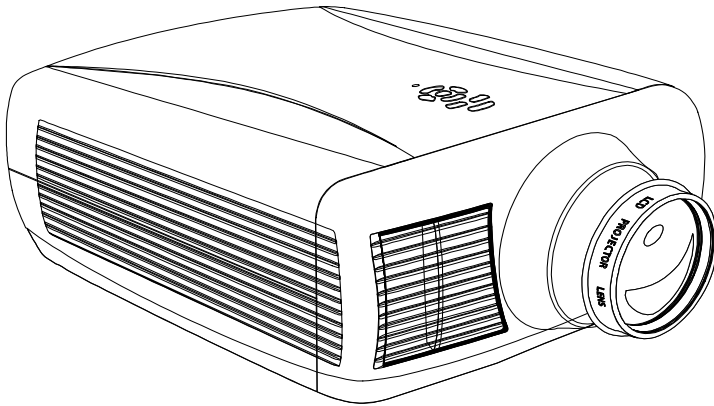




eVo v1.1

LCD Video Projector



User's Guide

Please read this manual carefully before using your projector.

Keep the manual handy for future reference.

Serial Number:

Your serial number is located on the rear of your projector.

Invoice Number:

Your invoice number was provided with your email receipt.

Lumenlab is a registered trademark of DIY for Life, Inc.

Contents

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Safety precautions

CAUTION



If you will not be using the projector for an extended period of time, turn the power off at the wall outlet. The power outlet should be installed as near to the equipment as possible and should be easily accessible.

CAUTION



To prevent shock, do not open the case. No user-serviceable parts inside. Refer servicing to qualified service personnel.

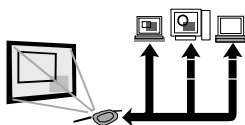
Warnings

- The projector is designed to operate on a power supply of 100-240VAC, 50Hz/60Hz.
- Avoid staring directly into the lens as eye damage may result.
- Never expose the projector to rain or moisture. Keep away from sources of liquid such as drinks.
- The projector should never be placed near or over a radiator or other hot device.
- Handle the power cord carefully. A damaged cord can cause electric shock or fire.
- Do not attempt to mount the projector on a ceiling yourself. The projector must be installed by a qualified technician in order to ensure proper operation and reduce the risk of injury. The ceiling must be strong enough to support the projector.
- Installation must allow for air flow on all sides.
- When the projector is turned off, the cooling fan will continue to operate. During this cooling period, do not turn off the power or remove the plug from the power outlet.
- Turn off the projector and disconnect power cord if it is not to be used for an extended period of time.
- Clean filters regularly to avoid blockage of air flow.
- When replacement parts are required, be sure to purchase them from Lumenlab. Using third party parts will void warranty.

Features

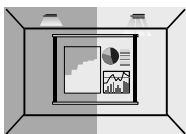
Thank you for choosing the eVo home theater projector.
Your home theater projector has the following features:

Wide range of inputs



Your projector can be easily connected to your computer, DVD player, VCR, gaming console and other video devices.

Clear, vivid images



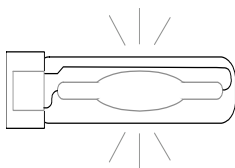
The projector's high resolution and brightness achieves a perfect display for home cinema and personal game enjoyment.

Ease of use



Various projector operations can be easily performed using the remote control or keys on the projector case. Your projector can be easily mounted with the Lumenlab ceiling mount (sold separately).

Affordable replacement lamps



Not only do the lamps have a long life of over 6000 hours but the replacements lamps are provided at a highly competitive cost.

Introduction

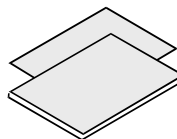
Included in the box



Projector



Remote control



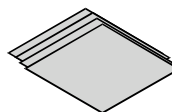
User manual



Power cord



Video cable



Lens cleaning paper



Replacement fuse

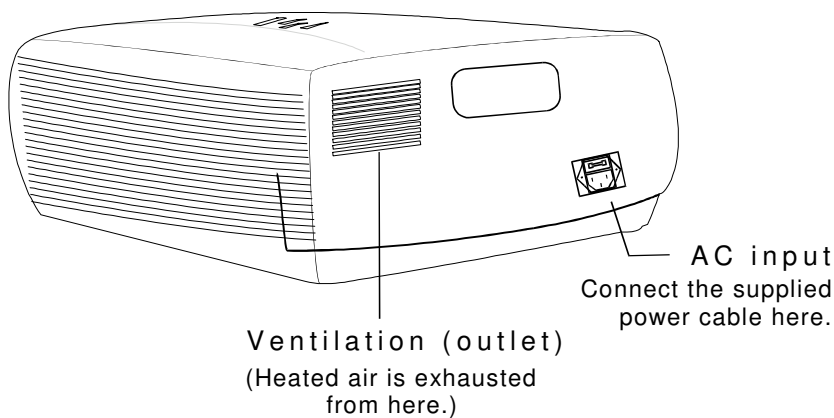
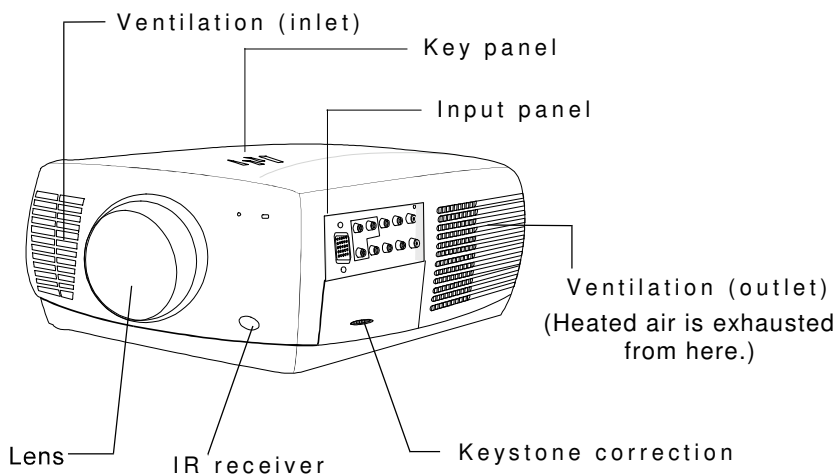
Optional accessories

- Lamp
- Ceiling Mount
- Projection Screen

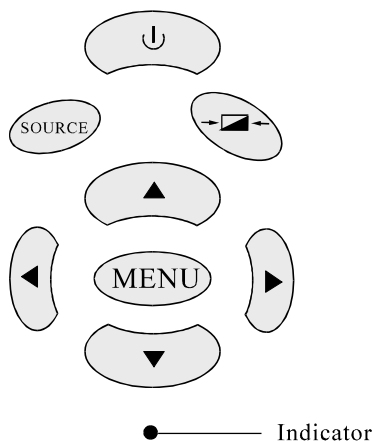
You can purchase these parts from the Lumenlab home theater store at:

www.lumenlab.com/store

Parts of the projector



Buttons on the projector case



Power Button

Use this button to turn your projector on and off. To turn off the projector, press the “Power” button twice.

SOURCE Button

Use this button to select the input.

Button

Use this button to adjust the image mode such as brightness.

MENU Button

Press this button to activate the On Screen Display (OSD).

◀ ▶ ▼ ▲ Buttons

Use these buttons to navigate the OSD menu.

Indicator

Projector mode	Color	Blink
Standby mode	red	no
Turning on	yellow	no
Running	green	no
Shutting down	green	yes

Remote control

Power Button

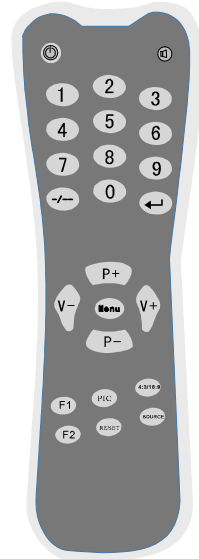
Use this button to turn your projector on and off. To turn off the projector, press the “Power” button twice.

MENU Button

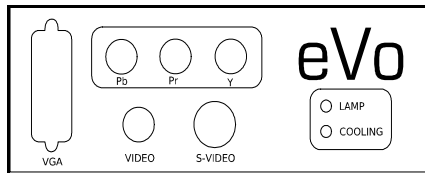
Press this button to activate the On Screen Display (OSD).

V+/V-/P+/P- Buttons

Use these buttons to navigate the OSD menu.



Input panel



VGA - connection to a computer.

Pb/Pr/Y - component video connection.

VIDEO - composite video connection.

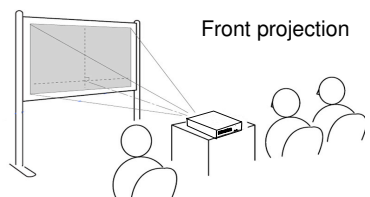
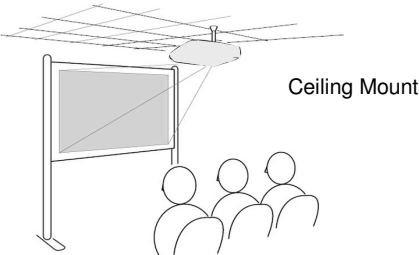
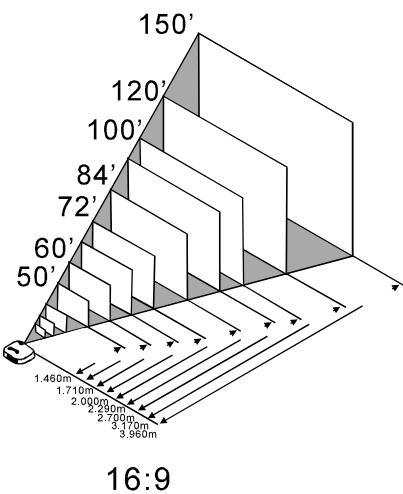
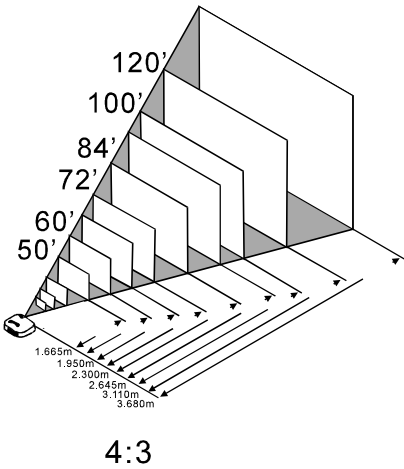
S-VIDEO - S-video connection.

For LAMP and COOLING status details, see Troubleshooting on page 22.

Installation

Be sure to read the Safety Precautions on page 4 before installation.

- Place the projector on a level surface.
- Install the projector in a dry area free from dust, heat, moisture or smoke.
- For better results, project the image onto a flat surface and in a darkened environment.
- To avoid image distortion, ensure that the projector is exactly perpendicular to the screen.
- Projection size can be focused from 50" to 150" (125-175cm).
- Move the projector left or right to center the image horizontally on the screen.
- Move the projector forwards or backwards to adjust the image size on the screen. See below for details.

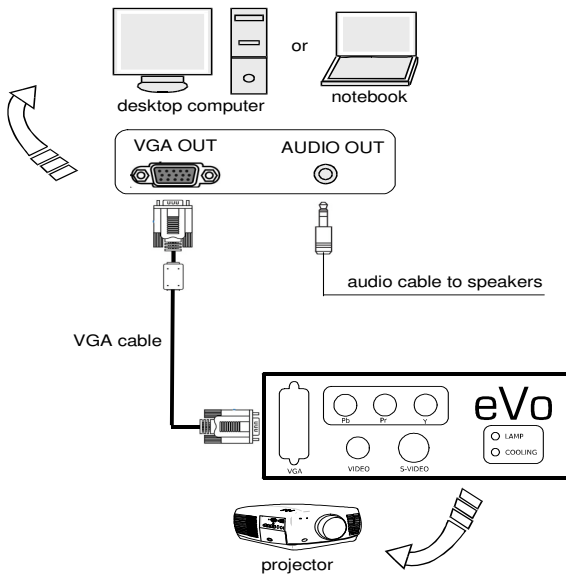


Connecting the projector

Connecting to a computer

1. Turn off the power for the projector, the computer and video player.
Damage may result if you try to make a connection when the power is switched on.
2. Check the connector types. Damage may result if you attempt to insert a connector into the incorrect port.
3. Connect a D-Sub 15 pin VGA cable from the computer's VGA output to the projector's VGA input terminal.
4. Make sure that all the terminals are well connected before turning on the projector and the computer.

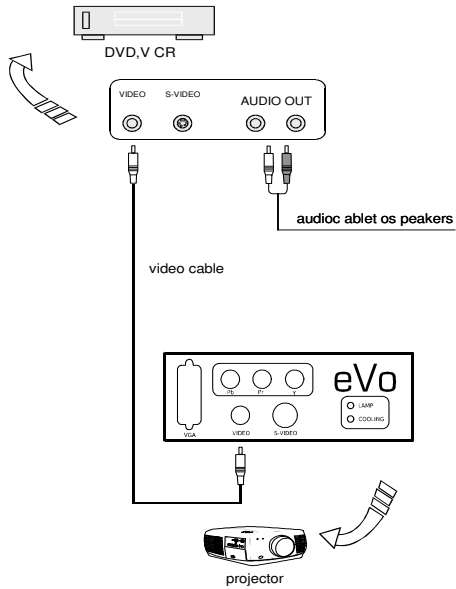
Note: You may need to change your computer's display preferences to enable VGA output.



Connecting to video devices

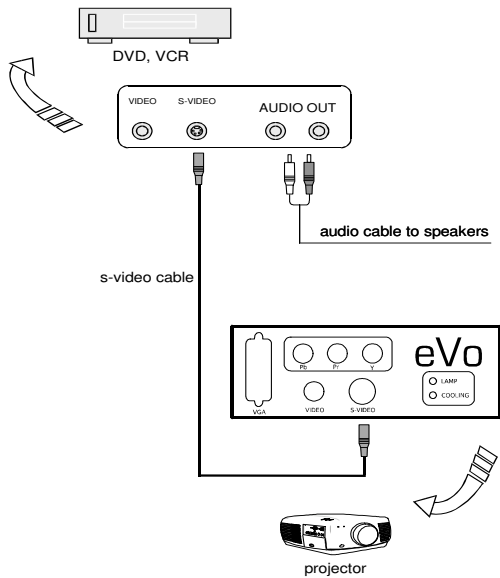
Connecting via composite

1. Connect a video cable from the video equipment's composite video output to the projector's VIDEO input terminal.
2. Make sure that all the terminals are well connected.



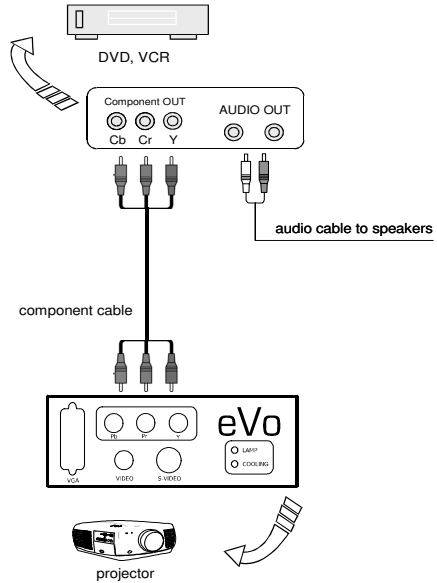
Connecting via S-video

1. Connect an S-video cable from the video equipment's S-video output to the projector's S-VIDEO input terminal.
2. Make sure that all the terminals are well connected.



Connecting via component


1. Connect a component video cable from the video equipment's component output to the projector's component input terminals.
2. Make sure that all the terminals are well connected.



Basic operation

Turning on the projector


When the projector receives mains power, it will go into standby mode and the indicator light will be red.

Press the power () button on the projector case or on the remote control. The fans will start up and the indicator light will be yellow.

When the indicator light turns green, the projector is ready for use.

Note: When using the remote control, make sure it is directly aimed at the IR on the front of the projector case (see page 7).

Turning off the projector

Press the power () button once. The indicator light will flash in green.

Press the power button again within three seconds to confirm shutdown. The projector will begin shutting down and the fans in the projector will keep running for about three minutes.

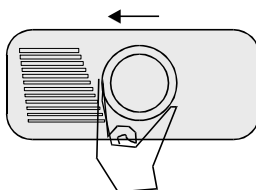
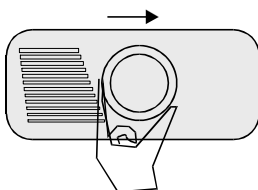
Finally, turn off the main power switch.

Before moving the projector:

1. Unplug the power cable.
2. Disconnect any other cables.
3. Cover the lens with the lens cap.

Adjusting the focus

Turn the projector lens to the right or left until the image is crisp and in focus.



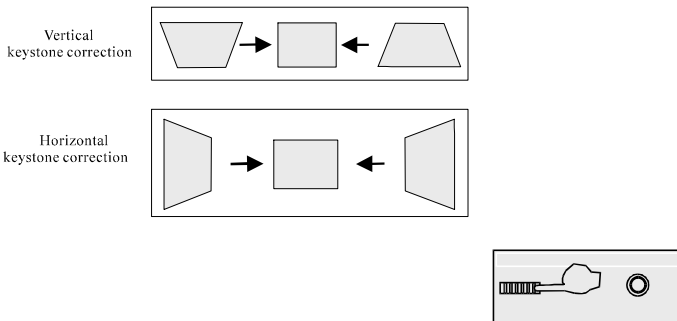
Correcting distortion

The vertical distortion of a projected image on the screen can be corrected by the keystone correction function. Moving the keystone correction knob on the side of the projector case (see page 7) until the image frame becomes square.

Notes: The vertical keystone angle can be corrected between ± 15 degrees.

The keystone correction function can cause an image to be slightly blurred.

You can only correct vertical distortion with this function. Horizontal distortion cannot be corrected.



Selecting the sources

Note: Turn on the computer, DVD, TV game player or other video device.

Press the SOURCE button on the projector case to choose the source:

VIDEO → S-VIDEO → VGA → Y/Pb/Pr

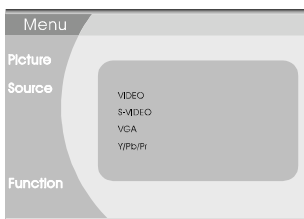
To select the source using the remote control, use the On Screen Display menu as explained on page 16.

On Screen Display (OSD) operation

Basic operation

- Press the MENU button on the remote control or projector case to display the OSD menu.
- Select the menu item using the ▼▲ buttons.
- Press the ► button to move to the right-hand submenu.
- Use the ▼▲ buttons to navigate the submenu.
- Use the ◀► buttons to adjust the parameter values.
- Press the MENU button to return to the main menu. Press it again to close the OSD menu.

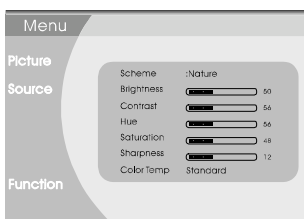
Selecting the source



Source submenu:

Select the input source from VIDEO, S-VIDEO, VGA and Y/Pb/Pr.

Adjusting the picture

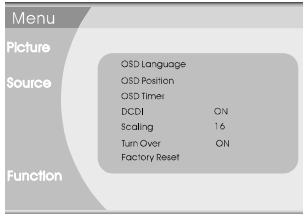


Picture submenu:

Allows adjustment of the parameters listed below.

Scheme	Select the mode from Vivid, Sport, Movie and Nature.
Brightness	Adjust the brightness level.
Contrast	Adjust the contrast ratio.
Hue	Adjust the skin color, valid in NTSC system.
Saturation	Adjust the color saturation.
Sharpness	Adjust the sharpness of the video image.
Color Temp	Adjust the color temperature to Cold, Warm or Standard

User preferences



Function submenu:

Allows adjustment of the parameters listed below.

OSD Language

Select the menu's display language from English, Chinese, Italian, German, French, Portuguese, Spanish and Russian.

OSD Position

Adjust the position of the menu on the screen.

OSD Timer

Set the time in seconds before the OSD menu times out.

DcDi

Adjust the image profile.

Scaling

Select the display mode between 16:9 and 4:3.

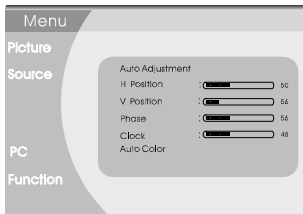
Turn Over

Flip the projected image vertically.

Factory Reset

Reset to the factory default preferences.

VGA specific options



PC submenu:

When VGA is selected as the source, the PC submenu will be available with options as listed below.

Auto Adjustment

Automatically calculates the optimum values for the parameters listed below.

H Position

Adjusts the horizontal position of the projected image.

V Position

Adjusts the vertical position of the projected image.

Phase and Clock

When the image is displayed abnormally, adjust these items.

Auto Color

Automatically calculates the optimum color settings.

When the VGA input resolution changes, the system will inspect and adjust the corresponding display values.

Replacing the lamp

After your lamp has been operating for 6000~9000 hours, the brightness will become weak and the image quality will deteriorate.

At this point you should replace the lamp to maintain optimal performance.

Note: Do not touch the lamp immediately after it has been used. It will be extremely hot. Turn the projector off, turn off the main power switch and then disconnect the power cable. Allow at least one hour for the lamp to cool before handling.

To replace the lamp:

1. Place the projector on a soft cloth and turn it upside down. Use a Philips head screwdriver to release the screw securing the lamp cover. (See figure 1.1)

Push up and remove the lamp cover. (See figures 1.2 and 1.3)

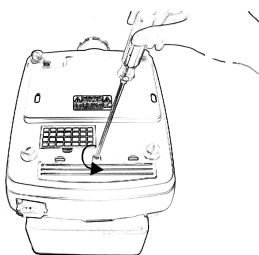


Figure 1.1

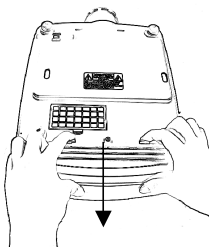


Figure 1.2



Figure 1.3

2. In the center white square block, loosen the two screws on the right until the Philips screwdriver goes into a freewheeling condition. Do not remove these screws.

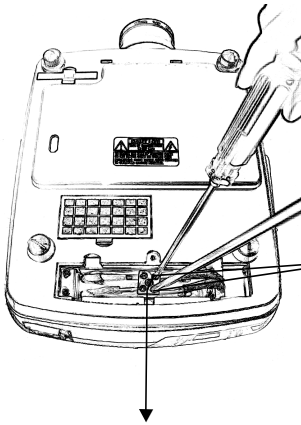


Figure 2

Loosen these two screws.

Do not loosen or remove the center screw

3. Pull out the two white wires on the right. (*See figure 3 below.*)

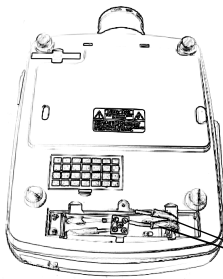
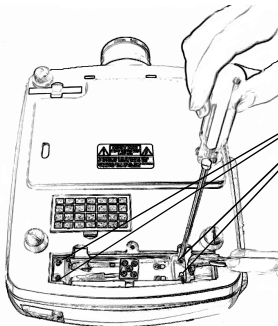


Figure 3

Pull these two wires out.

4. Remove the four screws, two at each end of the lamp bracket.



The four screws
securing the lamp
bracket.

Figure 4

5. Take out the lamp bracket by holding it as shown below.

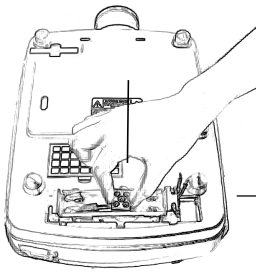


Figure 5.1

Lamp bracket



Figure 5.2

6. Put the new lamp bracket into the projector case. (See figure 6.1)
Secure it in place with the four screws . (See figure 6.2)

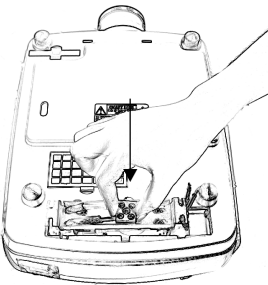
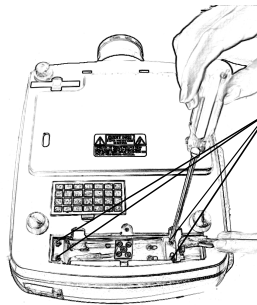


Figure 6.1



The four screws
securing the
lamp bracket.

Figure 6.2

7. Connect the right two white wires and tighten the two screws on the right.

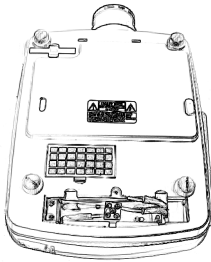


Figure 7.1

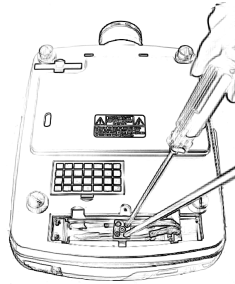


Figure 7.2

8. Reattach the lamp cover. Slip the lamp cover back till it snaps into place, and then tighten the screw. (See figures 8.1 and 8.2)



Figure 8.1

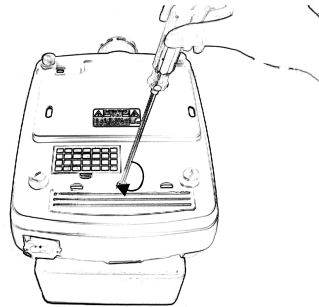


Figure 8.2

Troubleshooting

Status indicators

There are two LED lights on the input panel, called Lamp and Cooling. Below is a table showing the possible color combinations of these lights and the indicated error message.

Lamp	Cooling	Error indicated
off	off	no error
green	red	fan 1 fault
green	orange	fan 2 fault
red	green	lamp couldn't be started
orange	green	lamp needs replacing
red	red	overheating
orange	orange	wrong operation or ballast error

Projector won't turn on

- Is it plugged in and is the mains power switched on?
- Have you tried pushing the power button on the projector (not remote)?
- Have you waited 30 minutes since the projector was last turned off?

Projection is black

- Is the projector on (refer to above questions)?
- Is the lens cap off?
- Is the brightness turned up?
- Is contrast in the middle?
- Is the projector hooked up to a video source?
- Have you confirmed that the video source is working?

Remote control doesn't work

- Does the remote have new batteries?
- Are the batteries installed properly?

Parts rattling around inside the projector

- Are you sure the noise is not coming from the washers on the feet?

Picture Quality Issues

Picture is dim

- Have you adjusted the brightness and contrast?
- Is the projector within 12' (4m) of the screen? (see page 10)
- Is the screen surface white?
- Is the room darkened enough?

Picture is distorted

- Is the projector exactly perpendicular to the screen? (see page 10)
- Have you adjusted the keystone setting? (see page 15)
- Is the screen or projection surface flat?
- Is the correct aspect ratio being used? (see Scaling on page 17)

Dark areas in the projection

- Have you cleaned the lens with the cleaning paper provided?

Image is out of focus

- Have you adjusted the lens? (see page 14)
- Are you using the correct input resolution? For VGA input, the projector should be run at 640x480 or 800x480.

Image contains interference

- Are you using a high quality shielded video cable? This is recommended especially at longer cable lengths.

Image appears to be tinted red, green or blue

- Are you using the correct image settings? (see page 16)
- Does the lamp need replacing? The lamp color may deteriorate after about 6000 hours.

If you are still having issues after reviewing the troubleshooting checklist, please contact Lumenlab support at the following address:

www.lumenlab.com/support

Please include a detailed description of the problem and any troubleshooting steps you have tried.

Projector care

Be sure to read the important safety instructions before proceeding.

Cleaning

You should clean the projector if it becomes dirty or if the projected image starts to deteriorate.

Cleaning the projector case

1. Turn off the projector before cleaning.
2. Clean the projector case by wiping it gently with a soft cloth.
3. If the projector is particularly dirty, moisten the cloth with water containing a small amount of mild detergent then firmly wring the cloth dry before using it to clean the projector case. After you have done this, wipe the projector again with a soft dry cloth.

Note: Do not use volatile substances such as wax, alcohol or thinner to clean the projector case. These can cause the case to warp and make the surface coating peel off.

Cleaning the lens

1. Turn off the projector before cleaning.
2. Use the included lens cleaning paper to gently wipe the lens. Be careful not to scratch the lens.

Note: As the lens can be easily damaged, do not rub the lens with harsh materials or subject the lens to shocks.

Cleaning the air filter

The air filter keeps dust and dirt from getting inside the projector and should be cleaned after a period of time (more often in dusty conditions). If the filter is dirty or clogged, your projector may overheat.

Cautions:

1. Turn off the projector, turn off the mains power switch and unplug the projector before cleaning the filter.
2. Only clean the outside of the filter cover with a vacuum cleaner.
3. Do not attempt to operate the projector without the filter cover.
4. If the air filter is difficult to clean or if it is broken, it should be replaced.

Warranty

Lumenlab, Inc. ("Lumenlab") stands behind the quality of its products. Subject to the terms and conditions set forth below, Lumenlab warrants its products to be free from defects in material and workmanship during the warranty period in the continental United States, Hawaii, Alaska and Canada. If a product proves to be defective in material or workmanship during the warranty period, Lumenlab will, at its sole option, repair or replace the product with a similar or functionally equivalent product. Replacement product or parts may include remanufactured or refurbished parts or components. The replacement unit will be covered by the balance of the time remaining on the customer's original limited warranty.

Lumenlab Standard Limited Warranty:

1. One (1) year from the purchase date by the original retail purchaser (the "Customer") (except for lamps as specified below), parts and labor only (No advance replacement).
2. Return Merchandise Authorization Shipping: The Customer will pay shipping freight to Lumenlab and Lumenlab will pay shipping freight to the Customer during the warranty period.
3. Shipping Damages: All shipping damages, including DOA (Dead On Arrival), must be reported within seven (7) business days upon receipt of the product. Lumenlab is not responsible for the shipping damages reported after such period.
4. Repaired or Replaced Parts and Products: All repaired or replaced parts or products shall be warranted only for the remainder of the original warranty period specified above.

Additional Warranty Details for Lumenlab Projectors

1. Lamp Warranty: Lamp is guaranteed 1 year or 6000 hours from the purchase date by the Customer, whichever comes first.
2. Dead Pixels: In order to declare the product's LCD screen "defective" and eligible for replacement or refund through any applicable Lumenlab Return Policy, there must be a minimum of six (6) dead LCD pixels.

Exclusion of damages:

LUMENLAB'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. LUMENLAB SHALL NOT BE LIABLE FOR:

1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.
3. ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.

The warranty details provided on this page are an abbreviated version provided for your convenience only.

Please visit the Lumenlab website to view the full warranty statement at:

www.lumenlab.com/support

Specifications

Projection system	Single LCD technology
Projection methods	Front/Ceiling mount/Rear

LCD & PICTURE

Size	7.0"
Driving method	Poly-silicon TFT Matrix
Pixel number	800x480 LCD
Native resolution	WVGA (supports SVGA)
Aspect ratio	16:9 (supports 4:3)
Brightness	600/800 ANSI Lumens

PROJECTION LENS

Material	All glass
Type	Manual
F	3.0
Focal length	f=200mm

LAMP

Type	150W HID
Life	>6000H
Other	User replaceable

POWER

Power supply	100~240V, 50/60 Hz AC
Power consumption	200W

DIMENSIONS & WEIGHT

Dimensions	335(L)x260(W)x125(H)mm
Pakage dimensions	470(L)x365(W)x220(H)mm
Net weight	5.8kg

TERMINAL

Component-video	Y/Pb/Pr (PAL,NTSC,SECAM,HDTV)
Composite-video	RCA (PAL,NTSC,SECAM,HDTV)
S-video	S-Video
RGB	Mini 15 pin D-SUB

OTHER FEATURES

Keystone correction	Vertical ± 15 degrees
Body color	White

WARRANTY

One-year limited warranty (lamp included)

www.lumenlab.com