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The following projector manual has not been modified or altered in any way.

ViewSonic®

PJ513D/PJ513DB
DLP Projector

- User Guide
- Guide de l'utilisateur
- Bedienungsanleitung
- Guía del usuario
- Guida dell'utente
- Guia do usuário
- Användarhandbok
- Käyttöopas
- Руководство пользователя
- 使用手冊 (繁體)
- 使用手册 (简体)
- 사용자 안내서

IMPORTANT: Please read this User Guide to obtain important information on installing and using your product in a safe manner, as well as registering your product for future service. Warranty information contained in this User Guide will describe your limited coverage from ViewSonic Corporation, which is also found on our web site at http://www.viewsonic.com in English, or in specific languages using the Regional selection box in the upper right corner of our website.

"Antes de operar su equipo lea cuidadosamente las instrucciones en este manual"

ViewSonic®

Model No. : VS11959

Compliance Information

FCC Statement

This device complies with part 15 of 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.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 separation 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.

Warning: You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

For Canada

- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CE Conformity for European Countries

The device complies with the requirements of the EEC directive 89/336/EEC as amended by 92/31/EEC and 93/68/EEC Art.5 with regard to “Electromagnetic compatibility”, and 73/23/EEC as amended by 93/68/EEC Art.13 with regard to “Safety.”

Following information is only for EU-member states:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE).
The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this unit near water.
6. Clean with a soft, dry cloth. If still not clean, see “Cleaning the Display” in this guide for further instructions.
7. Do not block any ventilation openings. Install the unit in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs. Convenience receptacles and the point where they exit from the unit. Be sure that the power outlet is located near the unit so that it is easily accessible.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the unit. When a cart is used, use caution when moving the cart/unit combination to avoid injury from tipping over.
13. Unplug this unit when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as: if the power-supply cord or plug is damaged, if liquid is spilled onto or objects fall into the unit, if the unit is exposed to rain or moisture, or if the unit does not operate normally or has been dropped.

Declaration of RoHS Compliance

This product has been designed and manufactured in compliance with Directive 2002/95/EC of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	< 0.1%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium (Cr^{6+})	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%

Certain components of products as stated above are exempted under the Annex of the RoHS Directives as noted below:

Examples of exempted components are:

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp and in other lamps not specifically mentioned in the Annex of RoHS Directive.
2. Lead in glass of cathode ray tubes, electronic components, fluorescent tubes, and electronic ceramic parts (e.g. piezoelectronic devices).
3. Lead in high temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
4. Lead as an allotting element in steel containing up to 0.35% lead by weight, aluminium containing up to 0.4% lead by weight and as a cooper alloy containing up to 4% lead by weight.

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Product Registration

To meet your future needs, and to receive any additional product information as it becomes available, please register your product on the Internet at: www.viewsonic.com. The ViewSonic® Wizard CD-ROM also provides an opportunity for you to print the registration form, which you may mail or fax to ViewSonic.

For Your Records

Product Name:	**PJ513D/DB**
	ViewSonic DLP Projector
Model Number:	**VS11959**
Document Number:	**PJ513D/DB_UG_ENG Rev. 1A 10-12-07**
Serial Number:	_____
Purchase Date:	_____

The lamp in this product contains mercury.
Please dispose of in accordance with local, state or federal laws.

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Introduction

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.

- Quick auto search speeding up the signal detecting process.
- Up to 11 sets of preset modes providing multiple choices for different projection purposes
- 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
- High brightness projection lamp
- Ability to display 16.7 million colors
- Multi-language On-Screen Display (OSD) menus
- Switchable normal and Economic modes to reduce the power consumption
- Built-in speaker provides mixed mono audio when an audio input is connected
- Powerful AV function to provide high quality video image
- Component HDTV compatibility (YPbPr)

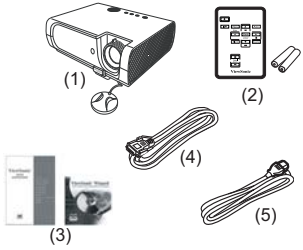
- **The apparent brightness of the projected image will vary depending on the ambient lighting conditions, selected input source contrast/brightness settings, and is directly proportional to projection distance.**
- **The lamp brightness will decline over time and may vary within the lamp manufacturers specifications. This is normal and expected behavior.**

Shipping contents

The projector is shipped with the cables required for connection to a PC or 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.

Standard accessories

1. Projector
2. Card type remote control and battery
3. Quick start guide and ViewSonic Wizard CD
4. VGA cable
5. Power cord

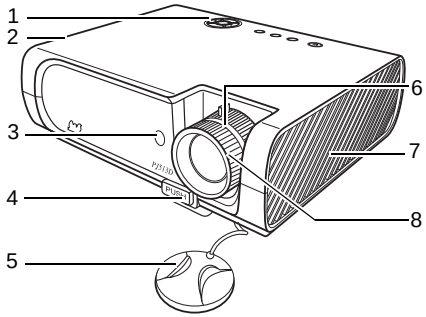


Optional accessories

1. Spare lamp kit
2. Soft carry case

Projector exterior view

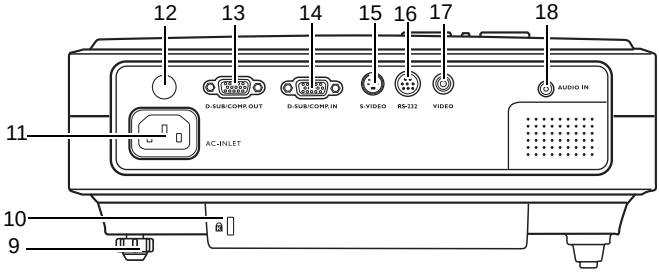
Front/upper side



1. External control panel (See "Projector" on page 3 for details.)
2. Vent (heated air exhaust)
3. Front IR remote sensor
4. Quick-release button
5. Lens cap
6. Focus ring and Zoom ring
7. Vent (cool air intake)
8. Projection lens

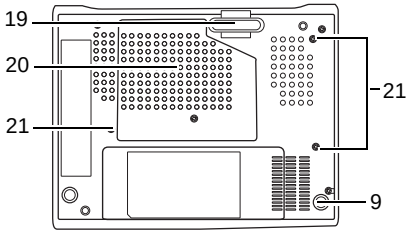
Rear side

See "Connection" on page 11 for details.



9. Rear adjuster foot
10. Kensington anti-theft lock slot
11. AC power cord inlet
12. Rear IR remote sensor
13. RGB signal output socket
14. RGB (PC)/Component video (YPbPr/YCbCr) signal input socket
15. S-Video input socket
16. RS232 control port
17. Video input socket
18. Audio socket

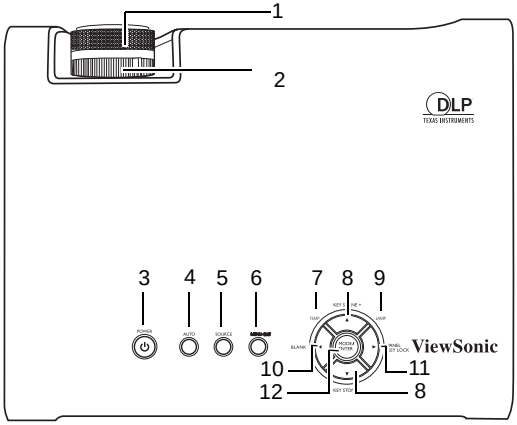
Under side



19. Quick-release foot
20. Lamp cover
21. Ceiling mounting screw holes

Controls and functions

Projector



1. **Focus ring**
   Adjusts the focus of the projected image. See "Fine-tuning the image size and clarity" on page 19 for details.
2. **Zoom ring**
   Adjusts the size of the image. See "Fine-tuning the image size and clarity" on page 19 for details.
3. **Power/Power indicator light**
   Toggles the projector on or off.
   See "Start up" on page 17 and "Shutting down the projector" on page 28 for details.
4. **AUTO**
   Automatically determines the best picture timings for the displayed image. See "Auto-adjusting the image" on page 19 for details.
5. **SOURCE**
   Displays the source selection bar. See "Switching input signal" on page 18 for details.
6. **MENU/EXIT**
   Turns on the On-Screen Display (OSD) menu.
   Goes back to previous OSD menu, exits and saves menu settings.
   See "Using the menus" on page 31 for details.
7. **Temperature warning light**
   Lights up red if the projector's temperature becomes too high. See "Indicators" on page 42 for details.
8. **Keystone/Arrow buttons (▽ /▲Up, △ /▼ Down)**
   Manually corrects distorted images resulting from an angled projection. See "Correcting keystone" on page 20 for details.
9. **Lamp indicator light**
   Indicates the status of the lamp. Lights up or flashes when the lamp has developed a problem. See "Indicators" on page 42 for details.

10. **◀ Left/BLANK**

Used to hide the screen image. To restore the image, press any button on the projector or remote control. See "Hiding the image" on page 25 for details.

11. **▶ Right/PANEL KEY LOCK**

Activates panel key lock. See "Locking control keys" on page 25 for details.

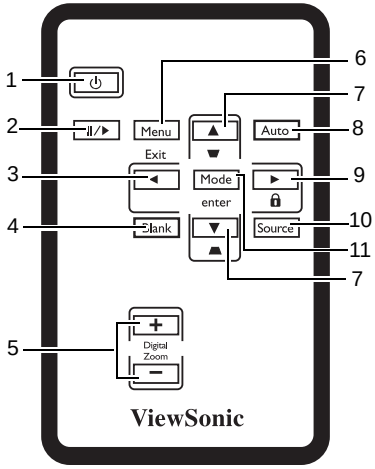
When the On-Screen Display (OSD) menu is activated, the #8, #10 and #11 buttons are used as directional arrows to select the desired menu items and to make adjustments. See "Using the menus" on page 31 for details.

12. **MODE/ENTER**

Depending upon which input signal is selected, selects an available picture setup mode. See "Selecting a preset mode" on page 22 for details.

Enacts the selected On-Screen Display (OSD) menu item. See "Using the menus" on page 31 for details.

Remote control



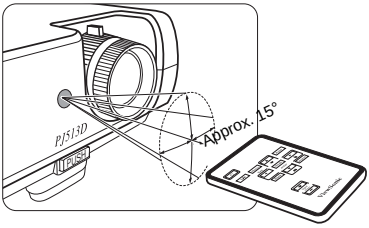
1. **Power**
   Toggles the projector on or off.
2. **Freeze**
   Freezes the projected image.
3. **◀ Left**
4. **BLANK**
   Used to hide the screen image. To restore the image, press any button on the projector or remote control.
5. **DIGITAL ZOOM buttons (+, -)**
   Magnifies or reduces the projected image size.
6. **Menu/Exit**
   Turns on the On-Screen Display (OSD) menu.
   Goes back to previous OSD menu, exits and saves menu settings.
7. **Keystone/Arrow buttons (/ ▲Up, / ▼ Down)**
   Manually corrects distorted images resulting from an angled projection.
8. **AUTO**
   Automatically determines the best picture timings for the displayed image.
9. **▶ Right/**
   Activates panel key lock. See "Locking control keys" on page 25 for details.
   When the On-Screen Display (OSD) menu is activated, the #3, #7 and #9 buttons are used as directional arrows to select the desired menu items and to make adjustments.
10. **SOURCE**
    Displays the source selection bar.
11. **Mode/enter**
    Depending upon which input signal is selected, selects an available picture setup mode.
    Enacts the selected On-Screen Display (OSD) menu item. See "Using the menus" on page 31 for details.

Remote control effective range

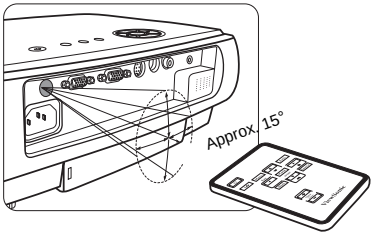
Infra-Red (IR) remote control sensors are located on the front and the back of the projector. The remote control must be held at an angle within 30 degrees perpendicular to the projector's IR remote control sensors to function correctly. The distance between the remote control and the sensors should not exceed 8 meters (~ 26 feet).

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.

- Operating the projector from the front

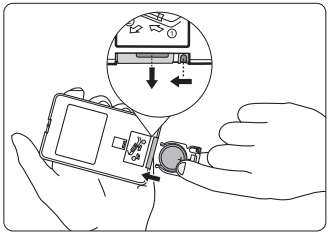


- Operating the projector from the rear



Replacing the remote control battery

1. Pull out the battery holder.



Please follow the illustrated instructions. Push and hold the locking arm whilst pulling out the battery holder.

2. Insert the new battery in the holder. Note the positive polarity should face outward.
3. Push the holder into the remote control.

- **Avoid excessive heat and humidity.**
- **There may be battery damage if the battery is incorrectly replaced.**
- **Replace only with the same or equivalent type recommended by the battery manufacturer.**
- **Dispose of the used battery according to the battery manufacturer's instructions.**
- **Never throw a battery into a fire. There may be danger of an explosion.**
- **If the battery is dead or if you will not be using the remote control for a long time, remove the battery to prevent damage to the remote control from possible battery leakage.**

Positioning your projector

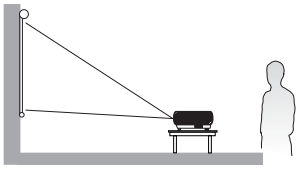
Choosing a location

Your projector is designed to be installed in one of four possible installation locations:

1. Table in front of screen;
2. Ceiling in front of screen;
3. Table at rear of screen;
4. Ceiling at rear of screen.

1. Front Table

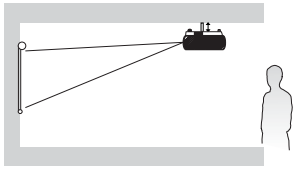
Select this location with the projector placed near the floor in front of the screen. This is the most common way to position the projector for quick setup and portability.



2. Front Ceiling

Select this location with the projector suspended upside-down from the ceiling in front of the screen.

Purchase a recommended Projector Ceiling Mounting Kit from your dealer to mount your projector on the ceiling.

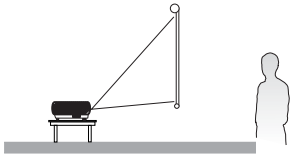


Set **Front Ceiling** in the **System Setup: Basic** > **Projector Position** menu after you turn the projector on.

3. Rear Table

Select this location with the projector placed near the floor behind the screen.

Note that a special rear projection screen is required.

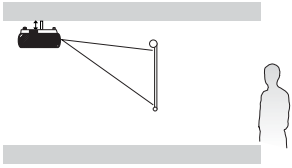


Set **Rear Table** in the **System Setup: Basic** > **Projector Position** menu after you turn the projector on.

4. Rear Ceiling

Select this location with the projector suspended upside-down from the ceiling behind the screen.

Note that a special rear projection screen and a qualified ceiling mount kit are required for this installation location.



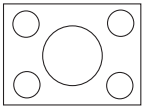
Set **Rear Ceiling** in the **System Setup: Basic** > **Projector Position** menu after you turn the projector on.

Your room layout or personal preference will dictate which installation location you select. Take into consideration the size and position of your screen, the location of a suitable power outlet, as well as the location and distance between the projector and the rest of your equipment.

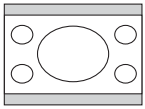
Obtaining a preferred projected image size

The distance from the projector lens to the screen, the zoom setting, and the video format each factors in the projected image size.

4:3 is the native aspect ratio of this projector. To be able to project a complete 16:9 (widescreen) aspect ratio image, the projector can resize and scale a widescreen image to the projector's native aspect width. This will result in a proportionally smaller height equivalent to 75% of the projector's native aspect height.



4:3 aspect image in a 4:3 aspect display area



16:9 aspect image scaled to a 4:3 aspect display area

Thus, a 16:9 aspect image will not utilize 25% of the height of a 4:3 aspect image displayed by this projector. This will be seen as darkened (unlit) bars along the top and bottom (vertical 12.5% height respectively) of the 4:3 projection display area whenever displaying a scaled 16:9 aspect image in the vertical center of the 4:3 projection display area.

When determining the position of your projector, you should consider its intended use and input signal aspect ratios. All inputs (other than composite Video being fed a 16:9 aspect signal) will display in a 4:3 aspect ratio (and will require an additional 33% display height than that of the scaled 16:9 aspect image projection area).

IMPORTANT: Do not select a permanent projector position based upon a 16:9 projection if you will ever need to select an input (other than composite Video being fed a 16:9 aspect signal).

The projector should always be placed horizontally level (like flat on a table), and positioned directly perpendicular (90° right-angle square) to the horizontal center of the screen. This prevents image distortion caused by angled projections (or projecting onto angled surfaces).

The modern digital projector does not project directly forward (like older style reel-to-reel film projectors did). Instead, digital projectors are designed to project at a slightly upward angle above the horizontal plane of the projector. This is so that they can be readily placed on a table and will project forward and upwards onto a screen positioned so that the bottom edge of the screen is above the level of the table (and everyone in the room can see the screen).

If the projector is mounted on a ceiling, it must be mounted upside-down so that it projects at a slightly downward angle.

You can see from the diagram on page 10, that this type of projection causes the bottom edge of the projected image to be vertically offset from the horizontal plane of the projector. When ceiling mounted, this refers to the top edge of the projected image.

If the projector is positioned further away from the screen, the projected image size increases, and the vertical offset also increases proportionately.

When determining the position of the screen and projector, you will need to account for both the projected image size and the vertical offset dimension, which are directly proportional to the projection distance.

We have provided a table of 4:3-aspect-ratio screen sizes to assist you in determining the ideal location for your projector. There are two dimensions to consider, the perpendicular horizontal distance from the center of the screen (projection distance),

and the vertical offset height of the projector from the horizontal edge of the screen (offset).

How to determine the position of the projector for a given screen size

1. Select your screen size.
2. Refer to the table and find the closest match to your screen size in the left columns labelled "4:3 Screen Diagonal". Using this value, look across this row to the right to find the corresponding average distance from screen value in the column labelled "Average". This is the projection distance.
3. On that same row, look across to the right column and make note of the vertical Offset value. This will determine the final vertical offset placement of the projector in relation to the edge of the screen.
4. The recommended position for the projector is aligned perpendicular to the horizontal center of the screen, at the distance from the screen determined in step 2 above, and offset by the value determined in step 3 above.

For example, if you are using a 120 inch screen, the average projection distance is 4667 mm and with a vertical offset of 183 mm.

If you place the projector in a different position (to that recommended), you will have to tilt it down or up to center the image on the screen. In these situations, some image distortion will occur. Use the Keystone function to correct the distortion.

How to determine the recommended screen size for a given distance

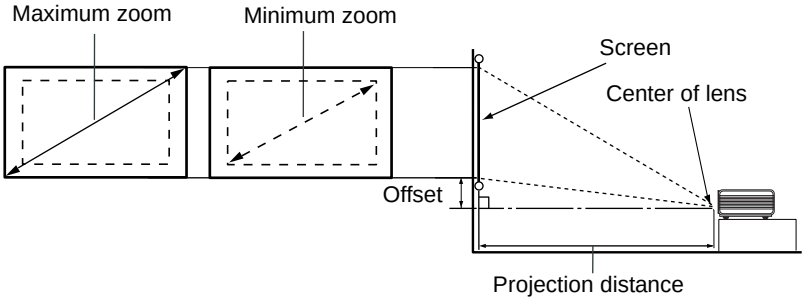
This method can be used for situations where you have purchased this projector and would like to know what screen size will fit in your room.

The maximum screen size is limited by the physical space available in your room.

1. Measure the distance between the projector and where you want to position the screen. This is the projection distance.
2. Refer to the table and find the closest match to your measurement in the average distance from screen column labelled "Average". Check that your measured distance is between the min and max distances listed on either side of the average distance value.
3. Using this value, look across that row to the left to find the corresponding screen diagonal listed in that row. That is the projected image size of the projector at that projection distance.
4. On that same row, look across to the right column and make note of the vertical Offset value. This will determine the final placement of the screen in relation to the horizontal plane of the projector.

For example, if your measured projection distance was 4.5 m (4500 mm), the closest match in the Average column is 4593 mm. Looking across this row shows that a 3000 mm (3 m) screen is required. If you can only obtain imperial sized screens, the listed screen sizes on either side of the 3 m screen are the 9' and 10' screens.

Checking the min and max projection distance values for these screen sizes, indicates that the 4.5 m measured projection distance will need to be reduced to fit the 9' size screen, or increased to fit the 10' size screen. The projector can be adjusted (using the zoom control) to display on these different screen sizes at those projection distances. Be aware that these different screens have different vertical offset values.



4:3 Screen Diagonal			Distance from Screen in mm			Vertical Offset in mm
Feet	Inches	mm	Min length (with max. zoom)	Average	Max length (with min. zoom)	
4	48	1219	1778	1867	1956	73
		1500	2187	2297	2406	90
5	60	1524	2222	2333	2444	91
6	72	1829	2667	2800	2933	110
		2000	2916	3062	3208	120
7	84	2134	3111	3267	3422	128
8	96	2438	3556	3733	3911	146
		2500	3645	3828	4010	150
9	108	2743	4000	4200	4400	165
		3000	4347	4593	4812	180
10	120	3048	4444	4667	4889	183
		3500	5104	5359	5614	210
12	144	3658	5334	5601	5867	219
		4000	5833	6124	6416	240
15	180	4572	6667	7000	7333	274
		5000	7291	7655	8020	300
18	216	5486	7999	8399	8799	329
		6000	8749	9186	9624	360
25	300	7620	11111	11667	12222	457

There is 3% tolerance among these numbers due to optical component variations. It is recommended that if you intend to permanently install the projector, you should physically test the projection size and distance using the actual projector in situ before you permanently install it, so as to make allowance for this projector's optical characteristics. This will help you determine the exact mounting position so that it best suits your installation location.

Connection

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.

In the connections shown below, some cables may not be included with the projector (see "Shipping contents" on page 1). They are commercially available from electronics stores.

Connecting a computer or monitor

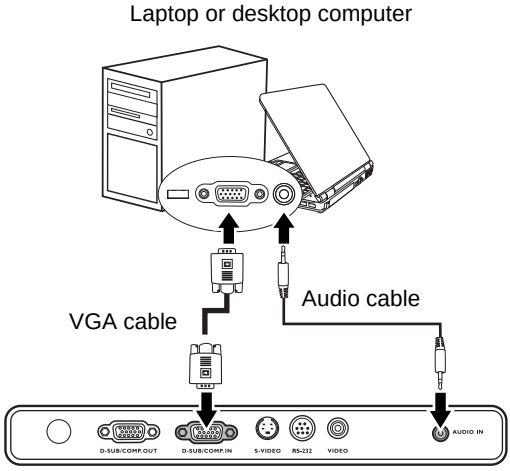
Connecting a computer

The projector provides a VGA input socket that allows you to connect it to a laptop or desktop computer.

To connect the projector to a laptop or desktop computer:

1. Take the supplied VGA cable and connect one end to the D-Sub output socket of the computer.
2. Connect the other end of the VGA cable to the D-SUB/COMP IN signal input socket on the projector.
3. If you wish to make use of the projector (mixed mono) speaker, take a suitable audio cable and connect one end of the cable to the audio output socket of the computer, and the other end to the Audio socket of the projector.

The final connection path should be like that shown in the following diagram:



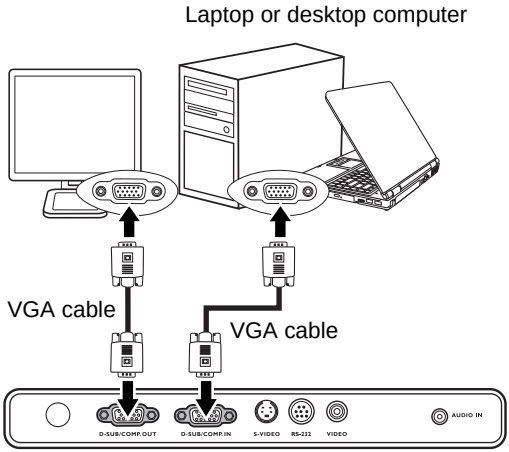
Many notebooks do not turn on their external video ports when connected to a projector. Usually a key combo like FN + F3 or CRT/LCD key turns the external display on/off. Locate a function key labeled CRT/LCD or a function key with a monitor symbol on the notebook. Press FN and the labeled function key simultaneously. Refer to your notebook's documentation to find your notebook's key combination.

Connecting a monitor

If you want to view your presentation close-up on a monitor as well as on the screen, you can connect the RGB signal output socket on the projector to an external monitor with a VGA cable following the instructions below:

1. Connect the projector to a computer as described in "Connecting a computer" on page 11.
2. Take a suitable VGA cable (only one supplied) and connect one end of the cable to the D-Sub input socket of the video monitor.
3. Connect the other end of the cable to the D-SUB OUT socket on the projector.

The final connection path should be like that shown in the following diagram:



The D-Sub output only works when an appropriate D-Sub input is made to the projector.

Connecting Video source devices

You can connect your projector to various Video source devices that provide any one of the following output sockets:

- Component Video
- S-Video
- Video (composite)

You need only connect the projector to a Video source device using just one of the above connecting methods, however each provides a different level of video quality. The method you choose will most likely depend upon the availability of matching terminals on both the projector and the Video source device as described below:

Best video quality

The best available video connection method is Component Video (not to be confused with composite Video). Digital TV tuner and DVD players output Component Video natively, so if available on your devices, this should be your connection method of choice in preference to (composite) Video.

Better video quality

The S-Video method provides a better quality analog video than standard composite Video. If you have both composite Video and S-Video output terminals on your Video source device, you should elect to use the S-Video option.

Least video quality

Composite Video is an analog video and will result in a perfectly acceptable, but less than optimal result from your projector, being the least video quality of the available methods described here.

Connecting Audio

The projector has a built-in mono speaker which is designed to provide basic audio functionality accompanying data presentations for business purposes only. It is not designed for, nor intended for stereo audio reproduction use as might be expected in home theatre or home cinema applications. Any stereo audio input (if provided), is mixed into a common mono audio output through the projector speaker.

If you have a separate sound system, you will most likely want to connect the audio output of your Video source device to that sound system, instead of to the mono audio projector. The audio connections illustrated in the following sections are provided for informational purposes only. You need not connect audio to the projector if there is an alternate sound system available, or if audio is not required.

Connecting a Component Video source device

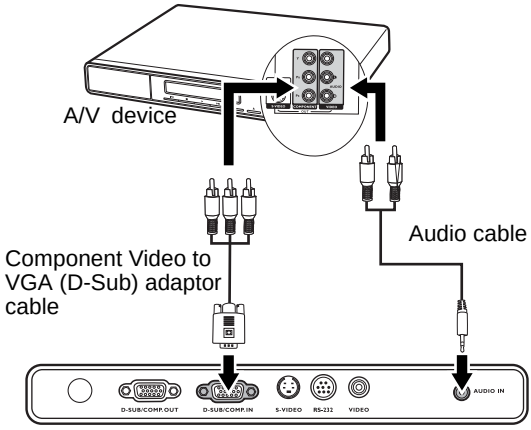
Examine your Video source device to determine if it has a set of unused Component Video output sockets available:

- If so, you can continue with this procedure.
- If not, you will need to reassess which method you can use to connect to the device.

To connect the projector to a Component Video source device:

1. Take a Component Video to VGA (D-Sub) adaptor cable and connect the end with 3 RCA type connectors to the Component Video output sockets of the Video source device. Match the color of the plugs to the color of the sockets; green to green, blue to blue; and red to red.
2. Connect the other end of the Component Video to VGA (D-Sub) adaptor cable (with a D-Sub type connector) to the D-SUB/COMP IN socket on the projector.
3. If you wish to make use of the projector (mixed mono) speaker, take a suitable audio cable and connect one end of the cable to the audio output socket of the computer, and the other end to the Audio socket of the projector.

The final connection path should be like that shown in the following diagram:



If you connect the projector to a High Definition TV (HDTV) tuner, the following standards are supported:

- 480i
- 576i
- 720p (50/ 60 Hz)
- 480p
- 576p
- 1080i (50/ 60 Hz)

- **The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected. See "Connecting Audio" on page 13 for details.**
- **Component Video is the only video output that delivers native 16:9 aspect ratio picture.**
- **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 device is turned on and operating correctly. Also check that the signal cables have been connected correctly.**

Connecting an S-Video source device

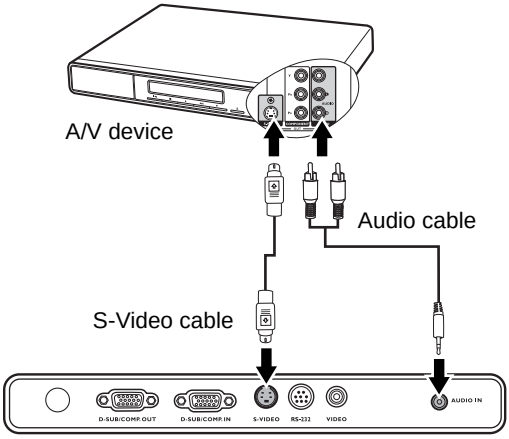
Examine your Video source device to determine if it has an unused S-Video output socket available:

- If so, you can continue with this procedure.
- If not, you will need to reassess which method you can use to connect to the device.

To connect the projector to an S-Video source device:

1. Take an S-Video cable and connect one end to the S-Video output socket of the Video source device.
2. Connect the other end of the S-Video cable to the S-VIDEO socket on the projector.

The final connection path should be like that shown in the following diagram:



- **The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected.**
- **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 device is turned on and operating correctly. Also check that the signal cables have been connected correctly.**
- **If you have already made a Component Video connection between the projector and this S-Video source device using Component Video connections, you need not connect to this device using an S-Video connection as this makes an unnecessary second connection of poorer picture quality.**

Connecting a composite Video source device

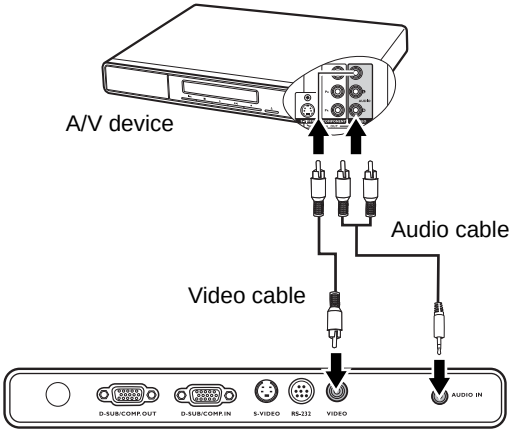
Examine your Video source device to determine if it has a set of unused composite Video output sockets available:

- If so, you can continue with this procedure.
- If not, you will need to reassess which method you can use to connect to the device.

To connect the projector to an composite Video source device:

1. Take a Video cable and connect one end to the composite Video output socket of the Video source device.
2. Connect the other end of the Video cable to the VIDEO socket on the projector.

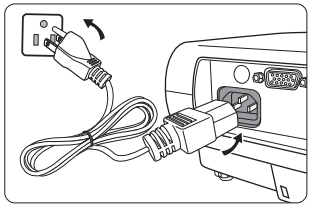
The final connection path should be like that shown in the following diagram:



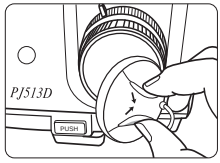
- **The projector is only capable of playing mixed mono audio, even if a stereo audio input is connected.**
- **If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the Video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.**
- **You need only connect to this device using a composite Video connection if Component Video and S-Video inputs are unavailable for use.**

Start up

1. Plug the power cord into the projector and into a wall socket. Turn on the wall socket switch (where fitted). Check that the **Power indicator** on the projector lights orange after power has been applied.



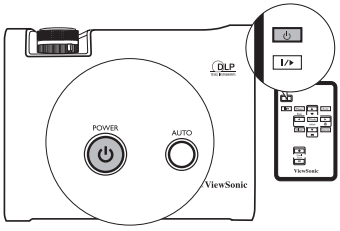
2. Remove the lens cover. If it is left on, it could become deformed due to the heat produced by the projection lamp.



3. Press **Power** on the projector or remote control to start the projector. The **Power indicator light** flashes green and stays green when the projector is on.

   The start up procedure takes about 30 seconds. In the later stage of start up, a startup logo is projected.

   (If necessary) Rotate the focus ring to adjust the image clearness.



If the projector is still hot from previous activity, it will run the cooling fan for approximately 90 seconds before energizing the lamp.

4. If you are prompted for a password, press the arrow buttons to enter a six digit password.
5. Switch all of the connected equipment on.
6. The projector will start to search for input signals. The current input source being scanned displays in the upper left corner of the screen. If the projector doesn't detect a valid signal, the 'No Signal' message will continue displaying until an input source signal is found.

   You can also press **SOURCE** on the projector or remote control to select your desired input signal.

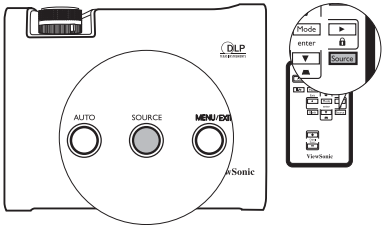
If the frequency/resolution of the input signal exceeds the projector's operating range, you will see the message 'Out of Range' displayed on a blank screen. Please change to an input signal which is compatible with the projector's resolution or set the input signal to a lower setting. See "Timing chart" on page 47 for details.

Switching input signal

The projector can be connected to multiple devices at the same time. However, it can only display one full screen at a time.

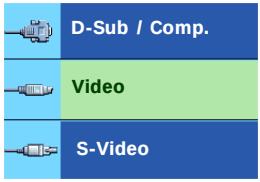
Be sure the **Quick Auto Search** function in the **SOURCE** menu is **On** (which is the default of this projector) if you want the projector to automatically search for the signals.

You can also manually cycle through the available input sources.



1. Press **SOURCE** on the projector or remote control. A source selection bar displays.
2. Press ▲/▼ until your desired signal is selected and press **MODE/ENTER** on the projector or **Mode/enter** on the remote control.

   Once detected, the selected source information will display at the corner of the screen for seconds. If there is multiple equipment connected to the projector, repeat steps 1-2 to search for another signal.



- **The brightness level of the projected image will change accordingly when you switch between different input signals. Data (graphic) "PC" presentations using mostly static images are generally brighter than "Video" using mostly moving images (movies).**

  The input signal type effects the options available for the Preset Mode. See "Selecting a preset mode" on page 22 for details.

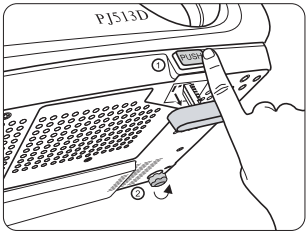
- **The native display resolution of this projector is in a 4:3 aspect ratio. For best display picture results, you should select and use an input source which outputs at this resolution. Any other resolutions will be scaled by the projector depending upon the 'aspect ratio' setting, which may cause some image distortion or loss of picture clarity. See "Selecting the aspect ratio" on page 21 for details.**

Adjusting the projected image

Adjusting the projection angle

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

1. Press the quick-release button and lift the front of the projector. Once the image is positioned where you want it, release the quick-release button to lock the foot in position.



Do not look into the lens while the lamp is on. The strong light from the lamp may cause damage to your eyes.

Be careful when you press the adjuster button as it is close to the exhaust vent where hot air comes from.

2. Screw the rear adjuster foot to fine tune the horizontal angle.

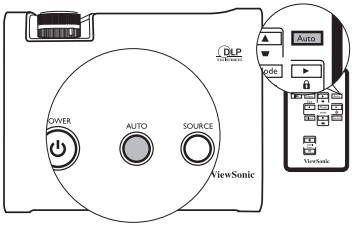
To retract the foot, hold up the projector while pressing the quick-release button, then slowly lower the projector. Screw the rear adjuster foot in a reverse direction.

If the projector is not placed on a flat surface or the screen and the projector are not perpendicular to each other, the projected image becomes trapezoidal. To correct this situation.**See "Correcting keystone" on page 20 for details.**

Auto-adjusting the image

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

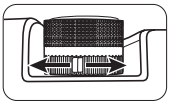
The current source information will be displayed in the upper left corner of the screen for 3 seconds.



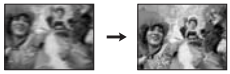
The screen will be blank while AUTO is functioning.

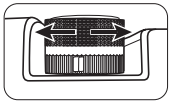
Fine-tuning the image size and clarity

1. Adjust the projected image to the size that you need using the zoom ring.



2. Then sharpen the image by rotating the focus ring.



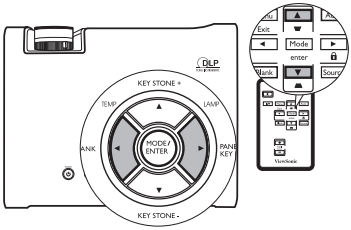


Correcting keystone

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 ▽ or △ on the control panel of the projector or remote control to display the status bar labelled Keystone. Press ▽ to correct keystoning at the top of the image. Press △ to correct keystoning at the bottom of the image.
2. Press **MENU/EXIT** on the projector or remote control. Go to **DISPLAY > Keystone** and adjust the values by pressing ▽ or △ on the projector or remote control.



For example,

Keystone 0

- **Press ▽ on the projector or remote control.**
- **Press ▽ on the projector or remote control when you are in the Picture > Keystone menu.**

Keystone -6

Keystone 0

- **Press △ on the projector or remote control.**
- **Press △ on the projector or remote control when you are in the Picture > Keystone menu.**

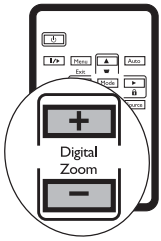
Keystone +6

Magnifying and searching for details on the projected picture

If you need to find the details on the projected picture, magnify the picture. Use the direction arrow keys for navigating the picture.

- Using the remote control

1. Press **D. ZOOM** +/- to display the Zoom bar. Press **D. ZOOM** + to magnify the center of the picture. Press the key repeatedly until the picture size is suitable for your need.
2. Use the directional arrows (▲, ▼, ◄, ►) on the projector or remote control to navigate the picture.



The picture can only be navigated after the picture is magnified. You can further magnify the picture while searching for details.

3. To restore the picture to its original size, press **AUTO**. You can also press **D. ZOOM -**. When the key is pressed again, the picture is further reduced until it is restored to the original size.

- Using the OSD menu

1. Press **MENU/EXIT** and then press ◀ or ▶ until the **DISPLAY** menu is highlighted.
2. Press ▼ to highlight **Digital Zoom**.
3. Press **MODE/ENTER** and press ▲ to magnify the picture to a desired size.
4. Press **MODE/ENTER** to activate the Pan functionality.
5. Use the directional arrows (▲, ▼ , ◀ , ▶) on the projector or remote control to navigate the picture.
6. To reduce size of the picture, press **MODE/ENTER** to switch back to the zoom in/out functionality, and press **AUTO** to restore the picture to its original size. You can also press ▼ repeatedly until it is restored to the original size.

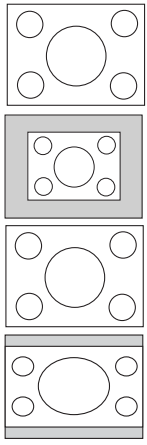
Selecting the aspect ratio

The 'aspect ratio' is the ratio of the image width to the image height. Most analog TV and computers are in 4:3 ratio, which is the default for this projector, and digital TV and DVDs are usually in 16:9 ratio.

With the advent of digital signal processing, digital display devices like this projector can dynamically stretch and scale the image output to a different aspect than that of the image input source.

You can change the projected image ratio (no matter what aspect the source is) by entering **DISPLAY** > **Aspect Ratio**. Select an aspect ratio to suit the format of the video signal and your display requirements. There are four aspect ratios available:

In the pictures below, the black portions are inactive areas and the white portions are active areas.

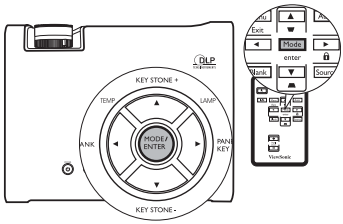


1. **Auto**: Scales an image to fit the projector's native resolution(4:3). This is suitable when you want to make most use of the screen
2. **Native**: The image is projected as its original resolution, and resized to fit within the display area proportionally. For input signals with lower resolutions, the projected image will display smaller than if resized to full screen. You could adjust the zoom setting or move the projector towards the screen to fit for the image size if necessary. You may also need to refocus the projector after making these adjustments.
3. **4:3**: Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio. This is most suitable for 4:3 images like computer monitors, standard definition TV and 4:3 aspect DVD movies, as it displays them without aspect alteration.
4. **16:9**: Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ratio. This is most suitable for images which are already in a 16:9 aspect, like high definition TV, as it displays them without aspect alteration.

16:9 aspect ratio is only sourced through the Component Video input when being fed an appropriate 16:9 aspect signal. See "Connecting a Component Video source device" on page 14 and "Obtaining a preferred projected image size" on page 8 for details.

Optimizing the image

Selecting a preset mode



The projector is preset with several predefined picture modes so that you can choose one to suit your operating environment and input source picture type.

To select a operation mode that suits your need, you can follow one of the following steps.

- Press **MODE/ENTER** on the remote control or projector repeatedly until your desired mode is selected.
- Go to the **PICTURE** > **Preset Mode** menu and press ◀ / ▶ to select a desired mode.

The preset modes available for different types of signals are listed below.

PC Signal Input

1. **Brightest Mode (Default)**: Maximizes the brightness of the projected image. This mode is suitable for environments where extra-high brightness is required, such as using the projector in well lit rooms.
2. **Presentation Mode**: Is designed for presentations. The brightness is emphasized in this mode to match PC and notebook coloring.
3. **Photo Mode**: Maximizes the purity of RGB colors to provide true-to-life images regardless of brightness setting. It is most suitable for viewing photos taken with an sRGB compatible and properly calibrated camera, and for viewing PC graphic and drawing applications such as AutoCAD.
4. **Cinema Mode**: Is appropriate for playing colorful movies, video clips from digital cameras or DVs through the PC input for best viewing in a blackened (little light) environment.
5. **User 1/User 2 Mode**: Recalls the settings customized based on the current available preset modes. See "Setting the User 1/User 2 mode" on page 23 for details.

YPbPr/S-Video/Video Signal Input

1. **Brightest Mode**: Is suitable for playing gamebox-based video games in a normal living room lighting level environment.
2. **Standard Mode (Default):** Is appropriate for viewing colorful movies, video clips from digital cameras or DVs.
3. **Cinema Mode**: Is suitable for enjoying dark movies or DVD movies best viewed in a blackened (little light) home cinema or lounge room environment.
4. **User 1/User 2 Mode**: Recalls the settings customized based on the current available preset modes. See "Setting the User 1/User 2 mode" on page 23 for details.

Setting the User 1/User 2 mode

There are two user-definable modes if the current available preset modes are not suitable for your need. You can use one of the preset modes (except the User 1/2) as a starting point and customize the settings.

1. Press **MENU/EXIT** to open the On-Screen Display (OSD) menu.
2. Go to the **PICTURE** > **Preset Mode** menu.
3. Press ◀ / ▶ to select **User 1** or **User 2 Mode**.
4. Press ▼ to highlight **Reference Mode**.

This function is only available when User 1, or User 2 mode is selected up in the Preset Mode sub-menu item.

5. Press ◀ / ▶ to select an preset mode that is closest to your need.
6. Press ▼ to select a menu item to be changed and adjust the value with ◀ / ▶ . See "Fine-tuning the image quality in user modes" below for details.
7. When all settings have been done, highlight **Save Settings** and press **MODE/ENTER** to store a set of settings for **User 1** or **User 2**.
8. The confirmation message '**Setting Saved**' displays.

All saved setting values in User 1 or User 2 mode can be seen when you open the OSD menu again, select User 1 or User 2 in the Preset Mode sub-menu item, one setting value could save into User 1 or User 2 memory only.

Fine-tuning the image quality in user modes

According to the detected signal type, there are some user-definable functions available when User 1 or User 2 mode is selected. You can make adjustments to these functions based on your needs.

Adjusting Brightness

Adjust the values by pressing ◀ / ▶ on the projector or remote control.

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.

Adjusting Contrast

Adjust the values by pressing ◀ / ▶ on the projector or remote control.

The higher the value, the greater the contrast. Use this to set the peak white level after you have previously adjusted the Brightness setting to suit your selected input and viewing environment.

Adjusting Color

Highlight **Color** in the **PICTURE** menu and adjust the values by pressing ◀ /▶ on the projector or remote control.

Lower setting produces less saturated colors; setting to the minimum value makes the image black and white. If the setting is too high, colors on the image will be overpowering, which makes the image unrealistic.

Adjusting Tint

Highlight **Tint** in the **PICTURE** menu and adjust the values by pressing ◀ /▶ on the projector or remote control.

The higher the value, the more reddish the picture becomes. The lower the value, the more greenish the picture becomes.

Adjusting Sharpness

Highlight **Sharpness** in the **PICTURE** menu and adjust the values by pressing ◀ / ▶ on the projector or remote control.

The higher the value, the sharper the picture becomes. The lower the value, the softer the picture becomes.

Adjusting Brilliant Color

Highlight **Brilliant Color** in the **PICTURE** menu and select by pressing ◀ /▶ on the projector or remote control.

This feature utilizes a new color-processing algorithm and system level enhancements to enable higher brightness while providing truer, more vibrant colors in picture. It enables a greater than 50% brightness increase in mid-tone images, which are common in video and natural scenes, so the projector reproduces images in realistic and true colors. If you prefer images with that quality, select **On**. If you don’t need it, select **Off**.

On is the default and recommended selection for this projector.

Selecting a color temperature

Adjust the values by pressing ◀ / ▶ on the projector or remote control.

There are four color temperature* settings available.

1. **T1:** With the highest color temperature, T1 makes the image appear the most bluish white than other settings.
2. **T2:** Makes images appear bluish white.
3. **T3:** Maintains normal colorings for white.
4. **T4:** Makes images appear reddish white.

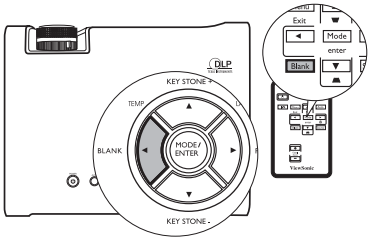
***About color temperatures:**

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.

When Brilliant Color is set to Off, the color temperature adjustment will not function.

Hiding the image

In order to draw the audience's full attention to the presenter, you can use **BLANK** on the projector or remote control to hide the screen image. Press any button on the projector or remote control to restore the image. The word '**BLANK**' appears at the lower right corner of the screen while the image is hidden. When this function is activated with an audio input connected, the audio can still be heard.



You can set the blank time in the **SYSTEM SETUP: Basic** > **Blank Timer** menu to let the projector return the image automatically after a period of time when there is no action taken on the blank screen.

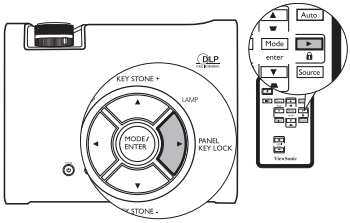
Once BLANK is pressed, the projector lamp enters Economic mode automatically.

Do not block the projection lens from projecting as this could cause the blocking object to become heated and deformed or even cause a fire.

Locking control keys

To prevent unauthorized changes in the settings or accidental button pushes, panel key lock can be activated to disable all panel key functions except **POWER**.

1. Press ▶ / 🔒 on the projector or remote control or go to **SYSTEM SETUP: Basic** > **Panel Key Lock**, and select **On** by pressing ◀ / ▶ on the projector or remote control.
2. A confirmation message displays. Select **Yes** to confirm.



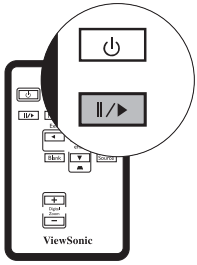
To release panel key lock, press and hold ▶ / 🔒 for 3 seconds on the projector or remote control.

You can also use the remote control to enter **SYSTEM SETUP: Basic** > **Panel Key Lock** and press ◀ / ▶ to select **Off**. A confirmation message displays. Select **Yes** to confirm.

- **Buttons on the remote control are still in use when panel key lock is enabled.**
- **If you press POWER to turn off the projector without disabling panel key lock, the projector will still be in locked status the next time it is turned on.**

Freezing the image

Press the **FREEZE** button on the remote control to freeze the image. The word '**FREEZE**' will display in the upper left corner of the screen. To release the function, press any button on the projector or remote control.



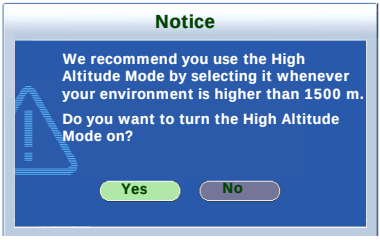
Even if an image is frozen on the screen, the pictures are running on the video or other device. If the connected devices have active audio output, you will still hear the audio even though the image is frozen onscreen.

Operating in a high altitude environment

We recommend you use the High Altitude Mode when your environment is between 1500 m –3000 m above sea level, and temperature is between 0°C–35°C.

Do not use the High Altitude Mode if your altitude is between 0 m and 1500 m and temperature is between 0°C and 35°C. The projector will be over cooled, if you turn the mode on under such condition.

To activate the High Altitude Mode, go to **SYSTEM SETUP: Advanced > High Altitude Mode**, select **On** by pressing ◀ / ▶ on the projector or remote control. A confirmation message displays. Highlight **Yes** and press **MODE/ENTER**.



Operation under "High Altitude Mode" may cause a higher decibel operating noise level because of increased fan speed necessary to improve overall system cooling and performance.

If you use this projector under other extreme conditions excluding the above, it may display auto shut-down symptoms, which is designed to protect your projector from over-heating. In cases like this, you should switch to High Altitude mode to solve these symptoms. However, this is not to state that this projector can operate under any and all harsh or extreme conditions.

Adjusting the sound

The sound adjustments made as below will have an effect on the projector speaker. Be sure you have made a correct connection to the projector audio input. See "Connection" on page 11 for how the audio input is connected.

Muting the sound

To temporarily turn off the sound,

1. Press **MENU/EXIT** and then press ◀/▶ until the **SYSTEM SETUP: Advanced** menu is highlighted.
2. Press ▼ to highlight **Audio Settings** and press **MODE/ENTER** on the projector or **Mode/enter** on the remote control. The Audio Settings page displays.
3. Highlight **Mute** and press ◀/▶ to select **On**.

Adjusting the sound level

To adjust the sound level,

1. Repeat steps 1-2 above.
2. Press ▼ to highlight **Volume** and press ◀/▶ to select a desired sound level.

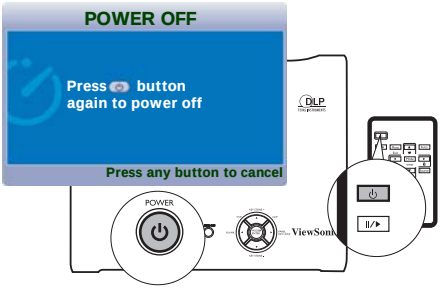
Personalizing the projector menu display

The On-Screen Display (OSD) menus can be set according to your preferences. The following settings do not affect the projection settings, operation, or performance.

- **Menu Display Time** in the **SYSTEM SETUP: Advanced** > **Menu Settings** menu sets the length of time the OSD will remain active after your last button press. The time length ranges from 5 to 30 seconds in 5-second increments. Use ◀ / ▶ to select a suitable time.
- **Menu Position** in the **SYSTEM SETUP: Advanced** > **Menu Settings** menu sets the OSD position in five locations. Use ◀ / ▶ to select a preferred position.
- **Language** in the **SYSTEM SETUP: Basic** menu sets your familiar language for the On-Screen (OSD) Menus. Use ◀ / ▶ to select your language.
- **Splash Screen** in the **SYSTEM SETUP: Basic** menu sets a preferred logo screen to be displayed during projector start-up. Use ◀ / ▶ to select a screen.

Shutting down the projector

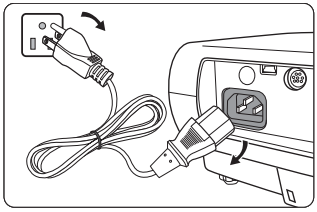
1. Press **Power** and a confirmation message will display prompting you.
   If you don't respond in a few seconds, the message will disappear.



2. Press **Power** a second time.
   The **Power indicator light** flashes orange, the projection lamp shuts down, and the fans will continue to run for approximately 90 seconds to cool down the projector.

To protect the lamp, the projector will not respond to any commands during the cooling process.

3. The Power indicator light is a steady orange and fans stop. Disconnect the power cord from the wall socket.



- **Do not unplug the power cord before the projector shutdown sequence is complete or during the 90-second cooling down process.**
- **If the projector is not properly shut down, to protect the lamp, when you attempt to re-start the projector, the fans will run for a few minutes to cool down. Press Power again to start the projector after the fans stop and the Power indicator light turns orange.**

Menu operation

Menu system

Please note that the on-screen display (OSD) menus vary according to the signal type selected.

Main menu	Sub-menu	Options
DISPLAY	Aspect Ratio	4:3/16:9/Auto/Native
	Keystone	
	Position	
	Phase	
	H. Size	
	Digital Zoom	
PICTURE	Preset Mode	**PC source:** Brightest/ Presentation/Photo/Cinema/User 1/User 2 **Video source:** Brightest/ Standard/Cinema/User 1/User 2
	Reference Mode	**PC source:** Brightest/ Presentation/Photo/Cinema **Video source:** Brightest/ Standard/Cinema
	Brightness	
	Contrast	
	Color	
	Tint	
	Sharpness	
	Brilliant Color	On/Off
	Color Temperature	T1/T2/T3/T4
	Save Settings	
SOURCE	Quick Auto Search	On/Off

SYSTEM SETUP: Basic	Language		ENGLISH/繁體中文/FRANÇAIS/ESPAÑOL/DEUTSCH/ITALIANO/简体中文/한국어/日本語/РУССКИЙ/Nederlands/Português/Svenska/Čeština/Polski/ไทย/Türkçe
	Projector Position		Front table/Rear table/Rear ceiling/Front ceiling
	Auto Power Off		Disable/5 min/10 min/15 min/20 min/25 min/30 min
	Blank Timer		Disable/5 min/10 min/15 min/20 min/25 min/30 min
	Panel Key Lock		On/Off
	Timer Controller		Disable/30 min/1 hr/2 hr/3 hr/4 hr/8 hr/12 hr
	Splash Screen		VS/Black/Blue
SYSTEM SETUP: Advanced	Quick Cooling		On/Off
	High Altitude Mode		Off/On
	DCR		Off/On
	Audio Settings	Mute	Off/On
		Volume	
	Menu Settings	Menu Display Time	5 sec/10 sec/15 sec/20 sec/25 sec/30 sec
		Menu Position	Center/Top-left/Top-right/Bottom-right/Bottom-left
	Lamp Settings	Lamp Mode	Normal/Economic
		Reset Lamp Timer	
		Equivalent Lamp Hour	
	Reset All Settings		
INFORMATION	Current System Status • Source • Preset Mode • Resolution • Color System • Equivalent Lamp Hour		

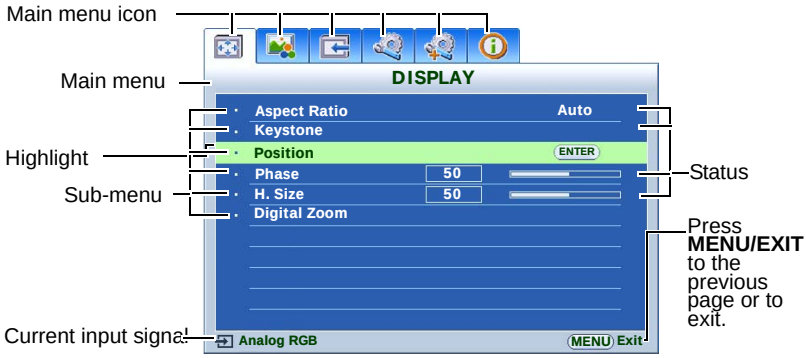
Note that the menu items are available when the projector detects at least one valid signal. If there is no equipment connected to the projector or no signal detected, limited menu items are accessible.

Using the menus

The projector is equipped with On-Screen Display (OSD) menus for making various adjustments and settings.

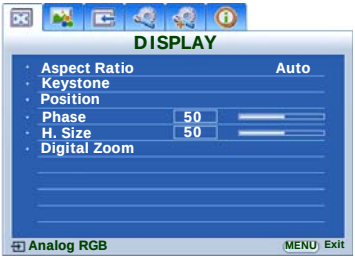
There are 17 different OSD menu languages. See "SYSTEM SETUP: Basic menu" on page 34 for details.

Below is the overview of the OSD menu.

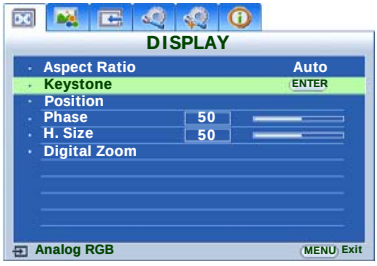


The following example describes the adjustment of Keystone.

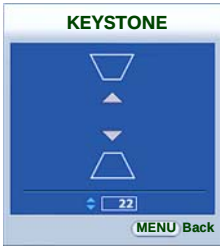
1. Press **MENU/EXIT** on the projector or remote control to turn the OSD menu on.



2. Use ◀ / ▶ to select the **DISPLAY** menu.
3. Press ▲ / ▼ to select **Keystone**.

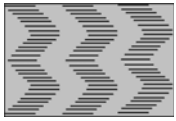


4. Press **MODE/ENTER** to display the keystone correction page.



5. Based on the image shape displayed on the screen, press the keystone buttons (▽ / ▲, △ / ▼) to adjust the image to a rectangular or square one.
6. Press **MENU/EXIT** on the projector or remote control to leave and save the settings.

DISPLAY menu

FUNCTION (default setting/ value)	DESCRIPTION (default setting/value)
Aspect Ratio (Auto)	There are four options to set the image's aspect ratio depending on your input signal source. See "Selecting the aspect ratio" on page 21 for details.
Keystone (0)	Corrects any keystoning of the image. See "Correcting keystone" on page 20 for details.
Position (0)	Displays the position adjustment page. To move the projected image, use the directional arrow buttons. The values shown on the lower position of the page change with every button press you made until they reach their maximum or minimum.
Phase (depends on the selected input source)	Adjusts the clock phase to reduce image distortion. 
H. Size (depends on the selected input source)	Adjusts the horizontal width of the image.
Digital Zoom (100%)	Magnifies or reduces the projected image. See "Magnifying and searching for details on the projected picture" on page 20 for details.

PICTURE menu

Some picture adjustments are available only when certain input sources are in use. Unavailable adjustments are not shown on the screen.

FUNCTION (default setting / value)	DESCRIPTION
Preset Mode (PC: Brightest; YPbPr/ S-Video/ Video: Standard)	Pre-defined preset modes are provided so you can optimize your projector image set-up to suit your program type. See "Selecting a preset mode" on page 22 for details.
Reference Mode	Selects an preset mode that most suits your need for the image quality and further fine-tune the image based on the selections listed on the same page below. See "Setting the User 1/User 2 mode" on page 23 for details.
Brightness	Adjusts the brightness of the image. See "Adjusting Brightness" on page 23 for details.

Contrast	Adjusts the degree of difference between dark and light in the image. See "Adjusting Contrast" on page 23 for details.
Color (0)	Adjusts the color saturation level -- the amount of each color in a video image. See "Adjusting Color" on page 24 for details.
Tint (0)	Adjusts the red and green color tones of the image. See "Adjusting Tint" on page 24 for details.
Sharpness (15)	Adjusts the image to make it look sharper or softer. See "Adjusting Sharpness" on page 24 for details.
Brilliant Color (On)	See "Adjusting Brilliant Color" on page 24 for details.
Color Temperature	There are four color temperature settings are available. See "Selecting a color temperature" on page 24 for details.
Save Settings	Saves the settings made for **User 1** or **User 2** mode.

SOURCE menu

FUNCTION (default setting / value)	DESCRIPTION
Quick Auto Search (On)	See "Switching input signal" on page 18 for details.

SYSTEM SETUP: Basic menu

FUNCTION (default setting / value)	DESCRIPTION
Language	Sets the language for the On-Screen Display (OSD) menus. Use ◀ / ▶ on the projector or remote control to select your desired language. There are 17 languages for your choice: English (default), French, German, Italian, Spanish, Russian, Traditional Chinese, Simplified Chinese, Japanese, Korean, Swedish, Dutch, Turkish, Czech, Portuguese, Thai, and Polish.
Projector Position (Front Table)	The projector can be installed on a ceiling or behind a screen, or with one or more mirrors. See "Choosing a location" on page 7 for details.
Auto Power Off (Disable)	This function allows the projector to turn off automatically if no input signal is detected after a set period of time. See "Setting Auto Power Off" on page 38 for details.
Blank Timer (Disable)	Sets the image blank time when the Blank feature is activated, once elapsed the image will return to the screen. See "Hiding the image" on page 25 for details.
Timer Controller (Disable)	Sets the auto-shutdown timer. The timer can be set to a value between 30 minutes and 12 hours.
Panel Key Lock (Off)	Disables or enables all panel key functions except **POWER** on the projector and buttons on the remote control. See "Locking control keys" on page 25 for details.
Splash Screen (VS)	Allows you to select which logo screen will display during projector start-up. Three options are available: VS, Black screen, or Blue screen.

SYSTEM SETUP: Advanced menu

FUNCTION (default setting / value)	DESCRIPTION
Quick Cooling (On)	Enables or disables the Quick Cooling function. Selecting **On** enables the function and projector cooling time will be shortened from a normal 90-second duration to approximately 30 seconds.
High Altitude Mode (Off)	A mode for operation in high altitude areas. See "Operating in a high altitude environment" on page 26 for details.
DCR (Off)	Enables or disables the DCR (Dynamic Contrast Ratio) function. Selecting **On** enables the function and the projector will automatically switch the lamp mode between normal and economic mode according to the input image detected. ☞ This function is only available when a PC source is in use. ⚠ **After enabling DCR, frequent lamp mode switching may shorten lamp life and noise level will vary during operation.**
Audio Settings	**Mute** (Off) **Volume** (5) See "Adjusting the sound" on page 27 for details.
Menu Settings	**Menu Display Time** (15 sec) Sets the length of time the OSD will remain active after your last button press. The range is from 5 to 30 seconds in 5-second increments. **Menu Position** (Center) Sets the On-Screen Display (OSD) menu position.
Lamp Settings	**Lamp Mode** (Normal) Setting the projector in Economic mode also extends the lamp timer automatic shutdown feature. See "Setting Lamp Mode as Economic" on page 38 for details. **Reset Lamp Timer** Once the lamp is renewed, select **Reset** to return the lamp timer to '0'. See "Resetting the lamp timer" on page 41 for details. **Equivalent Lamp Hour** Displays the number of hours the lamp has been used. See "Getting to know the lamp hour" on page 38 for details on how the total lamp hour is calculated.
Reset All Settings	Returns all settings to the factory preset values. ☞ **The following settings will still remain: Projector Position, Language, High Altitude Mode, Phase, User 1, User 2, Position, H. Size.**

INFORMATION menu

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

Some picture adjustments are available only when certain input sources are in use. Unavailable adjustments are not shown on the screen.

FUNCTION	DESCRIPTION
Current System Status	**Source** Shows the current signal source. **Preset mode** Shows the selected mode in the **PICTURE** menu. **Resolution** Shows the native resolution of the input signal. **Color system** Shows input system format, NTSC, PAL, SECAM, or RGB. **Equivalent lamp hour** Displays the number of hours the lamp has been used.

Maintenance

Care of the projector

Your projector needs little maintenance. The only thing you need to do on a regular basis is to keep the lens clean.

Never remove any parts of the projector except the lamp. Contact your dealer if other parts need 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 and 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 using the proper shutdown procedure as described in "Shutting down the projector" on page 28 and unplug the power cord.

- To remove dirt or dust, wipe the case with a soft, lint-free cloth.
- To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral pH 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 "Specifications" on page 45 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.

Lamp information

Getting to know the lamp hour

When the projector is in operation, the duration (in hours) of lamp usage is automatically calculated by the built-in timer. The method of calculating the equivalent lamp hour is as follows:

Total (equivalent) lamp hour

= 1 (hours used in Economic mode) + 3/2 (hours used in normal mode)

See "Setting Lamp Mode as Economic" below for more information on Economic mode.

The lamp hour in Economic mode is calculated as 2/3 of that in normal mode. That is, using the projector in Economic mode helps to extend the lamp hour by 1/2.

Extending lamp life

The projection lamp is a consumable item that normally can last up to 2000-3000 hours with proper usage. To keep the lamp life as long as possible, you can do the following settings via the OSD menu.

- **Setting Lamp Mode as Economic**

Using **Economic** mode reduces system noise and power consumption by 20%. If the **Economic** mode is selected, the light output will be reduced and result in darker projected pictures.

Setting the projector in **Economic** mode also extends the lamp operation life. To set **Economic** mode, go into the **SYSTEM SETUP: Advanced** > **Lamp Settings** > **Lamp Mode** menu and press ◀/▶.

When the DCR function is set to On, the lamp mode cannot be adjusted.

- **Setting Auto Power Off**

This function allows the projector to turn off automatically if no input source is detected after a set period of time to prevent unnecessary waste of lamp life.

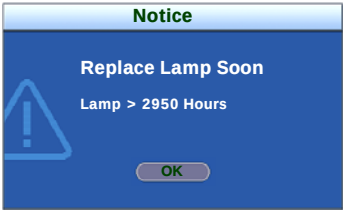
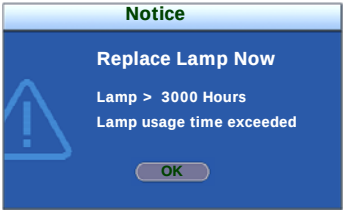
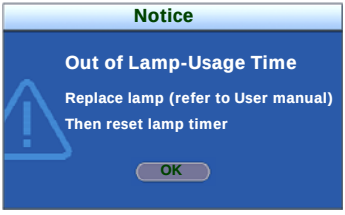
To set **Auto Power Off**, go into the **SYSTEM SETUP: Basic** > **Auto Power Off** menu and press ◀/▶. The time period can be set from 5 to 30 minutes in 5-minute increments. If the preset time lengths are not suitable for your presentation, select **Disable**. The projector will not automatically shut down in a certain time period.

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 explode.

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. See "Indicators" on page 42 for details.

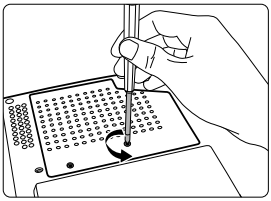
The following Lamp warning displays will remind you to change the lamp.

Message	Status
	The lamp has been in operation for 2000 hours. Install a new lamp for optimal performance. If the projector is normally run with "Economic Mode" selected (See "Lamp Mode (Normal)" on page 35), you may continue to operate the projector until the 2950 hour lamp warning appears.
	The lamp has been in operation for 2950 hours. A new lamp should be fitted to avoid the inconvenience when the projector runs out of lamp time.
	The lamp has been in operation for 3000 hours. It is strongly recommended that you replace the lamp at this age. The lamp is a consumable item. The lamp brightness diminishes with use. This is normal lamp behavior. You can replace the lamp whenever you notice that the brightness level has significantly diminished. If the lamp is not replaced beforehand, it must be replaced after 3000 hours usage.
	The lamp MUST be replaced before the projector will operate normally.

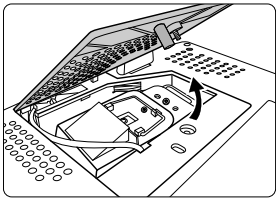
Replacing the lamp

- **To reduce the risk of electrical shock, always turn the projector off 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 picture 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.**

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

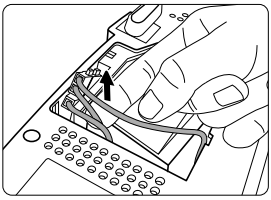


3. Remove the lamp cover from the projector.

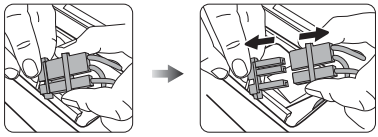


Do not turn the power on with the lamp cover removed.

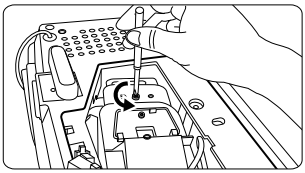
4. Remove the lamp cords from the slots.



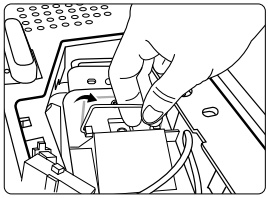
5. Disconnect the lamp connector by pushing it against the projector while pulling it up.



6. Loosen the screw that secures the lamp.



7. Lift the handle so that it stands up. Use the handle to slowly pull the lamp out of the projector.

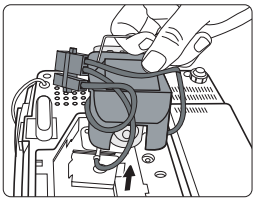


Pulling it too quickly may cause the lamp to break and scatter broken glass in the projector.

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 pictures.

8. As shown in the figure, hold the new lamp first and align the lamp with the compartment in the projector, and then insert the lamp all the way into the projector.

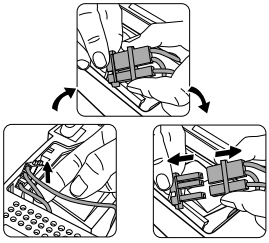


9. Tighten the screw that secures the lamp.

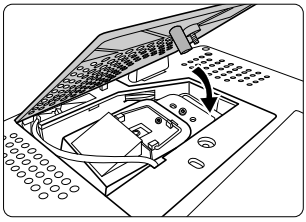
Loose screw may cause a bad connection, which could result in malfunction.

Do not over tighten the screw.

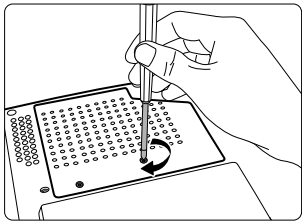
10. Connect the lamp connector to the projector.
11. Place the lamp cords back to the slots.



12. Replace the lamp cover on the projector.



13. Tighten the screws that secure the lamp cover.



Loose screw may cause a bad connection, which could result in malfunction.

Do not over tighten the screws.

14. Restart the projector.

Do not turn the power on with the lamp cover removed.

15. Resetting the lamp timer

Do not reset if the lamp is not replaced as this could cause damage.

i. Go to the **SYSTEM SETUP: Advanced** > **Lamp Settings** menu. Press **MODE/ENTER**.
ii. The **Lamp Settings** page displays. Highlight **Reset Lamp Timer**.
iii. A warning message displays asking if you want to reset the lamp timer. Highlight **Reset** and press **MODE/ENTER**. The lamp time will be reset to '0'.

Temperature 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 42.

Indicators

Illustration

- **Blank -**: Light OFF
- : Light flashing
- : Light ON
- **O**: Orange light
- **R**: Red light
- **G**: Green light

Light			Status & Description
Power	Temp	Lamp	
Power events			
O	O	O	The projector has just been connected to a power outlet.
O	-	-	Stand-by mode.
G	-	-	Powering up.
G	-	-	Normal operation.
O	-	-	1. The projector needs 90 seconds to cool down as it was abnormally shut down without the normal cooling down process. **Or** 2. The projector needs to cool for 90 seconds after the power is turned off.
O	-	-	The projector has shutdown automatically. If you try to re-start the projector, it will shutdown again. Please contact your dealer for assistance.
Lamp events			
O	-	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	1. The projector needs 90 seconds to cool down. **Or** 2. Please contact your dealer for assistance.

Light			Status & Description
Power	Temp	Lamp	
Thermal events			
-	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	R	
-	R	G	
	R	O	
R	R	R	
R	R	G	
R	R	O	
G	R	R	
G	R	G	
G	R	O	
O	R	R	
O	R	G	
O	R	O	
-	G	R	
-	G	G	

7 Troubleshooting

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 **Source** key on the projector or remote control.
The lens cover is still closed.	Open the lens cover.

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 cover is still closed.	Open the lens cover.

Remote control does not work

Cause	Remedy
The batteries are out of power.	Replace the batteries with new ones.
There is an obstacle between the remote control and the projector.	Remove the obstacle.
You are too far away from the projector.	Stand within 8 meters (26 feet) of the projector.

8 Specifications

Projector specifications

All specifications are subject to change without notice.

General

Product name	Digital Projector
Model name	PJ513D/PJ513DB

Optical

Resolution	800 x 600 SVGA
Display system	1-CHIP DMD
Lamp	180W lamp

Electrical

Power supply	AC100–240V, 2.9A, 50–60 Hz (Automatic)
Power consumption	260W (Max)

Mechanical

Dimensions	263 mm (W) x 108 mm (H) x 218 mm (D)
Weight	5.7 lbs (2.6 Kg)

Input terminal

Computer input	
RGB input	D-sub 15-pin (female) x 1
Video signal input	
S-VIDEO	Mini DIN 4-pin port x 1
VIDEO	RCA jack x1
HDTV signal input	D-sub <--> Component RCA jack x3, through RGB input
Audio signal input	
Audio in	Mini jack stereo port

Output

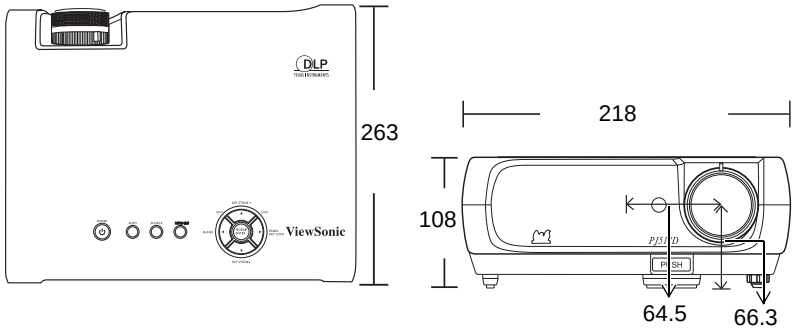
RGB output	D-sub 15-pin (female) x 1
Speaker	(mixed mono) 2 watt x 1

Environmental Requirements

Operating temperature	0°C ~ 40°C at sea level
Operating relative humidity	10% ~ 90% (without condensation)
Operating altitude	0 ~ 6000 ft at 25°C±5°C
	6000 ~ 10000 ft at 25°C±5°C (must be operational and the reliability decrease is acceptable)

Dimensions

263 mm (W) x 108 mm (H) x 218 mm (D)



Unit: mm

Timing chart

Supported timing for PC input

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Frequency (MHz)	Mode
640 x 480	31.469	59.940	25.175	VGA_60
	37.861	72.809	31.500	VGA_72
	37.500	75.000	31.500	VGA_75
	43.269	85.008	36.000	VGA_85
720 x 400	31.469	70.087	28.3221	720 x 400_70
800 x 600	37.879	60.317	40.000	SVGA_60
	48.077	72.188	50.000	SVGA_72
	46.875	75.000	49.500	SVGA_75
	53.674	85.061	56.250	SVGA_85
1024 x 768	48.363	60.004	65.000	XGA_60
	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 768	47.77	60.09	80.768	SXGA_60
1280 x 800	49.65	59.96	83.458	SXGA_60
1280 x 1024	63.981	60.020	108.000	SXGA_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	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Color sub-carrier Frequency (MHz)
NTSC	15.73	60	3.58
PAL	15.63	50	4.43
SECAM	15.63	50	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

Customer Support

For technical support or product service, see the table below or contact your reseller.

Note : You will need the product serial number.

Country/Region	Web Site	T=Telephone F=Fax	E-mail
Australia/New Zealand	www.viewsonic.com.au	AUS=1800 880 818 NZ=0800 008 822	service@au.viewsonic.com
Canada	www.viewsonic.com	T= 1-866-463-4775 F= 1-909-468-5814	service.ca@viewsonic.com
Europe/Middle East/Baltic countries/North Africa	www.viewsoniceurope.com	Contact your reseller	
Hong Kong	www.hk.viewsonic.com	T= 852 3102 2900	service@hk.viewsonic.com
India	www.in.viewsonic.com	T= 1800 11 9999	service@in.viewsonic.com
Korea	www.kr.viewsonic.com	T= 080 265 9080	service@kr.viewsonic.com
Latin America (Argentina)	www.viewsonic.com/la/	T= 0800-666-0098 F= 1-909-444-5655	soporte@viewsonic.com
Latin America (Brazil)	www.viewsonic.com/la/	T= 0800-891-1829 F= 1-909-444-5655	soporte@viewsonic.com
Latin America (Chile)	www.viewsonic.com/la/	T= 800-440303 F= 1-909-444-5655	soporte@viewsonic.com
Latin America (Columbia)	www.viewsonic.com/la/	T= 01800-9-156588 F= 1-909-444-5655	soporte@viewsonic.com
Latin America (Mexico)	www.viewsonic.com/la/	T= 001-866-823-2004 F= 1-909-444-5655	soporte@viewsonic.com
Renta y Datos, 29 SUR 721, COL. LA PAZ, 72160 PUEBLA, PUE. Tel: 01.222.891.55.77 CON 10 LINEAS Electroser, Av Reforma No. 403Gx39 y 41, 97000 Merida, Yucatan. Tel: 01.999.925.19.16 Other places please refer to http://www.viewsonic.com/la/soporte/index.htm#Mexico			
Latin America (Peru)	www.viewsonic.com/la/	T= 0800-53311 F= 1-909-444-5655	soporte@viewsonic.com
Macau	www.hk.viewsonic.com	T= 853 700 303	service@hk.viewsonic.com
Puerto Rico & Virgin Islands	www.viewsonic.com	T= 1-800-688-6688 (English) T= 1-866-379-1304 (Spanish) F= 1-909-468-1202	service.us@viewsonic.com soporte@viewsonic.com
Singapore/Malaysia/Thailand	www.ap.viewsonic.com	T= 65 6461 6044	service@sg.viewsonic.com
South Africa	www.viewsoniceurope.com	www.viewsoniceurope.com/uk/Support/Calldesk.htm	
United Kingdom	www.viewsoniceurope.com/uk/	www.viewsoniceurope.com/uk/Support/Calldesk.htm	
United States	www.viewsonic.com	T= 1-800-688-6688 F= 1-909-468-1202	service.us@viewsonic.com

Limited Warranty

VIEWSONIC® PROJECTOR

What the warranty covers:

ViewSonic warrants its products to be free from defects in material and workmanship, under normal use, during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

How long the warranty is effective:

North and South America: 3 years for all parts excluding the lamp, 3 years for labor, 1 year for the original lamp from the date of the first consumer purchase.
Europe: 3 years for all parts excluding the lamp, 3 years for labor, 1 year for the original lamp from the date of the first consumer purchase.
Other regions or countries: Please check with your local dealer or local ViewSonic office for the warranty information.

Lamp warranty subject to terms and conditions, verification and approval. Applies to manufacturer's installed lamp only.
All accessory lamps purchased separately are warranted for 90 days.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

1. Any product on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
   a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
   b. Repair or attempted repair by anyone not authorized by ViewSonic.
   c. Any damage of the product due to shipment.
   d. Removal or installation of the product.
   e. Causes external to the product, such as electric power fluctuations or failure.
   f. Use of supplies or parts not meeting ViewSonic's specifications.
   g. Normal wear and tear.
   h. Any other cause which does not relate to a product defect.
3. Any product exhibiting a condition commonly known as "image burn-in" which results when a static image is displayed on the product for an extended period of time.
4. Removal, installation, and set-up service charges.

How to get service:

1. For information about receiving service under warranty, contact ViewSonic Customer Support (please refer to "Customer Support" page). You will need to provide your product's serial number.
2. To obtain warranted service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
3. Take or ship the product freight prepaid in the original container to an authorized ViewSonic service center or ViewSonic.
4. For additional information or the name of the nearest ViewSonic service center, contact ViewSonic.

Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

Exclusion of damages:

ViewSonic's liability is limited to the cost of repair or replacement of the product. ViewSonic shall not be liable for:

1. Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
2. Any other damages, whether incidental, consequential or otherwise.
3. Any claim against the customer by any other party.

Effect of state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

Sales outside the U.S.A. and Canada:

For warranty information and service on ViewSonic products sold outside of the U.S.A. and Canada, contact ViewSonic or your local ViewSonic dealer.
The warranty period for this product in mainland China (Hong Kong, Macao and Taiwan Excluded) is subject to the terms and conditions of the Maintenance Guarantee Card.
For users in Europe and Russia, full details of warranty provided can be found in www.viewsoniceurope.com under Support/Warranty Information.

Mexico Limited Warranty

VIEWSONIC® PROJECTOR

What the warranty covers:

ViewSonic warrants its products to be free from defects in material and workmanship, under normal use, during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components & accessories.

How long the warranty is effective:

3 years for all parts excluding the lamp, 3 years for labor, 1 year for the original lamp from the date of the first consumer purchase.

Lamp warranty subject to terms and conditions, verification and approval. Applies to manufacturer's installed lamp only. All accessory lamps purchased separately are warranted for 90 days.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

1. Any product on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
   a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, unauthorized attempted repair, or failure to follow instructions supplied with the product.
   b. Any damage of the product due to shipment.
   c. Causes external to the product, such as electrical power fluctuations or failure.
   d. Use of supplies or parts not meeting ViewSonic's specifications.
   e. Normal wear and tear.
   f. Any other cause which does not relate to a product defect.
3. Any product exhibiting a condition commonly known as "image burn-in" which results when a static image is displayed on the product for an extended period of time.
4. Removal, installation, insurance, and set-up service charges.

How to get service:

For information about receiving service under warranty, contact ViewSonic Customer Support (Please refer to the attached Customer Support page). You will need to provide your product's serial number, so please record the product information in the space provided below on your purchase for your future use. Please retain your receipt of proof of purchase to support your warranty claim.

For Your Records

Product Name: _____ Model Number: _____

Document Number: _____ Serial Number: _____

Purchase Date: _____ Extended Warranty Purchase? _____(Y/N)

If so, what date does warranty expire? _____

1. To obtain warranty service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
2. Take or ship the product in the original container packaging to an authorized ViewSonic service center.
3. Round trip transportation costs for in-warranty products will be paid by ViewSonic.

Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

Exclusion of damages:

ViewSonic's liability is limited to the cost of repair or replacement of the product. ViewSonic shall not be liable for:

1. Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
2. Any other damages, whether incidental, consequential or otherwise.
3. Any claim against the customer by any other party.
4. Repair or attempted repair by anyone not authorized by ViewSonic.

Contact Information for Sales & Authorized Service (Centro Autorizado de Servicio) within Mexico:	
Name, address, of manufacturer and importers: México, Av. de la Palma #8 Piso 2 Despacho 203, Corporativo Interpalmas, Col. San Fernando Huixquilucan, Estado de México Tel: (55) 3605-1099 http://www.viewsonic.com/la/soporte/index.htm	
NÚMERO GRATIS DE ASISTENCIA TÉCNICA PARA TODO MÉXICO: 001.866.823.2004	
Hermosillo: Distribuciones y Servicios Computacionales SA de CV. Calle Juarez 284 local 2 Col. Bugambilias C.P: 83140 Tel: 01-66-22-14-9005 E-Mail: disc2@hmo.megared.net.mx	***Villahermosa:*** Compumantenimietnos Garantizados, S.A. de C.V. AV. GREGORIO MENDEZ #1504 COL, FLORIDA C.P. 86040 Tel: 01 (993) 3 52 00 47 / 3522074 / 3 52 20 09 E-Mail: compumantenimientos@prodigy.net.mx
Puebla, Pue. (Matriz): RENTA Y DATOS, S.A. DE C.V. Domicilio: 29 SUR 721 COL. LA PAZ 72160 PUEBLA, PUE. Tel: 01(52).222.891.55.77 CON 10 LINEAS E-Mail: datos@puebla.megared.net.mx	***Veracruz, Ver.:*** CONEXION Y DESARROLLO, S.A DE C.V. Av. Americas # 419 ENTRE PINZÓN Y ALVARADO Fracc. Reforma C.P. 91919 Tel: 01-22-91-00-31-67 E-Mail: gacosta@qplus.com.mx
Chihuahua Soluciones Globales en Computación C. Magisterio # 3321 Col. Magisterial Chihuahua, Chih. Tel: 4136954 E-Mail: Cefeo@soluglobales.com	***Cuernavaca*** Compusupport de Cuernavaca SA de CV Francisco Leyva # 178 Col. Miguel Hidalgo C.P. 62040, Cuernavaca Morelos Tel: 01 777 3180579 / 01 777 3124014 E-Mail: aquevedo@compusupportcva.com
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Guerrero Acapulco GS Computación (Grupo Sesicomp) Progreso #6-A, Colo Centro 39300 Acapulco, Guerrero Tel: 744-48-32627	***Monterrey:*** Global Product Services Mar Caribe # 1987, Esquina con Golfo Pérsico Fracc. Bernardo Reyes, CP 64280 Monterrey N.L. México Tel: 8129-5103 E-Mail: aydeem@gps1.com.mx
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4.3: ViewSonic Mexico Limited Warranty PRJ_LW03 Rev. 1A 06-25-07

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