

APPENDIX H
: USER'S MANUAL



LCD TV

OWNER'S MANUAL

MODEL: 15LS1R



Internet Home Page : <http://www.lgusa.com>
<http://www.lg.ca>

ENERGYSTAR is a set of power-saving guidelines issued by the U.S. Environmental Protection Agency(EPA).







As an ENERGY STAR Partner LGE U. S. A.,Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Please read this manual carefully before operating your set.
Retain it for future reference.
Record model number and serial number of the set.
See the label attached on the back cover and quote this information to your dealer when you require service.

P/NO : 38289U0559J (0703-REV00)
Printed in Korea

Warning

	<div style="border: 1px solid black; padding: 5px;">CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</div>	
<p>WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.</p>		
	<p>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.</p>	
	<p>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.</p>	

NOTE TO CABLE/TV INSTALLER:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

REGULATORY INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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 Corporation. Unauthorized modification could void the user's authority to operate this product.

U.S.A. only -----

COMPLIANCE:

The responsible party for this product's compliance is:
LG Electronics U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs, NJ 07632
Phone: 1-800-243-0000
<http://us.lge.com>

Safety Instructions

WARNING :

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

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

IMPORTANT SAFETY INSTRUCTIONS

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 a dry cloth.



7. Do not block any of the 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 is provided for your safety. When 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 the attachments / accessories specified by the manufacturer.

Safety Instructions continued

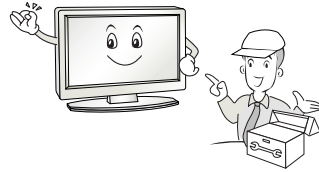
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.



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



Note

- If the TV feels cold to the touch, there may be a small “flicker” when when it is turned on. This is normal, there is nothing wrong with TV.
- Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the monitor's performance.
- Avoid touching the LCD screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary distortion effects on the screen.

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.

On Disposal

- a. The fluorescent lamp used in this product contains a small amount of mercury.
- b. Do not dispose of this product with general household waste.
Disposal of this product must be carried out in accordance to the regulations of your local authority.

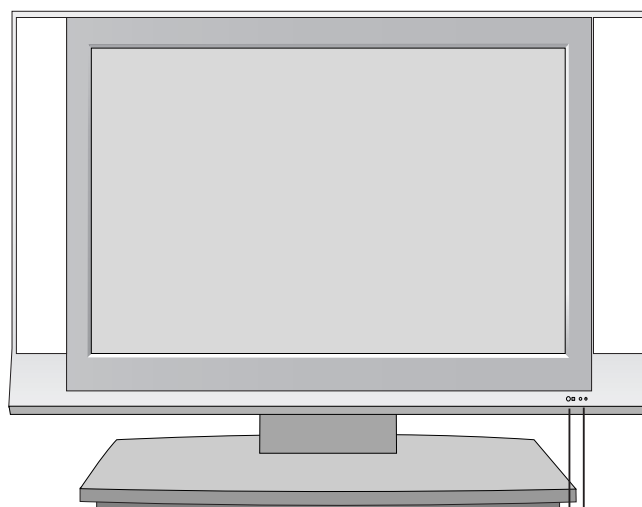
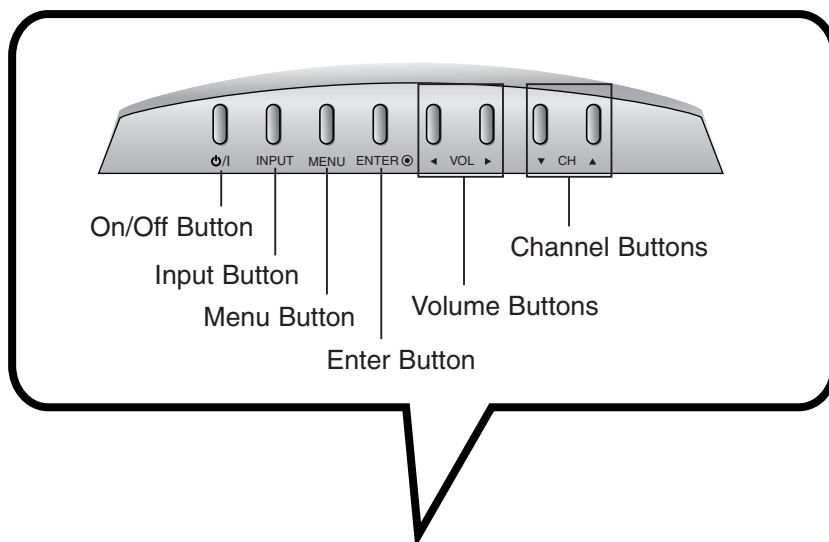
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After reading this manual, keep it handy for future reference.

Introduction

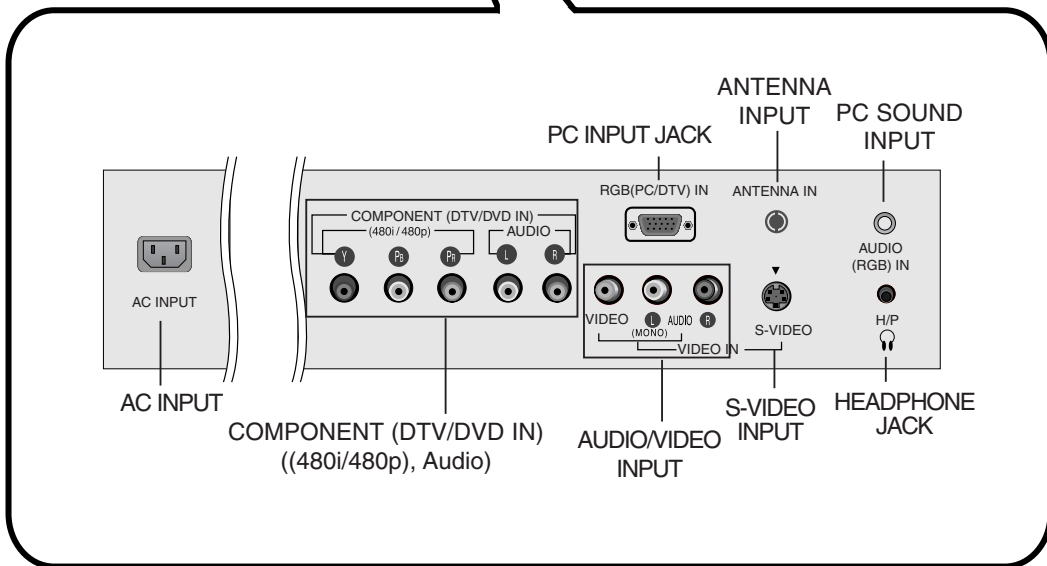
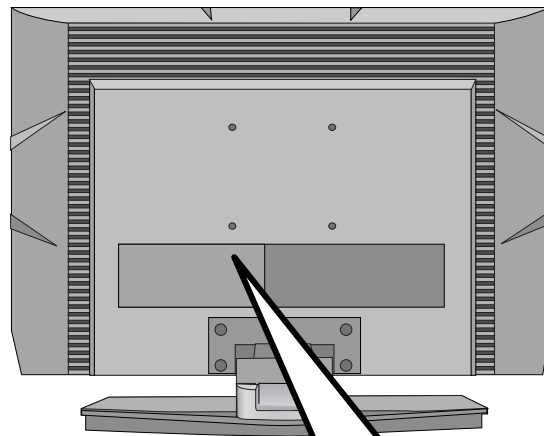
Controls



Remote Control Sensor

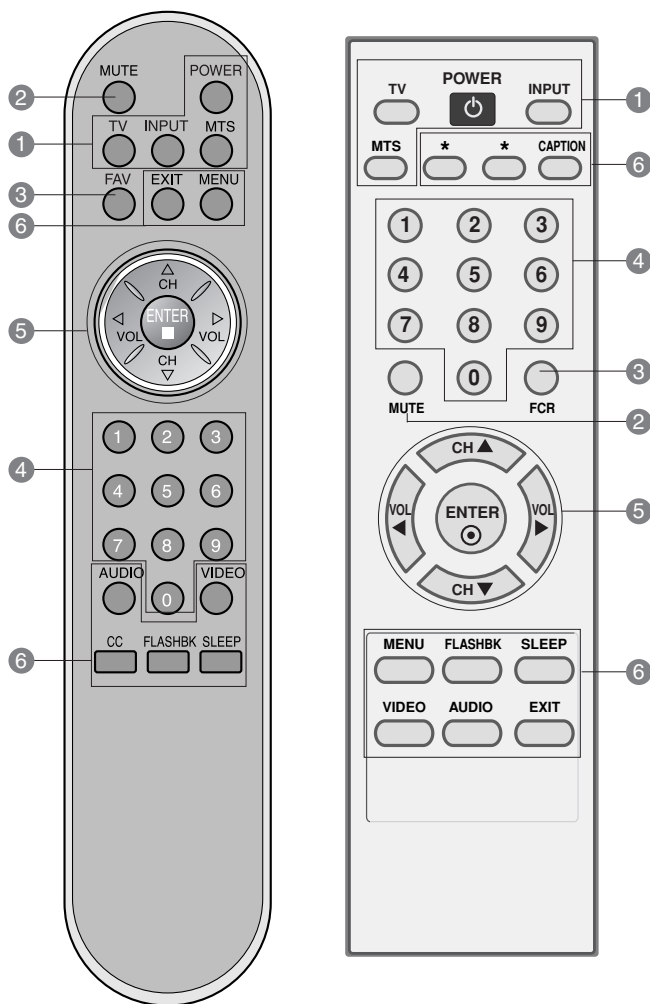
Power/Standby Indicator
Glows red in Standby mode,
Glows green when the TV is turned on.

Connection Options



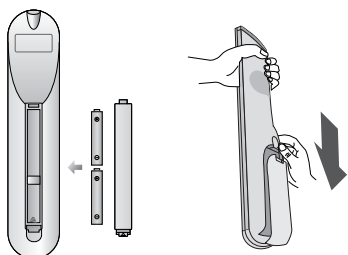
Remote Control Key Functions

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



- 1 POWER**
TV
 Returns to the **TV** mode.
INPUT
 Selects the remote operating mode.
 (Refer to p.26)
MTS (Refer to p.22)
- 2 MUTE**
 Switches the sound on or off.
- 3 FAV or FCR** (Refer to p.19)
- 4 NUMBER buttons**
- 5 ENTER**
CH ▲ / ▼ (Channel button)
VOL ◀ / ▶ (Volume button)
- 6 MENU**
CC or CAPTION (Refer to p.27)
EXIT
FLASHBK
 Return to the last channel you were watching.
SLEEP (Refer to p.24)
VIDEO (Refer to p.20)
AUDIO (Refer to p.21)

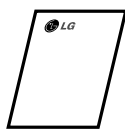
Installing Batteries



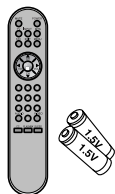
- Open the battery compartment cover on the back side and insert the batteries with correct polarity.
- Use two 1.5V batteries of AAA type. Don't mix used batteries with new batteries.

Installation

Accessories



Owner's Manual

Remote Control
AAA Batteries

Power Cord



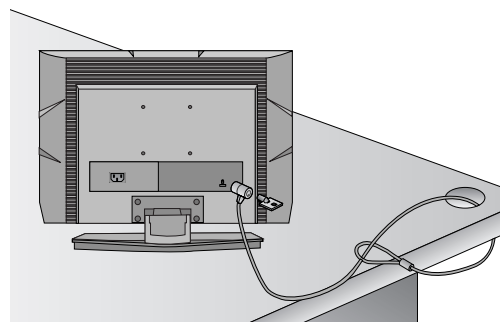
Cable management

Kensington Security System

- The TV is equipped with a Kensington Security System connector on the back panel. Connect the Kensington Security System cable as shown below.
- For the detailed installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.
For further information, contact <http://www.kensington.com>, the internet homepage of the Kensington company.
Kensington sells security systems for expensive electronic equipment such as notebook PCs and LCD projectors.

NOTE

- The Kensington Security System is an optional accessory.



NOTES

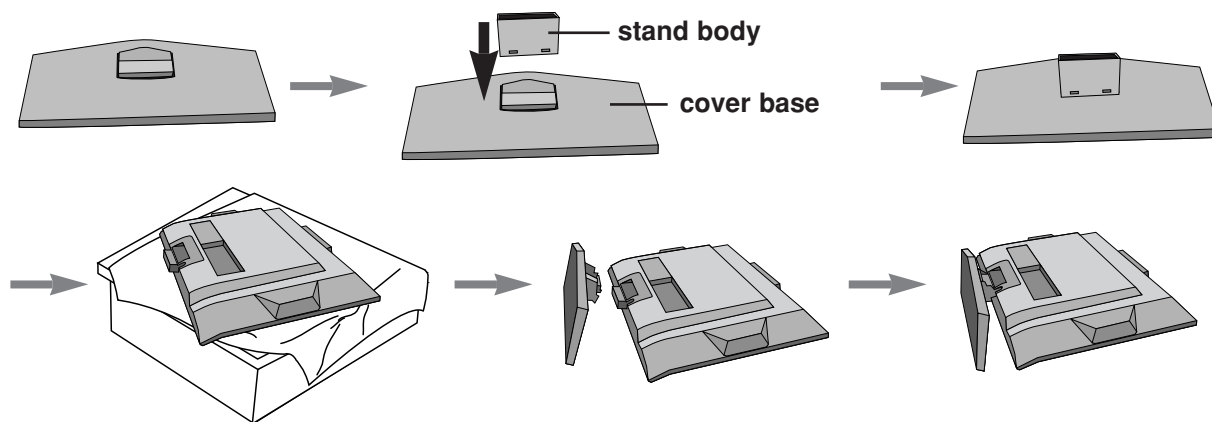
- a. If the TV feels cold to the touch, there may be a small "flicker" when it is turned on.
This is normal, there is nothing wrong with TV.
- b. Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots.
However, they have no adverse effect on the monitor's performance.
- c. Avoid touching the LCD screen or holding your finger(s) against it for long periods of time.
Doing so may produce some temporary distortion effects on the screen.

Installation Instruction

Stand Installation

1. Assemble parts of stand body with cover base of the stand. Insert stand body into a cover base until clicking sound.
2. Carefully place the product screen side down on a cushioned surface that will protect product and screen from damage.
3. Place the product stand on the product as shown.

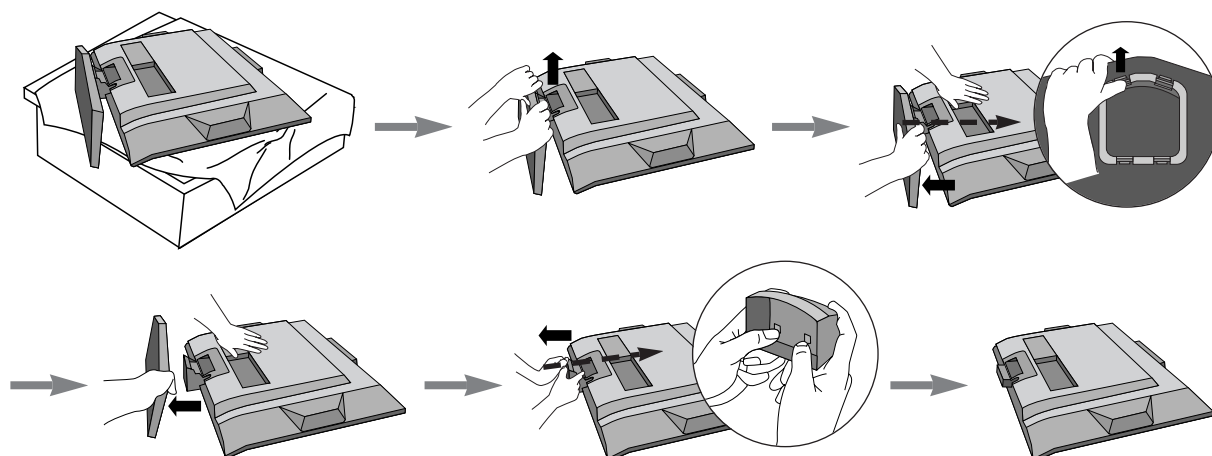
Note: Here shown may be somewhat different from your set.



Detaching stand

1. Place the set with its front facing downward on a cushion or soft cloth.
2. Hold the stand with both hands and bend it upward.
3. Pull each side of cover base backward during pressing latch upward.
4. Hold cover base and pull with shake it backward to separate from stand body.
5. Pull stand body to separate from set during pressing 2 latches.

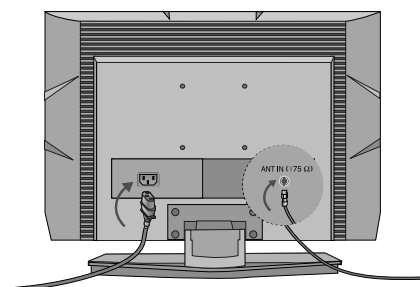
Note: Here shown may be somewhat different from your set.



Connection of TV

1. Connect the aerial cable to the socket marked **ANTENNA IN** on the back. For the best reception an outdoor aerial should be used.
2. To connect an additional equipment, see the **Connection of external equipment** section.
3. Connect the power cord.

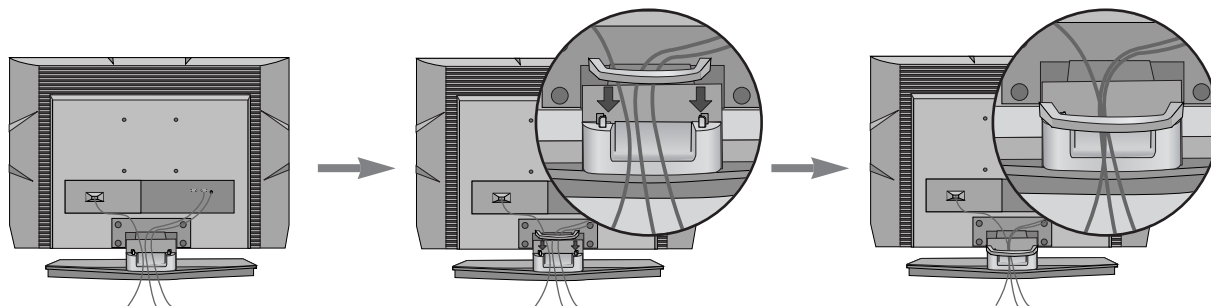
Note: Here shown may be somewhat different from your set.



Basic connection

1. Connect the cables as necessary.
After connecting the cables neatly, arrange the cables to the Cable Holder. To connect an additional equipment, see the **Connection of external equipment** section.
2. Install the **Cable management** as shown.

Note: Here shown may be somewhat different from your set.

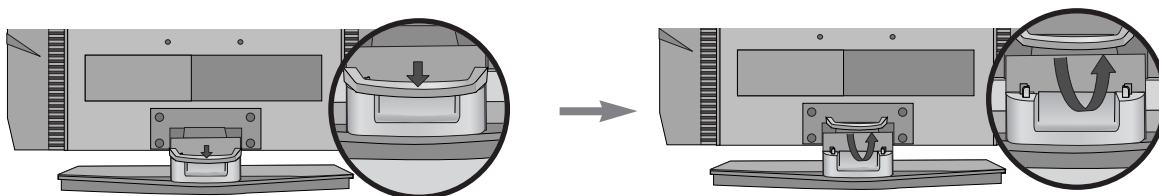


How to remove the Cable management

First, press the cable management.

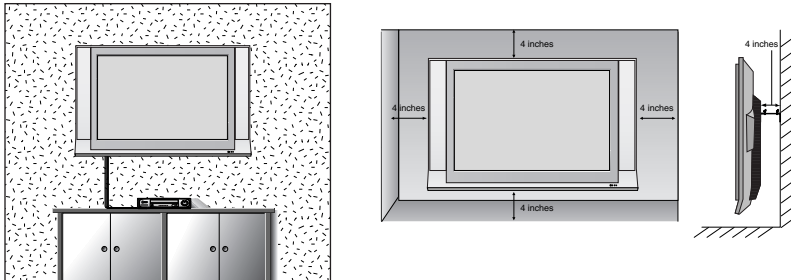
Hold the **Cable management** with both hands and pull it upward.

Note: Do not hold the CABLE MANAGEMENT when moving the product.
(If the product is dropped, you may be injured or the product may be broken.)



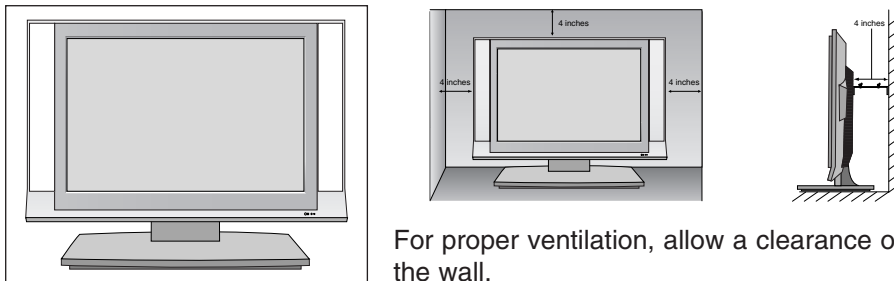
Installation Instruction Continued

Wall Mount: Horizontal installation



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

Desktop Pedestal Installation

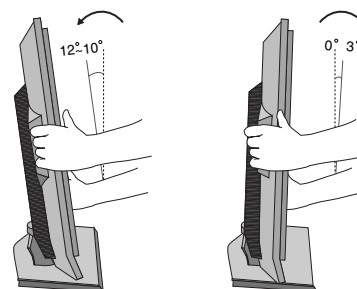


For proper ventilation, allow a clearance of 4" on each side and from the wall.

Positioning your display

Adjust the position of the panel in various ways for maximum comfort.

• Tilt range



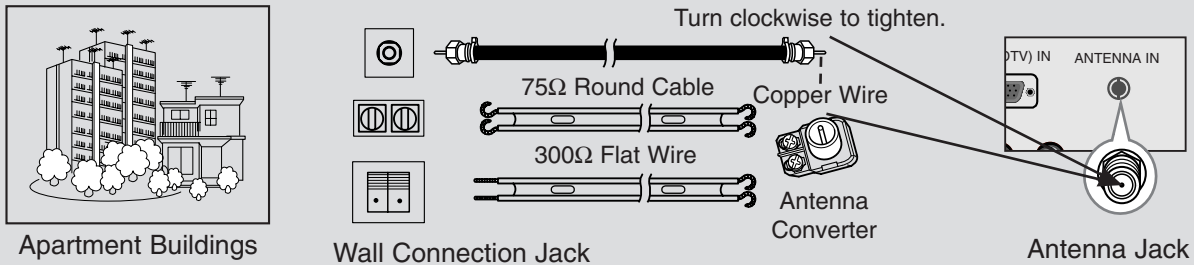
External Equipment Connections

Antenna Connection

- For optimum picture quality, adjust antenna direction.

Connecting to an Inside Antenna Setup

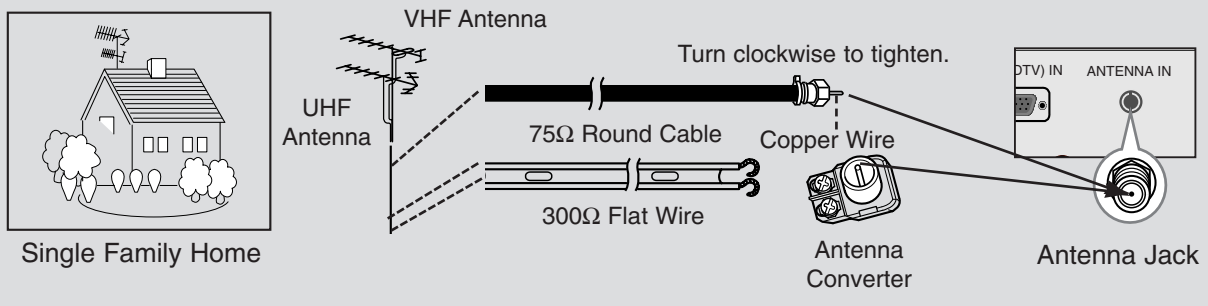
- Typical wall antenna jack used in apartment buildings, connect the antenna cable as shown below. (Use the correct type of antenna cable for the type of wall antenna jack.)



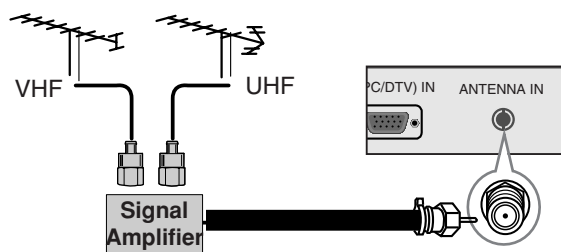
- If you have a 75Ω round cable, insert the bronze wire and then tighten the connection nut. If you have a 300Ω flat wire, connect the twisted wire to the antenna converter and then connect the converter to the antenna jack on the TV.
- If using 75Ω round cable, do not bend the bronze wire. It may cause poor picture quality.

Connecting to an Outdoor Antenna Setup

- This type of antenna is commonly used in single family dwellings.



- In poor signal areas, to get better picture quality, install a signal amplifier to the antenna as shown to the right.
- If signal needs to be split for two TVs, use an antenna signal splitter for connection.



External Equipment Connections Continued

VCR Setup

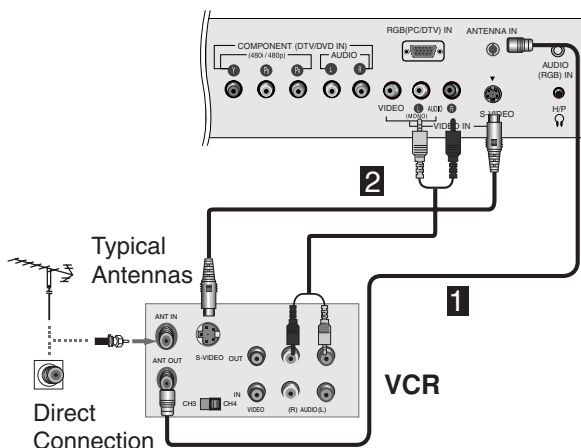
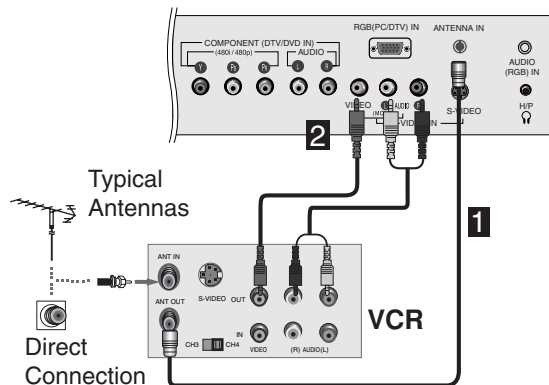
- In Video mode, TV automatically reverts to TV mode if the **TV** buttons are pressed.

Connection 1

Set VCR switch to 3 or 4 and then tune TV to the same channel number.

Connection 2

1. Connect the audio/video output jacks on VCR to the corresponding input jacks on the TV. When connecting the TV to a VCR, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
2. Insert a video tape into the VCR and press **PLAY** on the VCR. (Refer to the VCR owner's manual.)
3. Use the **INPUT** button on the remote control to select **Video**. (If connected to S-VIDEO on rear panel, select the **Video** external input source.)



Cable TV Setup

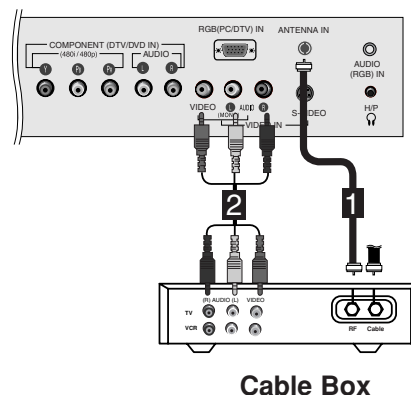
- After subscribing to a local cable TV service and installing a converter, you can watch cable TV programming.
 - For further cable TV information, contact a local cable service provider.

Connection 1

1. Select 3 or 4 with channel switch on cable box.
2. Tune the TV channel to the same selected output channel of cable box.
3. Select channels at the cable box or with the cable box remote control.

Connection 2

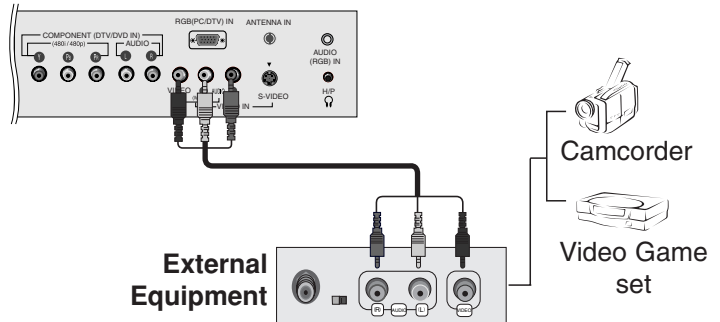
1. Connect the audio/video output jacks on Cable Box to the corresponding input jacks on the TV. When connecting the TV to Cable Box, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
2. Use the **INPUT** button on the remote control to select **Video**.
3. Select channels with the cable box remote control.



External A/V Source Setup

Connections

Connect the audio/video output jacks on the external A/V equipment to the corresponding input jacks on the TV. When connecting the TV to external A/V equipment, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).



Viewing Setup

1. Turn on the external A/V equipment.
2. Use the **INPUT** button on the remote control to select **Video**.
3. Operate the corresponding external equipment. Refer to external equipment operating guide.

DVD Setup

Connections

1. Connect the DVD video outputs to the COMPONENT (Y, Pb, Pr) jacks and connect the DVD audio outputs to the AUDIO jacks.
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.

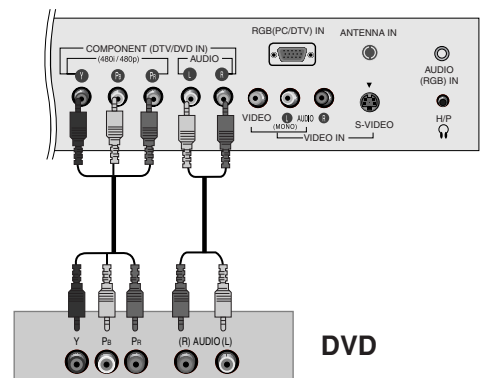
NOTE: If your DVD player does not have component video output, use S-Video.

Viewing Setup

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

Component Input ports

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



Component ports of the TV	Y	Pb	Pr
Video output ports of DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	PB	PR

Signal	Component	RGB-DTV
480i/480p	Yes	Yes
480i/480p	Yes	No

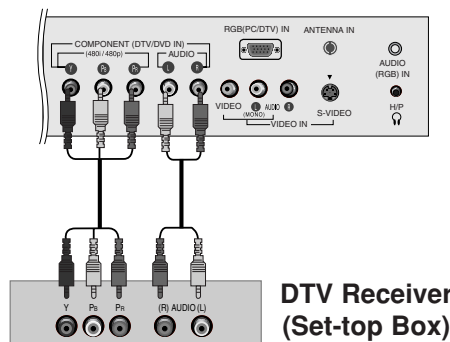
DTV Setup

- To watch digitally broadcast programs, purchase and connect a digital set-top box.

Connections

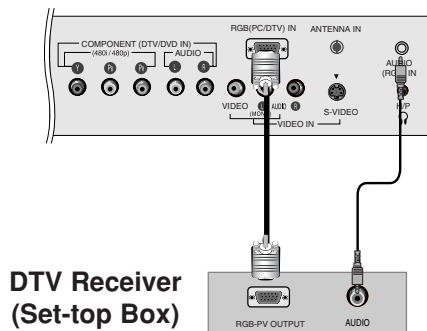
Connect the digital set-top box video outputs to the COMPONENT (Y, PB, PR) jacks and connect the digital set-top box audio outputs to the AUDIO jacks.

Or, Connect the set-top box with the D-sub output socket to PC INPUT socket on the set and audio cable of the set-top box to the PC SOUND.



Viewing Setup

1. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
2. Use the **INPUT** button on the remote control to select **Component** or **RGB-DTV**.



PC Setup

- After setup, be sure to select RGB-PC source on TV.

Connections

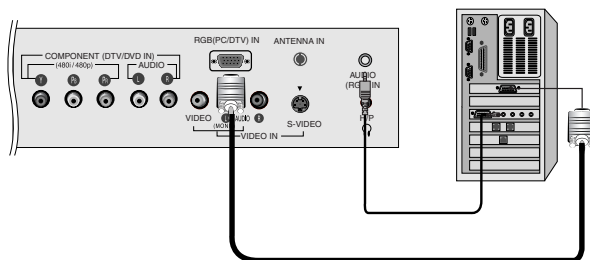
1. Set the monitor output resolution on the PC before connecting to the TV.
2. Connect the TV to the PC with the PC cable.
3. Connect the PC audio output to the TV's PC SOUND input.

Viewing Setup

1. Turn on the PC.
2. Use the **INPUT** button on the remote control to select **RGB-PC**.

Monitor Display Specifications

MODE	Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
VGA	640x480	31.4	60
SVGA	800x600	35.1	56
	800x600	37.8	60
XGA	1024x768	48.3	60



NOTES

- a. For optimum picture quality, use standard 1024x768@60Hz computer output at a 60Hz refresh rate . Using other formats (VGA, SVGA, etc.) or refresh rates may result in reduced picture quality. (To change the computer video output format, please refer to the operating manual for the computer you are using).
- b. If the message **"Out of range"** appears on the screen, adjust the PC output to a format listed in the 'Monitor Display Specifications' chart above.
- c. The synchronization input form for Horizontal and Vertical frequencies is separate.

DPM (Display Power Management) mode

If the PC goes to power saving mode, the monitor automatically switches to DPM mode. If you don't use the PC cable provided, DPM mode may not work.

Operation

TV Operation Overview

1. First, make all equipment connections. Plug the AC Adapter into the TV, then plug the AC Adapter into a power outlet. At this time, the TV is switched to standby mode.
 - In standby mode, press the **POWER, TV, CH (▲, ▼), INPUT** or **number** button on the remote control or **ON/OFF, CH (▲, ▼), INPUT** button located on the TV to turn the TV on.
2. Select the viewing source by pressing **INPUT**.
 - Note: See page 18 if you have not auto programmed the TV to receive channels in your local broadcast area.
3. After viewing, press the **POWER** button on the remote control or **ON/OFF** located on the TV. The TV reverts to standby mode.

NOTE

- If you want to turn the TV off, press the on/off button located on the TV. If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

Menu Language Selection

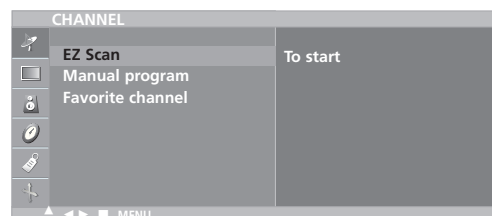
- The menus can be shown on the screen in the selected language. First select your language.
1. Press the **MENU** button and then use **▲ / ▼** button to select the **SPECIAL** menu.
 2. Press the **▶** button and then use **▲ / ▼** button to select **Language**.
 3. Press the **▶** button and then use **▲ / ▼** button to select your desired language.
From this point on, the on-screen menus will be shown in the language of your choice.
 4. Press the **ENTER** button to save.

Channel Menu Options

Memorizing the Channels with EZ scan

- For Auto program to work, the programming source must be connected to the TV and the TV must be receiving programming signals either over-the-air or from a cable-type service provider.

1. Press the **MENU** button and then use ▲ / ▼ button to select the **CHANNEL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **EZ Scan**.
3. Press the ► button to begin the channel search.
 - Wait for auto program to complete the channel search cycle before choosing a channel. The TV scans for over-the-air channels and then channels provided by a cable service.



NOTES

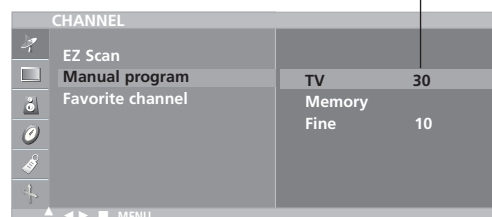
- When the channel search is complete, use the ▲ / ▼ buttons to review the memorized channels.
- If you press the **MENU** or **EXIT** button in auto programming, the function will stop and only channels programming up to that time will remain.
- Auto program function can memorize only the channels which are being received at that time.

Add/Delete Channels with Manual Program

- You can manually include or erase individual channels.

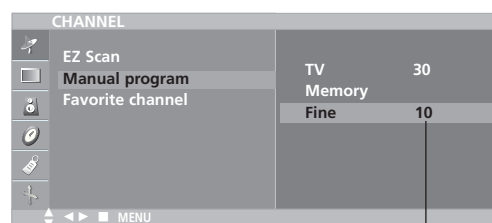
1. Press the **MENU** button and then use ▲ / ▼ button to select the **CHANNEL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Manual program**.
3. Press the ► button and then use ◀ / ▶ button to select a channel you want to add to memory or erase.
4. Press the ▼ button and then use ◀ / ▶ button to select **Memory (add)** or **Erase (delete)**.
5. Press the **ENTER** button to save. The current channel is added to Memory or Erased from the channel list.

The current channel number is displayed.



Adjust frequency with Manual Program

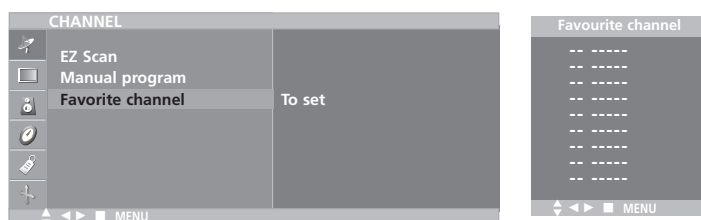
1. Press the **MENU** button and then use ▲ / ▼ button to select the **CHANNEL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Manual program**.
3. Press the ▼ button to select **Fine** and then use ◀ / ▶ button to adjust frequency from -50 to 50.
4. Press the **ENTER** button to save.



The current frequency is displayed.

Favorite Channels Setup

- Favorite Channel lets you quickly tune in up to 8 channels of your choice without having to wait for the TV to scan through all the in-between channels.



1. Press the **MENU** button and then use ▲ / ▼ button to select the **CHANNEL** menu.
2. Press the ► button and then use ▲ / ▼ button to select **Favorite channel**.
3. Press the ► button and then use ▲ / ▼ button to select the first favorite channel position.
4. Use the ◀ / ▶ button to set the desired channel number for first favorite channel.
5. Repeat steps 3 to 4 to memorize other channels.
6. Press the **ENTER** button to save.
 - To tune to a favorite channel, press the **FAV** or **FCR** button repeatedly. The 8 favorite channels appear on the screen one-by-one.

Picture Menu Options

EZ Video

- This function adjusts the TV for the best picture appearance.

1. Press the **VIDEO** button repeatedly to select the picture appearance setup option as shown below.

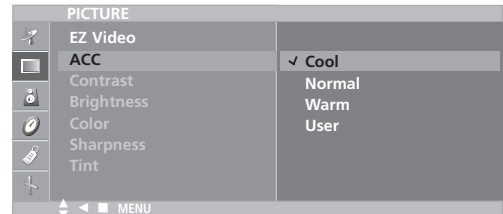


- You can also adjust **EZ Video** in the **PICTURE** menu.
- **Clear, Optimum** and **Soft** are preset for good picture quality at the factory and cannot be changed.

ACC (Auto Color Control)

- Selecting a factory setting colour set.

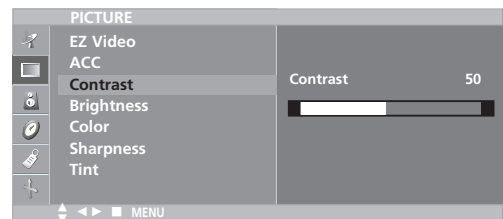
1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **ACC**.
3. Press the **▶** button and then use **▲ / ▼** button to select **User**.
4. Press the **▶** button and then **▲ / ▼** button to select a color setting on the **ACC** menu: **Cool, Normal, Warm** or **User (Red, Green, Blue)**.
5. Press the **ENTER** button to save.



Manual Picture Control

- You can adjust picture contrast, brightness, color, sharpness and tint to the levels you prefer.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **EZ Video**.
3. Press the **▶** button and then use **▲ / ▼** button to select **User** and then press the **◀** button.
4. Use **▲ / ▼** button to select the desired picture option (**Contrast, Brightness, Color, Sharpness, Tint**).
5. Use the **◀ / ▶** button to make appropriate adjustments.
 - Contrast, Brightness, Color, and Sharpness are adjustable from 0 to 100.
 - Tint is adjustable from R 50 to G 50.
6. Press the **ENTER** button to save.



Sound Menu Options

EZ Audio

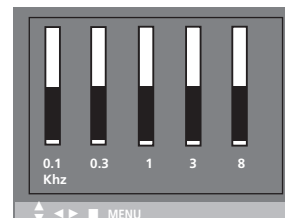
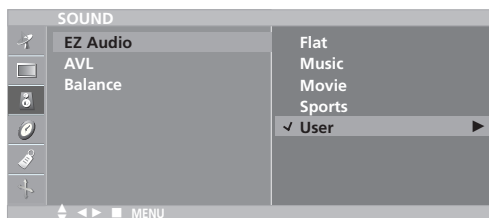
- This function lets you enjoy the best sound without any special adjustment because the TV selects the appropriate sound option based on the program content.

1. Use the **AUDIO** button to select the appropriate sound setup as shown below.



• You can also adjust **EZ Audio** in the **SOUND** menu.

Equalizer Adjustments



1. Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **EZ Audio**.
3. Press the **▶** button and then use **▲ / ▼** button to select **User**.
4. Press the **▶** button and then use **◀ / ▶** button to select the band you want to adjust. Then, use **▲ / ▼** button to adjust the band level.
5. Press the **ENTER** button to save.

AVL (Auto Volume Leveler)

- AVL maintains an equal volume level automatically even if the channel is changed.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **AVL**.
3. Press the **▶** button and then use **▲ / ▼** button to to select **On** or **Off**.
4. Press the **ENTER** button to save.

