

Before Using This Product

Important Information

WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION — To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This product utilizes tin-lead solder, and a fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eia.org

FCC STATEMENT

FCC Notice

LCD TV: A CLASS B digital device

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 when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC CAUTION:

Pursuant to 47CFR, Part 15.21 of the FCC rules, any changes or modifications to this monitor not expressly approved by the manufacturer could cause harmful interference and would void the user's authority to operate this device.

WARNING: This is a CLASS B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measure to counter interference.

Important Safety Precautions

Electrical energy can perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. But **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD**. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure our safety and prolong the service life of your TV product, please read the following precautions carefully before using the product.

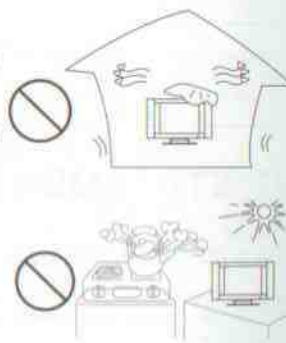
- 1. Read these instructions** — All operating instructions must be read and understood before the product is operated.
- 2. Keep these instructions** — These safety and operating instructions must be kept in a safe place for future reference.
- 3. Heed all warnings** — All warnings on the product and in the instructions must be observed closely.
- 4. Follow all instructions** — All operating instructions must be followed.

- 5. Do not use this apparatus near water** — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in wet basement, or near a swimming pool, and the like.
Do not use immediately after moving from a low temperature to high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.



- 6. Clean only with dry cloth** — Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

- 7. Ventilation** — Do not block any ventilation openings. Install in accordance with the manufacturer instructions. The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and opening since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



- 8. Heat sources** — Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



- 9. Grounding or polarization** — 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 or 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. Power cord protection** — protect the power cord from being walked on or pinches particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

NOTE: Where the main plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

- 11. Attachments** — Only use attachments/accessories specified by the manufacturer. Do not use attachments not recommended by the manufacturer. Use of improper attachments can result in accidents.

Important Safety Precautions (Continued)

- 12. Stand** — Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. Do not place the product on an unstable trolley, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.



- 13. Move carefully** — When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Sudden stops, excessive force and uneven floor surfaces can cause the product to fall from the trolley. Never attempt to move the TV unless the AC power cord has been disconnected.



- 14. Lighting** — Unplug this apparatus during lightning storms or when unused for long periods of time. For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power line surges.



- 15. Servicing** — Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- 16. Replacement parts** — In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.

- 17. Overloading** — Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.

- 18. Entering of objects and liquids** — Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.

- 19. Damage requiring service** — If any of the following conditions occur, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.
 - a. When the power cord or plug is damaged.
 - b. When a liquid is spilled on the product or when objects have fallen into the product.
 - c. When the product has been exposed to rain or water.
 - d. When the product does not operate properly as described in the operating instruction.
Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
 - e. If the product has been dropped or the cabinet has been damaged in any way.
 - f. When the product displays an abnormal condition or exhibits a distinct change in performance. Any noticeable abnormality in the product indicates that the product needs servicing.

- 20. Safety checks** — Upon completion of service or repair work, request the service of a technician to perform safety checks to ensure that the product is in proper operating condition.

- 21. Wall or ceiling mounting** — When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer. This is a safety feature.

Important Safety Precautions (Continued)

22. Power source — This product is intended to be supplied by a listed power supply indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the product due to lightning and power line surges. When the unit has to be used with another power supply voltage, the power cable must be changed. Consult your product dealer. The socket outlet should be installed near the equipment and easily accessible. Use only the power cord designated by our dealer to ensure safety and EMC. When connecting other products such as VCRs and personal computers, you should turn off the power of the unit for protection against electric shock.

23. Panel protection — The display panel used in this product is made of glass. Therefore, it can break when the product is dropped or impacted upon by other objects. Be careful not to be injured by broken glass pieces in case the display panel breaks.



24. Pixel defect — The display panel is a very high technology product, giving you finely detailed pictures. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

WARNING: For continued safety, apparatus with class I construction shall be connected to a main sock outlet with a protective grounding connection.

Important Notice

About Temperature

Do Not Use in Hot and Cold Rooms (Locations)

- When the unit is used in rooms (locations) with low temperatures, the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the screen to malfunction.
- Storage temperature: 0°C to +50°C
Working temperature: 5°C to +40°C

About After-Image

The extended use of fixed image program material can cause a permanent after-image on the screen. This background image is viewable on normal programs in the form of a stationary fixed image. This type of irreversible screen deterioration can be limited by observing the following steps:
A. Reduce the brightness/contrast setting to a minimum viewing level.
B. Do not display the fixed image for extended periods of time.
C. Turn the power off when not in actual use.

Important Information Regarding Use of Video Games, Computers, Captions or Other Fixed Image Displays

- Do not allow a still picture to be displayed for an extended period of time, as this can cause a permanent after-image to remain on the screen.
Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

CAUTIONS:

- The permanent after-image on the screen resulting from fixed image use is not an operating defect and as such is not covered by the warranty.
- This product is not designed to display fixed images for extended periods of time.

Cleaning and Maintenance

To Clean This Unit Wipe With a Soft, Dry Cloth.

- If the surfaces are extremely dirty, use a soft cloth dipped in a soap and water solution or a weak detergent solution.
- Use eyeglass cleaner to remove stubborn dirt from the screen.
 - Never use alcohol, paint thinner or benzene to clean this unit.
 - Before using a chemically treated cloth, read the instructions that came with the cloth carefully.

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LCD TV Overview



A

① Source Button

Change Input Source: TV, AV, S-Video, Component, HDMI, VGA

② Menu Button

Display On Screen Menu

③ Volume +/- Button / Set the value

Adjust sound level or set the value while On Screen Menu is active.

④ Channel +/- Button / navigating the Menu

Change channel or navigate while On Screen Menu is active.

⑤ Power Button

Turn ON/OFF the TV

B

Remote control signal receiver and indicator

Power Off: Red

Power On: Green

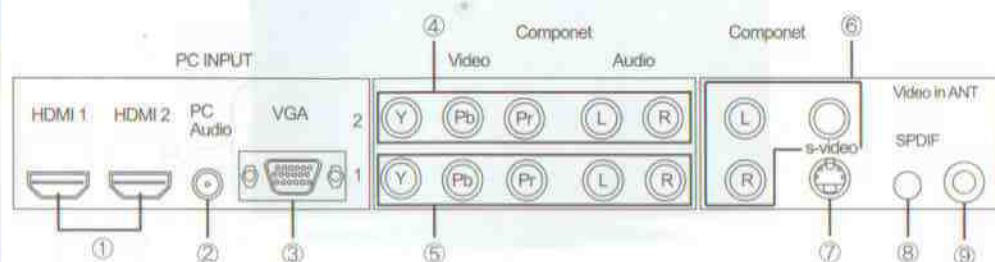
Aim the remote control towards this spot on the LCD TV

Accessories

After opening the box, make sure the following items are provided with the TV set. If you find that any of these items are missing or appear to be damaged, contact your dealer immediately.

Rear View

Input and Output



- ① **HDMI 1, 2** — Connect DVD, Setup Box, PVR, etc. Supporting HDMI connection.
- ② **PC Audio** — PC Audio input
- ③ **VGA** — Connect to your personal computer
- ④, ⑤ **Component 1, 2** — Video (Y/Pb/Pr or Y/Cb/Cr) and Audio (Audio L/R) input for Component.
- ⑥ **Composnite** — Video and Audio input for external devices such as VCR, DVD, and Video games.
- ⑦ **S-Video** — Video input for external devices with S-Video output, such as a camcorder or VCR.
- ⑧ **SPDIF** — Digital sound output rom digital TV or HDMI for external audio devices.
- ⑨ **ANT** — TV Antenna input.

Remote Controller

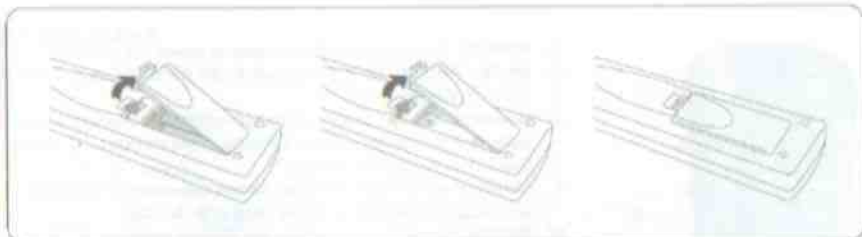
The Function of EACH Button



- 1. **POWER:** Press power button to operate power ON and OFF.
- 2. **MUTE:** Press MUTE Button to switch OFF the sound, press once again to switch ON the sound.
- 3. **Number 0-9:** User can input channel number by pressing number 0-9 buttons. If the system is not at TV mode, it will change to TV mode after user inputs the channel number.
- 4. ***/DRF:** Press to enter the minor number in a compound channel number. Example: CH25-1 In the order of 2- 5- */DRF-1
- 5. **RECALL:** System can record the last channel automatically, so the user can return to the last channel by pressing this button.
- 6. **VOL+, VOL-:** No matter if the OSD is open or not, when pressing these 2 buttons, the user can increase or decrease the audio volume.
- 7. **CH+, CH-:** The user can set the channel by pressing the channel **UP/ DOWN** button. If the system is not at TV mode, it will change to TV mode after the user presses these 2 buttons.
- 8. **SLEEP:** Set the **SLEEP** timer.
- 9. **SOURCE:** Press the **INPUT** button to open up an input source selection ISD menu. Use can change source quickly.
- 10. **UP / DOWN / LEFT / RIGHT Button:** These buttons are available when OSD opens up. User can select OSD function by pressing these buttons.
- 11. **MENU:** Press **MENU** button to open OSD menu when OSD is off, and vice verse. When OSD is at a sub menu state, pressing this button shall return to main menu.
- 12. **OK:** Select the **INPUT SOURCE**.
- 13. **EXIT:** Exit of **MENU**
- 14. **EPG (Electronic Program Guide):** Available only when you watch digital TV. PG display TV programs with reference to a channel and time interval.
- 15. **FAV:** Select and show to favorite channels.
- 16. **MTS (Multichannel Television Sound):** Press this button to change audio language on DTV.
- 17. **CC:** Select for **CLOSED CAPTION**.
- 18. **PICTURE MODE:** Select the **PICTURE MODE** with Standard / Dynamic / Soft / Personal.
- 19. **AUDIO MODE:** Select the Audio Mode with Standard / Music / Movie / Personal.
- 20. **ZOOM:** Switch aspect ratio among Normal / Wide / Zoom / Cinema.
- 21. **INFO:** Press to display information on the plasma TV screen.

Remote Controller

Installing the Batteries



- ① Remove the rear cover of the remote controller by pressing the arrow symbol downwards and then pulling firmly to remove it.
- ② Insert two 1.5V of AAA type batteries by following polarities (+/-).
- ③ Close the cover.

TIP

To confirm proper battery installation, press any button on the remote control and check the red LED on the remote control to see if it twinkles.

Connecting an Outdoor Air Antenna / Cable Television Network

Outdoor Air Antenna with 75 Ohm Round Lead

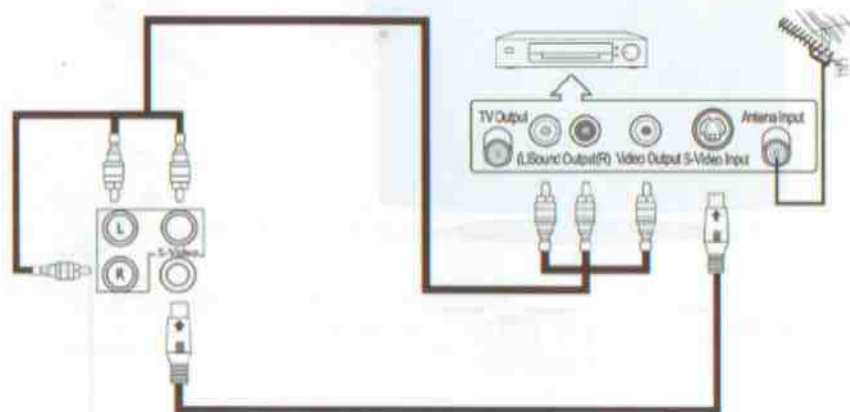


Cable Television Network



Connecting VCR

Composite or S-Video Connection



How To Connect

Connecting Guide

Using Composite Guide Cable: When you connect the Audio/Video composite cables, beware of the colors of the jack. Video is Yellow, Audio is in White and Red).

Using S-Video Cable: If the VCR you have supports S-Video Output, connect the S-Video input to the PDP TV into the S-Video Output of the VCR and do the same in Sound cable (White and Red).

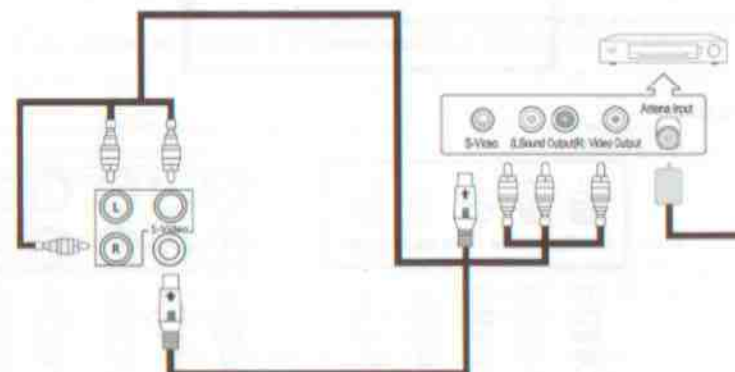
To Watch the VCR

Turn on the product, press the **SOURCE** button on the remote control to show and select the connected available external devices on the screen.

Turn on the VCR, insert a video cassette then press the **PLAY** button.

Connecting Cable box / Satellite Receiver

Composite (Video/Sound) or S-Video connection



How To Connect

Using the Antenna Cable to Cable Box/Satellite Receiver: Plug the Antenna cable with 75 Ohm pound lead into the antenna input terminal of the cable box/satellite receiver.

Connecting Guide

Using Composite (A/V) Cable:

- **Video Connection:** Connect the video input port of the LCD TV the video Output Port of the cable box/satellite receiver with the composite cable. The color of the video cable and output port are in yellow.
- **Sound Connection:** Connect the sound input port of the LCD TV to the sound output port of the cable box/satellite receiver with the composite cable. The color of the sound cable and output port are in white and red.

Using S-Video Cable (White S-Video is supported):

- **Video Connection:** Connect the S-Video input port of the LCD TV to the S-Video output port of the cable box/satellite receiver by using the S-Video cable.
- **Sound Connection:** Connect the sound input port of the LCD TV to the sound output port of the cable box/satellite receiver with sound cable. The color of the sound cable and output port are in white and red.

To Watch the Cable Box/Satellite Receiver Box

Turn on the LCD TV and press **SOURCE** button on the remote control to show and select the connected available external devices on the screen.

Turn on the cable box/satellite receiver and select the channel you would like to watch.

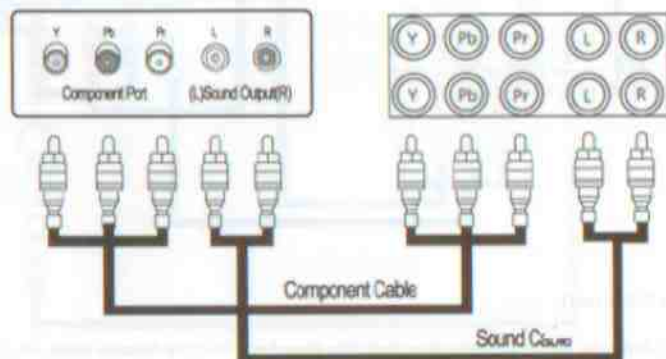
Composite (Video/Sound) or S-Video connection

How To Connect

Connecting the Antenna Cable to Cable Box/Satellite Receiver

Plug the Antenna cable with 75 Ohm pound lead into the Antenna input terminal of the cable box/satellite receiver.

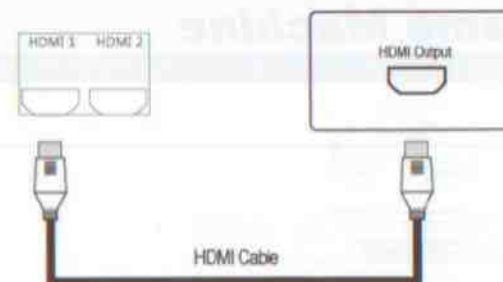
Connecting Guide



Using Component Cable (Green, Blue & Red color):

- **Video Connection:** Connect the Component input port of the LCD TV into the Component output port of the cable box/satellite receiver with the Component cable. The color of the cable and output port are in green, blue and red accordingly.
- **Sound Connection:** Connect the sound input port of the LCD TV into the sound output port of the cable box/satellite receiver with the composite cable. The color of the sound cable and IN/OUT ports are in white and red. In this case, the sound ports are generally located by the component ports.

Component connection is also required to connect sound L/R properly. If it fails, then there will be no sound.



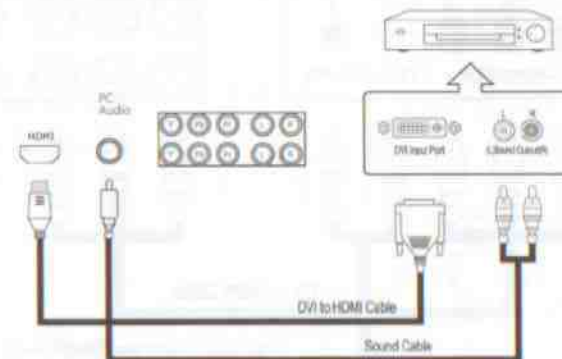
Using HDMI (Source) to HDMI Cable: This is only where both of the devices have HDMI ports.

Since the HDMI delivers a sound signal with its video signal, it does not require any additional sound connections to the cable box/satellite receiver by using a S-Video cable.

What is HDMI?

The high-definition multi-media interface (HDMI) is an industry-supported uncompressed, all digital audio/video interface. HDMI provides an interface between any compatible digital audio/video source such as a setup box, DVD player and A/V receiver and a compatible digital audio/video monitor, such as a digital television (DTV). HDMI supports standard, enhanced or high-definition video, plus multi-channel digital audio on a signal cable.

HDMI to HDMI connection does not require an additional sound cable connection while DVI (source) to HDMI connection needs additional sound cable connection (L/R), because DVI does not deliver a sound signal in it.



Using DVI (Source) to HDMI cable: This is applicable if only a DVI output exists on a cable box/satellite receiver. In this case, DVI to HDMI cable can be used to connect each other. Unlike HDMI to HDMI as mentioned in the above, DVI does not deliver a sound signal. Additional sound connections should be done.

- **Video Connection:** Connect the HDMI input port of the LCD TV to the DVI output port of the cable box/satellite receiver with the DVI to HDMI cable.
- **Sound Connection:** Connect the PC audio input of the LCD TV and the sound output port of the cable box/satellite receiver with Stereo (RCA) jack to PC audio jack cable.

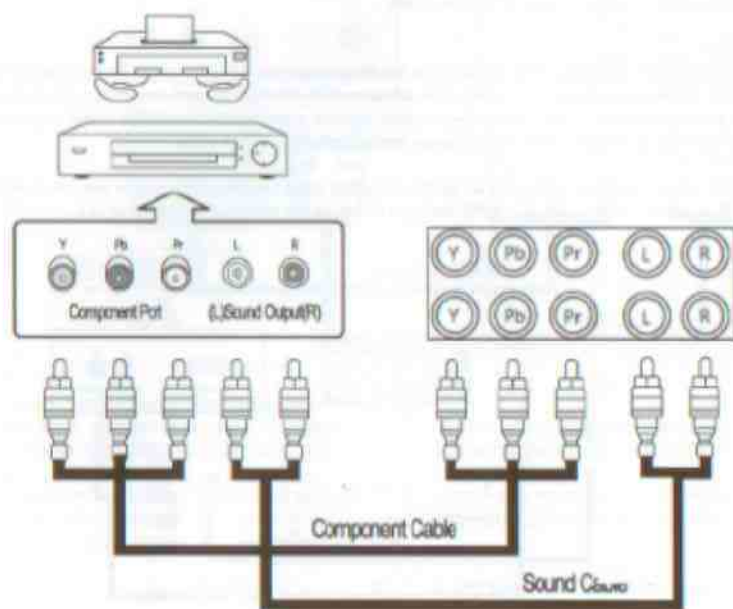
To Watch the Cable Box/Satellite Receiver Box

Turn on the LCD TV and press **SOURCE** button on the remote control to show and select the connected available external devices on the screen.

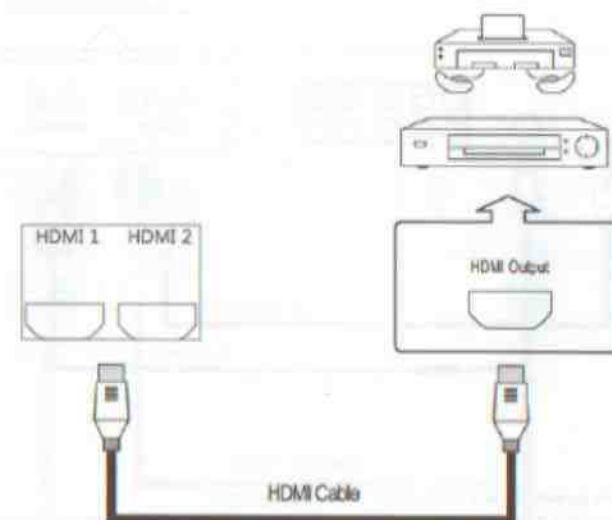
Turn on the cable box/satellite receiver and select the channel you would like to watch.

Connecting DVD Player / Video Game Machine

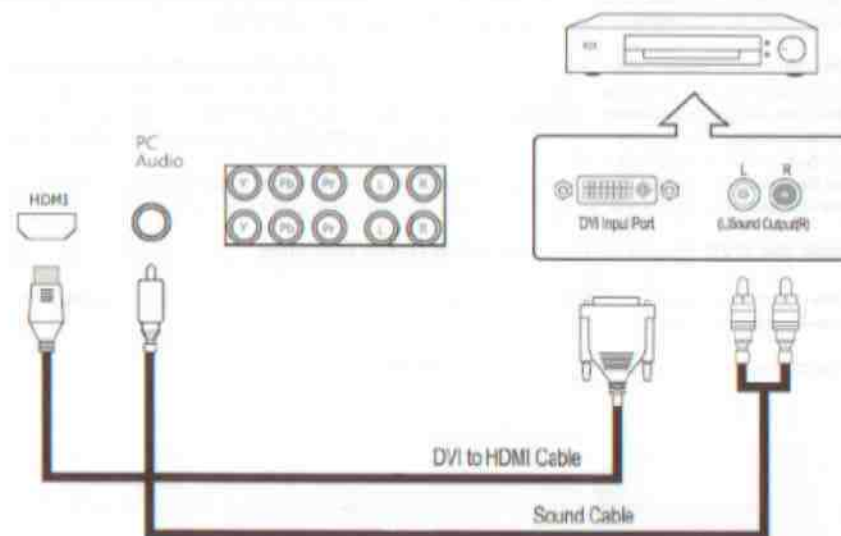
Component Connection



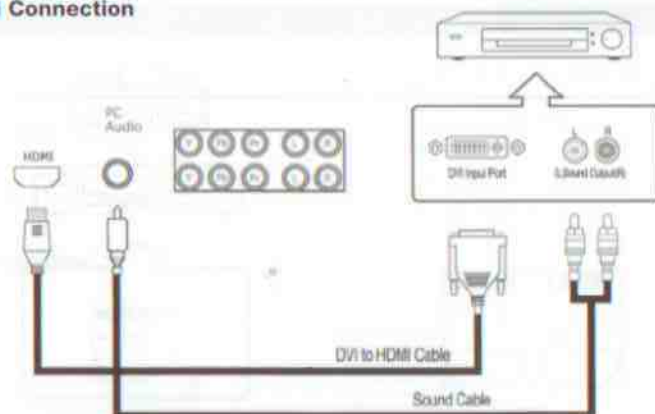
HDMI Connection



DVI to HDMI Connection



DVI to HDMI Connection



How To Connect

Connecting Guide

Using Component Cable (green, blue & red color):

- **Video Connection:** Connect the Component input port of the LCD TV to the component output port of the DVD Player/Video game machine with the Component cable. The color of the cable and IN/OUT ports are in green, blue and red color accordingly.
- **Sound Connection:** Connect the sound input port of the LCD TV to the sound output port of the DVD player/Video game machine with a Composite cable. The color of the sound cable and output ports are in white and red. In this case, the sound ports are generally located by the component ports. Component connection is also required to connect sound L/R properly. If it fails, there will be no sound.

Using HDMI (Source) to HDMI Cable: This is only where both of the devices have an HDMI port. Since HDMI delivers a sound signal with its video signal, it does not require any additional sound connections.

Using DVI (Source) to HDMI Cable: This is applicable if there is only a DVI output on the DVD player/Video game machine. In this case, the DVI to HDMI cable can be used to connect each other. Unlike HDMI to HDMI as mentioned in the above, DVI does not deliver a sound signal. Additional sound connections should be done.

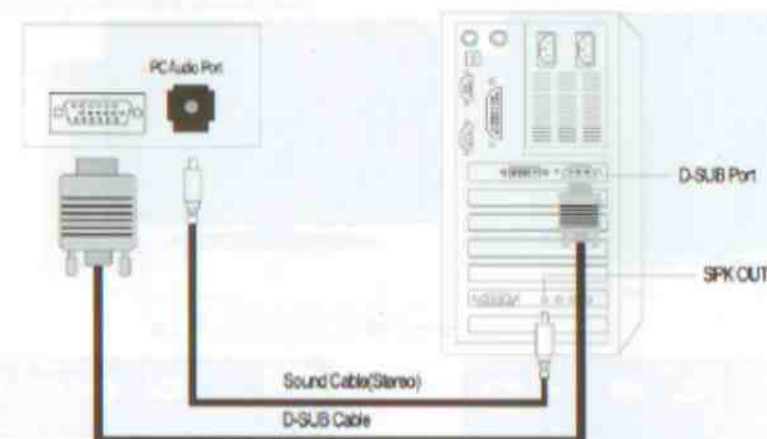
- **Video Connection:** Connect the HDMI input port of the LCD TV to the DVI output port of the DVD player/Video game machine with the DVI to HDMI cable.
- **Sound Connection:** Connect the PC Audio input of the LCD TV and the Sound output port of the cable box/satellite receiver with Stereo (RCA) jack with the Audio jack cable. (HDMI and Audio cables are not included)

To Watch the DVD Player or Play the Video Game Machine

Turn on the LCD TV and press the **SOURCE** button on the remote control to show and select the connected available external devices on the screen.

Turn on the DVD player/Video game machine and press the **PLAY** button.

Connecting a PC



How To Connect

Connecting Guide

Using D-sub Cable: The most common way to use LCD TV as a computer monitor.

- **Video Connection:** Connect the D-sub in the port of the LCD TV into the D-sub output port of the PC with the D-sub cable.
- **Sound Connection:** Connect the sound IN port of the LCD TV into the sound OUT port of the PC with the stereo jack (Male to Male headphone jack type) cable. In this case, the sound ports are generally located by the D-sub ports.

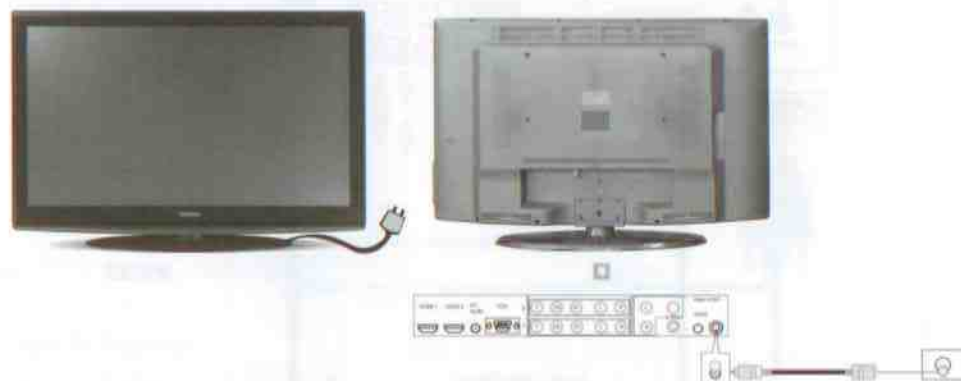
To Use it as a Computer Monitor

Connected through D-sub cable: Turn on the LCD TV and press **SOURCE** button to show and select the connected available external devices on the screen. Select **VGA**.

Tip

HDMI is for DVI Video only such as a DVD or Set Top box. Thus, PC (DVI VGA) to HDMI is not supported because of known compatibility problems.

Getting Started



- ① Plug the Power Cable into AC input on the back of the TV.
- ② Please make sure the connection between the outdoor air antenna is with 75 Ohm round lead in the LCD TV.
- ③ Press the **POWER** button on the remote controller or side panel of the LCD TV.
- ④ Change the channel by pushing **CHANNEL** [/] button or use the number keys on the remote controller.
- ⑤ Press the **VOLUME** [] to adjust the volume level.

Channel scan should be done before using this product.
Check the antenna and power cable connection if there is no display.

1. TV Setting

1-1. Scanning Channels (Automatic)



Source



(TV Menu / DTV)



- ① Press the **SOURCE** button then select the input source **TV** with the **UP/DOWN** buttons.
- ② Press **MENU** button then move to the **CHANNEL** menu with **LEFT/RIGHT** buttons.
- ③ Move to **AIR/CABLE** menu with **UP/DOWN** buttons then select menu depends on the input signal with **LEFT/RIGHT** buttons.
- ④ Move to **AUTO SCAN** menu with **UP/DOWN** buttons then press **RIGHT** button.
- ⑤ Move to **START TO SCAN** menu with **UP/DOWN** buttons then press **RIGHT** button.

1-2. Setting the Favorite Menu

- ① Move to **FAVORITE** menu with **UP/DOWN** buttons then press **RIGHT** button.
Move to the channel that you want with **UP/DOWN** in the channel list then press the **OK** button, then the channel selected with **[V]** mark at right side.
- ② Repeat above setting task until all the channels that you want will be listed in the channel list.
- ③ If you want to check the setting of the favorite then press the **FAV** button.

1-3. Channel Show / Hide



- ① Move to **SHOW/HIDE** menu with **UP/DOWN** buttons.
- ② Press the right button then the menu to show the channel list; then move to the channel that you want with **UP/DOWN** button; then press the **OK** button.

1-4. Channel No.

- ① Move to **CHANNEL NO.** with **UP/DOWN** buttons.
- ② Pressing the **LEFT/RIGHT** buttons, you can check the **CHANNEL NO.** of broadcasting.

1-5. Channel Label



- ① Move to **CHANNEL LABEL** menu with **UP/DOWN** buttons.
- ② Pressing the **RIGHT** button, you may fix the label that you want.

2. Selecting Input Source

2-1. Selection of AV/S-Video

- ① Press the **SOURCE** button.
- ② Move **AC** or **S-Video** menu with **UP/DOWN** buttons.
- ③ Press the **OK** button for selecting the input source.



2-2. Selecting Component (2 channel)

- ① Press the **SOURCE** button.
- ② Move to **COMPONENT 1** or **COMPONENT 2** menu with **UP/DOWN** buttons.
- ③ Press the **OK** button for selecting the input source.



2-3. Selecting HDMI

- ① Press the **SOURCE** button.
- ② Move to **HDMI** menu with **UP/DOWN** buttons.
- ③ Press the **OK** button for selecting the input source.



2-4. VGA Input (with monitor use)

- ① Press the **SOURCE** button.
- ② Move to **VGA** menu with **UP/DOWN** buttons.
- ③ Press the **OK** button for selecting the input source.



3. Function SETUP

3-1. Picture Setup



3-1-1. Picture Mode

- ① Press the **MENU** button.
- ② Go to **PICTURE** menu with **UP/DOWN** buttons.
- ③ Select the **PICTURE** mode that you want with **LEFT/RIGHT** buttons. (**Standard / Dynamic / Soft / Personal**)



3-1-2. Picture Adjustment (Contrast / Brightness / Saturation / Sharpness)

- ① Press the **MENU** button.
- ② Go to the **PICTURE** menu that you want in the 4 sub menus with **UP/DOWN** buttons below the **PICTURE MODE** menu.
- ③ Adjust the value of men with **LEFT/RIGHT** buttons.
(Contrast: 0~100 Adjustable, Default: 50)
(Brightness: 0~100 Adjustable, Default: 50)
(Saturation: 0~100 Adjustable, Default: 50)
(Tint: -50 ~50 Adjustable, Default: 0)
(Sharpness: 0~100 Adjustable, Default: 50)



3-1-3. Color Mode

- ① Press the **MENU** button then move to **PICTURE** menu with **LEFT/RIGHT** buttons.
- ② Go to **COLOR MODE** with **UP/DOWN** buttons.
- ③ Select the modes that you want with **LEFT/RIGHT** buttons. (**Standard / Warm / Cool**)

3-2. Audio Setup



3-2-1. Sound Mode

- ① Press the **MENU** button.
- ② Go to the **AUDIO** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **SOUND** mode with **UP/DOWN** buttons. Selecting the modes with **LEFT/RIGHT** buttons. (**Standard / Music / Movie / Personal**)



3-2-2. Sound Adjustment (3 Menus, Bass/Treble/Balance)

- ① Press the **MENU** button.
- ② Go to the **AUDIO** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **MENU** that you want to fix in the 3 sub menus, Bass / Treble / Balance, with **UP/DOWN** buttons.
- ④ Adjust the value with **LEFT/RIGHT** buttons.
(Bass: 0~100 Adjustable, Default: 50)
(Treble: 0~100 Adjustable, Default: 50)
(Balance: 0~100 Adjustable, Default: 50)



3-2-3. Surround/AVC (Automatic Volume Control)

- ① Press the **MENU** button.
- ② Go to **AUDIO** menu with **LEFT/RIGHT** buttons.
- ③ Go to **SURROUND/AVC** with **UP/DOWN** buttons.
- ④ Select **ON/OFF** with **LEFT/RIGHT** buttons.



3-2-4. SPDIF Type

- ① Press the **MENU** button.
- ② Go to the **AUDIO** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **SPDIF Type** with **UP/DOWN** buttons.
- ④ Select from the 2 types (**RAW / PCM**) with **LEFT/RIGHT** buttons.



3-2-5. Audio Language

- ① Press the **MENU** button.
- ② Go to the **AUDIO** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **AUDIO** language with the **UP/DOWN** buttons.
- ④ Select from the 3 languages (**English / French / Spanish**) with **LEFT/RIGHT** buttons.

3-3. Time Setup



3-3-1. Sleep Time

- ① Press the **MENU** button.
- ② Go to the **TIME** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **SLEEP TIME** menu with **UP/DOWN** buttons.
- ④ Select the sleep time that you want with **LEFT/RIGHT** buttons.
(off / 5 / 10 / 15 / 30 / 45 / 60 / 90 / 120 / 180 / 240 minutes)



3-3-2. Time Zone

- ① Press the **MENU** button.
- ② Go to the **TIME** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **TIME ZONE** menu with **UP/DOWN** buttons.
- ④ Select the time zone that you want with **LEFT/RIGHT** buttons.
(Pacific / Alaska / Hawaii / Eastern / Central / Mountain)



3-3-3. Daylight Saving Time

- ① Press the **MENU** button.
- ② Go to **TIME** menu with **LEFT/RIGHT** buttons.
- ③ Go to **DAYLIGHT SAVING TIME** with **UP/DOWN** buttons.
- ④ Select **ON/OFF** with **LEFT/RIGHT** buttons.

3-4. Setup



3-4-1. Menu Language

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **MENU LANGUAGE** menu with **UP/DOWN** buttons.
- ④ Select the languages that you want with **LEFT/RIGHT** buttons.
(English / French / Spanish)



3-4-2. Transparency

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **TRANSPARENCY** menu with **UP/DOWN** buttons.
- ④ **ON/OFF** with **LEFT/RIGHT** buttons.



3-4-3. Zoom Mode

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **ZOOM MODE** menu with **UP/DOWN** buttons.
- ④ Select the **ZOOM MODE** that you want with **LEFT/RIGHT** buttons.



3-4-4. Noise Reduction

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **ZOOM MODE** menu with **UP/DOWN** buttons.
- ④ Select the noise reduction that you want with **LEFT/RIGHT** buttons.
(Off / Weak / Middle / Strong)



3-4-5. PC Advanced

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **PC ADVANCED** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button.
- ⑤ Select **NO/YES** with **LEFT/RIGHT** button.
- ⑥ Select the sub-menus with **UP/DOWN** buttons then value with **LEFT/RIGHT** buttons. (H-position / V-position / Clock/Phase / Auto-adjust)



3-4-6. Closed Caption

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **CLOSED CAPTION** menu with **UP/DOWN** buttons.
- ④ Press **OK** then you will see the CC Mode setup menu.



3-4-6-1. CC Mode

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **CLOSED CAPTION** menu with **UP/DOWN** buttons.
- ④ Select the **CLOSED CAPTION** mode with **LEFT/RIGHT** buttons.
(On / Off / CC on Mute)



3-4-6-2. Basic Selection

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **CLOSED CAPTION** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button for moving to the **CLOSED CAPTION** mode.
- ⑤ Move to the **BASIC SELECTION** menu with **UP/DOWN** buttons.
- ⑥ Select the mode with **LEFT/RIGHT** buttons.
(CC1 / CC2 / CC3 / CC4 / Text1 / Text2 / Text3 / Text4)



3-4-6-3. Advanced Selection

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **CLOSED CAPTION** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button for the Closed Caption mode.
- ⑤ Go to the **ADVANCED SELECTION** menu with **UP/DOWN** buttons.
- ⑥ Select the mode with **LEFT/RIGHT** buttons.
(Service1 / Service2 / Service3 / Service4 / Service5 / Service)



3-4-6-4. Option

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **CLOSED CAPTION** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button for the **CLOSED CAPTION** mode.
- ⑤ Move to the **OPTION** menu with **UP/DOWN** buttons.
- ⑥ Press the **RIGHT** button.
- ⑦ Select the **DEFAULT/CUSTOM** with **LEFT/RIGHT** buttons.
- ⑧ If you select the custom menu then you need to choose the option you desire. (Front Style / Size / Edge style / Edge Color) (FG Color / Opacity) (BG Opacity)



3-4-7. MISC Setup (Mixed sets)

3-4-7-1. XVS (Control Dynamic Brightness)

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **MISC SETUP** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button for moving to the **XVS** mode.
- ⑤ Select the **XVS** mode with **UP/DOWN** buttons.



3-4-7-2. Audio Only (just the output video, not image)

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **AUDIO ONLY** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button.
- ⑤ Select **NO/YES** with **LEFT/RIGHT** buttons.



3-4-8. Restore Default

- ① Press the **MENU** button.
- ② Go to the **SETUP** menu with **LEFT/RIGHT** buttons.
- ③ Go to the **RESTORE DEFAULT** menu with **UP/DOWN** buttons.
- ④ Press the **RIGHT** button.
- ⑤ Select **NO/YES** with **LEFT/RIGHT** buttons.



3-5. Lock Setting (Parental Lock)



3-5-1. Enter Password

- ① Press the **MENU** button then move to the **LOCK** menu with the **LEFT/RIGHT** buttons.
- ② Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- ③ Press the 4 digit number that will be your password number key buttons. (Factory password is '0000')



3-5-1-1. Change Password

- ① Press the **RIGHT** button.



3-5-1-1-1. Enter New Password/Confirm Password

- ① Press the 4 digit number that you want to be your number key.
- ② Go to the **CONFIRM PASSWORD** with **UP/DOWN** buttons.
- ③ Press the 4 digit number again you entered above. This will confirm your password.



3-5-2. System

- ① Press the **MENU** button then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- ② Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- ③ Press the 4 digit number that is your password using the number key buttons. (Factory password is '0000')
- ④ Move to the **SYSTEM** with **UP/DOWN** buttons.
- ⑤ Select **ON/OFF** with **LEFT/RIGHT** buttons.
(Service1 / Service2 / Service3 / Service4 / Service5 / Service)



3-5-3. US

- ① Press the **MENU** button then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- ② Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- ③ Press the 4 digit number that is your password using the number key buttons. (Factory password is '0000')
- ④ Move to **US** with **UP/DOWN** buttons.
- ⑤ Press the **RIGHT** button.



3-5-3-1. TV

- ① Press the **MENU** button then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- ② Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- ③ Press the 4 digit number that is your password using the number key buttons. (Factory password is '0000')
- ④ Move to **TV** with **UP/DOWN** buttons.
- ⑤ Press the **RIGHT** button for going to the **TV** mode.



TV Rating

TV (FCC) Age-Based Rating	Important Notes about Parental Locks
TV-Y (All Children)	The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
TV-Y7 (Directed to Older Children)	Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
TV-G (General Audience)	It contains little or no violence, no strong language, and little or not sexual dialog or situations.
TV-PG (Parental Guidance Suggested)	The program may contain infrequent coarse language, limited violence, some suggestive sexual dialog and situations.
TV-14 (Parents Strongly Cautioned)	This program may contain sophisticated themes, sexual content, strong language and more intense violence.
TV-MA (Mature Audience Only)	This program may contain mature themes, profane language, graphic violence and explicit sexual content.

TV (FCC) Content Category	Content
V	Violence
S	Sexual Content
L	Offensive Language
D	Dialog of Sexual Innuendo



- 1 Press **MENU** then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- 2 Go to **ENTER PASSWORD** with **UP/DOWN** buttons.
- 3 Press the 4 digit number that is your **PASSWORD** using the number key buttons. (Factory password is '0000')
- 4 Go to **US** with **UP/DOWN** buttons.
- 5 Press the **RIGHT** button for moving to the **TV** mode.

G	General audience, no restrictions
PG	Children under 13 should be accompanied by an adult
PG-13	Parental guidance suggested. Children under 13 should be accompanied by an adult.
R	Parental guidance suggested. Children under 13 should be accompanied by an adult.
NC-17	Not classified. Viewers should be 17 or older.
X	Adults only
N/A	



3-5-4. Canada

- 1 Press **MENU** then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- 2 Go to **ENTER PASSWORD** with **UP/DOWN** buttons.
- 3 Press the 4 digit number that is your **PASSWORD** using the number key buttons. (Factory password is '0000')
- 4 Go to **CANADA** with **UP/DOWN** buttons.
- 5 Press the **RIGHT** button for going to the **TV** mode.



3-5-4-1. Canada English

- 1 Press the **MENU** button then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- 2 Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- 3 Press the 4 digit number that is your password using the number key buttons. (Factory password is '0000')
- 4 Move to **CANADA** with **UP/DOWN** buttons.
- 4 Press the **RIGHT** button.
- 5 Select **CANADA ENGLISH** that you want with **LEFT/RIGHT** buttons. (**E / G / PG / C8+ / 14+ / 18+**)



3-5-4-2. Canada French

- 1 Press the **MENU** button then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- 2 Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- 3 Press the 4 digit number that is your password using the number key buttons. (Factory password is '0000')
- 4 Go to **CANADA** with **UP/DOWN** buttons.
- 4 Press the **RIGHT** button.
- 5 Select **CANADA FRENCH** that you want with **LEFT/RIGHT** buttons. (**G / E / 8ans+ / 13ans+ / 16 and+ / 18 and+**)



3-5-5. Reset RRT

- 1 Press the **MENU** button then go to the **LOCK** menu with **LEFT/RIGHT** buttons.
- 2 Go to the **ENTER PASSWORD** menu with **UP/DOWN** buttons.
- 3 Press the 4 digit number that is your password using the number key buttons. (Factory password is '0000')
- 4 Go to **CANADA** with **UP/DOWN** buttons.
- 4 Press the **RIGHT** button.
- 5 Select **NO/YES** with **LEFT/RIGHT** buttons.



Limited Warranty

VIZEN, INC. Products ("VIZEN, INC.") warrants to you, the original purchaser of this new NK 32 NKR720P (Product), that the Product shall be free of defects in the original manufacture of the material or workmanship for a period of one (1) year from the date of your purchase of the Product ("Warranty Period"). This Product must be purchased from an authorized dealer of VIZEN, INC. brand Products and packaged with this warranty statement. This warranty does not cover refurbished products. If you notify VIZEN, INC. during the warranty period of a defect covered by the warranty that requires service, terms of this warranty apply.

MODEL: NK32 NKR720P

Warranty Period 1 Year

How long does the coverage last?

The warranty period lasts for one year (365 days) from the date you purchased the product. The purchase date is printed on the receipt you received with the product.

What does this warranty cover?

During the warranty period, if the original manufacture of the material or workmanship of the product is determined to be defective by an authorized VIZEN, INC. repair center or store personnel, VIZEN, INC. will (at its sole option): (1) repair the product with new or rebuilt parts; or (2) replace the product at no charge with new or rebuilt comparable products or parts. Products and parts replaced under this warranty become the property of VIZEN, INC. and are not returned to you. If service of products and parts are required after the warranty period expires, you must pay all labor and parts charges. This warranty lasts as long as you own your VIZEN, INC. Product during the warranty period. Warranty coverage terminates if you sell or otherwise transfer the product.

How do I obtain warranty service?

If you purchased the Product at a retail store location, take your original receipt and the Product to the store you purchased it from. Make sure that you place the Product in its original packaging or packaging that provides the same amount of protection as the original packaging. If you purchased the Product from an online web site, mail your original receipt and the Product to the address listed on the web site. Make sure that you put the Product in its original packaging or packaging that provides the same amount of protection as the original packaging. To obtain in-home warranty for a television with a screen 25 inches or larger, call 1-714-680-9911. Call agents will diagnose and correct the issue over the phone or will have a VIZEN, INC.-approved repair person dispatched to your home.

Who is the warranty valid with?

This warranty is valid only to the original purchaser of the Product in the United States, Canada, and Mexico.

What does the warranty not cover?

This warranty does not cover:

- Customer instruction
- Installation
- Setup adjustments
- Cosmetic damage
- Damage due to acts of God, such as lightning strikes
- Accident
- Misuse
- Abuse
- Negligence
- Commercial use
- Modification of any part of the Product
- Plasma display panel damaged by static (non-moving) images applied for lengthy periods (burned in).

This warranty also does not cover:

- Damage due to incorrect operation or maintenance
- Connection to an incorrect voltage supply
- Attempted repair by anyone other than a facility authorized by VIZEN, INC. to service the Product
- Products sold as is or with all faults
- Consumables, such as fuses or batteries
- Products where the factory applied serial number has been altered or removed of their respective own.

REPAIR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY.

VIZEN, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT INCLUDING, BUT NOT LIMITED TO, LOST DATA, LOSS OF USE OF YOUR PRODUCT, LOST BUSINESS OR LOST PROFITS.

VIZEN, INC. MAKES NO OTHER EXPRESS WARRANTIES WITH RESPECT TO THE PRODUCT. ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF AN CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE WARRANTY PERIOD.

SOME STATES, PROVINCES AND JURISDICTIONS DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE-TO-STATE OR PROVINCE-TO-PROVINCE.

Contact VIZEN, INC.

For customer service please call 1-714-680-9911

www.vizeninc.com

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For customer use:

Enter below the model number which is located either on the rear, bottom or side of the cabinet.

Retain this information for future reference.

Model No: _____ Serial No: _____

Purchase date: _____ Name where purchased: _____

FCC Compliance Statement

CAUTION:

Any change or modification in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

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 which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Main Technical Specifications

Items	Specification
Broadcast signal system	Color system: NTSC, ATSC, QAM-256, 8-VSB Sound system: Stereo, MTS
Receiving channel	VHF: Channel 2-13 UHF: Channel 14-69 CATV: 1, 14-135
Antenna input impedance	75Ω
Power supply	AC 100V 60Hz
Sound output power	8Ω 2x9W
Resolution	1366 x 768
Brightness	500cd/m ²
Contrast	2000:1 (typical)
Terminal	HDMI x 2, S-Video x 1 (NTSC), VGA x 1, Component x 2, AV x 1 (NTSC), Antenna x 1, VGA sound in x 1, SPDIF x 1
OSD language	English / French / Spanish
Operating temperature	+32°F to 104°F (0°C to 40°C)
Weight (with stand)	46.2 lbs (21 kg)
Dimensions (with stand)	32" W x 9.68" D x 24.4" H
Accessories	User manual, remote controller, AAA Battery (2EA), Power cord for USA.

Note: Design and specification modification may be made at any time without further notice; all quality and dimensions are approximations.