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Congratulations and thank you for choosing an Optoma DLP projector.

#### Important:

It is strongly recommended that you read this section carefully before using the projector. These safety and usage instructions will ensure that you enjoy many years of safe use of the projector. Keep this manual for future reference.

#### Precautions

Warning symbols are used on the unit and in this manual to alert you of hazardous situations.

The following styles are used in this manual to alert you to important information.

Note:

Provides additional information on the topic at hand.

Important:

Provides additional information that should not be overlooked.

#### Caution:

Alerts you to situations that may damage the unit.

#### Warning:

Alerts you to situations that may damage the unit, create a hazardous environment, or cause personal injury.

Throughout this manual, component parts and items in the OSD menus are denoted in bold font as in this example:

"Push the Menu button on the remote control to open the Main menu."

#### Remote Control

Some remote controls have a laser for pointing out items on a screen. DANGER: Do not point the laser in the eyes. Doing so can damage the eyes permanently.

#### **General Safety Information**

- Do not open the unit case. Aside from the projection lamp, there are no user-serviceable parts in the unit. For servicing, contact qualified service personnel.
- > Follow all warnings and cautions in this manual and on the unit case.
- The projection lamp is extremely bright by design. To avoid damage to eyes, do not look into the lens when the lamp is on.
- > Do not place the unit on an unstable surface, cart, or stand.
- > Avoid using the system near water, in direct sunlight, or near a heating device.
- > Do not place heavy objects such as books or bags on the unit.
- Remove the lens cap to avoid high temperature damage and bad odor when the projector is switched on.



#### **Power Safety**

- Only use the supplied power cord.
- Do not place anything on the power cord. Place the power cord where it will not be in the way of  $\geq$ foot traffic.
- $\geq$ Remove the batteries from the remote control when storing or not in use for a prolonged period.

#### Replacing the Lamp

Replacing the lamp can be hazardous if done incorrectly. Refer to "Replacing the Projection Lamp" on page 41 for clear and safe instructions for this procedure. Before replacing the lamp:

- Unplug the power cord.
- Allow the lamp to cool for about one hour.

#### Important Recycle Instructions:

Lamp(s) inside this product contain mercury. This product may contain other electronic waste that Hq can be hazardous if not disposed of properly. Recycle or dispose in accordance with local, state, or federal Laws. For more information, contact the Electronic Industries Alliance at WWW.EIAE.ORG. For lamp specific disposal information check <u>WWW.LAMPRECYCLE.ORG</u>.



This symbol found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human health, which could otherwise be caused by inappropriate disposal of this product. The recycling of materials will help to conserve natural resources. This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

#### **Cleaning the Projector**

- Unplug the power cord before cleaning. Refer to "Cleaning the Projector" on page 45.
- Allow the lamp to cool for about one hour.

#### **Regulatory Warnings**

Before installing and using the projector, read the regulatory notices in the "Regulatory Compliance" section on page 58.

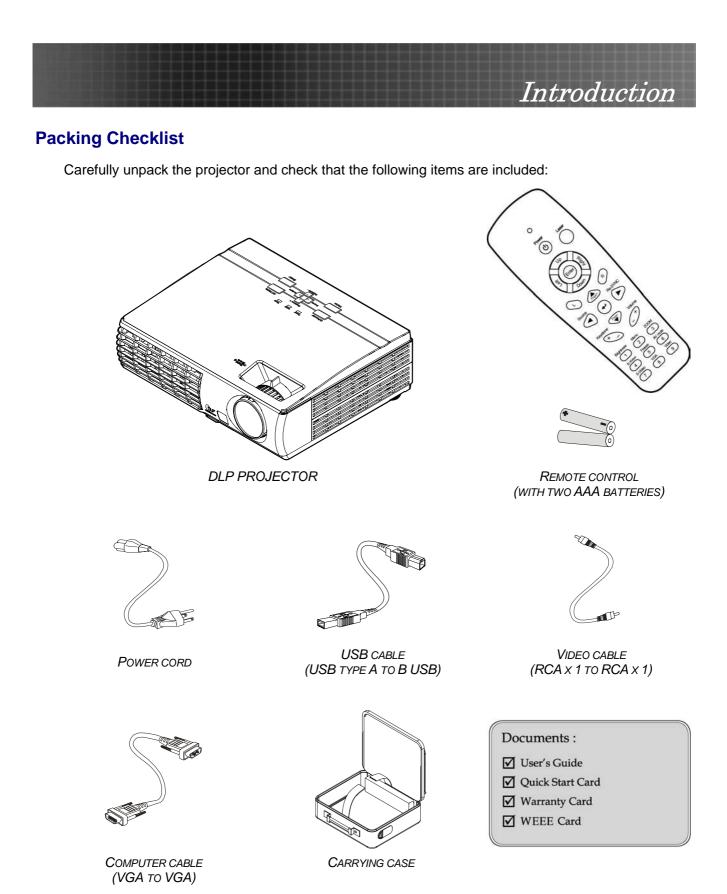


#### **Main Features**

- Lightweight unit, easy to pack away and transport
- Compatible with all major video standards including NTSC, PAL, and SECAM
- A high brightness rating allows for presentations in daylight or in lit rooms
- Supports resolutions up to UXGA (for XGA model)/WXGA+ (for WXGA model) at 16.7 million colors to deliver crisp, clear images
- Flexible setup allows for front and rear projections
- Line-of-vision projections remain square, with advanced keystone correction for angled projections
- Input source automatically detected

#### About this manual

This manual is intended for end users and describes how to install and operate the DLP projector. Wherever possible, relevant information—such as an illustration and its description—has been kept on one page. This printer-friendly format is both for your convenience and to help save paper, thereby protecting the environment. It is suggested that you only print sections that are relevant to your needs.



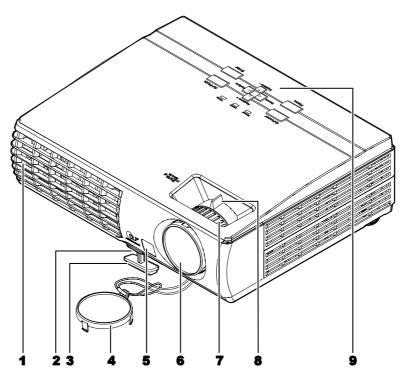
Contact your dealer immediately if any items are missing, appear damaged, or if the unit does not work.

## Caution:

Avoid using the projector in dusty environments.

# **Views of Projector**

Front-right View

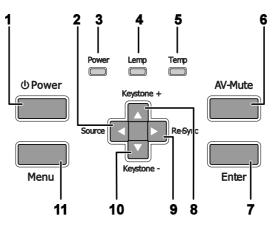


| Ітем | LABEL                               | DESCRIPTION                                | SEE PAGE: |
|------|-------------------------------------|--|-----------|
| 1.   | Ventilation opening                 | To keep the projector lamp cool            |           |
| 2.   | Height-adjuster button              | Push to release height adjustor            | 20        |
| 3.   | Height-adjuster                     | Adjusts level of projector                 |           |
| 4.   | Lens cap                            | Attach to protect lens when not in use     |           |
| 5.   | IR receiver                         | Receiver for IR signal from remote control | 11        |
| 6.   | Lens                                | Adjust focus/zoom on top opening           |           |
| 7.   | Focus                               | Focuses the projected image                | 21        |
| 8.   | Zoom                                | Enlarges the projected image               | 21        |
| 9.   | See "Top view—OSD buttons and LEDs" |  | 8         |

## Important:

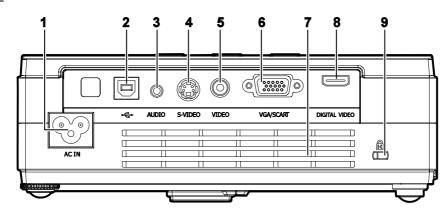
Ventilation openings on the projector allow for good air circulation, which keeps the projector lamp cool. Do not obstruct any of the ventilation openings.

Top view—On-screen Display (OSD) buttons and LEDs



| Ітем | LABEL                        |  | DESCRIPTION   | SEE PAGE: |  |
|------|------------------------------|--|---|-----------|--|
| 1.   | Power                        | Turns the proj   | ector On or Off   | 16        |  |
| 2.   | ◄/Source<br>(Left arrow)     | Select the input Navigates and   | ut device<br>I changes settings in the OSD  |           |  |
| 3.   | Power LED                    | Green  | Unit is powered on and working correctly  |           |  |
|      |                              | Flashing<br>Green  | Unit is on stand-by/cooling down  |           |  |
|      |                              | Off  | Unit is powered off   |           |  |
| 4.   | Lamp LED                     | On   | Lamp not ready-do not press the power butto   | on        |  |
|      |                              | Off  | Lamp is in normal state   |           |  |
| 5.   | Temp LED                     | On   | On System over temperature  |           |  |
|      |                              | Off  | Off Normal state  |           |  |
| 6.   | AV-Mute                      | Display blank  | Display blank and audio mute  |           |  |
| 7.   | Enter                        | Enter key for t  | Enter key for the OSD menu  |           |  |
| 8.   | ▲/Keystone+<br>(Up arrow)    |  | Corrects image-trapezoid (wider bottom) effect21Navigates and changes settings in the OSD21 |           |  |
| 9.   | ►/Re-Sync<br>(Right arrow)   | Re-Sync VGA source, adjusts phase, tracking, size, position<br>Navigates and changes settings in the OSD |   |           |  |
| 10.  | ▼/Keystone -<br>(Down arrow) | Corrects image-trapezoid (wider top) effect21Navigates and changes settings in the OSD21                 |   |           |  |
| 11.  | Menu                         | To switch OSI  | To switch OSD menu On or Off  |           |  |

<u>Rear view</u>

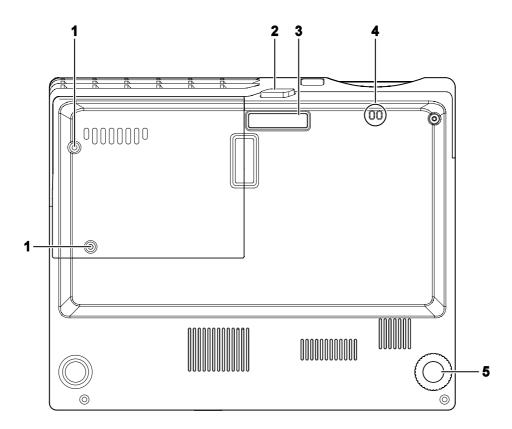


| Ітем | LABEL   | DESCRIPTION   | SEE PAGE: |
|------|---|---|-----------|
| 1.   | AC IN (Power)                                 | Connect the supplied power cord                                 | 16        |
| 2.   | • C → (USB)                                   | Connect the USB cable from a computer                           |           |
| 3.   | AUDIO   | Connect the audio cable from an audio input device.             |           |
| 4.   | S-VIDEO                                       | Connect the composite or S-video cable from a video de-<br>vice |           |
| 5.   | VIDEO   | Connect a composite video cable from a video device.            |           |
| 6.   | VGA/SCART Connect a VGA cable from a computer |   |           |
| 7.   | Ventilation opening                           | Do not obstruct to keep the projector cool.                     |           |
| 8.   | DIGITAL VIDEO                                 | Connect a DIGITAL VIDEO cable from any video source             |           |
| 9.   | 🛱 (Security Lock)                             | Secure to permanent object with a Kensington® Lock system       | 45        |

Note:

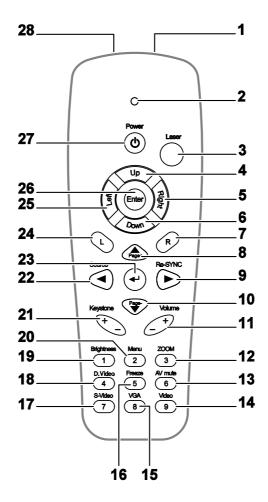
If your video equipment has both S-video and RCA jacks (composite video) connect to the S-video connector. S-video provides a better quality signal.

Bottom view



| Ітем | LABEL                        | DESCRIPTION   | SEE PAGE: |  |
|------|------------------------------|---|-----------|--|
| 1.   | Projection lamp cover screws | Remove when changing the lamp                         | 41        |  |
| 2.   | Height adjuster button       | Push to release height adjuster                       | 20        |  |
| 3.   | Height adjuster              | Adjuster drops down when adjuster button is<br>pushed | 20        |  |
| 4.   | Strap mount                  | Fasten the lens cap cover                             |           |  |
| 5.   | Tilt adjuster                | Rotate adjuster lever to adjust angle position        | 20        |  |

#### **Remote Control**



#### Important:

**1.** Avoid using the projector with bright fluorescent lighting turned on. Certain high-frequency fluorescent lights can disrupt remote control operation.

**2.** Be sure nothing obstructs the path between the remote control and the projector. If the path between the remote control and the projector is obstructed, you can bounce the signal off certain reflective surfaces such as projector screens.

**3.** The buttons and keys on the projector have the same functions as the corresponding buttons on the remote control. This user's manual describes the functions based on the remote control.

| Ітем | LABEL          | DESCRIPTION SEE PAGE:                       |  |  |
|------|----------------|---|--|--|
| 1.   | IR transmitter | Transmits signals to projector              |  |  |
| 2.   | Status LED     | Lights when the remote control is used      |  |  |
| 3.   | Laser          | Press to operate the on-screen pointer      |  |  |
| 4.   | Up             | Up arrow when connected through USB to a PC |  |  |

|     |                                     | Introd   | luction          |  |
|-----|-------------------------------------|--|------------------|--|
| 5.  | Right                               | Right arrow when connected through USB to a PC   |                  |  |
| 6.  | Down                                | Down arrow when connected through USB to a PC  |                  |  |
| 7.  | R (Right)                           | R key for emulation of USB mouse right click via USB   |                  |  |
| 8.  | ▲/Page+<br>(Up arrow)               | Page Up key when connected through USB to a PC<br>Navigates and changes settings in the OSD                      |                  |  |
| 9.  | ▶/Re-SYNC<br>(Right arrow)          | Navigates and changes settings in the OSD<br>Re-Sync VGA source, adjustment for phase, tracking, size<br>OSD off | e, position when |  |
| 10. | Page-/ ▼<br>(Down arrow)            | Page Down key when connected through USB to a PC Navigates and changes settings in the OSD                       |                  |  |
| 11. | Volume +/-                          | Adjusts volume   | 21               |  |
| 12. | 3 (ZOOM)                            | Zoom in and out  |                  |  |
| 13. | 6 (AV mute)                         | Display blank & Audio mute   |                  |  |
| 14. | 9 (Video)                           | Input source select Video  |                  |  |
| 15. | 8 (VGA)                             | Input source select VGA  |                  |  |
| 16. | 5 (Freeze)                          | Freeze/unfreezes the on-screen picture   |                  |  |
| 17. | 7 (S-Video)                         | Input source select S-Video  |                  |  |
| 18. | 4 (D.Video)                         | Input source select digital video  |                  |  |
| 19. | 1 (Brightness)                      | Brightness menu  |                  |  |
| 20. | 2 (Menu)                            | Opens the OSD  |                  |  |
| 21. | Keystone +/-                        | Corrects image-trapezoid (wider top/bottom) effect   | 21               |  |
| 22. | ◀ (Source)                          | Navigates and changes settings in the OSD<br>Input source selection when OSD Off                                 |                  |  |
| 23. | <ul> <li>✓ (Enter arrow)</li> </ul> | Changes settings in the OSD  |                  |  |
| 24. | L (Left)                            | L key for emulation of USB mouse left click via USB  |                  |  |
| 25. | Left                                | Left arrow when connected through USB to a PC  |                  |  |
| 26. | Enter                               | Enter key when connected through USB to a PC   |                  |  |
| 27. | Power                               | Turns the projector On or Off  |                  |  |
| 28. | Laser                               | Use as on-screen pointer. DO NOT POINT IN EYES.  |                  |  |



#### Note:

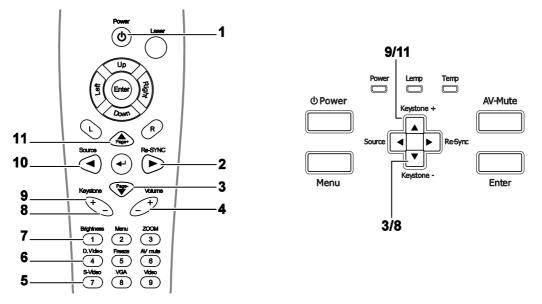
The remote control can only interface with a computer when connected to the computer through a USB cable connection. The computer cable connects a computer to the projector for display purposes only.

# **Remote Control Operating Range**

The remote control uses infrared transmission to control the projector. It is not necessary to point the remote directly at the projector. Provided you are not holding the remote perpendicular to the sides or the rear of the projector, the remote will function well within a radius of about 10 meters (33 feet) and 30 degrees above or below the projector level.

#### **Projector and Remote Control Buttons**

The projector can be operated using the remote control or the buttons on the top of the projector. All operations can be carried out with the remote control; however the buttons on the projector are limited in use. The following illustration shows the corresponding buttons on the remote control and on the projector.



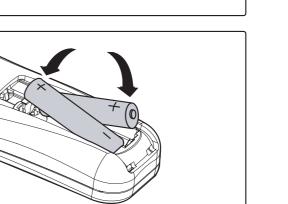
Some buttons on the projector have two functions. For example, item 9/11 on the projector functions both as the keystone button and as the up arrow key in OSD menus.

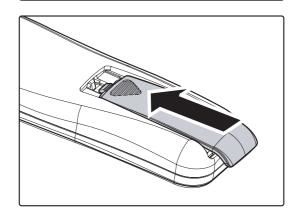
# **Inserting the Remote Control Batteries**

1. Remove the battery compartment cover by sliding the cover in the direction of the arrow.

2. Insert the supplied batteries taking note of the polarity (+/-) as shown here.

3. Replace the cover.





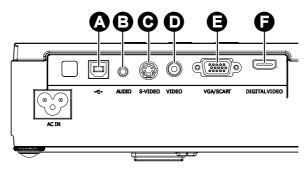
#### Caution:

- 1. Only use AAA batteries (Alkaline battery is preferred).
- 2. Dispose of used batteries according to local ordinance regulations.
- 3. Remove the batteries when not using the projector for prolonged periods.



# **Connecting Input Devices**

A PC or notebook computer as well as video devices can be connected to the projector at the same time. Video devices include DVD, VCD, and VHS players, as well as movie camcorders and digital still cameras. Check the user manual of the connecting device to confirm it has the appropriate output connector.



| Ітем | LABEL            | DESCRIPTION   |
|------|------------------|---|
| A    | USB              | Connect the USB cable from a computer for USB mouse function and firmware upgrades. |
| B    | AUDIO            | Connect an audio cable from the computer's audio-out connector.                     |
| С    | S-VIDEO          | Connect the S-video cable from a video device.                                      |
| D    | VIDEO            | Connect a composite video cable from a video device.                                |
| B    | VGA/SCART        | Connect a VGA cable from a computer.  |
| F    | DIGITAL<br>VIDEO | Connect a DIGITAL VIDEO cable from any video source                                 |

#### Warning:

As a safety precaution, disconnect all power to the projector and connecting devices before making connections.

Setup and Operation

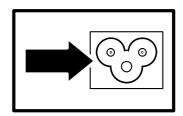
# Starting and Shutting down the Projector

- 1. Connect the power cord to the projector.
- 2. Turn On the connected devices.
- 3. Ensure the Power LED is steady (flashing) and then press the Power button to turn On the projector.

The projector splash screen displays and connected devices are detected. If the connected device is a PC, press the appropriate keys on the computer keyboard to switch the display output to the projector. (Check the user manual of the PC to determine the appropriate Fn key combination to change display output.)

See "Setting an Access Password (Security Lock)" on page 17 if security lock is enabled.

- If more than one input device is connected, press the **Source** button repeatedly to switch among devices.
   (DVD and HDTV are supported through the VGA connector)
- 5. To turn off the projector, press the power button. The **Power Off? / Press Power again** message appears. Press the **Power** button again to turn off the projector.





| Ð | Analog RGB         | w |
|---|--------------------|---|
|   | 1024 x 768 @ 60 Hz |   |

Power Off? Press Power again

# Caution:

Do not unplug the power cord until the fan stops, indicating the projector has cooled down.



# Setting an Access Password (Security Lock)

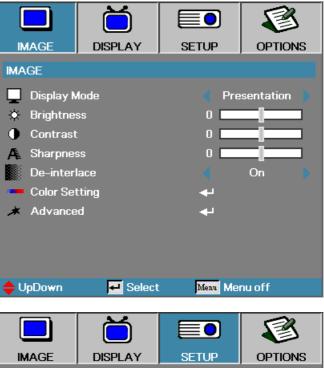
You can use the arrow buttons to set a password and prevent unauthorized use of the projector. When enabled, the password must be entered after you power on the projector. (See *Navigating the OSD* on page 22 and *Setting the OSD Language* on page 23 for help on using OSD menus.)

#### Important:

2.

Keep the password in a safe place. Without the password, you will not be able to use the projector. If you lose the password, contact your reseller for information on clearing the password.

1. Press the **Menu** button to open the OSD menu.



Press **◄►** to move to the **SETUP** menu.

|            | ŏ        |            | 8       |
|------------|----------|------------|---------|
| IMAGE      | DISPLAY  | SETUP      | OPTIONS |
| SETUP      |          |            |         |
| 🧐 Language | 3        | <b>L</b>   |         |
| Nerojectio | n        |            | P 🕨     |
| 📔 Menu Loo | ation    |            | • •     |
| 🔺 Advance  | d        | <b>4</b> 1 |         |
| 💥 Mute     |          |            | Off 🕨   |
| 📫 Volume   |          | 4 🔛        |         |
| 🔒 Security |          |            |         |
|            |          |            |         |
|            |          |            |         |
| 🔶 UpDown   | 🕶 Select | Menu Me    | nu off  |

|    |  | Se  | tup an            | d Oper   | ration       |
|----|--|---|-------------------|--|--------------|
| 3. | Press ▲ ▼ to select <b>Security</b> .  | IMAGE   | DISPLAY           | SETUP  | OPTIONS      |
|    |  | SETUP <ul> <li>Language</li> <li>Projection</li> <li>Menu Location</li> <li>Advanced</li> <li>Mute</li> <li>Volume</li> <li>Security</li> </ul> |                   | <b>↓</b><br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>() | P k<br>Off k |
| 4. | Press ▲ ▼ to select <b>Security Setting</b><br>and then press <b>◄</b> ► to select <b>En-</b><br><b>able/Disable</b> . | ♦ UpDown IMAGE  | E Select          | Meru Me  | nu off       |
|    |  | SETUP / Secu<br>Security<br>Change F<br>Security<br>Exit  | Timer<br>Password | +<br>+<br>▼  | Disable      |

5. When the security setting is **Enabled**, you are prompted to enter a password soon after the projector is powered on.

**Note:** If the incorrect password is entered three times the projector auto shutdowns down after 10 seconds.

The default password is: <1> <2> <3> <4> <5>.

🕶 Select

Password

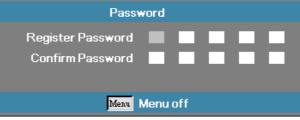
Menu Cancel

Menu Menu off

🔶 UpDown

# 6. To change a password, enter the previous password when prompted.

**7.** Use the following keys <1>, <2>, <3>, <4>, <5>, <6>, <7>, <8>, <9> to define a new password.

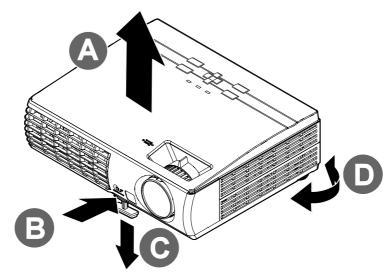


Setup and Operation

## **Adjusting the Projector Level**

Take note of the following when setting up the projector:

- The projector table or stand should be level and sturdy.
- Position the projector so that it is perpendicular to the screen.
- Ensure the cables are in a safe location. You could trip over them.



1. To raise the level of the projector, lift the projector **[A]** and press the heightadjuster button **[B]**.

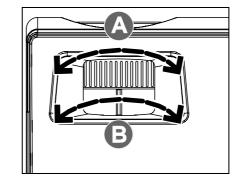
The height adjuster drops down [C].

- 2. To lower the level of the projector, press the height-adjuster button and push down on the top of the projector.
- 3. To adjust the angle of the picture, turn the tilt adjuster **[D]** right or left until desired angle achieved.

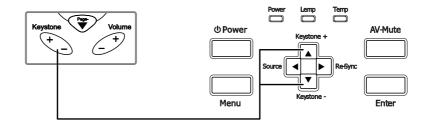
# Setup and Operation

## Adjusting the Zoom, Focus and Keystone

- 4. Use the **Image-zoom** control (on the projector only) to resize the projected image and screen size **B**.
- 5. Use the **Image-focus** control (on the projector only) to sharpen the projected image



6. Press the **Keystone** button on the remote control. The corresponding buttons are seen on the panel

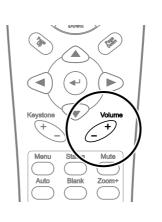


0

7. Use the **Keystone** button to correct image distortion.

Adjusting the Volume

- 1. Press the Volume +/button on the remote control
- 2. Use the **Volume +/-** button to adjust the level.



- Volume 4
- 3. Press the **AV mute** button on the remote control to turn off the volume.

AV mute

V Keystone

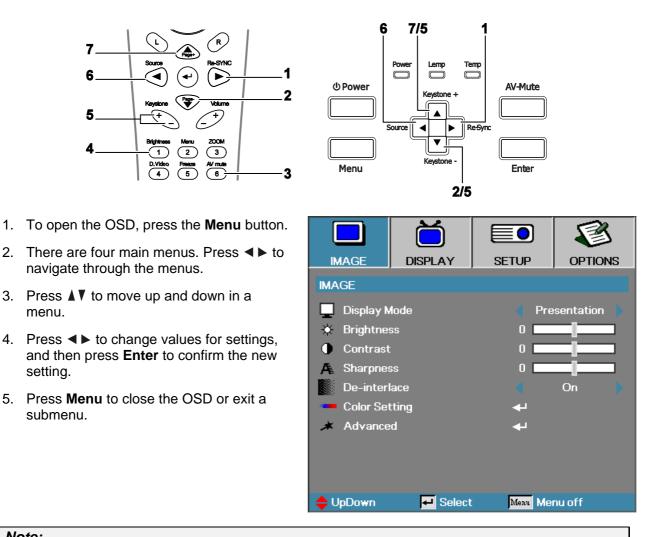


## **OSD Menu Controls**

The projector has an OSD that lets you make image adjustments and change the settings.

#### Navigating the OSD

You can use the remote control arrow buttons or the buttons on the top of the projector to navigate and make changes to the OSD. The following illustration shows the corresponding buttons on the remote control and on the projector.



#### Note:

Depending on the video source not all items in the OSD are available. For example, the **Horizon**tal/Vertical Position items in the Setup menu can only be modified when connected to a PC. Items that are not available cannot be accessed.



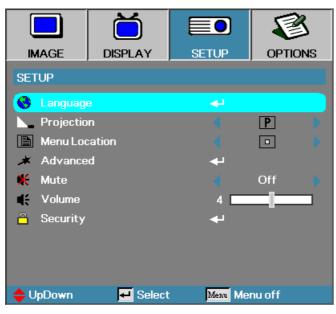
# Setting the OSD Language

You may want to reference the OSD on your projector while reading this section. Set the OSD language to your preference before continuing. (The default language is English.)

1. Press the **Menu** button. Press ◀► to navigate to the **SETUP** menu as seen in the following screen.



2. Press **I** until **Language** is highlighted. Press **Enter** to setup your language.





3. Select the language from the Language menu. Press **I** until your language is displayed.

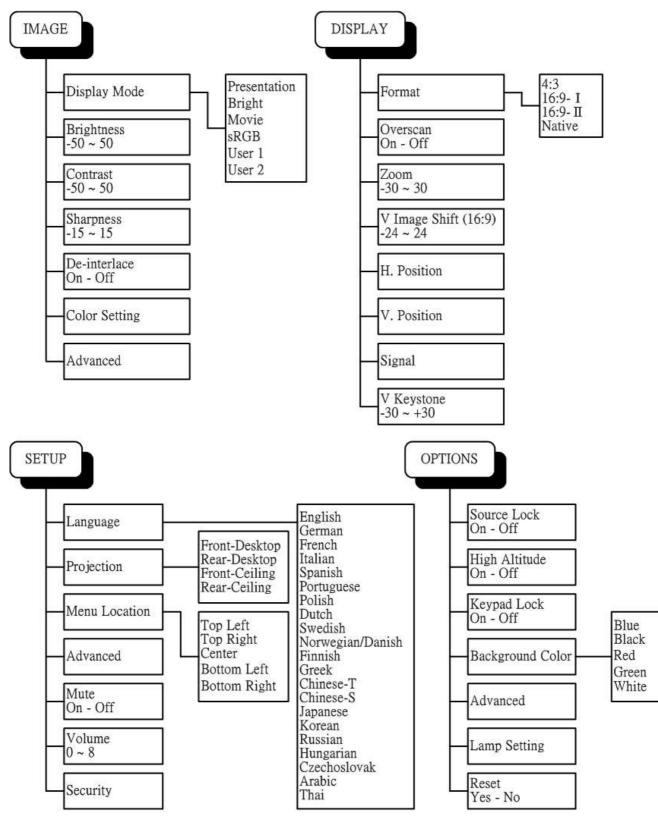
|              | Ŏ       |        |           |
|--------------|---------|--------|-----------|
| IMAGE        | DISPLAY | SETUP  | OPTIONS   |
| SETUP / Lang | uage    |        |           |
| 🚱 Language   |         | •      | English   |
| Exit         |         |        |           |
|              |         |        |           |
| English      | Deuts   | sch    | Français  |
| Italiano E   |         | ĩol    | Português |
| Polski Ne    |         | rlands | Svenska   |
| Norsk/Dans   | k Suom  | i      | Ελληνικά  |
| 繁體中文         | 簡体      | 中文     | 日本語       |
| 한국어          | Русси   | сий    | Magyar    |
| Čeština      | لعربية  |        | อังกฤษ    |
| 🔶 UpDown     | 🗾 Selec | t Menu | Menu off  |

- 4. Press Enter to select your language and then click Exit.
- 5. Press Menu to close the OSD.



# **OSD Menu Overview**

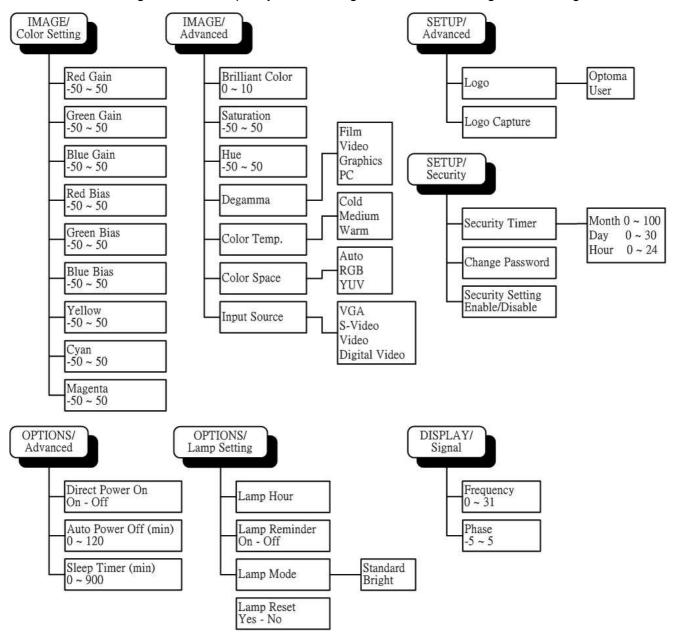
Use the following illustration to quickly find a setting or determine the range for a setting.





# **OSD Sub-Menu Overview**

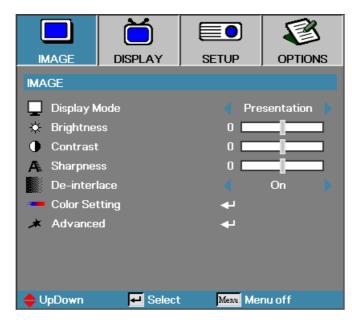
Use the following illustration to quickly find a setting or determine the range for a setting.





#### Image Menu

Press the **Menu** button to open the OSD menu. Press ◀ ► to move to the **IMAGE** menu. Press ▲ ▼ to move up and down in the **IMAGE** menu. Press ◀ ► to change values for settings, and then press **Enter** to confirm the new setting.

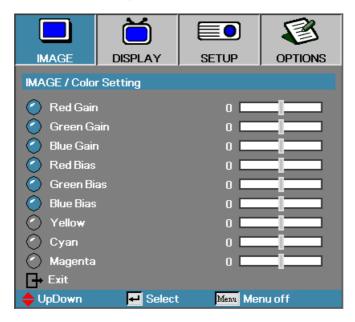


| Ітем          | DESCRIPTION  | DEFAULT  |
|---------------|--|--|
| Display Mode  | Press ▲▼ to select different display mode.   | Based on different input sources                                     |
| Brightness    | Press ◀▶ to adjust the display brightness.   | Based on different<br>input sources or user<br>selected display mode |
| Contrast      | Press ◀▶ to adjust the display contrast.   | Based on different<br>input sources or user<br>selected display mode |
| Sharpness     | Press ◀▶ to select different sharpness level.  | Based on different<br>input sources or user<br>selected display mode |
| De-interlace  | Press <b>t</b> o enable or disable De-interlace mode. This function converts an interlaced video signal into progressive signal. | On   |
| Color Setting | Press Enter to open the Color Setting menu.  |  |
| Advanced      | Press Enter to open the Advanced menu.   |  |



#### **Color Setting**

Press the **Menu** button to open the OSD menu. Press ◀ ► to move to the **IMAGE** menu. Press ▲▼ to move up and down in the **Color Setting** sub menu. Press ◀ ► to change values for settings, and then press **Enter** to confirm the new setting.



| Ітем       | DESCRIPTION  | DEFAULT  |
|------------|--|--|
| Red Gain   | Press ◀► to adjust the gain by altering the Color Space Converter (CSC) coefficients. The gain can be adjusted independently for each color (R, G, B). |  |
| Green Gain | Press ◀► to adjust the gain by altering the Color Space Converter coefficients. The gain can be adjusted independently for each color (R, G, B).       |  |
| Blue Gain  | Press ◀► to adjust the gain by altering the Color Space Converter coefficients. The gain can be adjusted independently for each color (R, G, B).       | Based on different<br>input sources or<br>user selected dis- |
| Red Bias   | Press ◀▶ to adjust the contrast (Bias). The gain can be adjusted independently for each color (R, G, B).   | play mode  |
| Green Bias | Press ◀▶ to adjust the contrast (Bias). The gain can be adjusted independently for each color (R, G, B).   |  |
| Blue Bias  | Press ◀▶ to adjust the contrast (Bias). The gain can be adjusted independently for each color (R, G, B).   |  |
| Yellow     | Press ◀▶ to adjust the gain of HSG (Hue Saturation Gain). The gain can be adjusted independently for each color (Y, C, M).                             |  |
| Cyan       | Press ◀▶ to adjust the gain of HSG (Hue Saturation Gain). The gain can be adjusted independently for each color (Y, C, M).                             |  |
| Magenta    | Press ◀▶ to adjust the gain of HSG (Hue Saturation Gain). The gain can be adjusted independently for each color (Y, C, M).                             |  |



# <u>Advanced</u>

Press the **Menu** button to open the OSD menu. Press  $\blacktriangleleft \triangleright$  to move to the **IMAGE** menu. Press  $\blacktriangle \lor$  to move up and down in the **Advanced** sub menu. Press  $\blacktriangleleft \triangleright$  to change values for settings, and then press **Enter** to confirm the new setting.

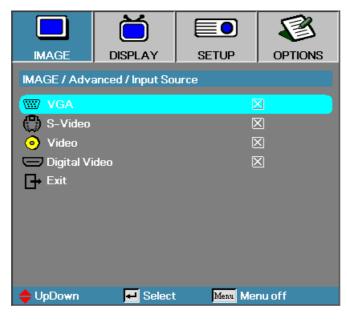
|               | Ŏ              |          | 8         |  |
|---------------|----------------|----------|-----------|--|
| IMAGE         | DISPLAY        | SETUP    | OPTIONS   |  |
| IMAGE / Adva  | anced          |          |           |  |
| 💽 Brilliant C | olor           | 2 🗖      |           |  |
| Saturatio     | n              | 0        |           |  |
| Hue           |                | 0        |           |  |
| 🗾 🗹 Degamma   | а              | Graphics |           |  |
| 🔋 Color Ter   | np.            | ا 🌔      | vledium 🔰 |  |
| 😙 Color Spa   | ace            |          | Auto      |  |
| 🕘 Input Sou   | Input Source 🚽 |          |           |  |
| Exit ⊡        |                |          |           |  |
|               |                |          |           |  |
|               |                |          |           |  |
| 🔶 UpDown      | 🕶 Select       | Menu Me  | nu off    |  |

| Ітем            | DESCRIPTION  | DEFAULT                                       |
|-----------------|--|---|
| Brilliant Color | Press ◀▶ to brilliant Color extends the gamut color range. |   |
| Saturation      | Press ◀► to adjust the video saturation.                   |   |
| Hue             | Press ◀▶ to adjust the video tint/hue.                     | Based on different in-<br>put sources or user |
| Degamma         | Press ◀▶ to select different Degamma correction.           | selected display mode                         |
| Color Temp      | Press ◀▶ to select different color temperature.            |   |
| Color Space     | Press ◀► to adjust the color space.                        | Auto  |
| Input Source    | Press Enter to open the Input Source menu.                 |   |



#### Input Source

Press the **Menu** button to open the OSD menu. Press ◀► to move to the **IMAGE** menu. Press ▲▼ to move up and down in the **Advanced** sub menu and select **Input Source**.



| Ітем         | DESCRIPTION  | DEFAULT |
|--------------|--|---------|
| Input Source | Press <b>Enter</b> to enable or disable the selection.<br>The projector will not search for deselected inputs. If the user con-<br>nects multiple sources at the same time, use the <b>Source</b> button on<br>the keypad or the remote control. | VGA     |
|              | Available sources: VGA, S-Video, Video, Digital Video  |         |

# Image Menu Functions Available for Input Sources

| Function        | VGA | Component<br>Video | DIGITAL<br>VIDEO | SCART | Composite<br>Video | S-Video |
|-----------------|-----|--------------------|------------------|-------|--------------------|---------|
| Brilliant Color | 0   | 0                  | 0                | 0     | 0                  | 0       |
| Saturation      |     | 0                  |                  | 0     | 0                  | 0       |
| Hue             |     | 0                  |                  | 0     | 0                  | 0       |
| Degamma         | 0   | 0                  | 0                | 0     | 0                  | 0       |
| Color Temp.     | 0   | 0                  | 0                | 0     | 0                  | 0       |
| Color Space     | 0   | 0                  | 0                | 0     | 0                  | 0       |
| Input Source    | 0   | 0                  | 0                | 0     | 0                  | 0       |

O = available to video source



# **Display Menu**

Press **Menu** to open the OSD menu. Press ◀ ► to move to the **DISPLAY** menu. Press ▲▼ to move up and down in the **DISPLAY** menu. Press ◀ ► to change values for settings, and then press **Enter** to confirm the new setting.

|              | Ŏ            |          | 8       |  |  |
|--------------|--------------|----------|---------|--|--|
| IMAGE        | DISPLAY      | SETUP    | OPTIONS |  |  |
| DISPLAY      |              |          |         |  |  |
| 🗖 Format     |              |          | 4:3     |  |  |
| 🔲 Oversca    | n            |          | On 🕨    |  |  |
| 🔎 Zoom       |              | 0        |         |  |  |
| 🏮 V Image    | Shift (16:9) | 0        |         |  |  |
| 🔲 H. Positic | n            | 0        |         |  |  |
| 🔲 V. Positio | n            | 0        |         |  |  |
| 🕂 Signal     |              | <b>↓</b> |         |  |  |
| 🛆 V Keyste   | one          | 0        |         |  |  |
|              |              |          |         |  |  |
| 🔶 UpDown 👘   | 🕶 Select     | Menu Mei | nu off  |  |  |

| Ітем                    | DESCRIPTION   | DEFAULT                              |
|-------------------------|---|--------------------------------------|
| Format                  | Press ◀ ► to adjust the video aspect ratio.   |                                      |
|                         | Note: The Format function is only accessible when Zoom function is not active.                | -                                    |
| Overscan                | Press ◀ ► to enable or disable video overscan.  | Read on different                    |
|                         | Note: The Overscan function only accessible when Zoom function is not active.                 | Based on different<br>input sources. |
| Zoom                    | Press ◀ ► to Zoom In and Zoom Out.  | 0                                    |
| V Image<br>Shift (16:9) | Press ◀ ► to Adjust the image position to up or down, when select-<br>ing the format to 16:9. | Center                               |
| H.Position              | Press ◀ ► to adjust the display position in horizontal direction.                             | Center                               |
| V.Position              | Press ◀ ► to adjust the display position in vertical direction.                               | Center                               |
| Signal                  | Press Enter to open the Signal menu.  |                                      |
| V.Keystone              | Press ◀ ► to adjust the vertical keystone.  | 0                                    |

Note: For specific display settings specific to your model see the tables that follow:

#### WXGA

| Source   | 480i/p            | 576i/p          | 1080i/p        | 720p     | PC |
|----------|-------------------|-----------------|----------------|----------|----|
| 4x3      | Scale to 1024x768 |                 |                |          |    |
| 16x9-1   | Scale to 1280x720 |                 |                |          |    |
| 16x 9-ll | Scale to 1280x768 |                 |                |          |    |
| Native   | Depends           | s on the resolu | ution of the d | lisplay. |    |

Menu Setting

#### XGA

| Source   | 480i/p  | 576i/p        | 1080i/p        | 720p     | PC |
|----------|---|---------------|----------------|----------|----|
| 4x3      | Scale to 1024x768   |               |                |          |    |
| 16x9-1   | Scale to 1024x576   |               |                |          |    |
| 16x 9-ll | Scale to meet 1.67(1:0.6), DMD displays 1024x576 if ratio < 1.67; otherwise, it'd be the same as 16:9-1 |               |                |          |    |
| Native   | Depends   | on the resolu | ution of the c | lisplay. |    |



## <u>Signal</u>

Press **Menu** to open the OSD menu. Press ◀ ► to move to the **DISPLAY** menu. Press ▲ ▼ to move up and down and select **Signal**. Press ◀ ► to change values for settings, and then press **Enter** to confirm the new setting.

|               | Ŏ        |          | 8       |
|---------------|----------|----------|---------|
| IMAGE         | DISPLAY  | SETUP    | OPTIONS |
| DISPLAY / Sig | gnal     |          |         |
| IIII Frequenc | сy       | 15       |         |
| III Phase     |          | 0        |         |
| Exit          |          |          |         |
|               |          |          |         |
|               |          |          |         |
|               |          |          |         |
|               |          |          |         |
|               |          |          |         |
| <b>A</b> 11 B |          |          |         |
| 🔶 UpDown      | 🗾 Select | Menu Mei | nu off  |

| Ітем      | DESCRIPTION                                | DEFAULT |
|-----------|--|---------|
| Frequency | Press ◀► to adjust the A/D sampling clock. | Auto    |
| Phase     | Press ◀ ► to adjust the A/D phase.         | Auto    |

# Display Menu Functions Available for Connected Source

| Function         | VGA | Component<br>Video | DIGITAL<br>VIDEO | SCART | Composite<br>Video | S-Video |
|------------------|-----|--------------------|------------------|-------|--------------------|---------|
| Format           | 0   | 0                  | 0                | 0     | 0                  | 0       |
| Overscan         |     | 0                  |                  | 0     | 0                  | 0       |
| Zoom             | 0   | 0                  |                  | 0     | 0                  | 0       |
| V Image Shift    | 0   | 0                  | 0                | 0     | 0                  | 0       |
| H. Position      | 0   | 0                  |                  |       |                    |         |
| V. Position      | 0   | 0                  |                  |       |                    |         |
| Signal/Frequency | 0   | 0                  |                  |       |                    |         |
| Signal/Phase     | 0   | 0                  |                  |       |                    |         |
| V Keystone       | 0   | 0                  | 0                | 0     | 0                  | 0       |

O = available to video source



#### Setup Menu

Press the **Menu** button to open the OSD menu. Press  $\blacktriangleleft \triangleright$  to move to the **SETUP** menu. Press  $\blacktriangle \lor$  to move up and down in the **SETUP** menu. Press  $\blacktriangleleft \triangleright$  to change values for settings, and then press **Enter** to confirm the new setting.



| Ітем               | DESCRIPTION                                       | DEFAULT       |  |
|--------------------|---|---------------|--|
| Language           | Press Enter to open the language menu.            |               |  |
| Projection<br>Type | Press ◀► to choose from four projection methods:  | Desktop front |  |
| Menu Location      | Press ◀ ► to select different OSD location. Cente |               |  |
| Advanced           | Press Enter to open the Advanced menu.            |               |  |
| Mute               | Press ◀ ► to turn On or Off the speaker. Off      |               |  |
| Volume             | Press ◀▶ to adjust the audio volume level.        | 4             |  |
| Security           | Press Enter to open the Security menu.            |               |  |
| Note:              |   |               |  |

The Setup menu functions are available to all video sources.

#### <u>Language</u>

Press the **Menu** button to open the OSD menu. Press ◀ ► to move to the **SETUP** menu. Press ▲▼ to move up and down and select **Language**. Press ◀ ► to change values for settings, and then press **Enter** to confirm the new setting.

# Menu Setting

|                                | Ŏ             |         |           |  |
|--------------------------------|---------------|---------|-----------|--|
| IMAGE                          | DISPLAY       | SETUP   | OPTIONS   |  |
| SETUP / Lang                   | juage         |         |           |  |
| C Language                     |               | •       | English   |  |
| Exit                           |               |         |           |  |
|                                |               |         |           |  |
| English                        | English Deuts |         | Français  |  |
| Italiano                       | Espar         | iol     | Português |  |
| Polski                         | Neder         | lands   | Svenska   |  |
| Norsk/Dans                     | k Suomi       | i       | Ελληνικά  |  |
| 繁體中文                           | 簡体「           | 中文      | 日本語       |  |
| 한국어                            | Русск         | ий      | Magyar    |  |
| Čeština                        | العربية       |         | อังกฤษ    |  |
| 🔶 UpDown 🛛 🛃 Select 🛛 Menu off |               | enu off |           |  |

| Ітем         | DESCRIPTION  | DEFAULT |
|--------------|--|---------|
| English      |  |         |
| Italiano     |  |         |
| Polski       |  |         |
| Norsk/ Dansk |  |         |
| 繁體中文         |  |         |
| 한국어          |  |         |
| Čeština      |  |         |
| Deutsch      |  |         |
| Español      |  |         |
| Nederlands   |  |         |
| Suomi        | Press $\blacktriangleleft$ to select the desired language. | English |
| 简体中文         |  |         |
| Русский      |  |         |
| العربيــــة  |  |         |
| Français     |  |         |
| Português    |  |         |
| Svenska      |  |         |
| Ελληνικά     |  |         |
| 日本語          |  |         |
| Magyar       |  |         |
| องกฤษ        |  |         |



# <u>Advanced</u>

Press the **Menu** button to open the OSD menu. Press  $\blacktriangleleft \triangleright$  to move to the **SETUP** menu. Press  $\blacktriangle \lor$  to move up and down and select **Advanced**. Press  $\blacktriangleleft \triangleright$  to change values for settings, and then press **Enter** to confirm the new setting.



| Ітем         | DESCRIPTION   | DEFAULT |
|--------------|---|---------|
| Logo         | Press ◀► to select the desired startup screen.                                  | Optoma  |
| Logo Capture | Capture the current display image as the user's logo with <b>Logo Capture</b> . | -       |



## Security Timer

Press the **Menu** button to open the OSD menu. Press  $\blacktriangleleft \triangleright$  to move to the **SETUP** menu. Press  $\blacktriangle \lor$  to move up and down and select **Security**. Press  $\blacktriangle \lor$  to move up and down and select **Security Timer**. Press **Enter** to open the **Security Timer** submenu. Press  $\blacktriangleleft \triangleright$  to change values for settings, and then press **Enter** to confirm the new setting.



| Ітем  | DESCRIPTION   | DEFAULT |
|-------|---|---------|
| Month | Set the number of months the projector can be used.     | 0       |
| Day   | Set the number of days for the projector to be active.  | 0       |
| Hour  | Set the number of hours for the projector to be active. | 0       |



## **Options Menu**

Press **Menu** to open the OSD menu. Press  $\blacktriangleleft \triangleright$  to move to the **OPTIONS** menu. Press  $\blacktriangle \lor$  to move up and down in the **OPTIONS** menu. Press  $\blacktriangleleft \triangleright$  to change values for settings, and then press **Enter** to confirm the new setting.

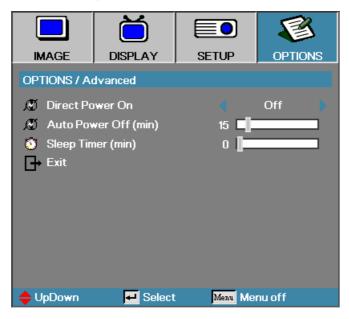


| Ітем                | DESCRIPTION  | DEFAULT  |
|---------------------|--|----------|
| Source Lock         | Press ◀ ► to enable or disable the automatic search of all the input sources.  | Off      |
| High Altitude       | Press ◀ ► to change fan speed; high speed in high temperature, high hu-<br>midity or high altitude area.   | Off      |
| Keypad Lock         | Press ◀ ► to enable or disable keypad function.<br>The following warning message appears when you select <b>On</b> .<br>Mold "ENTER" key on keypad for 5 seconds to unlock keypad.<br>OK | Off      |
| Background<br>Color | Press ◀► to select different colors or blank screen.   | Blue     |
| Advanced            | Press Enter to open the OPTIONS/Advanced menu.   |          |
| Lamp Setting        | Press Enter to open the OPTIONS/Lamp Setting menu.   |          |
| Reset               | Press Enter to reset all menu items to factory default. The following screen di<br>Press Yes to confirm.   | isplays. |



## <u>Advanced</u>

Press **Menu** to open the OSD menu. Press **▲** ► to move to the **OPTIONS** menu. Press **▲** ▼ to move up and down in the **OPTIONS** menu. Select **Advanced** and press **Enter** to open the sub menu. Press **▲** ► to change values for settings, and then press **Enter** to confirm the new setting.



| Ітем                 | DESCRIPTION   | DEFAULT |
|----------------------|---|---------|
| Direct Power On      | If the user selects <b>On</b> the projector will automatically power on when AC power is supplied.  | Off     |
| Auto Power Off (min) | Set the projector to automatically switch off the lamp when there is no signal in minutes.  | 15      |
| Sleep Timer (min)    | Sets the countdown timer interval. The timer will begin, with or without a signal input. Then the projector will automatically power Off when the sleep timer countdown stops (in minutes). | 0       |

#### Note:

Press any keypad/IR button to restore the original timer setting when a warning message displays.



## Lamp Setting

Press **Menu** to open the OSD menu. Press **▲** ► to move to the **OPTIONS** menu. Press **▲** ▼ to move up and down in the **OPTIONS** menu. Select **Lamp Setting** in the **OPTIONS** menu. Press **▲** ► to change values for settings, and then press **Enter** to confirm the new setting.

|              |             |          | <b>S</b> |
|--------------|-------------|----------|----------|
| IMAGE        | DISPLAY     | SETUP    | OPTIONS  |
| OPTIONS / La | Imp Setting |          |          |
| ≚ģʻ- Lamp Ho | ur          | o [      |          |
| ∸ģʻ-Lamp Re  | minder      |          | On 🕨     |
| 🏺 Lamp Mo    | de          |          | Bright 👂 |
| 🕴 Lamp Re    | set         | <b>↓</b> |          |
| Exit         |             |          |          |
|              |             |          |          |
|              |             |          |          |
|              |             |          |          |
|              |             |          |          |
| 🔶 UpDown     | 🕶 Select    | Menu Me  | nu off   |

| Ітем          | DESCRIPTION  | DEFAULT |  |  |  |
|---------------|--|---------|--|--|--|
| Lamp Hour     | Set the number of hours for the lamp to be active. Standard and bright counter are separated.                            | -       |  |  |  |
| Lamp Reminder | Show or hide the warning message<br>Note: The lamp reminder warning is only displayed when less<br>than 30 hours remain. | On      |  |  |  |
| Lamp Mode     | Select the lamp mode for higher or lower brightness to save lamp life.   | Bright  |  |  |  |
| Lamp Reset    | Press <b>Enter</b> to reset the lamp life hour after replacing the lamp. See Resetting the Lamp on page 44.              |         |  |  |  |



## **Replacing the Projection Lamp**

The projection lamp should be replaced when it burns out. It should only be replaced with a certified replacement part, which you can order from your local dealer.

## Important:

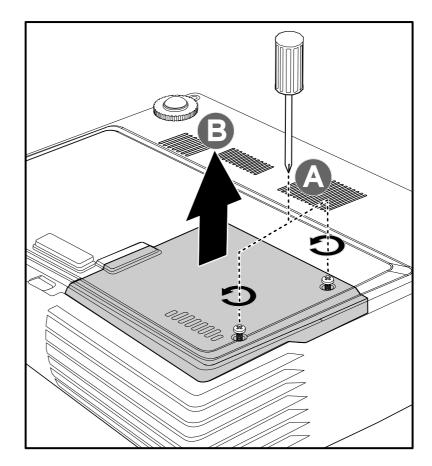
**1.** The lamp contains a certain amount of mercury and should be disposed of according to local ordinance regulations.

2. Avoid touching the glass surface of the new lamp, doing so may shorten its operation life.

#### Warning:

Be sure to turn off and unplug the projector at least an hour before replacing the lamp. Failure to do so could result in a severe burn.

1. Loosen the two captive screws on the lamp compartment cover (A). Remove the lamp compartment cover (B).



Remove the two screws from the lamp module (A).

3. Lift the module handle up (**B**).

2.

- 4. Pull firmly on the module handle to remove the lamp module.
- 5. Reverse steps 1 to 5 to replace the new lamp module.



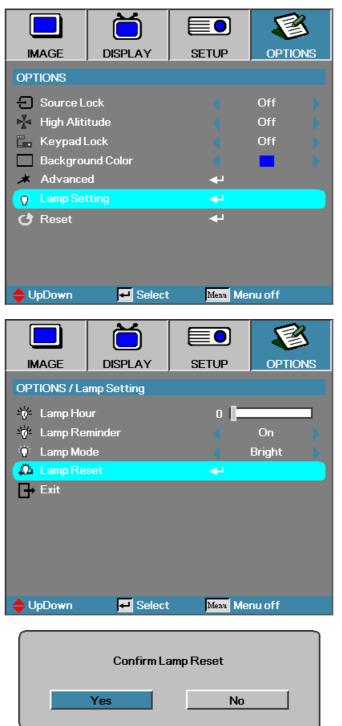
## **Resetting the Lamp**

After replacing the lamp, you should reset the lamp hour counter to zero. Refer to the following:

- 1. Press the **Menu** button to open the **Image** menu.
- 2. Press ◀► to navigate to the **OPTIONS** menu.
- 3. Press ▲▼ to navigate to Lamp Setting and then press Enter.

4. Navigate down to Lamp Reset and then press ► or Enter.

5. A **Confirm Lamp Reset** message displays. Select **Yes** to confirm the lamp reset.





## **Cleaning the Projector**

Cleaning the projector to remove dust and grime will help ensure trouble-free operation.

#### Warning:

**1.** Be sure to turn off and unplug the projector at least an hour before cleaning. Failure to do so could result in a severe burn.

**2.** Use only a dampened cloth when cleaning. Do not allow water to enter the ventilation openings on the projector.

**3.** If a little water gets into the projector interior while cleaning, leave unplugged in a well-ventilated room for several hours before using.

4. If a lot of water gets into the projector interior when cleaning, have the projector serviced.

#### Cleaning the Lens

You can purchase optic lens cleaner from most camera stores. Refer to the following to clean the projector lens.

- 1. Apply a little optic lens cleaner to a clean soft cloth. (Do not apply the cleaner directly to the lens.)
- 2. Lightly wipe the lens in a circular motion.

#### Caution:

1. Do not use abrasive cleaners or solvents.

2. To prevent discoloration or fading, avoid getting cleaner on the projector case.

#### Cleaning the Case

Refer to the following to clean the projector case.

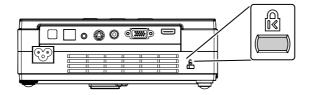
- 1. Wipe off dust with a clean dampened cloth.
- 2. Moisten the cloth with warm water and mild detergent (such as used to wash dishes), and then wipe the case.
- 3. Rinse all detergent from the cloth and wipe the projector again.

#### Caution:

To prevent discoloration or fading of the case, do not use abrasive alcohol-based cleaners.

## Using the Kensington<sup>®</sup> Lock

If you are concerned about security, attach the projector to a permanent object with the Kensington slot and a security cable.





## Common problems and solutions

These guidelines provide tips to deal with problems you may encounter while using the projector. If the problem remains unsolved, contact your dealer for assistance.

Often after time spent troubleshooting, the problem is traced to something as simple as a loose connection. Check the following before proceeding to the problem-specific solutions.

- Use some other electrical device to confirm that the electrical outlet is working.
- Ensure the projector is turned on.
- Ensure all connections are securely attached.
- Ensure the attached device is turned on.
- Ensure a connected PC is not in suspended mode.
- Ensure a connected notebook computer is configured for an external display. (This is usually done by pressing an Fn-key combination on the notebook.)

## **Tips for Troubleshooting**

In each problem-specific section, try the steps in the order suggested. This may help you to solve the problem more quickly.

Try to pin point the problem and thus avoid replacing non-defective parts. For example, if you replace batteries and the problem remains, put the original batteries back and go to the next step.

Keep a record of the steps you take when troubleshooting-the information may be useful when calling for technical support or for passing on to service personnel.



# LED Error Messages

| ERROR CODE MESSAGE           | Power LED/FLASHES | LAMP LED/FLASHES |
|------------------------------|-------------------|------------------|
| Thermal break status error   | 4                 | 0                |
| Fan1 error (Power Fan)       | 6                 | 1                |
| Fan2 error (Lamp Fan)        | 6                 | 2                |
| Fan3 error (Blower Fan)      | 6                 | 3                |
| Lamp door sensor detect high | 7                 | 0                |
| DMD error                    | 8                 | 0                |
| Color wheel error            | 9                 | 0                |

Appendices

## Image Problems

## Problem: No image appears on the screen

- 1. Verify the settings on your notebook or desktop PC.
- 2. Turn off all equipment and power on again in the correct order.

## Problem: The image is blurred

- 1. Adjust the **Focus** on the projector.
- 2. Press the **Re-Sync** button on the remote control or projector.
- 3. Ensure the projector-to-screen distance is within the 10-meter (33-feet) specified range.
- 4. Check that the projector lens is clean.

## Problem: The image is wider at the top or bottom (trapezoid effect)

- 1. Position the projector so it is as perpendicular to the screen as possible.
- 2. Use the Keystone button on the remote control or projector to correct the problem.

## Problem: The image is reversed or upside down

Check the **Projection** setting on the **SETUP** menu of the OSD.

## Problem: The image is streaked

- 1. Set the **Frequency** and **Tracking** settings on the **DISPLAY** menu of the OSD to the default settings.
- **2.** To ensure the problem is not caused by a connected PC's video card, connect to another computer.

## Problem: The image is flat with no contrast

Adjust the **Contrast** setting on the Main menu of the OSD.

## Problem: The color of the projected image does not match the source image.

Adjust the Color Temperature and Gamma settings on the Main menu of the OSD.

## Lamp Problems

#### Problem: There is no light from the projector

- 1. Check that the power cable is securely connected.
- 2. Ensure the power source is good by testing with another electrical device.
- 3. Restart the projector in the correct order and check that the Power LED is green.
- 4. If you have replaced the lamp recently, try resetting the lamp connections.
- **5.** Replace the lamp module.
- 6. Put the old lamp back in the projector and have the projector serviced.

#### Problem: The lamp goes off

- 1. Power surges can cause the lamp to turn off. Press the power button twice to turn off the projector. When the Ready LED is on, press the power button.
- 2. Replace the lamp module.
- 3. Put the old lamp back in the projector and have the projector serviced.



## **Remote Control Problems**

## Problem: The projector does not respond to the remote control

- 1. Direct the remote control towards remote sensor on the projector.
- 2. Ensure the path between remote and sensor is not obstructed.
- 3. Turn off any fluorescent lights in the room.
- 4. Check the battery polarity.
- **5.** Replace the batteries.
- 6. Turn off other Infrared-enabled devices in the vicinity.
- 7. Have the remote control serviced.

## Audio Problems

## Problem: There is no sound

- **1.** Adjust the volume on the remote control.
- **2.** Adjust the volume of the audio source.
- **3.** Check the audio cable connection.
- 4. Test the source audio output with other speakers.
- 5. Have the projector serviced.

## Problem: The sound is distorted

- 1. Check the audio cable connection.
- 2. Test the source audio output with other speakers.
- **3.** Have the projector serviced.



## Having the Projector Serviced

If you are unable to solve the problem, you should have the projector serviced. Pack the projector in the original carton. Include a description of the problem and a checklist of the steps you took when trying to fix the problem--the information may be useful to service personnel.

## **Optoma Global Offices**

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#### Latin America

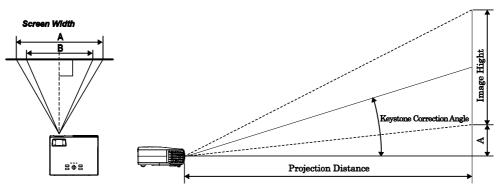
715 Sycamore Drive, Milpitas, CA 95035, USA Tel: 408-383-3700 Fax: 408-383-3702

Appendices

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Specifications

# **Projection Distance V.S. Projection Size**



| Max. Screen Size (Wide)  |          |          |         | Max. Screen Size (Tele)  |          |          |         |  |
|--------------------------|----------|----------|---------|--------------------------|----------|----------|---------|--|
| Projection<br>Distance L | Diagonal | Height C | Width A | Projection<br>Distance L | Diagonal | Height D | Width B |  |
| 1.15m                    | 7.62m    | 4.57m    | 6.09m   | 1.34                     | 7.62m    | 4.57m    | 6.09m   |  |
| 3.79'                    | 24.99'   | 14.99'   | 19.99'  | 4.39'                    | 24.99'   | 14.99'   | 19.99'  |  |
| 2.31 m                   | 15.24m   | 9.14m    | 12.19m  | 2.68m                    | 15.24m   | 9.14m    | 12.19m  |  |
| 7.59'                    | 49.98'   | 29.99'   | 39.98'  | 8.79'                    | 49.98'   | 29.99'   | 39.98'  |  |
| 3.08 m                   | 20.32m   | 12.19m   | 16.25m  | 3.57m                    | 20.32m   | 12.19m   | 16.25m  |  |
| 10.13'                   | 66.64'   | 39.98'   | 53.31'  | 11.73'                   | 66.64'   | 39.98'   | 53.31'  |  |
| 3.86 m                   | 25.40m   | 15.24m   | 20.32m  | 4.47m                    | 25.40m   | 15.24m   | 20.32m  |  |
| 12.66'                   | 83.31'   | 49.98'   | 66.64'  | 14.66'                   | 83.31'   | 49.98'   | 66.64'  |  |
| 4.63 m                   | 30.48m   | 18.28m   | 24.38m  | 5.36m                    | 30.48m   | 18.28m   | 24.38m  |  |
| 15.19'                   | 99.97'   | 59.98'   | 79.97   | 17.59'                   | 99.97'   | 59.98'   | 79.97'  |  |
| 5.79 m                   | 38.10m   | 22.86m   | 30.48m  | 6.25m                    | 35.56m   | 21.33m   | 28.44m  |  |
| 18.99'                   | 124.96'  | 74.98'   | 99.97'  | 20.52'                   | 116.63'  | 69.98'   | 93.30'  |  |
| 7.72 m                   | 50.80m   | 30.48m   | 40.64m  | 7.15m                    | 40.64m   | 24.38m   | 32.51m  |  |
| 25.32'                   | 166.62'  | 30.48m   | 133.29' | 23.46'                   | 133.29'  | 79.97'   | 106.63' |  |
| 10.03 m                  | 66.04m   | 39.62m   | 52.83m  | 8.94m                    | 50.8m    | 30.48m   | 40.64m  |  |
| 32.92'                   | 216.61'  | 129.96'  | 173.28' | 29.32'                   | 166.62'  | 99.97'   | 133.29' |  |

\*Shaded rows are equivalent measurement in feet.



# Timing Mode Table

The projector can display several resolutions. The following table outlines the resolutions that can be displayed by the projector.

| Signal      | RESOLUTION  | FREQUENCY | Refresh   |       | XGA     |        |       | WXGA    |        |
|-------------|-------------|-----------|-----------|-------|---------|--------|-------|---------|--------|
| OIGNAL      | RESOLUTION  | (KHz)     | RATE (HZ) | VIDEO | DIGITAL | Analog | VIDEO | DIGITAL | ANALOG |
| NTSC        |             | 15.734    | 60.0      | 0     |         |        | 0     |         |        |
| PAL / SECAM |             | 15.625    | 50.0      | 0     |         |        | 0     |         |        |
|             | 640 x 350   | 31.5      | 70.1      |       | 0       | 0      |       | 0       | 0      |
|             | 640 x 350   | 37.9      | 85.1      |       | 0       | 0      |       | 0       | 0      |
|             | 720 x 350   | 31.5      | 70        | -     | 0       | 0      |       | 0       | ο      |
|             | 640 x 400   | 31.5      | 70.1      | -     | 0       | 0      |       | 0       | 0      |
|             | 640 x 400   | 37.9      | 85.1      | ł     | 0       | 0      |       | 0       | 0      |
|             | 720 x 400   | 31.5      | 70        | ł     | 0       | 0      |       | 0       | 0      |
|             | 720 x 400   | 37.9      | 85        |       | 0       | 0      |       | 0       | 0      |
|             | 640 x 480   | 31.5      | 60        |       | 0       | 0      |       | 0       | 0      |
|             | 640 x 480   | 37.9      | 72.8      | -     | 0       | 0      |       | 0       | 0      |
|             | 640 x 480   | 37.5      | 75        |       | 0       | 0      |       | 0       | 0      |
|             | 640 x 480   | 43.3      | 85        |       | 0       | 0      |       | 0       | 0      |
|             | 800 x 600   | 35.2      | 56.3      |       | 0       | 0      |       | 0       | 0      |
| VESA        | 800 x 600   | 37.9      | 60.3      | ł     | 0       | 0      |       | 0       | 0      |
| VESA        | 800 x 600   | 46.9      | 75        |       | 0       | 0      |       | 0       | 0      |
|             | 800 x 600   | 48.1      | 72.2      |       | 0       | 0      |       | 0       | 0      |
|             | 800 x 600   | 53.7      | 85.1      |       | 0       | 0      |       | 0       | 0      |
|             | 1024 x 768  | 48.4      | 60        |       | 0       | 0      |       | 0       | 0      |
|             | 1024 x 768  | 56.5      | 70.1      |       | 0       | 0      |       | 0       | 0      |
|             | 1024 x 768  | 57.7      | 72        |       | 0       | 0      |       | 0       | 0      |
|             | 1024 x 768  | 60.0      | 75        |       | 0       | 0      |       | 0       | 0      |
|             | 1024 x 768  | 68.7      | 85        |       | 0       | 0      |       | 0       | 0      |
|             | 1280 x 1024 | 64.0      | 60        | -     | 0       | 0      |       | 0       | 0      |
|             | 1280 x 1024 | 80.0      | 75        |       | 0       | 0      |       | 0       | 0      |
|             | 1280 x 1024 | 91.1      | 85        |       | 0       | 0      |       | 0       | 0      |
|             | 1280 x 768  | 47.4      | 60        | -     | 0       | 0      |       | 0       | 0      |
|             | 1600 x1200  | 75.0      | 60        | -     | 0       | 0      |       | 0       | 0      |



| 0                          | Descurrent | FREQUENCY | Refresh   |       | XGA     |        |       | WXGA    |        |
|----------------------------|------------|-----------|-----------|-------|---------|--------|-------|---------|--------|
| SIGNAL                     | RESOLUTION | (KHz)     | Rate (Hz) | VIDEO | DIGITAL | Analog | VIDEO | DIGITAL | Analog |
|                            | 800x600    |           | 60        | -     | 0       | 0      |       | 0       | 0      |
|                            | 800x600    | -         | 72        | ł     | 0       | 0      |       | 0       | 0      |
|                            | 800x600    |           | 75        | -     | 0       | 0      |       | 0       | 0      |
|                            | 800x600    | -         | 85        | ł     | 0       | 0      | -     | 0       | 0      |
|                            | 1024x768   | -         | 60        | ł     | 0       | 0      | -     | 0       | 0      |
|                            | 1024x768   | -         | 70        | 1     | 0       | 0      | -     | 0       | 0      |
|                            | 1024x768   | -         | 75        | ł     | 0       | 0      | -     | 0       | 0      |
|                            | 1024x768   | -         | 85        | ł     | 0       | 0      | -     | 0       | 0      |
| Macbook<br>compatibility   | 1280x720   | -         | 60        | ł     | 0       |        | -     | 0       | 0      |
|                            | 1280x720   |           | 75        | -     |         |        |       |         | 0      |
|                            | 1280x720   |           | 85        | -     |         |        |       |         | 0      |
|                            | 1280x768   |           | 60        | -     |         | 0      |       | 0       | 0      |
|                            | 1280x768   |           | 75        |       |         | 0      |       |         |        |
|                            | 1280x768   |           | 85        |       |         | 0      |       |         |        |
|                            | 1280x800   |           | 60        |       |         | 0      |       |         | 0      |
|                            | 1280x1024  |           | 60        |       | 0       |        |       | 0       |        |
|                            | 1280x1024  |           | 75        |       | 0       |        |       | 0       |        |
|                            | 800x600    |           | 60        | -     | 0       | 0      |       | 0       | 0      |
|                            | 800x600    | -         | 72        | ł     | 0       | 0      |       | 0       | 0      |
|                            | 800x600    | -         | 75        | ł     | 0       | 0      | -     | 0       | 0      |
|                            | 800x600    | -         | 85        | ł     |         | 0      | ł     |         | 0      |
|                            | 1024x768   | -         | 60        | -     | 0       | 0      | -     | ο       | 0      |
|                            | 1024x768   | -         | 70        | ł     | 0       | 0      | ł     | 0       | 0      |
|                            | 1024x768   | -         | 75        | -     | 0       | ο      | -     | 0       | 0      |
| Mac book Pro               | 1024x768   |           | 85        |       | 0       | 0      | -     | 0       | 0      |
| (Intel) compati-<br>bility | 1280x720   | -         | 60        | -     | 0       | 0      | -     |         | 0      |
| Dinty                      | 1280x720   |           | 75        |       |         |        | -     |         | Ο      |
|                            | 1280x720   |           | 85        |       |         |        | -     |         | 0      |
|                            | 1280x768   |           | 60        |       |         | 0      |       | 0       | 0      |
|                            | 1280x768   |           | 75        |       |         | 0      |       |         |        |
|                            | 1280x768   |           | 85        | -     |         | 0      | -     |         |        |
|                            | 1280x800   | -         | 60        | -     |         | 0      | -     |         | 0      |
|                            | 1280x1024  |           | 60        |       |         | 0      | -     |         | 0      |
|                            | 1280x1024  |           | 75        |       |         | 0      |       |         | 0      |



|                               |            | FREQUENCY | Refresh   |       | XGA     |        |       | WXGA |        |
|-------------------------------|------------|-----------|-----------|-------|---------|--------|-------|------|--------|
| SIGNAL                        | RESOLUTION | (KHz)     | RATE (HZ) | VIDEO | DIGITAL | Analog | VIDEO |      | Analog |
|                               | 800x600    |           | 56        |       |         |        |       |      |        |
|                               | 800x600    |           | 60        |       |         | 0      |       |      | 0      |
|                               | 800x600    |           | 72        |       |         | 0      |       |      | 0      |
|                               | 800x600    |           | 75        |       |         | 0      |       |      | 0      |
|                               | 800x600    |           | 85        |       |         | 0      |       |      | 0      |
|                               | 1024x768   |           | 60        |       |         | 0      |       |      | 0      |
|                               | 1024x768   |           | 70        |       |         | 0      |       |      | 0      |
| Power Mac                     | 1024x768   |           | 75        |       |         | 0      |       |      | 0      |
| G5 compatibility              | 1024x768   |           | 85        |       |         | 0      |       |      | 0      |
|                               | 1280x720   |           | 60        |       |         |        |       |      |        |
|                               | 1280x720   |           | 75        |       |         |        |       |      |        |
|                               | 1280x720   |           | 85        |       |         |        |       |      |        |
|                               | 1280x768   |           | 60        |       |         |        |       |      | 0      |
|                               | 1280x800   |           | 60        |       |         |        |       |      |        |
|                               | 1280x1024  |           | 60        |       |         | 0      |       |      | 0      |
|                               | 1280x1024  |           | 75        |       |         | 0      |       |      | 0      |
|                               | 1280x1024  |           | 85        |       |         |        |       |      | 0      |
|                               | 800x600    |           | 56        |       | 0       |        |       | 0    | -      |
|                               | 800x600    |           | 60        |       | 0       | 0      |       | 0    | 0      |
|                               | 800x600    |           | 72        |       | 0       | 0      |       | 0    | 0      |
|                               | 800x600    |           | 75        |       | 0       | 0      |       | 0    | 0      |
|                               | 800x600    |           | 85        |       | 0       | 0      |       | 0    | 0      |
|                               | 1024x768   |           | 60        |       | 0       | 0      |       | 0    | 0      |
|                               | 1024x768   |           | 70        |       | 0       | 0      |       | 0    | 0      |
|                               | 1024x768   |           | 75        |       | 0       | 0      |       | 0    | 0      |
| Power Mac<br>G4 compatibility | 1024x768   |           | 85        |       | 0       | 0      |       | 0    | 0      |
|                               | 1280x720   |           | 60        |       |         |        |       |      | 0      |
|                               | 1280x720   |           | 75        |       |         |        |       |      | 0      |
|                               | 1280x720   |           | 85        |       |         |        |       |      | 0      |
|                               | 1280x768   |           | 60        |       |         |        |       | 0    | 0      |
|                               | 1280x800   |           | 60        |       |         | 0      |       |      | 0      |
|                               | 1280x1024  |           | 60        |       |         | 0      |       | 0    | 0      |
|                               | 1280x1024  |           | 75        |       |         | 0      |       | 0    | 0      |
|                               | 1280x1024  |           | 85        |       |         |        |       | 0    |        |



| Signal |             |       |           | XGA   |         |        | WXGA  |         |        |
|--------|-------------|-------|-----------|-------|---------|--------|-------|---------|--------|
|        | RESOLUTION  | (KHz) | RATE (HZ) | VIDEO | DIGITAL | ANALOG | VIDEO | DIGITAL | ANALOG |
|        | 1920 x 1080 | 33.8  | 30.0      | 0     |         |        | 0     |         |        |
| HDTV   | 1920 x 1080 | 28.1  | 25.0      | 0     |         |        | 0     |         |        |
|        | 1280 x 720  | 45.0  | 60.0      | 0     |         |        | 0     |         |        |
|        | 720 x 576   | 31.3  | 50.0      | 0     |         |        | 0     |         |        |
| SDTV   | 720 x 480   | 31.5  | 60.0      | 0     |         |        | 0     |         |        |

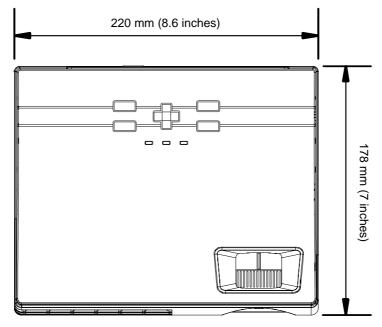
O: Frequency supported

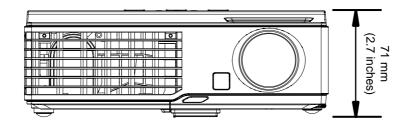
--: Frequency not supported

The native resolution is 1024 x 768 for XGA, 1280 x 768 for WXGA. Resolution other than native mode may be displayed with uneven size of text or lines.

# Specifications

# **Projector Dimensions**







## **FCC Warning**

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Changes or modifications not expressly approved by the parties responsible for compliance could void the user's authority to operate the equipment.

## Canada

This class B digital apparatus complies with Canadian ICES-003.

## **Safety Certifications**

FCC Class B, UL, C-UL, CE, CB, TUV-GS, CCC, ICES-003 (class B), EK, VCCI/PSE

## EN 55022 Warning

This is a Class B product. In a domestic environment, it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room, or auditorium.

## **RoHS Compliant**

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