

TraveLight



Safety

These safety precautions include information to prevent personal injury and damage to the projector.

Safety Definitions



Statements identify conditions or practices that could result in personal injury.

!CAUTION:

Statements identify conditions or practices that could result in damage to your equipment.

Projector Safety



- Please use the power cord provided. Connect the power cord to a receptacle with a protective safety (earth) ground terminal.
- Don't look directly into the lens when the lamp is on. Doing so may cause eye injury.
- Servicing your own projector may expose you to hazards or create potential hazards. Also, servicing your own projector will void the warranty. Refer all service to qualified service personnel.
- Do not loosen or remove any screws other than those on the lamp module cover and the lamp module. Doing so may result in electric shock.
- For information about use of a feature, please refer to this *User Guide*.
- Hot surface. Do not touch.

!CAUTION:

- Proper ventilation is important. Don't block ventilation openings. Never operate this projector in an enclosed area. Do not place the projector on a tablecloth or other soft covering that may block the vents. With ceiling installations, use approved mounting hardware. Do not put the projector near heaters, air cleaners, transformers or other electrical devices. For permanent installations follow local codes.
- Don't set liquids on the projector. Spilled liquids may damage your projector.
- Don't put the projector on a hot surface or in direct sunlight.
- Do not drop the projector.

Lamp Safety



- To replace the lamp, turn off the power and unplug the power cord. To avoid burns, wait 45 minutes before opening the lamp door. Follow all instructions provided in this *User's Guide*. See "Changing the Lamp Module" on page 34.
- When you open the lamp module door, be careful not to touch the hot surfaces inside
- In the unlikely event of the bulb rupturing, thoroughly clean the area behind the projector and discard any items that might have been contaminated with broken glass.



- Never operate your projector without the lamp module or lamp module door. Doing so may damage the projector.
- Do not touch the glass portion of the new lamp module with your hands or allow it to touch other objects as this may damage it and shorten its operational life.
- Do not drop the lamp module as the glass may shatter.

Battery Safety

Read and follow all warnings and instructions supplied by the battery manufacturer.



! WARNING: Keep batteries away from children.



- Store batteries in their original packaging.
- When inserting batteries, verify that the (+) and (-) terminals are aligned correctly.
- Replace all batteries of a set at the same time.
- Do not mix new batteries with used ones.
- Do not use batteries of different chemistries, capacities, brands or sizes together. Leakage could result.
- Do not disassemble, recharge, or short-circuit batteries.
- Do not subject batteries to high temperature or fire.
- Discard used batteries according to all applicable local and national regulations.

Laser Safety



To reduce the risk of injury to the eyes, do not look directly into the laser light emitted from the aperture on the Remote Control and do not point the laser light into anyone's eyes. This remote control is equipped with a Class IIIA laser that emits radiation.

NOTE:

Do not leave the remote control close to the cooling fan outlet of the projector.

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 own expense.

Canada

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

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Safety Certifications

UL, CUL, TUV

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.

Declaration of Conformity

We declare under our sole responsibility that the DLP Zoom Digital

Projector conforms to the following directives and norms:

Directive 89/336/EEC, Amended by 93/68/EEC

EMI: EN 55022 (1992) Class B

EMC: EN 50082-1 (1992) EMC: EN 55024 : 1998

IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5,

IEC61000-4-6,IEC61000-4-11

Directive 73/23/EEC, Amended by 93/68/EEC

Safety: EN 60950: 2000, IEC 60950 Third edition, UL 60950 Third edition

Apr. 2001

Taiwan BSMI.

Disclaimer

The manufactory or reseller shall not be reliable for technical or editorial errors or omissions contained herein; nor or incidental or consequential damages resulting from furnishing this material, or the performance or use of this product.

In the interest of continuing product improvement, the manufactory or reseller reserves the right to change product specifications without notice. Information in this document may change without notice.

No part of this document may be copied, reproduced, or transmitted by any means, for any purpose without prior written permission from copy owners.

© Copyright Dec. 2002. All rights reserved

Table of Contents

| Safety | 2 |
|---|----|
| Safety Definitions | |
| Projector Safety | 2 |
| Lamp Safety | 3 |
| Battery Safety | 3 |
| Laser Safety | 3 |
| Preface | 7 |
| Package Contents | 7 |
| Optional Accessories | 7 |
| Accessories Overview | 8 |
| Power Cord | 8 |
| Computer and Video Cables | 8 |
| Others | 8 |
| Product Profile | 9 |
| Front View | 9 |
| Rear View | 9 |
| Bottom Panel | 9 |
| LED Indicator & Control Pad on Projector | 10 |
| LED Indicators Message | |
| Control Pad Function | |
| Remote Control Instruction | 1 |
| Installation Steps | 13 |
| Getting Started | 13 |
| Connecting the Projector | |
| Connecting Input and Output Devices | 14 |
| Starting the Presentation | 15 |
| Power on | 15 |
| Turn on the source | |
| Adjustment | |
| Adjusting Projector Angle | |
| Adjusting the Zoom and Focus | |
| Adjusting the Keystone Control | |
| Adjusting the Zoom and Pan | |
| Power Off | |
| Restart | |
| On-Screen-Display Menu Format and Description | |
| Input Source OSD | |
| Ezkey OSD | |
| Remote Control Buttons OSD | |
| OSD Menu | |
| Main Menu | |
| Setup Menu | |
| Color Manager Menu | 23 |

DLP ™ Digital Projector User's Guide

| Language Menu | 24 |
|--|----|
| Utilities Menu | |
| Status Menu | |
| Reference | 26 |
| Positioning the Projector | 26 |
| Remote Control Transmission Range | |
| Product Specification | 29 |
| Timing Charts | |
| Troubleshooting | 31 |
| Power Indicator | |
| Remote Control | 31 |
| Sound | 31 |
| Image Source | 32 |
| Image Quality | 32 |
| Lamp | 33 |
| Maintenance | 34 |
| Changing the Lamp | 34 |
| Changing the Battery of Remote Control | 35 |
| Cleaning | 36 |
| Cleaning the Projection Lens | 36 |
| Cleaning Exterior Case | 36 |
| Cleaning the Projector | 36 |
| Customer Support | 37 |

Preface

Congratulations on purchasing a DLPTM (Digital Light Processing) projector.

The micro portable projector uses the Digital Light Processing (DLPTM) technology along with a built-in image manager. DLP TM technology by Texas Instruments offers crystal clear images with superior quality. A built-in image manager provides alternative settings for users to optimize image quality. In addition, easy-to-use enhanced features, such as digital zoom, keystone correction, wide-angle image and picture in picture, offer the users with versatility and control functions.

In only minutes you can have your DLP Digital Projector ready to go. Just connect simply the projector to an image source, Computer, DVD, VCR., or HDTV. or Digital Camera.

Package Contents

Make sure that all of the following components are included in the package. If anything is missing, please contact your dealer immediately.

- DLP Projector with lens cap
- Standard Accessories:
 - Power Cord
 - Remote Mouse Cable with USB Connector
 - S-Video Cable
 - Computer Cable: DVI to D-Sub 15 pin VGA Cable
 - Audio Cable: Stereo Min Jack to RCAx2 (Red & White)
 - Remote Control, including two AAA Batteries
 - Wizard CD, including User's Guide in PDF format)
 - Quick Start Guide
 - Carrying Case

Optional Accessories

The following cables are not standard accessories of this package. You are suggested to contact your dealer whenever you need.

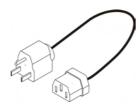
- Composite Video Cable
- Component Video Cable: DVI-I to HDTV
- Audio Cable: Stereo to Stereo
- DVI Cable: DVI to DVI signal cable for computer with DVI graphics card

| Save the original box and all p | packing | materials 1 | for |
|---------------------------------|---------|-------------|-----|
| further shipping needs. | | | |

Accessories Overview

Power Cord

There are four different power cords for options, US type, UK type, Euro type and China type. The appropriate Power Cord is included according to your geograhical location & safety requirement. If the standard kit does not satisfied your needs, then please contact your dealer for further service.



Power Cord (US type)



Power Cord (UK type)

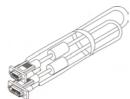


Power Cord (Euro type)



Power Cord (China type)

Computer and Video Cables



Computer Cable DVI-I to DB-15 pin VGA)



Remote Mouse Cable with USB Connector



S-Video Cable



Audio Cable Stereo Mini Jack to RCAx2



Component Video Cable (DVI-I to HDTV)



Composite Video Cable



DVI-DVI signal cable (for computer with DVI graphic cards)



Audio Cable Stereo to Stereo

Others



Carrying Case



Remote Control with 2

AAA Batteries

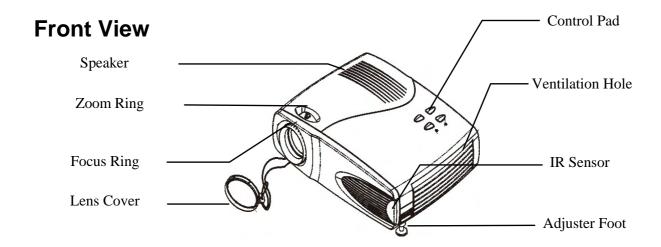


Wizard CD

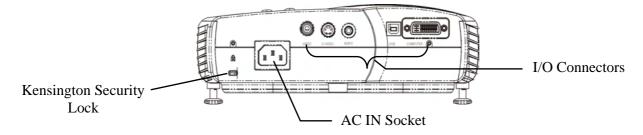


Quick Start Guide

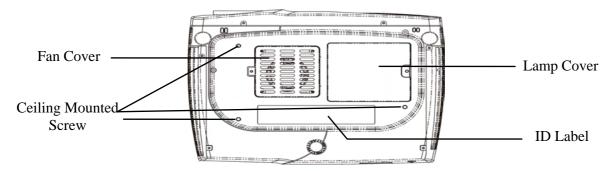
Product Profile



Rear View



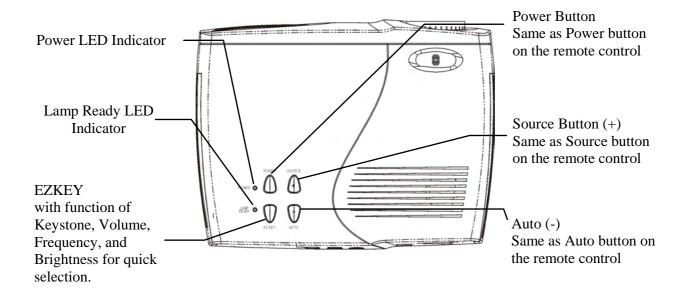
Bottom Panel



MOTE:

- With ceiling installations, use approved mounting hardware & M4 screw. Min. distance from ceiling/rear wall: 30/50 cm, 12/20 inch for proper ventilation. For permanent installations, follow local codes.
- The security lock corresponds to Kensington's MicroSaver Security System. If you have any comment, contact: Kensington, 2853 Campus Drive, San Mateo, CA94403, U.S.A. Tel: 800-535-4242, http: www.kensington.com.

LED Indicator & Control Pad on Projector



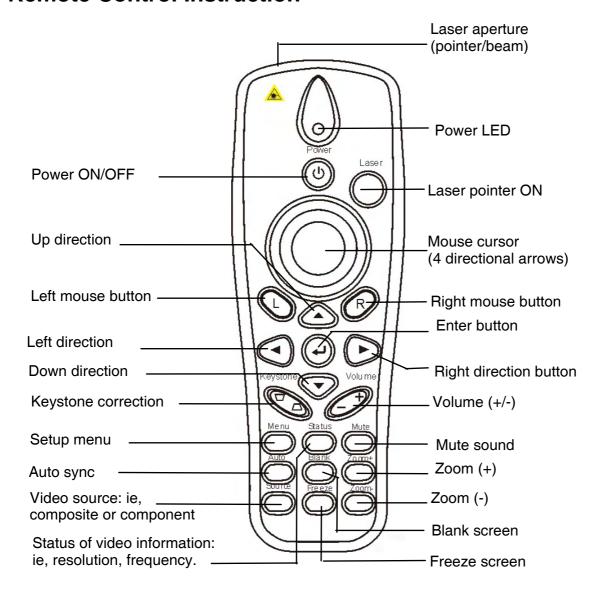
LED Indicators Message

| Status | Power LED Indicator Green Color | Lamp Ready LED Indicator Orange Color |
|-----------------------------|------------------------------------|---------------------------------------|
| Plug in Power Cord | Steady light | Steady light |
| Power on without source | Blinking light | Light off |
| Power on with active source | Steady light | Light off |
| Power off in cooling stage | Steady light | Flashing light |
| System warming up | Flashing light | Light off |

Control Pad Function

| Description | Function |
|-------------|---|
| Power | Power on / off |
| EZ Key | Quick adjustment on Keystone, Frequency, Volume, and Brightness by repeatedly pressing to scroll through these functions. |
| Source (+) | Input Source selection, (+) to perform adjustment increasingly in EZ-Key function |
| Auto (-) | Auto Image (-)to perform adjustment decreasingly in EZ Key function |

Remote Control Instruction





WARNING:

To reduce the risk of injury to the eyes, do not look directly into the laser light emitted from the aperture on the Remote Control and do not point the laser light into anyone's eyes. This remote control is equipped with a Class IIIA laser that emits radiation.

MOTE:

Do not leave the remote control close to the cooling fan outlet of the projector.

For the information of remote control transmission range, please refer page 28.

The following buttons are located on the projector Control Pad or on the Remote Control

Power Button Switch power on or off.

> Use the Power button to begin the warm-up period. The power light blinks green during warm-up and stays green when the

projector is ready to use.

Menu Button Use to display the On-Screen-Display Menus, which provide

several options for adjusting the projected image.

Auto Button Use to auto adjust the image quality.

Source Button Use to select input source.

Status Button Use to get projector's operation status information

L Button Use as the left mouse button.

R Button Use as the right mouse button.

Press to enter function. → Button

4 Directional

Selection Buttons

Use to select or adjust the control items

Laser Pointer Button Use instead of a pointer to activate the laser pointer for use in

presentations.

Volume +/- Button Use to adjust the volume of the audio output.

Use to adjust the image vertically and make it square. **Keystone Button**

Blank Button Use to blank the image and mute audio.

Freeze Button Use to freeze or unfreeze the image

Mute Button Use to turn on or off the speaker.

Zoom Button Use the Zoom (+/-) buttons to zoom the image in and out. Use

the 4 directional selection buttons to pan the image.

Input Source

Selection

To select the correct device you are connecting with.

Installation Steps

Getting Started

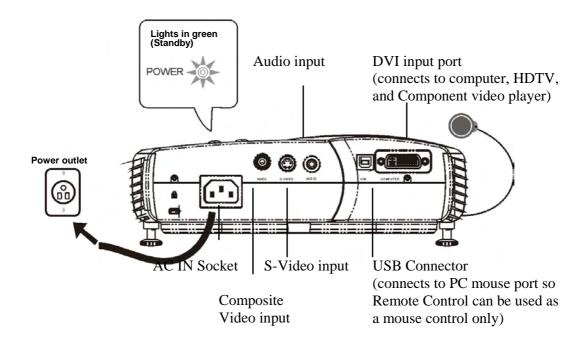
- 1. Place the projector on a flat surface.
- 2. Position the projector at the desired distance from the screen.
- 3. The projection distance is less than 33 feet (10M).

CAUTION:

- Proper ventilation is import. Don't block ventilation openings. Never operate this projector in an enclosed area. Do not place the projector on a tablecloth or other soft covering that may block the vents. With ceiling installations, use approved mounting hardware. Do not put the projector near heater, air ducts, transformers or other electrical devices. For permanent installations follow local codes.
- Don't set liquids on the projector. Spilled liquids may damage your projector.
- Don't put the projector on a hot surface or in direct sunlight.
- Do not drop the projector.

Connecting the Projector

- 1. Connect the power cable
- 2. When you connect the power cable to the projector, the Power LED & Lamp Ready LED on the control pad will illuminate, wait until LED stop flashing before turning on the projector.

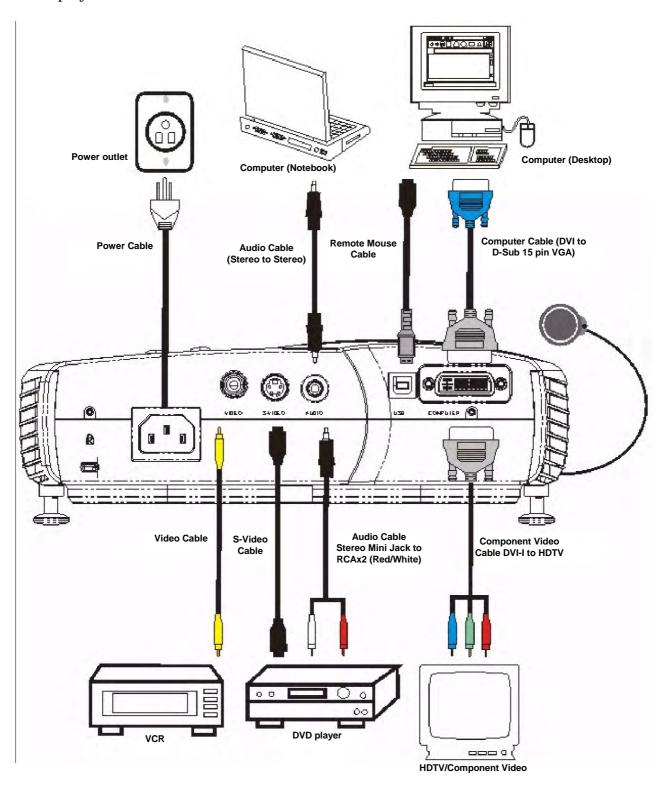


Connecting Input and Output Devices

The cables are color coded to assist you in making the connections.

You can connect more than one image source at a time. The input source will be detected automatically when enable the "Auto Source" function is enabled in the Status Menu of the OSD MENU. Manually pressing the "Source" button key operates selection.

The illustration below shows the ports and appropriate cables for connecting external devices to the projector.



Starting the Presentation

Power on

- 1. Remove the lens cap
- 2. Make sure Lamp LED steady orange state.
- 3. Press Power on the remote control, or Power on the control pad, to turn on the unit.

NOTE:

- When powered on, both the fans & lamp will be turned on. The power indicator will begin to flash until a video source is found, and the lamp indicator will extinguish when lamp is in normal status.
- The projection image will be in full brightness within 10-15 seconds and the "Digital Zoom Projector" screen menu will appear.



Don't look directly into the lens when the lamp is on. Doing so may cause an eye injury.

Turn on the source

- 1. Turn on the source
- 2. Selecting the source (PC or Video)
 - The "Auto Source" function will automatically find a source.
 - The Source button on the control panel or remote control can be used to select a source.

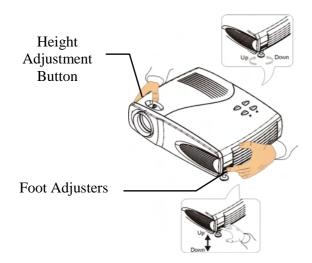
■NOTE:

- Always turn off the image source (computer or video) and projector before connecting or disconnecting cables.
- When using a computer as the input device, set the resolution of your computer's graphic card to 1024x768 for the optimal projected image. Refer to the Timing Charts page 30 to verify that the video signal timing of your graphics card is supported by the projector.
- Many laptop computers do not automatically turn on their external video port when another display device is connected. Refer to your computer's user guide for the function key or command that activates the port. MAC users may need to turn on SimulSCAN or monitor mirroring. Refer to the computer manual.
- If a source is not found in 10 minute, the power will be automatically be turn off.

Adjustment

Adjusting Projector Angle

Place the projector on a flat surface to position it in centre horizontally for best viewing.



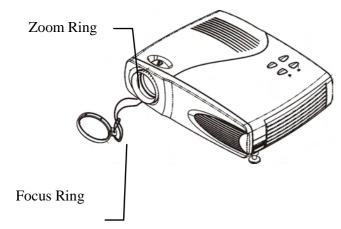
Adjust the projector angle using the Height Adjustment Buttons.

Press the Height Adjustment buttons while tilting the projector. The Foot Adjuster will extend accordingly, angled 7 degrees upwards.

MOTE:

Press the Height Adjustment button before adjusting the Foot Adjusters to avoid resulting in damage.

Adjusting the Zoom and Focus

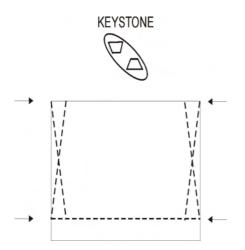


Rotate the zoom ring and focus ring until the projected image is clear and at the desired size. The projector can focus within the range of 5 feet (1.5m) to 33 feet (10m).

■NOTE:

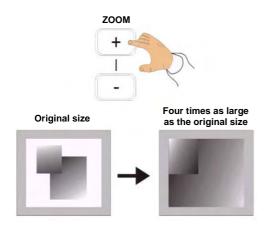
If vertical bars appear on the display after adjusting the focus, press the "Auto" button on the Control Pad. Or use the frequency/tracking features in the OSD menu to manually adjust the synchronization and tracking of the image.

Adjusting the Keystone Control



To adjust image vertically and make a square image. Adjust the keystone function by pressing the keystone button on the remote control or through OSD menus.

Adjusting the Zoom and Pan



Press the zoom +/- buttons on remote control to enter zoom mode, and use directional keys to pan upward, downward, right, and left.

Make any necessary image adjustments by using the on-screen menus. (Refer page OSD Menu section for the details)

Power Off

- 1. Turn off the projector and image sources in the order listed here.
 - a. Computer
 - b. Projector
 - c. Audio Source (if different from your video source or computer).
 - d. Video source (such as VCR, DVD, HDTV).

2. Press the Power button on the top of the unit or remote control to turn off the power.

A confirmation request will appear on the screen asking for reconfirmation of power off request.

3. Press the Power button again to confirm.

The lamp will turn off immediately but the fan will continue running for 1 minute to cool down the unit. The Power Indicator will continue flashing as long as the live power cord is connected to the projector.

Restart

To restart the unit shortly after powering off, the user must wait for 1 minute for the lamp to cool down. The lamp ready LED will stop flashing when the projector is ready to power up.



The unit may remain HOT for up to 45 minutes upon power off. User should be careful before handling the unit to prevent any burn or injury.

WARNING:

To reduce the risk of electric shock or damage to the equipment:

- Do not disable the power cord-grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Disconnect power from the projector by unplugging the power cord from the electrical outlet.
- Do not place anything on top of power cords or cables. Arrange them so that no one may accidentally step on or trip over them.
- Do not pull on a cord or cable. When unplugging from the electrical outlet, grasp the cord by the plug.

On-Screen-Display Menu Format and Description

The OSD menu will appear if any button is pressed thru using the control pad and remote control.

Input Source OSD



Display Logo

The projection image will appear in full brightness within 10-15 seconds and the "Digital Zoom Projector" logo will appear on the screen.



No Input Signal

"No Input Signal" will show on the screen when there is no active signal detected within 16 seconds.



Standby

When input signal is not detected for 16 seconds, the splash screen will appear until a signal is detected.



Power off

The splash screen will be displayed for 6 seconds requesting power off confirmation.





Input Source

The splash screen will be displayed upon pressing the "Source" button on the top cover or remote control.

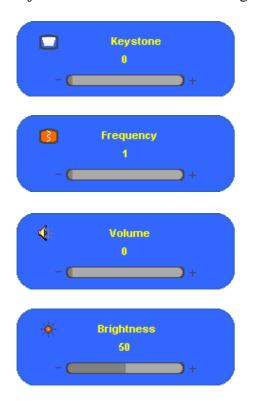
Press "▼▲" or "Source" to select the desired input source.

Source button on Remote control

Source button on control pad

Ezkey OSD

By repeatedly pressing EZKEY the following menu can be scrolled though. The user may adjust it to the desired level through keypads of Auto (-) and Source (+).



Keystone Correction

Use the (-) and (+) to adjust the vertical keystone level of the image.

Frequency

Use the (-) and (+) to adjust the frequency.

Volume

Use the (-) and (+) to adjust the volume level.

Brightness

Use the (-) and (+) to adjust the display brightness.

Remote Control Buttons OSD

Following menus/functions can be accessed through corresponding buttons on the remote control.



Zoom & Pan

Use Zoom (+/-) keys to zoom the image in and out. Use the 4 directional selection buttons to pan the image.



Mute

Use the mute key to turn on or off the speaker.



Blank & Mute

Use blank key to blank the image and mute the Audio.

Freeze

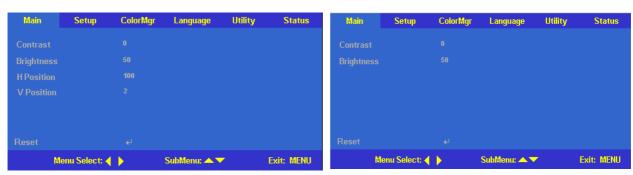
Use the freeze key to freeze or unfreeze the Image.

OSD Menu

Use the On-Screen-Display Menus shown below to adjust the projected image. To access and adjust the On-Screen-Menu do the following:

- 1. Press the Menu button on the remote control to select one of six on-screen menus: Main Menu, Setup Menu, Color Manager Menu, Language Menu, Utility Menu, and Status Menu.
- 2. Press arrow keys Left / Right (\blacktriangleleft / \blacktriangleright) for main menu selection, and use arrow keys upward / downward (\blacktriangle / \blacktriangledown) for sub-menu or for adjustment selection.
- 3. Press the "menu" button to exit an OSD menu.

Main Menu



PC Mode Video Mode

Contrast Use arrow keys Left / Right (\blacktriangleleft / \blacktriangleright) to adjust the contrast.

Adjustment range: from min-max (0 - 100) by 50 steps.

(Default value: factory calibrated)

Brightness Use arrow keys Left / Right (◀/▶) to adjust the brightness.

Adjustment range: from dark – light (0-100) by 50 steps.

(Default value: factory calibrated)

Horizontal Use arrow keys Left / Right (\blacktriangleleft / \blacktriangleright) to adjust the position in

Position horizontal direction.

Adjustment range: from left – right (0-100).

(Default value: centre position)

Vertical Position Use arrow keys Left / Right (◀/▶) to adjust the position in vertical

direction.

Adjustment range: from bottom - top (0-100).

(Default value: centre position)

In PC mode to reset contrast, brightness to default value.

In Video mode to reset contrast, brightness to default value.

Setup Menu





PC Mode Video Mode

Frequency Use arrow keys Left / Right (◀/▶) to adjust the sampling clock to

eliminate flicker.

Adjustment range: from low-high (0-100) by 31 steps.

(Default value: auto detected)

Tracking Use arrow keys Left / Right (\triangleleft / \triangleright) to adjust the sampling number.

Adjustment range: from low - high (0 - 100) by 100 steps.

(Default value: auto detected)

Video AGC Use arrow keys Left / Right (◀/▶) to adjust the video automatic

gain control. Selection item: on / off.

(Default value: on)

Video Type Use arrow keys Left / Right (◀/▶) to adjust the video source type.

Selection item: RGB / Y-Pb-Pr (HD) / Y-Cb-Cr (DVD)

(Default value: DVD)

Aspect Ratio Use arrow keys Left / Right (\triangleleft / \triangleright) to select the video aspect ratio.

Selection item: 4:3 & 16:9. (Default value: 4:3)

Projection Type Use arrow keys Left / Right (◀/▶) to select different projection

type.

Selection item: Desktop Front/Rear, Ceiling Front/Rear.

(Default value: desktop front)

Volume Use arrow keys Left / Right (\triangleleft / \triangleright) to adjust the volume level.

Adjustment range: from low - high (0-8) by 8 steps.

(Default value: 4)

Keystone Use arrow keys Left / Right (\triangleleft / \triangleright) to adjust the keystone level of

display.

Adjustment range: from \square to \square (0-100) by 32 steps.

(Default value: 50)

Reset Use → button to reset to default value.

In PC mode to reset aspect ratio, projection type, volume, keystone

to default value.

In Video mode to reset video AGC, video type, aspect ration,

projection type, volume, keystone to default value.

Color Manager Menu



PC Mode Video Mode

Color Temp. Use arrow keys Left / Right (\triangleleft / \triangleright) to select different color

temperature

Adjustment range: from cool, normal, warm by 4 steps.

(Default value: normal)

Color Saturation Use arrow keys Left / Right (◀/▶) to adjust video saturation.

Adjustment range: from color off to color level (0 - 100) by 50

steps.

(Default value:50)

Color Tint Use arrow keys Left / Right (\triangleleft / \triangleright) to adjust the video tint/hue.

Adjustment range: from red to green (0-100) by 50 steps.

(Default value: 50)

OSD Translucent Use arrow keys Left / Right (◀/▶) to select OSD background

translucent or not.

Adjustment range: translucent (on/off) by 2 steps.

(Default value: off)

Sharpness Use arrow keys Left / Right (◀/▶) to select different sharpness

level.

Adjustment range: from soft to clear (1-5) by 5 steps.

(Default value: 3)

Gamma Use arrow keys Left / Right (◀/▶) to select different gamma

correction.

Selection items: from PC, MAC, Graphic, Video and Black &

White by 5 steps. (Default value: PC)

Reset Use ↓ button to reset to default value.

In PC mode to reset color temp, OSD background, translucent,

sharpness, gamma to default value.

In Video mode to reset color temp, gamma to default value.

Language Menu



Use arrow key of Upward / Downward (\triangle/∇) to select the desired language: Chinese-Simplified, Chinese-Traditional, English, French, German, Portuguese, Spanish; and use the \sqcup button to enter the selected language. (Default value: English)

Utilities Menu



PC Mode Video Mode

PIP Size Use arrow keys Left / Right (\triangleleft / \triangleright) to select different picture in

picture size. Selection items: off/small/medium/large by 4 steps.

(Default value: off)

PIP Position Use arrow keys Left / Right (\blacktriangleleft / \blacktriangleright) to select different picture in

picture position. Adjustment range: from upper left to bottom right by

9 steps. (Default value: bottom right)

PIP Input Use arrow keys Left / Right (\triangleleft / \triangleright) to select different picture in

picture source. Selection items: Auto/S-video/Comp by 3 steps.

(Default value: auto)

Blank Color Use arrow keys Left / Right (◀/▶) to select different blanking color

Selection items: Black / Red / Green / Blue by 4 steps.

(Default value: black)

OSD Position Use arrow keys Left / Right (◀/▶) to select different OSD location

Selection items: from upper left to bottom right by 5 steps.

(Default value: centre)

OSD Display Time Use arrow keys Left / Right (◀/▶) to select auto timeout Selection

range: from 10 to 30 seconds by 21 steps.

(Default value: 15 seconds)

Reset To use ↓ button to reset to default value.

Status Menu



Auto Source To turn on or off the automatic function to detect one or more

active input source.

Auto Power Off To turn on or off the function for automatically lamp off when

there is no active signal.

Video Information To show resolution, H/V sync. information at RGB mode, color

standard at Video mode.

Software Revision Software version information.

Lamp Hour Lamp hour used information.

Lamp Hour Reset To reset lamp hour after changing the lamp. See page 35 for lamp

changing process.

Reference

Positioning the Projector

To adjust the size of the projected image, refer to figures 1 below and table 1 on the next page for Projection Distances to increase/decrease the distance between the projector and the projection screen.

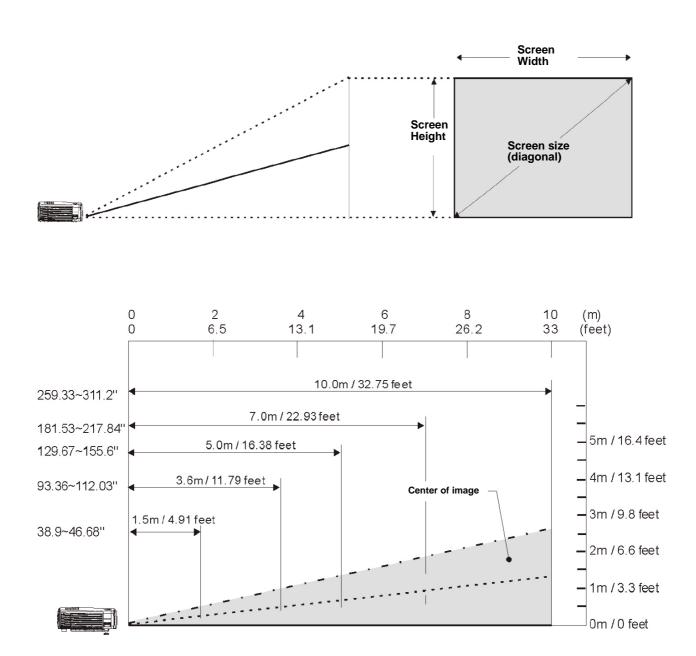


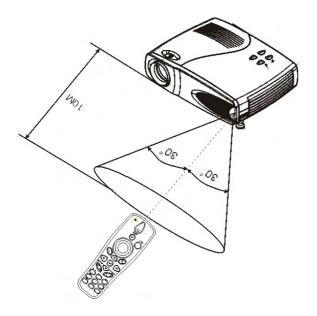
Figure 1: Projection Distance vs. Image Size

| Distance | Width x Height | Diagonal |
|-----------|--|-------------------|
| 5 feet | 31.12x23.34" - 37.34x28.01" | 38.90 - 46.68" |
| (1.5m) | $(0.78 \times 0.59 - 0.94 \times 0.70 \text{m})$ | (0.98 -1.17 m) |
| 6.5 feet | 41.49x31.12" - 49.79x37.34" | 51.87 - 62.24" |
| (2m) | $(1.04 \times 0.78 - 1.25 \times 0.94 \text{m})$ | (1.31 - 1.57m) |
| 8 feet | 49.79x37.34" - 59.75x44.81" | 62.24" - 74.69" |
| (2.4m) | $(1.25 \times 0.94 - 1.50 \times 1.13 \text{m})$ | (1.57 - 1.88m) |
| 9 feet | 58.09x43.57" - 69.71x52.28" | 72.61" - 87.14" |
| (2.8m) | (1.46x1.10-1.75x1.32m) | (1.83 - 2.19m) |
| 9.8 feet | 62.24x46.68" - 74.69x56.02" | 77.80" - 93.36" |
| (3m) | (1.57x1.17 - 1.88x1.41m) | (1.96 - 2.35m) |
| 10.5 feet | 66.39x49.79" - 79.67x59.75" | 82.99" - 99.58" |
| (3.2m) | (1.67x1.25 - 2.01x1.50m) | (2.09 - 2.51m) |
| 12 feet | 74.69x56.02" - 89.63x67.22" | 93.36" - 112.03" |
| (3.6m) | (1.88x1.41- 2.26x1.69m) | (2.35 - 2.82m) |
| 13 feet | 82.99x62.24" - 99.58x74.69" | 103.73" - 124.48" |
| (4m) | (2.09x1.57 - 2.51x1.88m) | (2.61- 3.13m) |
| 14.5 feet | 91.29x68.46" - 109.54x82.16" | 114.11" - 136.93" |
| (4.4m) | (2.30x1.72 - 2.76x2.07m) | (2.87 - 3.45m) |
| 16 feet | 99.58x74.69" - 119.50x89.63" | 124.48" - 149.38" |
| (4.8m) | (2.51x1.88 - 3.01x2.26m) | (3.13 - 3.76m) |
| 16.4 feet | 103.73x77.80" - 124.48x93.36" | 129.67" - 155.60" |
| (5m) | (2.61x1.96 - 3.13x2.35m) | (3.26 - 3.92m) |
| 17 feet | 107.88x80.91" - 129.46x97.09" | 134.85" - 161.82" |
| (5.2m) | (2.72x2.04 - 3.26x2.44m) | (3.39 - 4.07m) |
| 18 feet | 116.18x87.14" - 139.42x104.56" | 145.23" - 174.27" |
| (5.6m) | (2.92x2.19 - 3.51-2.63m) | (3.66 - 4.39m) |
| 20 feet | 124.48x93.36" - 149.38x112.03" | 155.60" - 186.72" |
| (6m) | (3.13x2.35 - 3.76x2.82m) | (3.92 - 4.70m) |
| 23 feet | 145.23x108.92" - 174.27x130.70" | 181.53" - 217.84" |
| (7m) | (3.66x2.74 - 4.39x3.29m) | (4.57 - 5.48m) |
| 26.2 feet | 165.97x124.48" - 199.17x149.38" | 207.47" - 248.96" |
| (8m) | (4.18x3.13 - 5.01x3.76m) | (5.22 - 6.27m) |
| 33 feet | 207.47x155.60" - 248.96x186.72" | 259.33" - 311.20" |
| (10m) | (5.22x3.92 - 6.27x4.70m) | (6.53 - 7.83m) |

Table 1: Projection Distances vs. Image Size

Remote Control Transmission Range

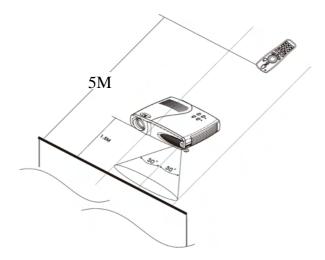
The Remote Control shall function at a distance within the range that the IR Transceiver can receive. For best operation, kindly refer to the following illustration of the Remote Control and IR transceiver transmission range and distance.



The projector is equipped with an IR Transceiver located at the front cover of the unit for the receipt of remote control transmission.

The IR Transceiver can receive transmission signal with the effective range, of 60° from an outstretched arm pointed towards the IR Transceiver.

The effective transmission distance of remote control is about 10 meters, including the reflection distance, response from the screen to the remote control.



Users, using the remote control can, either point it directly at the IR Transceiver, or stand behind the unit and point it at the projected image.

Product Specification

| Display Type | DLP™ Projection System |
|----------------------------------|---|
| Panel | 0.7" DMD x 1 |
| Native Resolution | XGA (1024 X 768) Native |
| Data Compatibility | VGA, SVGA, XGA, SXGA, Macintosh |
| Maximum Brightness | 1500 ANSI Lumens |
| Contrast Ratio | 1000:1 |
| Zoom Ratio | 1: 1.20 Manual Zoom / Focus |
| Color Reproduction | 16.7 Million |
| Aspect Ratio | 4:3 / 16:9 screen selectable |
| Digital Keystone Correction | (V) +/- 15 degree |
| Horizontal Frequency | 15, 31 - 90 KHz |
| Vertical Scan Rate | 43 - 85 Hz |
| Projection / Installation Mode | Front / Rear / Desktop / Ceiling |
| Lamp Type | 150W VIP |
| Lamp Life | 1500 hours |
| Projection Distance | 1.5 to 10 meters |
| Projection Image Size (diagonal) | 40" to 311" |
| Audio Noise | 35 dB |
| Input Terminals | DVI-I, Video, S-Video, Audio |
| Output Terminals | USB for mouse control |
| Speakers | 0.5W x 1 |
| Video Compatible | NTSC, NTSC 4.43, PAL, SECAM |
| Dimensions (WxDxH) | 188mm x 240mm x 64mm (7.4" x 9.5" x 2.5") |
| Weight | 3.5 lbs |
| Power Supply | 100 - 240vac, 47-63 Hz |
| Power Consumption | 220 Watts |
| On-Screen Display Language | English, French, Spanish, German, Portuguese, |
| | Traditional Chinese, Simplified Chinese |
| Safety & Regulatory | UL, Cul, CE, TUV, FCC Class B, CCC |
| Operation Temperature Range | 10-35 ° C |
| Storage Temperature Range | -20 ~ 60° C |
| Operating Relative Humidity | 5% ~ 90% Non-Condensing |
| Storage Relative Humidity | 5% ~ 95% Non-Condensing |
| Altitude (operating) | $0 \sim 10,000 \text{ ft}$ |
| | $0 \sim 3,048 \text{ m}$ |
| Altitude (storage) | $0 \sim 40,000 \text{ ft}$ |
| | 0 ~ 12,192 m |

Timing Charts

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

Table 2: ANALOG Computer Timings (Resolution and Refresh Rate [fV])

| Resolution | FH(kHz) | FV (Hz) | Signal mode |
|-------------|---------|---------|---------------------|
| 640 x 350 | 37.9 | 85 | Expanded VGA |
| 640 x 480 | 31.5 | 60 | Expanded VGA |
| 640 x 480 | 37.9 | 72 | Expanded VGA |
| 640 x 480 | 37.5 | 75 | Expanded VGA |
| 640 x 480 | 43.3 | 85 | Expanded VGA |
| 720 x 400 | 31.5 | 70 | Expanded VGA |
| 720 x 400 | 37.9 | 85 | Expanded VGA |
| 800 x 600 | 37.9 | 60 | Expanded SVGA |
| 800 x 600 | 48.1 | 72 | Expanded SVGA |
| 800 x 600 | 46.9 | 75 | Expanded SVGA |
| 800 x 600 | 53.7 | 85 | Expanded SVGA |
| 1024 x 768 | 35.5 | 43.4 | Native XGA |
| 1024 x 768 | 56.5 | 70 | Native XGA |
| 1024 x 768 | 68.7 | 85 | Native XGA |
| 1280 x 1024 | 64.0 | 60 | Compressed SXGA |
| 1280 x 1024 | 79.98 | 75 | Compressed SXGA |
| 640 x 480 | 35.0 | 66.68 | Expanded Mac II 13" |
| 832 x 624 | 49.73 | 74.55 | Expanded Mac 16" |
| 1280 x 1024 | 64.0 | 60 | Compressed FM Town |

Table 3: DIGITAL Computer Timings (Resolution and Refresh Rate [fV]

| Resolution | FH(kHz) | FV (Hz) | Signal mode |
|-------------|---------|---------|---------------------|
| 640 x 350 | 37.9 | 85 | Expanded VGA |
| 640 x 480 | 31.5 | 60 | Expanded VGA |
| 640 x 480 | 37.9 | 72 | Expanded VGA |
| 640 x 480 | 37.5 | 75 | Expanded VGA |
| 640 x 480 | 43.3 | 85 | Expanded VGA |
| 720 x 400 | 31.5 | 70 | Expanded VGA |
| 720 x 400 | 37.9 | 85 | Expanded VGA |
| 800 x 600 | 37.9 | 60 | Expanded SVGA |
| 800 x 600 | 48.1 | 72 | Expanded SVGA |
| 800 x 600 | 46.9 | 75 | Expanded SVGA |
| 800 x 600 | 53.7 | 85 | Expanded SVGA |
| 1024 x 768 | 35.5 | 43.4 | Native XGA |
| 1024 x 768 | 56.5 | 70 | Native XGA |
| 1024 x 768 | 68.7 | 85 | Native XGA |
| 1280 x 1024 | 64.0 | 60 | Compressed SXGA |
| 640 x 480 | 35.0 | 66.68 | Expanded Mac II 13" |
| 832 x 624 | 49.73 | 74.55 | Expanded Mac 16" |
| 1280 x 1024 | 64.0 | 60 | Compressed FM Town |

Troubleshooting

Power Indicator

The power and lamp indicator on the control pad provides you with information about the condition of the projector.

| Indicator | Light Status | Condition |
|-----------|--------------|---|
| Lamp | Blinking | • Lamp is off but power cord is connected to the projector. |
| Ready | | Projector is in standby mode. |
| LED | | Lamp is off and fan is running. |
| | | Projector is cooling down. |
| Power | Two blinks | Scaling chip has malfunctioned. |
| LED | Three blinks | System has overheated. |
| | Four blinks | I2C bus has failed. |
| | Five blinks | Lamp has malfunctioned. |
| | Six blinks | Fan is in malfunction. |
| | Seven blinks | Lamp cover is open. |
| | Eight blinks | DMD board failure. Call for service. |

■NOTE

Every will last for 1/2 second and the interval for every blink is lasted 1 second.

Remote Control

| Symptom | Cause and Solution |
|--|--|
| Projector responds poorly or not at all to the remote control. | Make sure that the total distance from the remote to the projector is no more than 33 feet (10m). Point the remote control at the screen or at the front of the projector. |
| | Make sure nothing is blocking the infrared sensor on the front of the projector. Darken the room. The light might be effecting the remote Control. Replace the remote control batteries. |

Sound

| Symptom | Cause and Solution | |
|--------------------------|--|--|
| No sound | Adjust volume | |
| | Verify audio/input connections | |
| | Adjust audio source | |
| Poor sound quality | Make sure you are connected to the earphone jack on your laptop or line out jack on your desktop. Make sure the volume setting on your computers is to the halfway point. | |
| No audio-out port on the | You will be not able to connect audio to the projector. | |
| image source | | |

Image Source

| Symptom | Cause and Solution |
|---------------------------|--|
| The S-Video image source | • Be sure to use the cable that comes with your projector. Some |
| does not appear. | inexpensive cables are not compatible with the projector. |
| Only the start-up screen | Verify that the cables are connected correctly. |
| appears and not the image | Verify that the proper image source is connected and the |
| from the image source. | proper functions are enable of the menu. |
| The image source is | Make sure that the image source is turned on. |
| connected but a "No | • Turn off everything and power up again following the proper |
| Signal Message" appears. | process. |
| | • Make sure that your laptop's external video port is turned on. |

Image Quality

| Symptom | Solution |
|---|---|
| Color or text is not being projected. | Adjust the brightness up or down until the text is visible. |
| Some text or fonts are not as sharp on the projector as they are on the computer. | • For optimal results, set the computer's resolution to 1024x768. (Refer to your computer user manual.) This projector is capable of projecting up to 1280 x 1024. |
| Image isn't centred on the screen. | Be sure that the projector is at a 90° angle to the screen. Reposition the image. |
| Image is out of focus. | Make sure that the projection screen is at least 5 ft (1.5m) from the projector. Turn the projection lens till the image is focused. Check the projection lens to see if it needs cleaning. |
| Image and menus are upside down. | Check main menu of Setup to make sure projection type is correct in accordance with the projection status. If projecting from a ceiling mount, make sure that the ceiling projection function is selected. If projecting from an upright position, make sure that Front or Rear projection is selected. |
| Image and menus are reversed from left to right. | Check main menu of Setup to make sure projection type is correct in accordance with the projection status. If projecting from behind a screen make sure that Rear projection is selected. If projection in front of a screen, make sure that Front or Ceiling Projection is selected. |
| Image appears flat with no contrast. | To adjust the contrast: Press Menu key on the remote and go into "Main" menu. Select "contrast" and use the cursor keys +/- to increase or decrease the contrast to the desired level. |
| Image appears washed out or dark | Check projection lens to see if it needs cleaning. To adjust the brightness Press Menu on the remote and go into "Main" menu Select "Brightness" and use arrow keys +/- to increase or |

| | decrease the brightness to the desired level. |
|----------------------------|--|
| Image is blocked | Press Menu on the remote and go into the main menu of Utility |
| PIP window can not | To disable PIP Size function |
| display video | To check PIP Input selection |
| Image is "noisy" or | To adjust the frequency |
| streaked. | 1. Press Menu to go into main menu of "Setup". |
| | 2. Adjust "Frequency" and "Tracking" to an optimal setting. |
| | • Try connecting with another computer. The problem might be due to the video card of the connected computer itself. |
| Image is wider at the top | This keystone effect is caused by the projection angle not being |
| or bottom of the screen. | perpendicular to the screen. To achieve a square image, raise or |
| | lower the front legs or prop up the back of the projector, or adjust |
| | keystone function thru remote, EZ Key on top cover of main set. |
| Image is wider at one side | Make sure the projector is set at a 90 degree angle to the screen. |
| than the other. | |
| Projected colors don't | Press menu to go into main menu of "Color Manager" and adjust |
| match the computer or | color temperature & gamma to optimize the colors. |
| video source colors. | The Image Manager settings work best if you reset the Main |
| | Menu prior to setting Color Manager. |
| Adjust Function can not | Press menu key on the remote to go into several function keys |
| find from Ezkey on main | selection. |
| set or remote | |

Lamp

| Symptom | Cause and Solution | |
|-----------------------------|---|--|
| | | |
| No light is coming from the | Make sure that the power cable is properly connected to a | |
| lamp. | fully functional AC electric outlet. | |
| | • Make sure that the power cord is properly connected to the projector. | |
| | Make sure that you have removed the lens cap on the projector lens at the front of the projector. | |
| | Make sure you have pressed the power button and the power LED light is a steady green. | |
| | • Check the projector's lamp to make sure that it is securely connected in the lamp module. | |
| | Make sure that the lamp module door is fully closed. | |
| | Make sure that the cable connectors do not have any bent pine. | |
| | pins. | |
| | Replace the lamp | |
| Lamp shuts off | • A minor power surge may cause the lamp to shut off. Press | |
| | the power button twice to turn off the projector. (The | |
| | power light continues to blink and the fan continues to run | |
| | until the projector cools down.) Wait at least one minute, | |
| | then press the power button again. | |
| | Replace the lamp module. | |

Maintenance

Changing the Lamp

Important! The lamp contains a trace amount of mercury. Some governments require special disposal of lamps containing mercury. Dispose of lamps in accordance with the law and any applicable local regulations.

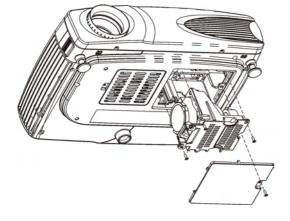
The lamp module should be replaced with a certified replacement part. To order a new lamp, contact your local dealer. After changing the lamp module you should reset the lamp hours in accordance with the lamp hour reset instructed hereafter.

WARNING:

When replacing the lamp be sure to turn off power and unplug the power cord. To avoid any burn, wait 45 minutes before opening the lamp module cover and do not touch any hot surface inside.

Do not loosen or remove any screws other than lamp module or its cover. Doing so many cause electric shock.

To replace the lamp module



- 1. Turn off the projector and let the unit cool down for at least 45 minutes.
- 2. Unplug the power cord from projector.
- 3. Turn the projector upside down. Loosen the screw with a phillips screwdriver. Remove the lamp cover by lifting it up and out..
- 4. Loosen the three screws on the lamp module bracket.
- 5. Gently lift and pull up on the two slotted indentation on the located on the lamp housing to remove the lamp module.
- 6. Carefully place the new lamp module into the projector with the glass portion facing left. Insert the lamp module securely and match two location ribs to the location holes on the inner engine case. Tighten the three screws.
- 7. Reinstall the lamp module cover and tighten the screw.
- 8. Turn on the projector.
- 9. Reset the lamp hours.

NOTE:

- 1. The lamp contains a trace amount of mercury. Some governments required special disposal of lamps containing mercury. Dispose of lamps in accordance with the law and any applicable local regulations.
- 2. Do not loosen or remove any screw other than lamp unit or its cover.
- 3. Do not touch any of the glass surface on the lamp unit.

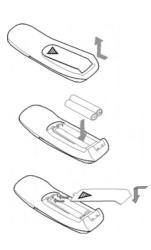
Lamp Hour Reset



Press the cursor keys through following sequence to reset Lamp hour: down → → up ▲ → left ◄ → right ▶

Press "Exit: Menu" to cancel

Changing the Battery of Remote Control



- Remove the battery cover.

 Push the knob while lifting up the cover of the battery compartment.
- Insert the batteries.
 Install AAA battery x2 (included) into the remote. Make sure they are in the correct direction (+) and minus (-) placed.
- Replace the cover to the battery compartment.

Cleaning

Cleaning the Projection Lens

- 1. Be sure the projector is powered-off and has cooled down.
- 2. Unplug the projector.
- 3. Remove the lens cap.
- 4. Apply a non-abrasive camera lens cleaner to a soft, dry cloth.
- 5. Lightly wipe the cleaning cloth over the lens.

NOTE: Always keep lens cap on the projector when not in use.



- Avoid using an excessive amount of camera lens cleaner. Do not use abrasive cleaners, solvents or other harsh chemicals as they might scratch the lens.
- Do not spill any camera lens cleaner on the exterior case as it may fade, deform or melt the exterior case.

Cleaning Exterior Case

- 1. Be sure the projector is powered-off and has cooled down.
- 2. Unplug the projector.
- 3. Wipe off the dirt or dust on the case with a soft, dry, lint-free cloth.
- 4. Moisten a soft cloth with water or a non-abrasive is recommended to clean off stubborn dirt or stains.



Do not use alcohol, benzene, thinner or other chemical cleaners, which may fade, deform or melt the exterior case. Do not apply a detergent solution to the projector lens as it may scratch the lens.

Cleaning the Projector

Never attempt to clean the interior of the projector. Clean the exterior of the projector only.

- 1. Make sure the projector is powered-off, cooled down and power cord has been disconnected prior.
- 2. Clean the exterior of the projector with a moist cloth using a mild detergent.



Do not use lens cleaner, alcohol, benzene, thinner or other chemical cleaners to clean the exterior case.

Customer Support

For most of your questions, it is suggested that you contact your dealer for assistance or ask your dealer to refer you to a service center.

To facilitate after-sales service process, it is suggested that you fill in following information when you purchase this product.

For Your Records

| Product Name: | |
|---------------------------|----|
| Model Number: | |
| Serial Number: | |
| Purchase Date: | |
| Service Information | |
| Contact Person | |
| Company | |
| Address | |
| Telephone | |
| Fax No. | |
| E-mail | |
| | |
| Product Warranty : from _ | to |
| | |
| Lamp Warranty : from _ | to |

Product disposal at end of product life

Please dispose of this product properly at the end of its useful life. Your local waste disposal company may provide information about proper disposal.