain display cards and video systems rely on sense-line information from the monitor to configure themselves correctly for display resolution. The absence of sense-line information causes some display cards to output a default video signal, and actually prevents some video cards from outputting video at all.

Sense-line information is only required when you are using a system without a monitor and the video card defaults to an incompatible resolution. Sense-line information can be found in the technical documentation that came with your computer.

Configuring the Polaview Model 305

- 1 Determine the default resolution for your video system.
- 2 Gather sense-line information from your computer documentation or from your video card documentation. Typical sense-line settings are listed later in this appendix.
- 3 Connect and turn on the projector.
- 4 Choose the Advanced menu.
- 5 Set Sense 3, Sense 2, Sense 1 and Sense 0 to the settings recommended for your system.

Macintosh displays

- 6 Exit the menus and restart your computer (do not turn off the projector).

The next table shows typical sense-line settings for Macintosh systems, based on the system resolution. Try these settings only if you have trouble projecting an image without an external monitor connected to the computer.

Remember to restart your computer after you make these changes.

<i>Display resolution</i>	<i>Sense-line setting(s)</i>
640 x 480	Sense 3: High Sense 2: High Sense 1: High Sense 0: Low
1152 x 870	Sense 3: High Sense 2: Low Sense 1: Low Sense 0: Low
832 x 624 and 1024 x 768	Your system needs a Macintosh terminator. Try the Macintosh Sync Adapter (02-20-UNV) available from Griffen Communications Corp., 1451 Elm Hill Pike, Park Elm Bldg, Suite 100, Nashville TN 37210 (615) 399-0990 fax: (615) 399-7060.

Identifying sense-line settings

To determine the current sense-line setting:

- 1 Connect the projector to the computer and the monitor.
- 2 Make sure all hardware is turned on and that the correct resolution is displayed on the monitor and through the projector.
- 3 Open the projector menus and choose Input Source, Input Measurements. The four sense-line settings appear in the window.

*Input Measurements
windows*

<p>Input Measurements V Sync: 72.00 Hz H Sync: 78.00 KHz Lines: 1057 Sense: HLHL</p>

Sense line settings for popular video cards

<i>System</i>	<i>Graphic card/ Monitor type</i>	<i>Resolution</i>	<i>Sense 3</i>	<i>Sense 2</i>	<i>Sense 1</i>	<i>Sense 0</i>
Hewlett-Packard	OmniBook	640 x 480	High	High	High	Low
MAC / PowerBook ¹	RGB 13"	640 x 480	High	High	High	Low
	16" (with terminator ²)	832 x 624	High	High	High	High
	RGB 19" (with terminator ²)	1024 x 768	High	High	High	High
	RGB 21"	1152 x 870	High	Low	Low	Low
Sun SPARC station	GX	1152 x 900 66 Hz	High	Low	High	High
		1152 x 900 76 Hz	High	High	Low	Low
		1280 x 1024 76 Hz	High	Low	High	Low
	GXplus	1152 x 900 66 Hz	High	High	High	High
		1152 x 900 76 Hz	High	High	High	Low
		1280 x 1024 67 Hz	High	High	Low	Low

¹ Per Apple, the PowerBook only displays resolutions up to 832 x 624.

² The Griffin Mac Sync Adapter can select many different resolutions through switch settings on the adapter itself. Instructions to use these switches are included with the adapter. To contact Griffin regarding the adapter (part number 02-20-UNV): Griffin Communications Corporation, 1451 Elm Hill Pike, Suite 100, Nashville, TN 37210, phone (615) 399-0990, fax (615) 399-7060.

<i>System</i>	<i>Graphic card/ Monitor type</i>	<i>Resolution</i>	<i>Sense 3</i>	<i>Sense 2</i>	<i>Sense 1</i>	<i>Sense 0</i>
Sun SPARC station	TurboGX/ TurboGXplus	1024 x 768 60 Hz	High	High	Low	High
		1152 x 900 66 Hz	High	High	High	High
		1152 x 900 76 Hz	High	High	High	Low
		1280 x 1024 67 Hz	High	Low	High	Low
		1280 x 1024 76 Hz	High	Low	High	High
	ZX	1024 x 768 76 Hz	High	Low	Low	Low
		1152 x 900 66 Hz	High	Low	High	High
		1152 x 900 76 Hz	High	High	High	Low
Sun SPARC	Voyager	1024 x 768 76 Hz	High	Low	Low	Low
		1152 x 900 76 Hz	High	High	High	Low
Silicon Graphics ³	Multiscan (Indigo ² with XL graphics and Indy)	1280 x 1024 76 Hz	Low	Low	Low	High
	Multiscan	1280 x 1024 76 Hz	High	Low	Low	High
	Single Scan	1280 x 1024 76 Hz	High	Low	High	Low
	Single Scan	1024 x 768 76 Hz	High	High	High	Low
RDI	PowerLite	1152 x 900 76 Hz	Low	High	Low	Low

³ Using sense lines with Silicon Graphics workstations requires the use of the Polaview C943-6 SGI 13C3 cable. This cable is available in the Polaview SGI Cable Accessory Kit (part no. A36).

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