



PLASMA TV

OWNER'S MANUAL

**MODELS: TU-50PY22/TU-50PY2DR-UA
TU-60PY22/TU-60PY2DR-UA**



Please read this manual carefully and completely before operating your TV.

Retain this manual for future reference.

Record model number and serial number of the TV in the spaces provided below.

See the label attached on the back cover and relate this information to your dealer if you require service.

Model Number :

Serial Number :

Warning/Caution



WARNING/CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.



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.

WARNING/CAUTION:

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

FCC NOTICE

• 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 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.

• Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION:

Do not attempt to modify this product in any way without written authorization from LG Electronics. Unauthorized modification could void the user's authority to operate this product.

COMPLIANCE:

The responsible party for this product's compliance is:

LG Electronics U.S.A., Inc

1000 Sylvan Avenue, Englewood Cliffs, NJ 07632

1-201-816-2000

<http://www.lgusa.com>

WARNING/CAUTION

TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

TV Guide On Screen Notices for U.S.A.

In the United States, the TV Guide On Screen system and other related marks are registered marks of Gemstar-TV Guide On Screen system International, Inc. and/or one of its affiliates. In Canada, TV Guide On Screen system is a registered mark of Transcontinental Inc., and is used under license by Gemstar-TV Guide On Screen system International, Inc.

The TV Guide On Screen system is manufactured under license from Gemstar-TV Guide On Screen system International, Inc. and/or one of its affiliates.

The TV Guide On Screen system is protected by one or more of the following issued United States patents 6,498,895, 6,418,556, 6,331,877; 6,239,794; 6,154,203; 5,940,073; 4,908,713; 4,751,578; 4,706,121.

Use of the CableCARD™ TradeMark.

“CableCARD™ is a trademark of Cable Television Laboratories, Inc.”

Digital Cable Compatibility

This digital television is capable of receiving basic analog, digital basic and digital premium cable television programming by direct connection to a cable system providing such programming. A security card provided by your cable operator is required to view encrypted digital programming. Certain advanced interactive digital cable services such as video-on-demand, cable operator enhanced program (For example, electronic program guide provided by the cable operator), and data enhanced television service may require the use of a set top box. For more information contact your local cable operator.

Safety Instructions

IMPORTANT SAFETY INSTRUCTIONS

Important safety instructions shall be provided with each apparatus. This information shall be given in a separate booklet or sheet, or be located before any operating instructions in an instruction for installation for use and supplied with the apparatus.

This information shall be given in a language acceptable to the country where the apparatus is intended to be used.

The important safety instructions shall be entitled "Important Safety Instructions". The following safety instructions shall be included where applicable, and, when used, shall be verbatim as follows. Additional safety information may be included by adding statements after the end of the following safety instruction list. At the manufacturer's option, a picture or drawing that illustrates the intent of a specific safety instruction may be placed immediately adjacent to that safety instruction :

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade 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. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. 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 exposed to rain or moisture, does not operate normally, or has been dropped.

15. CAUTION concerning the Power Cord :

Most appliances recommend they be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer.

Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

16. Outdoor Use Marking :

WARNING - To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Appliance To Rain Or Moisture.

17. Wet Location Marking :

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

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After reading this manual, keep it handy for future reference.

Introduction

What is a Plasma Display Panel (PDP)?

A plasma display panel is the latest display technology and the best way to achieve flat panel displays with excellent image quality and large screen sizes that are easily viewable. The PDP can be thought of as a descendant of the neon lamp and it can be also be viewed as a series of fluorescent lamps.

How does it work?

PDP is an array of cells, known as pixels, which are comprised of 3 sub pixels, corresponding to the colors red, green, and blue. Gas in a plasma state is used to react with phosphors in each sub-pixel to produce colored light (red, green, or blue). These phosphors are the same types used in Cathode Ray Tube (CRT) devices such as televisions and common computer monitors.

You get the rich, dynamic colors that you expect. Each sub-pixel is individually controlled by advanced electronics to produce over 16 million different colors. All of these mean that you get perfect images that are easily viewable in a display that is less than 5 inches thick.

160° - Wide angle range of vision

Your flat panel plasma screen offers an exceptionally broad viewing angle -- over 160 degrees. This means that the display is clear and visible to viewers anywhere in the room who can see the screen.

Wide Screen

The screen of the Plasma Display is so wide that your viewing experience is as if you are in a theater.

Multimedia

Connect your plasma display to a PC and you can use it for conferencing, games, and Internet browsing. The Picture-in-Picture feature allows you to view your PC and video images simultaneously.

Versatile

The light weight and thin size makes it easy to install your plasma display in a variety of locations where conventional TVs will not fit.

The PDP Manufacturing Process: a few minute colored dots may be present on the PDP screen

The PDP (Plasma Display Panel), which is the display device of this product, is composed of 0.9 to 2.2 million cells. A few cell defects will normally occur in the PDP manufacturing process. Several tiny, minute colored dots visible on the screen should be acceptable. This also occurs in other PDP manufacturers' products. The tiny dots appearing does not mean that this PDP is defective. Thus a few cell defects are not sufficient cause for the PDP to be exchanged or returned. Our production technology minimizes these cell defects during the manufacture and operation of this product.

Cooling Fan Noise

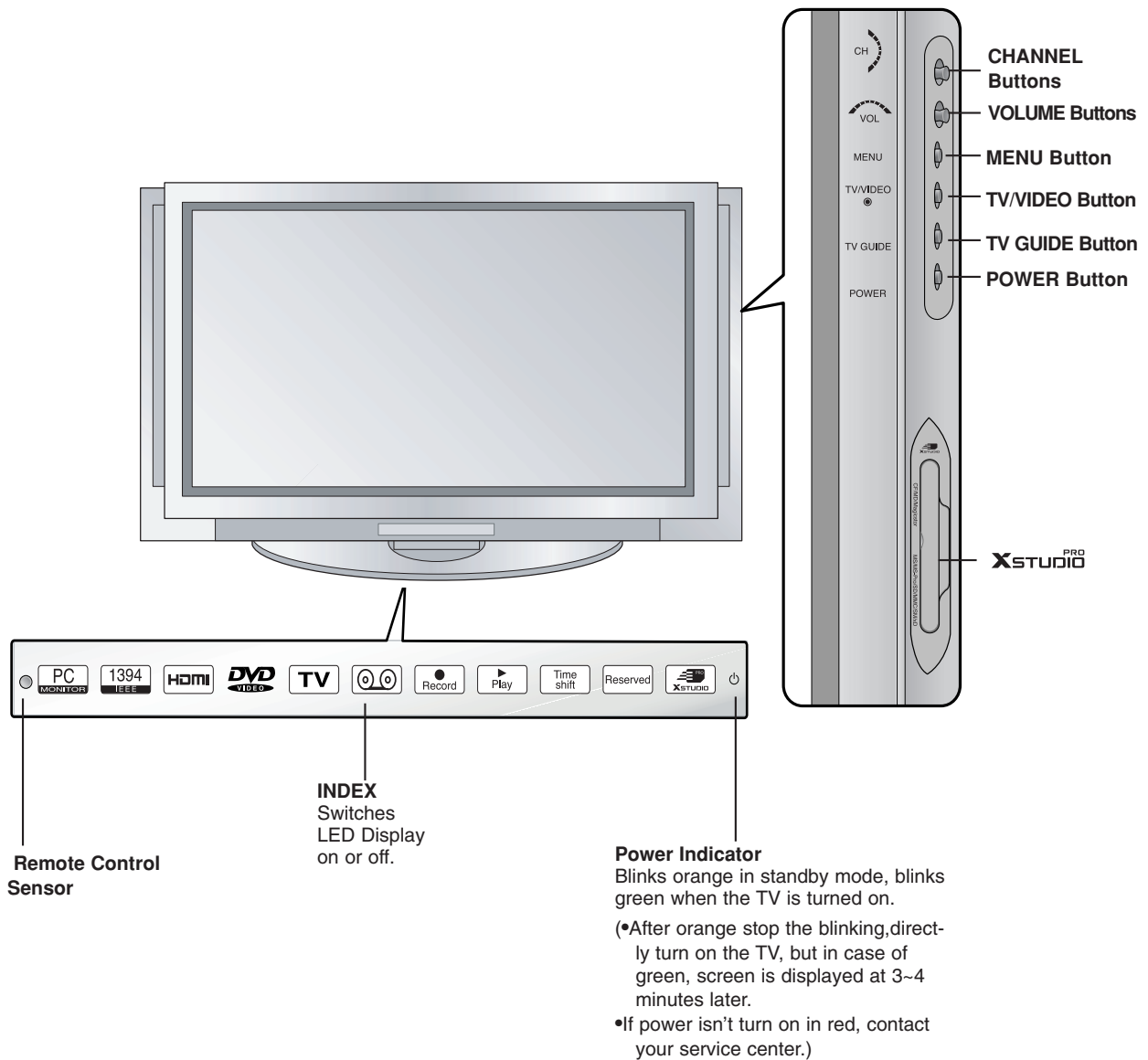
In the same way that a fan is used in a PC computer to keep the CPU (Central Processing Unit) cool, the PDP is equipped with cooling fans to cool the Monitor and improve its reliability. Therefore, a certain level of noise could occur while the fans are operating and cooling the PDP.

The fan noise doesn't have any negative effect on the PDP's efficiency or reliability. The noise from these fans is normal during the operation of this product. We hope you understand that a certain level of noise from the cooling fans is acceptable and is not sufficient cause for the PDP to be exchanged or returned.

Controls

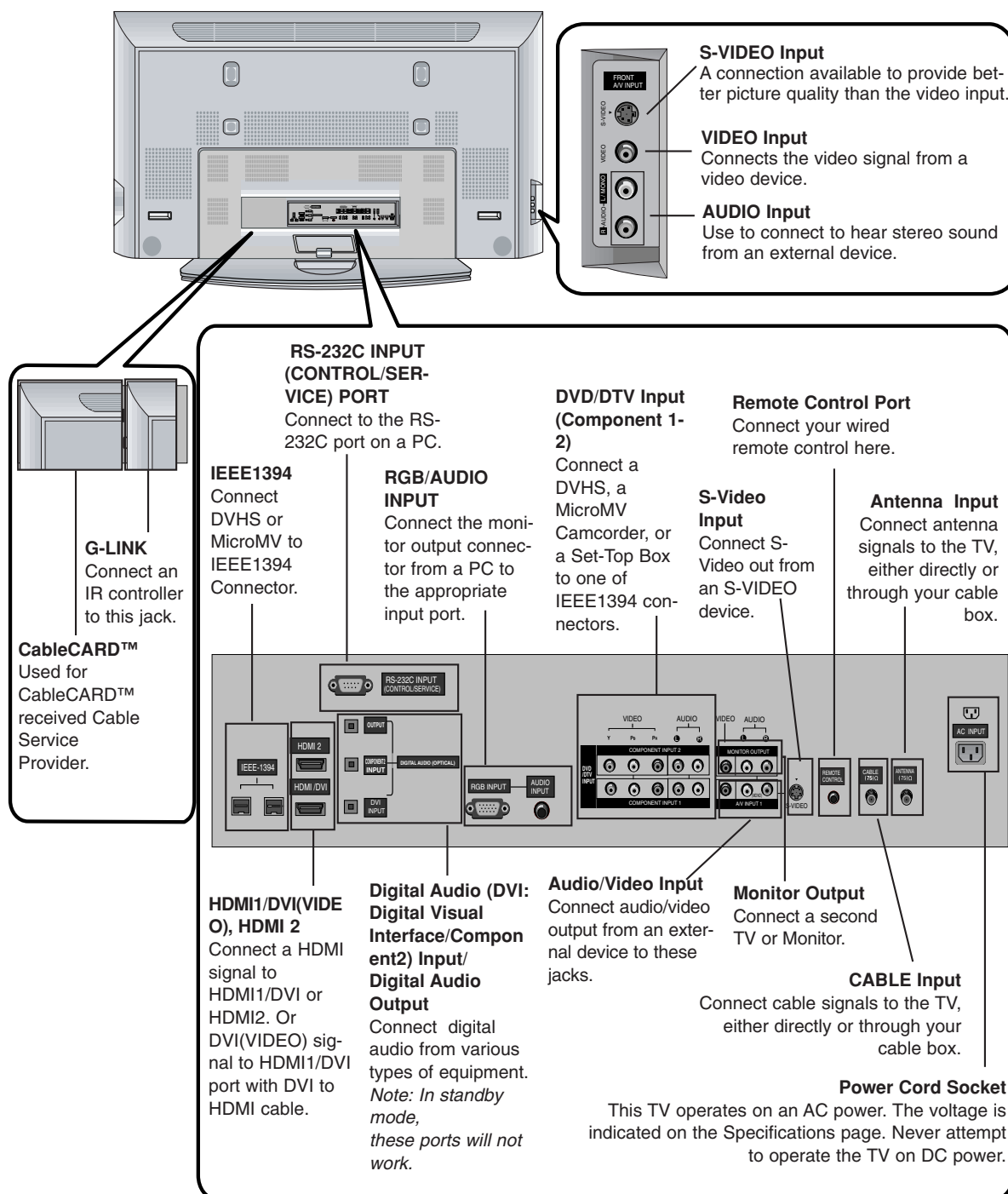
- This is a simplified representation of front panel.
- Here shown may be somewhat different from your TV.

Front Panel Controls



Connection Options

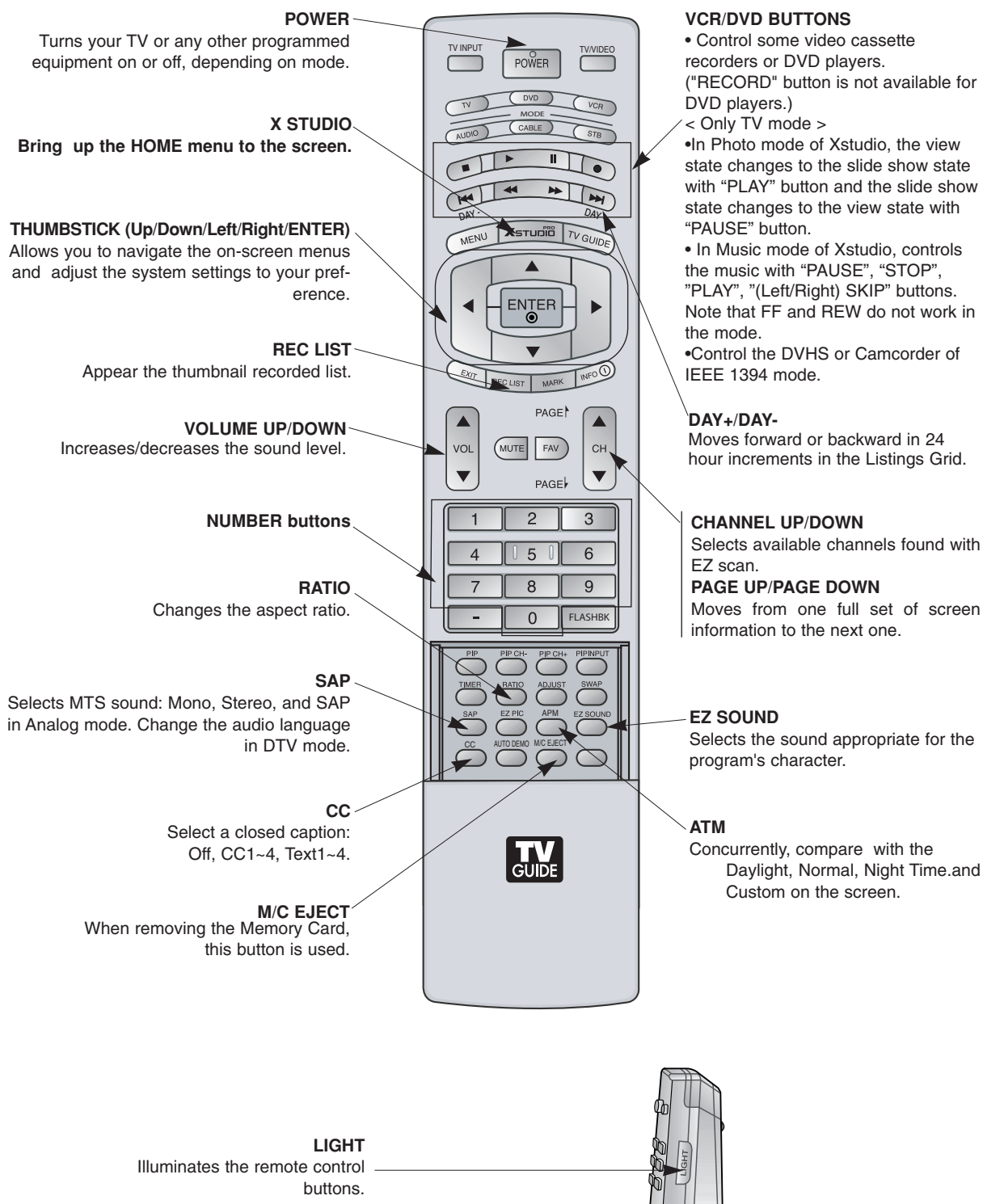
Back Connection Panel

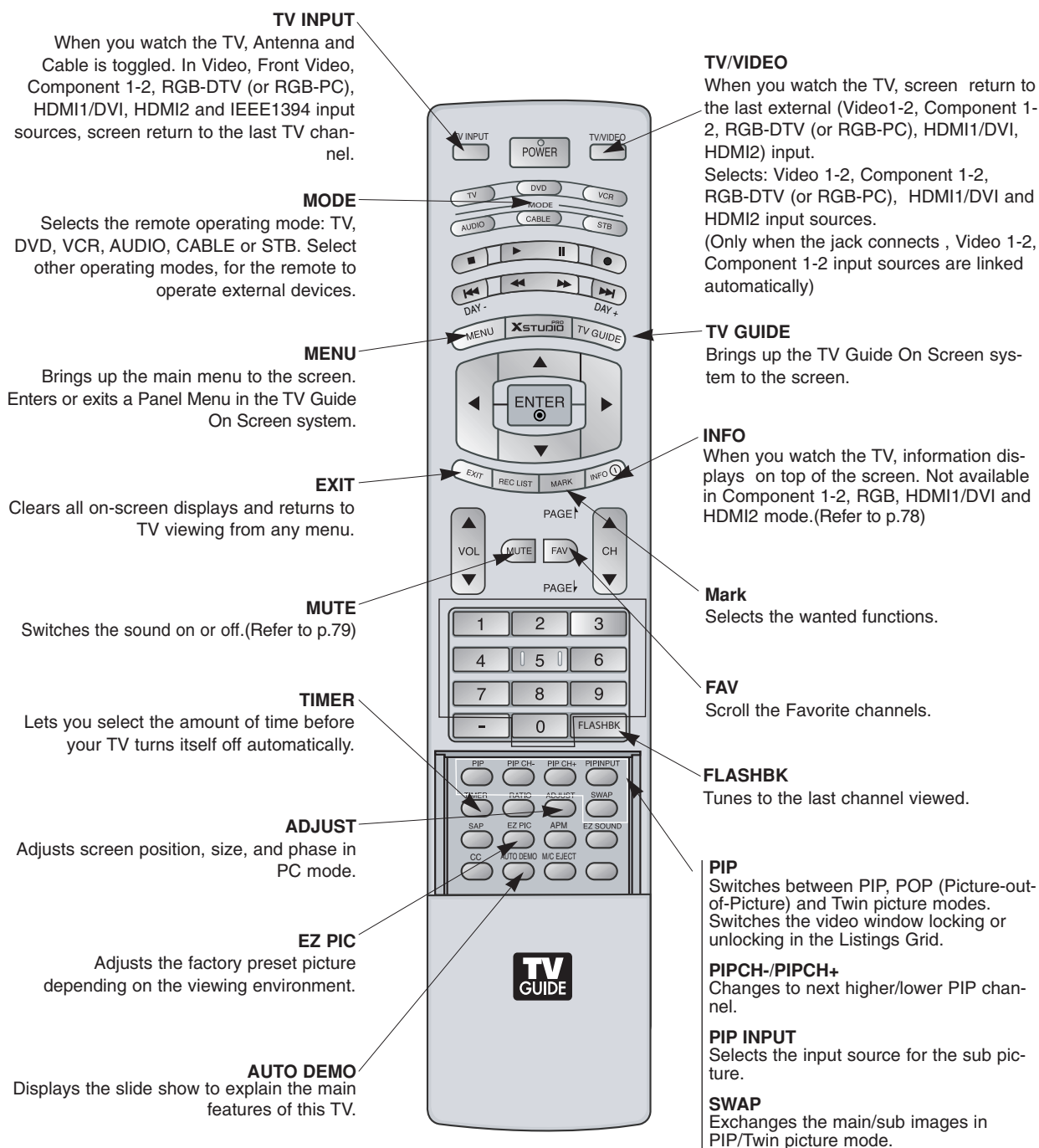


- This manual explains the features available on the TU-50PY22 series TVs.

Remote Control Key Functions

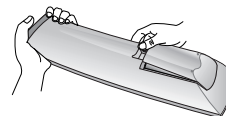
- When using the remote control, aim it at the remote control sensor on the TV.





Installing Batteries

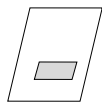
- Open the battery compartment cover on the back side and install the batteries matching correct polarity (+ with +, - with -).
- Install two 1.5V AA batteries. Don't mix old or used batteries with new ones. Replace cover.



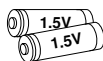
Installation

Accessories

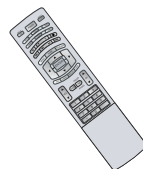
Ensure that the following accessories are included with your plasma display. If an accessory is missing, please contact the dealer where you purchased the product.



Owner's Manual



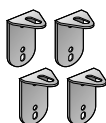
Batteries



Remote Control



Power Cord



2-TV brackets
2-Wall brackets



4-TV bracket bolts(50")
2-TV bracket bolts(60")



D-sub 15 pin Cable



75Ω Round Cable



6-RING SPACER
(Only TU-60PY22 series)



6-Wall mounting
bracket bolts
(Only TU-60PY22 series)

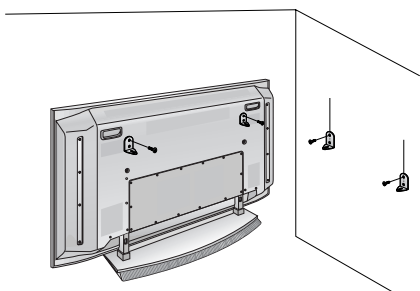


G-LINK Cable

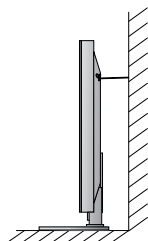
Installation Instructions

Joining the TV assembly to the wall to protect the set tumbling

- Secure the TV assembly by joining it to a wall by using the TV/Wall brackets.



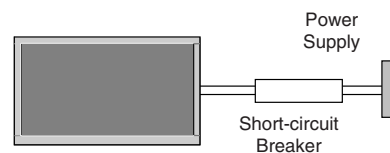
- After the set must be mounted on the desk top, install the TV brackets on the TV as shown.
Install the TV brackets on the TV as shown.
Insert the 2 bolts and tighten securely, in the upper holes on the bracket.
Install the wall brackets on the wall with 4 bolts*, (not supplied with the product), as shown.
Match the height of the TV brackets and the wall brackets.
Check to be sure the brackets are tightened securely.



- Secure the TV assembly to the wall with strong strings or wound wire cables, (not supplied with the product), as shown.

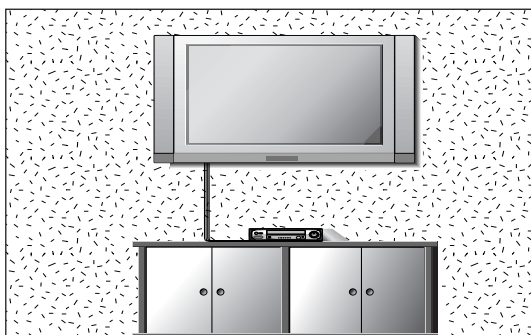
GROUNDING

Ensure that you connect the grounding / earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker. Do not try to ground the unit by connecting it to telephone wires, lightening rods, or gas pipes.

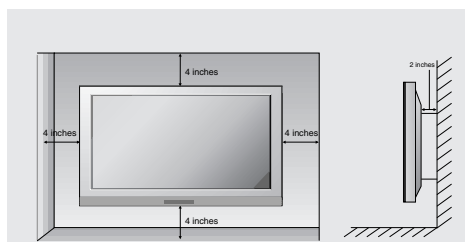


- The TV can be installed in various ways such as on a wall, or on a desktop etc.
- The TV is designed to be mounted horizontally.

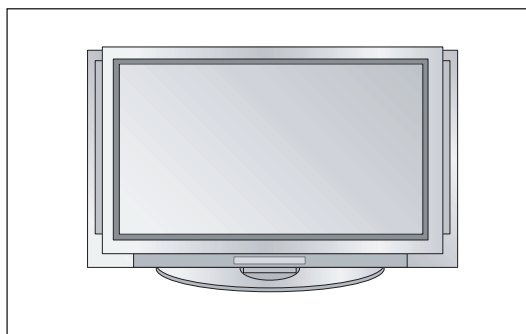
Wall Mount: Horizontal installation



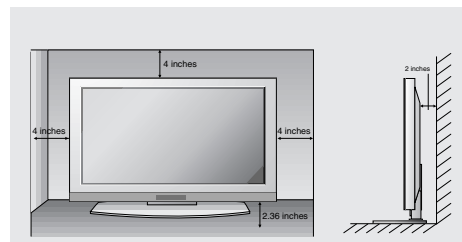
For proper ventilation, allow a clearance of 4" on each side and 2" from the wall. Detailed installation instructions are available from your dealer, see the optional Wall Mounting Bracket Installation and Setup Guide.



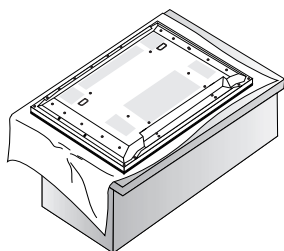
Desktop Pedestal Installation



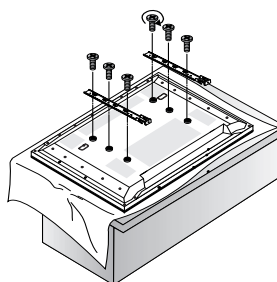
For proper ventilation, allow a clearance of 4" on each side and the top, 2.36" on the bottom, and 2" from the wall. Detailed installation instructions are included in the optional Desktop Stand Installation and Setup Setup Guide available from your dealer.



Install the RING SPACER with the bolts on the set as shown. (Only TU-60PY22 series)



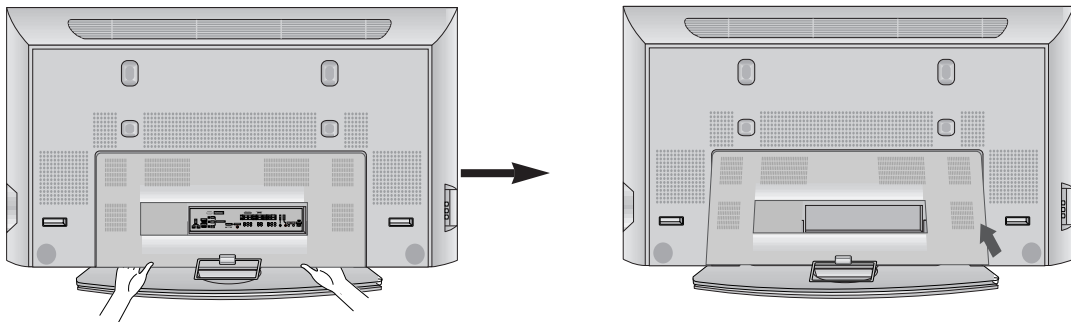
2. When you connect the wall mounting bracket to the set, connect to it by using the bolts, (supplied with the product), as shown.



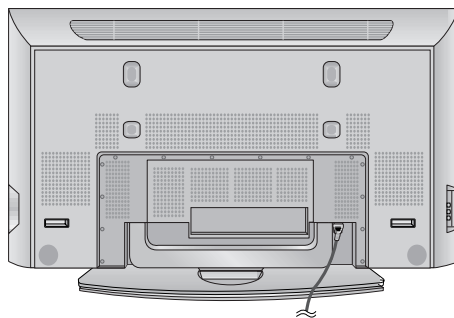
1. Put the RING SPACER in the holes of the bolts before connecting to the wall mounting bracket.

Remove or Attache the Plate Cover

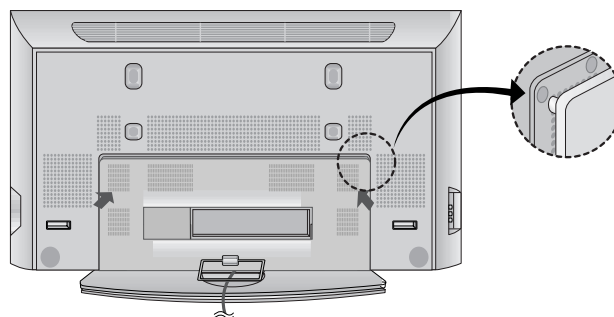
- When moving or connecting the power cord, be used the these methods.
- And after removing the plate cover, you must install the wall brackets on the wall.



1. With hands, push the lower left/right of plate cover and then pull out to the front.



2. Connect the power cord on the TV's back.

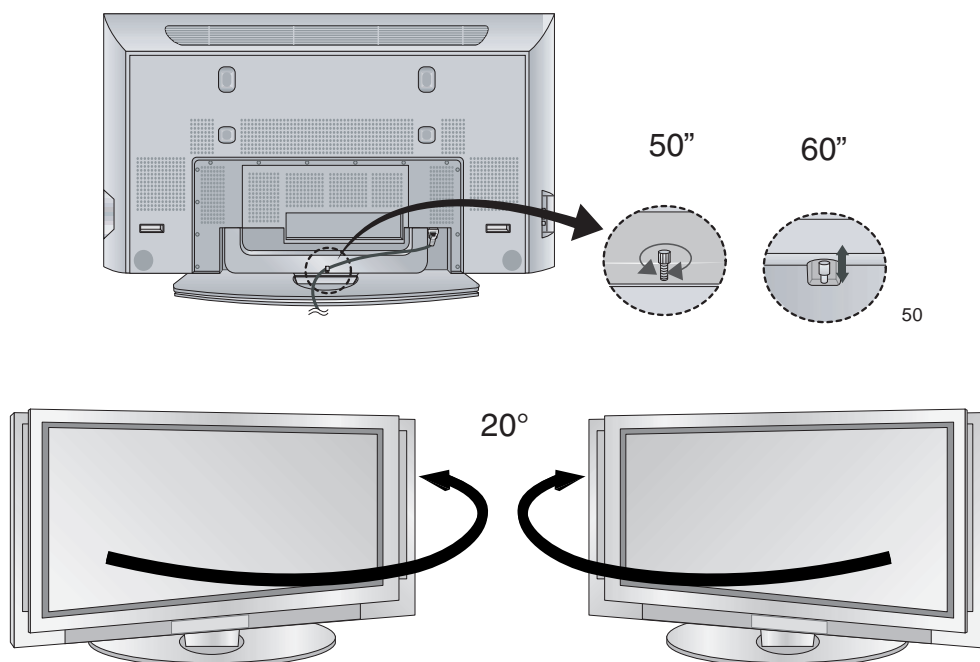


3. In attaching the plate cover, firstly you set projection of the GUIDE to BUSHING RUBBER of the upper left/right. Push and put the plate cover with hands.

Swivel function

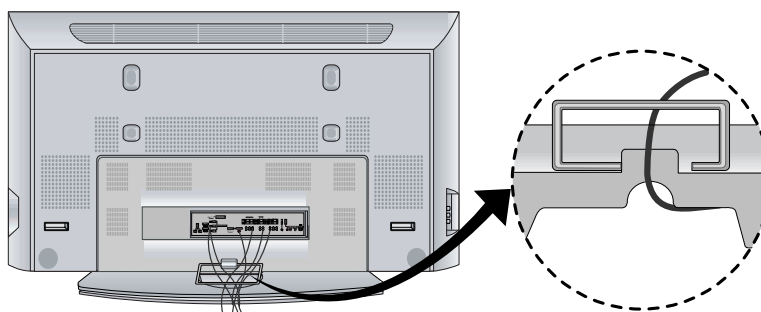
- After installing the TV, you can adjust the the TV set manually to the left or right direction by 20 degrees to suit your viewing position.

*Note: Before adjusting the angle, you must loosen (to the left) the shaft bolt on the middle of stand's back.
And when stand be level with TV, you must close (to the right) the shaft bolt to set the hole.(As shown below)*



Arrangement wires

- Run the accessory device wires and power cord inside the JACK MANAGEMENT pole as shown.

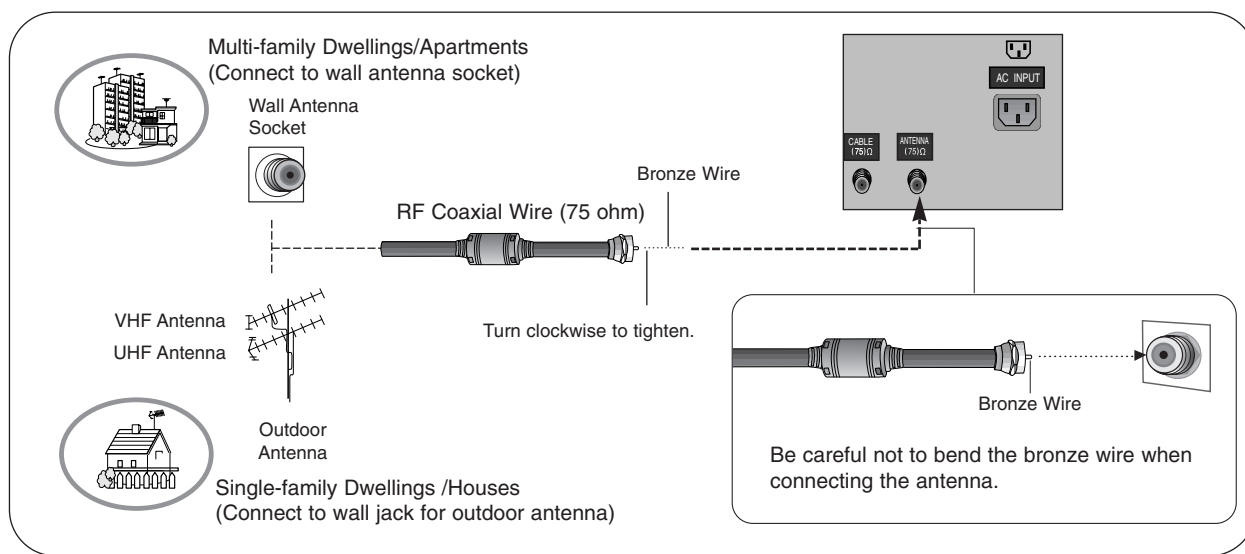


External Equipment Connections

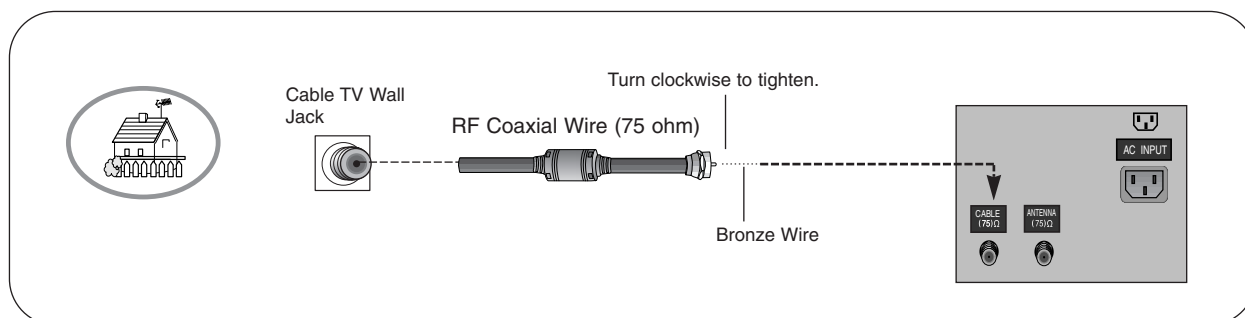
Antenna or Cable Connection

1. Analog and Digital TV signals provided on antenna

- Wall Antenna Socket or Outdoor Antenna without a Cable Box Connections
- For optimum picture quality, adjust antenna direction if needed.



2. Analog and Digital TV signals provided on cable



External A/V Source Setup

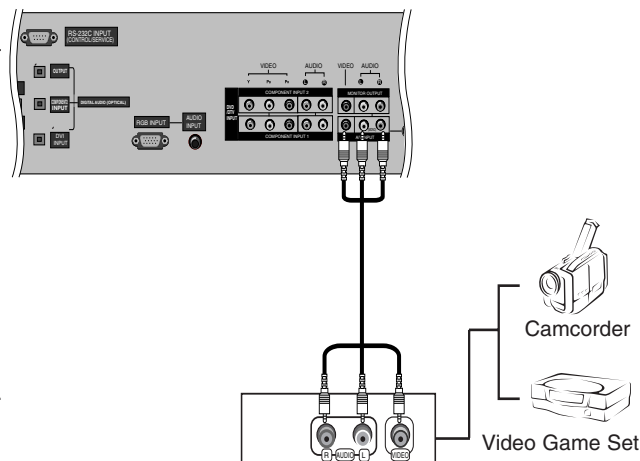
How to connect

Connect the audio and video cables from the external equipment's output jacks to the TV input jacks, as shown in the figure.

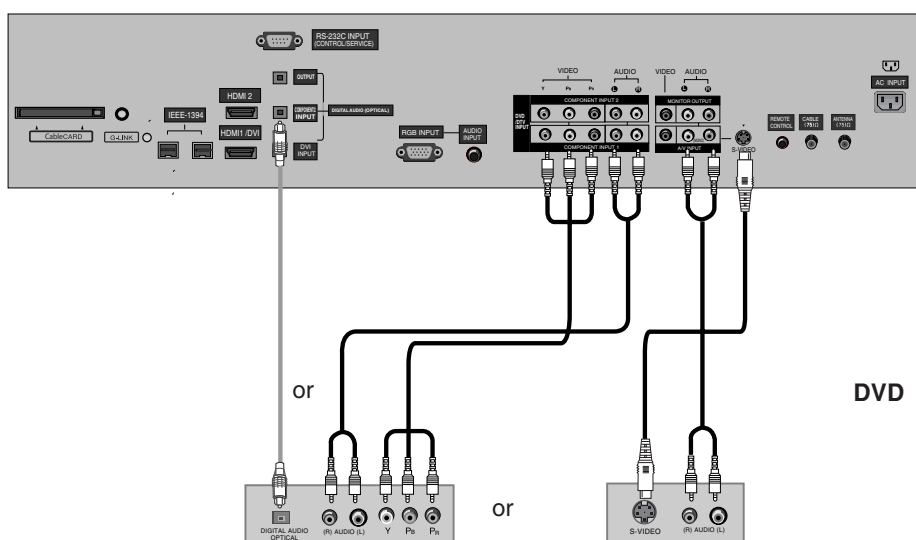
When connecting the TV to external equipment, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).

How to use

1. Select the input source with using the **TV/VIDEO** button on the remote control. Note that this TV finds the connected input sources automatically for Video 1-2 and Component 1-2. It is presumed that RGB, HDMI1/DVI and HDMI2 sources are connected.
2. Operate the corresponding external equipment. Refer to external equipment operating the tv guide on screen system.



DVD Setup



How to connect

1. Connect the DVD video outputs (Y, Pb, Pr) to the COMPONENT (Y, Pb, Pr) INPUT jacks on the TV and connect the DVD audio outputs to the AUDIO INPUT jacks on the TV, as shown in the figure.
2. If your DVD only has an S-Video output jack, connect this to the S-VIDEO input on the TV and connect the DVD audio outputs to the AUDIO INPUT jacks on the TV, as shown in the figure.

Note: If your DVD player does not have component video output, use S-Video.

How to use

1. Turn on the DVD player, insert a DVD.
2. Use the **TV/VIDEO** button on the remote control to select **Component 1** or **Component 2**. (If connected to S-VIDEO, select the **Video** or **Front Video** external input source.)
3. Refer to the DVD player's manual for operating instructions.

• Component Input ports

To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	P _B	P _R
Video output ports on DVD player	Y	P _b	P _r
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P _b	P _r

Notes:

- Digital Audio will not work for Component 1 input source.
- Digital Audio operation has priority if Digital Audio and AUDIO L/R are connected at the same time.

CableCARD™ Setup

How to use

Insert the CableCARD™ received from the cable service provider to the CableCARD™ slot of TV back panel.

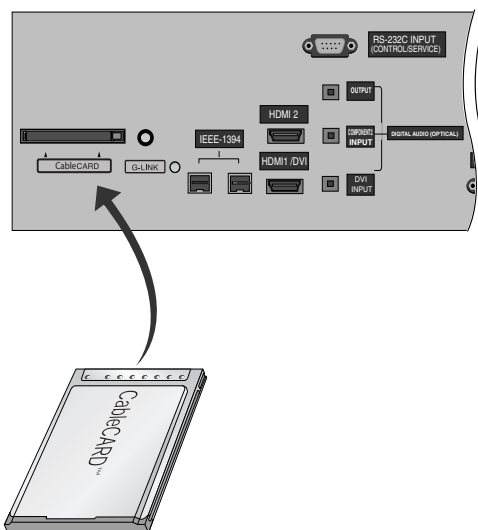
If the pairing information about this TV and the CableCARD is automatically displayed on the screen, contact with the cable service provider by phone.

Note :

- CableCARD™ have the types of Motorola, Scientific Atlanta, SCM etc..
These 3 types of CableCARD™ can be used for this PLASMA TV.

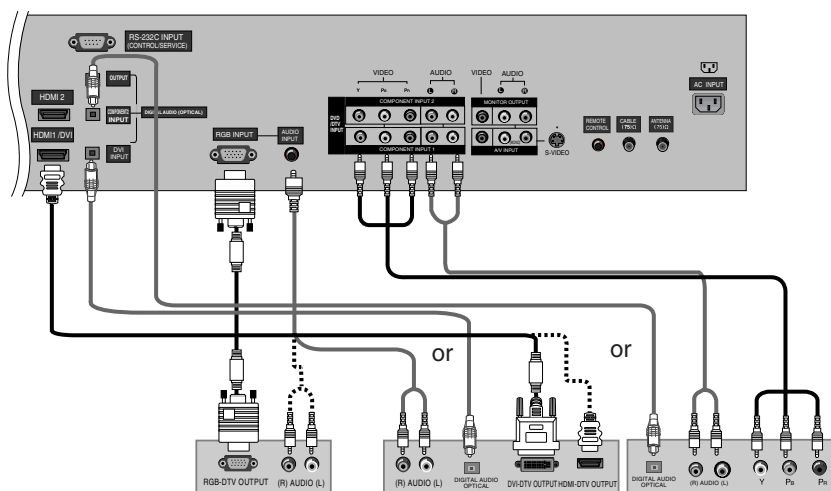


Caution: When removing the CableCARD™, do not fall it as this may cause impact to the CableCARD™.



HDSTB Setup

- This TV can receive Digital Over-the-air/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.
- This TV supports HDCP (High-bandwidth Digital Contents Protection) protocol for Digital Contents (480p, 720p, 1080i).



Digital Set-top Box

How to connect

Use the TV's COMPONENT (Y, Pb, Pr) INPUT, RGB, HDMI1/DVI or HDMI2 jack for video connections, depending on your set-top box connector. Then, make the corresponding audio connections.

How to use

1. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
2. Use **TV/VIDEO** on the remote control to select **Component 1**, **Component 2**, **RGB-DTV**, **HDMI1/DVI** or **HDMI2** source.

Signal	Component 1/2	RGB-DTV, HDMI1/DVI, HDMI2
480i	Yes	No
480p	Yes	Yes
720p	Yes	Yes
1080i	Yes	Yes

PC Setup

- This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.
- The TV perceives 640x480, 60Hz as DTV 480p based on the PC graphic card, change the screen scanning rate for the graphic card accordingly.

<When the PC supports DVI>

How to connect

1. Connect the PC to HDMI1/DVI port of this TV with an HDMI-to-DVI cable(not supplied with this product).
If you do not need to connect audio, HDMI2 port is also available for the DVI video connection.
2. If the PC(or the sound card of the PC) has a fiber optic digital audio output connector, connect the PC's audio output to DIGITAL AUDIO(OPTICAL) port for DVI INPUT.
3. If the PC(or the sound card of the PC) has an analog audio output connector, connect the PC's audio output to AUDIO INPUT port located on the right side of RGB INPUT port.

How To Use

1. To get the best picture quality, adjust the PC graphics card to 1024x768, 60Hz.
2. Select HDMI1/DVI input source in main input option of SETUP menu.(Refer to P.62)
TV/VIDEO button is also available for this purpose.
3. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the VIDEO menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.

<When the PC supports RGB>

How to connect

1. Connect the PC to RGB INPUT port of this TV with a RGB cable.
2. If the PC(or the sound card of the PC) has an analog audio output connector, connect the PC's audio output to AUDIO INPUT port located on the right side of RGB INPUT port.

How To Use

1. To get the best picture quality, adjust the PC graphics card to 1024x768, 60 Hz.
2. Select **RGB-PC** input source in main input option of SETUP menu.(Refer to P.57)
Once you select **RGB-PC** in main input option of SETUP menu, **TV/VIDEO** button is also available for this purpose.
3. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the VIDEO menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.

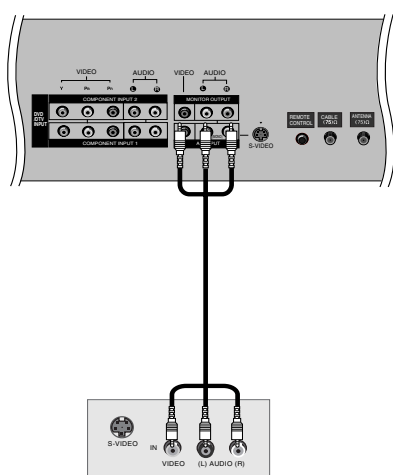
Monitor Display Specifications (RGB-PC)

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x350	31.468	70.09	800x600	35.156	56.25
	37.861	85.08		37.879	60.31
720x400	31.469	70.08		48.077	72.18
	37.927	85.03		46.875	75.00
640x480	31.469	59.94		53.674	85.06
	37.861	72.80	1024x768	48.363	60.00
	37.500	75.00		56.476	70.06
	43.269	85.00		60.023	75.02

Monitor Display Specifications (HDMI/DVI Mode)

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x480	31.469	59.94	1024x768	48.363	60.00
	37.861	72.80		56.476	70.06
	37.500	75.00		60.023	75.02
800x600	35.156	56.25			
	37.879	60.31			
	48.077	72.18			
	46.875	75.00			

Monitor Out Setup



The TV has a special signal output capability which allows you to hook up a second TV or monitor.

Connect the second TV or monitor to the TV's MONITOR OUTPUT. See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

Note

- Component, RGB-PC/RGB-DTV, HDMI1/DVI and HDMI2, DTV input sources cannot be used for Monitor out.

Digital Audio Output

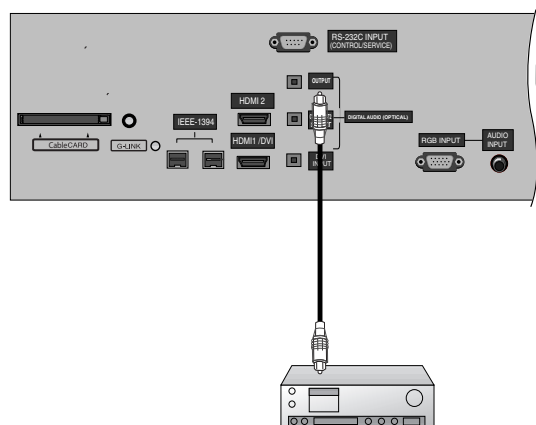
Send the TV's audio to external audio equipment (stereo system) via the Digital Audio Output (Optical) port.

How to connect

1. Connect one end of an optical cable to the TV Digital Audio (Optical) Output port.
2. Connect the other end of the optical cable to the digital audio (optical) input on the audio equipment.
3. Set the "**TV Speaker** option - **Off**" in the AUDIO menu. Refer to page 64.
See the external audio equipment instruction manual for operation.



Caution: Do not look into the optical output port. Looking at the laser beam may damage your vision.



HDMI



- HDMI™, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC."
- This TV can receive the High-Definition Multimedia Interface(HDMI) or the Digital Visual Interface(DVI).
- This TV supports HDCP(High-bandwidth Digital Contents Protection) Protocol for 720x480p, 1280x720p, and 1920x1080i resolution.
- When you connect this TV with a source device(DVD player, Set Top Box or PC) supporting Auto HDMI/DVI function, the output resolution of the source device will be automatically set to 1280x720p.
- If the source device does not support Auto HDMI1/DVI, you need to set the output resolution appropriately.
To get the best picture quality, adjust the DVD Player or Set Top Box's output resolution to 1280x720p, and the PC graphics card's output resolution to 1024x768, 60Hz.
- If the source device has an HDMI output, no other audio connection is necessary because HDMI-to-HDMI connection includes both video and audio.
- If the source device has a DVI output and no HDMI output, a separated audio connection is necessary.

<When the source device (DVD player or Set Top Box) supports HDMI>

How To Connect

1. Connect the source device to HDMI1/DVI or HDMI2 port of this TV with an HDMI cable(not supplied with this product).
2. No separated audio connection is necessary.

How To Use

- If the source device supports Auto HDMI function, the output resolution of the source device will be automatically set to 1280x720p.
- If the source device does not support Auto HDMI, you need to set the output resolution appropriately.
To get the best picture quality, adjust the output resolution of the source device to 1280x720p.
- Select HDMI1/DVI or HDMI2 input source in main input option of SETUP menu.(Refer to P.59)
VIDEO button is also available for this purpose.

<When the source device(DVD player or Set Top Box) supports DVI>

How To Connect

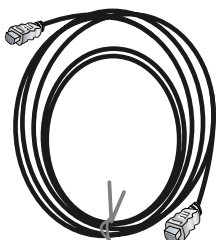
1. Connect the source device to HDMI1/DVI port of this TV with a HDMI-to-DVI cable(not supplied with this product).
Do not use HDMI2 port for DVI connection if you want to connect audio.
2. A separated audio connection is necessary.
3. If the source device has a fiber optic digital audio output, connect the audio output to DIGITAL AUDIO(OPTICAL) port for DVI INPUT.
4. If the source device has an analog audio output connector, connect the PC's audio output to AUDIO INPUT port located on the right side of RGB INPUT port.

How To Use

- If the source device supports Auto DVI function, the output resolution of the source device will be automatically set to 1280x720p.
- If the source device does not support Auto DVI, you need to set the output resolution appropriately.
To get the best picture quality, adjust the output resolution of the source device to 1280x720p.
- Select HDMI1/DVI input source in main input option of SETUP menu.(Refer to P.59)
VIDEO button is also available for this purpose.

Reference

Cable sample



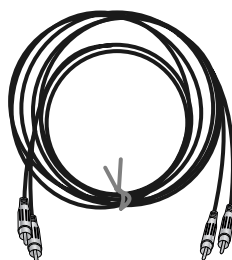
HDMI Cable
(not supplied with the product)



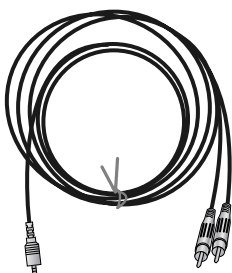
HDMI to DVI Cable
(not supplied with the product)



Fiber Optic Digital Audio Cable
(not supplied with the product)



Analog Audio Cable(RCA type)
(not supplied with the product)



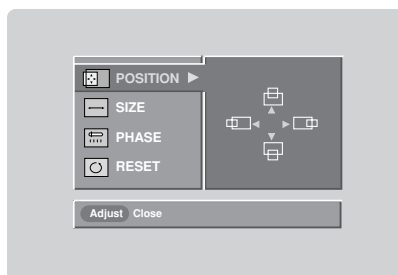
Analog Audio Cable(Stereo to RCA type)
(not supplied with the product)

How to use

1. Connect the HDMI1/DVI Source Devices(DVD Player or Set Top Box or PC) and the TV SET.
2. Turn on the display by pressing the POWER button on the TV SET and HDMI1/DVI Source Devices remote control.
3. Select HDMI1/DVI Input source in Main Input option of SETUP menu.(Refer to P.62)
4. Check the image on your TV SET. There may be noise associated with the resolution, vertical pattern, contrast or brightness in HDMI1/DVI Source Devices. If noise is present, change the HDMI1/DVI Source Devices to another resolution, change the refresh rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphics card can not be changed, change the PC graphics card or consult the manufacturer of the PC graphics card.

Notes:

- Depending on the graphics card, DOS mode may not work if you use a HDMI1 to DVI Cable.
- Avoid keeping a fixed image on the TV SET screen for a long period of time. The fixed image may become permanently imprinted on the screen. Use the Orbiter screen saver when possible.
- When Source Devices connected HDMI/DVI Input, output PC Resolution(VGA, SVGA, XGA), Position, Size may not fit to Screen. As shown in the lower picture, press the **ADJUST** button to adjust the screen Position of TV SET and contact a PC graphics card service center.
- When Source Devices connected HDMI1/DVI Input output TV SET Resolution(480p, 720p, 1080i), TV SET Display fit EIA/CEA-861-B Specification to Screen. If not, refer to the Manual of HDMI1/DVI Source Devices or contact your service center.
- In case HDMI1/DVI Source Devices is not connected Cable or poor cable connection, "NO SIGNAL" OSD display in HDMI1/DVI Input. And In case of, Video Resolution not supported TV SET output in HDMI1/DVI Source Devices, "INVALID FORMAT" OSD display. Refer to the Manual of HDMI1/DVI Source Devices or contact your service center.



In This Mode, the Supported TV SET Resolution Specification

- 1920 x 1080 I @ 59.94Hz / 60Hz, 16:9
- 1280 x 720 P @ 59.94Hz / 60Hz, 16:9(preferred format)
- 704 x 480 P @ 59.94Hz / 60Hz, 16:9
- 704 x 480 P @ 59.94Hz / 60Hz, 4:3

In This Mode, the Supported PC Resolution Specification

- 640 x 480 @ 60Hz
- 640 x 480 @ 72Hz
- 640 x 480 @ 75Hz
- 800 x 600 @ 56Hz
- 800 x 600 @ 60Hz
- 800 x 600 @ 72Hz
- 800 x 600 @ 75Hz
- 1024 x 768 @ 60Hz(preferred format)
- 1024 x 768 @ 70Hz
- 1024 x 768 @ 75Hz

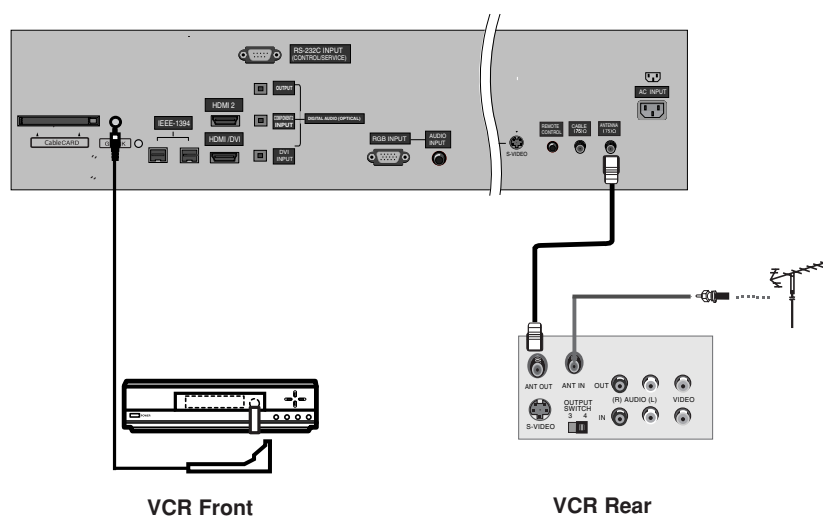
TV Guide On Screen Setup

- The TV Guide On Screen system uses Setup information to provide you with show listings and lineups in your area—which are updated several times a day.
- Once you set up the TV according to manufacturer's instructions, you are ready to set up the TV Guide On Screen system.

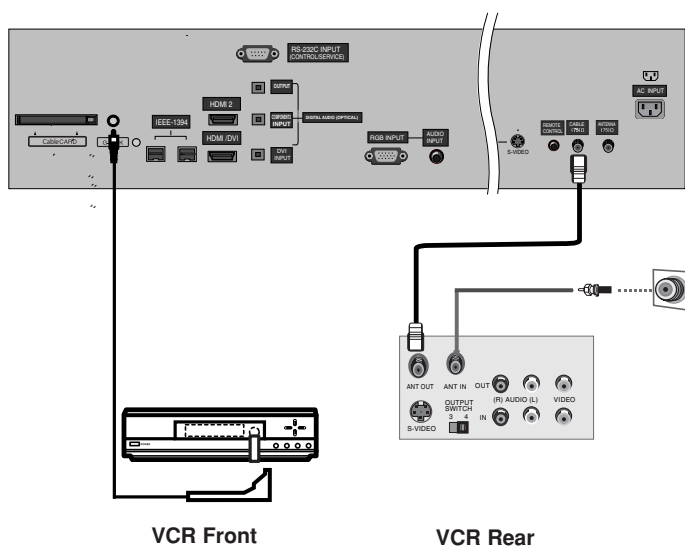
Note: The TV Guide On Screen system interactive program guide provides listings for cable-ready, cable box, and digital cable services as well as over-the-air broadcast. It does not provide listings for satellite services.

How to connect VCR and Cable Box

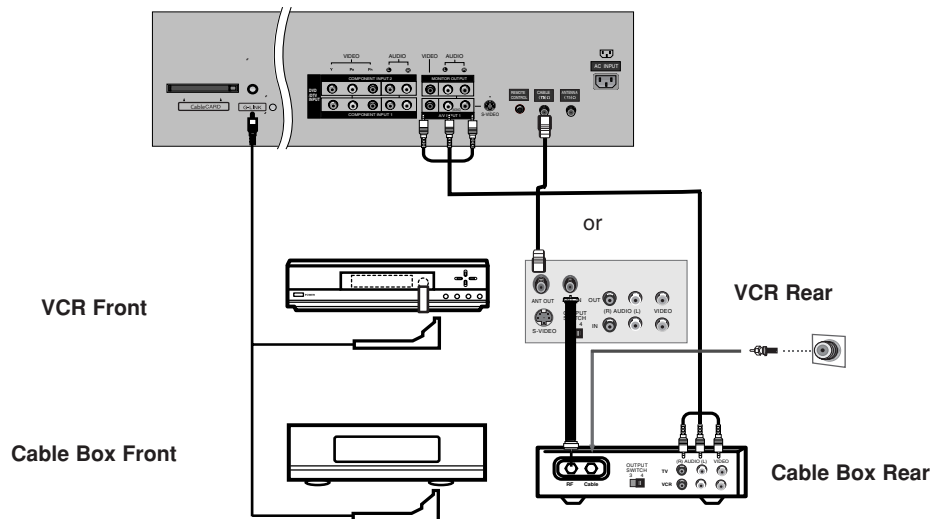
1. Antenna Service



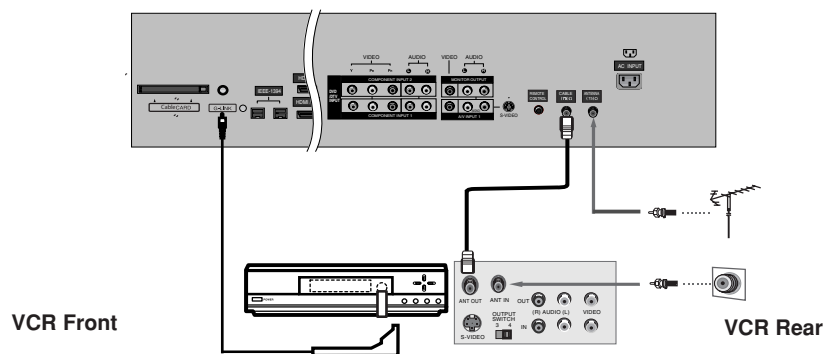
2. Cable Service without a Cable Box



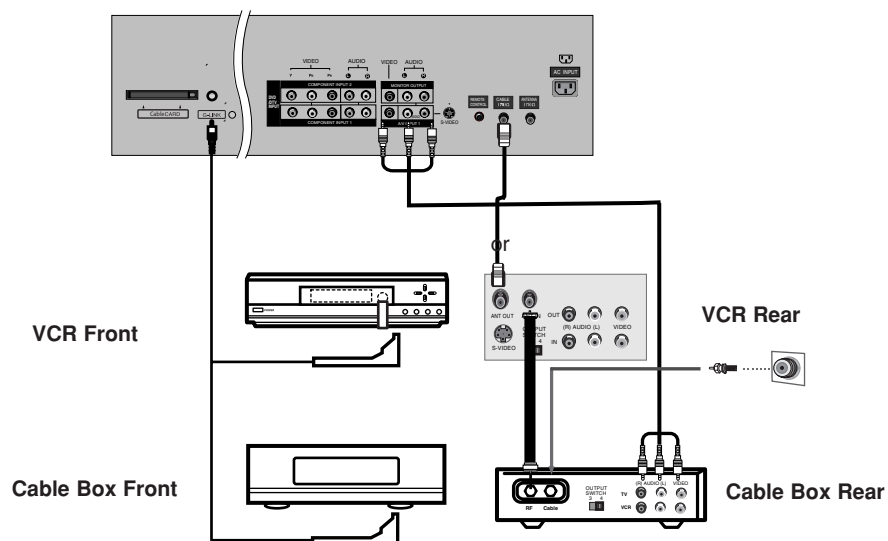
3. Cable Service without a Cable Box



4. Antenna and Cable Service without a Cable Box



5. Antenna and Cable Service with a Cable Box



Note:

- The G-LINK™ cable is necessary for the TV Guide On Screen system to work with your Cable Box and VCR. See Page 23~24 for G-LINK™ connection instructions.

TV Guide On Screen Setup

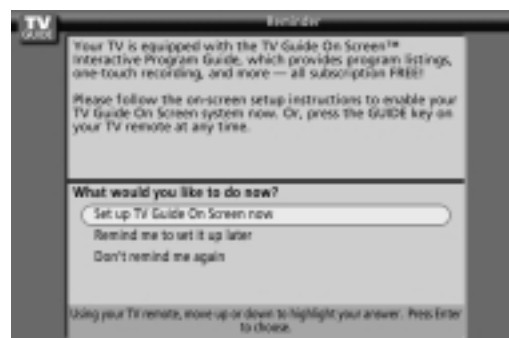
1. Reminder Screen

The TV Guide On Screen system's Reminder Screen appears:

- after initial TV set up
- if you power Off the TV and then power it back On

To make a selection, use the ▲ / ▼ button to highlight to an option, and press **ENTER**.

- "Set up TV Guide On Screen now," displays the Welcome Screen. Press **ENTER** to begin Setup.
- "Remind me to set up later" returns you to watching TV.
- "Don't remind me again" returns you to watching TV and stops the reminder screen from appearing upon power On.



2. Welcome Screen

The TV Guide On Screen system's Welcome Screen appears:

- by pressing the TV Guide key
- when you power On your TV if you previously skipped "Set up TV Guide On Screen now" on the Reminder Screen.

The Welcome Screen highlights features of the TV Guide On Screen system.

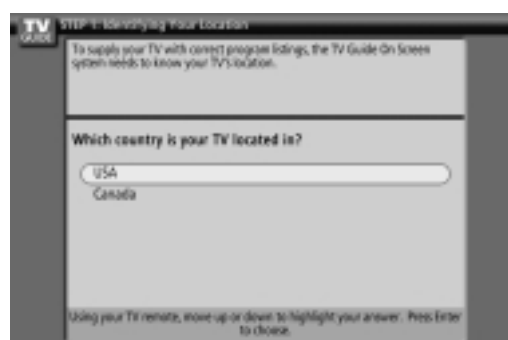
Press **ENTER** to begin Setup.



How to use

1. Screen 1: Country

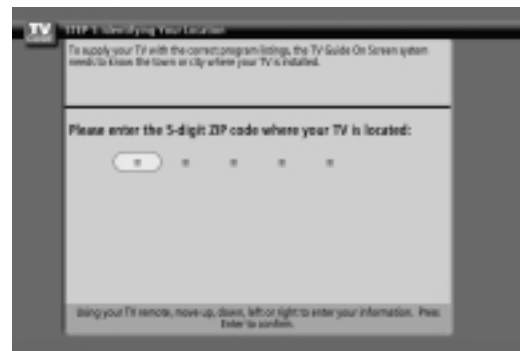
- This screen asks you the location of your TV.
- Use the ▲ / ▼ button to highlight a country.
- Press **ENTER** to display Screen 2.



2. Screen 2: Enter Zip or Postal Code

Option 1

- If you selected USA in Screen 1, you see the ZIP Code screen.
- You input numbers by either pressing the number keys on the remote or using the ▲ / ▼ button to display a number, and then the ◀ / ▶ button to move to another field.
- Press **ENTER** to display Screen 3.



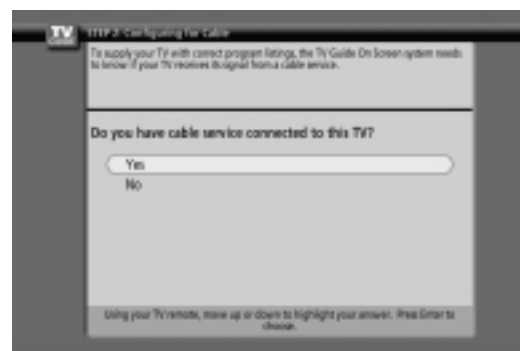
Option 2

- If you selected Canada in Screen 1, you see the Postal Code screen.
- You input characters by using the ▲ / ▼ button, and then the ◀ / ▶ button to move to another field.
- Press **ENTER** to display Screen 3.



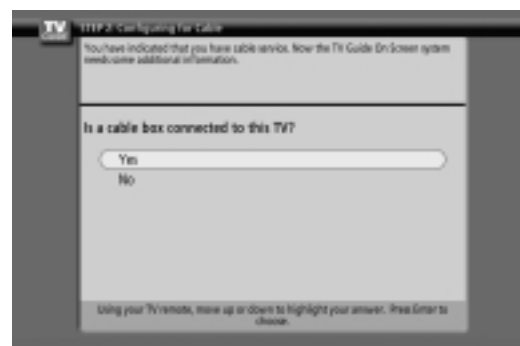
3. Screen 3: Do you have Cable Service connected?

- If you select Yes, you see Screen 4.
- If you select No, you see Screen 12.



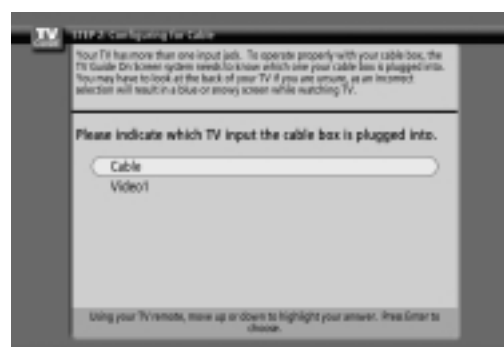
4. Screen 4: Do you have a Cable Box?

- If you select Yes, you see Screen 5.
- If you select No, you see Screen 12.



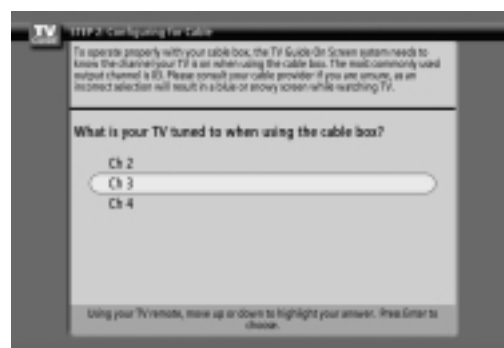
5. Screen 5: Which TV input is the cable box plugged into?

- If you select Cable, you see Screen 6.
- If you make any other choice, you see Screen 7.



6. Screen 6: Cable Box Tuning Channel

- Select the channel used for the cable box.
- Press **ENTER** to display Screen 7.

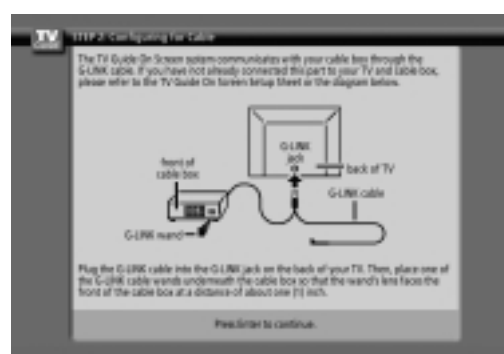


7. Screen 7: Cable Box Configuration Diagram

- The diagram shows the correct way to install the G-LINK Cable from the back of the device to the cable box.

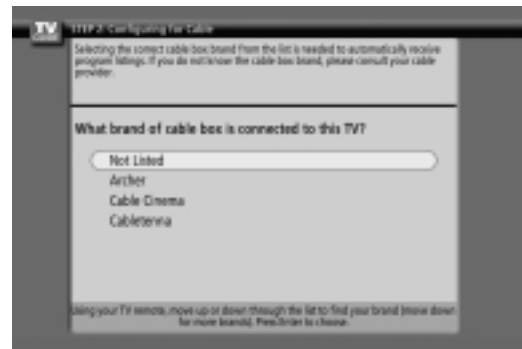
Make sure the G-LINK™ Cable is properly installed.

- Press **ENTER** to display Screen 8.



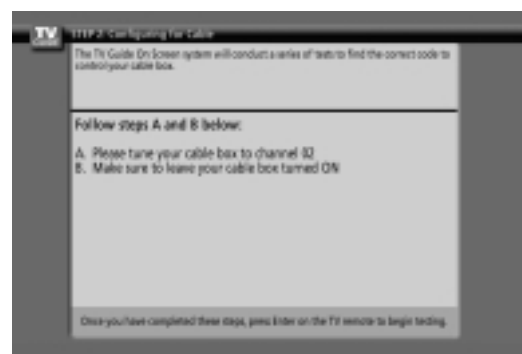
8. Screen 8: Cable Box Brand Name

- Use the ▲ / ▼ button to select a cable box brand.
- Press **ENTER** to display Screen 9.



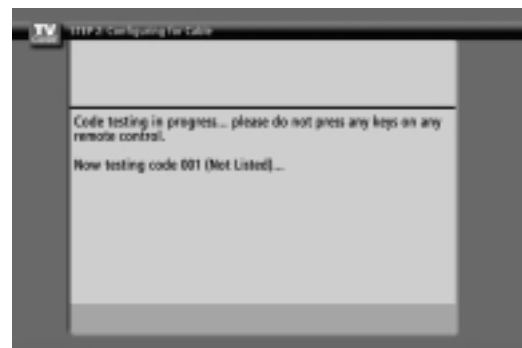
9. Screen 9: Cable Box Preparation

- Follow the on-screen instructions, and press **ENTER** to display Screen 10.



10. Screen 10: Cable Box Code Testing

- When testing is done, Screen 11 displays automatically.

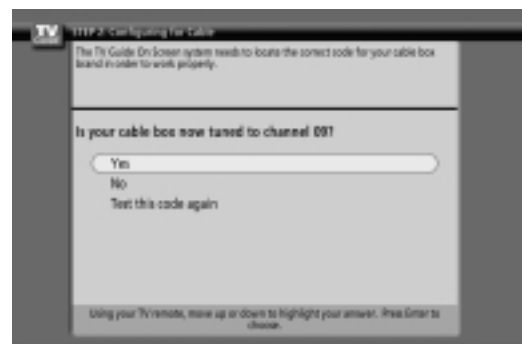


11. Screen 11: Cable Box Tuned to Channel 9?

- If you select Yes, you see Screen 12.
- If you select No, a different code is tested in Screen 10.

Note:

- *Many Cable Boxes require testing more than one code.*
- If you select Test this code again, the same code is tested again in Screen 10.



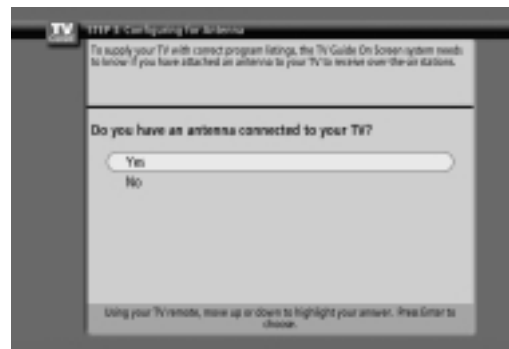
12. Screen 12: Do you have an antenna connected?

- If you select Yes, you see Screen 13.

Note:

- If you selected No in Screen 3 then you must select Yes in this screen to receive a channel lineup and listings.

- If you select No, you see Screen 13.



13. Screen 13: Are your basic settings correct?

- If you select Yes, you see Screen 14.
- If you select No, you see Screen 1.



14. Screen 14: Congratulations

- Press **ENTER** to display Screen 15.



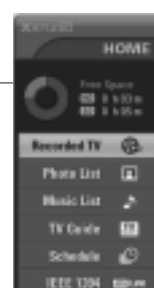
15. Screen 15: Helpful Information

- This screen tells you valuable information on using your Guide.
- Press **ENTER** to watch TV.



Notes:

- The TV Guide On Screen system receives program listings data through your cable or over-the-air video signal. In order to receive regular program listings, please remember to do the following:
1. Turn OFF your TV when it is not in use. (Do not unplug the power cord.)
 2. If you have a Cable box connected, leave it ON.
 3. If you have more than one Cable system in your area, you may be prompted to select which Cable system's program data to download. If so prompted, please follow the on-screen instructions.



Operation

Turning the TV On

1. First, connect power cord correctly. At this moment, the TV switches to standby mode.

In standby mode to turn TV on, press the power, **TV/VIDEO**, **CH (▲ / ▼)** button on the TV or press the **POWER**, **TV/VIDEO**, **TV INPUT**, **CH (+, -)**, **Number (0 ~ 9)** button on the TV .

2. Select the viewing source by using **TV/VIDEO**, **TV INPUT** button on the remote control.

This TV is programmed to remember which mode it was last set to, even if you turn the TV off.

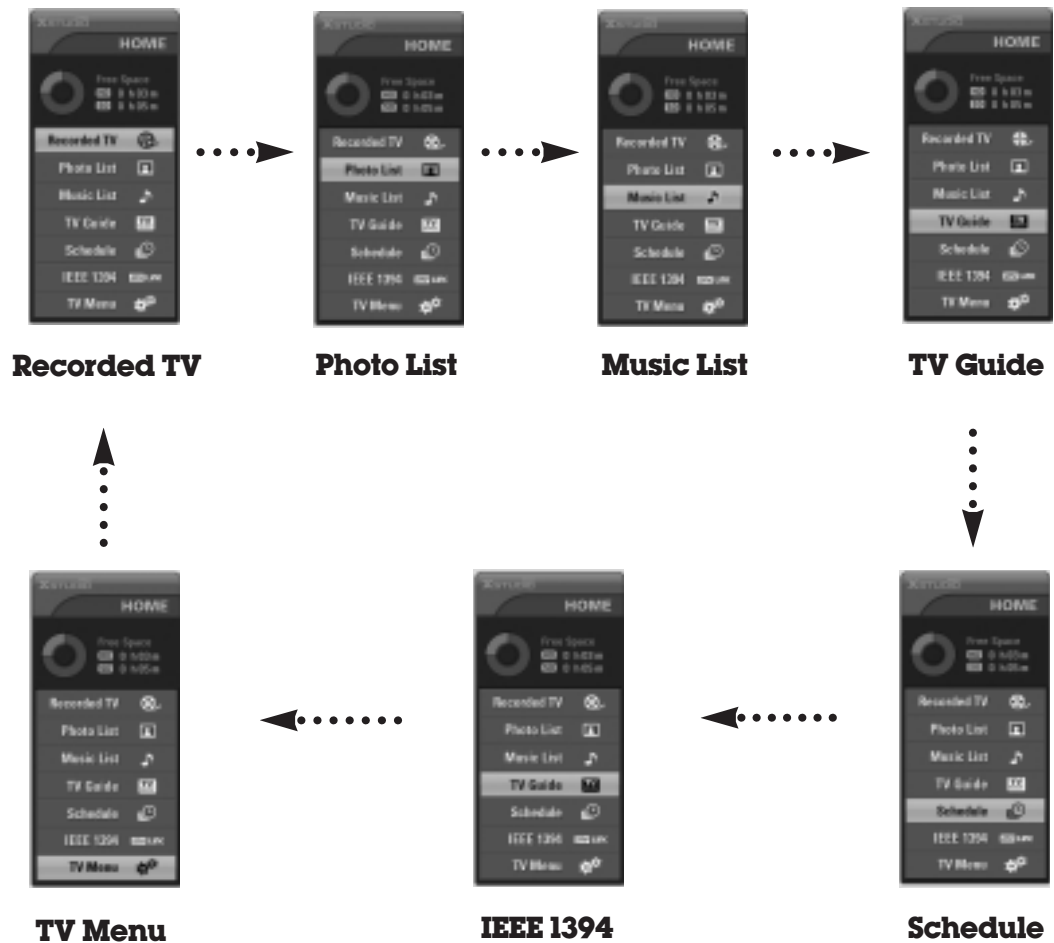
3. When finished using the TV, press the **POWER** button on the remote control. The TV reverts to standby mode.

Notes:

- If you intend to be away on vacation, disconnect the power plug from the wall power outlet.
- After turning on the TV, it takes time to be initialized for the TV Guide On Screen System.
- When the TV is turned on, blinks orange in standby mode, blinks green. And after orange stop the blinking, directly turn on the TV. But in case of green, screen is displayed at 3~4 minutes later.
- If power isn't turn on in red, contact your service center.

HOME Menu

- The menus can be shown on the screen in the selected language. First select your language.

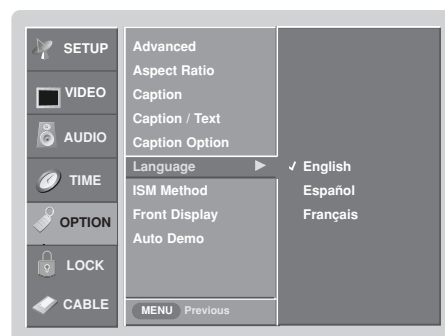


● TV Setup

On-screen Menu Language Selection

- The menus can be shown on the screen in the selected language. First select your language.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **OPTION** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Language**.
3. Press the ► button and then use ▲ / ▼ button to select your desired language.
From this point on, the on-screen menus will be shown in the selected language.
4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Setup Menu Options

EZ Scan (Channel Search)

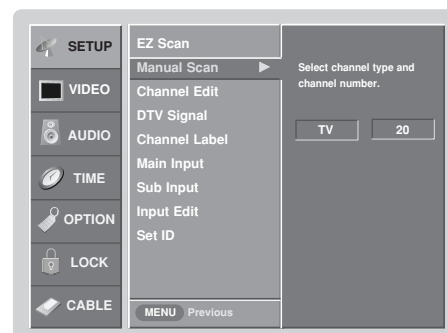
- Automatically finds all channels available through antenna or cable inputs, and stores them in memory on the channel list.
- Run EZ Scan again after any Antenna/Cable connection changes.



1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **EZ Scan**.
3. Press the **ENTER** button to begin the channel search.
Allow EZ Scan to complete the channel search cycle for ANTENNA, and CABLE.

Manual Scan

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Manual Scan**.
3. Press the **▶** button and then use **▲ / ▼** button to select TV, DTV, CATV, and CADTV.
4. Press the **▶** button and then use **▲ / ▼** button to select channel number you want to add or delete.
5. Press the **ENTER** button to add or delete for the channel number.
6. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

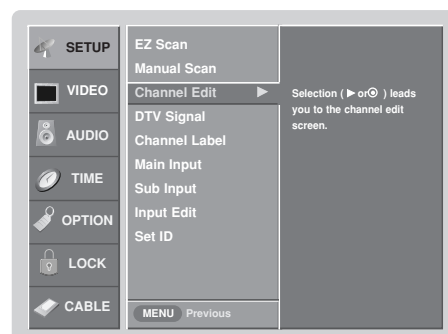


Notes:

- This channel number is a physical channel number, which is different from normal channel number showed in Channel Edit.
- When a cable box connects to the physical channel 2,3 or 4 in TV Guide Setup, cable channels(CATV or CADTV) will not be scanned by EZ Scan or Manual Scan.
- When inserting the CableCARD™, CATV, CADTV is not working in EZ Scan.
- TV: analog antenna(over-the-air) TV signal
DTV: digital antenna(over-the-air) TV signal
CATV: analog cable TV signal
CADTV: digital cable TV signal

Channel Edit

- Create two different types of channel lists in memory: "Custom list" and "Favorite channel list" from the default channel list created from the EZ Scan channel search.
- A custom list can be created by toggling each channel on or off with **ENTER** button. The channels in the Custom List are displayed in black color, and the channels deleted from the Custom List are displayed in gray color. Once a channel is highlighted you can add or delete the channel by referring to the small window at the top-left corner of the screen. You can create your own Favorite List. Use the **FAV** button on the remote control when a channel is highlighted and then you can add or delete the channel to/from the Favorite List.



1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Channel Edit**.
3. Press the **▶** button. You will now see a screen filled with channel numbers and a preview picture.
4. Use **▲ / ▼ / ◀ / ▶** button to select a channel and then use the **ENTER** button to add or delete it. Press **FAV** button to add the channel to the Favorite List.
5. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Note:

- When Cable Box connect to RF2,3,4 in TV Guide Setup, CATV, CADTV is not working in EZ Scan.

DTV Signal Strength

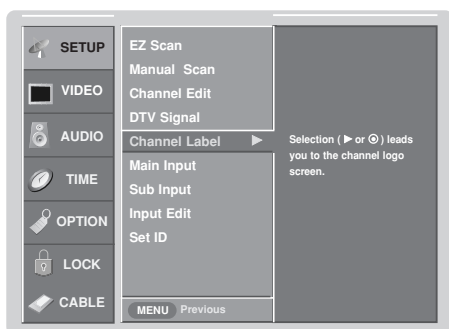
- Shows how strong your DTV signal is and whether you need to adjust your antenna or digital cable input. The higher the signal strength, the less likely you are to experience picture degradation.
- DTV Signals: Only when the input signal is DTV or CADTV, this function is available.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **DTV Signal**.
3. View the on-screen signal strength monitor to see the quality of the signal being received.
5. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Setup Menu Options

Channel Label Setup

- Choose preset labels for your channels.
- If a channel label is provided on the signal from the broadcasting station, the TV displays a short name for a channel - even if you didn't preset a label for the channel.

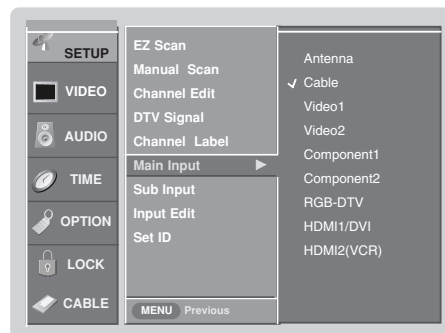


1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
 2. Press the **▶** button and then use **▲ / ▼** button to select **Channel Label**.
 3. Press the **▶** button. You will now see a screen filled with Labels and a preview screen.
 4. Use the **CH +/-** button to select a channel to Label.
 5. Use **▲ / ▼ / ◀ / ▶** button to select the appropriate label for the channel, then press **ENTER** button to set the Label to the selected channel.
- If you press **ENTER** button, you will see the channel banner.

Main Picture Source Selection

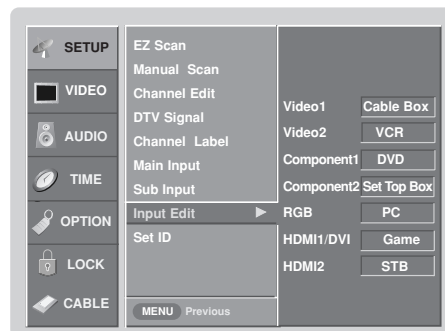
- Changes the picture source so you can watch your off-air TV, cable TV, VCR, DVD, or any other devices that are connected to your TV.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Main Input**.
3. Press the **▶** button and then use **▲ / ▼** button to select the source: Antenna, Cable, Video, Front Video, Component1, Component2, RGB-DTV (or RGB-PC), HDMI1/DVI, HDMI2.
4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Input Edit

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Input Edit**.
3. Press the **▶** button and then use **▲ / ▼** button to select the source: Video, Front Video, Component1, Component2, RGB, HDMI1/DVI.
4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Video Menu Options

EZ Picture

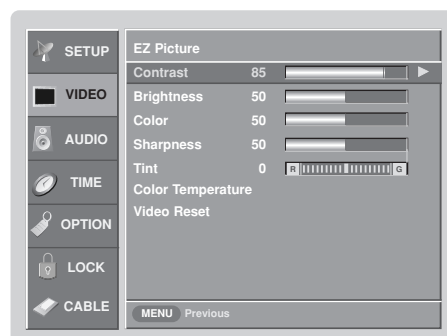
- EZ Picture adjusts the TV for the best picture appearance. Select the preset value in the EZ Picture menu based on the program category.
- When adjusting Video menu options (contrast, brightness, color, sharpness, tint, and color temperature) manually, EZ Picture automatically changes to **Custom**.
- **Daylight**, **Normal**, **Night Time**, **Movie**, **Video Game**, and **Sports** settings are preset for optimum picture quality at the factory and are not adjustable.

1. Press the **EZ PIC** button repeatedly to select the picture appearance setup option as shown below:
Custom (your own settings), **Daylight**, **Normal**, **Night Time**, **Movie**, **Video Game**, and **Sports**.
• You can also use the **VIDEO** menu to adjust **EZ Picture**.
2. Press the **EXIT** button to save and return to TV viewing.

Manual Picture Control (**Custom** option)

- Adjust the picture appearance to suit your preference and viewing situations.

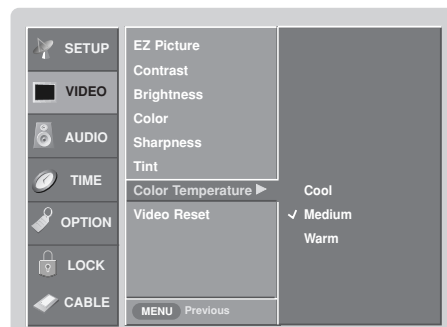
1. Press the **MENU** button and then use **▲ / ▼** button to select the **VIDEO** menu.
2. Press the **►** button and then use **▲ / ▼** button to select the desired picture option (**Contrast**, **Brightness**, **Color**, **Sharpness**, or **Tint**).
3. Press the **►** button and then use **◀ / ▶** button to make appropriate adjustments.
4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Color Temperature Control

- Choose one of three automatic color adjustments. Set to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.

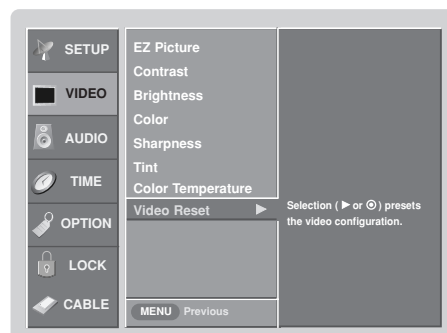
1. Press the **MENU** button and then use **▲ / ▼** button to select the **VIDEO** menu.
2. Press the **►** button and then use **▲ / ▼** button to select **Color Temperature**.
3. Press the **►** button and then use **▲ / ▼** button to select either **Cool**, **Medium** or **Warm**.
4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Video Reset

- Use to quickly reset all the Video menu options to their original factory preset values.

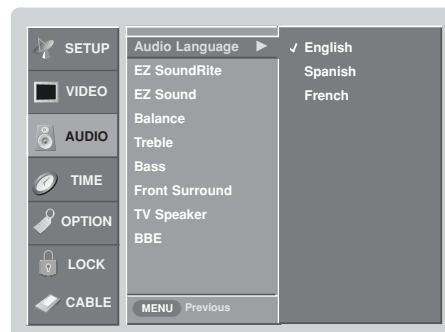
1. Press the **MENU** button and then use **▲ / ▼** button to select the **VIDEO** menu.
2. Press the **►** button and then use **▲ / ▼** button to select **Video Reset**.
3. Press the **►** button to reset the Video menu options to original values.



Audio Menu Options

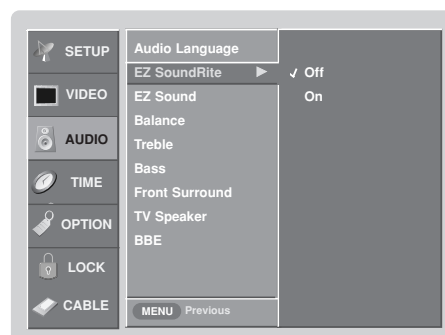
Audio Language

- Other languages may be available if a digital signal is provided by the broadcasting station.
1. Press the **MENU** button and then use **▲ / ▼** button to select the **AUDIO** menu.
 2. Press the **▶** button and then use **▲ / ▼** button to select **Audio Language**.
 3. Press the **▶** button and then use **▲ / ▼** button to select: English, Spanish, or French.
 4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



EZ SoundRite

- Scans for changes in sound level during commercials, then adjusts the sound to match the specified audio level. SoundRite makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.
1. Press the **MENU** button and then use **▲ / ▼** button to select the **AUDIO** menu.
 2. Press the **▶** button and then use **▲ / ▼** button to select **EZ SoundRite**.
 3. Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
 4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



EZ Sound

- EZ Sound lets you enjoy the best sound without any special adjustment because the TV sets the appropriate sound options based on the program content.
 - When adjusting sound options (treble, bass, and front surround) manually, EZ Sound automatically switches **Custom**.
 - **Normal, Stadium, News, Music, and Theater** are preset for good sound quality at the factory and are not adjustable.
1. Press the **EZ SOUND** button repeatedly to select the appropriate sound setup as shown below:
Custom (your own settings), **Normal, Stadium, News, Music, and Theater**.
 - You can also adjust **EZ Sound** in the **AUDIO** menu.
 2. Press **EXIT** button to save and return to TV viewing.