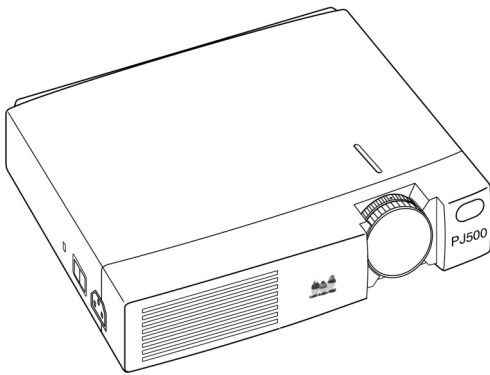


ViewSonic®

PJ500

User Guide



*High Brightness Light Weight
LCD Projector*

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Electronic Warranty Registration

To meet your future needs, and to receive any additional product information as it becomes available, please register your projector's warranty on the Internet at:

<http://www.viewsonic.com>

For Your Records

Product Name:	ViewSonic PJ500
Model Number:	VPROJ23544-1W
Document Number	PJ500-1_UG_435
Serial Number:	_____
Purchase Date:	_____

Features

PJ500 Features

- Short focal length
- Whisper-mode
- Digital zoom magnification
- Digital keystone correction
- Component video maximizes video image quality

Before Use

Package Contents

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

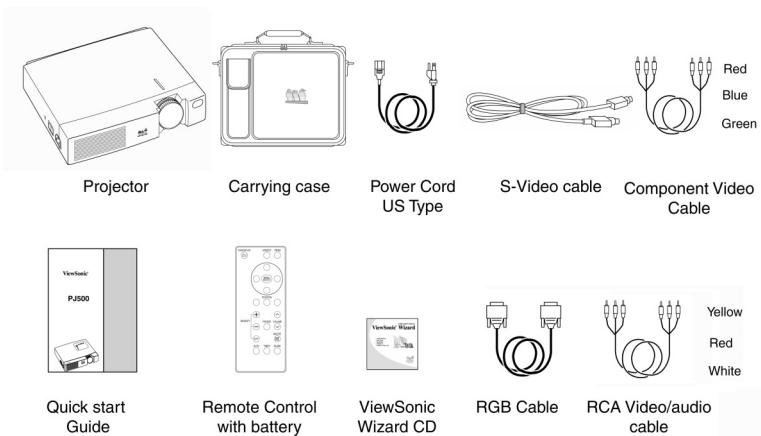


Figure 1: Package Contents

NOTE: Keep the original packing material for possible future reshipment.

Projector Components

Projector Components Diagram

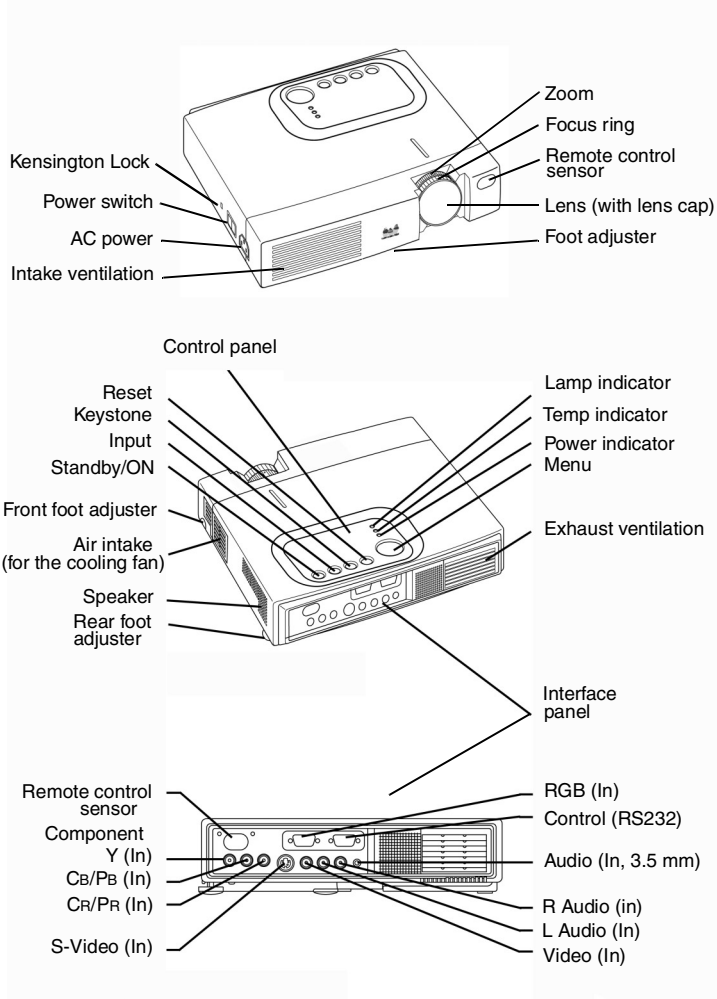


Figure 2: Projector Components

Remote Control Components

Remote Control Components Diagram

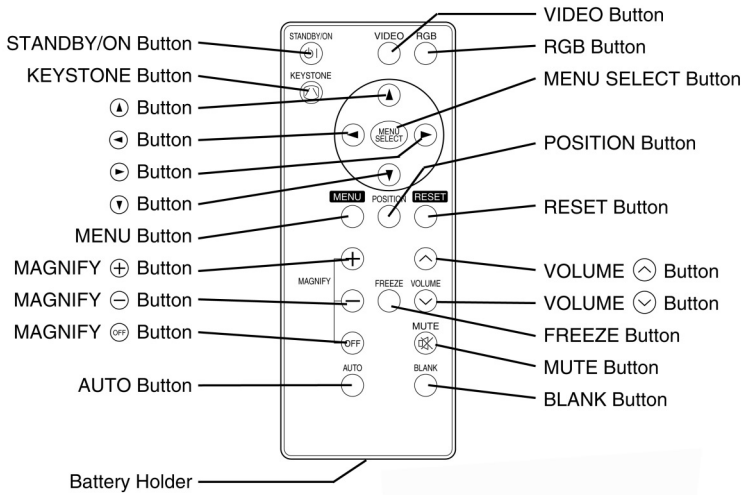


Figure 3: Remote Control Components

Loading the Batteries

Initial Battery Loading

In original packing, the battery is installed in the battery holder of the remote control with protective film (some of the transparent film is inside the battery Holder).

Pull out the protective film to load the battery.

Replacing Remote Control Battery

- 1 See the reverse side of the remote control.

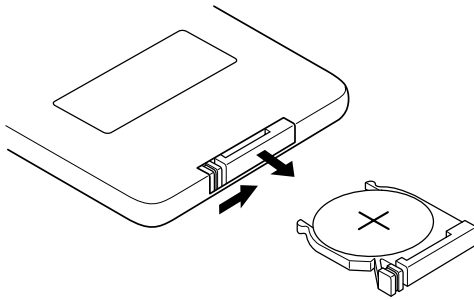


Figure 4: Battery

- 1 Pinch the groove and pull out battery holder. See graphic above.
- 2 Remove the used battery.
- 3 Install the new battery with “+” side facing up.
- 4 Push in and click the battery holder.



Warnings

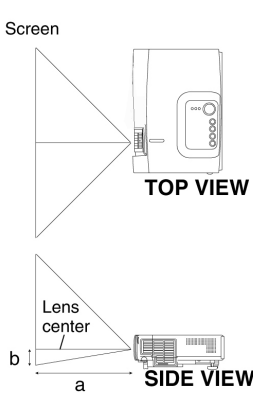
- Incorrect handling of the battery could result in fire or personal injury.
- The battery may explode if not handled properly.
- Use the 3V micro-lithium battery, type number CR2025 only.
- When loading the battery, make sure the plus and minus terminals are correctly oriented as indicated in the remote control.
- Dispose of the battery in accordance with local laws and regulations.
- Keep the battery away from children and pets.
- When not to be used for an extended period, remove the battery from the remote control.

NOTE: When remote control operation becomes difficult, replace the batteries.

Installation

Refer to the graphics and tables on this page to determine the screen size and projection distance.

The projection distances shown in the table below are for full size (800 x 600 pixels).



- a** Distance from the projector to the screen (+10%).
- b** Distance from the lens center to the bottom of the screen (+10%).

Table 1: Projection Distance

Screen Size Inches (m)	a Inches (m) Minimum and Maximum		b Inches (cm)
40 (1.0)	37 (0.9)	46 (1.2)	3 (8.7)
60 (1.5)	57 (1.5)	69 (1.8)	5 (13.1)
80 (2.0)	77 (1.9)	93 (2.4)	7 (17.4)
100 (2.5)	96 (2.4)	116 (2.9)	9 (21.8)
120 (3.0)	116 (2.9)	139 (3.5)	10 (26.1)
150 (3.8)	145 (3.7)	174 (4.4)	13 (32.7)
200 (5.0)	194 (4.9)	233 (5.9)	17 (43.5)

Figure 5: Screen Views



Warnings

- Position the projector in a horizontal position; other positions can cause heat build-up and damage to the projector.
- Make sure the heat ventilation holes are not blocked.
- Do not use the projector in a smoky environment. Smoke residue may cause buildup on critical parts (i.e. LCD panel, lens assembly, etc.)

Angle Adjustment

Use the foot adjusters on the bottom of the projector to adjust the projection angle. The angle is variable within approximately 0° to 10°.

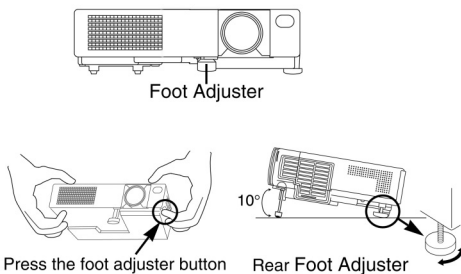


Figure 6: Angle Adjustment

- 1 Lift up the front side of the projector, and pressing the foot adjuster button, adjust the projection angle.
- 2 Release the button to lock at the desired angle.
- 3 Rotate the foot pad as shown in the graphic to adjust the left/right slope.

Cabling

Refer to the table below for connecting each terminal of the projector to a device.

Table 2: Cabling

Function	Terminal	Cable
Analog RGB input	RGB	Accessory RGB cable or optional RGB cable with D-sub 15-pin shrink jack and inch thread screws
RS-232C communication	CONTROL	Optional RS-232C cable
Component video input	VIDEO Y VIDEO Cb/Pb Video Cr/Pr	Accessory component video cable
S-video input	S-VIDEO	Accessory S-video cable with mini DIN 4-pin jack
Video input	VIDEO	Accessory video/audio cable with RCA jack
Audio input (from video equipment)	AUDIO L AUDIO R	
Audio Input	3.5 mm to mini-jack L/R	Optional



Warnings

- Incorrect connections could result in fire or electrical shock.
- Before connecting, turn off all devices to be connected, except the USB cable.
- Use the cables that are packaged with the product.
- See "Power Cord Safety Guidelines" on page 26.

NOTE:

- Before connecting, read the instruction manuals of the devices to be connected, and make sure that the projector is compatible with the device(s).
- Securely tighten the screws on the connectors.
- For some RGB input modes, the optional Mac adapter is necessary.
- To select the digital RGB input, the computer may need different settings. See the manuals of the computer for details.
- Some computers may have multiple display screen modes. You may not be able to use some of the modes with this computer.

Power Connection

Use the correct power cord supplied with your projector. Connect the AC inlet of the projector to the power outlet as shown in the graphic below.

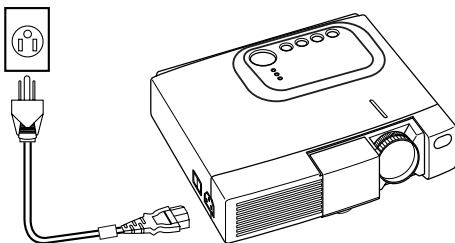


Figure 7: Power Cord Connect

Example of System Setup

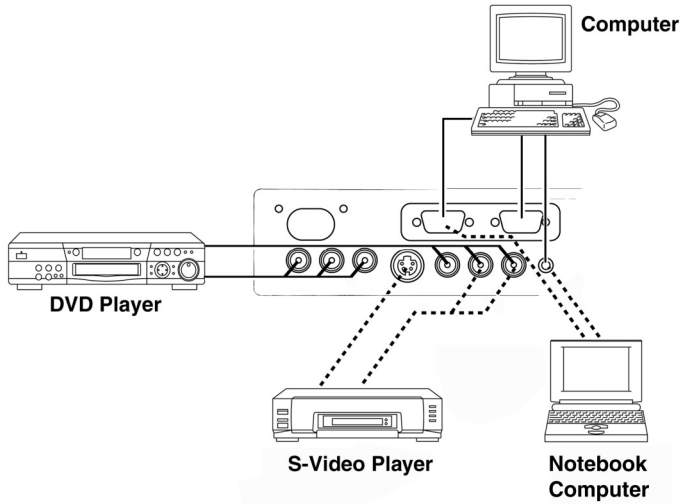


Figure 8: System Setup

Plug & Play

This projector is VESA DDC 1/2B compatible. Plug& Play is possible by connecting to a computer that is VESA DDC (Display Data Channel) compatible.

Please use this function by connecting the accessory RGB cable to RGB (In) of the projector; other connection methods may not work.

NOTE: Plug & Play is a system configured with peripheral equipment including a computer, display and operating system. This projector is recognized as Plug & Play capable. Refer to the ViewSonic CD Wizard INF display driver files for configuration.

Plug & Play will not operate with a direct connection to an Apple computer.

NOTE: When connecting with a notebook computer, set the proper RGB external image output. Please read the instruction manual of the notebook computer for more information.

Operations

Power ON

NOTE: Refer to “Example of System Setup” on page 8.

- 1 Make sure the power cord is connected correctly and lens cap has been removed. Set the POWER switch to [I]. The unit is now in Standby mode and the POWER indicator LED turns orange.
- 2 Press the STANDBY/ON button on the control panel or the remote control. Warm-up begins and the power indicator blinks in green.
- 3 After several seconds the lamp will stop blinking and will turn to continuous green, indicating that the projector is ready to use.
- 4 Adjust focus using the Focus ring.

Power OFF

NOTE: See Caution below.

- 1 Press the STANDBY/ON button & on the control panel or the remote control. The message “POWER OFF?” will display on the screen, and the message will disappear in 5 seconds. During this message indication, press the STANDBY/ON button again. The projector lamp shuts off and lamp cooling begins. The POWER indicator blinks orange during lamp cooling. Pressing the STANDBY/ON button has no effect while the POWER indicator is blinking.
- 2 The system assumes the Standby mode when cooling is complete. The POWER indicator ceases blinking and changes to orange. Check that the indicator is orange and set the POWER switch to [O].
- 3 The POWER indicator turns off when POWER is off. Remember to replace the lens cap after use.

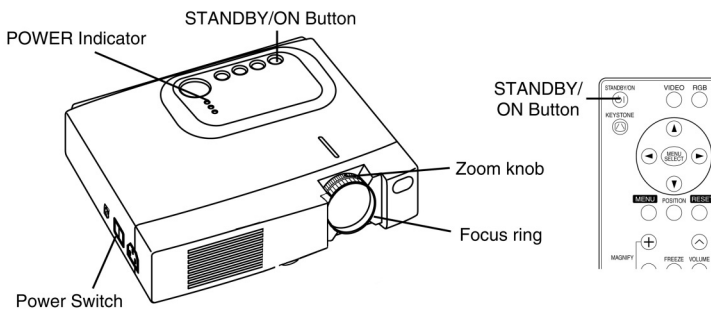


Figure 9: Power Buttons

NOTE: Except in emergencies, do not turn off the projector unless the POWER indicator is orange, as that will reduce the life of the lamp or possibly result in lamp breakage.



CAUTION

- To turn OFF the projector press the Standby/ON button and hold for 2 seconds .
- The POWER LED on the control pad flashes orange during cool-down.
- Wait until the POWER LED changes to a steady orange before you switch OFF the projector.

Basic Operation

Table 3 below refers to buttons on the projector control panel and on the remote control. Items marked with (*) may be accessed from the projector control panel.

Table 3: Basic Operation


















Item	Description
INPUT SELECT	<p>Select Input Signal (*) : press the INPUT Button. RGB > VIDEO > S-VIDEO > COMPONENT (>RGB) Select RGB Input: Press the RGB button. VIDEO/S-VIDEO/COMPONENT > RGB Select Video Input: Press the VIDEO button. RGB > VIDEO/S-VIDEO/COMPONENT VIDEO > S-VIDEO > COMPONENT (>VIDEO)</p> <ul style="list-style-type: none"> The selected signal name is displayed for approximately 3 seconds when the input signal is changed.
POSITION	<p>Set/Clear Position Adjustment mode : Press the POSITION button. The  icon is displayed in the POSITION mode.</p> <p>Image Position Adjustment: Press the     buttons in the POSITION mode.</p> <ul style="list-style-type: none"> Valid only in the MAGNIFY mode when a video signal is input. After approximately 10 seconds of inactivity the  icon disappears and the POSITION mode is cleared automatically.
RESET (*)	<p>Initialize Each item: Select an item and press the RESET button. Initialize Position Adjustment: Press the RESET button and the POSITION mode. This function is valid only when RGB signal is input.</p> <ul style="list-style-type: none"> Valid except for: VOLUME, LANGUAGE, H PHASE, and WHISPER.
MAGNIFY	<p>Set MAGNIFY Mode: Press the MAGNIFY  button. Move Magnified Area: Run the POSITION in the MAGNIFY mode.</p> <p>Adjust Magnification: Press the MAGNIFY  /  button in MAGNIFY mode. MAGNIFY (+) magnifies the image. MAGNIFY (-) reduces the image.</p> <p>Clear MAGNIFY Mode: Press the MAGNIFY  button.</p> <ul style="list-style-type: none"> The MAGNIFY mode is cleared by selecting AUTO, ASPECT, INPUT SELECT, or VIDEO, or changing the input signal.
FREEZE	<p>Set/Clear FREEZE Mode: Press the FREEZE button. When the [] icon is displayed, the image is frozen in the FREEZE mode.</p> <ul style="list-style-type: none"> The FREEZE mode is cleared by selecting POSITION, VOLUME, MUTE, Automatic Adjustment, BLANK ON/OFF, or MENU ON/OFF, or by changing the input signal. Do not forget to clear frozen static images.
KEYSTONE (*)	<p>Set/Clear KEYSTONE Mode: Press the KEYSTONE  button.</p> <p>Adjust Keystone: Press the  /  buttons in the KEYSTONE mode.</p> <p> reduces the bottom width of the bottom of the projected image.  reduces the width of the top of the projected image.</p>
VOLUME	<p>Volume Adjustment: Press the VOLUME  /  buttons on the remote control. (up arrow) increases the loudness of the sound, and (down arrow) decreases the loudness of the sound.</p>
MUTE	<p>Set/Clear Mute Mode: Press the MUTE button. The sound is silenced in this mode.</p>

Table 3: Basic Operation (Continued)

Item	Description
AUTO	<p>Automatic Adjustment (for RGB input): Press the AUTO button. Horizontal Position (H. POSIT), Vertical Position, (V. POSIT), Clock Phase (H. PHASE), and Horizontal Size (H. SIZE), are automatically adjusted.</p> <ul style="list-style-type: none"> Before using the AUTO feature, be sure to maximize the window of the application displayed on-screen. <p>Automatic Adjustment (for Video Input): Press the AUTO button. A signal type appropriate for the input signal is selected automatically. This is valid only when AUTO is set for VIDEO on the menu.</p> <ul style="list-style-type: none"> This operation requires approximately ten seconds. It may not function correctly with some input signals.
BLANK ON/OFF	<p>Set/ Clear Blank Mode: press the BLANK button. A blank screen (no image) is displayed in this mode. Access the Image menu to set the screen color for blank mode.</p>
MENU ON/OFF (*)	<p>Menu Display Start/Stop: Press the MENU button.</p> <ul style="list-style-type: none"> The menu display is terminated automatically after approximately ten seconds of inactivity.
MENU SELECT	<p>Select Menu Type: After selecting an item from the Setup menu, press the MENU SELECT button on the remote control. A single menu for the selected item will appear on-screen.</p> <ul style="list-style-type: none"> This is valid only for the Setup menu. Push the MENU SELECT button after selecting an item such as BRIGHTNESS. A separate Brightness menu will appear on-screen.

NOTE: Use the remote control at a distance of approximately 10 feet (3m) from the sensor on the front of the projector, and within a range of 30 degrees left/right. Strong light and obstacles will interfere with operation of the remote control.

Setup Menus

The following menus show adjustments and settings you may use when SETUP is selected at the top of the menu. Part of the SETUP menu differs between RBG input and video input. Select an item with the ▲ and ▼ buttons, and start operation. Use the Single menu to reduce menu size. See *Menu Select* in Table 3.

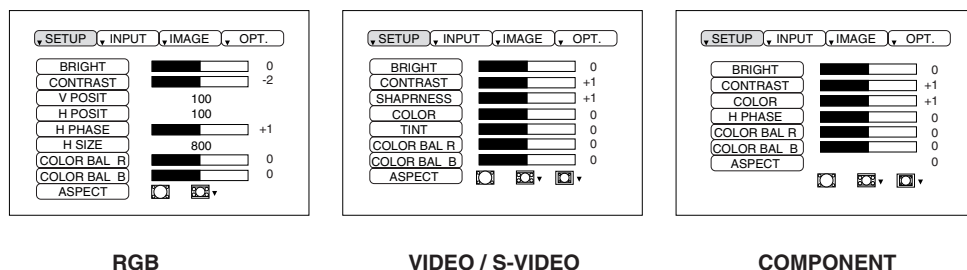





Figure 10: Setup Menus

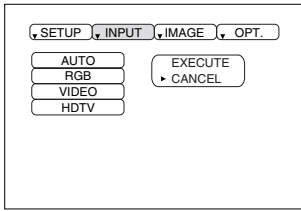
Table 4: Setup Menu

Item	Actions/Description	RGB	Video/ S-Video	Component Video	
				480I/575i/480P	720P/108i
BRIGHT (Brightness)	Dark ◀ Light ▶	X	X	X	X
CONTRAST	Weak ◀ Strong ▶	X	X	X	X

Table 4: Setup Menu (Continued)

Item	Actions/Description	RGB	Video/ S-Video	Component Video	
				480i/575i/480P	720P/108i
V POSIT (Vertical Position)	Down ◀ Up ▶	X			
H POSIT (Horizontal Position)	Left ◀ Right ▶	X			
H PHASE (Horizontal Phase)	Left ◀ Right ▶ • Adjust to eliminate flicker.	X		X	X
H SIZE (Horizontal Size)	Small ◀ Large ▶ • If the Horizontal Size adjustment is excessive, the image may not be displayed correctly. In such cases, press the RESET button, and activate H SIZE.	X			
SHARPNESS	Soft ◀ Clear ▶		X		
COLOR	Light ◀ Dark ▶		X	X	X
TINT	Red ◀ Green ▶ • Valid only when NTSC or NTSC 4.43 signal is received.		X		
COLOR BAL R (Color Balance Red)	Light ◀ Dark ▶	X	X	X	X
COLOR BAL B (Color Balance Blue)	Light ◀ Dark ▶	X	X	X	X
ASPECT (Aspect Ratio)	Select Image Aspect Ratio: Use the arrow buttons ◀, ▶. 4:3 [], 16:9 [], 4:3 small []	X			X
	Select Position of Image: Use the ▼ button while 16:9 / 4:3 Small is selected. • 4:3 Small may not be displayed correctly with some input signals.		X	X	

Input Menu



The following functions are available when INPUT is selected on the menu. Select an item with the ▲ and ▼ buttons, and start operation.

Table 5: Input Menu

Item	Description
AUTO	<p>Operation Start/Stop: Press the ◀/▶ button.</p> <p>Automatic Adjustment at RGB Input: Select the EXECUTE with the ▲ button. Horizontal position (H.POSIT), vertical position (V.POSIT), clock AUTO phase (H.PHASE), and horizontal size (H.SIZE) are automatically adjusted. Use with the window at maximum size in the application display.</p> <ul style="list-style-type: none"> • This operation requires approximately 10 seconds. This operation may not function correctly with some input signals; pressing the AUTO button in this case may correct the problem. • This function is the same as for the AUTO function in Basic operation.
RGB	<p>Displays RGB Input Frequency: Displays the horizontal and vertical sync signal frequencies for RGB input.</p> <ul style="list-style-type: none"> • Valid only at RGB input.
VIDEO	<p>Operation Start/Stop: Press the ◀/▶ button. Select Video Signal Type: Select the signal type with the ▲ and ▼ buttons. Select NTSC, PAL, SECAM, NTSC4.43, M-PAL, or N-PAL as appropriate for the input signal. The selection of AUTO enables and executes the function AUTO (Automatic Adjustment at Video Input), except for the N-PAL input.</p> <ul style="list-style-type: none"> • Use this function when the image becomes unstable (eg. the image becomes irregular, or lacks color) at VIDEO/S-VIDEO input. • Automatic Adjustment requires approximately ten seconds. It may not function correctly with some input signals. Pressing the AUTO button in this case may correct this problem except for the N-PAL input. • For the COMPONENT VIDEO input, this function is not effective and the signal type is distinguished automatically.
HDTV	<p>Operation Start/Stop: Press the ◀/▶ button.</p> <p>Select HDTV Mode: Select the 1080i mode or 1035i mode suitable for the input signal with the ◀/▶ button.</p> <ul style="list-style-type: none"> • When the selected HDTV mode is incompatible with the input signal, the image may be incorrect (eg. the display position or color is incorrect).

Image Menu





















The following adjustments and settings are available when IMAGE is selected on the menu. Select an item with the  and  buttons and start operation.

Table 6: Image Menu

Item	Description
BLANK	<p>Select Blank Screen Color: Select color with the / buttons.</p> <p>The image is cleared when the BLANK mode is set with BLANK ON, or when there is no signal. In BLANK mode the entire screen is displayed in the selected color.</p>
MIRROR	<p>Operation Start/Stop: Press the / buttons.</p> <p>Select Mirror Status: Select mirror status with the  and  buttons.</p>
START UP	<p>Operation Start/Stop: Press the / buttons.</p> <p>Setup Initial Screen Display: Select TURN ON with the  button.</p> <p>Clear Initial Screen Display: Select TURN OFF with the  button.</p> <p>NOTE: If TURN OFF is selected the blank screen is displayed in blue when there is no signal.</p>
GAMMA	<p>Operation Start/Stop: Press the / button.</p> <p>Select Gamma Mode: Select the gamma mode with the  and  buttons.</p>
COLOR TEMP	<p>Operation Start/Stop: Press the / button.</p> <p>Select Color Temperature: Select the color temperature mode with the  and  buttons.</p>

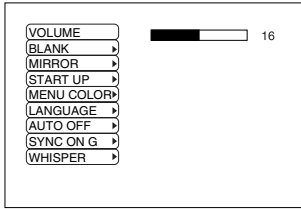
Options Menu

The following adjustments and settings are available when OPT. is selected on the menu. Select an item with the ▲ and ▼ buttons and start operation.

Table 7: Options Menu

Item	Description
VOLUME	Volume Adjustment: Use the ◀/▶ buttons.
MENU COLOR	Select Menu Background Color: Select with the ◀/▶ buttons.
LANGUAGE	Operation Start/Stop: Press the ◀/▶ buttons. Select Menu Display Language: Select with the ◀/▶ buttons.
AUTO OFF	Operation Start/Stop: Press the ◀/▶ buttons. Set AUTO OFF: Set 1 ~ 99 minutes with the ▲ and ▼ buttons. The system automatically enters the standby mode when a signal is not received for the set time. Clear AUTO OFF: Select STOP (0 min.) with the ▼ button. When STOP is selected the system does not enter the standby mode even if no signal is received.
SYNC ON G	Operation Start/Stop: Press the ◀/▶ buttons. SYNC ON G Valid: Select TURN ON with the ▲ button. SYNC ON G Inalid: Select TURN OFF with the ▼ button. NOTE: May not be displayed correctly with some input signals when SYNC ON G is valid. In such cases, remove the signal connector so that no signal is received, set SYNC ON G to invalid, and reconnect the signal.
WHISPER	Operation Start/Stop: Press the ◀/▶ buttons. Set/Clear Whisper Mode: Press the ▲ and ▼ buttons. When the WHISPER mode is selected, the WHISPER mode is active. In this mode, acoustic noise level from the unit is reduced, brightness level on screen is lowered and the lamp life is lengthened.

No Signal Menu



The same adjustments and settings are available with the Image and Options menus when the MENU button is pressed during display of the “No INPUT IS DETECTED ON ***” or “SYNC IS OUT OF RANGE ON ***” message while no signal is received.

Table 8: No Signal Menu

Item	Description
VOLUME	<p>Volume Adjustment: Use the ◀/▶ buttons.</p> <p>When this function is used, audio input is automatically switched to video. The audio input can be switched by moving the DISK PAD left and right during the display of the volume adjustment bar. The volume adjustment bar is displayed by pressing VOLUME ▶ or VOLUME ◀ button.</p>
BLANK	<p>Select Blank Screen Color: Select the color with the ◀/▶ buttons.</p> <p>When the blank mode is set with BLANK ON, by absence of a signal or by input of a non-standard signal, the image is cleared and the complete screen is displayed in the selected color.</p>
MIRROR	<p>Operation Start/Stop: Select the color with the ◀/▶ buttons.</p> <p>Select Mirror Status: Select the mirror status with the ▲ and ▼ buttons.</p>
START UP	<p>Operation Start/Stop: Press the ◀/▶ buttons.</p> <p>Setup Initial Screen Display: Select TURN ON with the ▲ button.</p> <p>Clear Initial Screen Display: Select TURN OFF with the ▼ button.</p> <p>NOTE: If TURN OFF is selected the blank screen is displayed in blue when there is no signal.</p>
MENU COLOR	<p>Select Menu Background Color: Select the color with the ◀/▶ buttons.</p>
LANGUAGE	<p>Operation Start/Stop: Press the the ▼ buttons.</p> <p>Select Menu Display Language: Select the language with the ▲ and ▼ buttons.</p>
AUTO OFF	<p>Operation Start/Stop: Press the ◀/▶ buttons.</p> <p>Set AUTO OFF: Set 1 ~ 99 minutes with the ▲ and ▼ buttons. The system automatically enters the standby mode when a signal is not received for the set time.</p> <p>Clear AUTO OFF: Select the STOP (0 min.) with the ▼ button. When the STOP is selected the system does not enter the standby mode even if no signal is received.</p>
SYNC ON G	<p>Operation Start/Stop: Press the ◀/▶ buttons.</p> <p>SYNC ON G Valid: Select TURN ON with the ▲ button.</p> <p>SYNC ON G Invalid: Select TURN OFF with the ▼ button.</p> <p>NOTE: May not be displayed correctly with some input signals when SYNC ON G is valid. In such cases, remove the signal connector so that no signal is received, set SYNC ON G to invalid, and reconnect the signal.</p>
WHISPER	<p>Operation Start/Stop: Press the ◀/▶ buttons.</p> <p>Set/Clear Whisper Mode: Press the ▲ and ▼ buttons. When the WHISPER mode is selected, the WHISPER mode is active. In this mode, acoustic noise level from the unit is reduced, brightness level on screen is lowered and the lamp life is lengthened.</p>

Maintenance

Lamp

Contact your dealer before replacing the lamp. For the optional lamp, see the item “Optional Parts” in “Technical Specifications” on page 23. Before replacing the lamp, switch **POWER OFF**, remove the power cord from the power outlet, and wait approximately 45 minutes until the lamp has cooled. The lamp may explode if handled at high temperatures.



HIGH VOLTAGE
HIGH TEMPERATURE
HIGH PRESSURE



WARNINGS

- Dispose of the used lamp according to local regulations.
- Since the lamp is made of glass, do not drop the unit and do not scratch the glass.
- Do not reuse the old lamp. This could cause an explosion of the lamp.
- If it is probable that the lamp has exploded (you have heard an explosive sound), disconnect the power plug from the power outlet and ask your dealer to replace the lamp. The lamp is protected by a cover glass, but in rare cases the reflector and the inside of the projector could be damaged by broken or shattered glass. Broken pieces of glass could cause injury.
- Do not use the projector with the lamp's front glass covering removed.

Lamp

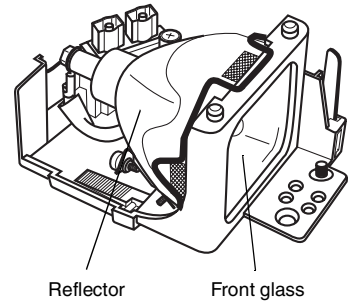


Figure 11: Lamp Diagram

Lamp Life

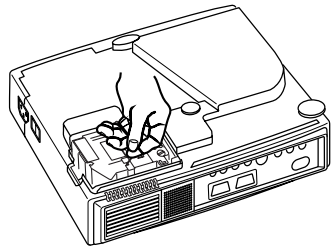
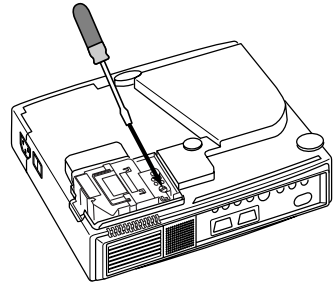
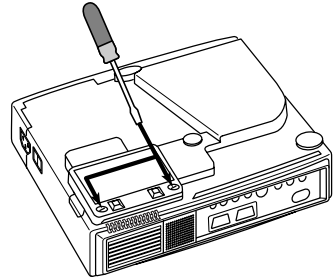
Projector lamps have a finite life. The image will become darker and hues will become weaker after a lamp has been used for a long period of time.

Replace the lamp if the LAMP indicator is red or the “CHANGE THE LAMP” message appears when the projector is switched on. See Table 9: “OSD Messages” on page 20 and Table 10: “Indicator Messages” on page 20.

NOTE: The LAMP indicator is also red when the lamp unit reaches high temperature. Before replacing the lamp switch the **POWER OFF**, wait approximately 20 minutes, and switch the **POWER ON** again. If the LAMP indicator is still red replace the lamp.

Replacing the Lamp

- 1 Switch the projector OFF, remove the power cord from the power outlet, and wait at least 45 minutes for the unit to cool.
- 2 Prepare a new lamp.
- 3 Check that the projector has cooled sufficiently, and gently turn it upside down.
- 4 Loosen the two screws as shown in the diagram, and remove the lamp cover.
- 5 Loosen the one screw, and gently remove the lamp while holding the grips. Touching the inside of the lamp case may result in uneven coloring.
- 6 Install the new lamp and tighten the one screw firmly. Make sure that the lamp assembly is seated properly before replacing the other screw.
- 7 Replace the lamp cover in position and tighten the two screws firmly.
- 8 Gently turn the projector right-side up.




CAUTION

- Ensure that screws are tightened properly. Screws not tightened fully may result in injury or accidents.
- Do not use the projector with the lamp cover removed.

Figure 12: Lamp Replacement

Resetting the Lamp Timer

Reset the lamp timer after replacing the lamp. When the lamp has been replaced after the LAMP indicator is red, or the CHANGE THE LAMP message is displayed, complete the following operation within ten minutes of switching POWER ON. The POWER will be turned off automatically in about 10 minutes.

- 1 Switch POWER ON, and press the RESET button, for approximately three seconds. The “LAMP HOURS” message will display on the lamp timer on the bottom of the screen.
- 2 Press the MENU button on the remote control transmitter, or the RESET button on the control panel, while the lamp timer is displayed.
- 3 Press the  and select 0, and wait until the timer display is cleared.

Note: Do not reset the lamp timer without replacing the lamp. Reset the lamp timer always when replacing the lamp. The message functions will not operate properly if the lamp timer is not reset correctly.

Air-Filter

The air filter should be cleaned as described below at intervals of approximately 100 hours.

- 1 Switch the projector power supply OFF, and remove the power cord from the power outlet.
- 2 Clean the air filter with a vacuum cleaner.



CAUTION

- Switch POWER OFF and remove the power cord from the power outlet before beginning maintenance work.
- Replace the air filter if contamination cannot be removed, or if it is damaged.
- Do not use the projector with the air filter removed.
- When the air filter is clogged, the power supply is switched OFF automatically to prevent overheating.

Maintenance Inside the Equipment

For safety reasons, ensure that the equipment is cleaned and checked by the dealer once every two years. Maintaining the equipment by yourself is dangerous.

Cleaning the Lens

Gently wipe the lens with lens cleaning paper. Do not touch the lens with your hands.

Cleaning the Cabinet and Remote Control

Gently wipe with a soft cloth. If dirt and stains are not easily removed, use a soft cloth dampened with water, or water and a neutral detergent, and wipe dry with a soft, dry cloth.



CAUTION

- Switch POWER OFF and remove the power cord from the power outlet before beginning maintenance work.
- Make sure the lens is cool before cleaning.
- Do not use detergents or chemicals other than those noted above. Do not use benzene or thinners.
- Do not use chemical sprays.
- Use a soft cloth or lens paper only.

Troubleshooting

OSD Messages

The messages as described below may appear on the screen at POWER ON. Take the appropriate measures when such messages appear.

Table 9: OSD Messages

Screen Message	Meaning or Action Required
CHANGE THE LAMP. AFTER REPLACING LAMP, RESET THE LAMP TIME. ¹	The lamp will reach the end of its life in 300 hours. POWER is switched off automatically when the lamp reaches the end of its life. prepare a new lamp for installation. Always reset the lamp timer after replacing the lamp.
CHANGE THE LAMP. AFTER REPLACING LAMP, RESET THE LAMP TIME. THE POWER WILL TURN OFF AFTER ** HR. ¹	The lamp will reach the end of its life in ** hours. POWER will be switched OFF automatically in ** hours. Replace the lamp as shown in "Replacing the Lamp" on page 18. Always reset the lamp timer after replacing the lamp.
CHANGE THE LAMP. AFTER REPLACING LAMP, RESET THE LAMP TIME. THE POWER WILL TURN OFF AFTER 0 HR.	The lamp has reached the end of its life. POWER will be switched OFF in a few minutes. Switch POWER OFF immediately and replace the lamp as shown in "Replacing the Lamp" on page 18. Always reset the lamp timer after replacing the lamp.
NO INPUT IS DETECTED ON ***	No input signal found. Check signal input connections and signal sources.
SYNC IS OUT OF RANGE ON ***	The horizontal or vertical frequency of the input signal is not within the specified range. Check the specifications of the equipment and the signal source.
CHECK THE AIR FLOW	The internal temperature has risen. Switch POWER OFF, and wait 20 minutes until the equipment cools. Check the following and switch POWER ON again. <ul style="list-style-type: none"> • Are the ventilation openings blocked? • Is the air filter dirty? • Is the ambient temperature in excess of 95°F (35°C)?

¹ This message is cleared automatically after approximately three minutes, and appears every time POWER is switched ON.

Indicator Messages

The POWER indicator, LAMP indicator, and TEMP indicator are either lit, unlit or blinking as explained in the table below.

Table 10: Indicator Messages

POWER indicator	LAMP indicator	TEMP indicator	Meaning or Action Required
Lights orange	Turns off	Turns off	The Standby mode has been set.
Blinks green	Turns off	Turns off	Warming up. Please wait.
Lights green	Turns off	Turns off	ON. Normal operation possible.
Blinks orange	Turns off	Turns off	Cooling. Please wait.
Blinks red	-	-	Cooling. Please wait. The error is found. Take the appropriate measures when the POWER indicator ceases blinking.

Table 10: Indicator Messages (Continued)

POWER indicator	LAMP indicator	TEMP indicator	Meaning or Action Required
Blinks/Lights red	Lights red	Turns off	Lamp is not lit. The interior of the equipment may be too hot. Switch POWER OFF, wait 20 minutes until the equipment cools, and check whether the ventilation openings are blocked, whether the air filter is dirty, or whether the ambient temperature exceeds 95°F (35°C). And switch POWER ON again. Replace the lamp if the same problem occurs again.
Blinks/Lights red	Blinks red	Turns off	Lamp or lamp cover is not found, or hasn't been fitted in correctly. Switch POWER OFF, and wait for 45 minutes until the equipment cools. Check fitting of the lamp and lamp cover, and switch POWER ON again. Contact your dealer if the same problem occurs again.
Blinks/Lights red	Turns off	Blinks red	The cooling fan is not operating. Switch POWER OFF, and wait for 20 minutes until the equipment cools. Check for foreign matter in the fan, and switch POWER ON again. Contact your dealer if the same problem occurs again.
Blinks/Lights red	Turns off	Lights red	The interior of the equipment is too hot. ² Switch POWER OFF, and wait for 20 minutes until the equipment cools. Check whether the ventilation openings are blocked., whether the air filter is dirty, or whether the ambient temperature exceeds 95°F (35°C). Then switch POWER ON again. Contact your dealer if the same problem occurs again.
Lights green	Blinks red	Blinks red	The interior of the equipment is too cool. Check whether the ambient temperature is below 32°F (0°C). Contact your dealer if the same problem occurs when the ambient temperature is 32°F ~ 95°F (0°C ~ 35°C).

² When the internal temperature rises too high, POWER to the unit switches OFF as a safety precaution; the LED lamp indicator turns OFF. Set the POWER switch to [0] and wait 20 minutes until the equipment has cooled sufficiently before continuing with operation.

Symptom

Before requesting repair, refer to the chart below. If the problem cannot be corrected, contact your dealer.

Table 11: Symptom




Symptom	Possible cause	Remedy	Page
No power	The main POWER switch is not turned on.	Turn on the main POWER switch.	page 9
	The power cord is disconnected.	Plug the power cord into an AC power outlet.	page 7
No video or audio	The Input is not correctly set.	Use the projector or remote control transmitter to set.	page 10
	No signal input.	Connect correctly.	page 7,8
Video is present but no audio	The projector is not correctly connected.	Connect correctly.	page 7 page 8
	The volume is set to minimum.	Press VOLUME  button on the remote control or display the menu screen and adjust the volume.	page 15
	Mute is turned on.	Press the MUTE  button.	page 10

Table 11: Symptom (Continued)

Symptom	Possible cause	Remedy	Page
Audio is present but no video	The projector is not correctly connected.	Connect correctly.	page 7 page 8
	The brightness is set to minimum.	Select BRIGHT and CONTRAST with the MENU button and press the  button.	page 11
Colors are pale and color matching is poor	Color density and color matching are not correctly adjusted.	Go to Setup and adjust color parameters.	page 11
Images are dark	Brightness and contrast are not correctly adjusted.	Go to Setup and adjust COLOR and BRIGHTNESS.	page 11
	The lamp is nearing the end of its service life.	Replace lamp.	page 18
Images are blurred	Focus or H PHASE is out of adjustment.	Adjust the focus or H PHASE. Refer to Focus Ring adjustment control.	page 9 page 12

Specifications

Technical Specifications

Table 12: Specifications

Item	Specification
PJ500	Liquid crystal projector
Liquid crystal panel	Panel Size Drive system Pixels
	1.8 cm (0.7 inch) TFT active matrix 480,000 pixels (800 horizontal x 600 vertical)
Lens	Zoom lens F=2.0 - 2.3 f=18 - 21 mm
Lamp	150 W UHB
Speaker	1.0 W
Power Supply	AC 100 ~ 120V, 2.7A AC220 - 240V, 1.3A
Power consumption	240 W
Battery type	CR2025, 3v micro-lithium
Temperature range	0 ~ 35°C (Operating)
Size	11.4" (W) x 3.3" (H) x 8.5" (D) inches 289 (W) x 84 (H) x 215 (D) mm
Weight	5.4 lbs. (2.4 kg)
RGB signal input	RGB IN AUDIO IN
	Video: Analog 0.7 Vp-p, 75 ohm terminator (positive), HN. sync.: TTL level (positive/negative), Composite sync.: TTL level, D-sub 15-pin shrink jack 200m Vrms, 47 k ohms (max. 3.0Vp-p), Stereo mini jack
Video Signal input	VIDEO S-VIDEO COMPONENT VIDEO AUDIO
	1.0 Vp-p, 75 ohm terminator, RCA jack Brightness signal: 1.0 Vp-p, 75 ohm terminator, Color signal: 0.3 Vp-p (burst signal), 75 ohm terminator, Mini DIN 4-pin jack Y 1.0 Vp-p, 75 ohm Terminator (Positive) CB/CR 0.7 Vp-p, 75 ohm Terminator (Positive) PB/PR 0.7 Vp-p, 75 ohm Terminator (Positive) L 200 m Vrms, 47 k ohms (max. 3.0 Vp-p) R RCA jack
Control functions	CONTROL
	D-sub 15-pin shrink plug (RS232)
Lamp Replacement	Lamp: RLC-150-001 (For other parts contact your dealer or ViewSonic.)

Customer Support

Contact ViewSonic

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	Email
United States	viewsonic.com/ support	T: (800) 688-6688 F: (909) 468-1202	service.us@ viewsonic.com
Canada	viewsonic.com/ support	T: (800) 688-6688 F: (909) 468-1202	service.ca@ viewsonic.com
United Kingdom	viewsoniceurope.com	T: 0800 833 648 F: (01293) 643910	service.eu@ viewsoniceurope.com
Europe, Middle East, Baltic countries, and North Africa	viewsoniceurope.com	Contact your reseller	service.eu@ viewsoniceurope.com
Australia and New Zealand	viewsonic.com.au	T: +61 2 9929 3955 F: +61 2 9929 8393	service.au@ viewsonic.com
Singapore/India and Southeast Asia	viewsonic.com.sg	T: 65 273 4018 F: 65 273 1566	service.sg@ viewsonic.com
Other Asia/Pacific countries	viewsonic.com.tw	T: 886 2 2246 3456 F: 886 2 8242 3668	service.ap@ viewsonic.com
South Africa	viewsonic.com/asia	T: 886 2 2246 3456 F: 886 2 8242 3668	service.ap@ viewsonic.com

LIMITED WARRANTY

VIEWSONIC Projector

What the warranty covers:

ViewSonic® warrants its products to be free from defects in material and workmanship 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:

ViewSonic projectors are warranted for two (2) years for all parts excluding the lamp, two (2) years for all labor, and ninety (90) days for the lamp from the date of the first consumer purchase.

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. Removal, installation, and set-up service charges.

How to get service:

1. For information about receiving service under warranty, contact **ViewSonic Customer Support**. 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.

Appendix

Power Cord Safety Guidelines

Caution: Use a power cable that is properly grounded. Always use an AC power cord that meets your country's safety standard.

USA	UL	Switzerland	SEV
Canada	CSA	Britain	BASE/BS
Germany	VDE	Japan	Electric Appliance Control Act

AC PLUG CORD PRECAUTIONS FOR THE UNITED KINGDOM

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET THEN THE PLUG SHOULD BE CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO AN APPROPRIATE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.

If in any doubt, please consult a qualified electrician.

WARNING: THIS APPLIANCE MUST BE EARTHED.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

Green-and-Yellow:	Earth
Blue:	Neutral
Brown:	Live

If the coloured wires of the mains lead of this appliance do not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the Earth symbol or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

IMPORTANT NOTICE CONCERNING POWER CORD SELECTION

The power cord set for this unit has been enclosed and has been selected according to the country of destination and must be used to prevent electric shock. Use the following guidelines if it is necessary to replace the original cord set, or if the cord set is not enclosed.

The female receptacle of the cord set must meet CEE-22 requirements and may look like (Figure A1 below):

Figure A1 

For the United States and Canada

In the United States and Canada the male plug is a NEMA5-15 style (Figure A2), UL Listed, and CSA Labeled. For units which are mounted on a desk or table, type SVT or SJT cord sets may be used. For units which sit on the floor, only SJT type cord sets may be used. The cord set must be selected according to the current rating for your unit. Please consult the table below for the selection criteria for power cords used in the United States and Canada.

Figure A2 

Cord Type	Size of Conductors in Cord	Maximum Current Rating of Unit
SJT	18 AWG	10 Amps
	16 AWG	12 Amps
	14 AWG	12 Amps
SVT	18 AWG	10 Amps
	17 AWG	12 Amps

For European Countries

In Europe you must use a cord set which is appropriate for the receptacles in your country. The cord set is HAR-Certified, and a special mark that will appear on the outer sheath, or on the insulation of one of the inner conductors.

If you have any questions concerning which proper power cord to use, please consult with the dealer from whom you have purchased the product.

FCC Information

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.

FCC Warning

To assure continued FCC compliance, the user must use grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. If a BNC cable is going to be used, use only a shielded BNC(5) cable. Also, any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

CE Conformity



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."

ViewSonic Corporation