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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.

Marning- 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- 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- When switching the projector off, please ensure the projector completes its cooling cycle before disconnecting power.

<u> Marning</u>- Turn on the projector first and then the signal sources.

<u>∧</u> Warning- Do not use lens cap when projector is in operation.

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 "Replacing 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:
 - In extremely hot, cold or humid environments.
 - In areas susceptible to excessive dust and dirt.
 - Near any appliance that generates a strong magnetic field.
 - Place in direct sunlight.

Product Features

This product is a 576p single chip 0.7" DLPTM projector. Outstanding features include:

- ◆ 1024 x 576 addressable pixels
- ◆ Single chip DLP™ technology
- NTSC/NTSC4.43/PAL/PAL-M/PAL-N/SECAM and HDTV compatible (480i/p, 576i/p, 720p, 1080i)
- ♦ HDCP compliant
- High-tech DVI-I connection for digital and analog video connectivity
- Wireless remote control
- User friendly multilingual on-screen display menu
- Advanced digital keystone correction and high quality full screen image re-scaling
- User friendly control panel
- Picture-In-Picture dual image
- UXGA, SXGA compression and VGA, SVGA, XGA re-sizing
- Mac compatible

Package Overview

This projector comes with all the items shown below. Check to make sure your unit is complete.



Projector with lens cap



Power Cord 1.8m



DVI to HDMI Adaptor



Composite Video Cable 1.8m



DVI to DVI Cable 1.8m



RCA Component Cable for YPbPr 1.8m



Due to the difference in applications for each country, some regions may have different accessories.



S-Video Cable 1.8m



SCART RGB/S-Video Adaptor (For European Use Only)



2 x Battery



Wireless Remote Controller



VGA to VGA (For European Use Only)

Documents:

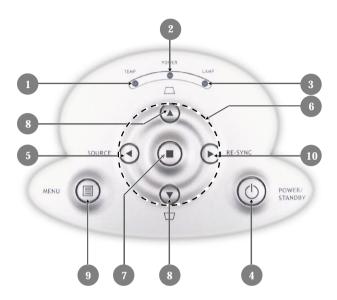
- ✓ User's Guide (CD)
- ✓ User's Manual
- **✓** Warranty Card

Product Overview



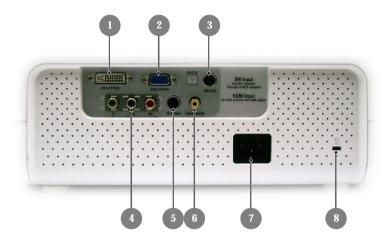
- 1. Zoom Ring
- 2. Focus Ring
- 3. Zoom Lens
- 4. Elevator Button
- 5. IR Receivers
- 6. Connection Ports
- 7. Power Socket
- 8. Control Panel

Control Panel



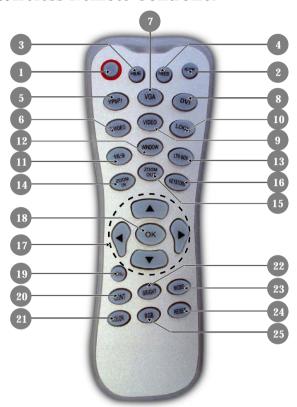
- Temp Indicator LED Power Indicator LED
- 2.
- 3. Lamp Indicator LED
- Power/Standby 4.
- 5. Source
- 6. Four Directional Select Keys
- 7. Enter
- 8. Keystone Correction
- Menu (On/Off)
- 10. Re-sync

Connection Ports



- DVI-I Input Connector (PC Digital and Analog signal/HDTV/ HDCP/Component Video Input)
- VGA Connector (PC Analog Signal/HDTV/Component Video Input)
- 3. RS232 Input Connector
- 4. Component Video Input Connector
- 5. S-Video Input Connector
- 6. Composite Video Input Connector
- 7. Power Socket
- 8. KensingtonTM Lock Port

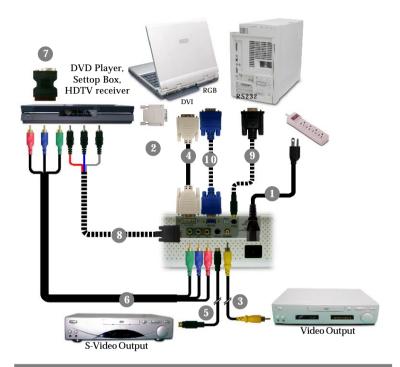
Wireless Remote Controller



- 1. Power On/Off
- 2. Re-sync
- 3. Display Hide
- 4. Freeze
- 5. Component Source (YPbPr)
- 6. S-Video Source
- 7. VGA Source
- 8. DVI-I Source
- 9. Composite Source
- 10. Source Lock
- 11.16:9
- 12. Window
- 13. Letterbox

- 14. Zoom In
- 15. Zoom Out
- 16. Keystone
- 17. Four Directional Select Keys
- 18. OK (Enter)
- 19. Menu
- 20. Contrast
- 21. Color
- 22. Brightness
- 23. Display Mode
- 24. Reset
- 25. RGB Adjustment

Connecting the Projector



- 1. Power Cord
- 2. DVI to HDMI Adaptor
- 3. Composite Video Cable
- 4. DVI to VGA
- 5. S-Video Cable
- 6. RCA Component Cable for YPbPr
- 7. SCART RGB/S-Video Adaptor (For European Use Only)
- 8. D-Sub to RCA Cable for HDTV/Component (Optional Accessory)
- 9. RS232 Cable (Optional Accessory)
- 10. VGA to VGA (Optional Accessory)

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. The Power LED will turn **red**.
- 3. Turn on the lamp by pressing "Power/Standby" button on the control panel.
 - The startup screen will display for 30 seconds and the Power LED will flash **green**.
 - When the startup screen disappears, the Power LED will turn **green**.
- **4.** Turn on your source (computer, notebook, video player, etc.). The projector will detect your source automatically.
- If you connect multiple sources at the same time, use the "Source" button on the control panel to switch.





Turn on the projector first and then the signal sources.

Powering Off the Projector

- 1. Press the "Power/Standby" button to turn off the projector lamp, you will see a message "Wait 2 minutes before you can switch on again" on the on-screen display.
- **2.** Press the "Power/Standby" button again to confirm. Otherwise the message will disappear after **10** seconds.
- 3. The cooling fans continue to operate for about 120 seconds for cooling cycle and the Power LED will turn red. When the light **stops** flashing, the projector has entered standby mode. If you wish to turn the projector back on, you must wait until the projector has completed the cooling cycle and has entered standby mode. Once in standby mode, simply press "Power/Standby" button to restart the projector.
- **4.** Disconnect the power cord from the electrical outlet and the projector.
- Do not turn on the projector immediately following a power off procedure.

Warning Indicator

- When the "TEMP" indicator turns red, it indicates the projector has overheated. The projector will automatically shut itself down. See page 31.
- When the "LAMP" 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. See page 31.
- When the "LAMP" indicator flashes red (1 second intervals), it indicates the fan failed. Stop using the projector and disconnect the power cord from the electrical outlet, then contact your local dealer or our service center. See page 31.

Adjusting the Projected Image

Adjusting the Projector Image Height

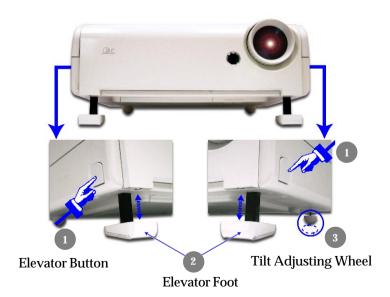
The projector is equipped with an elevator foot for adjusting the image height.

To raise the image:

- **1.** Press the elevator button **0**.
- 2. Raise the image to the desired height angle ②, then release the button to lock the elevator foot into position.
- 3. Use 3 to fine-tune the display angle.

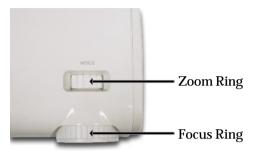
To lower the image:

- 1. Press the elevator button.
- Lower the image, 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 turn the 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 4.9 to 32.8 feet (1.5 to 10.0 meters).



Control Panel & Remote Control

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

Control Panel

Remote Control





Using the Control Panel

Power/Standby (b)

▶ Refer to the "Power On/Off the Projector" section on pages 11-12.

Source (4)

▶ 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 ♠ △ / ▼ ▽

 \blacktriangleright Adjusts image distortion caused by tilting the projector (±16 degrees).

Four Directional Select Keys

▶ Use ♠ ▼ ◆ b to select items or make adjustments to your selection.

Enter

▶ Confirm your selection of items.

Re-Sync (Only Analog RGB signal valid)

▶ Automatically synchronizes the projector to the input source.

Using the Remote Control

Power

▶ Refer to the "Power On/Off the Projector" section on pages 11-12.

Re-Sync

▶ Automatically synchronizes the projector to the input source.

Display Hide

"Hide" immediately turns the screen gray. Press "Hide" a second time to restore the display.

Freeze

▶ Press "Freeze" to pause the screen image.

16:9

▶ Scale the image at a 16:9 aspect ratio.

Window

▶ Enable the viewing of a 4:3 PC output signal.

LTR-BOX (Letterbox)

▶ Enable the viewing of a 2.35:1 or 1.85:1 movie without black bars at the top and bottom of the screen. Some of the original image will be lost from the up and down edges of the screen.

Zoom In /Zoom Out

Press "Zoom In" or "zoom Out" button to zoom in or zoom out of an image.

Keystone

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

Four Directional Select Keys

Use to select items or make adjustments to your selection.

OK (Enter)

▶ Confirm your selection of items.

Menu

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

BRIGHT (Brightness)

▶ Adjust the brightness of the image.

CONT (Contrast)

Controls the degree of difference between the lightest and darkest parts of the picture.

MODE (Display Mode)

▶ Select the display mode from Cinema, Normal, Vivid, Dynamic and User.

COLOR (Colour)

▶ Adjust a video image from black and white to fully saturated color.

RGB Adjustment

▶ Adjust the R (Red), G (Green), or B (Blue) for brightness and contrast.

Reset

▶ Reset the "Keystone" or "Zoom" to factory default settings.

LOCK (Source Lock)

▶ Select auto detection all connector ports or lock current connector port.

VGA

▶ Press "VGA" to change source to VGA connector. This connector supports Analog RGB, YPbPr (480p/576p/720p/1080i), YCbCr (480i/576i) and RGBsync.

DVI-I

▶ Press "DVI-I" to change source to DVI-I connector. This connector supports Digital RGB, Analog RGB, YPbPr (480p/576p/720p/1080i), YCbCr (480i/576i) and HDCP signal.

YPbPr (Component Source)

▶ Press "YPbPr" to change source to component connector. This connector supports YPbPr (480p/576p/720p/1080i) and YCbCr (480i/576i).

S-Video

▶ Press "S-Video" to change source to S-Video source.

Video (Composite Source)

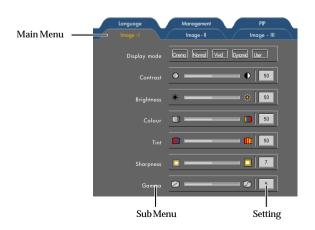
▶ Press "Video" to change source to Composite Video source.

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 Control Panel.
- 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. If you don't press any key, the projector will automatically disappear after 30 seconds. The OSD menu will close and the projector will automatically save the new settings.



Menu Tree

Language	English/Français/Deutsch/Español/Italiano/Português/Ðóññêèé/獨 電影影響。				
S	Display Mode ————————————————————————————————————	- Cinema/Normal/Vivid/Dynamic/User			
	Colour (Video only) Tint (Video only) Sharpness				
	Gamma RGB ————————————————————————————————————	R Brightness/G Brightness/B Brightness/R Contrast/G Contrast/B Contrast High/Mid./Low			
Image III	Format Frequency Phase	- (16:9/4:3/Letterbox/Window			
	Position ————————————————————————————————————	Horizontal Position/Vertical Position Horizontal Keystone/Vertical Keystone			
	Menu Location Projection Lamp Source Lock	Front Desktop/Front Ceiling/Rear Desktop/Rear Ceiling Lamp Reset/Brite Mode Lamp Hours/Lamp Reminding On/Off			
	PIP ———————————————————————————————————	-(On/Off -(Yes/No			
	Swap	-Yes/No			



Language

Language

Choose the multilingual OSD menu . Use the $\, \blacktriangle \,$ or $\, \blacktriangledown \,$ key to select your preferred language.

Press "Menu" to finalize the selection.

Computer / Video Mode



Image-I

Display Mode

There are five factory presets optimized for various types of pictures: Cinema, Normal, Vivid ,Dynamic and User. You can customize contrast, brightness, color, tint, sharpness, and gamma for each preset mode.

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

Brightness

Adjust the brightness of the image.

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

Colour (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.

Tint

Adjusts the color balance of red and green.

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



* "Colour" function is not supported under YPbPr source.

Computer / Video Mode



Image-I



* "Sharpness" function is not supported under YPbPr and YCbCr source.

Sharpness

Adjusts the sharpness of the image.

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

Gamma

Gamma affects how dark scenery is displayed. With a greater gamma value, dark scenery will look brighter. Use \blacktriangleleft \blacktriangleright to adjust gamma values.

Computer / Video Mode



Image-II

RGB

Press OK to adjust the R (Red), G (Green), or B (Blue) for brightness and contrast.

Color Temp.

The color temp control adjusts the color temperature of the image. At a higher temperature, the screen looks colder; at a lower temperature, the screen looks warmer.

DLP Gamma

Gamma affects how dark scenery is displayed. With a greater gamma value, dark scenery will look brighter. Use \blacktriangleleft \blacktriangleright to adjust gamma values.

DLP White Peaking

The white peaking control adjusts the white segment of the DMD chip. "0" stands for minimal peaking, and "10" stands for maximum peaking. If you prefer a stronger image, adjust toward the maximum setting. For a smoother, more natural image, adjust towards the minimum setting.

Reset

Press OK to return the display parameters on all menus to their factory default settings.

Image-III

Display Format

Use this function to choose your desired aspect ratio.

- Windows: The input source will be compacted in the center with scaling.
- 4:3: The input source will be scaled to fit the projection screen.
- ▶ 16:9: The input source will be scaled to fit the width of the screen.
- Letterbox: Letterbox mode zooms a letterboxed image intended for 4:3 display to full screen wide.





Original Input

The letterbox

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.

Phase

"Phase" 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.

Computer/Video Mode



Image-III



"Position" function is not supported under DVI-I source.

Position

Adjust the image position. Press OK to adjust



- Vertical Position
 - Press the ◀ or ▶ to move the image down or up.
- ▶ Horizontal Position

Press the **◄** or **▶** to move the image left or right.

Keystone (Keystone Correction)

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

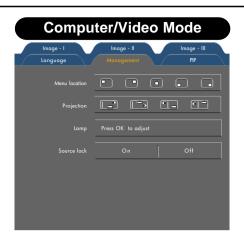
Press OK to adjust



- ▶ Vertical keystone: Press the o or to adjust image distortion vertically and makes a squarer image.
- ▶ Horizontal keystone: Press the o or to adjust image distortion horizontally and makes a squarer image.

Zoom

- ▶ Press the ▶ to magnify an image on the projection screen.
- ▶ Press the **d** to diminish the zoom in image.



Management

Menu Location

Choose the menu location on the display screen.

Projection

- 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

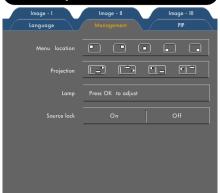
When you select this function, the projector reverses and turns the image upside down at same time. You can project from behind a translucent screen with ceiling mounted projection.

Lamp

Press OK to adjust.



Computer/Video Mode



Management

- ▶ Lamp Reminding: Select this function to show or hide the warning message when the lamp replacing reminder message is displayed. The message will show up when the lamp reaches 1500 hours at start-up screen. See "Replacing the Lamp" for more details.
- Lamp Hours: Display the cumulative lamp operating time.
- Lamp Reset: Reset the lamp life hour after replacing a new lamp.
- Brite Mode: Choose "On" to increase the brightness and re duce the contrast ratio. Choose "Off" to return normal mode.

Source Lock

When source lock is turned off, the projector will search for other signals if the current input signal is lost. When source lock is turned on, it will search specified connection port.

Computer/Video Mode



PIP

PIP

Choose "On" to select on the PIP screen.

Position

Choose the PIP screen position on the display screen.

Source Change

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

Swap

Choose "Yes" to swap main screen and PIP screen each other.

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 "Replacing the lamp" section.
- Make sure you have removed the lens cap and the projector is switched on.
- Ensure that the "Hide" feature is not enabled.

Problem: Partial, scrolling or incorrectly displayed image.

- Press the "Re-Sync" button on the Remote Control or Control Panel.
- 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:

- 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 1024×768 .

For Windows 95,98,2000,XP:

- 1. Open "My Computer" icon, the "Control Panel" folder, and then double click on 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 the 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 "Manufacturers" 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:
 - 1. You are required to implement the above steps of resolution setting of the 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 a 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 "Phase" to correct it. Refer to page 24.
- ▶ 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.

Problem: Image is out of focus

- ▶ Adjusts the Focus Ring on the projector lens. Refer to page 14.
- Make sure the projection screen is between the required distance 4.9 to 32.8 feet (1.5 to 10.0 meters) from the projector.

Problem: The image is stretched 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 stretched, 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 aspect ratio in the on screen menu.

Problem: Image is reversed.

Select "Management" from the OSD and adjust the projection direction. See page 26.

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 notturn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Replacing the Lamp". Seepage 33.

Problem: LED lighting message

·	Power LED			
Message	Green	Red	Temp LED	Lamp LED
Standby State	0	*	0	0
Warming	Flashing	0	0	0
Cooling	0	Flashing	0	0
Normal	₩	0	0	0
Error (Lamp failed)	0	0	0	Flashing
Error (Fan failed)	0	0	0	Flashing
Error (Over Temp.)	0	0	*	0

Problem: Message Reminders

Standby:

Wait 2 minutes before you can switch on agair Press Power key again to confirm Press OK key to move this warning

Over Temperature :

The projector will switch off automatically. Please:

- 1 Allow cool down for 3 minutes
- 2 Make sure air in and outlets are no blocked
- 3 Clean the dust filter

If the problem persists in spite of the above, please contact a service centre for repair.

Fan Failed:

The projector will switch off automatically. Please contact a service centre for repair.

Replacing the lamp :

Lamp life exceed

Replacing the lamp

The projector will detect the lamp life itself. It will show you a warning message "Lamp life exceed" When you see this message, change the lamp as soon as possible.

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



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

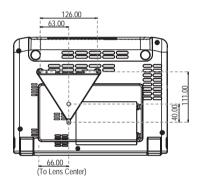
Lamp Changing Procedure:

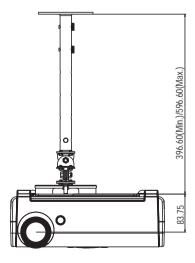
- Switch off the power to the projector by pressing the Power button.
- 2. Allow the projector to cool down at least 30 minutes.
- **3.** Disconnect the power cord.
- 4. Push up and Remove the cover.
- **5.** Remove the 3 screws from the lamp module. **2**
- 6. Pull out the lamp module. §

To replace the lamp module, reverse the previous steps.

Ceiling Mount Installation

- 1. To prevent damaging your projector, please use the ceiling mount package for installation.
- 2. If you wish to use a third party ceiling mount kit please ensure the screws used to attached a mount to the projector met the following specifications:
 - > Screw type: M3
 - Maximum screw length: 6mm







Please note that damage resulting from incorrect installation will invalidate the warranty.