



# USER MANUAL

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# Important Information

## Precautions

Please read this manual carefully before using your Vivid Red projector and keep this user manual for your future reference.

## Labels & Markings



This symbol warns the user that the presence of uninsulated voltage within the unit may be sufficient to constitute the risk of electric shock. Therefore, it's dangerous to make any kind of contact with any part inside of the projector.



This symbol alerts the user that important operation and maintenance instructions have been provided. This information should be read carefully to avoid problems.

## Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must be accepted any interference received, including interference that may causes undesired operation.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du règlement sur le matériel brouilleur du Canada.

### **▲ WARNING ▲**

**To prevent the risk of fire and shock, never expose the unit to rain or moisture.**

### **▲ WARNING ▲**

**Never stare into the beam of light. The extremely high brightness of this projector may cause permanent eye damages. Be especially careful that children do not stare directly into the light.**

# 1. Introduction

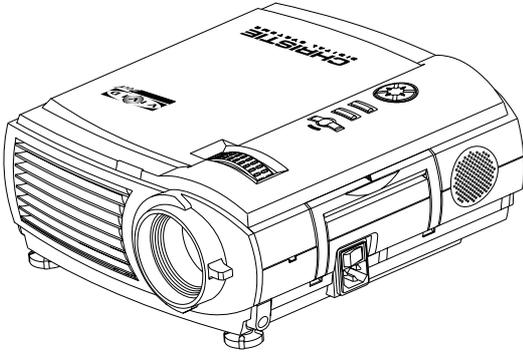
## 1.1 The Projector

The product is a high brightness, high-resolution video / data projector. It has the following key features:

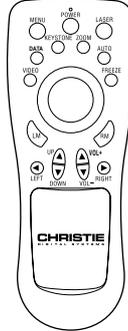
- 3-chip 0.9" D-ILA light engine
- 1365 x 1024 native panel resolution (SXGA)
- Input pixel formats from 640 x 480 (VGA) up to 1600 x 1200 (UXGA)
- Maximum dot (pixel) clock of 162 MHz.
- 8-bit digital processing High quality scaling of input pixel format
- Input horizontal frequency range 15 - 100 kHz
- Input vertical frequency range 50 -100 Hz
- Designed to provide a typical light output of 1100 ANSI lumens
- Contrast ratio (Full white/black): typical 500:1 in full field
- Lamp life of 1500 hours typical
- Designed for 100V to 240V (nominal) AC operation from a standard 15 amp wall plug
- Lens mount has manually adjustable zoom, focus, 100% offset which is fixed.
- 30 to 300 inches diagonal image size
- Standard RGB/YUV input with 5 BNCs
- Multi-standard video decoder with composite and S video inputs
- Accepts and displays all currently known HDTV formats (480i, 480p, 720p) via RGB connection.
- Inverse telecine de-interlacing of film-originated video material generated with 3:2 pull-down
- Stereo audio inputs & output with control of volume and 2 x 2W speakers
- Auto setup feature
- Digital keystone feature
- Intuitive graphical user interface
- Built-in keypad (power, source, menu, up, down, left, right arrows)
- Front and rear infrared sensors for IR keypad
- Built-in RS232 port
- Carrying handle
- Built-in mouse port for trackball mouse on remote control
- Security feature Kensington Lock
- Aspect ratio: standard 4:3 and wide screen 16:9.

## 1.2 Components

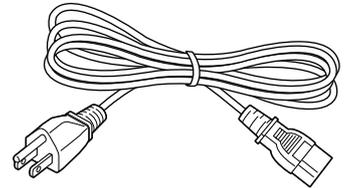
Vivid Red Projector x 1



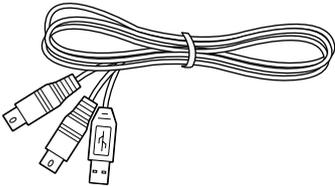
Laser pointer remote control x 1



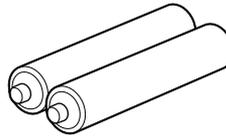
Power cable x 1



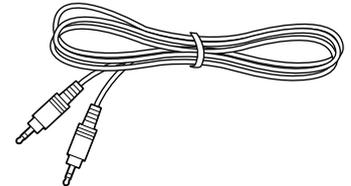
Mouse connection cable x 1



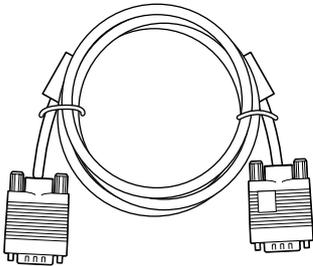
AAA batteries x 2



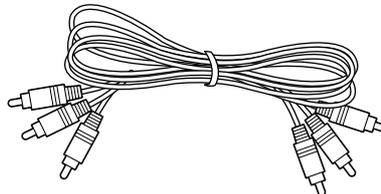
Audio cable x 1



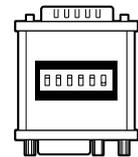
RGB cable x 1



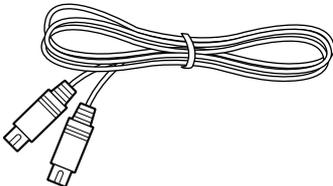
AV cable x 1



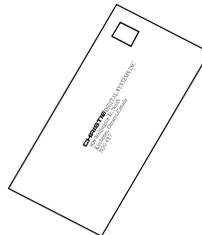
MAC connector x 1



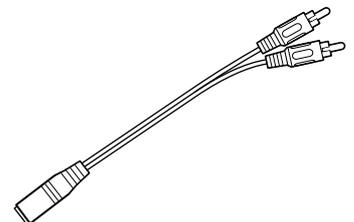
S-Video cable x 1



Warranty card x 1



Dual male RCA to female adapter x 1



User's manual x 1



## 2. Installation & Setup

### 2.1 Setting Up Your Projector

There are three ways to set the projector: front projection, overhead projection, and rear projection.

1. Determine the image size.
2. Set up a screen or select a non-glossy white wall onto which you can project your image.

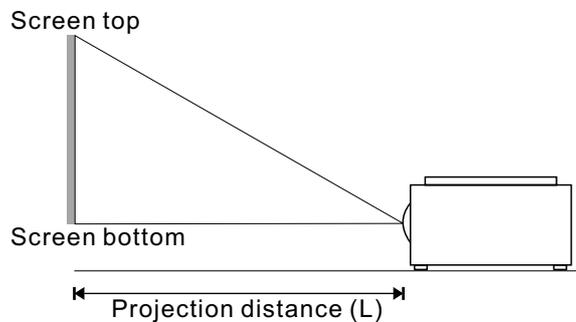
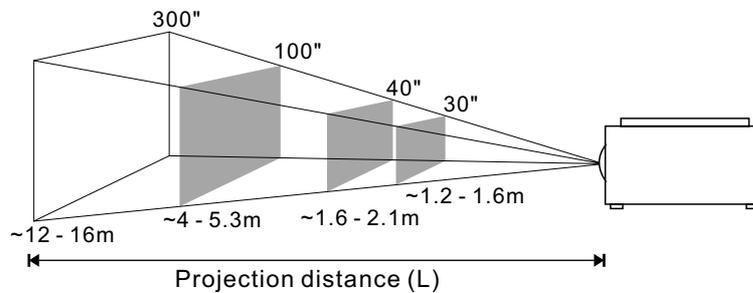
#### Adjustment

Adjust the height of the projector using the 2 adjusters on the front.

Lift the front of the projector while pressing the adjustment levers on the front side of the projector.

- Release the adjustment levers to fix the adjusters in position when the desired angle is reached.
- For fine-tuning, turn the adjusters.

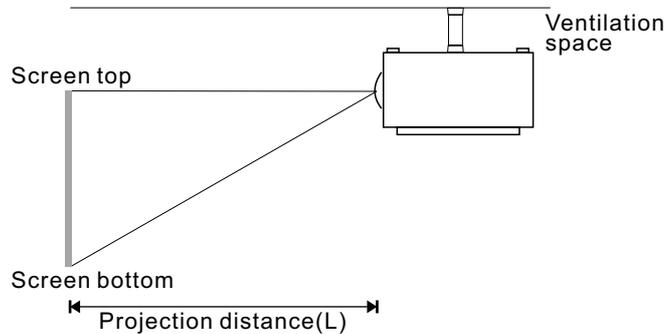
### 2.2 Screen And Projection Distance



Screen Size						Projection Distance (L)	
Screen Size		Height		Width			
(inch)	(cm)	(inch)	(cm)	(inch)	(cm)	(ft)	(m)
30	76	18	46	24	61	3.9-5.12	1.2 - 1.6
40	102	24	61	32	81	5.12-6.9	1.6 - 2.1
60	152	36	91	48	122	7.9-10.5	2.4 - 3.2
80	203	48	122	64	163	10.5-14.1	3.2 - 4.3
100	254	60	152	80	203	13.1-17.4	4 - 5.3
150	381	90	229	120	305	19.7-26.2	6 - 8
200	508	120	305	160	406	26.2-35.1	8 - 10.7
250	635	150	381	200	508	32.8-43.6	10 - 13.3
300	762	180	457	240	610	39.3-52.5	12 - 16

### **Ceiling Mount**

- If the projector is mounted on the ceiling and the image is upside down, use the Menu and Up, Down, Left, Right button on your projector keypad or on the remote control to correct the orientation.
- The ventilation space shall be 20 cm from the projector foot to the ceiling.

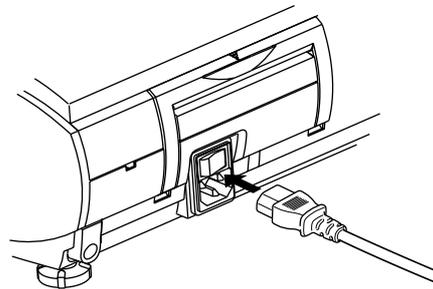


### **▲ WARNING ▲**

- **Installing the projector on the ceiling must be done by a qualified technician, do not attempt to install the projector yourself.**
- **Only use the projector on a level, solid surface. If the projector falls to the ground, the user may be injured and the projector severely damaged.**
- **Do not expose the projector in the moisture, dust, or smoke. This will harm the projected images.**
- **Make sure there is adequate ventilation around the projector. Do not cover the vents on the side, front or bottom of the projector.**
- **Do not use the projector where the temperatures vary greatly. The projector must be used at temperatures between 32 F (0°C) and 95 F (35°C).**

## **2.3 Power Connection**

Plug the projector's power cord into the input socket located on the right side of the projector, plug the three-pronged end of the power cord into a grounded AC outlet.



### **▲ CAUTIONS ▲**

**When the projector is turned off, the fan will continue to run for approximately 120 seconds to ensure that the projector and the lamp is cooled down. To avoid thermal stress to the lamp, do not unplug the power cord while the cooling fan is running.**

## 2.4 External Connection

### 2.4.1 Connecting to a Personal Computer

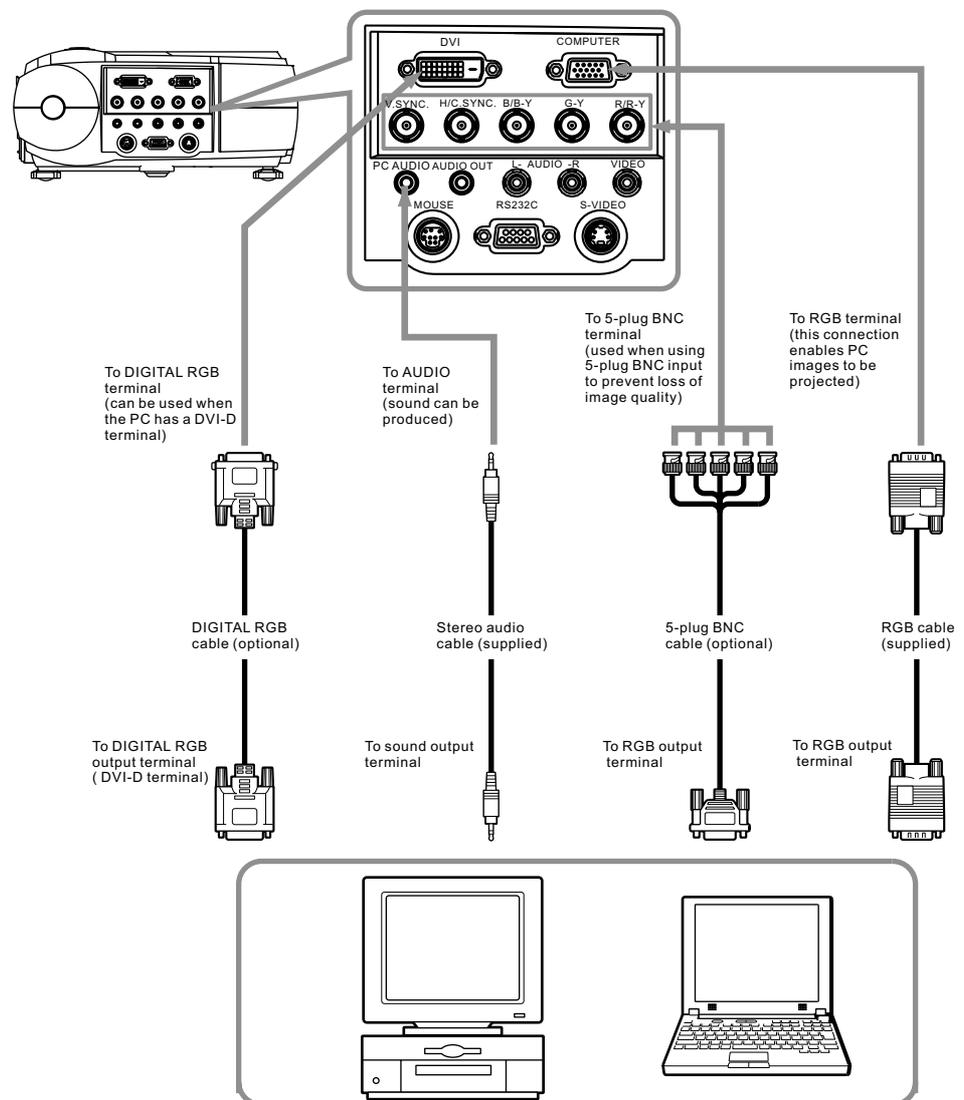
The rear panel of the projector provides the variety of inputs. The projector can be connected to a computer, video, DVD player, laser disc player, etc.

The projector can connect to a computer capable of VGA, SVGA, XGA, SXGA and UXGA output.

Turn off the projector and computer before making any connections or disconnections.

#### Connecting a PC

- Use the supplied cable to connect your PC to the projector.
- Turn on the projector and the computer.

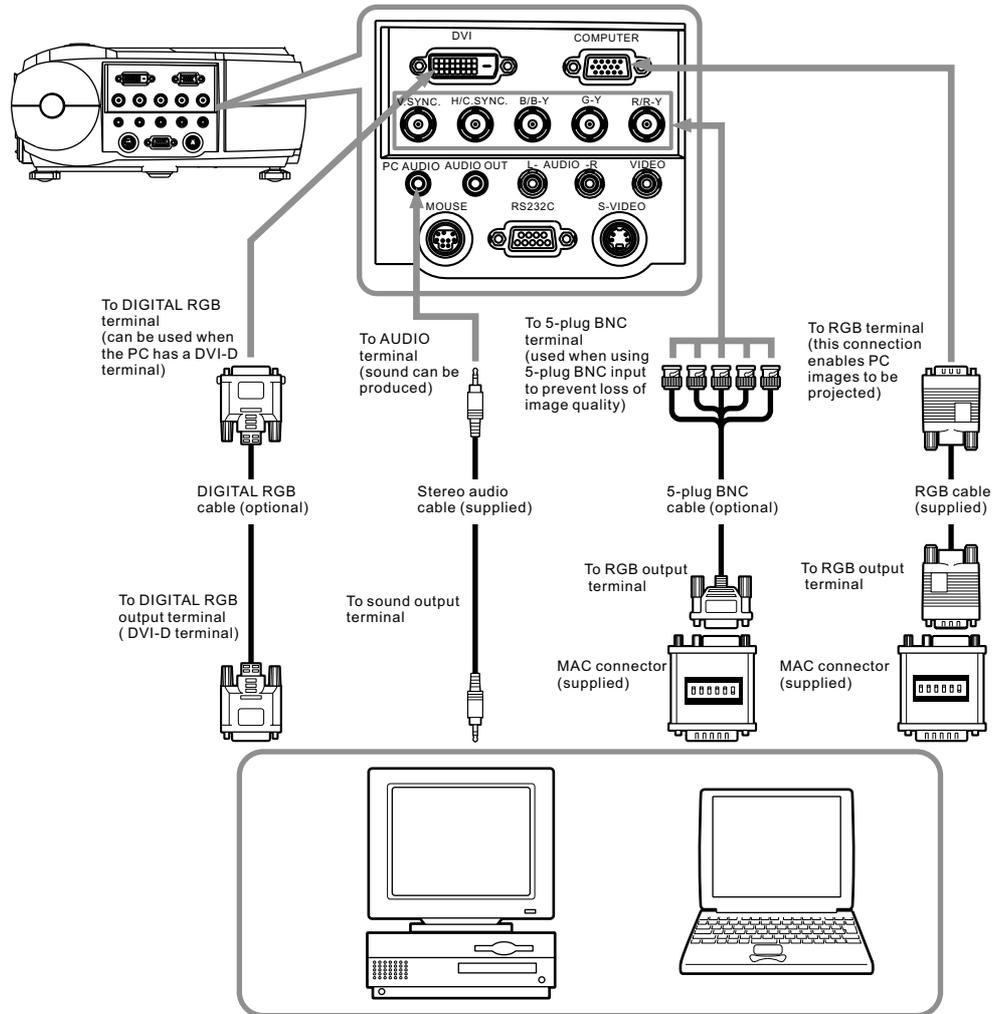


#### NOTE:

- If the computer output is a 5-plug BNC type, use the 5-plug BNC computer cable.
- If the computer has a DVI terminal, use the DVI cable to connect to the DVI port in the projector.

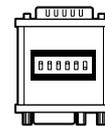
**Connecting a Macintosh**

- Use the supplied signal cable and Macintosh adapter to connect your Macintosh computer to the projector.
- Turn on the projector and the Macintosh computer.



When using a MAC connector, set the dip switches as follows.

- Mac 13" Mode (640 x 480) → Switches 1, 5, 6 ON
- Mac 16" Mode (832 x 624) → Switches 2, 5, 6 ON
- Mac 19" Mode (1024 x 768) → Switches 3, 5, 6 ON
- Mac 21" Mode (1152 x 870) → Switches 1, 2, 3, 5, 6 ON



**NOTE:**

- Use the Macintosh adapter to connect a Macintosh computer to the projector, otherwise it may result in a blank screen.
- Remove the small cover on the Macintosh adapter. Set the DIP switches in accordance with the resolution you want to use.
- When connecting to a Macintosh notebook, a special adapter (commercially available) may be necessary in addition to the Macintosh adapter. See Macintosh notebook manual for additional information on connecting a computer cable.

## **2.4.2 Connecting to a Video/ Laser Disk/ DVD Player**

A VCR, a laser disc player, DVD player, or any other compatible video image source can connect to the projector.

Turn off the projector and video source before making any connections or disconnections.

The projector can receive composite video, S-Video, or component video.

### **Connecting a Composite Video Source:**

- If the video source uses a RCA connector, you will need the RCA cable to connect to the projector. Connect the yellow RCA plug on one end of RCA cable to the projector's video jack, and connect the other end of the yellow RCA plug to your video source.

### **Connecting a S-Video source:**

- If the video source uses S-Video connector, connect one end of the S-Video cable into the S-Video connector of the projector, the other end to the S-Video-out jack of your video source.

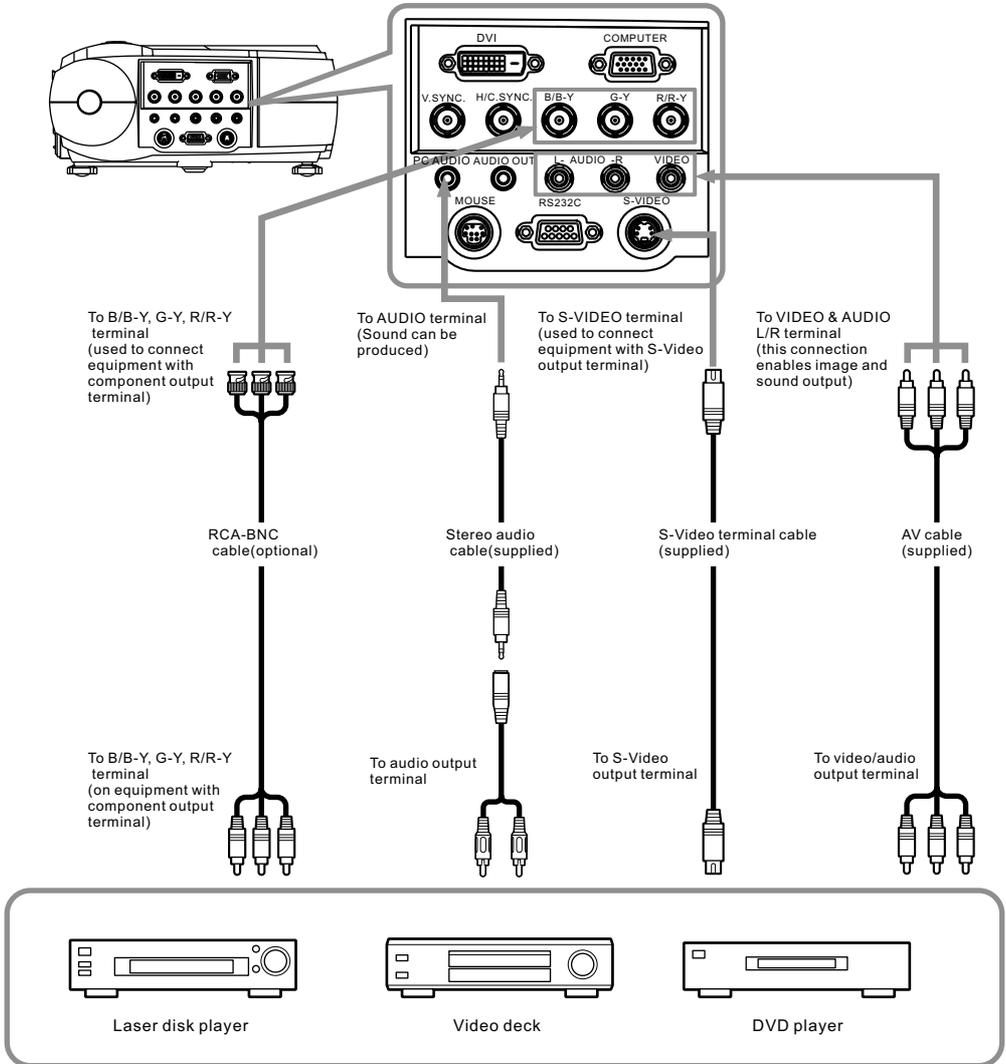
### **Connecting a Component Source:**

- Insert three ends of a BNC cable into the projector's B/B-Y, G-Y, R/R-Y jacks. Insert the other ends of the cable into the B/B-Y, G-Y, and R/R-Y jacks on your component video source. (Don't insert any of the cable ends into the H-Sync and V-Sync jacks.)

### **Connecting an Audio Source:**

- Connect the RCA audio cable to the Audio jacks of the projector: insert the white plug into L and the red plug into R jack. Connect the other end of RCA audio cable to your video source.

**Connecting to a Video / Laser Disk / DVD Player**



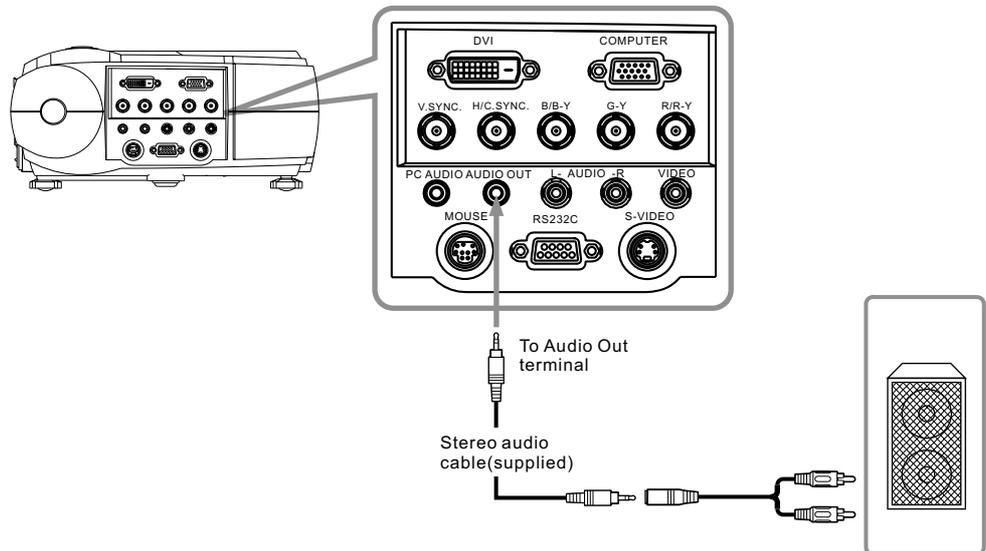
### 2.4.3 Connecting to External Speakers

An external speaker system can connect to the projector to gain maximum benefit from the projector's built-in sound function.

Turn off the projector and speaker system if they are on.

- Connecting the stereo audio cable's miniplug to the projector's Audio Out jack.
- Connecting the other end of the stereo audio cable to the dual male RCA to female adapter.
- Connecting the RCA plugs to the external speakers. Insert the cable's red plug into the Audio R jack, and the white plug into the Audio L jack.

**NOTE:** The internal speakers are disabled when an external sound system is used.

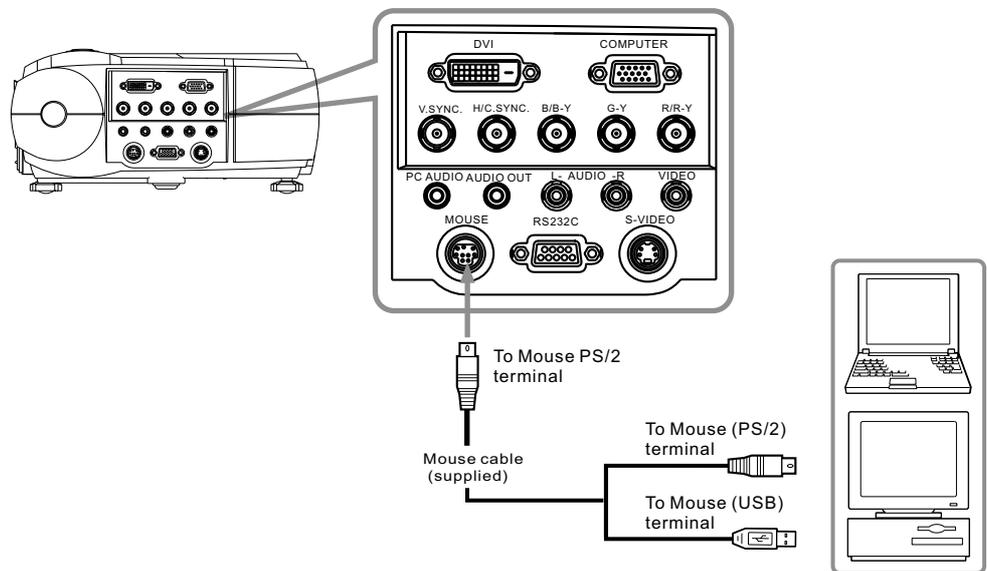


## 2.5 Mouse Functions

The remote control can be used as a wireless mouse by connecting the projector mouse port to the computer mouse port.

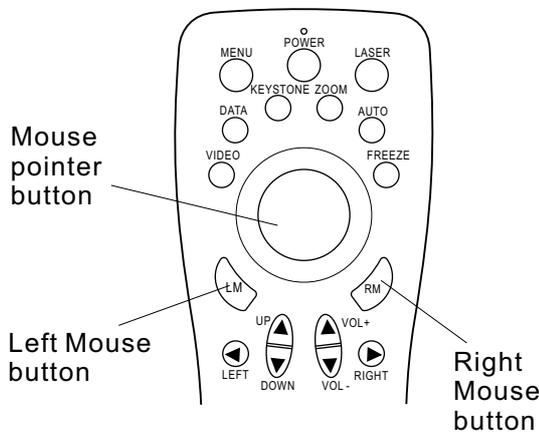
### Connecting the Mouse:

- Connecting the big end of the PS/2 mouse cable (9 pin) to the projector mouse port.
- Connecting the small end of the PS/2 mouse cable (6 pin) to the computer's mouse port.
- For a Macintosh computer, connect the USB mouse or PS/2 mouse.



### How to Use the Remote Control as a Wireless Mouse:

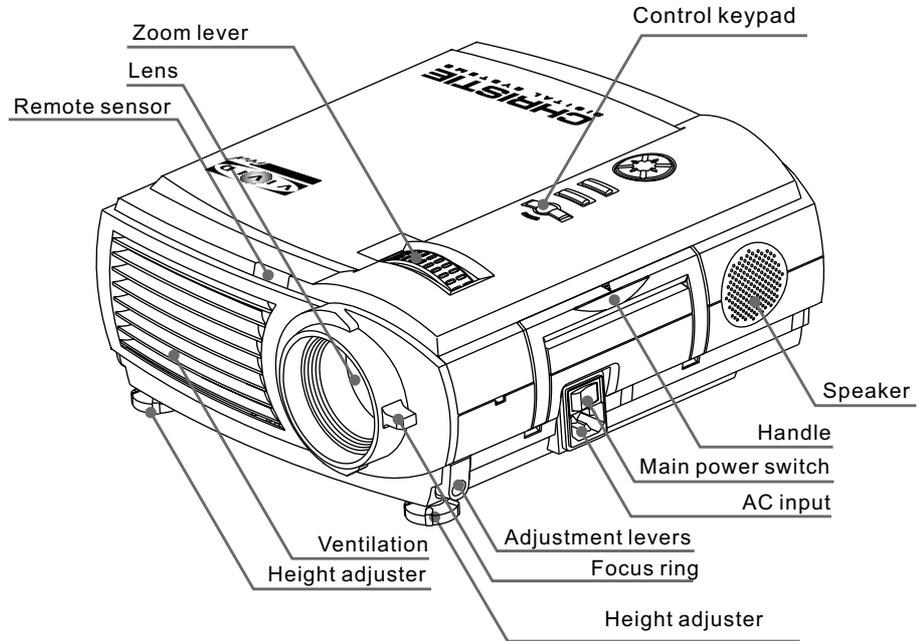
- **Right Mouse button**  
The right mouse button is marked RM on the right of the remote control.
- **Left Mouse button**  
The left mouse button is marked LM on the left of the remote control.
- **Moving the Cursor**  
Use the mouse pointer button to move the cursor left, right, up, down.
- **Select Item**  
Move the cursor to item and press the LM button.
- **Drag**  
While pressing the LM button, press the mouse pointer button to drag in the desired direction.



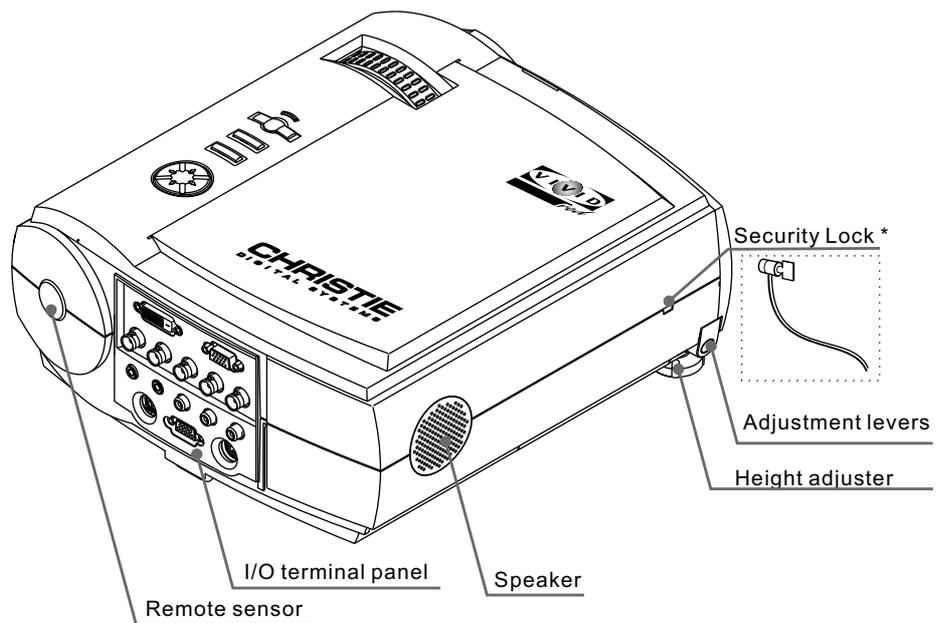
# 3.Operation

## 3.1 Projector Basics

### Front/ Side Features



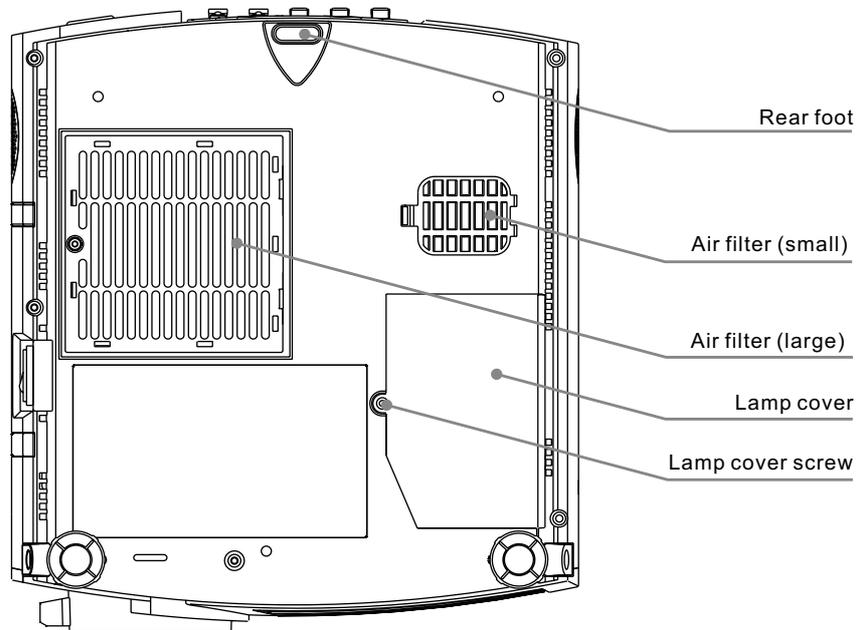
### Rear/ Side Features



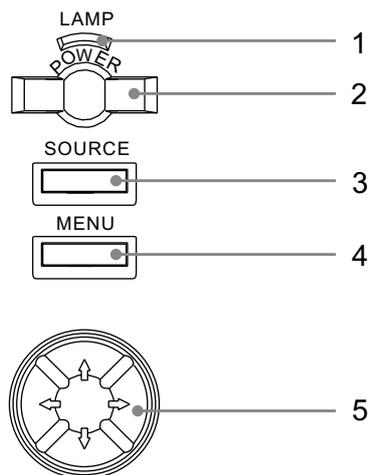
**Security Lock Note:**

The projector can connect to a commercially available security cable (Kensington's).

### Bottom Features

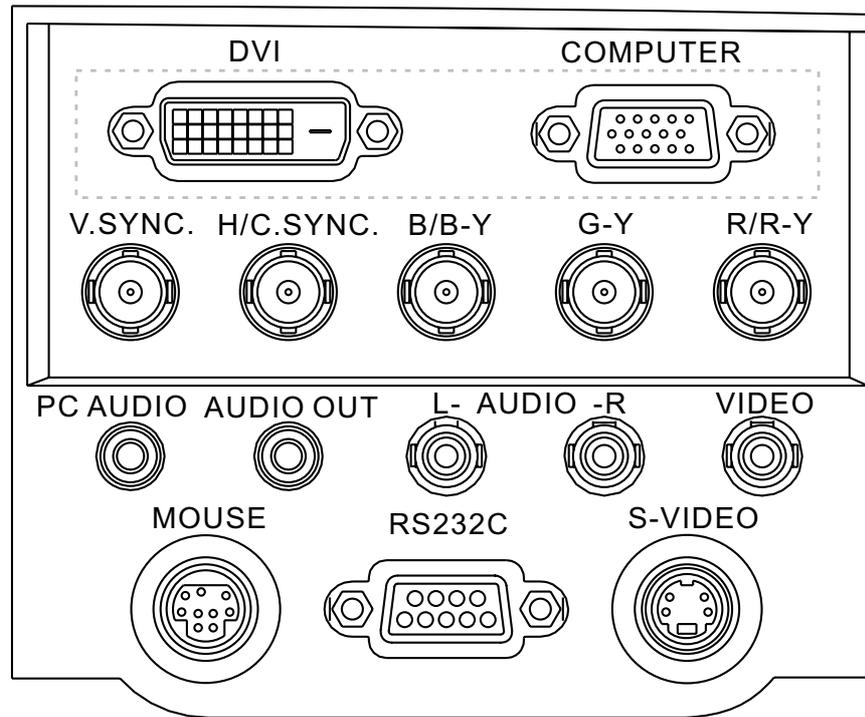


### Control Keypad Features

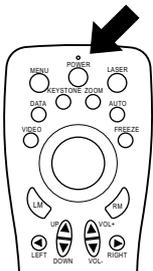
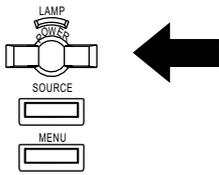
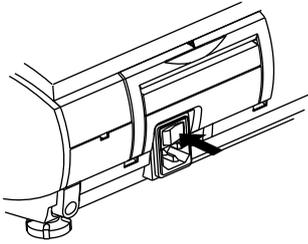


- 1. Lamp Indicator**
- 2. Power Button & Power Indicator**  
Use this button to turn the power on and off when the main power switch on the side of the projector is switched on and the projector is in standby mode.
- 3. Source Button**  
Use the button to select a proper source such as PC, VCR, DVD player, etc.
- 4. Menu Button**  
Displays the menu.
- 5. Up, Down, Left, Right Button**  
Use Up, Down to select the menu item you wish to adjust.  
Use Left, Right button to change the level of selected menu item.

**I/O Terminal Features**



### 3.2 Turning On & Turning Off The Projector



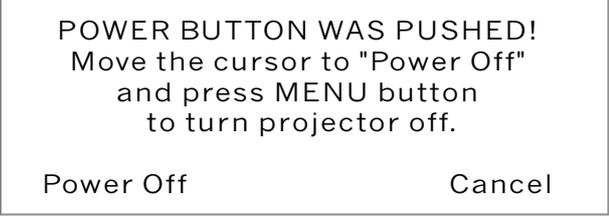
Before turning on the projector, make sure the video source is turned on and the lens cap is removed. Connect the power cord to the projector.

#### Turning On the Projector:

1. Turn on the main power switch on the side of the projector, the projector will go into its standby mode and the power indicator will glow orange.
2. Press the Power button on the projector control keypad or on the remote control, the power and lamp indicator will glow green and the projector will be ready to use.

#### Turning Off the Projector:

1. Press the Power button on the projector control keypad or on the remote control, the message as below will show on screen. Press the Left button to move the cursor to "Power Off" and press Menu button to turn off the projector, and the power indicator will glow orange. After the projector is turned off, the cooling fan will continue to run for 120 seconds and then stop.



**NOTE:** Do not disconnect the power cord or switch off the main power switch when the cooling fan is still running.

**NOTE:** If mis-press the Power button, move the cursor to "Cancel" by pressing the Right button and press Menu button to resume. The message will disappear after 10 seconds if there is no response.

2. Switch off the main power switch on the side of the projector and unplug the power cord. The power indicator will go out.

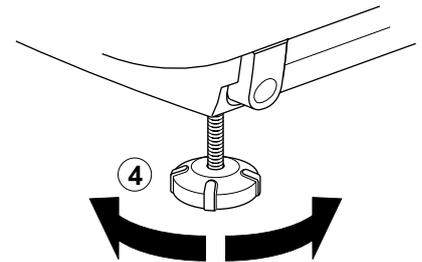
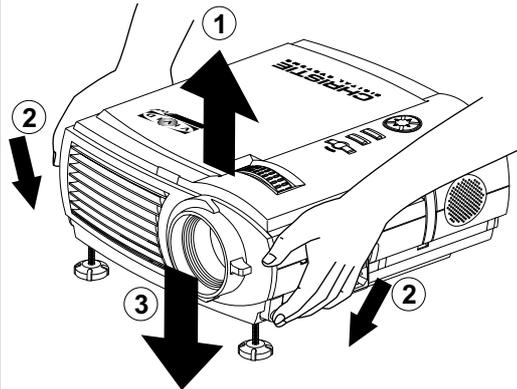
#### **Power and Lamp Status Indicators Messages Chart:**

Condition	Power Indicator	Lamp Indicator	Description
Main power switch on (side)	Orange	-	
Power On	Green	Green	
Power Standby	Orange	-	
Cooling down	Flashing green	-	Flashing for 120 seconds
Lamp life (1500 hrs)	Green	Flashing Green	Lamp timer, message of "The lamp is reaching its limit. Please replace the lamp as soon as possible." appears on screen when the lamp reaches 1400 hours usage ; "Lamp Expired" When lamp reaches 1500 hours usage.
System error	Orange	Flashing Red (1 sec interval)	Projector in power standby mode and cannot be turned on
Temperature error	Orange	Flashing Red (2 sec interval)	Projector in power standby mode and cannot be turned on
Lamp error	Orange	Flashing Red (4 secs interval)	Projector in power standby mode and cannot be turned on
Fan error	Orange	Flashing Red (8 secs interval)	Projector in power standby mode and cannot be turned on

**3.3 Basic Operation**

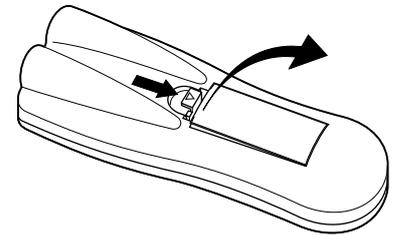
**Adjusting the Tilt Feet**

1. Lift the front edge of the projector.
2. Press the adjustment levers on the front of the projector and hold the levers.
3. Lower the front of the projector to desired height and release the lever to lock the tilt feet.
4. Fine-adjust the height, use the height adjusters on the front of the projector.

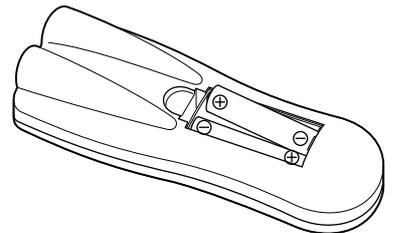


**Loading the Batteries (2 size AAA batteries)**

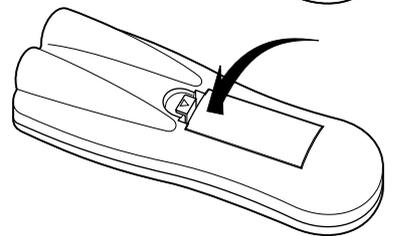
1. Open the battery compartment cover on the back of the remote control unit in the direction shown.



2. Insert two size AAA batteries, ensure that the positive and negative terminals are aligned correctly.



3. Close the battery cover in the direction shown.



***Batteries Note:***

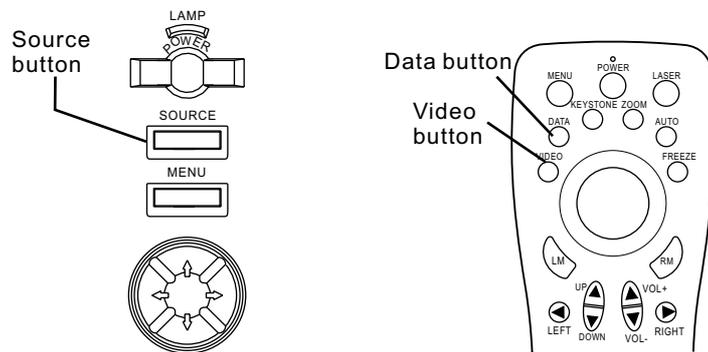
- *Replace the battery as soon as they run out.*
- *Remove the batteries if the remote control unit is not used for a long period of time.*
- *Dispose the used batteries in accordance with local recycling and waste disposal ordinances.*
- *When changing the batteries, use two new batteries of the same type.*

### **Selecting the Desired Image**

Press the Video button on the remote control to cycle through the video inputs. (Composite, S-Video, Component)

Press the Data button on the remote control to cycle through the RGB graphics inputs. (RGB, Component, DVI)

Press the Source button on the control keypad to start source auto scan through composite Video, S-Video, component video (if connecting BNC with video source), Analog RGB, component RGB (if connecting BNC with computer source), and DVI.

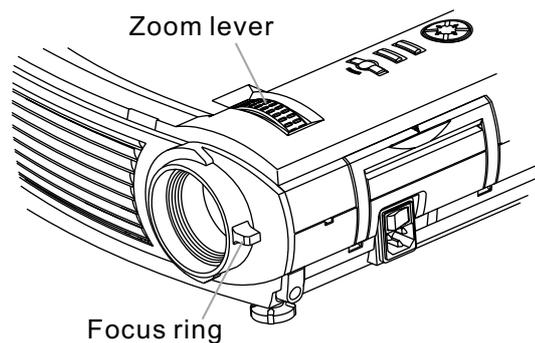


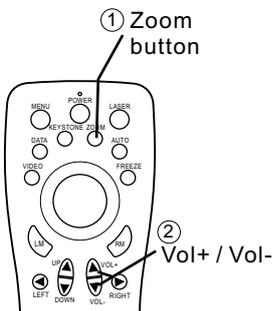
### **Adjusting the Focus**

Use the focus ring to obtain the best focus.

### **Adjusting the Zoom of the Image**

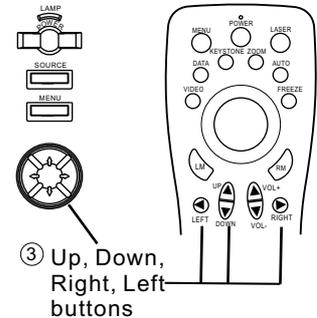
Use the Zoom lever to adjust the image size on the screen.  
Use Keystone correction to keep the image square.





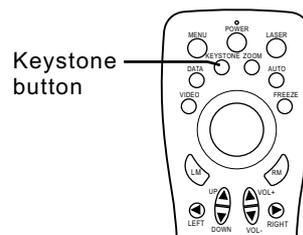
### **Adjusting Digital Zoom of the Image**

1. Press the Zoom button on the remote control.
2. Use Vol+ button to enlarge the Image, Vol- button to return the enlarged image to its original size. The zoom ratio can be 10 times the original image size.
3. Move the image to the area you wish to see by using the Up/ Down, Left/ Right buttons on the remote control.
4. Press zoom button again to cancel the enlargement and return to the normal status.

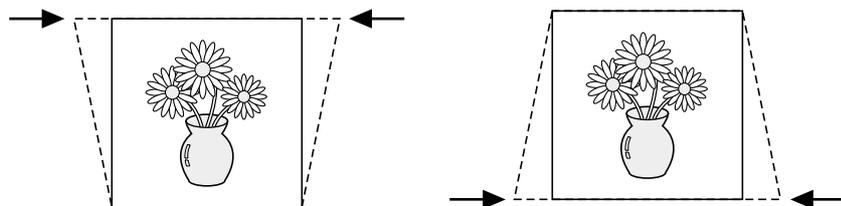


### **Correcting the Keystone Distortion**

Press the keystone button, And adjustment scale is displayed.



Press Vol+ button to adjust the upper part of the image;

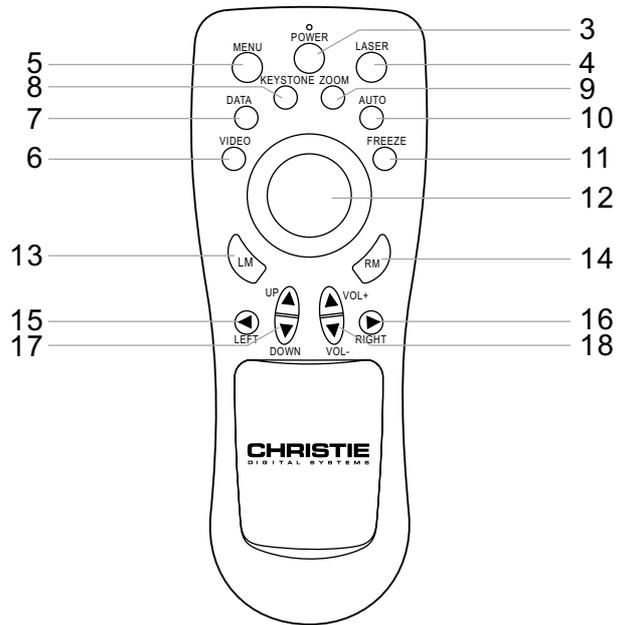
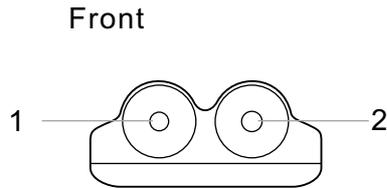


Use Vol- button to correct the lower part of the image.

### **Adjusting the Volume**

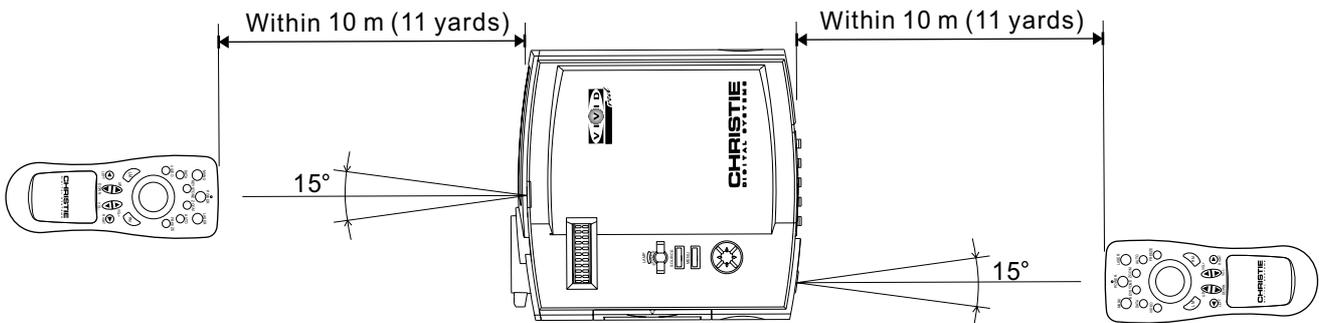
Press the Vol+ / Vol- buttons on the remote control to increase or decrease the volume.

### 3.4 Remote Control Features



- 1. Infrared Transmitter**  
Direct the remote control to the remote sensor on the projector.
- 2. Laser Pointer**  
Beams a laser light when "Laser" button is pressed.
- 3. Power Button**  
While the power is applied, main power switch on the side of the projector is switched on, use this button to turn on/ off your projector.
- 4. Laser Button**  
Press and hold this button to activate the laser pointer.
- 5. Menu Button**  
(1) Displays the menu for various adjustment.  
(2) Return to the sub-menu.  
(3) Exit from the menu
- 6. Video Button**  
Press this button to select a proper video source. The video sources sequence is: Composite video, S-Video, and Component video.
- 7. Data Button**  
Use the button to select a proper data source. The data sources sequence is Analog RGB, component RGB, and DVI.
- 8. Keystone Button**  
Press the keystone button and a keystone scale shows up in the screen, press "Vol+", "Vol-" buttons to correct the keystone distortion, and make the image square.
- 9. Zoom Button**  
Press this button and a zoom ratio scale pops up. Use "Vol+", "Vol-" button to select the zoom ratio, "Up", "Down", "Left", "Right" buttons to move the center of the image.
- 10. Auto Button**  
Press this button to auto adjust the image.
- 11. Freeze Button**  
This button will freeze a picture. Press again to resume motion.
- 12. Mouse Pointer Button**  
When you are in computer mode, this button works as a computer mouse.
- 13. Left Mouse (LM) Button**  
This button corresponds to the left mouse click when in computer mode.
- 14. Right Mouse (RM) Button**  
This button works as the right mouse click when in computer mode.
- 15. Left Button**  
Adjust the value in the sub-menu.
- 16. Right Button**  
(1) Adjust the value in the sub-menu.  
(2) Move to the sub-menu.
- 17. Up/Down Button**  
Select the menu of the item you wish to adjust.
- 18. Volume up/Volume down (Vol+/Vol-) Button**  
Adjust the volume scale when menu is not displayed.

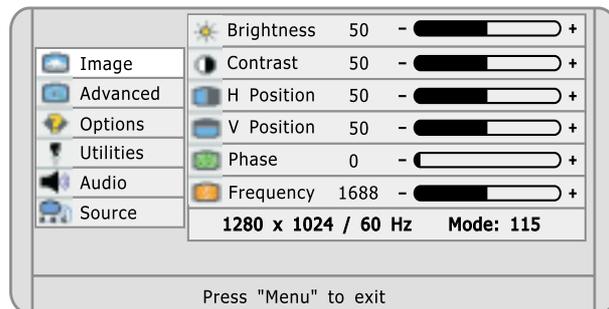
**Range of Use of the Wireless Remote Control**



**3.5 Using The Menu**

1. Press **Menu** button.

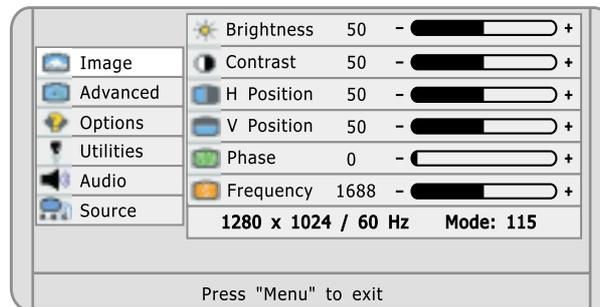
The menu screen is displayed.



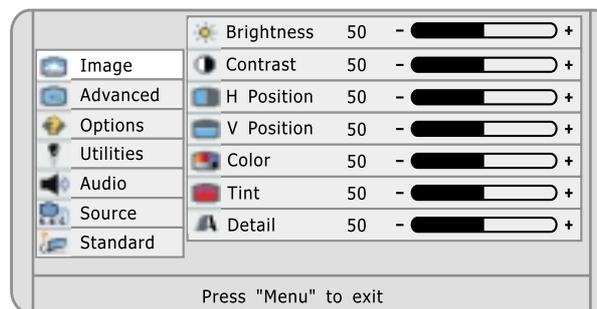
*Example:* When RGB is selected for the input source.

2. Select the menu item you wish to adjust with **Up /Down** buttons on the remote control or on the control keypad
3. Press the **Right** button to go into the sub-menu
4. Use **Left / Right** button to adjust the sub-menu scale.
5. Press **Menu** again to go back to the previous level.

### 3.5.1 Adjusting the Image



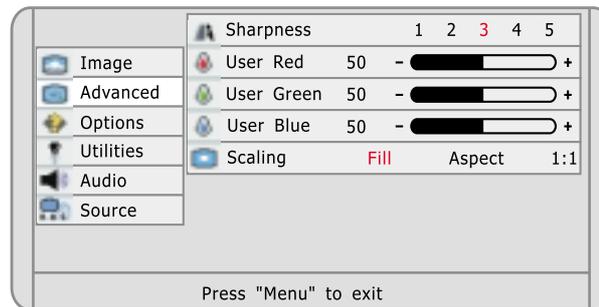
RGB Image Menu



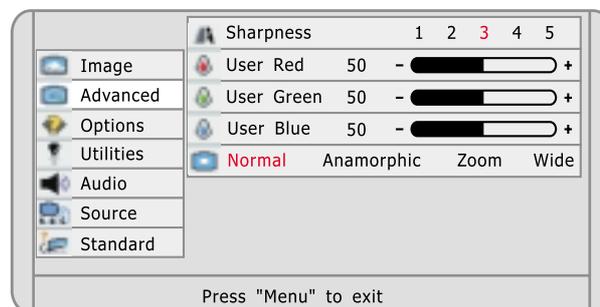
Video Image Menu

- **Brightness**  
Adjust the brightness of the picture. Press Left button to make it darker, Right button to make it brighter.
- **Contrast**  
Adjust the image contrast by pressing Left button to make it weaker, Right button to make the contrast stronger.
- **H position**  
Adjust the picture horizontal position by pressing Left and Right buttons.
- **V position**  
Adjust the picture vertical position by pressing Left and Right buttons.
- **Phase (RGB only)**  
Remove the last indications of noise or shaded areas that remain on the screen after completing the adjustment.
- **Frequency (RGB only)**  
Control the horizontal size to match the projector to the computer.
- **Color (Video only)**  
Adjust the depth of the colors. Press Left button to make it lighter, Right button to make the color deeper.
- **Tint (Video only)**  
Adjust the tint by pressing Left button for a greenish tint, Right button for a reddish tint.
- **Detail (Video only)**  
Control the detail of the image. Press Left button to make it softer, Right button make the image sharper.

### 3.5.2 Adjusting Advanced Control



RGB Advanced Menu



Video Advanced Menu

- **Sharpness**  
Adjust the sharpness level by pressing Left/ Right buttons to choose.
- **User Red**  
Adjust the strength of the red color. Press Left button to make it weaker, Right button to make it stronger.
- **User Green**  
Adjust the strength of the green color. Press Left button to make it weaker, Right button to make it stronger.
- **User Blue**  
Adjust the strength of the blue color. Press Left button to make it weaker, Right button to make it stronger.
- **Scaling (RGB only)**  
Fill      Fill the image to the whole projected area.  
Aspect    Enlarge the image while maintaining the original aspect.  
1:1      Original input resolution and size.
- **Scaling (Video only)**  
Select the best aspect mode to display your video image.  
Normal as standard 4:3 aspect.  
Anamorphic as up and down stretched.  
Zoom as all 4 sides stretched.  
Wide as left and right stretched and keep it as 16:9 aspect.

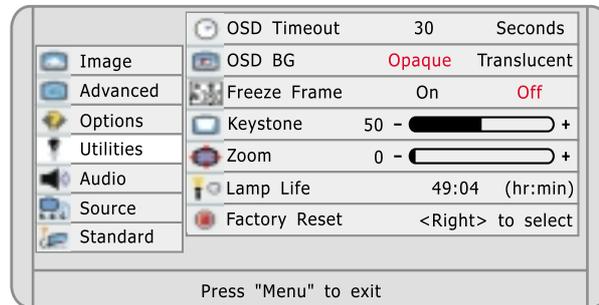
### 3.5.3 Selecting the Options



Options Menu

- **OSD**  
Choose the OSD position to be in the left/middle/right corner of upper/middle/lower part of the screen.
- **Language**  
Select the languages of menu display: English, German, French, Spanish, and Chinese.
- **BNC**  
Select the source type when connecting the BNC terminal. When the input source is the computer, select RGB. When the input source is the video, select YUV.
- **Image Orientation**  
Select "Inverted" to turn the image upside down when you put the projector on the ceiling.
- **Rear Projection**  
Select "On" to reverse the image when you put the projector behind the translucent screen.

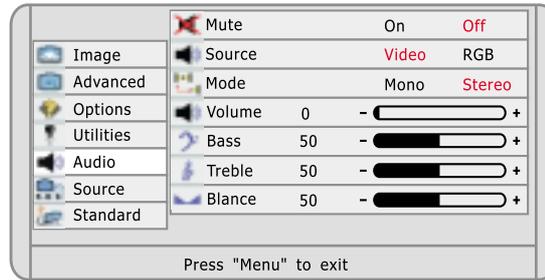
### 3.5.4 Setting the Utilities



Utilities Menu

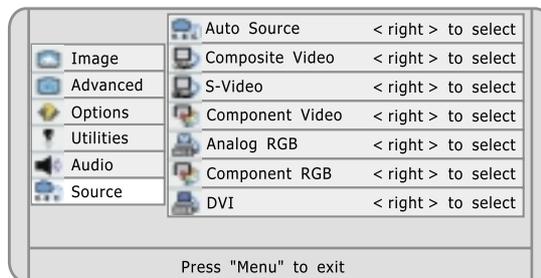
- **OSD Timeout**  
Select how long you wish your OSD will be displaying on the screen.
- **OSD Background**  
Select the OSD background to be opaque or translucent.
- **Freeze Frame**  
Freeze the picture by selecting "On", cancel it by selecting "Off".
- **Keystone**  
Correct the keystone distortion. Press Left/ Right buttons to correct the keystone distortion, and make the image square.  
The maximum keystone correction is 15 degrees upward and downward with the projector placed horizontally on the ground plane.
- **Zoom**  
Use the zoom scale to enlarge the image or to return the enlarged image to its original size. The zoom ratio can be 10 times the original image size.  
Move the image to the area you wish to see by using the Up/Down, Left/ Right buttons on the remote control or control keypad.
- **Lamp Life**  
Indicates how many hours the current lamp has been used.
- **Factory Reset**  
Back to the factory default.

### 3.5.5 Setting the Audio



- **Mute** Audio Menu  
Mute the sound by selecting "On", back to normal by selecting "Off".
- **Source**  
Select the audio source from video input or RGB input.
- **Mode**  
Set the audio to be mono or stereo.
- **Volume**  
Adjust the volume by pressing Left button to decrease the volume, Right button to increase the volume.
- **Bass**  
Adjust the power of bass sound. Press Left button to decrease the strength, Right button to increase the strength.
- **Treble**  
Adjust the treble level. Press Left button to decrease the level, Right button to increase the level.
- **Balance**  
Adjust the balance of left and right speaker. Press Left button to increase the left speaker sound, Right button to increase the right speaker sound.

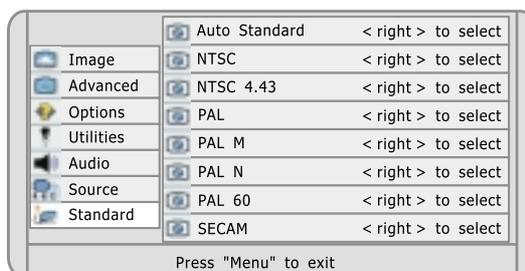
### 3.5.6 Selecting the Source



Source Menu

Select the connected source type. When connecting the computer, choose from D-Sub, Component RGB or DVI source. When connecting the video, choose from S-Video, Composite video or Component Video.

### 3.5.7 Selecting the Video Standard



Standard Menu - Video only

Select the video broadcasting format. Set on Auto Standard for normal use.

## 4. Maintenance & Care

### 4.1 Warnings and Guidelines

#### Labels & Markings

#### ▲ WARNING ▲

Never look directly into the projector lens. The extremely high brightness of the projector can cause permanent eye damage.

Observe and follow all warnings and instructions marked on the projector.



This symbol warns the user that the presence of uninsulated voltage within the unit may be sufficient to constitute the risk of electric shock. Therefore, it's dangerous to make any kind of contact with any part inside of the projector.



This symbol alerts the user that important operation and maintenance instructions have been provided. This information should be read carefully to avoid problems.

#### Protection Location

- Operate the projector in an environment which meets the operating range specification in Section 6, Specifications. Do not operate the projector close to water, such as near a swimming pool.
- Do not place the projector on an unstable cart, stand or table. If the projector is to be ceiling mounted, only use the Christie-approved ceiling mount fixture.
- A projector and cart combination should be used with care. Sudden stops, excessive forces, and uneven surfaces may cause the projector and cart combination to overturn.

#### Lamp and Filter Replacement

- Always turn off the power switch before replacing the lamp. Allow the unit to cool off for at least one hour before replacing the lamp. Replacing the lamp according to the directions in the operational manual. Burns or electrical shock may occur if the replacement is performed incorrectly.
- Do not tamper with the lamp interlock mechanism. Electrical shock or other damage may occur if the interlock mechanism does not operate correctly.
- When the lamp is removed, handle it with care, and ensure it is not subjected to impact. Do not use the lamp unit if it has been subjected to shock or scratched. Contact your sales office for repair.
- Do not touch the terminal end of the lamp unit or the screws, which secure the connector. Even if screws become loose, do not attempt to perform the repair operation yourself and contact your sales office. This condition may result in fire, electrical shock or other damage.

#### ▲ WARNING ▲

If you continue to use the lamp after the lamp expired message has been displayed on the screen, the lamp bulb may shatter and pieces of glass may scatter inside the projector and out into the room. Do not touch glass as it may cause injury. Contact your sales office for lamp replacement.

- Replace the air filter every time the lamp is replaced. If this filter is not replaced, air flow may be restricted and cause the projector to overheat.

### **Power Cord and Attachments**

- Only use attachments or accessories recommended by Christie, such as the specific power cord supplied. Use of other attachments or accessories with this projector may result in the risk of fire, shock or personal injury.

#### **▲ WARNING▲**

**Use only the AC power cord supplied. Do not attempt operation if the AC supply and cord are not within the specified voltage and power range.(see section 6)**

- Do not allow anything to rest on the power cord. Locate the projector where the cord can not be abused by persons walking on it or objects rolling on it.
- Operate the projector at the specified voltage only. Do not overload power outlets and extension cords as it can result in fire or shock hazards.
- The projector is equipped with a three wire plug having a third (grounding) pin. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to have the outlet replaced. Do not defeat the safety purpose of the grounding-type plug.
- Always turn off the power before connecting cables and other connections. Read the instruction manuals of the other equipment connected to the projector thoroughly. Fire or electrical shock may occur when these operations are performed if the main power is turned on.
- Do not touch the electrical plug when there is thunder or lightning. Touching the projector in this condition may cause electrical shock.
- Do not place the electrical cord near a heater or other objects that generate high temperatures.
- Inspect the electrical plug periodically. Fire or electrical shock may occur if the insulation on the electrical plug becomes defective.
- Always pull out the electrical plug when the unit is not used for a long period of time. If the plug is not removed, the insulation may deteriorate and cause electrical shock or a fire due to current leakage.
- Always grasp the plug firmly and never pull on the electrical cord to remove the electrical plug from the wall outlet. If the cord is pulled, it may be damaged and cause fire or electrical shock.
- Never touch the electrical plug with wet hands.

### **Ventilation**

- Before unplugging the power cord, make sure the internal lamp cooling fans have shut off. The fans automatically shut off when the projector has adequately cooled down.
- Slots and openings in the projector provide ventilation. To ensure reliable operation of the projector and to prevent overheating, these openings must never be blocked or covered. The projector should never be placed near or over a radiator or heat register. The projector should not be placed in an enclosure unless proper ventilation is provided. Do not place the unit on top of a carpet or cushion.
- Always place the projector in a well-ventilated area to ensure proper airflow (30 cm or 12 inches away from any wall is recommended)
- Do not push objects of any kind into the projector through the ventilation openings. They may touch dangerous voltages or short-out components resulting in a fire or shock hazard. Do not spill liquids of any kind into the projector. Should an accidental spill occur, immediately unplug the projector and have it serviced by a qualified service technician.
- Never place the projector in a location subject to steam, oily smoke, heat or humidity. This may cause fire or electrical shock.
- Ensure that the projector has warmed up to room temperature before using it. Dew or moisture condensation may be produced inside the projector if there is a temperature difference between the inside and outside of the unit. The condition may cause electrical leakage, shock or fire.

### **Servicing**

- If any of the following conditions exist, immediately unplug the projector from the power outlet and refer service to qualified service personnel.
  - The power cord has been damaged.
  - The internal cooling fans do not come on when the projector is first turned on.
  - Liquid has been spilled in the projector
  - The projector has been exposed to excessive moisture.
  - The projector does not operate normally.
  - The projector has been dropped or the case has been damaged .
  - Projector performance has deteriorated.
  - There is an abnormal condition (i.e.: smoke coming from projector)
- Do not loosen any screws that are indicated by the arrow mark. The unit contains internal parts, which have high voltage or high temperatures. Touching these parts may cause electrical shock or severe burns.
- Do not attempt to service the projector yourself. All servicing must be performed by a qualified Christie service technician only. If replacement parts are required, it is important that only Christie-approved parts are used. Other parts may result in fire, electric shock or risk of personal injury.

**Other Items**

- Do not turn on the electricity or the lamp when the lens cap is attached. The lens cap will become deformed due to the heat of the lamp and may cause fire or severe burns.
- A laser beam is projected if the laser button in the accessory wireless remote control is pressed. Never look directly into the laser beam. The laser beam may cause damage if it enters the eyes directly.

**4.2 Cleaning**

**Cleaning the Case**

Wipe lightly with a soft, dry cloth. If the case is very dirty, clean the case with a soft, dampened cloth using mild commercial cleaner and finish with a dry cloth. Do not use liquid or aerosol cleaners.

**Cleaning the Lens**

To prevent scratching the lens, clean the lens only if absolutely required. Clean the lens with a commercially available blower or cleaning paper gently in a circular motion.

**Cleaning the Lamp**

It is important to never touch the glass surface of the lamp, as the oil imprint will seriously degrade lamp performance. If the surface of the lamp is accidentally touched, clean carefully with a lint-free cloth moistened with isopropyl alcohol.

**4.3 Replacing the Lamp**

When the lamp reaches the end of its service life, the image will become darker and colors lose their richness. When the lamp has been operating for 1400 hours or longer, the lamp status LED indicator will flash green, and the message "The lamp is reaching its limits. Please replace the lamp as soon as possible" will be displayed on the screen. Even though the lamp may still be working, replace the lamp to maintain optimal projector performance. When the lamp has been operated for 1500 hours, the message " LAMP EXPIRED!!" will be shown on the screen, replace the lamp immediately.

**▲ CAUTION ▲**

***DO NOT TOUCH THE LAMP immediately after it has been used. It will be extremely hot. Allow the fan to finish its cooling process, then turn the projector off, and disconnect the power cord. Allow at least one hour for the lamp to cool down before handling.***

***DO NOT REMOVE ANY SCREWS except the lamp cover screw and two lamp housing screws. Removing other screws could result in electric shock to the user.***

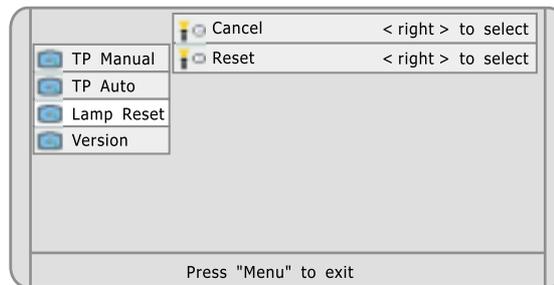
***If continuing to use the lamp after the replacing lamp message has been displayed on screen, the lamp bulb may shatter, and pieces of glass may scatter inside the projector and out into the room. Do not touch them as the pieces of glass may cause injury. If this happens, contact your dealer for lamp replacement.***

**To Replace the Lamp:**

1. Loosen the lamp cover screw and remove the lamp cover.
2. Loosen the two screws securing the lamp housing. Remove the lamp housing by pulling on the handle.
3. Insert a new lamp housing until it is plugged into the socket.
4. Secure it in place with the two screws.
5. Re-attach the lamp cover.
6. Tighten the lamp cover screw.
7. Reset the lamp timer.

**To Reset the Lamp Timer:**

1. Press Left button, Menu button, and Up button within one second on the control keypad or remote control to enter engineering menu as shown:

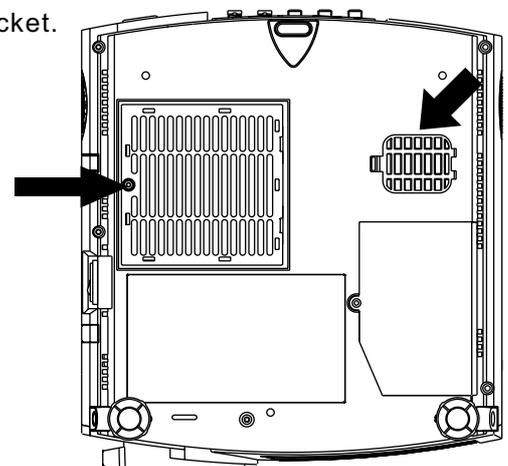


2. Go to lamp reset sub-menu and move the cursor to Reset option. Press Right button to select.
3. Lamp timer will reset to 0 hour usage.

**4.4 Replacing the Air Filter**

There are two air filter sponges in the bottom of the Vivid Red projector to capture dust or dirt and should be replaced whenever the lamp module is replaced. The temperature will rise and the lamp will fail to light when the air filters inside of the projector become dirty and clogged. Replacement will be required more often if the projector is used in the a particularly dusty environment.

1. Unplug the power cord from the socket.
2. Remove the small filter holder and unscrew the big air filter screw.
3. Detach the air filters.
4. Replace the air filters.
5. Install the air filters.
6. Re-install the filter covers.



# 5. TROUBLESHOOTING

## 5.1 Common Problems & Solutions

Problems	Check These Items
Does not turn on	<ul style="list-style-type: none"><li>• Check that the power cable is plugged in and that power switch on the side of projector is switched on, and power button on the projector control keypad or remote control is pressed on.</li></ul>
No image	<ul style="list-style-type: none"><li>• Check that the projector is on.</li><li>• Use the menu to select the source (Composite video, S-Video, Component video, Analog RGB, Component video or DVI). See page 25.</li><li>• Ensure the cables are connecting correctly.</li><li>• Use the menu to adjust the brightness and contrast. See page 21. Or reset the settings to factory preset level using the Factory Reset option on the Utilities menu. See page 24.</li><li>• Remove the lens cap.</li></ul>
Image is blurred	<ul style="list-style-type: none"><li>• Adjust the focus. See page 17.</li><li>• Ensure the distance between the projector and the screen is within the focus range of the lens. See page 4.</li></ul>
Image is too dark	<ul style="list-style-type: none"><li>• Adjust the contrast or brightness in the Image menu properly. See page 21.</li></ul>
No sound	<ul style="list-style-type: none"><li>• Ensure the cables are connecting properly. See page 10.</li><li>• Make sure the Mute option in Audio menu is selected Off. See page 25.</li></ul>
Remote control does not work	<ul style="list-style-type: none"><li>• Install new batteries. See page 16.</li><li>• Make sure there is no obstacles between you and the projector receivers.</li><li>• Stand within the distance of remote control usage range. See page 20.</li></ul>
Status indicator is lit or blinking	<ul style="list-style-type: none"><li>• See the Power and lamp indicator message chart on page 15.</li></ul>

## 6. SPECIFICATION

### 6.1 Specifications

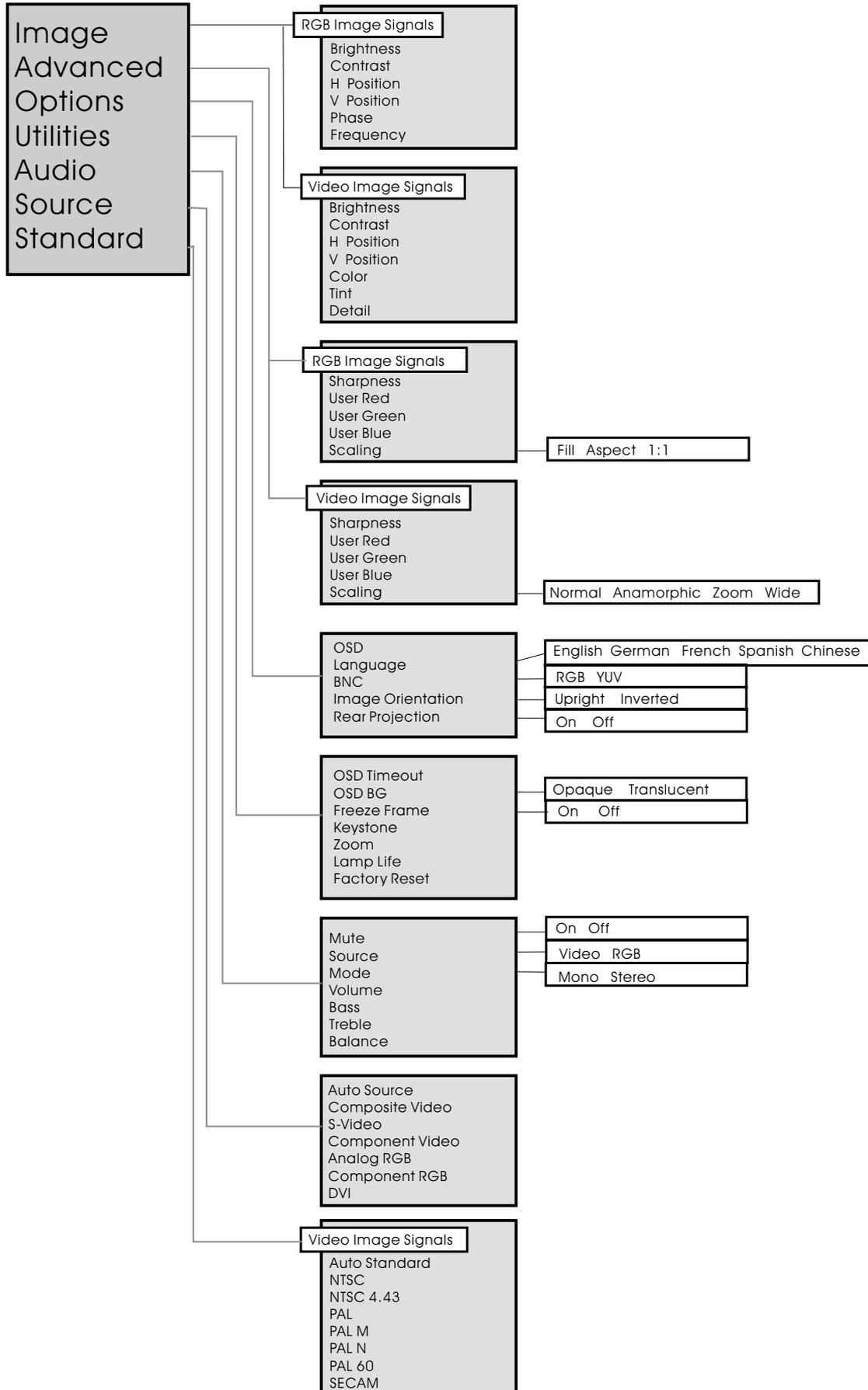
Model Number:	Vivid Red
Display Technology	0.9" LCOS D-ILA x 3
Resolution	SXGA (1365 x 1024)
Projection Lamp	200W UHP lamp, 1500 hours typical
Brightness	1100 ANSI lumens typical
Brightness Uniformity	85% typical
Contrast Ratio	500:1 (full on / full off) typical
Aspect Ratio	Standard 4:3 and wide screen 16:9
Projection Lens (Zoom)	F=2.5, f=36 - 45mm, zoom ratio 1.3, Manual Focus / Manual Zoom
Screen Size	30" - 300"
Throw Distance	1.2 - 16m
Keystone Correction	± 15 degree
Digital Zoom	10X
Remote Control	Full functionality IR remote with mouse control and laser pointer
Video Compatibility	NTSC / NTSC4.43 / PAL / PAL-M/ PAL-N / PAL 60 / SECAM / HDTV 720p
Computer Compatibility	UXGA / SXGA / XGA / SVGA / VGA / MAC
H-Sync Range	15 - 100 kHz
V-Sync Range	50 - 100 Hz
Dot Clock	162 MHz
Sound Output	2W Stereo x 2
Terminals Inputs	PC Input: D-sub15 pin x 1 Audio Input: RCA x 2 Video Input: RCA x 1 S-Video x 1 Component Input x 1 Digital Computer x 1 (DVI) Mouse port
Terminals Outputs	Audio Output: Mini jack x 1
Voltage	100 - 240 VAC, 50 - 60 Hz universal
Power Consumption	380 W (Max)
Dimensions	12.7"(L) x 11.5"(W) x 5.3"(H) 324 mm (L) x 293 mm (W) x 136 mm (H)
Weight	5.8 kg (12.8 lbs.)
Approvals	FCC Class B, UL, cUL, CE, TUV
Audible Noise	38dB typical
Accessories List	User Manual, Laser Pointer remote control, Power/ Computer/ Stereo Audio / S-Video / Composite Video cable, Monitor Adapter for Macintosh (DIP-SW), Dual Male RCA to Female 3.5mm adapter, PS/2 - USB mouse cable

## 7. Appendices

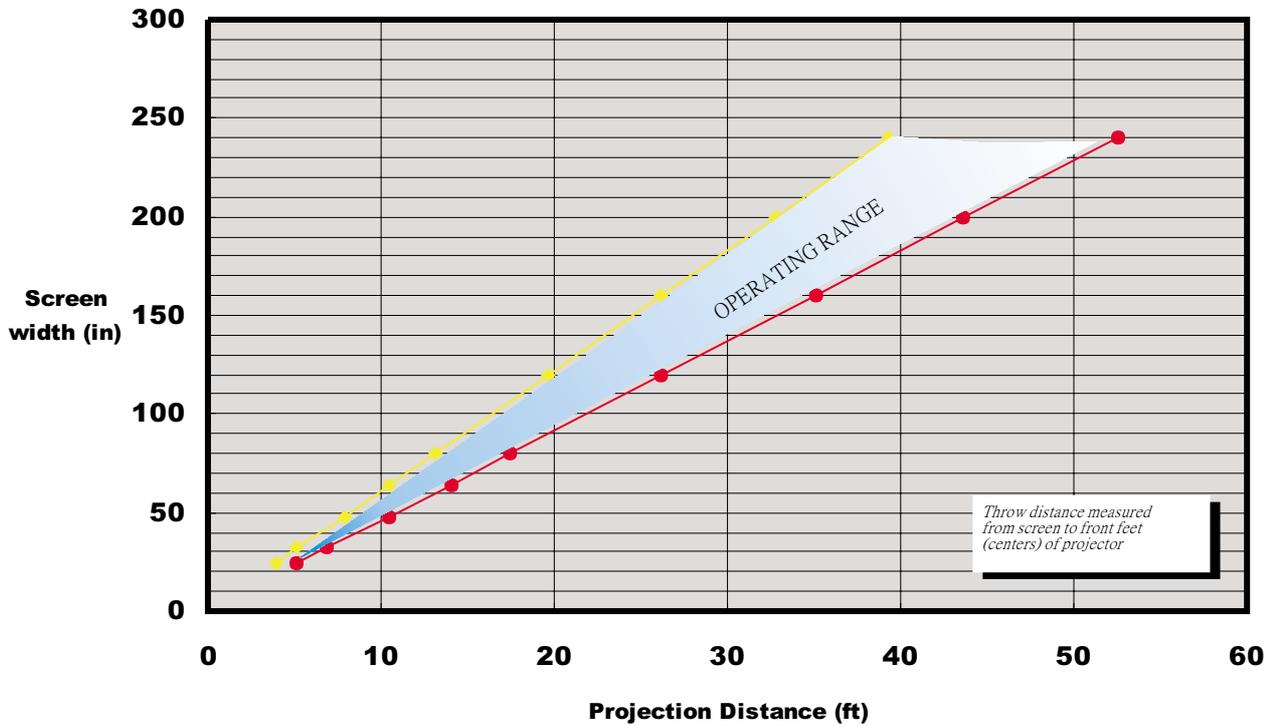
### 7.1 Glossary

	This appendix defines the specific terms used in this manual.
<b>Aspect ratio</b>	The ratio of the width of an image to its height.
<b>Brightness</b>	The balance of light and dark shades in an image.
<b>Contrast (ratio)</b>	The degree of difference between the lightest and darkest areas of the image.
<b>Component Video</b>	A high-end digital(YCrCb) and analog(YPrPb) component video signal.
<b>Composite Video</b>	The output of video tape and some computers which combines synchronization, luminance and color signals on one output cable.
<b>Keystone</b>	A distortion of the image which occurs when the top and bottom borders of the image are unequal in length.
<b>Lumen</b>	The unit of measure for the amount of visible light emitted by a light source.
<b>NTSC</b>	A 525-line video format of some video tape and disk players. NTSC is widely used in North America, Mexico and Japan.
<b>OSD</b>	(On Screen Display) Menu. A list of selectable options displayed on the screen.
<b>PAL</b>	A 625-line video format used in Western Europe, India, China, Australia, New Zealand and parts of Africa.
<b>Pixel</b>	The smallest discernible element of data from a computer generated image.
<b>Resolution</b>	A measure of the maximum amount of horizontal and vertical pixels contained in an image. Such as 1280 x 1024 (called SXGA)
<b>RS-232</b>	A common asynchronous data transmission standard recommended by the Electronics Industries Association (EIA). Also called serial communication.
<b>S-Video</b>	A type of video signal from certain video tape players and video equipments. S-Video transmits luminance and color separately, typically producing a higher quality display than composite video.
<b>SECAM</b>	A video format of some video tape and disk players, used primarily in France, Eastern Europe, Russia and parts of Africa. SECAM signals are similar in resolution and frequency to PAL signals.
<b>Tint</b>	Balance of red-to-green necessary for realistic representation of NTSC signals.
<b>Zoom</b>	The adjustment of image size.

7.2 Menu Tree



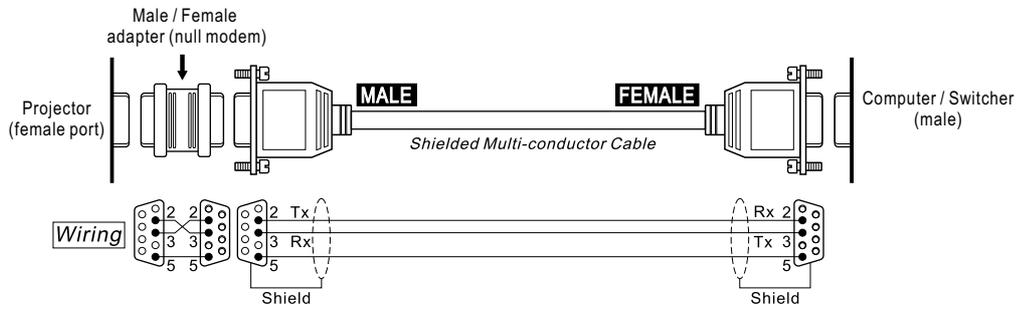
### 7.3 Throw Distance



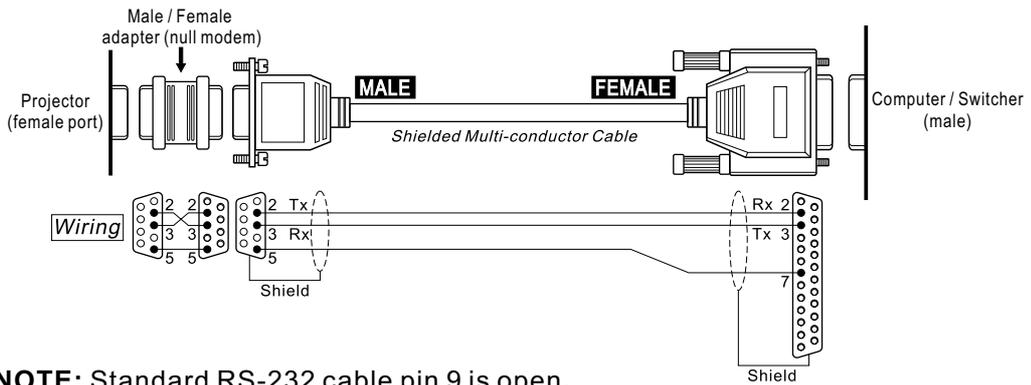
Screen Size						Projection Distance (L)	
Screen Size		Height		Width		(ft)	(m)
(inch)	(cm)	(inch)	(cm)	(inch)	(cm)		
30	76	18	46	24	61	3.9-5.12	1.2 - 1.6
40	102	24	61	32	81	5.12-6.9	1.6 - 2.1
60	152	36	91	48	122	7.9-10.5	2.4 - 3.2
80	203	48	122	64	163	10.5-14.1	3.2 - 4.3
100	254	60	152	80	203	13.1-17.4	4 - 5.3
150	381	90	229	120	305	19.7-26.2	6 - 8
200	508	120	305	160	406	26.2-35.1	8 - 10.7
250	635	150	381	200	508	32.8-43.6	10 - 13.3
300	762	180	457	240	610	39.3-52.5	12 - 16

## 7.4 Serial Communication Cable

### Standard RS-232 cable, with 9-pin D connectors



### Standard RS-232 cable, 9-pin male D connector to 25-pin female



**NOTE:** Standard RS-232 cable pin 9 is open.