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# HP VP6110, VP6120 Digital Projector

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## User's Guide

## Notice

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# INTRODUCTION

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## **Warning**

**TO PREVENT SHOCK, DO NOT OPEN THE CABINET. NO USER –SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. PLEASE READ THIS USER'S GUIDE BEFORE YOU OPERATE YOUR PROJECTOR. SAVE THIS USER'S GUIDE FOR FUTURE REFERENCE .**

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## Safety Instructions

1. Read this user's guide before you operate your projector and save it for future reference.
2. The lamp becomes extremely hot during operation. Allow the projector to cool for approximately 45 minutes prior to removing the lamp assembly for replacement. Do not operate lamps beyond the rated lamp life. Excessive operation of lamps beyond the rated life could cause them to explode on rare occasions.
3. Never replace the lamp assembly or any electronic components unless the projector is unplugged.
4. To reduce the risk of electric shock, do not disassemble this appliance. Take it to a qualified technician when service or repair is required. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, sustaining serious damage.
6. This product is capable of displaying inverted images for ceiling mount installation. Please use suitable equipment for mounting the unit and ensure it is securely installed.

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## **Caution**

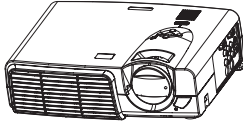
- **Always remove the lens cap when the projector lamp is on.**
- **Do not look straight at the projector lens during operation. The intense light beam may damage your eyes.**
- **In some countries, the line voltage is NOT stable. This projector is designed to operate safely within a bandwidth of 110 to 230 volts, but could fail if power cuts or surges of more than 10 volts occur. In these high-risk areas, it is recommended that a power stabilizer unit be used in conjunction with this projector.**

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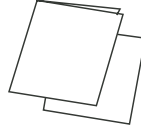
**Save this user's guide:** The information contained in this manual will assist you in operating and maintaining your personal projector.

## Shipping Contents

The projector is shipped with the cables required for connection to standard PC or laptop computers. Carefully unpack and verify that you have all the items shown below. If any of these items are missing, please contact personnel at the place of purchase.



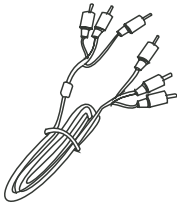
Projector



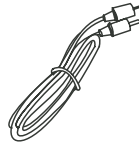
Warranty and Support



Quick Setup Guide



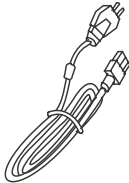
Audio/ Video Cable



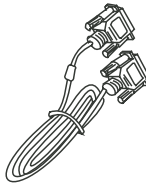
Audio Cable



Remote Control



Power Cord



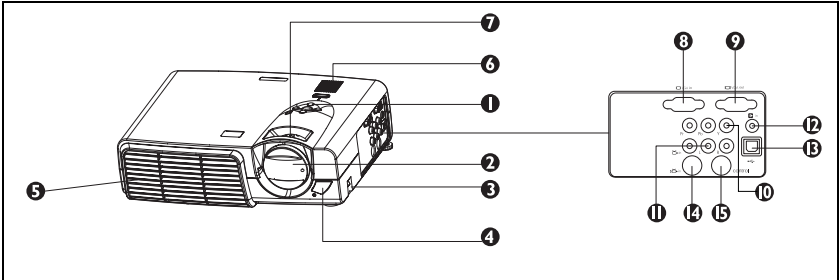
VGA Cable



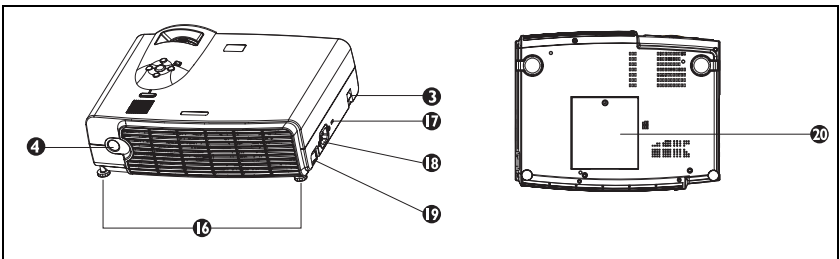
User's Guide CD

# Projector Description

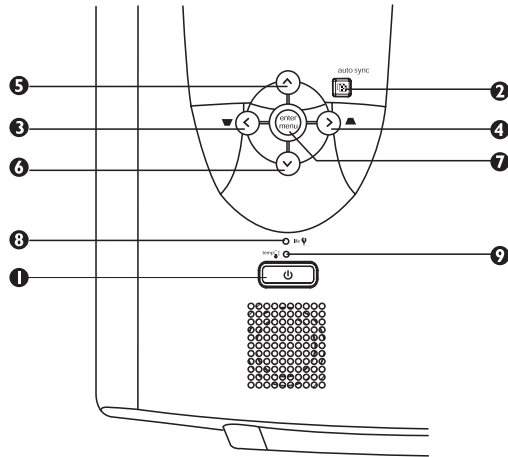
## Projector



- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>❶ External control panel (see next page)</li> <li>❷ Projection lens</li> <li>❸ Front adjuster</li> <li>❹ IR remote sensor</li> <li>❺ Ventilation grill</li> <li>❻ Speaker</li> <li>❼ Focus and zoom adjusters</li> <li>❽ VGA signal input (PC)</li> <li>❾ VGA signal output</li> <li>❿ YPbPr connector</li> </ul> | <ul style="list-style-type: none"> <li>⓫ Audio/ Video connector</li> <li>⓬ Audio jack</li> <li>⓭ USB mouse connector</li> <li>⓮ S-Video jack</li> <li>⓯ RS 232 control port</li> <li>⓰ Rear adjuster feet</li> <li>⓱ Kensington lock slot</li> <li>⓲ AC power cord inlet</li> <li>⓳ Main power switch</li> <li>⓴ Lamp door</li> </ul> |
|--|---|



## External Control Panel



**1 Power**

Turns the projector on or off.

**2 Auto Sync**

Automatically determines the best picture settings for current received signals.

**3** < **4** > **5** ^ **6** v

**7 Menu**

**Menu** displays the menu system and closes the menu system. < and > navigate among menus and change settings. ^ and v select individual parameters for making changes.

**8 Lamp Indicator**

The Lamp Indicator will light up when the lamp needs service, cooling or replacement. See "Lamp Information" on page 25 for more detailed information.

**9 Temp indicator**

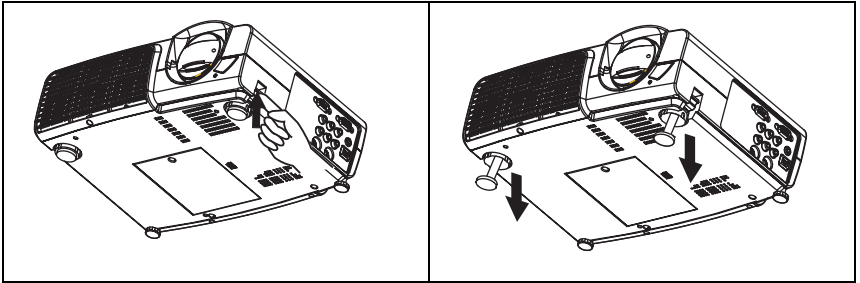
The Temp indicator will light up when the system temperature is too high, which may occur if the projector is operated improperly. See "Temperature Warning Indicator" on page 27 for more detailed information.



## Adjuster

The projector is equipped with 2 quick-release adjuster feet. Push the buttons to adjust its tilt angle.

1. Lift the projector up and press the adjuster button to release the adjuster.
2. The adjuster will drop into position and be locked.



## Projector Features

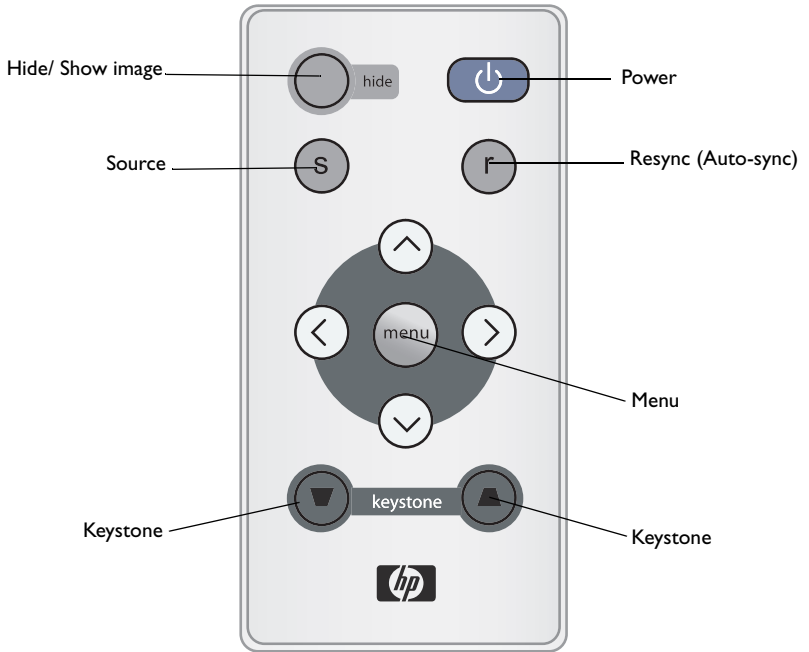
The projector integrates high-performance optical engine projection and a user-friendly design to deliver high reliability and ease of use.

The projector offers the following features:

- Small and light for portability
- Compact remote control
- High quality manual zoom lens
- One-key auto-adjustment to display the best picture quality
- Digital keystone correction to correct distorted images
- Adjustable color balance control for data/video display
- Ultra-high brightness projection lamp
- Ability to display 16.7 million colors
- On-screen menus in 11 languages
- Switchable Presentation/ Video mode for data/ video display
- Powerful AV function to provide high quality AV picture
- HDTV compatibility (YPbPr)

**Note:** The brightness of the projected image will vary depending on the ambient lighting conditions and contrast/brightness settings.

## Remote Control Description

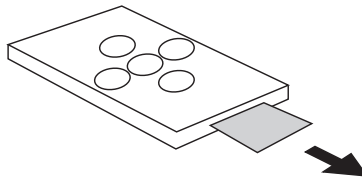


### Remote Control Effective Range

The remote sensors are located on the front and the back of the projector. It can function in a range of 30 degrees horizontally and 30 degrees vertically relative to a line that is a right angle to the remote sensors. The distance between the remote control and the remote sensors must be shorter than 6 meters (19.5 feet).

### Removing the Battery Protector

The remote control will not operate until you remove the battery protector. Pull the plastic tab until it comes out of the remote control.

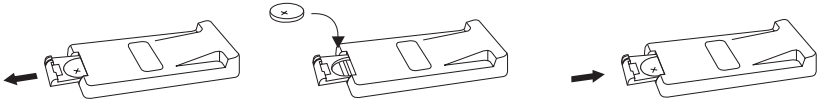


## Replacing the Battery

❶ Pull out the battery holder.

❷ Insert the new battery in the holder.

❸ Push the holder into the remote control.



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### **Caution**

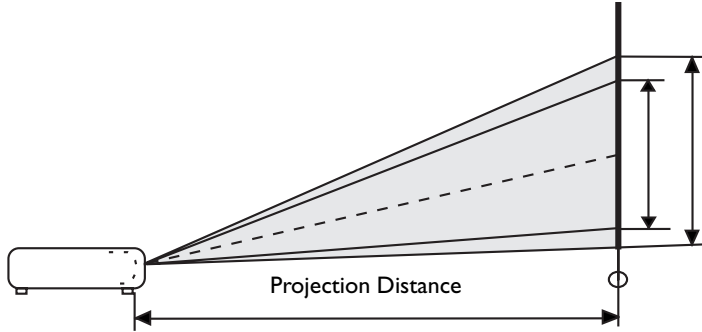
**Avoid excessive heat and humidity. There may be danger of an explosion if batteries are incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.**

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# INSTALLATION

## Screen Size

Place the projector at the required distance from the screen according to the desired picture size (see the table below).



- VP6120 (XGA) screen size chart

Distance from screen		Diagonal measurement			
		Minimum zoom		Maximum zoom	
feet	inches	feet	inches	feet	inches
4	48	2.49	29.9	3.05	36.6
6	72	3.73	44.8	4.57	54.9
8	96	4.98	59.7	6.10	73.2
10	120	6.22	74.7	7.62	91.4
12	144	7.47	89.6	9.14	109.7
14	168	8.71	104.5	10.67	128.0
16	192	9.96	119.5	12.19	146.3
18	216	11.20	134.4	13.72	164.6
20	240	12.45	149.4	15.24	182.9
22	264	13.69	164.3	16.76	201.2
24	288	14.94	179.2	18.29	219.5
26	312	16.18	194.2	19.81	237.7
28	336	17.42	209.1	21.34	256.0
30	360	18.67	224.0	22.86	274.3
32	384	19.91	239.0	24.38	292.6

Distance from screen		Diagonal measurement			
		Minimum zoom		Maximum zoom	
meters	cm	meters	cm	meters	cm
1	100	0.62	62.2	0.76	76.2
1.5	150	0.93	93.3	1.14	114.3
2	200	1.24	124.5	1.52	152.4
2.5	250	1.56	155.6	1.91	190.5
3	300	1.87	186.7	2.29	228.6
3.5	350	2.18	217.8	2.67	266.7
4	400	2.49	248.9	3.05	304.8
4.5	450	2.80	280.0	3.43	342.9
5	500	3.11	311.2	3.81	381.0
5.5	550	3.42	342.3	4.19	419.1
6	600	3.73	373.4	4.57	457.2
6.5	650	4.04	404.5	4.95	495.3
7	700	4.36	435.6	5.33	533.4
7.5	750	4.67	466.7	5.72	571.5
8	800	4.98	497.8	6.10	609.6

- VP6110 (SVGA) screen size chart

Distance from screen		Diagonal measurement			
		Minimum zoom		Maximum zoom	
feet	inches	feet	inches	feet	inches
4	48	1.96	23.5	2.40	28.7
6	72	2.93	35.2	3.59	43.1
8	96	3.91	47.0	4.79	57.5
10	120	4.89	58.7	5.99	71.9
12	144	5.87	70.4	7.19	86.2
14	168	6.85	82.2	8.39	100.6
16	192	7.83	93.9	9.58	115.0
18	216	8.80	105.7	10.78	129.4
20	240	9.78	117.4	11.98	143.7
22	264	10.76	129.1	13.18	158.1
24	288	11.74	140.9	14.37	172.5
26	312	12.72	152.6	15.57	186.9
28	336	13.70	164.3	16.77	201.2
30	360	14.67	176.1	17.97	215.6
32	384	15.65	187.8	19.17	230.0

Distance from screen		Diagonal measurement			
		Minimum zoom		Maximum zoom	
meters	cm	meters	cm	meters	cm
1	100	0.49	48.9	0.60	59.9
1.5	150	0.73	73.4	0.90	89.8
2	200	0.98	97.8	1.20	119.8
2.5	250	1.22	122.3	1.50	149.7
3	300	1.47	146.7	1.80	179.7
3.5	350	1.71	171.2	2.10	209.6
4	400	1.96	195.7	2.40	239.6
4.5	450	2.20	220.1	2.70	269.5
5	500	2.45	244.6	2.99	299.5
5.5	550	2.69	269.0	3.29	329.4
6	600	2.93	293.5	3.59	359.4
6.5	650	3.18	317.9	3.89	389.3
7	700	3.42	342.4	4.19	419.3
7.5	750	3.67	366.8	4.49	449.2
8	800	3.91	391.3	4.79	479.1

## Connecting to Various Equipment

The internal speaker is good for a small audience. If you have a larger audience, you may want to connect the audio source directly to a separate sound system instead of the projector.

### HDTV Equipment

The projector is capable of displaying various High Definition TV display modes. Some of these sources are:

- Digital-VHS (D-VHS) player
- DVD player
- Satellite Dish HDTV receiver
- DTV tuners

Most of these sources will provide an analog component video output, a standard VGA output, or a YPBPR (default) format.

The projector is capable of accepting HDTV data through a YPBPR connector. Use a standard HDTV cable to display HDTV images.

The following standards are supported in the HDTV function:

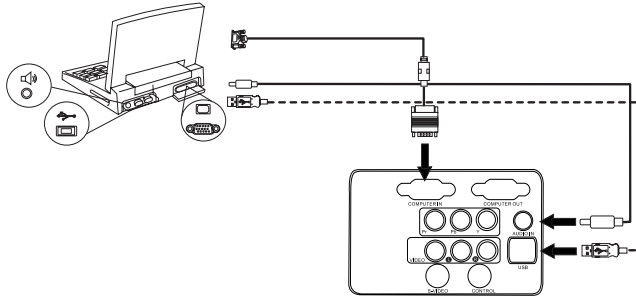
- 480i
- 480p
- 720p
- 1080i

Please refer to "Video and Audio Adjustments -- the Menu System" on page 18 for information on the HDTV OSD selections.

## Connecting to Various Equipment

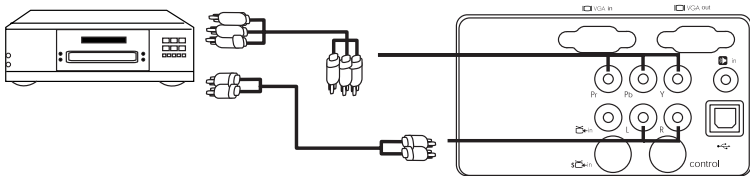
It only takes a few seconds to connect your projector to your desktop or notebook computer, VCR, or other systems. However, a Mac adapter is needed for connection to Macintosh computers.

### 1. Computer

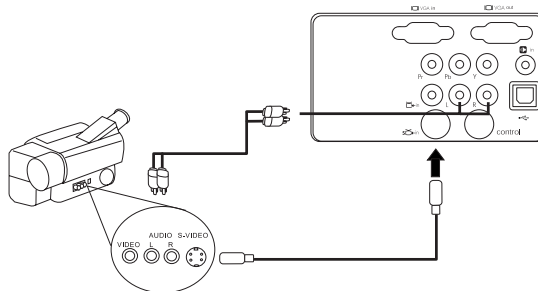


The USB cable is not needed unless you have a remote control with mouse functions.

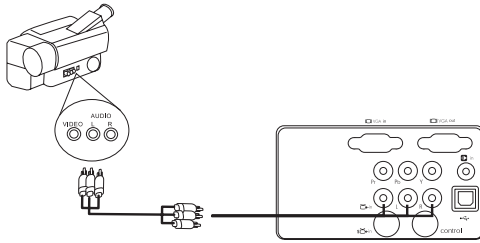
### 2. DVD player or HDTV



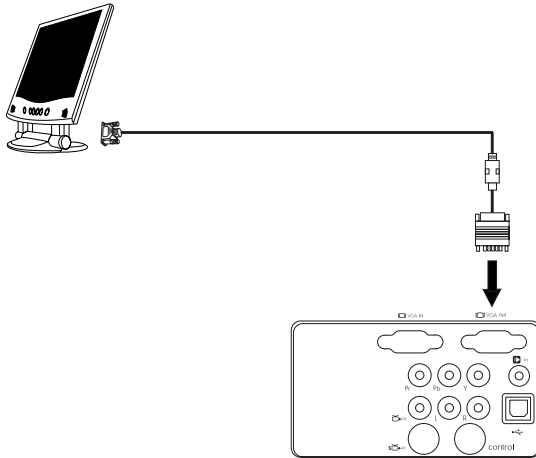
### 3. S-video device



4. Video device or VCR



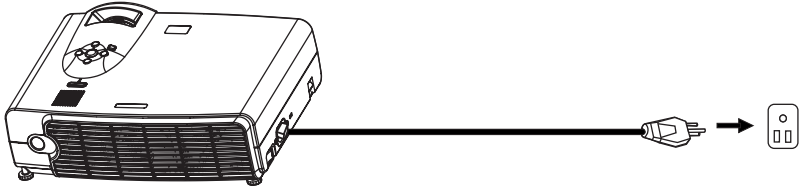
5. Output monitor



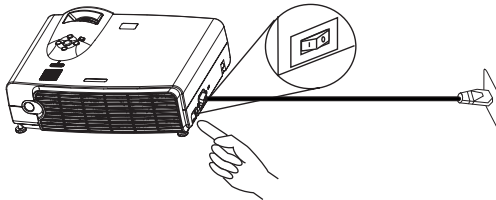
# OPERATION

## Start Up

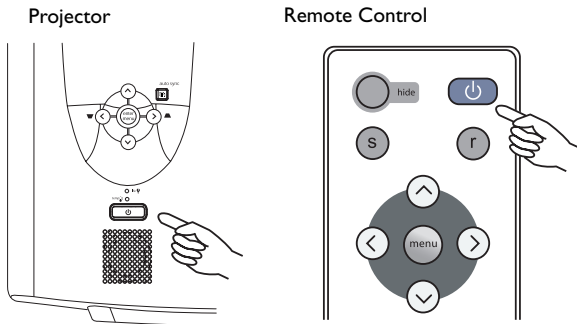
1. Plug the power cord into the projector and into a wall socket.



2. Turn on the main power switch.



3. Press and hold **POWER** to start the unit. The back-lit **POWER** key flashes green and stays green when the power is turned on.



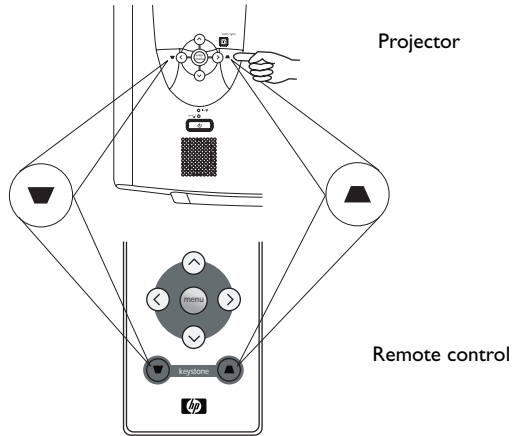
(When the power is turned off, there is a 120-second cooling period before the projector can be re-started.)

4. Switch on all connected equipment.



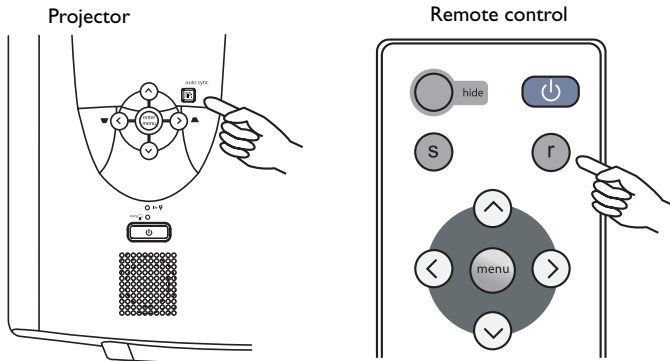
## Digital Keystone Correction

Keystoning refers to the situation where the projected image is noticeably wider at either the top or bottom. To correct this, press **KEYSTONE** ▲ / ▼ (hot key) on the control panel of the projector or on the remote control, and then adjust the sliding bar labeled Keystone, as needed. Press ▲ / ▼ if the [top/ bottom] of the image is too wide.



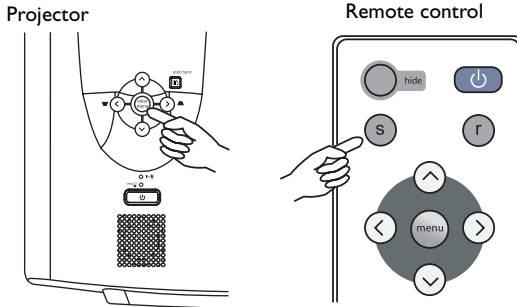
## Auto Adjustment

In some cases, you may need to optimize the picture quality. To do this, press the **AUTO** key on the control panel of the projector or on the remote control. Within 3 seconds, the built-in Intelligent Auto Adjustment function will re-adjust settings to provide the best picture quality.



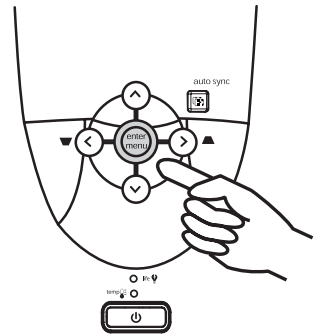
## Source Selection

When several input sources are available, press the SOURCE key to make a selection from the remote control or from the menu system.

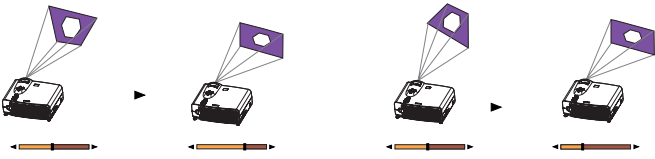


## Video and Audio Adjustments -- the Menu System

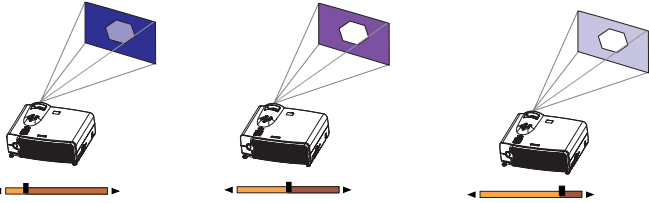
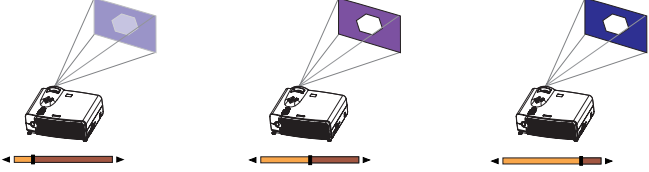
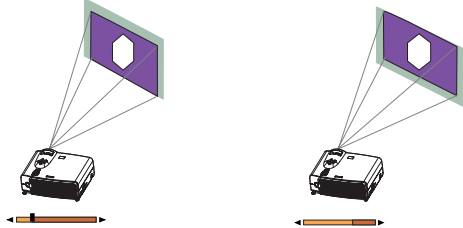
1. On the projector or remote control, press the **Menu** button.
2. Press < or > to select the desired menu.
3. Press v or ^ to select the desired parameter.
4. Press < or > to change the setting or open a sub-menu.
5. To change another parameter, press v or ^ to select the parameter.
6. To go to another menu, press the **Menu** button, then press < or > to select the menu.
7. To close the menu system, press the **Menu** button one or more times.



## Quick Tab

FUNCTION	DESCRIPTION
<b>Source</b>	Selects picture source. <i>*The operation of this function depends on the Source Scan setting.</i>
<b>Keystone</b>	Corrects slanted edges for the image. 
<b>Picture mode</b>	Adjusts picture for type of input.
<b>Auto-sync</b>	Synchronizes with input signal.
<b>Aspect ratio</b>	Selects proportions of the image.

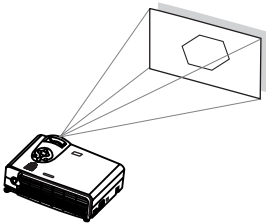
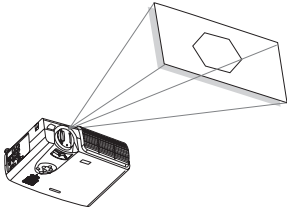
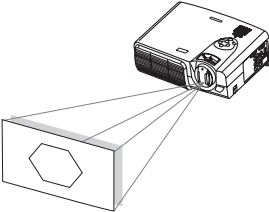
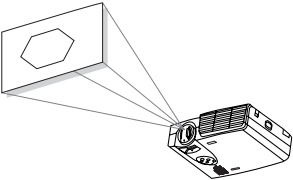
## Adjust Tab

FUNCTION	DESCRIPTION
<p><b>Brightness</b></p>	<p>Brightens or darkens the image.</p> 
<p><b>Contrast</b></p>	<p>Sets difference between light and dark areas.</p> 
<p><b>Frequency</b></p>	<p>Adjusts timing relative to input signal.  <i>*This function is available only when the input source is PC.</i></p>
<p><b>Tracking</b></p>	<p>Adjusts synchronization to input signal.  <i>*This function is available only when the input source is PC.</i></p>
<p><b>V position</b></p>	<p>Shifts image up or down.</p>  <p><i>*This function is available only when the input source is PC.</i></p>
<p><b>Saturation</b></p>	<p>Adjusts intensity of colors.  <i>*This function is available only when the input source is Video.</i></p>
<p><b>Tint</b></p>	<p>Shifts colors toward red or toward green.  <i>*This function is available only when the input source is Video.</i></p>
<p><b>Sharpness</b></p>	<p>Sharpens or softens the image.  <i>*This function is available only when the input source is Video.</i></p>
<p><b>Color temp</b></p>	<p>Shifts colors toward red or toward blue.</p>

**Audio Tab**

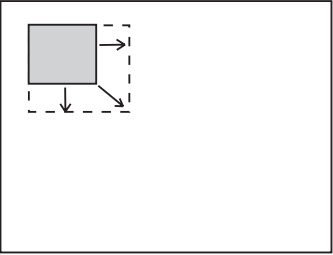
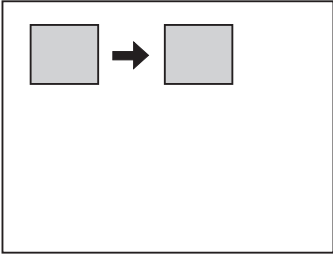
FUNCTION	DESCRIPTION
<b>Mute</b>	Stops audio output.
<b>Volume</b>	Changes loudness of audio
<b>Treble</b>	Changes loudness of higher frequencies.
<b>Bass</b>	Changes loudness of lower frequencies.

## Setup Tab

FUNCTION	DESCRIPTION
<b>Language</b>	Selects language for menus. Use < / > key to select the desired language.
<b>Position</b>	<p>Adjusts the image to match the projector placement.</p> <p>1. Default <span style="margin-left: 200px;">2. Ceiling mounted projection</span></p>   <p>3. Rear screen projection <span style="margin-left: 200px;">4. Ceiling mounted and rear-screen projection</span></p>  
<b>Source scan</b>	Sets whether projector searches for input signal.
<b>OSD position</b>	Selects position of on-screen menu.
<b>OSD timeout</b>	Sets how quickly on-screen menu closes.
<b>Advanced...</b>	<p><b>Auto-off</b> Sets shutdown delay for no input signal.</p>
	<p><b>Lamp saver</b> Sets lower light output for longer life.</p>
	<p><b>Lamp reset</b> For new lamp, resets hours of use.</p>
	<p><b>Reset menu</b> Returns all settings to factory preset values.</p>

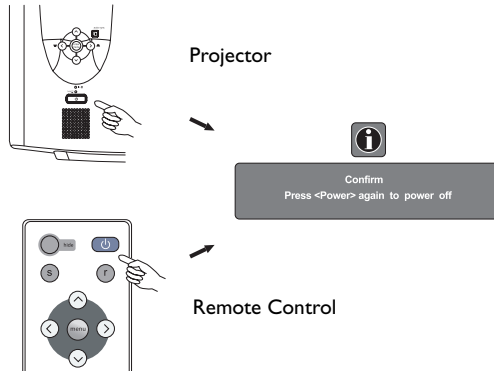
## PIP Tab

These functions are available only when the input source is PC and a video or S-video source is also connected.

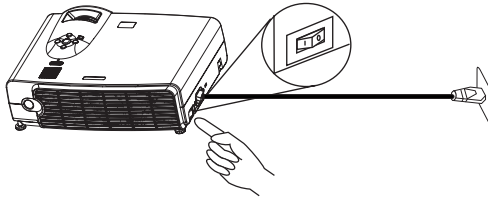
FUNCTION	DESCRIPTION
<b>Source</b>	Selects an input source for the picture-in-picture.
<b>Size</b>	Selects the size of the picture-in-picture. Use < / > key to select small, medium or large PIP size. 
<b>Position</b>	Selects a desired position for the PIP. 
<b>PIP Adjust...</b>	<b>Brightness</b> Brightens or darkens the image.
	<b>Contrast</b> Sets difference between light and dark areas.
	<b>Saturation</b> Adjusts intensity of colors.
	<b>Tint</b> Shifts colors toward red or toward green.
	<b>Sharpness</b> Sharpens or softens the image.

## Shutdown

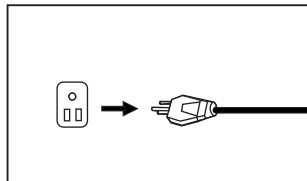
1. Press and hold **POWER** and a warning message will appear. To turn off the projector, press **POWER** again.



2. The fan will continue to run for approximately two minutes.
3. Turn off the main power switch.



4. Disconnect the power cord from the wall socket.



### **Caution**

**Please do not unplug the power cord before **POWER** is shut down or during the two-minute cooling process.**

**If the projector is not properly shut down, to protect the lamp, the system will detect this and cool the lamp for two minutes automatically before turning on again.**



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# MAINTENANCE

## Lamp Information

### Lamp LED Indicator

Lamp LED is off	Lamp is operating normally.
Lamp LED is on	Lamp is burned out or not properly installed. Replace the lamp.

### Lamp Replacement

When the Lamp Indicator lights up red or a message appears suggesting the time of lamp replacement, please install a new lamp or consult your dealer. An old lamp could cause a malfunction in the projector and in rare instances may even explode.



### **Warning**

**To reduce the risk of electrical shock, always turn off the projector and disconnect the power cord before changing the lamp.**

**To reduce the risk of severe burns, allow the projector to cool for at least 45 minutes before replacing the lamp.**

**To reduce the risk of injuries to fingers and damage to internal components, use caution when removing lamp glass that has shattered into sharp pieces.**

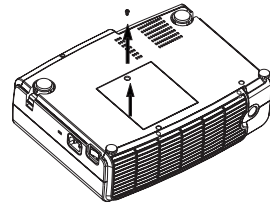
**To reduce the risk of injuries to fingers and/or compromising image quality by touching the lens, do not touch the empty lamp compartment when the lamp is removed.**

**This lamp contains mercury. Consult your local hazardous waste regulations to dispose of this lamp in a proper manner.**

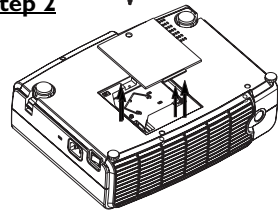
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1. Turn off the projector. Disconnect the power cord from the outlet and the projector.
2. Loosen the screw and remove the lamp cover. If the lamp is hot, avoid burns by waiting 45 minutes until the lamp has cooled.
3. Loosen the 3 screws. (It is strongly recommended that you use a magnetic-head screwdriver.) Pull the handle to remove the lamp housing. If the screws are not loosened completely, they could injure your fingers. Do not insert your hand into the box after the lamp is removed. If you touch the optical components inside, this could cause color unevenness in projected images.
4. Replace the lamp with a new one. Insert it into the projector, and tighten the screws firmly. Loose screws may cause a bad connection, which may result in malfunction.
5. Re-install the lamp cover and tighten the screw. **Do not turn on the power with the lamp cover removed.**
6. After the lamp is replaced, turn on the projector and reset the total lamp operation time. To do this, use the on-screen menu system and go to Setup > Advanced > Lamp Reset. **Do not reset if the lamp is not replaced as this could cause damage.**

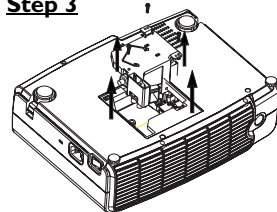
### Step 1



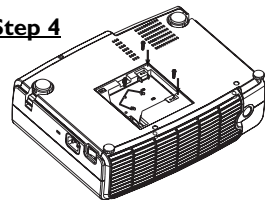
### Step 2



### Step 3



### Step 4



## Temperature Warning Indicator

Status	Description
Temperature LED is off	Temperature is normal.
Temperature LED is blinking	Internal fan is not working properly. Turn off the projector and contact HP for assistance.
Temperature LED is on	Internal temperature is too high. Turn off the projector and check the vents for blockage. If this continues to occur, contact HP for assistance.

## Accessories

You can buy HP accessories for your projector, such as the following:

- Carrying case
- Premium remote control (plus USB cable)
- Ceiling mount
- 60-inch mobile screen
- Replacement lamp module
- Video and power cables

# TROUBLESHOOTING

## Common Problems & Solutions

PROBLEMS	TRY THESE SOLUTIONS
<b>NO POWER</b>	<ul style="list-style-type: none"> <li>• Make sure the power cord is inserted fully into the power cord socket.</li> <li>• Make sure the power cord is inserted fully into the power outlet.</li> <li>• Toggle the power switch to the position “1”.</li> <li>• Wait two minutes after the projector is turned off before turning the projector back on.</li> </ul>
<b>NO PICTURE</b>	<ul style="list-style-type: none"> <li>• Check for the proper input source.</li> <li>• Ensure all cables are connected properly.</li> <li>• Adjust the brightness and contrast.</li> <li>• Remove the lens cap.</li> </ul>
<b>TRAPEZOID IMAGE ON THE SCREEN</b>	<ul style="list-style-type: none"> <li>• Reposition the unit to improve its angle on the screen.</li> <li>• Use the <b>Keystone</b> correction key on the control panel of the projector or the remote control unit.</li> </ul>
<b>POOR COLOR</b>	<ul style="list-style-type: none"> <li>• In the menu system, set the picture mode according to the type of image you are displaying: computer data presentation or video image.</li> <li>• Adjust brightness, contrast, or saturation.</li> </ul>
<b>BLURRED IMAGE</b>	<ul style="list-style-type: none"> <li>• Press <b>Auto Sync</b> on the control panel of the projector or the remote control unit to get better picture quality.</li> <li>• Adjust the focus.</li> <li>• Reposition the unit to improve its projection angle.</li> <li>• Ensure the distance between the unit and screen is within the adjustment range of the lens.</li> </ul>
<b>REMOTE CONTROL DOES NOT WORK</b>	<ul style="list-style-type: none"> <li>• Replace the batteries with new ones.</li> <li>• Make sure there is no obstacle between the remote control and the projector.</li> <li>• Stand within 6 meters (19.5 feet) of the projector.</li> <li>• Make sure nothing is blocking the front and rear receivers.</li> <li>• If you are using a remote control with mouse and page up/ down functions, make sure you have a USB connection between the projector and computer. Certain computer models may not be compatible with the mouse and page up/ down functions of the projector -- try using a different computer.</li> </ul>
<b>USB CONNECTION DOES NOT WORK</b>	<ul style="list-style-type: none"> <li>• The remote control shipped with the projector does not include any features that use a USB connection.</li> <li>• A USB connection supports only certain remote control features. See the remote control section of this table.</li> </ul>

## Status Messages

On-Screen Messages	Description
<b>SEARCHING</b>	Projector is searching for input.
<b>ACQUIRING SIGNAL</b>	Projector has identified the input signal and is running the auto image adjustment function.
<b>OUT OF RANGE</b>	Input signal frequency exceeds the projector's range.
<b>LAMP WARNING - CHANGE LAMP AND RESET LAMP TIMER!</b>	The lamp has been in operation for 1900 hours. Install a new lamp for optimal performance.
<b>END OF LAMP LIFE. YOU MUST CHANGE THE LAMP SOON.</b>	The lamp has been in operation for 1980 hours.
<b>END OF LAMP LIFE. YOU MUST CHANGE THE LAMP NOW.</b>	The lamp has been in operation for over 2000 hours. The warning message will display for 15 seconds every time you turn on the projector.

# SPECIFICATIONS

## Projector Specifications

### Technical Specifications

**Note: All specifications are subject to change without notice.**

#### General

Model name	VP6120 (XGA) VP6110 (SVGA)
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#### Optical

Display system	1-CHIP DMD
Lens F/Number	F/2.6
Lamp	250W UHP lamp

#### Electrical

Power supply	AC100 ~ 240V, 4.0A, 50/60 Hz (Automatic)
Power consumption	330W (Max)

#### Mechanical

Dimensions	308 mm (W) x 95 mm (H) x 238 mm (D)
Operating temperature range	10°C ~ 40°C
Weight	6.9 lbs (3.1 Kg)

#### Input terminal

Computer input	
VGA input	D-sub 15-pin (female)
Video signal input	
S-VIDEO	Mini DIN 4-pin port x1
VIDEO	RCA jack x1
HDTV signal input	YPbPr RCA jack x3
Audio signal input	
Audio 1	Mini jack stereo port
Audio 2	RCA jack L, R x2

#### Output

USB mouse connector	A/B series x1
Speaker	2 watt x 1

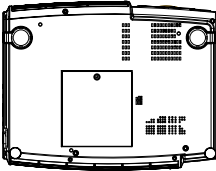
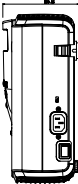
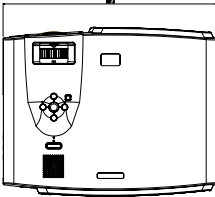
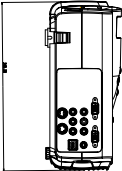
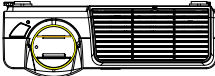
#### Control

RS-232C	9-pin x1
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## Timing Chart

<b>Resolution</b>	<b>H Sync (kHz)</b>	<b>V Sync (Hz)</b>	<b>Remark</b>
640x350	31.5	70.1	
640x400	37.9	85.1	VESA
720x400	31.5	70.0	
720x400	37.9	85.1	VESA
640x480	31.5	60.0	VESA
640x480	37.9	72.8	VESA
640x480	35	66.7	Macintosh
640x480	43.3	85.0	VESA
800x600	35.2	56.3	VESA
800x600	37.9	60.3	VESA
800x600	46.9	75.0	VESA
800x600	48.1	72.2	VESA
800x600	53.7	85.1	VESA
832x624	49.7	74.5	Macintosh
1024x768	48.4	60.0	VESA
1024x768	56.5	70.1	VESA
1024x768	60.0	75.0	VESA
1024x768	68.7	85.0	VESA
1280x1024	64.0	60.0	VESA

# DIMENSIONS



Unit: mm



## REGULATORY AND SAFETY

This section presents information that shows how your digital projector complies with regulations in certain regions. Any modifications to your digital projector not expressly approved by Hewlett-Packard could void the authority to operate the digital projector in these regions.

### LED Safety

The infrared ports located on the digital projector are classified as Class I LED (light-emitting diode) devices according to International Standard IEC 825-1 (En 60825-1). This device is not considered harmful, but the following precautions are recommended:

- If the unit requires service, contact an authorized HP service center.
- Do not attempt to make any adjustment to the unit.
- Avoid direct eye exposure to the infrared LED beam. Be aware that the beam is invisible light and cannot be seen.
- Do not attempt to view the infrared LED beam with any type of optical device.

### Mercury Safety

**Warning:** This digital projector lamp contains a small amount of mercury. If the lamp breaks, adequately ventilate the area where the breakage occurred. Disposal of this lamp may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance ([www.eiae.org](http://www.eiae.org))

### U.S.A.

This digital projector 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 in a residential installation.

This digital projector generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this digital projector does cause harmful interference to radio or television reception (which can be determined by unplugging the unit), try the following:

- Reorienting or relocating the receiving antenna.
- Relocating the digital projector with respect to the receiver.
- Connecting the digital projector's power cord to another power outlet.

**Connections to Peripheral Devices.** To maintain compliance with FCC Rules and Regulations, use properly shielded cables with this device.

For more information, consult your dealer, an experienced radio/television technician, or the following booklet, prepared by the Federal Communications Commission: *How*

to Identify and Resolve Radio-TV Interference Problems. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4. At the first printing of this manual, the telephone number was (202) 512-1800.

## Canada

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

## Japan

この装置は、情報処理装置等電波障害自主規制協議会 (VCCI) の基準に基づくクラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことが有ります。取扱説明書に従って正しい取り扱いをしてください。

## Korea

사용자 안내문 : B 급 기기

이 기기는 비업무용으로 전자파적합등록을 받은 기기이오니, 주거지역에서는 물론, 모든 지역에서 사용 하실 수 있습니다.

## European Union

**NOTE:** For regulatory identification purposes, your product is assigned a Regulatory Model Number. The Regulatory Model Number for your product is listed in the declaration below. This regulatory number is different from the marketing name and product number.

### DECLARATION OF CONFORMITY

According to ISO/IEC Guide 22 and EN 45014

**Manufacturer's Name:** Hewlett Packard Company  
**Manufacturer's Address:** Hewlett Packard Company  
 Digital Projection & Imaging  
 1000 NE Circle Blvd.  
 Corvallis, OR 97330-4239

Declares, that the product(s):

**Product Name:** Digital Projector L1596A and L1595A  
**Model Number(s):** VP6120 and VP6110  
**Regulatory Model Number(s):** CRVSB-03HE

**Conforms to the following product specifications:**

**Safety:** IEC 60950:1991 +A1,A2,A3,A4 / EN 60950:1992+A1,A2,A3,A4,A11  
 IEC 60825-1:1993 +A1 / EN 60825-1:1994 +A11 Class 1 LED  
 GB4943-1995

**EMC:** EN 55022: 1998 Class B [1]  
 CISPR 24:1997 / EN 55024: 1998  
 IEC 61000-3-2:1995 / EN 61000-3-2:1995 +A1:1998 +A2:1998 +A14:2000  
 IEC 61000-3-3:1994 / EN 61000-3-3:1995  
 GB9254-1998  
 FCC Title 47 CFR, Part 15 Class B/ANSI C63.4:1992  
 AS/NZS 3548:1995 Rules and Regulations of Class B

#### Supplementary information:

The product herewith complies with the requirements of following Directives and carries the CE marking accordingly:

-Low Voltage Directive: 73/23/EEC  
 -EMC Directive: 89/336/EEC

[1] The product was tested in a typical configuration with Hewlett Packard Personal Computer peripherals.

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 accept any interference received, including interference that may cause undesired operation.

Corvallis, Oregon, March 7, 2003



European Contact for regulatory topics only: Hewlett Packard GmbH, HQ-TRE, Herrenberger Straße 140, 71034 Boeblingen, Germany. (FAX:+49-7031-143143).

USA Contact: Hewlett Packard Co., Corporate Product Regulations Manager, 3000 Hanover Street, Palo Alto, CA 94304. Phone: (650) 857-1501.