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## **BENQ** PB6110 / PB6210 Digital Projector Portable Series User's Manual





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## Important Safety Instructions

Your BenQ projector is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that you follow the instructions mentioned in this manual and marked on the product.



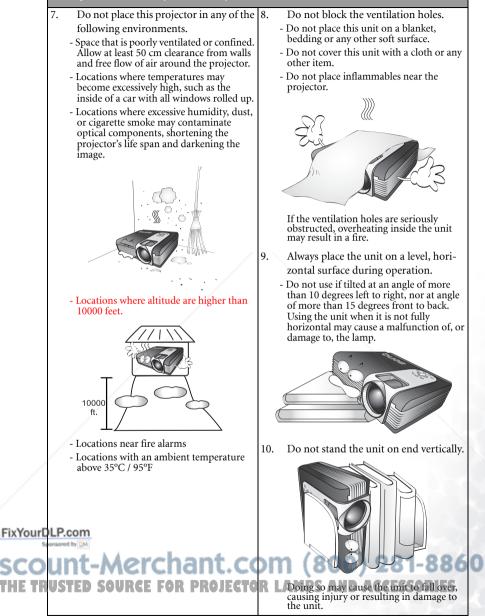
1

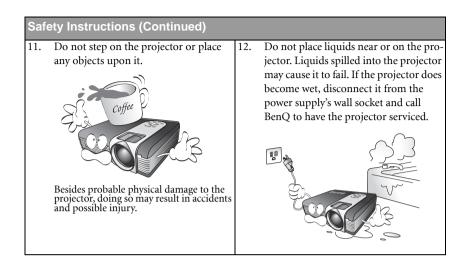
#### **Safety Instructions**

1. The lamp becomes extremely hot Do not place this product on an 4. during operation. Allow the projecunstable cart, stand, or table. The tor to cool for approximately 45 product may fall, sustaining serious minutes prior to removing the lamp damage. assembly for replacement. 5. To reduce the risk of electric shock, do not disassemble this appliance. 2. Do not operate lamps beyond the Take it to a qualified technician rated lamp life. Excessive operation when service or repair is required. of lamps beyond the rated life could Incorrect reassembly can cause malcause them to break on rare occafunction of the projector or electric sions. shock when the appliance is subsequently used. Never replace the lamp assembly or 3. 6. This product is capable of displaying any electronic components unless inverted images for ceiling mount the projector is unplugged. installation. Please use BenQ's Ceiling Mounting Kit for mounting the unit and ensure it is securely installed. xYourDLP.con

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#### Safety Instructions (Continued)







## Dintroduction

## **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:

- Compact and portable unit
- · 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 10 languages: English, French, German, Italian, Spanish, Russian, Traditional Chinese, Simplified Chinese, Japanese and Korean.
- · Switchable normal and Economic modes to reduce the power consumption
- · Powerful AV function to provide high quality AV picture
- HDTV compatibility (YPbPr)

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



## Shipping Contents

The projector is shipped with the cables required for connection to a PC and to video equipment. Carefully unpack and verify that you have all of the items shown below. If any of these items are missing, please contact your place of purchase.



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#### Alternative Accessories

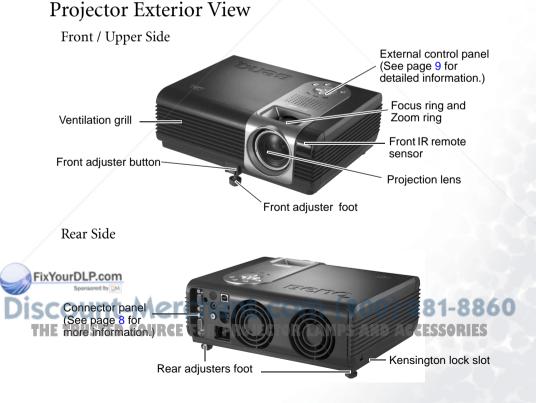
- 1. Power Cord: 110V for the US, 240V for UK and 220V for European countries
- 2. 3-2 power converter: For the US



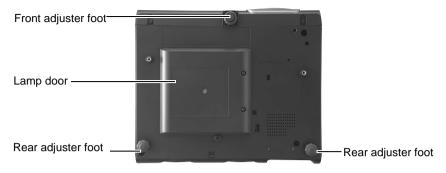
#### **Optional Accessories**

- 1. Macintosh adapter
- 2. 200W lamp module
- 3. Ceiling mount kit

- 4. Wireless Pro
- 5. Presentation Plus
- 6. Component Video cable

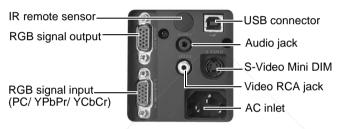


#### Bottom Side



#### Connector Panel

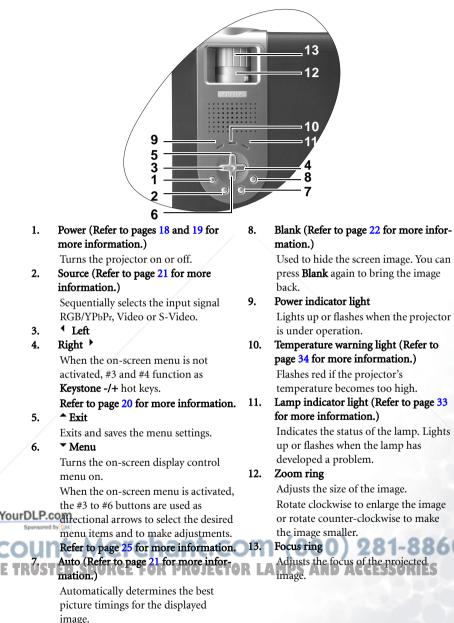
Refer to page 12 for more information on making connections to various equipment.



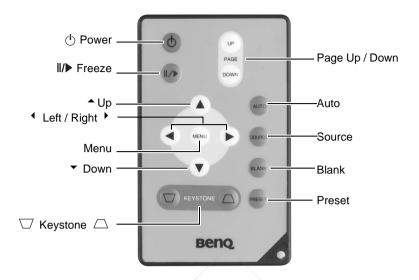


## Controls and Functions

#### External Control Panel



#### Remote Control Description



Functions	Descriptions
<sup>(</sup> ) Power	Turns the projector on or off. Refer to pages 18 and 19 for more information.
II/▶ Freeze	The image is frozen when <b>Freeze</b> is pressed. A "Pause" icon will appear in the lower right corner of the screen. To release the function, press <b>Freeze</b> again.
◆ Up, Menu ◆ Left / Right ▶ , ▼ Down	Used to select the desired menu items and to make adjustments. Refer to page 25 for more information.
$\Box_{Keystone} \Box$	Manually corrects distorted images resulting from the angles of projection. Refer to page 20 for more information.
Page Up and Down	Connect the projector to your PC or notebook with a USB cable prior to using this function. You can operate your Power Point presentation moving forwards and backwards by pressing Page Up and Page Down.
Spansored by DM	Automatically determines the best picture timings for displayed image. Refer to page 21 for more information.
Source t-Me	Sequentially select the input signal RGB, Component Video, S- Video or Video. Refer to page 21 for information.
Blank LD SOUR	In order to draw the audience's full attention to the presenter, you can use <b>Blank</b> to hide the screen image. Press <b>Blank</b> again to restore the image. Refer to page 22 for more information.

Preset	According to the selected input signal, there are several picture
	setup options available: Vivid mode, Presentation mode, Gaming
	mode, Video mode, Cinema mode and Economic mode. Refer to
	page 26 for more information.

#### Remote Control Effective Range

Infra Red (IR) remote control sensors are located on the front and the back of the projector. The remote control must be held at an angle within 30 degrees of the projector's IR remote control sensors to function correctly. The distance between the remote control and the sensors should not exceed 6 meters (19.5 feet).



Notes on Remote Control Operation:

Make sure that there are no obstacles between the remote control and the IR sensors on the projector that might obstruct the infra-red beam.

#### Installing or Replacing the Battery

- 1. Pull out the battery holder.
- 2. Insert the new battery in the holder.
- 3. Push the holder into the remote control.
- Avoid excessive heat and humidity. There may be danger of an explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of the used battery according to the manufacturer's instructions.



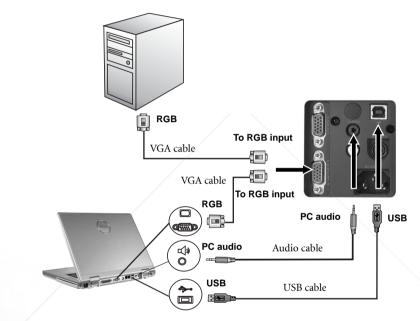
## FixYourDLP.com Source For Projector LAMPS AND ACCESSORIES



When connecting a signal source to the projector, be sure to:

- 1. Turn all equipment off before making any connections.
- 2. Use the correct signal cables for each source.
- 3. Ensure the cables are firmly inserted.

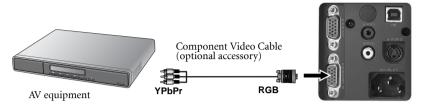
## Connecting to a Laptop or Desktop Computer



A Mac adapter (an optional accessory) is needed if you are connecting to Macintosh computers.



## Connecting Equipment to the Component Video Input



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
   Digital TV tuners

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

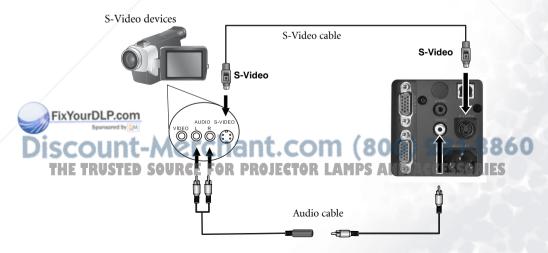
The projector is capable of accepting HDTV data through a Component Video connector. Use a Component Video cable (an optional accessory) to display these images.

The following standards are supported in the HDTV function:

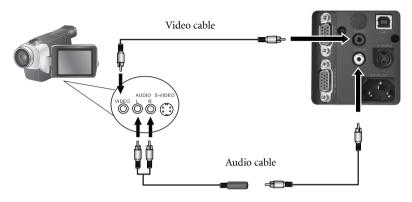
- 480i
- 576i
- 720p (50/ 60 Hz)

- 480p
- 576p
  - 1080i (50/ 60 Hz)

## Connecting Video and S-Video Devices



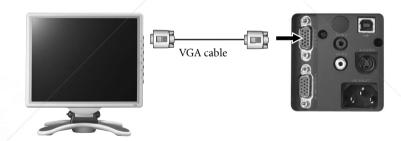
Video devices



If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the video source is turned on and operating correctly. Also check that the signal cables have been connected correctly.

## Connecting to Display Devices

If you want to monitor your presentation close-up on a monitor as well as on the screen, you can connect the RGB signal output port on the projector to an external monitor with a VGA cable.





## **Installation**

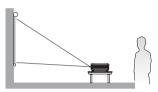
## Choosing a Location

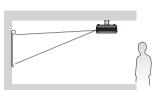
Your projector is designed to be installed in the four installation configurations shown here: Floor front, Ceiling front, Floor rear, Ceiling rear. Your room layout or personal preference will dictate which installation configuration you use.

II. Ceiling front

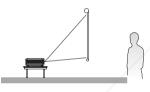
IV. Ceiling rear

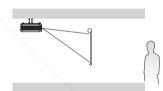
I. Floor front





III. Floor rear





For further information on the four configurations, please refer to page 29.

If you place the projector above or below the screen, you have to tilt it down or up to center the image on the screen, in these situations image distortion will occur. Use the Keystone function to correct the distortion. See page 20 for keystone correction.



## Adjusting the Height

The projector is equipped with 1 quick-release adjuster foot and 2 rear adjuster feet. These adjusters change the image height and projection angle. To adjust the projector,

- 1. Lift the projector up and press the adjuster button to release the adjuster. The adjuster will drop into position and be locked. It can lift the projector by up to 15 degrees.
- 2. Screw the rear adjuster feet to fine tune the horizontal angle.

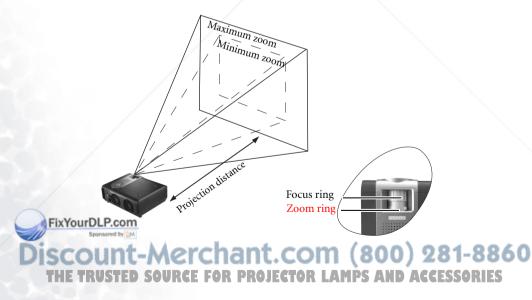
Press the adjuster button again to retract the foot.



If the screen and the projector are not perpendicular to each other, the projected image becomes vertically trapezoidal. To correct this situation, adjust the value of Keystone in the Picture menu, on the projector control panel or on the remote control.

## Screen Size

Place the projector at the required distance from the screen according to the required picture size (see the table on the next page).



Distan	ce	Diago	nal mea	sureme	ent	Distanc	e from	Diagon	al meas	urement	:
from s		Minim		Maxin		Distance from Diagonal meas screen Minimum		Maximum			
		zoom		zoom				zoom		zoom	
feet	inch	feet	inch	feet	inch	meter	cm	meter	cm	meter	cm
4	48	2.49	29.9	3.05	36.6	1	100	0.62	62.2	0.76	76.2
6	72	3.73	44.8	4.57	54.9	1.5	150	0.93	93.3	1.14	114.3
8	96	4.98	59.7	6.10	73.2	2	200	1.24	124.5	1.52	152.4
10	120	6.22	74.7	7.62	91.4	2.5	250	1.56	155.6	1.91	190.5
12	144	7.47	89.6	9.14	109.7	3	300	1.87	186.7	2.29	228.6
14	168	8.71	104.5	10.67	128.0	3.5	350	2.18	217.8	2.67	266.7
16	192	9.96	119.5	12.19	146.3	4	400	2.49	248.9	3.05	304.8
18	216	11.20	134.4	13.72	164.6	4.5	450	2.80	280.0	3.43	342.9
20	240	12.45	149.4	15.24	182.9	5	500	3.11	311.2	3.81	381.0
22	264	13.69	164.3	16.76	201.2	5.5	550	3.42	342.3	4.19	419.1
24	288	14.94	179.2	18.29	219.5	6	600	3.73	373.4	4.57	457.2
26	312	16.18	194.2	19.81	237.7	6.5	650	4.04	404.5	4.95	495.3
28	336	17.42	209.1	21.34	256.0	7	700	4.36	435.6	5.33	533.4
30	360	18.67	224.0	22.86	274.3	7.5	750	4.67	466.7	5.72	571.5
32	384	19.91	239.0	24.38	292.6	8	800	4.98	497.8	6.10	609.6

#### PB6110 (SVGA) / PB6210 (XGA) screen size chart (4:3 aspect ratio)

#### PB6110 (SVGA) / PB6210 (XGA) screen size chart (16:9 aspect ratio)

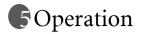
from screen     Minimum zoom     Maximum zoom     screen     Minimu zoom       feet     inch     feet     inch     meter     cm	ım cm	Maxim zoom	um
	cm	zoom	
feet inch feet inch feet inch meter cm meter	cm		
		meter	cm
4 48 2.29 27.5 2.80 33.6 1 100 0.57	57.4	0.70	70.0
6 72 3.44 41.3 4.20 50.4 1.5 150 0.86	86.0	1.05	105.0
8 96 4.59 55.1 5.60 67.2 2 200 1.15	114.7	1.40	140.0
10 120 5.74 68.8 7.00 84.0 2.5 250 1.43	143.4	1.75	179.4
12 144 6.88 82.6 8.40 100.8 3 300 1.72	172.1	2.10	209.9
14 168 8.03 96.4 9.80 117.6 3.5 350 2.01	200.8	2.45	244.9
16         192         9.18         110.1         11.20         134.4         4         400         2.29	229.4	2.80	279.9
18         216         10.32         123.9         12.60         151.2         4.5         450         2.58	258.1	3.15	314.9
20 240 11.47 137.7 14.00 167.9 5 500 2.87	286.8	3.50	349.9
22 264 12.62 151.4 15.39 184.7 5.5 550 3.15	315.5	3.85	384.9
24 288 13.77 165.2 16.79 201.5 6 600 3.44	344.1	4.20	419.9
FixYour L26 312 14.91 179.0 18.19 218.3 6.5 650 3.37	372.8	4.55	454.9
28 336 16.06 192.7 19.59 235.1 7 700 4.02	401.5	4.90	489.8
30 360 17.21 206.5 20.99 251.9 7.5 750 4.30	430.2	5.25	524.8
32         384         18.35         220.3         22.39         268.7         8         800         4.59	458.9	5.60	559.8

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There is 3% ~ 5% tolerance among these numbers due to optical component variations.

\* 1 m = 3.28 feet, 1 feet = 0.305 m, 1 m = 100 cm, 1 foot = 12 inches

Disc

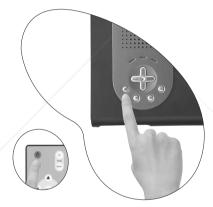


#### Startup

- 1. Switch all of the connected equipment on.
- 2. Plug the power cord into the projector and into a wall socket.



- 3. Turn on the wall socket switch (where fitted).
- Press and hold **Power** on the remote control or projector to start the unit. The **Power** indicator light flashes green and stays green when the power is turned on.



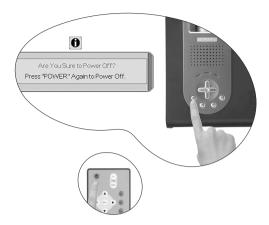
- 5. The start up procedure takes about 30 seconds after pressing **Power**. In the later stage of start up, a default BenQ logo appears.
- 6. Then, the projector starts to search for input signals. Irrespective of selected input source, the screen shows the selected source information at the bottom right corner of the screen. If there is no input source detected, the three messages will be displayed on the screen continuously: "RGB/YPbPr Searching", "Video Searching" and "S-Video Searching".

FixYou7DLPYoursan also press Source on the projector or remote control to select your desired

If the frequency/ resolution of the input signal exceeds the projector's operating range, you is will see the message "Out of Range" displayed on a blank screen. THE TRUSTED SOURCE FOR PROJECTOR LAMPS AND ACCESSORIES

## Shutdown

- Press **Power** and a warning message appears. Press **Power** a second time to turn the projector off.
- 2. The **Power indicator light** flashes orange and the lamp shuts down, the fans continue to run for approximately 110 seconds to cool down the projector.
- To protect the lamp, the projector will not respond to any commands during the cooling process.



3. Disconnect the power cord from the wall socket.



Do not unplug the power cord before the projector shutdown sequence is complete or during the 110-second cooling down process.

If the projector is not properly shut down, to protect the lamp, when you attempt to re-start the projector within hours, the fans will run for a few minutes to cool down. Press Power again to start the projector after the fans stop.



## Digital Keystone Correction

Keystoning refers to the situation where the projected image is noticeably wider at either the top or bottom. It occurs when the projector is not perpendicular to the screen.

To correct this, besides adjusting the height of the projector, you will need to manually correct it following ONE of these steps.

1. Press **Left** / **Right** (hot key) on the control panel of the projector to display the status bar labelled Keystone. Press **Left** to correct keystoning at the top of the image. Press **Right** to correct keystoning at the bottom of the image.

2. Press  $\bigtriangledown$  /  $\bigtriangleup$  on the remote control to display the status bar

labelled Keystone, then press  $\square$  to correct keystoning at the top of

the image or press  $\bigtriangleup$  to correct keystoning at the bottom of the image.

3. Press ▼ Menu on the projector or Menu on the remote control. Go to Picture --> Keystone and adjust the values by pressing ↓ Left/ Right ▶ on the projector or ↓ / ▶ on the remote control.

#### For example,



1. Press 4 Left on the projector or

2. Press <sup>□</sup> on the remote control or 3. Press <sup>4</sup> Left on the projector or <sup>4</sup> on the remote control when you are in Picture --> Keystone menu.





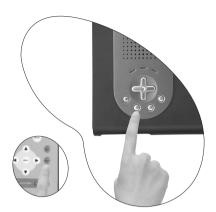
- 1. Press Right > on the projector or
- 2. Press  $\Box$  on the remote control or
- 3. Press Right \* on the projector or \* on



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## Source Selection

To sequentially select input sources, press **Source** on the projector control panel or the remote control. It may take you a few seconds when the projector is searching for input signals. The selected source will be displayed at the bottom right of the screen for 3 seconds. For a quick search, you can also press the key repeatedly until your desired signal is displayed.

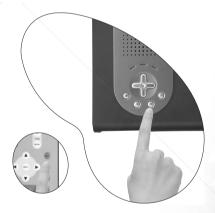


## Auto Adjustment

In some cases, you may need to optimize the picture quality. To do this, press **Auto** on the control panel of the projector or on the remote control. Within 3 seconds, the builtin Intelligent Auto Adjustment function will re-adjust the values of Frequency and Clock to provide the best picture quality.

The current source information will be displayed at the bottom right of the screen for 3 seconds, as below.





The screen will be blank while Auto is functioning.

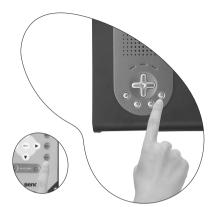
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## Blank

In order to draw the audience's full attention to the presenter, you can use Blank to hide the screen image. Press Blank again to restore the image. A word "BLANK" appear at the bottom right corner of the screen when the image is hidden. When this function is activated with video/ S-video signal connected, the background sound still can be heard.

You can set the blank time in

Advance --> Blank Time menu to let the projector shut down automatically after a period of time when there is no action taken on the blank screen.





## Zoom / Focusing

Adjust the projected image to your desired size using the lens' zoom ring. Then focus the image by rotating the focus ring. Refer to the screen size tables on page 17.



## Slide Operation

You can operate your Power Point presentation moving forwards and backwards by pressing Page Up and Page Down.

The project the projector to your PC or notebook with a USB cable prior to using this function.



## Freeze

The image is frozen when **Freeze** is pressed. An icon will appear in the lower right corner of the screen. To release the function, press **Freeze**, **Source** (this will change the input source and release the pause function).



## Preset Mode Selection

Press **Preset** to select a operation mode that suits your need. There are several operation modes available for different types of signals.

PC Signal Input					
Presentation	Vivid	Video	Economic		
YPbPr / S-Video / Video Signal Input					
Gaming	Video	Cinema	Economic		

Refer to page 26 for more information.





## Menu Operation

#### Menu System

Please note that the OSD menus vary according to the signal type selected.

Functions available when receiving different signal types				
Sub-Menu	PC	Video / S-Video	Component Video	
<b>Picture</b>	Preset Mode Keystone Brightness Contrast	Preset Mode Keystone Brightness Contrast Color Tint*		
Pro-Picture	Auto Resize Aspect Ratio H Position V Position Phase H. Size	Auto Resize Aspect Ratio Sharpness		
Setting	Mute Volume OSD Time Reset Color Temp			
Advance	Mirror Blank Time Source Scan Language User Logo			
<b>O</b> Information	Source Resolution Preset Mode Lamp Hour	Source System Preset Mode Lamp Hour	Source Resolution Preset Mode Lamp Hour	

\*When a Video or S-Video signal is connected, the function is only available with NTSC system selected.

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#### Using the Menus

The projector is equipped with on-screen display (OSD) menus for making various adjustments and settings.

4.

5.

There are 10 different menu languages. (Refer to page 30 for more details.)

The following example describes the adjustment of the keystone.

 Press ▼ Menu on the projector or Menu on the remote control to turn the onscreen menu on.

🔁 Preset Mode	Presentation
Keystone	0
🏹 Brightness	
🜔 Contrast	
Color	
Tint	

Adjust keystone values by pressing ◀ Left / Right ➤ on the projector or ◀ / ➤ on the remote control.

🕒 Preset Mode	Presentatio
🞑 Keystone	+
🔆 Brightness	
🔆 Brightness 🕕 Contrast	
🙆 Color	
Tint	

Use <sup>4</sup> Left/ Right <sup>→</sup> on the projector or
 <sup>4</sup> / <sup>→</sup> on the remote control to select



 Use ▲ Exit or ▼ Menu on the projector or ▼ / ▲ on the remote control to select Keystone.

🕒 Preset Mode	Presentatio
C Keystone	
🔆 Brightness 🕕 Contrast	
O Contrast	
Color	
🧰 Tint	

Press **A Exit** on the projector or press **Menu** twice\* on the remote control to leave and save the setting.

\*The first press leads you back to the submenu and the second press closes the on-screen menu.



#### 1. Picture Menu

PC signal input

FUNCTION	DESCRIPTION
	Preset modes are provided so you can optimize your projector image set-up to suit your program type.
Preset Mode	<ol> <li>PC Signal Input</li> <li>Presentation Mode: Is designed for presentations. The brightness is emphasized in this mode.</li> <li>Vivid Mode: Is perfect for playing games. The color saturation and brightness are well-balanced.</li> <li>Video Mode: Is suitable for cinematic enjoyment displaying images in their natural color.</li> <li>Economic Mode: Use this mode to reduce system noise and reduce power consumption by 20%. The lamp life is also extended with lower light output.</li> <li>YPbPr/ S-Video/ Video Signal Input</li> <li>Gaming Mode: Is suitable for playing video games in a bright living room.</li> <li>Video Mode: With a higher color temperature, it is suitable for enjoying TV movies.</li> <li>Cinema Mode: With a lower color temperature, it is suitable for</li> </ol>
Keystone	<ul> <li>enjoying cinematic movies.</li> <li>4. Economic Mode: Use this mode to reduce system noise and reduce power consumption by 20%. The lamp life is also extended with lower light output.</li> <li>Corrects any keystoning of the image. Refer to page 20 for more infor-</li> </ul>
	mation. Adjusts the brightness of the image. The higher the value, the brighter the image. And lower the setting, darker the image. Adjust this control so the black areas of the image appear just as black and that detail in the dark areas is visible.
Brightness	9,8
FixYourDLP.com	-30 50 +70
scount-N	Adjusts the degree of difference between dark and light in the image. The higher the value, the greater the contrast.
Contrast	<b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLECT</b> <b>COLEC</b>

#### Video/ S-Video/ Component Video signal input

FUNCTION	DESCRIPTION
Preset Mode	As above.
Keystone	As above.
Brightness	As above.
Contrast	As above.
Color	Increases or decreases the color intensity of the image.
Tint	Adjusts the color tones of the image. The higher the value, the more red- dish the image becomes. The lower the value, the more greenish the image becomes.
	*When a Video or S-Video signal is connected, the function is only available with NTSC system selected.



#### 2. Pro-Picture Menu

PC signal input

FUNCTION	DESCRIPTION
Auto Resize	Makes the best fit of the image to the screen.
	1. On 2. Off
Aspect Ratio	There are two aspect ratio settings.
	1. 4 : 3 (Standard) 2. 16 : 9 (Wide Screen)
H Position	Adjusts the horizontal position of the projected image.
V Position	Adjusts the vertical position of the projected image.
Phase	This function allows you to adjust the clock phase to reduce image distortion.
H Size	Adjusts the horizontal width of the image.

Video/ S-Video/ Component Video signal input

FUNCTION	DESCRIPTION
Auto Resize	As above.
Aspect Ratio	As above.
Sharpness	Adjusts the image to make it look sharper or softer.

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#### 3. Setting Menu

FUNCTION	DESCRIPTION
Mute	Off On
Volume	Adjusts the volume level.
OSD Time	Sets the length of time the OSD will remain active after your last button press. The range is from 5 to 100 seconds.
Reset	Returns all settings to the factory preset values.
Color Temp	<ol> <li>3 color temperature* settings are available.</li> <li>1. Standard: Maintains normal colorings for white.</li> <li>2. High: Makes images appear bluish white.</li> <li>3. Low: Makes images appear reddish white.</li> </ol>

#### \*About color temperatures:

There are many different shades that are considered to be "white" for various purposes. One of the common methods of representing white color is known as the "color temperature". A white color with a low color temperature appears to be reddish white. A white color with a high color temperature appears to have more blue in it.



#### 4. Advance Menu

F	UNCTION	DESCRIPTION	
		The projector can be installed on a ceiling or behind a screen, or with one or more mirrors. Contact your dealer for the ceiling mount bracket (optional accessory) if you need to install the projector on your ceiling.	
		Floor front: Select this setting with the projector set on the floor and audience viewing the projected images from the front side of the screen. This is the most common setting.	
N	lirror	Ceiling front: Select this setting with the projector suspended from the ceiling and audience viewing the projected images from the front side.	
		Floor rear: Select this setting when the projector is placed near the floor and behind the screen. A special rear projection screen is required.	
		Ceiling rear: Select this setting when the projector is suspended from the ceiling and placed behind the screen. A special rear projection screen is required.	
В	Blank Time	Sets the image blank time when the Blank feature is activated, once elapsed the image will return to the screen.	
	ource Scan	Sets whether the projector searches automatically for input signals. If the source scan is on, the projector will scan for input signals in the following order: RGB/YPbPr> Video> S-Video until it acquires a signal. If the function is not activated, the projector selects the last input signal.	
FixYo	Sponsored by DM	Language sets the language for the OSD control menus.	
SC	anguage - A TRUSTED SC	Use <b>Left/ Right</b> on the projector or <b>/</b> / on the remote control to select your desired language from among English, French, German, Ital- ian, Spanish, Russian, Traditional Chinese, Simplified Chinese, Japanese <b>1</b> and Korean.	
U	lser Logo	Enables the user to select which logo screen will appear during projector start-up. Three modes are available: Default (BENQ logo), black screen or blue screen.	

#### 5. Information Menu

This menu shows you the current operating status of the projector.

#### PC signal / Component Video input

FUNCTION	DESCRIPTION
Source	Shows the current signal source.
Resolution	Shows the native resolution of the input signal.
Preset Mode	Shows the selected mode in <b>Picture</b> menu.
Lamp Hour	Displays the number of hours the lamp has been used.

#### Video / S-Video signal input

FUNCTION	DESCRIPTION
Source	As above.
System	Shows the Video input system format, NTSC, SECAM or PAL.
Preset Mode	As above.
Lamp Hour	As above.



# **6** Maintenance

Your projector needs little maintenance. Things you have to do on a regular basis are keep the lens clean.

Never remove any parts of the projector except the lamp. Contact your dealer if other parts needs replacing.

### Cleaning the Lens

Clean the lens whenever you notice dirt or dust on the surface.

Use a canister of compressed air to remove dust.

If there is dirt or smears, use lens-cleaning paper or moisten a soft cloth with lens cleaner to gently wipe the lens surface.

#### Never rub the lens with abrasive materials.

### Cleaning the Projector Case

Before you clean the case, turn the projector off and unplug the power cord.

To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.

To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral detergent. Then wipe the case.

Never use wax, alcohol, benzene, thinner or other chemical detergents. These can damage the case.

### Storing the Projector

If you need to store the projector for an extended time, please follow the instructions below.

Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Please refer to the Spec. page in the manual or consult your dealer about the range.

Retract the adjuster feet.

Remove the batteries from the remote control.

Pack the projector in its original packing or equivalent.

### Transporting the projector

It is recommended that you ship the projector with its original packing or equivalent. When you carry the projector yourself, please use the provided soft carry case.

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# Lamp Information

### Warning Message

When the **Lamp indicator** lights up red or a message appears suggesting it is time to replace the lamp, please install a new lamp or consult your dealer. An old lamp may cause a malfunction in the projector and in some instances the lamp may break.

For more detailed information on lamp warnings, please refer to page 35.

The Lamp indicator light and Temperature warning light will light up if the lamp becomes too hot. Turn the power off and let the projector cool for 45 minutes. If the Lamp or Temp indicator still lights up after turning the power back on, please contact your dealer.

Message Status The lamp has been in operation for 1980 hours. Install a new lamp for optimal performance. If the 6 projector is normally run with Preset "Economic Lamp Warning Mode" selected (page 26), you may continue to 1990 Hours operate the projector until the 2980 hour lamp Change Lamp If Brightness Is Low warning appears. The lamp has been in operation for 2980 hours, the A power will shutdown in 20 hours time. A new lamp should be fitted to avoid the inconvenience when the Out Of Lamp Usage Time projector runs out of lamp time. 2980 Hours The Power Will Turn Off After 3000 Hours The lamp has been in operation for over 3000 hours. This message will flash in the center of the screen 1 together with the **Lamp indicator** lighting up red for 40 seconds. The projector will shutdown after 40 Out Of Lamp Usage Time 3000 Hours seconds. The lamp MUST be replaced before the Change The Lamp projector will operate normally.

The following Lamp warning displays will remind you to change the lamp.

### Replacing the Lamp

Fix Your Dore duce the risk of electrical shock, always turn the projector off and disconnect the power

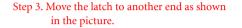
To reduce the risk of severe burns, allow the projector to cool for at least 45 minutes before replacing the lamp.

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.

- Step 1. Turn the power off and disconnect the projector from the wall socket.
- Step 2. Turn the projector over. Then loosen the screws and remove the lamp cover. If the lamp is hot, avoid burns by waiting for 45 minutes until the lamp has cooled.







- Step 4. Loosen the screw that holds the lamp to the projector. If the screw is not loosened completely, they could injure your fingers. It is strongly recommended that you use a magnetic-head screwdriver.
- Step 5. Lift the handle so that it stands up. Use the handle to slowly pull the lamp out of the projector.
- Pulling it too quickly may cause the lamp to break and scatter broken glass in the projector.
- Do not place the lamp in locations where water might splash on it, children can reach it, or near flammable materials.
- Do not insert your hands into the projector after the lamp is removed. If you touch the optical components inside, it could cause color unevenness and distortion of the projected images.

Step 6. Insert a new lamp. Make sure the handle is fully locked, move the latch back, and tighten the screw firmly.

Could result in malfunction.

#### Do not over tighten the screw.

Step 7. Re-install the lamp cover and tighten the

### screw. Do not turn the power on with

the lamp cover removed. Whenever the

lamp is replaced, reset the total lamp operation time. Do not reset if the lamp is not replaced as this could cause damage.



#### Step 8. Resetting the lamp counter

i. Press and hold the Exit 
button on the projector for 5 seconds to display the total used lamp time.
ii. Press Auto on the projector or on the remote control to

reset the lamp hour to "0".

iii. Wait about 5 seconds to let the OSD disappear.

### **Temp Information**

When the Temperature warning light is on, it is warning you of the following possible problems:

- 1. The internal temperature is too high.
- 2. The fans are not working.

Turn the projector off and contact qualified service personnel for further help.

For more detailed information, please refer to "Indicators" on page 35.

#### Indicators

Illustration

1. Blank -: Light OFF

- 4. **O** : Orange light
- 5.  $\mathbf{R}$ : Red light
- 6. G: Green light

			/	
	Light			Status & Description
	Power	Temp	Lamp	
	Power	events		
/	0	-	-	(1) The projector needs 110 seconds to cool down as it was abnormally shut down without the normal cooling down process. <b>Or</b>
				(2) The projector needs to cool for 110 seconds after the power is turned off.
FixYourD	L <mark>Pep</mark> m	-	-	Stand-by mode.
SI	or <mark>ban (h,</mark> bM)			
DISCO	U	-M6	2 CI	The <b>Power indicator light</b> is flashing during powering up.
THE TR	<b>UÇ</b> İD	SOUR	CE FO	R PROJECTOR LAMPS AND ACCESSORIES
	G	-	-	The projector is under normal operation.

Light			Status & Description
Power	Temp	Lamp	
Lamp e	vents		
-	-	R	<ul><li>(1) The projector needs 110 seconds to cool down. Or</li><li>(2) Please contact your dealer for assistance.</li></ul>
Therma	al event	S	
-	R	-	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
-	R	G	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
-	R	0	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
0	R	-	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
G	R	- /	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.



## Service Information

Accessories (included in the standard package)

Description	. Part Number
Power cord (US)	
Power cord (EU)	
Power cord (UK)	. 27.01018.000
VGA cable	. 50.J0508.503
Video cable	. 50.J1303.501
S-Video cable	. 50.72920.011
RCA R/W audio cable	. 50.J1311.001
PC - PC audio cable	. 50.L4302.501
Soft carry case	47.J9904.001
USB mouse cable	
Remote control	56.26J98.001
3-2 power converter	. 22.91008.001

Optional Accessories (not included in the standard package)

	Description of parts	Part number
	Mac adapter (switchable)	. 20.20118.A15
	200W lamp module	59.J9901.CG1
	Ceiling mount kit	. 60.J7683.001
	Wireless Pro (EU)	. 59.J8201.001
urD Spo	LEWIPPEss Pro (US)	. 59.J8201.002

# THE TRUComponent Video Cable R. PROJECTOR. LAMPS. AND AC50.12401.001 ES

### Ordering Parts or Getting Information

FixYou

For product information, product assistance, service information, or to order accessories, please visit the BENQ Corporation website at <u>http://www.BenQ.com</u>.

# Troubleshooting

### ⑦ THE PROJECTOR DOES NOT TURN ON.

Cause	Remedy
There is no power from the power cable.	Plug the power cord into the AC inlet on the projector, and plug the power cord into the power outlet. If the power outlet has a switch, make sure that it is switched on.
Attempting to turn the projector on again during the cooling process.	Wait until the cooling down process has completed.

### **?** NO PICTURE

Cause	Remedy
The video source is not turned on or connected correctly.	Turn the video source on and check that the signal cable is connected correctly.
The projector is not correctly connected to the input source device.	Check the connection.
The input signal has not been correctly selected.	Select the correct input signal with the <b>Source</b> key on the projector or remote control.
The lens cap is still attached to the lens.	Remove the lens cap.

### **? BLURRED IMAGE**

Cause	Remedy
The projection lens is not correctly focused.	Adjust the focus of the lens using the focus ring.
The projector and the screen are not aligned properly.	Adjust the projection angle and direction as well as the height of the unit if necessary.
The lens cap is still attached to the lens	Remove the lens cap.

### **? REMOTE CONTROL DOES NOT WORK**

	Cause	Remedy	
	The battery is out of power.	Replace the battery with a new one.	
There is an obstacle between the ixYour renote control and the projector.		Remove the obstacle.	
	You are too far away from the projector.	Stand within 6 meters (19.5 feet) of the projector.	

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# Specifications

## **Projector Specifications**

All specifications are subject to change without notice.

### General

Product name	Digita
Model name	PB62

 Digital Projector

 PB6210
 1024 x 768 XGA

 PB6110
 800 x 600 SVGA

### Optical

Display system Lens F/Number

1-CHIP DMD			
PB6210	F=2.4 to 2.6, f= 24.0 to 29.1 mm		
PB6110	F=2.4 to 2.6, f= 18.6 to 22.7 mm		
200W lamp			

### Lamp

### Electrical

Power supply Power consumption

### Mechanical

Dimensions Weight 262 mm (W) x 91.2 mm (H) x 215.5 mm (D) 6.38 lbs (2.9 Kg)

AC100 ~ 240V, 3.2A, 50/60 Hz (Automatic)

### Input terminal

Computer input RGB input Video signal input S-VIDEO VIDEO HDTV signal input Audio signal input

D-sub 15-pin (female)

265W (Max)

Mini DIN 4-pin port × 1 RCA jack x1 D-sub <--> YPbPr RCA jack x3, through RGB input

Mini jack stereo port

### Output

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

### FixYourDUProvironmental Requirements

Operating temperature 0°C ~ 40°C at sea level Opeating relative humidity 10% ~ 90% (without condensation) 281-8860 6000 feet at 30°C LAMPS AND ACCESSORIES 6000 ~ 10000 feet at 23°C

# Timing Chart

Supported Timing for PC Input

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Mode
720 <b>x</b> 400	37.927	85.039	35.500	720 x 400_85
	31.469	59.940	25.175	VGA_60
640 x 480	37.861	72.809	31.500	VGA_72
040 × 400	37.500	75.000	31.500	VGA_75
	43.269	85.008	36.000	VGA_85
800 x 600	37.879	60.317	40.000	SVGA_60
	48.077	72.188	50.000	SVGA_72
800 × 000	46.875	75.000	49.500	SVGA_75
	53.674	85.061	56.250	SVGA_85
	48.363	60.004	65.000	XGA_60
1024 x 768	56.476	70.069	75.000	XGA_70
	60.023	75.029	78.750	XGA_75
	68.667	84.997	94.500	XGA_85
1280 x 1024	63.981	60.020	108.000	SXGA3_60

### Supported Timing for Component-YPbPr Input

Signal Format	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
480i(525i)@60Hz	15.73	59.94
480p(525p)@60Hz	31.47	59.94
576i(625i)@50Hz	15.63	50.00
576p(625p)@50Hz	31.25	50.00
720p(750p)@60Hz	45.00	60.00
720p(750p)@50Hz	37.50	50.00
1080i(1125i)@60Hz	33.75	60.00
1080i(1125i)@50Hz	28.13	50.00

### Supported Timing for Video and S-Video Inputs

Video mode FixYourDLP.com	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Color sub- carrier Frequency (MHz)
DISC	15.73		
THE TRUSECAM SOU	RCE F05.63PROJE	TOR LEMPS AN	<b>D</b> 4.25 or 4.41
PAL-M	15.73	60	3.58
PAL-N	15.63	50	3.58
PAL-60	15.73	60	4.43
NTSC4.43	15.73	60	4.43









Unit: mm





### Limited Warranty

BENQ warrants this product against any defects in material and workmanship, under normal usage and storage.

Exclusion to Warranty: The lamps are considered as consumable items and are warranted for 90 days or 500 hours, whichever occurs first. Proof of purchase date will be required with any warranty claim. In the event this product is found to be defective within the warranty period, BENQ's only obligation and your exclusive remedy shall be replacement of any defective parts (labor included). To obtain warranty service, immediately notify the dealer from which you purchased the product of any defects. Important: The above warranty shall be void if the customer fails to operate the product in accordance with BENQ's written instructions, especially the ambient humidity must be in-between 10% and 90%, temperature in-between 0°C and 35, altitude lower than 10000 feet, and avoiding to operate the projector in a dusty environment. This warranty gives you specific legal rights, and you may have other rights which vary from country to country.

For other information, please refer to BenQ Warranty Information Book.



# Regulation Statements

## FCC Statement

**CLASS B:** This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### EEC Statement

This machine was tested against the 89/336/EEC (European Economic Community) for EMC (Electronic Magnetic Compatibility) and fulfills these requirements.

### MIC Statement

#### B class equipment (Household purpose info/telecommunications equipment)

As this equipment has undergone EMC registration for household purpose, this product can be used in any area including residential area.





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