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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.

<u>Marning-</u> Do not look into the projector's lens when the lamp is on. The bright light may hurt your eyes.

<u>^</u> Warning- To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

★ 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 24).

★ 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.

Product Features

This product is an XGA single chip 0.7'' DLPTM projector. Outstanding features include:

- ◆ True XGA, 1024 x 768 addressable pixels
- 2.1 lbs (1 kg) compact design
- ◆ Single chip DLP[™] technology
- NTSC/NTSC4.43/PAL/PAL-M/PAL-N/SECAM and HDTV compatible
- Full function remote control
- User friendly multilingual on screen display menu
- Advanced electronic keystone correction and high quality full screen image re-scaling
- User friendly control panel
- SXGA compression and VGA, SVGA re-sizing
- ◆ 120 watt user replaceable P-VIP lamp
- Mac compatible

Package Overview

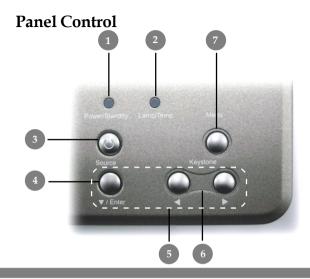
This projector comes with all the items shown below. Check to make sure your unit is complete. Contact your dealer immediately if anything is missing.



Product Overview



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

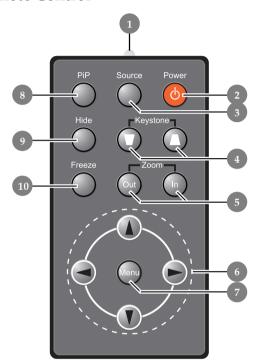


- 1. Power/Standby Indicator
- 2. Warning Indicator
- 3. Power
- 4. Source
- 5. Directional Select and Enter Keys
- 6. Keystone Correction
- Menu (On/Off)

Connection Ports 2 3 4 5 6 Computer Video S-Video

- 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. KeysingtonTM Lock Port

Remote Control



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

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 set the display mode of your graphic card 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 32.

Powering On/Off the Projector

Powering On the Projector

- **1.** Remove the lens cap.
- **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.

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

When the startup screen disappears, the Power/Standby indicator will turn **green**.

- **4.** Turn on your source (computer, notebook, video player ,etc.). The projector will detect your source automatically.
- If the screen displays "Searching...", 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 control panel to switch.





Turn on the projector first and then the computer.

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 flashing indicator.
- **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 turns red, it indicates the projector has overheated. The projector will automatically shut itself down.
- When the Warning indicator flashes red (0.5 second intervals), it indicates a problem with the lamp. Turn off the projector and disconnect the power cord from the electrical outlet, then contact your local dealer or our service center.
- When the Warning indicator flashes red (1 second intervals), it indicates an internal problem. Stop using the projector and disconnect the power cord from the electrical outlet, then 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.

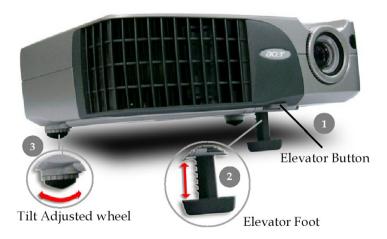
Adjusting the Projected Image

Adjusting the Projector Height

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

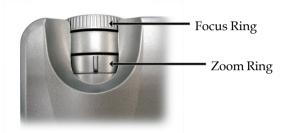
To raise the projector:

- **1.** Press the elevator button **0**.
- 2. Raise the projector to the desired display angle 2, then release the button to lock the elevator foot into position.
- 3. Use 3 to fine-tune the display angle.To lower the projector:
- **1.** Press the elevator button.
- **2.** Lower the projector, then release the button to lock the elevator foot into position.
- **3.** Use **3** to fine-tune the display angle.

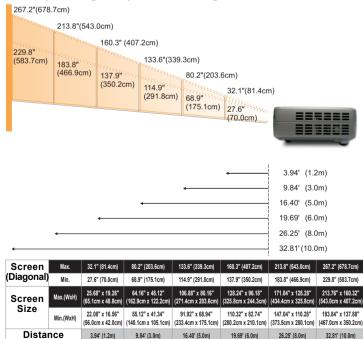


Adjusting the Projector Zoom/Focus

You may adjust zoom ring to zoom in or out. To focus the image, rotate the focus ring until the image is clear. The projector will focus at distances from 3.94 to 32.81 feet (1.20 to 10.0 meters).



Adjusting Projection Image Size



*This graph is for user's reference only.

Panel Control & Remote Control

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

Panel Control

Remote Control





Using the Panel Control

Power

Refer to the "Power On/Off the Projector" section on pages 10-11.

Source

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

Menu

Press "Menu" to launch the on screen display (OSD) menu. To exit OSD, press "Menu" again.

Keystone **∢**▶

Adjusts 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.

Using the Remote Control

Power

Refer to the "Power On/Off the Projector" section on pages 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.

Keystone () / ()

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

Hide

Press "Hide" to hide the image, press again to resume display of the image.

Zoom In (n) / Zoom Out (on

- ▶ Press "in" to magnify an image on the projection screen.
- Press "out" to reduce the image size.

Freeze

▶ Press "Freeze" to pause the screen image.

Four Directional Select Keys

Use to select items or make adjustments to your selection.

Menu

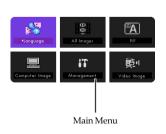
Press "Menu" to launch the on screen display menu. To exit OSD, press "Menu" again.

On Screen Display Menus

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

How to operate

- To open the OSD menu, press "Menu" on the Remote Control or Panel Control.
- 3. Use ♠ ♦ keys to select the desired item and adjust the settings by ♠ key.
- **4.** Select the next item to be adjusted in the sub menu and adjust as described above
- **5.** Press "Menu" to confirm, and the screen will return to the main menu.
- **6.** To exit, press "Menu" again. The OSD menu will close and the projector will automatically save the new settings.





Computer / Video Mode



Language

Language

You can display the multilingual OSD menu . Use the \bigcirc or \bigcirc key to select your prefered language.

Press "Menu" to finalize the selection.

User's Info

Edits user preferences by OSD interface. Press "Yes" to enter "User's info." screen, you can edit as you wish. Edited User's info will display on lower left corner of the screen when projector is powered ON.







- Use the ◀▶ to select "Line1" function, and then press the "Menu" button. You can input the character to line one.
- Use the ▲▼◀► to select character, and then press "Menu" to confirm your selection.
- 3. Use the ◀► to select "Line2" function, and then press the "Menu" button. You can input the character to line two.
- 4. Procedure as Step.3.

User's Info

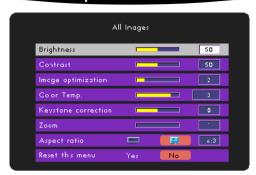
- **5.** Press " to save and exit the "User's info." menu.
- **6.** The startup screen will display the new wording after restart the projector.



Note:

- ▶ Each line can input 35 characters only.
- ▶ Once entering "User's info." menu can use remote control to operate only.
- ▶ Use "Del" to delete the previous character.
- ▶ Use "Space" to add a space.

Computer / Video Mode



All Images

Brightness

Adjusting the brightness of the image.

- ▶ Press the **1** 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.

Image Optimization

Image Optimization can be incrementally adjusted between 0 and 10. Click on the slider bar to adjust.

- ▶ Setting 10 will maximize brightness and contrast.
- \blacktriangleright Setting 0 will maximize color reproduction quality.

Color Temperature

Adjust the color temperature. At higher temperature, the screen looks colder; at lower temperature, the screen looks warmer.

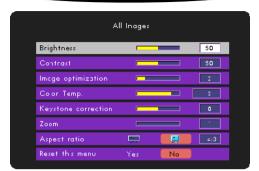
Keystone Correction

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

Zoom

- ▶ Press the **1** to reduce the size of an image.
- ▶ Press the ▶ to magnify an image on the projection screen.

Computer / Video Mode



All Image

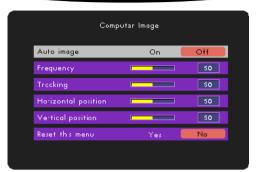
Aspect Ratio

Selects the desired aspect ratio.

Reset This Menu

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

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" changes the display data frequency to match the frequency of your computer's graphic card. If you experience a vertical flickering bar, use this function to make an adjustment.

Tracking

"Tracking" to synchronizes the signal timing of the display with the graphic card. If you experience an unstable or flickering image, use this function to correct it.

Horizontal Position

- ▶ Press the **1** to move the image left.
- ▶ Press the ▶ to move the image right.

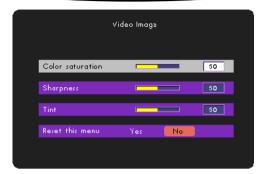
Vertical Position

- ▶ 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.

Video Mode



Video Image

Color Saturation

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

Adjusts the sharpness of the image.

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

Tint

Adjusts the color balance of red and green.

- ▶ Press the **1** 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.

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.

▶ **I**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

Turns the lamp hour counter to 0 hours.

Reset This Menu

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

Computer / Video Mode

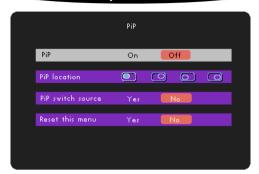


Management

Machine Reset

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

Computer Mode



PIP Picture-In-Picture

PIP

Choose "On" to select 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.

Troubleshooting

If you experience trouble with the projector, refer to the following information. 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.
- If you use a PC:

If the resolution of your computer is higher than 1024×768 . 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.

- 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 1024×768 .
- If you are using a Notebook PC:
 - You are required to implement above steps of resolution setting of computer first.
 - Switch the Notebook PC display to the "external display only" or "CRT only" mode.
- If you experience 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 screens when a second display device is in use. Refer to your computer's documentation for information on how to reactivate the monitor display.
- 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. Refer to page 22.
- ▶ Change the monitor color setting from your computer.

Problem: Image has vertical flickering bar

- ▶ Use "Frequency" to make an adjustment. Refer to page 24.
- Check and reconfigure the display mode of your graphic card to make it compatible with the product. Refer to page 27.

Problem: Image is out of focus

- Adjusts the Focus Ring on the projector lens. Refer to page 13.
- ▶ Make sure the projection screen is between the required distance 3.94 to 32.81 feet (1.20 to 10.00 meters) from the projector.

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

The projector automatically detects 16:9 DVD and adjusts the aspect ratio by digitizing to full screen with 4:3 default setting.

If the image is still outstretched, you will also need to adjust the aspect ratio by referring to the following: (See page 20)

- 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 refer to page 20 to choose 4:3 aspect ratio in the on screen menu.

Problem: Image is reversed.

▶ To select "Management" from the OSD and adjust the projection direction. See page 25.

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 on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Changing the Lamp". See page 30.

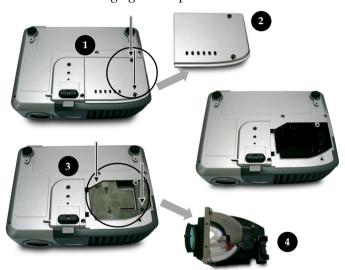
Changing the lamp



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

The projector will detect the lamp life itself. It will show you a warning message "The Lamp has been in use for over 1400 hours. You should purchase a spare bulb." When you see this message, please contact your local reseller or service center to change the lamp as soon as possible or refer to the following instructions to replace it yourself.

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 a screwdriver to remove 2 screws from the cover. **0**
- 5. Remove the cover. 2
- 6. Remove the 2 screws from the lamp module. 9
- 7. Pull out the lamp module.

To replace the lamp module, reverse the previous steps.

Specifications

Light Valve - Single Chip DLPTM Technology by Texas Instru

- 120W User Replaceable P-VIP Lamp 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

Projection Screen Size (Diag.) - 27.6 to 267.2 inches (0.70 to 6.79 meters) Diagonal

- 3.94 to 32.81 feet (1.20 to 10.00 meters) Projection Distance

Video Compatibility - NTSC/NTSC 4.43/PAL/PAL-M/PAL-N/SECAM

and HDTV compatible

- Composite video & S-Video capability

- 15kHz~70kHz horizontal scan H. Frequency V. Frequency 45Hz~80Hz vertical refresh

- Universal AC input 100~240V; Power Supply Input Frequency 50-60Hz

I/O Connectors - Power: AC power input socket

- Computer Input:

One VGA for analog/component and HDTV signal

- Video Input:

One Composite video RCA input

One S-Video input

Weight 2.1 lbs (1 kg)

Dimensions (W x H x D) - 7.8 x 5.8 x 2.2 inches (198 x 148 x 57 mm) Environmental

- Operating Temperature: 41~95°F (5~ 35°C)

Humidity: 80% maximum

- Storage Temperature: -4~140°F (-20~60°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

Compatibility Modes

	Resolution V.Frequence	(ANALOG)	
Mode		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 × 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 × 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 × 600	95	60
I MAC DV	1024 X 768	75	60
* I MAC DV	1152 X 870	75	68.49
* I MAC DV	1280X 960	75	75

Note

Remark: "*"

compression computer image.