










Table of Contents

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Usage Notice

Precautions

Follow all warnings, precautions and maintenance as recommended in this user's guide to maximize the life of your unit.

-  **Warning-** Do not look into the projector's lens when the lamp is on. The bright light may hurt your eyes.
-  **Warning-** To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.
-  **Warning-** Please do not open or disassemble the product as this may cause electric shock.
-  **Warning-** When changing the lamp, please allow unit to cool down, and follow all changing instructions.
-  **Warning-** This product will detect the life of the lamp itself. Please be sure to change the lamp when it shows warning messages.
-  **Warning-** Reset the "Reset Lamp Hours" function from the On Screen Display "Management" menu after replacing the lamp module (refer to page 22).
-  **Warning-** When switching the projector off, please ensure the projector completes its cooling cycle before disconnecting power.
-  **Warning-** Turn on the projector first and then the signal sources.
-  **Warning-** When the lamp reaches the end of its life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures listed under "Changing the Lamp".

Usage Notice

Do:

- ❖ Turn off the product before cleaning.
- ❖ Use a soft cloth moistened with mild detergent to clean the display housing.
- ❖ Disconnect the power plug from AC outlet if the product is not being used for a long period of time.

Don't:

- ❖ Block the slots and openings on the unit provided for ventilation.
- ❖ Use abrasive cleaners, waxes or solvents to clean the unit.
- ❖ Use under the following conditions:
 - Extremely hot, cold or humid environment.
 - In areas susceptible to excessive dust and dirt.
 - Near any appliance generating a strong magnetic field.
 - Place in direct sunlight.

Introduction

Product Features

This product is an XGA single chip 0.7" DLP™ projector. The outstanding features of it are listed as follows:

- ◆ True XGA, 1024 x 768 addressable pixels
- ◆ 2.1 lbs (0.95 kgs) compact design
- ◆ Single chip DLP™ technology
- ◆ NTSC/NTSC4.43/PAL/PAL-M/PAL-N/SECAM and HDTV compatible
- ◆ Full function remote controller
- ◆ User friendly multilingual on-screen display menu
- ◆ Advanced electronic keystone correction and high quality full screen re-scaling image
- ◆ User friendly control panel
- ◆ SXGA compression and VGA, SVGA re-sizing
- ◆ 120 Watts user replaceable P-VIP lamp
- ◆ Mac compatible

Introduction

Package Overview

This projector comes with all the items shown below. Check to make sure your unit is complete. Contact your dealer immediately if anything is missing.



Projector with lens cap



Power Cord



VGA Cable



S-Video Cable



Composite Video Cable



User's Guide



Carrying Case



Remote Control



Battery



Quick Start Card



Warranty Card

Introduction

Product Overview

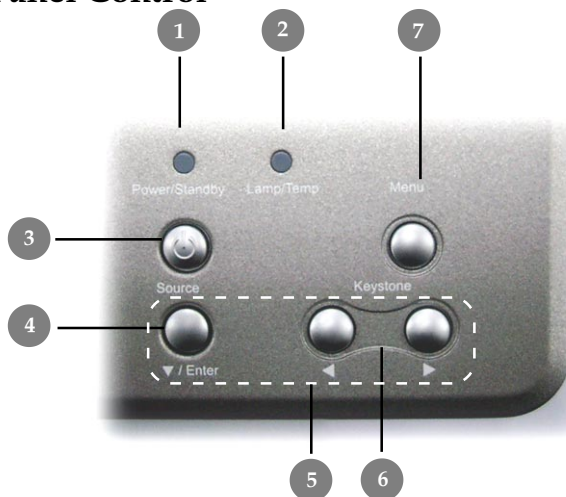
Main Unit



1. Focus Ring
2. Zoom Ring
3. Elevator Button
4. Zoom Lens
5. Remote Control Receiver
6. Connection Ports
7. Power Connector
8. Panel Control

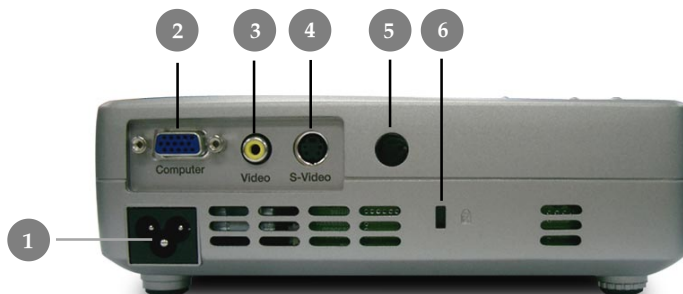
Introduction

Panel Control



1. Power/Standby Indicator
2. Warning Indicator
3. Power
4. Source
5. Directional Select and Enter Keys
6. Keystone Correction
7. Menu (On/Off)

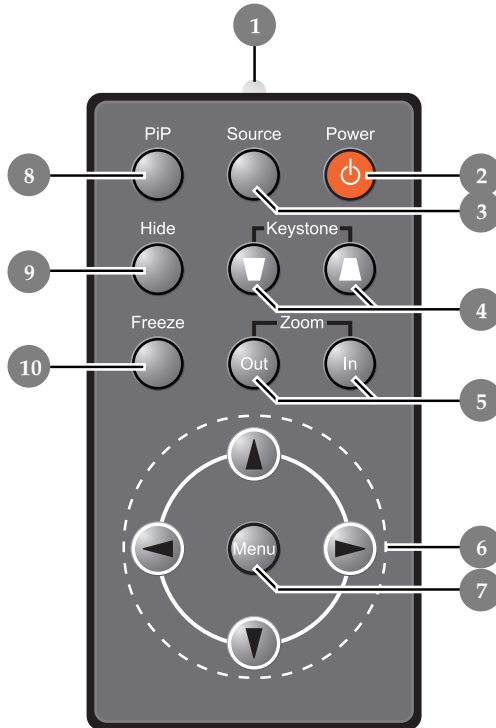
Connection Ports



1. Power Connector
2. PC Analog Signal/HDTV/Component Video Connector
3. Composite Video Input Connector
4. S-Video Input Connector
5. Remote Control Receiver
6. Kensington™ Lock Hole

Introduction

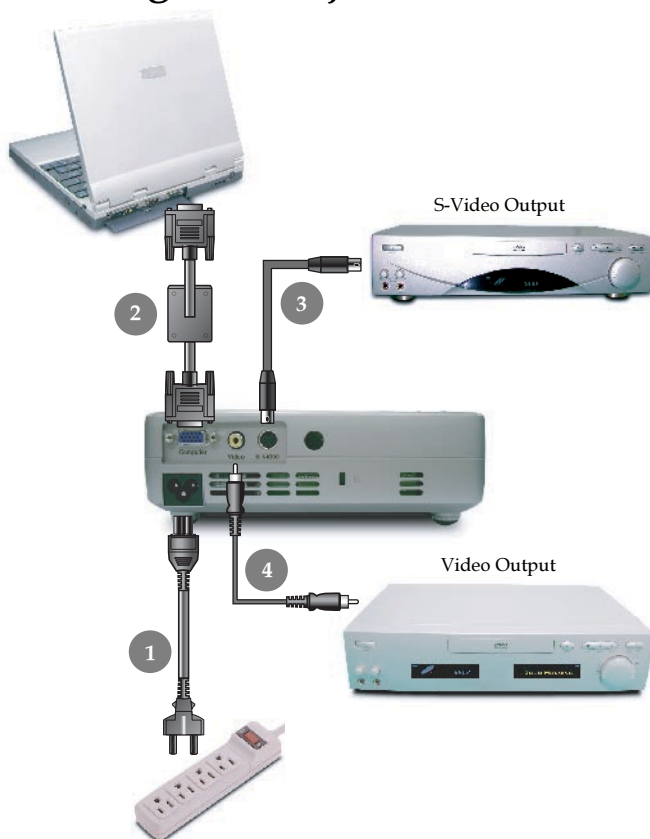
Remote Control



1. Transmit Indicator Light
2. Power
3. Source
4. Keystone Correction
5. Zoom In/Zoom Out
6. Four Directional Select Keys
7. Menu Keys
8. Picture In Picture
9. Hide
10. Freeze

Installation

Connecting the Projector



1. Power Cord
2. VGA Cable
3. S-Video Cable
4. Composite Video Cable

❖ To ensure the projector works well with your computer, please configure the display mode of your graphic card to make it less than or equal to 1024 X 768 resolution. Make sure timing of the display mode is compatible with the projector. Refer to the "Compatibility Modes" section on page 30.

Installation

Powering On/Off the Projector

Powering On the Projector

1. Remove the lens cap. ❶
2. Ensure that the power cord and signal cable are securely connected.
3. Turn on the lamp by pressing “Power” button on the control panel. ❷

The startup screen will display for 20 seconds and the Power/Standby indicator will flash **green**.

When the startup screen disappear, the Power/Standby indicator will light up **green**.

4. Turn on your source (computer, notebook, video player , etc.). The projector will detect your source automatically.
- ❖ *If the screen displays “No Signal” , please make sure the signal cables are securely connected.*
 - ❖ *If you connect multiple sources at the same time, use the “Source” button on the Remote Control or Panel Control to switch.*



❖ Turn on the projector first and then the computer.



Installation

Powering Off the Projector

1. Press the “Power” button to turn off the projector lamp.
2. After pressing the “Power” button, you will see a message “Power off the lamp?” on the on-screen display. Press the “Power” button again to confirm.
Otherwise the message will disappear after 5 seconds.
3. Power/Standby indicator flashes **orange** for about 40 seconds. The projector will automatically shut itself down.
If you want to turn on the projector again, you must press the “Power” button within 40 seconds of the indicator flashing.
4. Disconnect the power cord from the electrical outlet and the projector.
5. Do not turn on the projector immediately following a power off procedure.

Warning Indicator

- ❖ *When the Warning indicator light up **red**, it indicates the projector has been overheated. The projector will automatically shut itself down.*
- ❖ *When the Warning indicator flashes **red (0.5 second intervals)**, it indicates problem with the lamp, turn off the projector and disconnect the power cord from the electrical outlet, and you should contact your local dealer or our service center.*
- ❖ *When the Warning indicator flashes **red (1 second intervals)**, it indicates internal problem, stop using the projector and disconnect the power cord from the electrical outlet, and you should contact your local dealer or our service center.*
- ❖ *When the Warning indicator flashes **orange**, it indicates high-speed cooling in progress. This is not an abnormal condition, and you can continue using the projector for your presentation.*

Installation

Adjusting the Projected Image

Adjusting the Projector Height

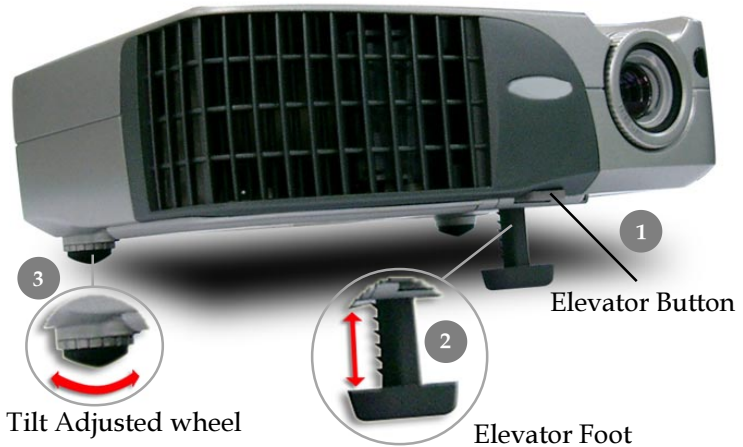
The projector is equipped with an elevator foot for adjusting the projector height.

To raise the projector:

1. Press the elevator button ❶.
2. Raise the projector to the desired display angle ❷, then release the button to lock the elevator foot into position.
3. Use ❸ to fine-tune the display angle.

To lower the projector:

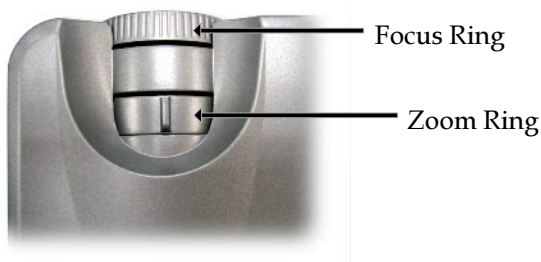
1. Press the elevator button.
2. Lower down the projector, then release the button to lock the elevator foot into position.
3. Use ❸ to fine-tune the display angle.



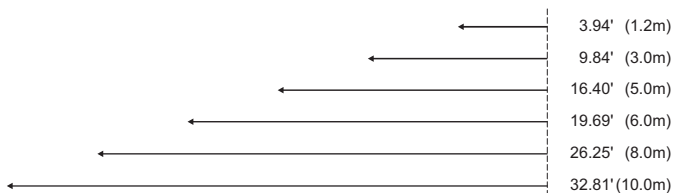
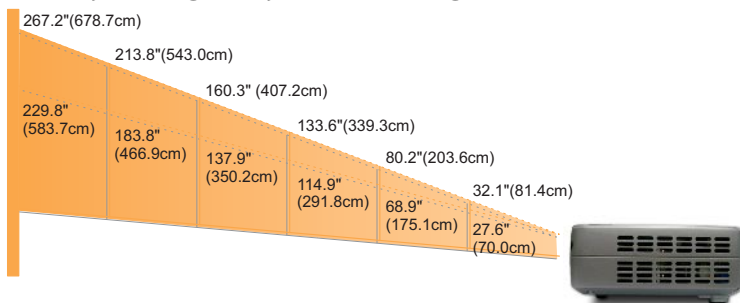
Installation

Adjusting the Projector Zoom / Focus

You may adjust zoom ring to zoom in / out. To focus the image, rotate the focus ring until the image is clear. The projector will focus at distances from 3.94 feet to 32.81 feet (1.2m to 10.0m).



Adjusting Projection Image Size



Screen (Diagonal)	Max.	32.1" (81.4cm)	80.2" (203.6cm)	133.6" (339.3cm)	160.3" (407.2cm)	213.8" (543.0cm)	267.2" (678.7cm)
	Min.	27.6" (70.0cm)	68.9" (175.1cm)	114.9" (291.8cm)	137.9" (350.2cm)	183.8" (466.9cm)	229.8" (583.7cm)
Screen Size	Max.(WxH)	25.68" x 19.26" (65.1cm x 48.8cm)	64.16" x 48.12" (162.9cm x 122.2cm)	106.88" x 80.16" (271.4cm x 203.6cm)	128.24" x 96.18" (325.8cm x 244.3cm)	171.04" x 128.28" (434.4cm x 325.8cm)	213.76" x 160.32" (543.0cm x 407.2cm)
	Min.(WxH)	22.08" x 16.56" (56.0cm x 42.0cm)	55.12" x 41.34" (140.1cm x 105.1cm)	91.92" x 68.94" (233.4cm x 175.1cm)	110.32" x 82.74" (280.2cm x 210.1cm)	147.04" x 110.28" (373.5cm x 280.1cm)	183.84" x 137.88" (467.0cm x 350.2cm)
Distance		3.94' (1.2m)	9.84' (3.0m)	16.40' (5.0m)	19.69' (6.0m)	26.25' (8.0m)	32.81' (10.0m)

❖ This graph is for user's reference only.

User Controls

Panel Control & Remote Control

There are two ways for you to control the functions: Remote Control and Panel Control.

Panel Control



Remote Control



Use the Panel Control

Power

- ▶ Refer to the "Power On/Off the Projector" section on page 10~11.

Source

- ▶ Press "Source" to choose RGB, Component-p, Component-i, S-Video, Composite Video and HDTV sources.

Menu

- ▶ Press "Menu" to open the on-screen display (OSD) menus. To exit OSD, press the "Menu" button again.

Keystone ◀▶

- ▶ Adjust image distortion caused by tilting the projector. (± 16 degrees)

Directional Select

- ▶ Use ▼◀▶ to select items or use ◀▶ to make adjustments for your selection.

Enter

- ▶ Confirm your selection of items.

User Controls

Use the Remote Control

Power

- ▶ Refer to the “Power On/Off the Projector” section on page 10~11.

Source

- ▶ Press “Source” to choose RGB, Component-p, Component-i, S-Video, Composite Video and HDTV sources.

PiP

- ▶ Displays the “PiP” menu of the On Screen Display (OSD).

Keystone /

- ▶ Adjust image distortion caused by tilting the projector. (±16 degrees)

Hide

- ▶ Press the “Hide” button to hide the image, press again to resume display of the image.





Zoom In / Zoom Out

- ▶ Press “in” button of zoom function to magnify an image of the projection screen.
- ▶ Press “out” button of zoom function to reduce the zoomed image.

Freeze

- ▶ Press the “Freeze” button to still the screen image.

Four Directional Select Keys

- ▶ Use     to select items or make adjustments for your selection.

Menu

- ▶ Press “Menu” to open the on-screen display (OSD) menus. To exit OSD, press the “Menu” button again.

User Controls

On-Screen Display Menu

The Projector has multilingual On-Screen Display(OSD) menus that allow you to make image adjustments and change a variety of settings. The projector will detect the source automatically.

How to operate

1. To open the OSD menu, press the “Menu” button on the Remote Control or Panel Control.
2. When OSD is displayed, press ◀ ▶ key to select main menu.
While making selection on a particular page, press “Enter / ▼” key to go into sub menu.
3. Press ▲ ▼ key to select the required item and adjust the settings by ◀ ▶ key.
4. Select the next item to be adjusted in the sub menu and adjust as described above 3.
5. Press “Menu” button to confirm, and the screen will be back to the main menu at once.
6. To exit the OSD, press the “Menu” button again. The OSD menu will close and the projector will automatically save the new settings.



Main Menu



Sub Menu

Setting

User Controls

Computer / Video mode



Language

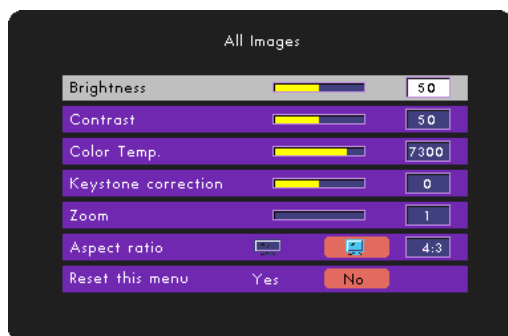
Language

You can display the multilingual OSD menu . Use the ▲ or ▼ key to select your preferred language.

Press the "Menu" button to finalize the selection.

User Controls

Computer / Video mode



All Images

Brightness

Adjusting the brightness of the image.

- ▶ Press the ◀ to darken image.
- ▶ Press the ▶ to lighten the image.

Contrast

The contrast controls the degree of difference between the lightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

- ▶ Press the ◀ to decrease the contrast.
- ▶ Press the ▶ to increase the contrast.

Color Temperature

Adjust the color temperature. With the higher temperature, the screen looks colder; with the lower temperature, the screen looks warmer.

Keystone Correction

Adjust image distortion caused by tilting projection. (± 16 degrees)

Zoom

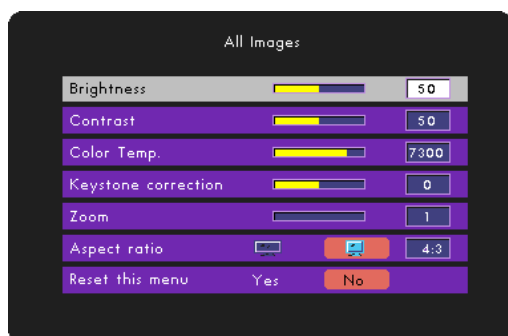
- ▶ Press the ◀ to reduce the zoomed image.
- ▶ Press the ▶ to magnify an image of the projection screen.

Aspect Ratio

You can use this function to fit your desired aspect ratio type.

User Controls

Computer / Video mode



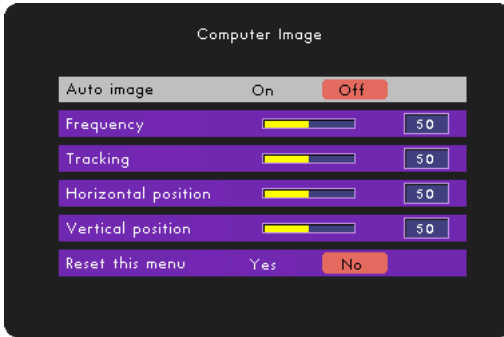
All Image

Reset This Menu

Choose "Yes" to return the display parameters on this menu to their factory default settings.

User Controls

Computer mode



Computer Image

Auto Image

The projector automatically adjusts frequency, tracking, horizontal and vertical position. With most signal sources, Auto Image provides the best results.

Frequency

“Frequency” is for changing the display data frequency to match the frequency of your computer’s graphic card. When you experience a vertical flickering bar, use this function to make an adjustment.

Tracking

Choose “Tracking” item to synchronize the signal timing of the display with that of the graphic card. When you experience an unstable or flickering image, use this function to correct it.

Horizontal Position

- ▶ Press the ◀ to move the image left.
- ▶ Press the ▶ to move the image right.

Vertical Position

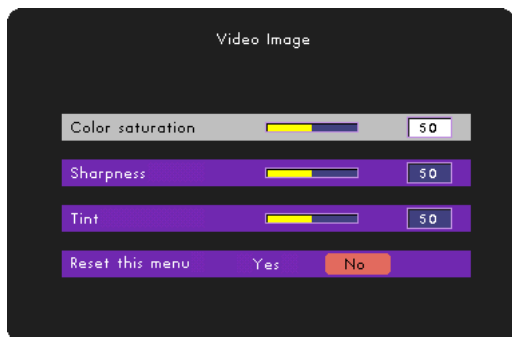
- ▶ Press the ⬇ to move the image down.
- ▶ Press the ⬆ to move the image up.

Reset This Menu

Choose “Yes” to return the display parameters on this menu to their factory default settings.

User Controls

Video mode



Video Image

Color Saturation

The color setting adjusts a video image from black and white to fully saturated color.

- ▶ Press the ◀ to decrease the amount of color in the image.
- ▶ Press the ▶ to increase the amount of color in the image.

Sharpness

Adjusting the sharpness of the image.

- ▶ Press the ◀ to decrease the sharpness.
- ▶ Press the ▶ to increase the sharpness.

Tint

The tint adjusts the color balance of red and green.

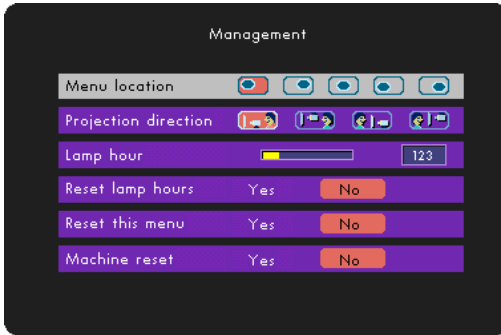
- ▶ Press the ◀ to increase the amount of green in the image.
- ▶ Press the ▶ to increase the amount of red in the image.

Reset This Menu

Choose “Yes” to return the display parameters on this menu to their factory default settings.

User Controls

Computer / Video mode



Management

Menu Location

Choose the Menu location on the display screen.

Projection Direction

▶ Front-Desktop

The factory default setting.

▶ Rear-Desktop

When you select this function, the projector reverses the image so you can project behind a translucent screen.

▶ Front-Ceiling

When you select this function, the projector turns the image upside down for ceiling-mounted projection.

▶ Rear-Ceiling

When you select this function, the projector reverses and turns the image upside down at same time. You can project from behind a translucent screen with ceiling mounted projection.

Lamp Hour

Displays the lamp's elapsed operating time (in hours).

Reset Lamp Hours

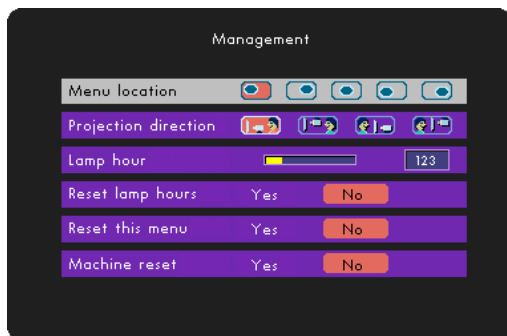
Reset the lamp setting only when the new lamp is replaced.

Reset This Menu

Choose "Yes" to return the display parameters on this menu to their factory default settings.

User Controls

Computer / Video mode



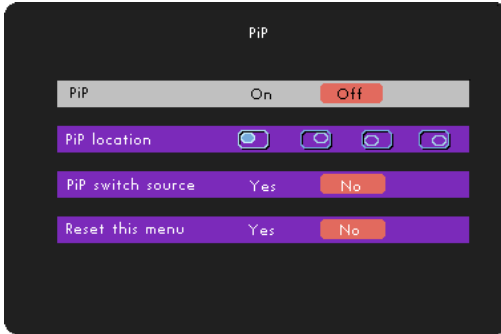
Management

Machine Reset

Choose "Yes" to return the display parameters (except for Lamp Hours) on all menus to their factory default settings.

User Controls

Computer mode



PIP Picture-In-Picture

PIP

Choose "On" to turn on the PIP screen.

PIP Location

Choose the PIP screen position on the display screen.

PIP Switch Source

Choose the input source of the projector on the PIP screen.

Reset This Menu

Choose "Yes" to return the display parameters on this menu to their factory default settings.



❖ The OSD does not include a PIP menu under Video mode.

Appendices

Troubleshooting

If you are experiencing trouble with the projector, refer to the following. If the problem persists, please contact your local reseller or service center.

Problem : No image appears on screen.

- ▶ Ensure all the cables and power connections are correctly and securely connected as described in the "Installation" section.
- ▶ Ensure the pins of connectors are not crooked or broken.
- ▶ Check if the projection lamp has been securely installed. Please refer to the "Changing the lamp" section.
- ▶ Make sure you have removed the lens cap and the projector is switched on.

Problem : Partial, scrolling or incorrectly displayed image.

- ▶ Press the "Auto Image" function in the "Computer Image" menu of the On Screen Display (OSD).
- ▶ If you use a PC:

If the resolution of your computer is higher than 1024 x 768. Follow the steps outlined below to reset the resolution.

For Windows 3.x:

1. In the Windows Program Manager, click the "Windows Setup" icon in the Main group.
2. Verify that your display resolution setting is less than or equal to 1024 x 768.

For Windows 95,98,2000,XP:

1. Open "My Computer" icon, the "Control Panel" folder, and then double click the "Display" icon.
2. Select the "Setting" tab.
3. In the "Desktop Area" you will find the resolution setting. Verify that the resolution setting is less than or equal to 1024 x 768 resolution.

If the projector is still not projecting the whole image, you will also need to change the monitor display you are using. Refer to the following steps.

Appendices

4. Follow above steps 1~2. Click on the “Advanced Properties” button.
 5. Select the “Change” button under the “Monitor” tab .
 6. Click on “Show all devices” . Then select “Standard monitor types” under the “Manufactures” box ; choose the resolution mode you need under the “Models” box.
 7. Verify that the resolution setting of the monitor display is less than or equal to 1024 x 768.
- ▶ If you are using a Notebook PC:
 1. You are required to implement above steps of resolution setting of computer first.
 2. Switch the Notebook PC display to the “external display only” or “CRT only” mode.
 - ▶ If you are experiencing difficulty in changing resolutions or your monitor freezes, restart all the equipment and the projector.

Problem : The screen of the Notebook or PowerBook computer is not displaying your presentation.

- ▶ If you are using Notebook PC:
Some Notebook PCs may deactivate their own computers’ screen when a second display device is in use. Each of them has a different way to be reactivated. Refer to your computer’s documentation for detailed information.
- ▶ If you are using an Apple PowerBook:
In Control Panels, open the PowerBook Display to select Video Mirroring “On”.

Problem : Image is unstable or flickering

- ▶ Use “Tracking” to correct it.
- ▶ Change the monitor color setting from your computer.

Problem : Image has vertical flickering bar

- ▶ Use “Frequency” to make an adjustment.
- ▶ Check and reconfigure the display mode of your graphic card to make it compatible with the product.

Appendices

Problem : Image is out of focus

- ▶ Adjust the Focus Ring on the projector lens.
- ▶ Make sure the projection screen is between the required distance 3.94ft.(1.2m)~ 32.81ft.(10.00m) from the projector.

Problem : The screen is outstretched when displaying 16:9 DVD.

The projector itself will automatically detect 16:9 DVD and adjust the aspect ratio by digitization to full screen with 4:3 default setting.

If the projector is still outstretched, you will also need to adjust the aspect ratio by referring to the following:

- ▶ Please select 4:3 aspect ratio type on your DVD player if you are playing a 16:9 DVD.
- ▶ If you can't select 4:3 aspect ratio type on your DVD player, please select 4:3 On Screen-Display(OSD) function of the projector for your display.

Problem : Image is reversed.

- ▶ To select "Management" from the OSD and adjust the projection direction.

Problem : Lamp burns out or makes a popping sound

- ▶ When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Changing the Lamp".

Appendices

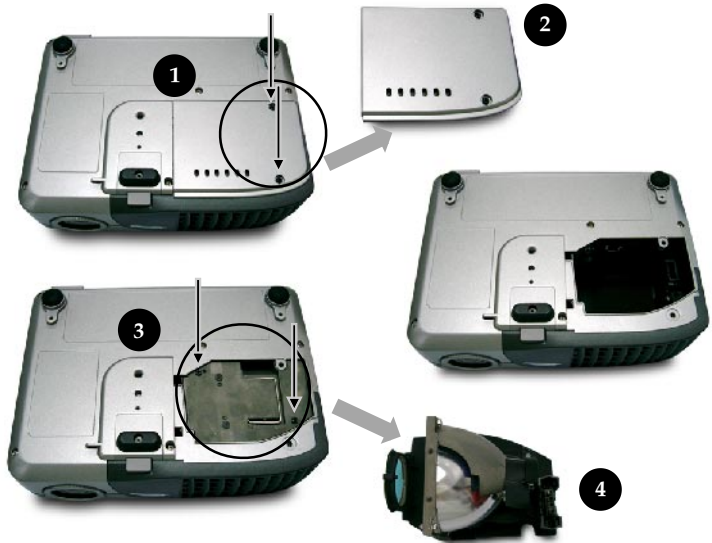
Changing the lamp

The projector will detect the lamp life itself. It will show you a warning message "Lamp may fail soon ! Replacement Suggested !" When you see this message, please contact your local reseller or service center to change the lamp as soon as possible.



Warning : Lamp compartment is hot! Allow it to cool down before changing lamp!

Make sure the projector has been cooled down for at least 30 minutes before changing the lamp.



Warning : To reduce the risk of personal injury, do not drop the lamp module or touch the lamp bulb. The bulb may shatter and cause injury if it is dropped.

Lamp Changing Procedure:

1. Turn off the power to the projector by pressing the Power button.
2. Allow the projector to cool down at least 30 minutes.
3. Disconnect the power cord.
4. Use screwdriver to remove the screw from the cover. ❶
5. Remove the cover. ❷
6. Remove the 2 screws from the lamp module. ❸
7. Pull out the lamp module. ❹

To replace the lamp module, reverse the previous steps.

Appendices

Specifications

Light Valve	- Single Chip DLP™ Technology
Lamp	- 120W User Replaceable P-VIP Lamp
Number of Pixels	- 1024 pixels(H) X 768 lines(V)
Displayable Color	- 16.7M colors
Projection Lens	- F/2.8~3.1 f=25.8~30.0mm with 1.16x Manual zoom lens
Projection Screen Size	- 27.6"~267.2" (70.0cm~678.7cm) Diagonal
Projection Distance	- 3.94~32.81 ft (1.2m~10.00m)
Video Compatibility	- NTSC/NTSC 4.43/PAL/PAL-M/PAL-N/SECAM and HDTV compatible
	- Composite video & S-Video capability
H. Frequency	- 15kHz~100kHz horizontal scan
V. Frequency	- 43Hz~120Hz vertical refresh
Power Supply	- Universal AC input 100~240V ; Input Frequency 50-60Hz
I/O Connectors	- Power: AC power input socket
	- Computer Input: One 15-pin D-sub for analog/component and HDTV signal
	- Video Input: One Composite video RCA input One S-Video input
Weight	- 2.1 lbs (0.95 kgs)
Dimensions (W x H x D)	- 7.8 x 5.9 x 2.2 inches (198 x 148 x 57 mm)
Environmental	- Operating Temperature: 41°F~95°F (5°C~ 35°C) Humidity: 80% maximum
	- Storage Temperature: -4°F~140°F (-20°C~60°C) Humidity: 80% maximum
Safety Regulation	- FCC Class B, CE Class B, VCCI-II, UL, cUL, TÜV-GS, CCC, PSE, IRAM, C-Tick, MIC, ICES

Appendices

Compatibility Modes

Mode	Resolution	(ANALOG)	
		V.Frequency (Hz)	H.Frequency (kHz)
VESA VGA	640 X 350	70	31.5
VESA VGA	640 X 350	85	37.9
VESA VGA	640 X 400	85	37.9
VESA VGA	640 X 480	60	31.5
VESA VGA	640 X 480	72	37.9
VESA VGA	640 X 480	75	37.5
VESA VGA	640 X 480	85	43.3
VESA VGA	720 X 400	70	31.5
VESA VGA	720 X 400	85	37.9
SVGA	800 X 600	56	35.2
SVGA	800 X 600	60	37.9
SVGA	800 X 600	72	48.1
SVGA	800 X 600	75	46.9
SVGA	800 X 600	85	53.7
VESA XGA	1024 X 768	43.4	35.5
VESA XGA	1024 X 768	60	48.4
VESA XGA	1024 X 768	70	56.5
VESA XGA	1024 X 768	75	60.0
VESA XGA	1024 X 768	85	68.7
* VESA SXGA	1152 X 864	70	63.8
* VESA SXGA	1152 X 864	75	67.5
* VESA SXGA	1152 X 864	85	77.1
* VESA SXGA	1280 X 960	60	60
* VESA SXGA	1280 X 960	75	75
* VESA SXGA	1280 X 1024	43	46.4
* VESA SXGA	1280 X 1024	60	63.98
* VESA SXGA	1280 X 1024	75	79.98
MAC 16"	832 X 624	74.55	49.725
MAC 19"	1024 X 768	75	60.24
* MAC	1152 X 870	75.06	68.68
MAC G4	640 X 480	60	31.35
MAC G4	640 X 480	120	68.03
MAC G4	1024 X 768	120	97.09
I MAC DV	640 X 480	117	60
I MAC DV	800 X 600	95	60
I MAC DV	1024 X 768	75	60
* I MAC DV	1152 X 870	75	68.49
* I MAC DV	1280 X 960	75	75



Remark : "*" compression computer image.