

APPENDIX H
: USER'S MANUAL



LCD TV

OWNER'S MANUAL

MODEL: 32LX4DC



Internet Home Page : <http://www.lgcommercial.com>

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 : 3828TUL309N (0606-REV00)
Printed in Korea

Warning



WARNING:

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.

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://www.lgusa.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.

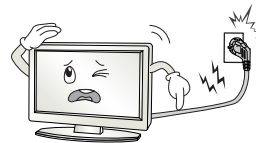


8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



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

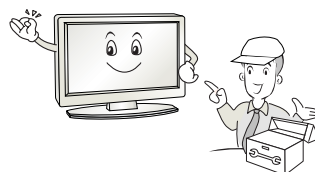
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.



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 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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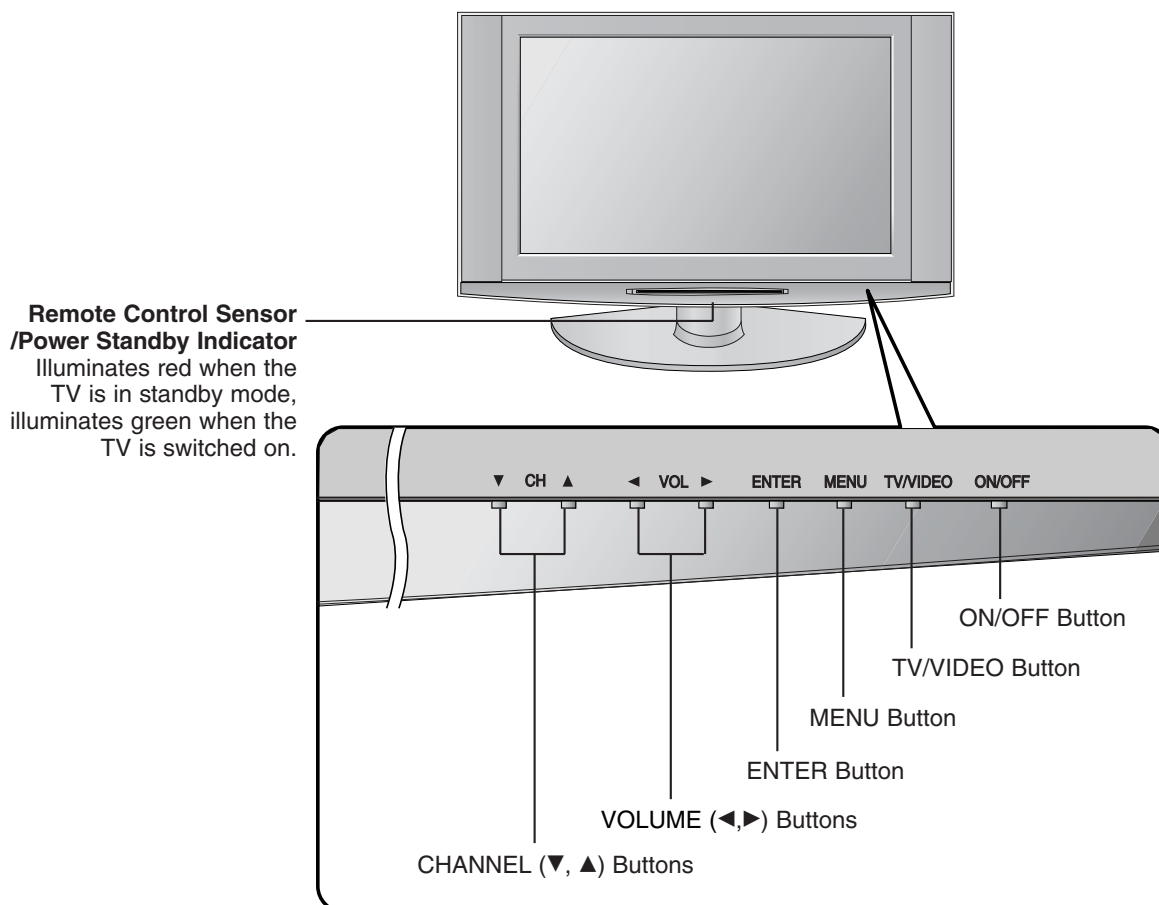
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Introduction

Controls

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



Accessories

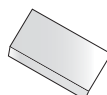
Ensure that the following accessories are included with your TV. If any accessory is missing, please contact the dealer from where you purchased the product.



Power Cord



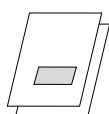
D-sub 15 pin Cable



6 Shield Foams



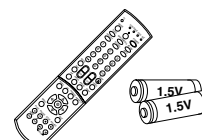
Polishing Cloth
Polish the screen with the cloth.



Owner's Manual
/ Commercial Interface Control Box Manual

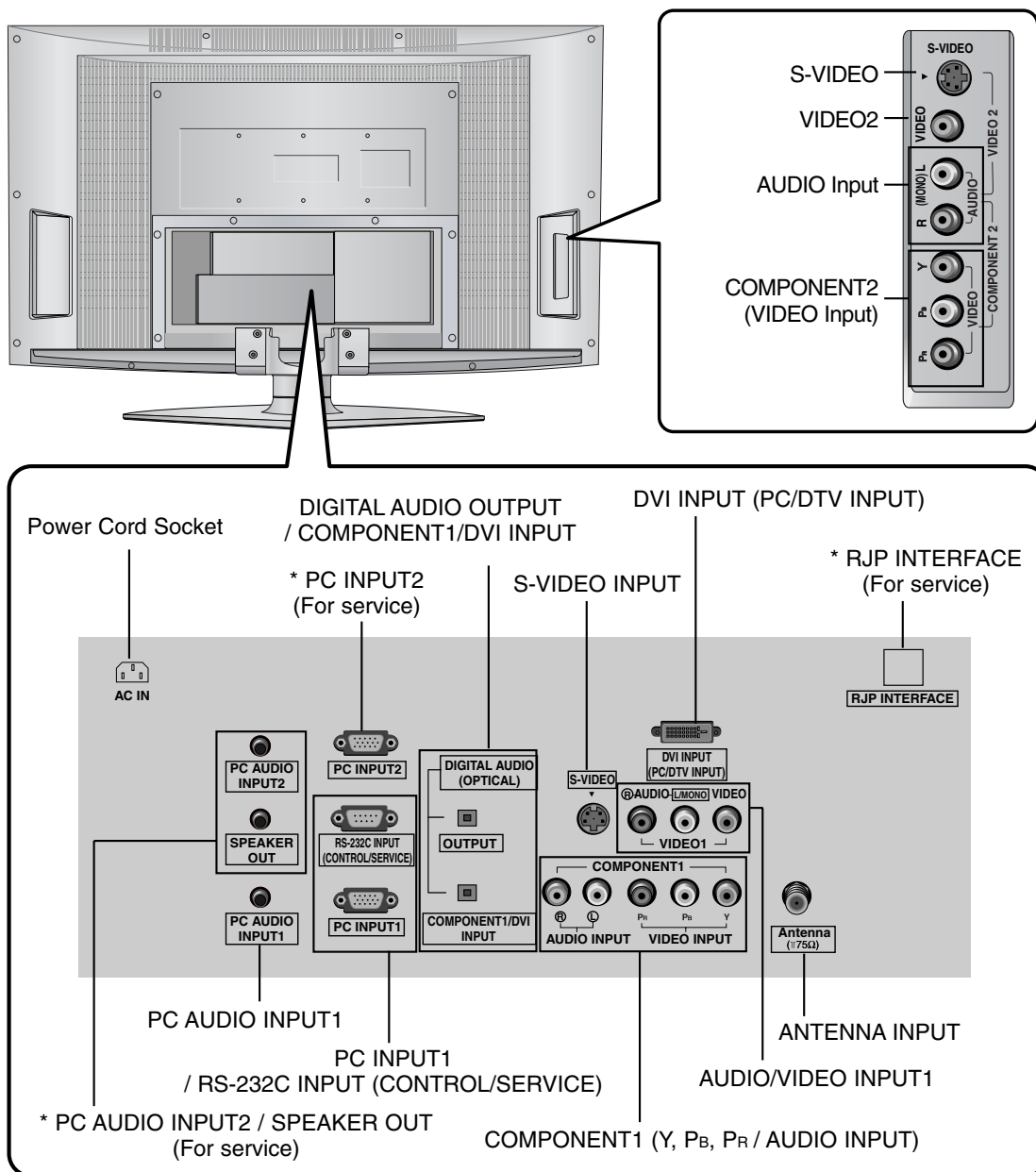


Twister Holder
Arrange the wires with the twister holder.



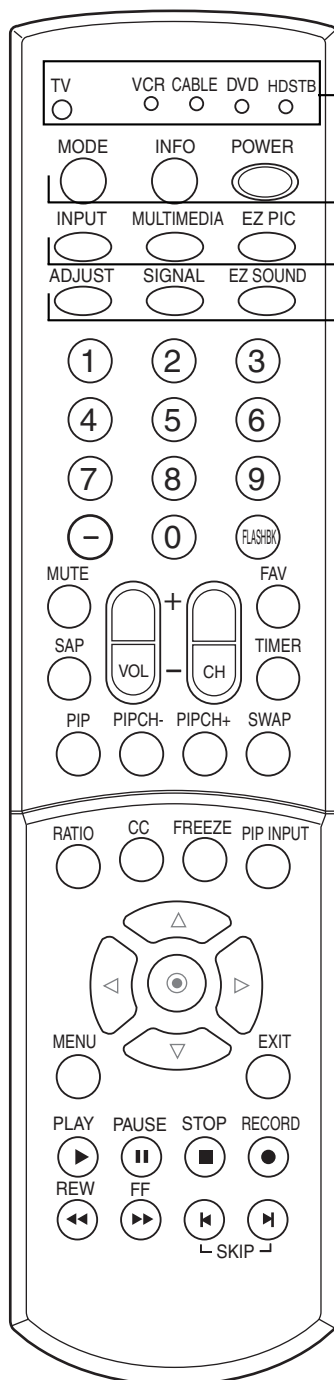
Remote Control /
AA Batteries

Connection Options



* For Service Jacks: PC INPUT2, PC AUDIO INPUT2, SPEAKER OUT, and RJP INTERFACE
Be careful not to use this jack. Just contact your dealer or service center.

Remote Control Key Functions



Indicator Lights

Shows active remote mode every time any button is pressed.

MODE

Selects the remote operating mode: TV, VCR, CABLE, DVD, HDSTB. Select other operating modes, for the remote to operate external devices.

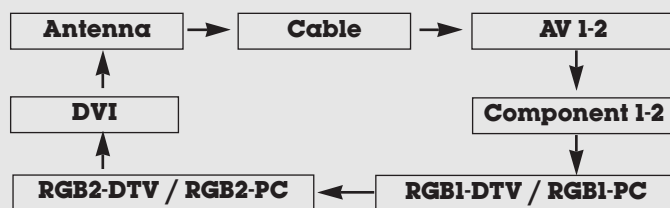
INFO

When you watch the TV, displays information on top of the screen. Not available in Component 1-2, RGB 1-2 and DVI mode.

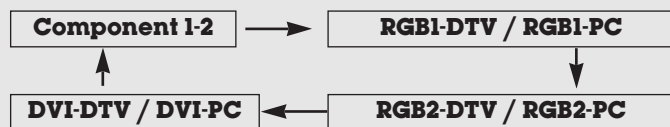
POWER

Turns your TV or any other programmed equipment on or off, depending on mode.

INPUT Selects:



MULTIMEDIA Selects:



EZ PIC

Adjusts the factory preset picture according to the room. (Refer to p.30)

ADJUST

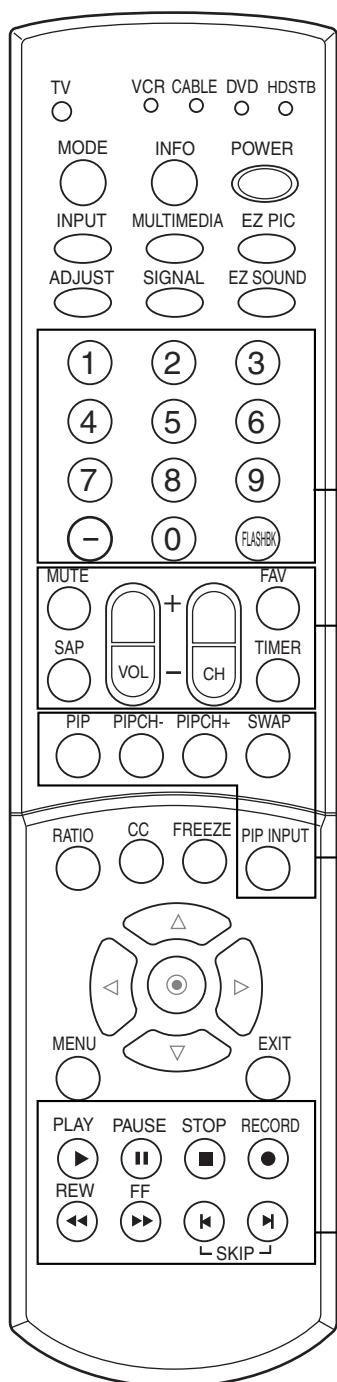
Adjusts screen position, size, and phase in PC mode. (Refer to p.23)

SIGNAL

Displays the digital signal strength. (Refer to p.28)

EZ SOUND

Selects the sound appropriate for the program's character. (Refer to p.33)



NUMBER buttons

— (DASH)

Used to enter a program number for multiple program channels such as 2-1, 2-2, etc.

FLASHBK

Return to the last channel viewed.

MUTE

Switches the sound on or off.

SAP

Selects MTS sound: Mono, Stereo, and SAP. Change the audio language in DTV mode. (Refer to p.34)

VOLUME UP/DOWN

Increases/decreases the sound level.

CHANNEL UP/DOWN

Selects available channels found with EZ scan.

FAV

Use to scroll the Surf channel list.

TIMER

Lets you select the amount of time before your TV turns itself off automatically. (Refer to p.37)

PIP

Switches between PIP and Double Window modes. (Refer to p.45)

PIPCH-/PIPCH+

Changes to next higher/lower PIP channel. (Refer to p.45)

SWAP

Exchanges the PIP/main images. (Refer to p.46)

PIP INPUT

Selects the input source for the sub picture. (Refer to p.45)

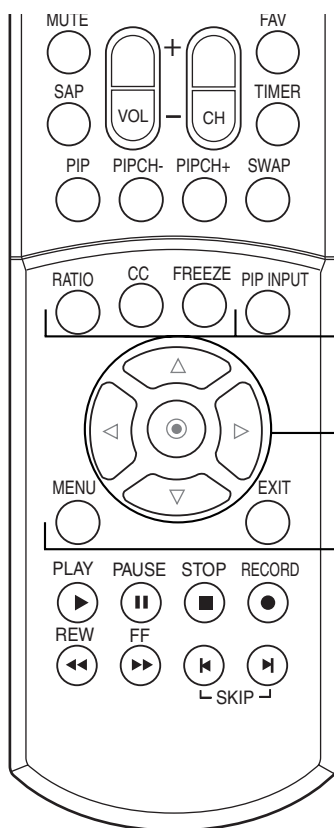
VCR/DVD BUTTONS

Control some video cassette recorders or DVD player ("RECORD" button is not available for DVD player).

SKIP

Playing CDs: Selects songs.

Playing DVDs: Selects movie chapters.

**RATIO**

Changes the aspect ratio. (Refer to p.39)

CC

Select a closed caption mode: **Off**, **CC1**, **CC2**, **CC3**, **CC4**, **Text1**, **Text2**, **Text3**, or **Text4**. (Refer to p.41)

FREEZE

Freezes the currently-viewed picture. Main picture is frozen in PIP/Double Window mode.

THUMBSTICK (Up/Down/Left/Right)

Allows you to navigate the on-screen menus and adjust the system settings to your preference.

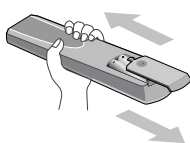
MENU

Brings up the main menu to the screen.

EXIT

Clears all on-screen displays and returns to TV viewing from any menu.

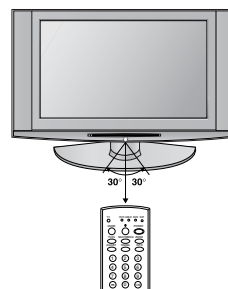
Installing Batteries



- 1** Open the battery compartment cover on the back side.

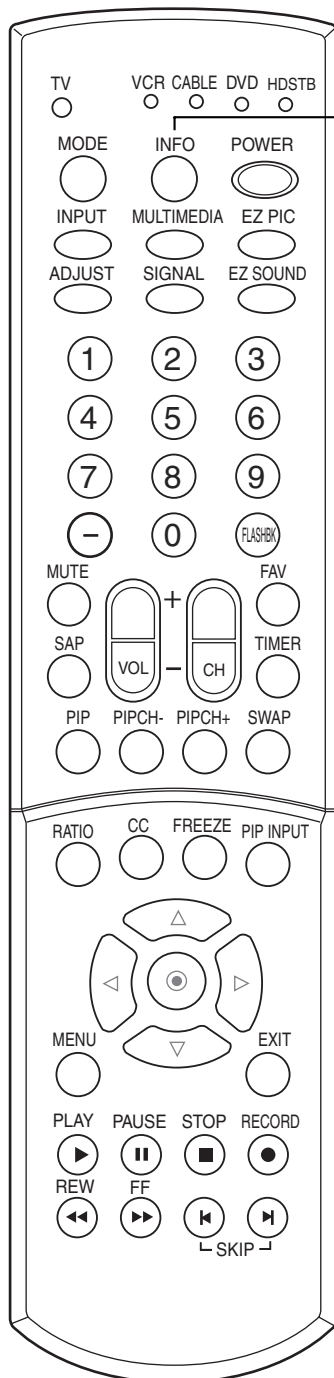
- 2** Insert two 1.5V AA size batteries in correct polarity (+ with +, - with -). Don't mix old or used batteries with new ones.

- 3** Close the cover.



* Point the remote towards the remote control sensor of the wireless TV and use it within about 7 meters.

* Put the used batteries into the recycling bin since it can negatively affect the environment.



Brief Info.

What is Brief Info?

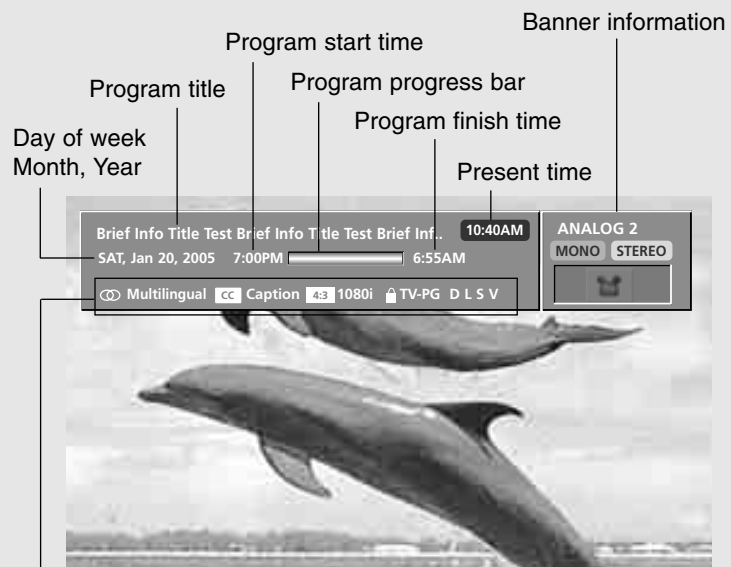
- : Brief Info shows the present screen information.
- : On Watching with the upper Input signal, press the **INFO** button.

How to use?

1. Press the **INFO** button to show the Brief Info on the screen.
2. Press the **INFO** button or **EXIT** button to exit.
 - The **INFO** button does not work in Component1, Component2, RGB1, RGB2, DVI modes.

This function works in the following mode:

- Watching TV/DTV/CATV/CADTV
- Watching AV1, AV2



4:3

The original aspect ratio of the video is 4:3

16:9

The original aspect ratio of the video is 16:9 (wide)

480i

The video resolution is 720x480i

480p

The video resolution is 720x480p

720p

The video resolution is 1280x720p

1080i

The video resolution is 1920x1080i



Multilingual: The program contains two or more audio services. Press the **SAP** button to select wanted Audio.

CC

Caption: The program contains one or more caption services. Press the **CC** button to select wanted Closed caption.

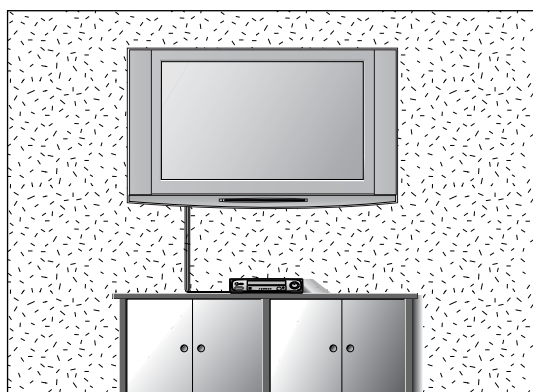


V-Chip: The program contains V-Chip information. Refer to the **LOCK** menu: A (Age), D (Dialogue), L (Language), S (Sex), V (Violence), FV (Fantasy Violence)

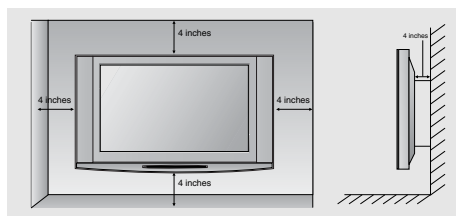
Installation

Various Installation

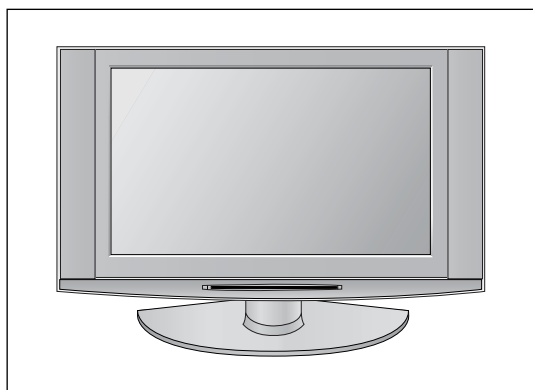
Wall Mount: Horizontal installation



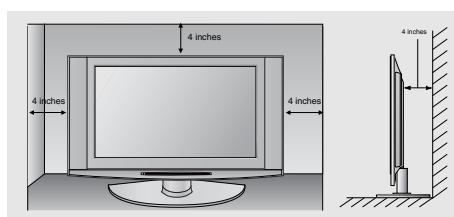
For proper ventilation, allow a clearance of 4" on each side and 2" from the wall. Detailed installation instructions are available from your dealer, see the optional Tilt Wall Mounting Bracket Installation and Setup Guide.



Desktop Pedestal Installation

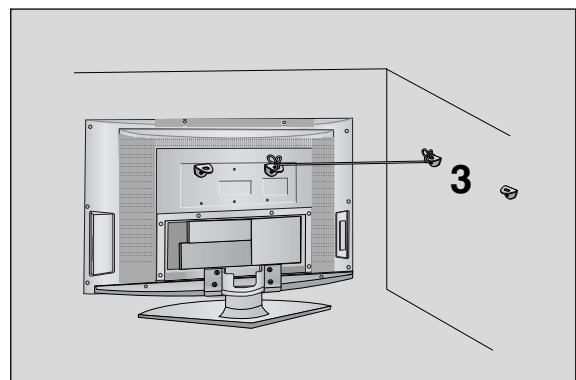
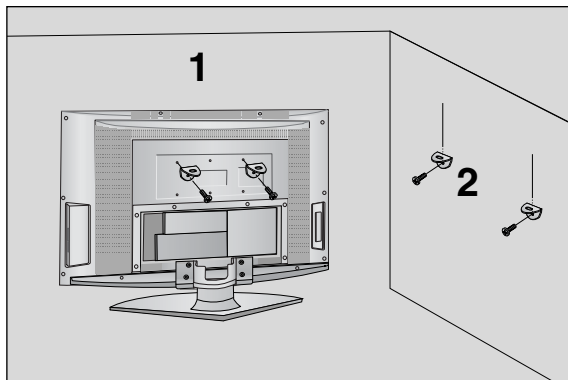


For proper ventilation, allow a clearance of 4" on each side and the top, and 2" from the wall.



Attaching the TV to a wall

- Set it up close to the wall so the product doesn't fall over when it is pushed backwards.
- The instructions shown below is a safer way to set up the product, which is to fix it on the wall so the product doesn't fall over when it is pulled in the forward direction. It will prevent the product from falling forward and hurting people. It will also prevent the product from damage caused by fall. Please make sure that children don't climb on or hang from the product.



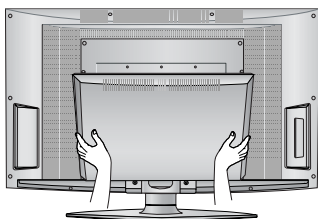
- 1** Use the bracket and the bolt to fix the product to the wall as shown in the picture.
- 2** Secure the bracket with the bolt (not provided as parts of the product, must purchase separately) on the wall.
- 3** Use a sturdy rope (not provided as parts of the product, must purchase separately) to tie the product. It is safer to tie the rope so it becomes horizontal between the wall and the product.

Notes

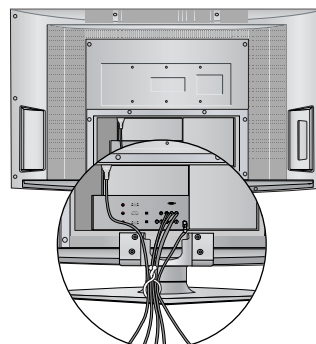
- When moving the product to another place undo the ropes first.
- Use a product holder or a cabinet that is big and strong enough for the size and weight of the product.
- To use the product safely make sure that the height of the bracket that is mounted on the wall is same as that of the product.

How to use back cover

- 1** Hold the back cover with both hands and pull it backward.

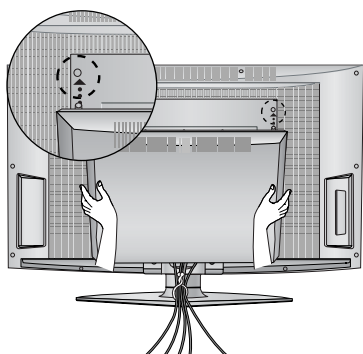


- 2** Install wires as necessary.
(To install various wires, refer to p.14~21.)

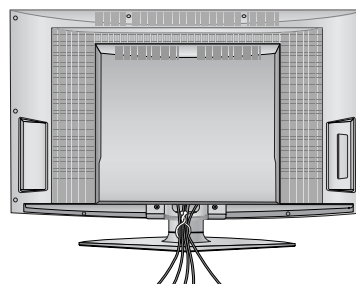


* Arrange the signal input cable and the power cord by holder, as shown.

- 3** Align the holes on the TV back panel with the protuberance on the back cover and insert.



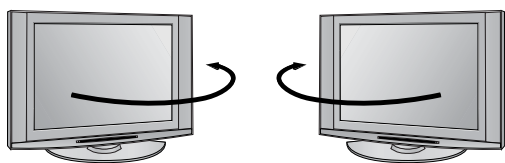
- 4** Reinstall the cover.



Wire Arrangement

- Pull the cables through the hole on the set.

Swivel Stand

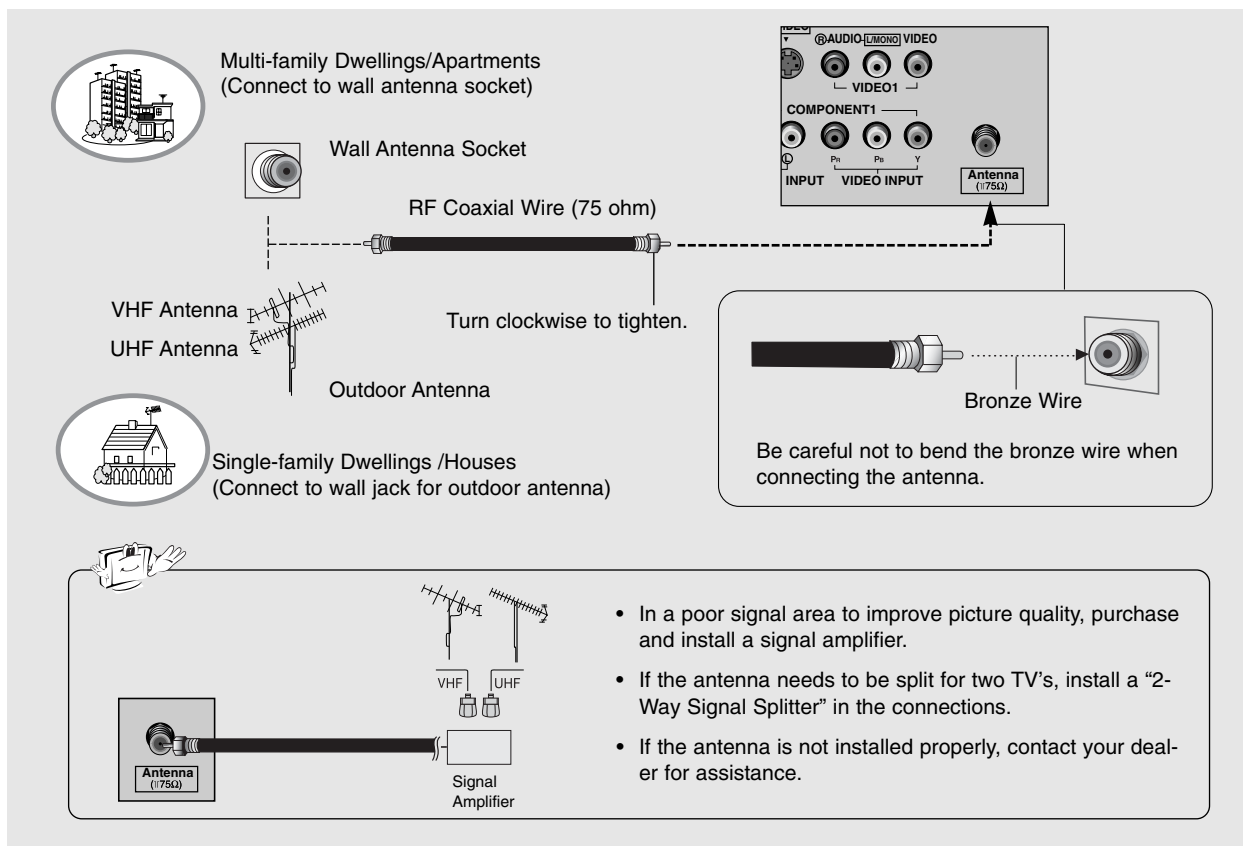


- The TV can be conveniently swivelled on its stand 90° to the left or right to provide the optimum viewing angle.

External Equipment Connections

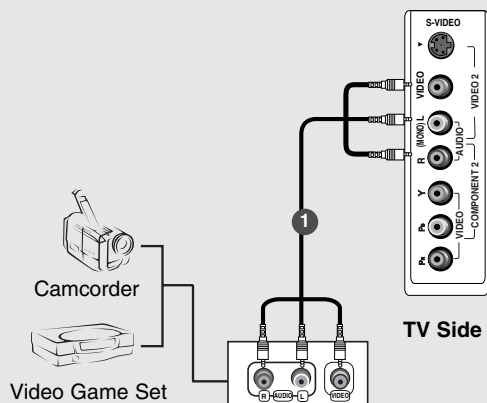
Antenna Connection

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



NOTE: If you are not sure of the type of signal(s) you are receiving, let EZ Scan complete all the channel signal-type searches. The TV will let you know when the analog, cable, and digital channel scans are complete.

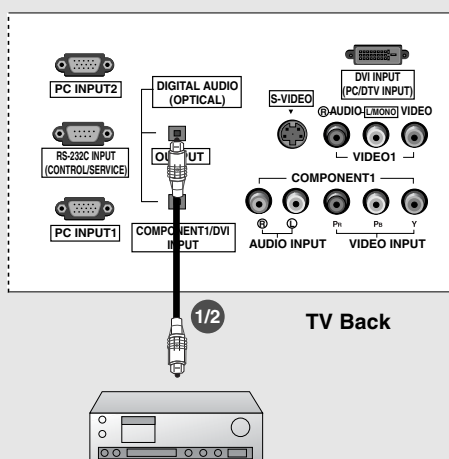
External AV Source Setup



- 1 Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colours (Video = yellow, Audio Left = white, and Audio Right = red).
- 2 Select **AV 2** input source with using the **INPUT** button on the remote control.
- If connected to VIDEO1 input (the back side), select **AV 1** input source.
- 3 Operate the corresponding external equipment. Refer to external equipment operating guide.

Digital Audio Output

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



- 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 35.
See the external audio equipment instruction manual for operation.



CAUTION

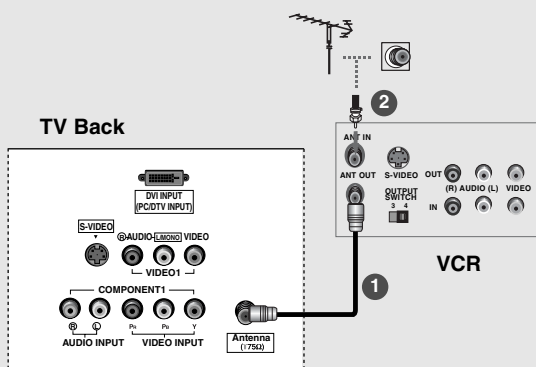
Do not look into the optical output port. Looking at the laser beam may damage your vision.

NOTE: All cables shown are not included with the TV.

VCR Setup

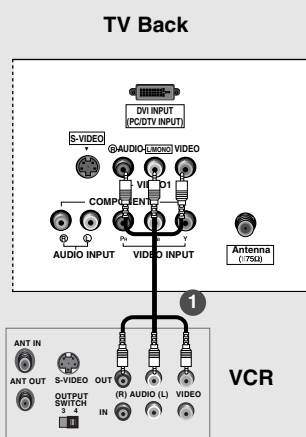
- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- Typically a frozen still picture from a VCR. If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen.

When connecting with an antenna



- 1 Connect the RF antenna out socket of the VCR to the **Antenna** socket on the set.
- 2 Connect the antenna cable to the RF antenna in socket of the VCR.
- 3 Set VCR output switch to 3 or 4 and then tune TV to the same channel number.
- 4 Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)

When connecting with a RCA cable

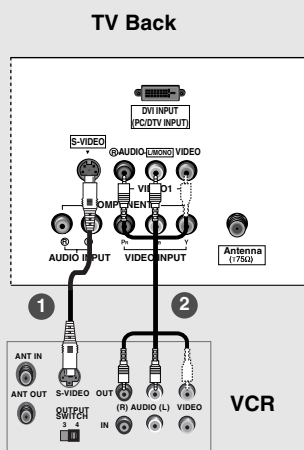


- 1 Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)
- 2 Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- 3 Select **AV 1** input source with using the **INPUT** button on the remote control.
- If connected to IN 2 input (TV front), select **AV 2** input source.



- If you have a mono VCR, connect the audio cable from the VCR to the **AUDIO L/MONO** jack of the set.

When connecting with an S-Video cable



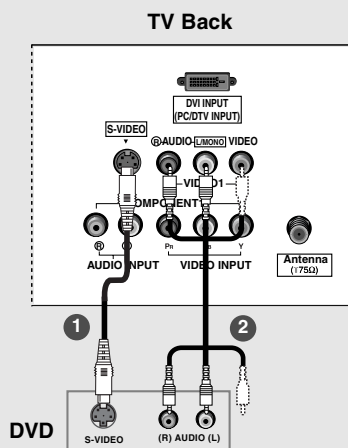
- 1 Connect the an S-VIDEO output of the VCR to the S-VIDEO input on the set. The picture quality is improved; compared to connecting a regular VCR to the Video input.
- 2 Connect the audio outputs of the VCR to the **AUDIO** input jacks on the set.
- 3 Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- 4 Select **AV 1** input source with using the **INPUT** button on the remote control.
- If connected to IN2 input (TV front), select **AV 2** input source.



Do not connect to both Video and S-Video at the same time.

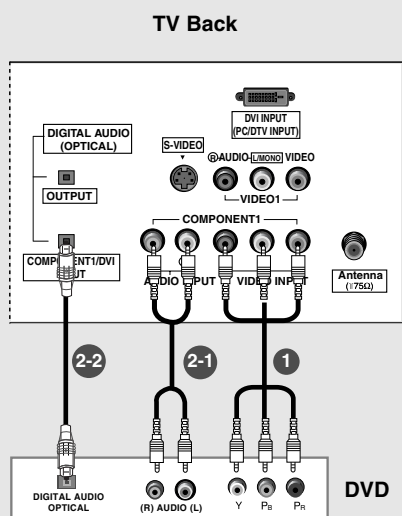
DVD Setup

When connecting with a S-Video cable



- 1 Connect the S-VIDEO output of the DVD to the **S-VIDEO** input on the set.
- 2 Connect the audio outputs of the DVD to the **AUDIO** input jacks on the set.
- 3 Turn on the DVD player, insert a DVD.
- 4 Select **AV 1** input source with using the **INPUT** button on the remote control.
- If connected to IN 2 input (TV front), select **AV 2** input source.
- 5 Refer to the DVD player's manual for operating instructions.

When connecting with a component cable



Select **2-1** or **2-2**, depending on your DVD connector.

- 1 Connect the video outputs (Y, Pb, Pr) of the DVD to the **COMPONENT1 VIDEO (Y, Pb, Pr)** jacks on the set.
- 2-1 Connect the audio outputs of the DVD to the **COMPONENT1 AUDIO** jacks on the set.
- 2-2 Connect the optical audio output of the DVD to the **DIGITAL AUDIO COMPONENT1/DVI INPUT** jack on the set.
- 3 Turn on the DVD player, insert a DVD.
- 4 Select **Component 1** input source with using the **INPUT** or **MULTIMEDIA** button on the remote control.
- If connected to COMPONENT2 (TV side), select **Component 2** input source.
- 5 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.

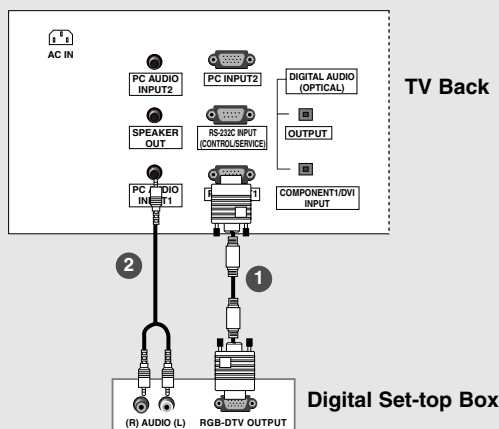
Component ports on the TV	Y	Pb	Pr
Video output ports on DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	PB	PR

- Digital Audio will not work for Component 2 input source.
- Digital Audio operation has priority if Digital Audio and AUDIO L/R are connected at the same time.

HDSTB Setup

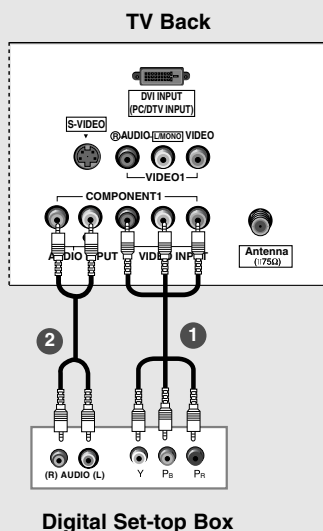
- This TV can receive Digital Over-the-air/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.

When connecting with a D-sub 15 pin cable



- 1 Connect the RGB output of the digital set-top box to the **PC INPUT1** jack on the set.
- 2 Connect the audio outputs of the set-top box to the **PC AUDIO INPUT1** jack on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 4 Select **RGB1-DTV** input source with using the **INPUT** or **MULTIMEDIA** button on the remote control.

When connecting with a Component cable

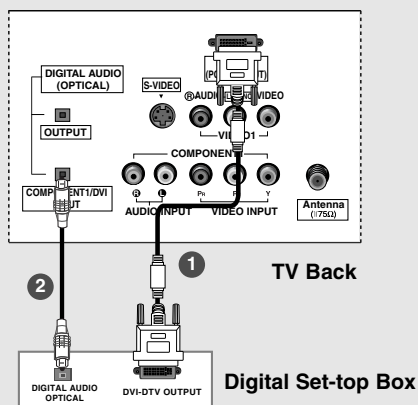


- 1 Connect the video outputs (Y, Pb, Pr) of the digital set-top box to the **COMPONENT1 VIDEO INPUT (Y, Pb, Pr)** jacks on the set.
- 2 Connect the audio outputs of the digital set-top box to the **COMPONENT1 AUDIO INPUT** jacks on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 4 Select **Component 1** input source with using the **INPUT** or **MULTIMEDIA** button on the remote control.
- If connected to COMPONENT2 input (TV side), select **Component 2** input source.



Signal	Component1/2	RGB-DTV, DVI-DTV
480i	Yes	No
480p/720p/1080i	Yes	Yes

When connecting with a DVI cable

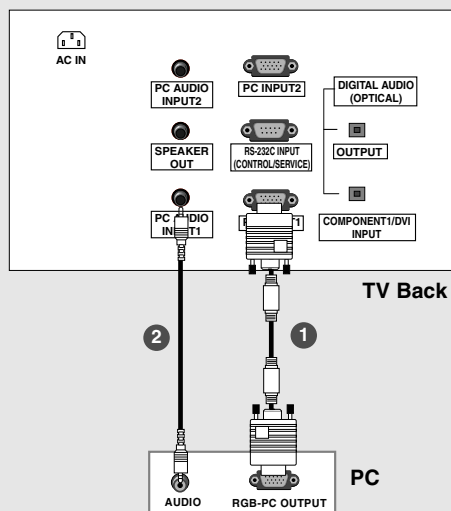


- 1 Connect the DVI output of the digital set-top box to the **DVI INPUT (PC/DTV INPUT)** jack on the set.
- 2 Connect the digital audio outputs of the set-top box to the **DIGITAL AUDIO COMPONENT1/DVI INPUT** jack on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 4 Select **DVI-DTV** input source with using the **INPUT** or **MULTIMEDIA** button on the remote control.

PC Setup

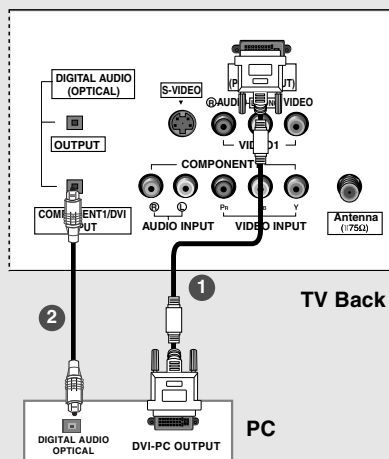
- This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings. The TV sends configuration information (EDID) to the PC using the Video Electronics Standard Association (VESA) Display Data Channel (DDC) protocol.

When connecting with a D-sub 15 pin cable



- 1 Connect the RGB output of the PC to the **PC INPUT1** jack on the set.
- 2 Connect the PC audio outputs to the **PC AUDIO INPUT1** jack on the set.
- 3 Turn on the PC and the set.
- 4 Select **RGB1-PC** input source in main input option of SETUP menu. (Refer to P.29)

When connecting with a DVI cable



- 1 Connect the DVI output of the PC to the **DVI INPUT (PC/DTV INPUT)** jack on the set.
- 2 Connect the PC audio outputs to the **DIGITAL AUDIO COMPONENT1/DVI INPUT** jack on the set.
- 3 Turn on the PC and the set.
- 4 Select **DVI-PC** input source in main input option of SETUP menu. (Refer to P.29)



1. To get the best picture quality, adjust the PC graphics card to 1024x768, 60Hz.
2. If the graphic card on the PC does not output analog and digital RGB simultaneously, connect only one of either PC INPUT or DVI INPUT to display the PC on the TV.
If the graphic card on the PC does output analog and digital RGB simultaneously, set the TV to either RGB or DVI; (the other mode is set to Plug and Play automatically by the TV.)
3. If using a sound card, adjust the PC sound as required.
4. 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 mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the 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.

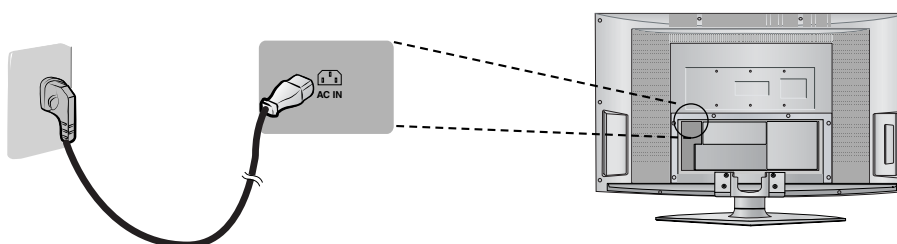
5. Avoid keeping a fixed image on the TV's screen for a long period of time. The fixed image may become permanently imprinted on the screen.
6. The synchronization input form for Horizontal and Vertical frequencies is separate.

Monitor Display Specifications (RGB1-PC / DVI-PC Mode)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640x350	31.468	70.09
640x480	31.469	59.94
	37.861	72.80
	37.500	75.00
800x600	35.156	56.25
	37.879	60.31
	48.077	72.18
	46.875	75.00
1024x768	48.363	60.00
	56.476	70.06
	60.023	75.02

Power Cord Connection

- Connect the power cord as shown.

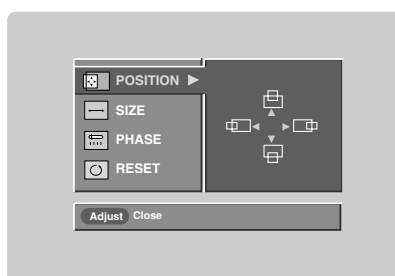


Operation

Screen Setup for PC mode

- When RGB connect to PC input and select the RGB-PC, this function is used.
- In RGB1/2-DTV mode, SIZE and PHASE is not available.

Adjustment for screen Position, Size, and Phase



Mini Glossary

Position This function is to adjust picture to left/right and up/down as you prefer.

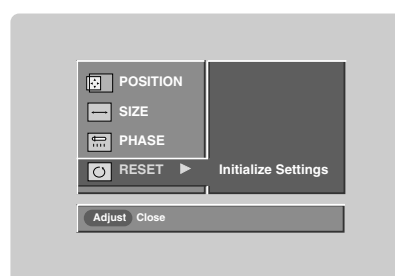
Size This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change.

Phase This function allows you to remove any horizontal noise and clear or sharpen the image of characters.

1. Press the **ADJUST** button and then use **▲ / ▼** button to select **POSITION**, **SIZE**, or **PHASE**.
2. Press **●** button and then use **▲ / ▼ / ◀ / ▶** buttons to make appropriate adjustments.
 - The **PHASE** adjustment range is -16 ~ +16.
 - The **SIZE** adjustment range is -30 ~ +30.
3. Press **●** button.

Initializing (Reset to original factory values)

- To initialize the adjusted values



1. Press the **ADJUST** button and then use **▲ / ▼** button to select the **RESET** option.
2. Press **●** button and then use **◀ / ▶** button to select **Yes**.
3. Press **●** button.

Basic operation

Turning on the TV

1. First, connect power cord correctly. At this moment, the TV switches to standby mode.
In standby mode to turn TV on, press the **ON/OFF** button on the TV or press the **POWER** button on the remote control.
2. Select the viewing source by using **INPUT** button on the remote control.
3. When finished using the TV, press the **POWER** button on the remote control. The TV reverts to standby mode.

Volume Adjustment

1. Press the **VOL (+, -)** button to adjust the volume.
2. If you want to switch the sound off, press the **MUTE** button.
3. You can cancel this function by pressing the **MUTE** or **VOL (+, -)** button.

Channel Selection

Press the **CH (+, -)** or **NUMBER** buttons to select a channel number.



- If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

On-screen Menus Language Selection

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

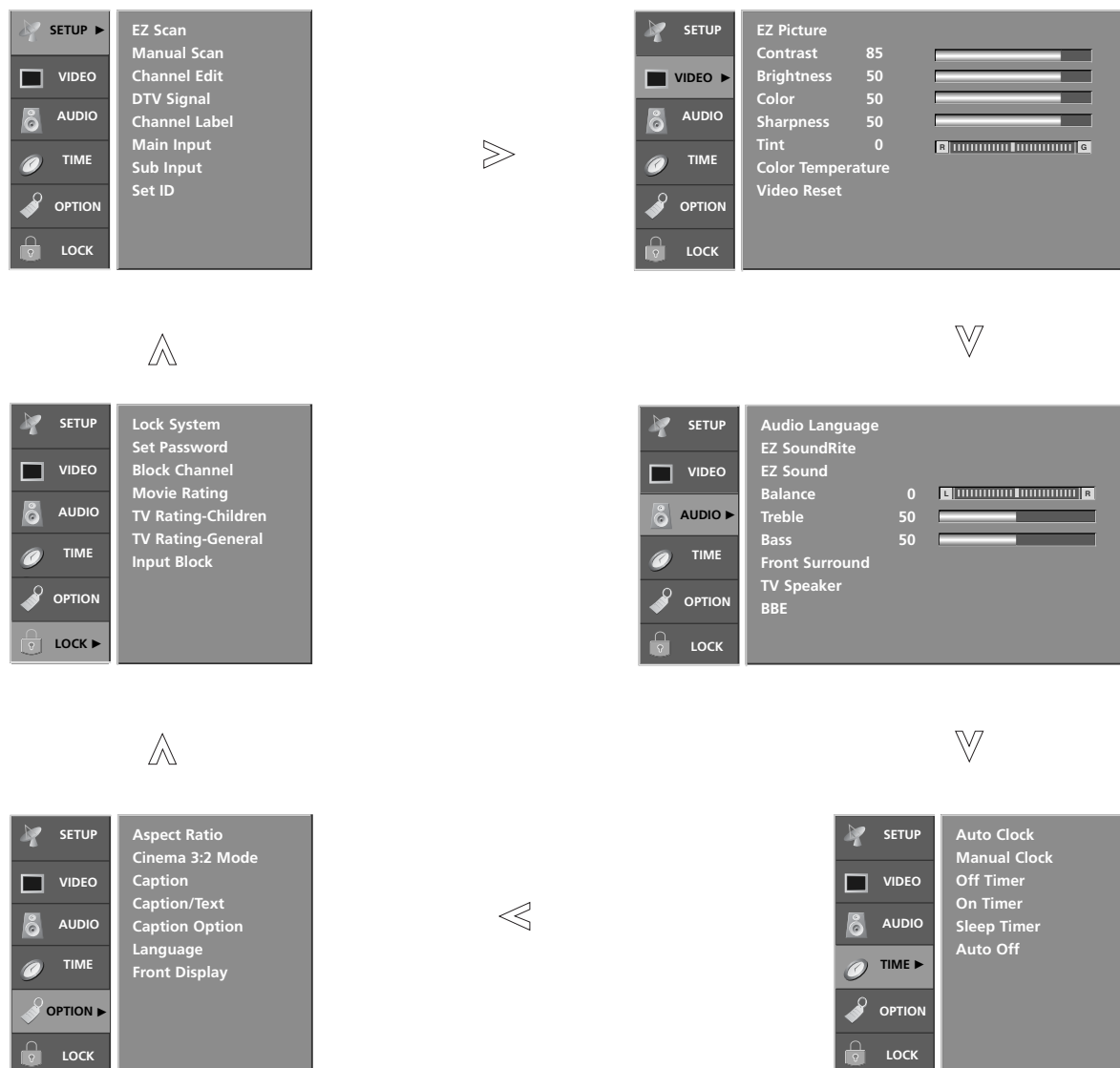


1. Press the **MENU** button and then use **▲ / ▼** button to select the **OPTION** menu.
2. Press the **▶** button and then use **▲ / ▼** button to select **Language**.
3. Press the **▶** button and then use **▲ / ▼** button to select your desired language. From this point on, the on-screen menus will 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.

On Screen Menus Selection and Adjustment

How to adjust the OSD screen

1. Press the **MENU** button and then **▲ / ▼** button to select each menu.
2. Press the **▶** button and then use **▲ / ▼ / ◀ / ▶** button to display the available menus.

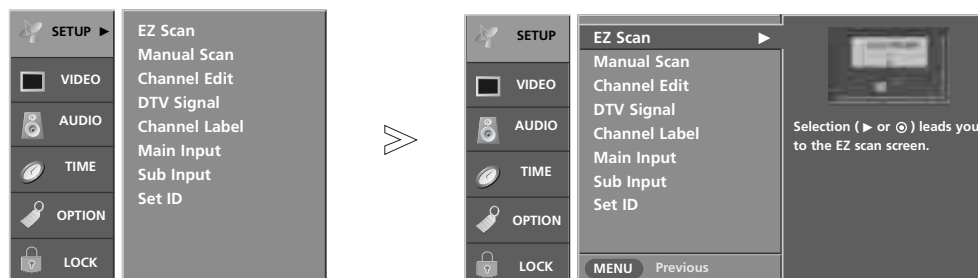


- The OSD (On Screen Display) function enables you to adjust the screen status conveniently since it provides graphical presentation.
- In this manual, the OSD (On Screen Display) may be different from your TV's because it is just example to help the TV operation.



Setup Menu Options

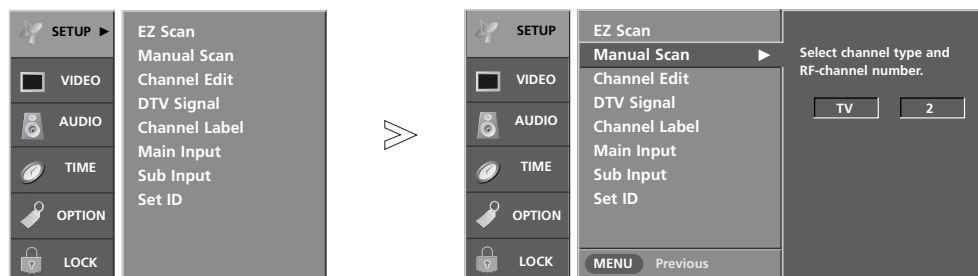
EZ Scan (Channel Search)



- 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.
- A password is required to gain access to EZ Scan menu if the Lock System is turned on.

- 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 Ⓞ button to begin the channel search. Allow EZ Scan to complete the channel search cycle for ANTENNA, and CABLE.

Manual Scan



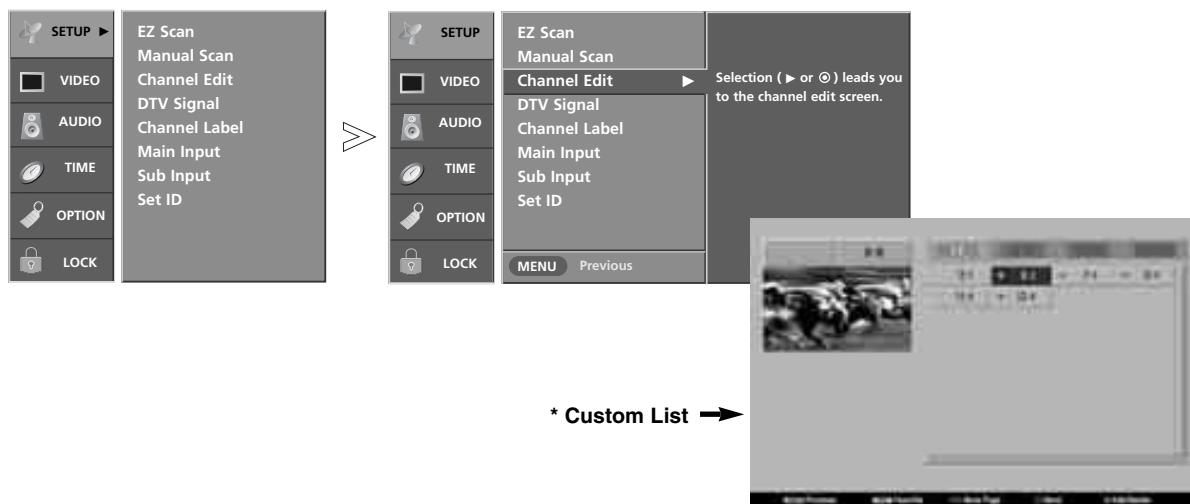
- A password is required to gain access to Manual Scan menu if the Lock System is turned on.
- This channel number is a physical channel number, which is different from the normal channel number shown in Channel Edit.

- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **SETUP** menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select **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 Ⓞ 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.

Mini Glossary

TV	Analog antenna (over-the-air) TV signal	CATV	Analog cable TV signal
DTV	Digital antenna (over-the-air) TV signal	CADTV	Digital cable TV signal

Channel Edit



- There are two different ways in order to add or delete scanned channels. One is "Custom List" and the other is "Favorite List" in the channel list. Both of them are available after **EZ Scan** on the **SETUP** menu.

- A Custom List can be created by toggling each channel on or off with **●** 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 **●** button to add or delete it. Press **FAV** button to add the channel. The heart-mark will appear in front of that channel number.
- 5 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

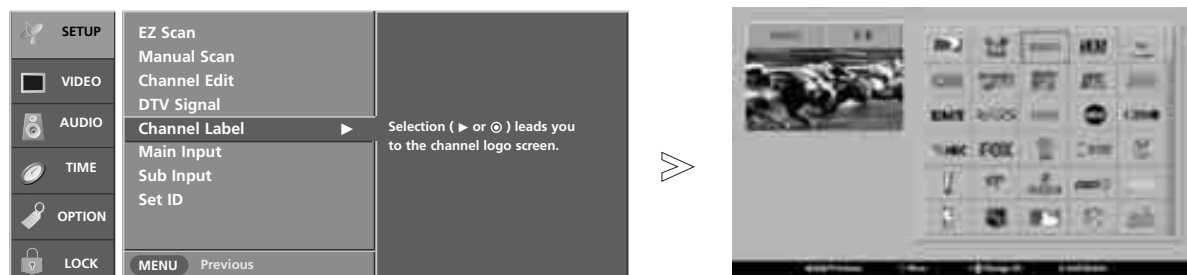


Setup Menu Options continued

DTV Signal Strength

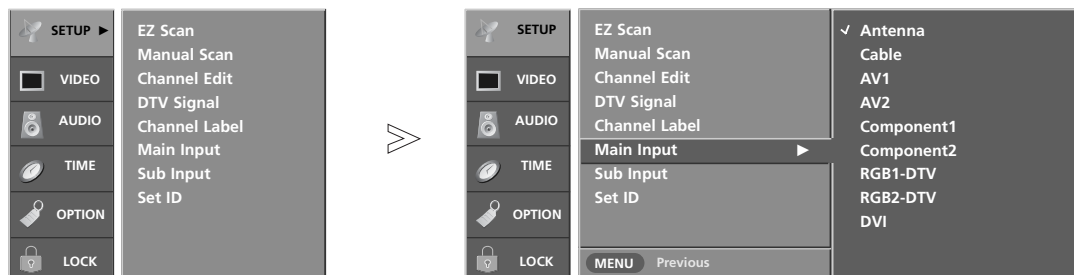
- Reveals how strong your DTV signal is and whether you need to adjust your antenna or digital cable input. The higher the signal strength, the less likely you are to experience picture degradation.
 - Digital DTV Signals: May not be available in all areas, nor are broadcast on all programs.
1. Press the **SIGNAL** button.
 2. View the on-screen signal strength monitor to see the quality of the signal being received.
 - You can also check the **DTV Signal** strength with the **SETUP** menu.

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 **Ⓢ** button to set the Label to the selected channel.

Main Picture Source Selection



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

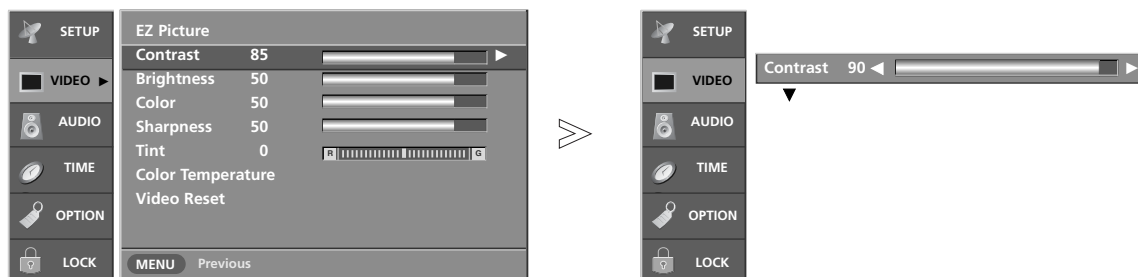
- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SETUP** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Main Input**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select the source: Antenna, Cable, AV1, AV2, Component1, Component2, RGB1-DTV (or RGB1-PC), RGB2-DTV (or RGB2-PC), 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

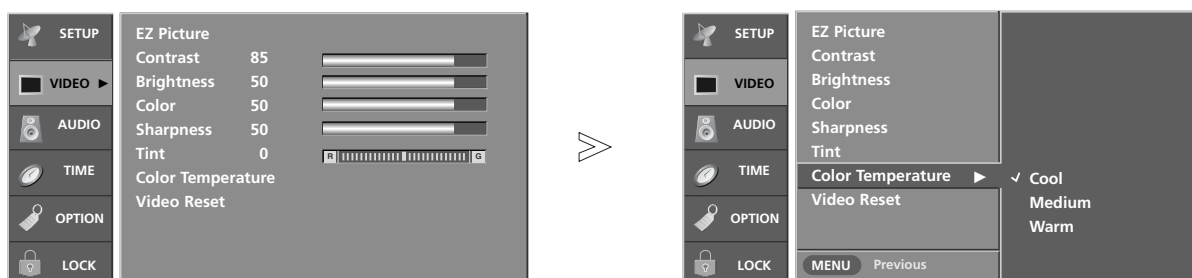
- EZ Picture adjusts the TV for the best picture appearance. Select the preset value in the EZ Picture menu based on the program category.
 - When adjusting Video menu options (contrast, brightness, color, sharpness, tint, and color temperature) manually, EZ Picture automatically changes to **Custom**.
 - **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 (EZ Picture-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.

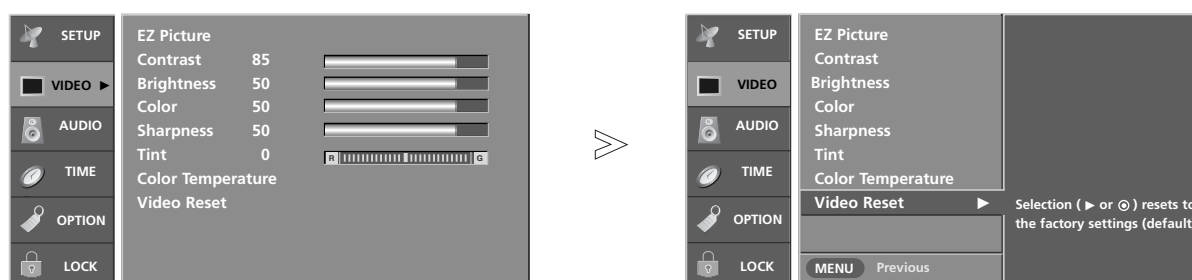
Color Temperature Control



- 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



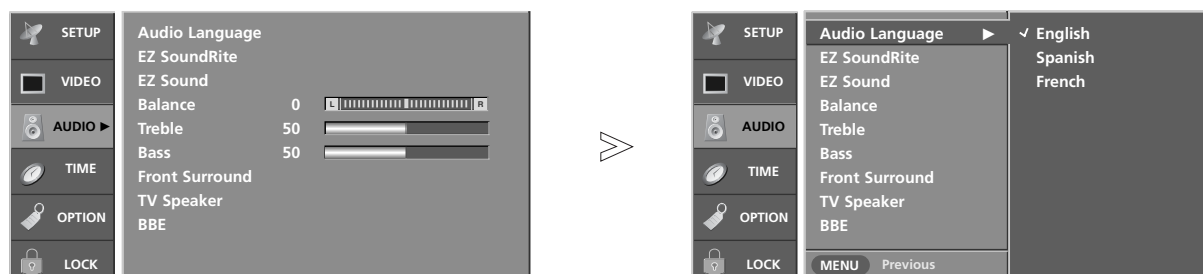
- Use to quickly reset all the Video menu options to their original factory preset values.

- 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

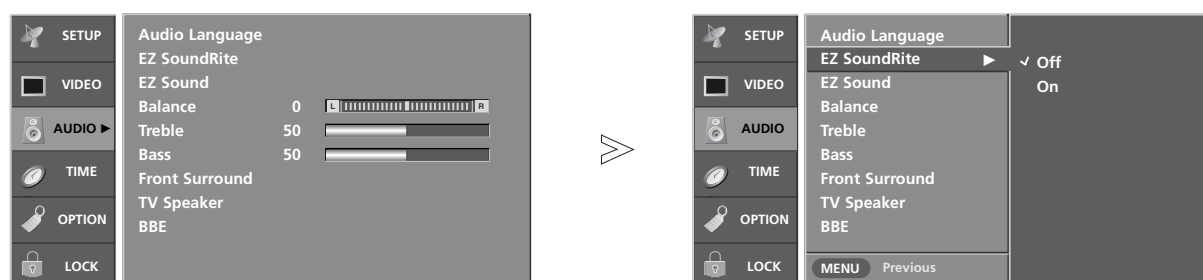
Audio Language



- 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



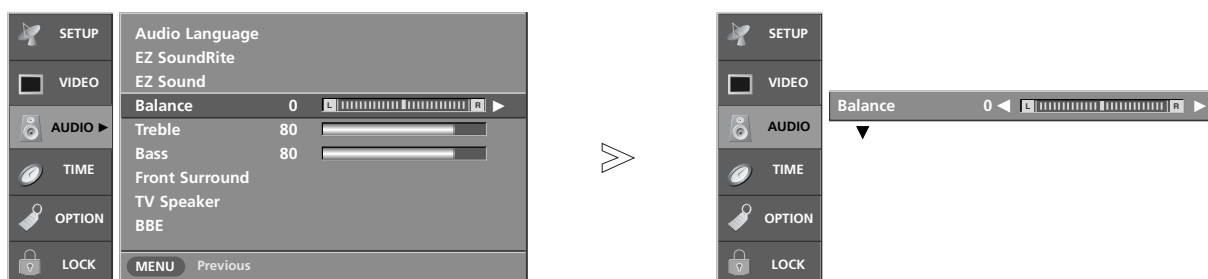
- Scans for changes in sound level during commercials, then adjusts the sound to match the specified audio level. EZ SoundRite makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.

- 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 **Off** or **On**.
- 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 sound setup as shown below: **Custom** (your own settings), **Normal, Stadium, News, Music,** and **Theater**.
 - You can also use the **AUDIO** menu to adjust **EZ Sound**.
 2. Press the **EXIT** button to save and return to TV viewing.

Manual Sound Control (EZ Sound-Custom option)



- *Adjust the sound to suit your taste and room situations.*
- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **AUDIO** menu.
 - 2 Press the **▶** button and then use **▲ / ▼** button to select the desired sound option (**Balance, Treble,** or **Bass**).
 - 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.

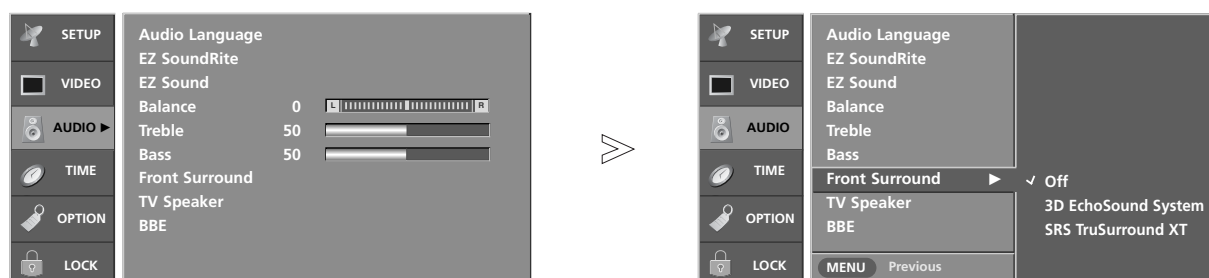


Audio Menu Options continued

Stereo/SAP Broadcasts Setup

- This TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program; if the station transmits an additional sound signal as well as the original one.
 - When having selected Stereo or SAP button on the remote control, this TV can only receive the signal in case that the TV station transmits the proper signals.
 - Mono sound is automatically received if the broadcast is only in Mono; even though Stereo or SAP has been selected.
 - Select Mono if you want to listen to the mono sound in remote fringe areas during stereo/SAP broadcasting.
 - Stereo or SAP can be received in Analog channel.
1. Use the **SAP** button to select your desired MTS mode in analog signal. Each time you press the **SAP** button, **Mono**, **Stereo**, or **SAP** appear in turn.
 - If other languages available on the digital signal, select them with the **SAP** button.
 2. Press **EXIT** button to save and return to TV viewing.

Front Surround



-  is a trademark of SRS Labs, Inc.
 - TruSurround XT technology is incorporated under license from SRS Labs, Inc.
 - Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **AUDIO** menu.
 - 2 Press the **▶** button and then use **▲** / **▼** button to select **Front Surround**.
 - 3 Press the **▶** button and then use **▲** / **▼** button to select **Off**, **3D EchoSound System** or **SRS** (Sound Retrieval System) **TruSurround XT**.
 - 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Mini Glossary

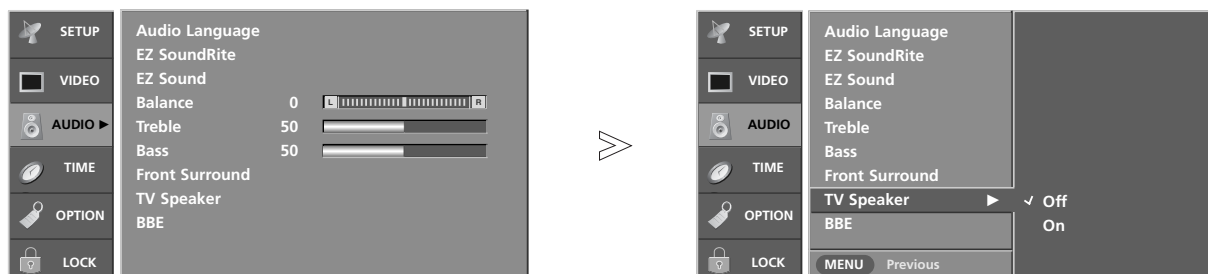
SRS TruSurround XT

Takes advantage of any multi-channel format without needing to add extra speakers or equipment. Dialog clarity, bass enrichment, and the addition of stereo audio enhancement that produces an immersive sound experience from standard stereo material.

3D EchoSound System

Creates a stunning simulated stereo effects from any mono sound and a realistic three-dimensional sound with a very wide and deep sound stage from stereo sound.

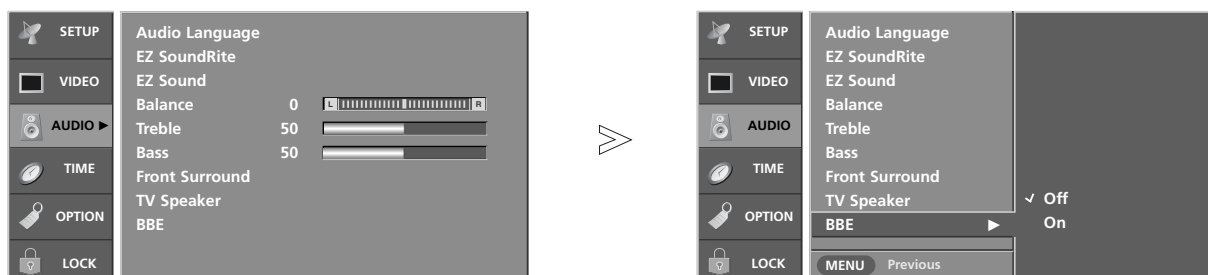
TV Speakers On/Off Setup



- Turn TV speakers off if using external audio equipment. Feature turns the TV Speakers option On or Off.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **AUDIO** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **TV Speaker**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **Off** or **On**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

BBE



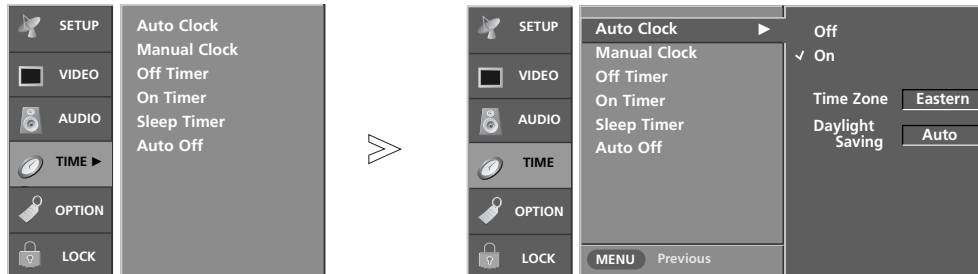
- BBE High Definition Sound restores clarity and presence for better speech intelligibility and music realism.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **AUDIO** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **BBE**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **Off** or **On**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

• **BBE**® Manufactured under license from BBE Sound, Inc.

Time Menu Options

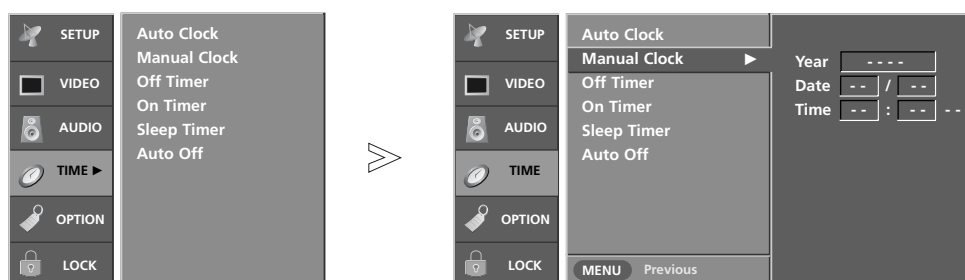
Auto Clock Setup



- The time is set automatically from a digital channel signal.
- The digital channel signal includes information for the current time provided by the broadcasting station.
- Set the clock manually, if the current time is set incorrectly by the auto clock function.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **TIME** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Auto Clock**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select **On**.
- 4 Press the **▶** button and then use **▲ / ▼** button to select your viewing area time zone: **Eastern, Central, Mountain, Pacific, Alaska, or Hawaii**.
- 5 Press the **▶** button and then use **▲ / ▼** button to select **Auto, Off, On**, depending on whether or not your viewing area observes Daylight Saving time.
- 6 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

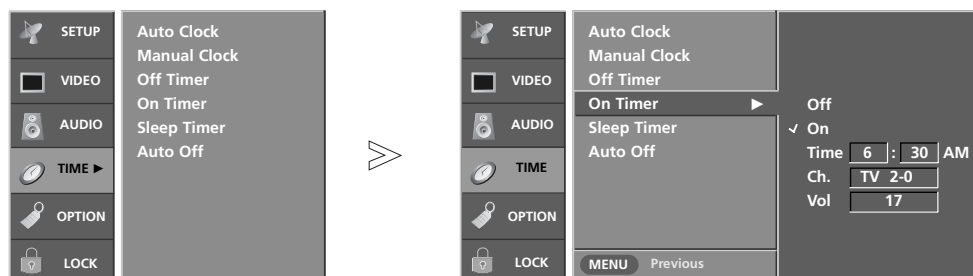
Manual Clock Setup



- If current time setting is wrong, reset the clock manually.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **TIME** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Manual Clock**.
- 3 Press the **▶** button and then use **◀ / ▶** button to select either the year, date, or time option. Once selected, use the **▲ / ▼** button to set the year, date, and time options.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

On/Off Timer Setup



- Timer function operates only if current time has been set.
- Off-Timer function overrides On-Timer function if they are set both set to the same time.
- The TV must be in standby mode for the On-Timer to work.
- If you do not press any button within 2 hours after the TV turns on with the On Timer function, the TV will automatically revert to standby mode.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **TIME** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **Off Timer** or **On Timer**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **On**.
 - To cancel **On/Off Timer** function, select **Off**.
- 4 Press the **▶** button and then use **▲** / **▼** button to set the hour.
- 5 Press the **▶** button and then use **▲** / **▼** button to set the minutes.
- 6 **For only On Timer function**
 Press the **▶** button and then use **▲** / **▼** button to select the channel at turn-on.
 Press the **▶** button and then use **▲** / **▼** button to set the sound level at turn-on.
- 7 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

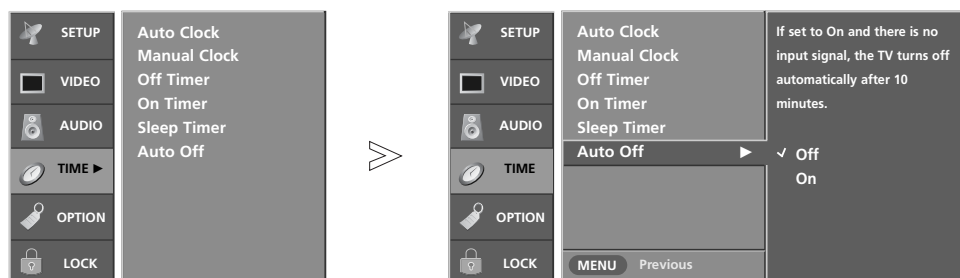
Sleep Timer

- The Sleep Timer turns the TV off at the preset time. Note that this setting is cleared when the TV is turned off.
 - You can also set up the **Sleep Timer** in the **TIME** menu.
- 1 Press the **TIMER** button repeatedly to select the number of minutes. When the **Off** option appears on the screen, highlight one of the following sleep timer options by using the navigation : 10, 20, 30, 60, 90, 120, 180, and 240 minutes.
 - 2 When the number of minutes you want is displayed on the screen, press the **ENTER** button. The timer begins to count down from the number of minutes selected.
 - 3 To check the remaining minutes before the TV turns off, press the **TIMER** button once.
 - 4 To cancel the Sleep Timer, press the **TIMER** button repeatedly to select **Off**.



Time Menu Options continued

Auto Off



- If set to on and there is no input signal, the TV turns off automatically after 10 minutes.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **TIME** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Auto Off**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select **Off** or **On**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Option Menu Features

Aspect Ratio Control

- Lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV with a 16:9 ratio picture format. When you receive an analog picture with a 4:3 aspect ratio on your 16:9 TV, you need to specify how the picture is to be displayed.

- If you are viewing a picture with a 16:9 aspect ratio, you can't use the Horizon aspect ratio option.

- Horizon aspect ratio is not available for Component 1-2 (480p/720p/1080i) / RGB-DTV (480p/720p/1080i) / DVI-DTV (720p/1080i) / DTV(720p/1080i) input source.

- RGB1-PC/RGB2-PC/DVI-PC input source use 4:3 or 16:9 aspect ratio.

-If a fixed image is displayed on the screen for a long time, that fixed image may become imprinted on the screen and remain visible.

- 1 Press the **RATIO** button repeatedly to select the desired picture format.
 - You can also adjust **Aspect Ratio** in the **OPTION** menu.

- **Set By Program**

Selects the proper picture proportion to match the source's image.
(4:3 → 4:3, 16:9 → 16:9)

- **4:3**

Choose **4:3** when you want to view a picture with an original 4:3 aspect ratio, with gray bars appearing at both the left and right sides.

- **16:9**

Choose **16:9** when you want to adjust the picture horizontally, in a linear proportion to fill the entire screen.

- **Horizon**

Choose **Horizon** when you want to adjust the picture in a non-linear proportion, that is, more enlarged at both sides, to create a panorama view.

- **Zoom 1**

Choose **Zoom 1** when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.

- **Zoom 2**

Choose **Zoom 2** when you want the picture to be altered, both horizontally extended and vertically cropped. The picture taking a halfway trade off between alteration and screen coverage.

- **Cinema Zoom**

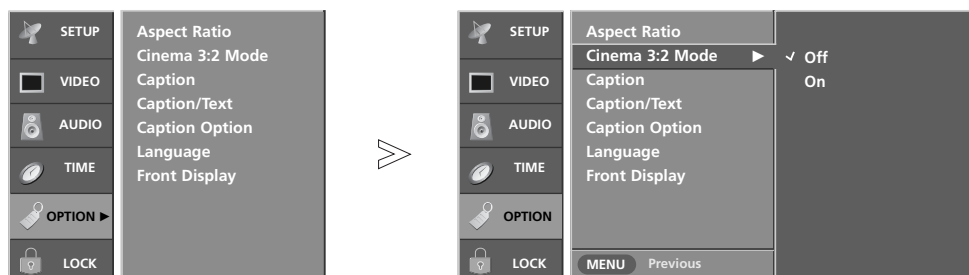
Choose **Cinema Zoom** when you want to enlarge the picture in correct proportion. Note: When enlarging or reducing the picture, the image may become distorted.

You can adjust the enlarge proportion of Cinema Zoom using **▲** / **▼** button. The adjustment range is 1~16.



Option Menu Features continued

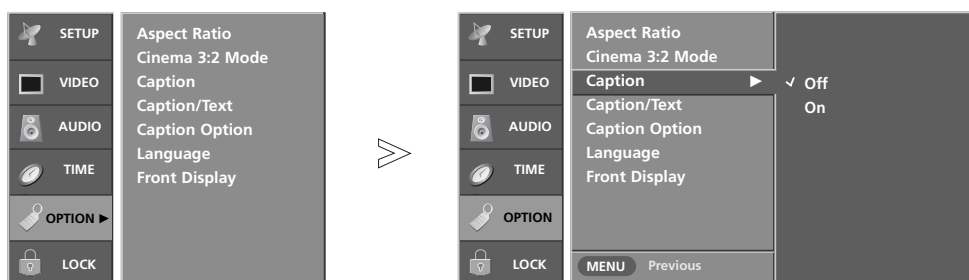
Cinema 3:2 Mode Setup



- Most movies are 24 frames/sec, but TV signal is 30 frames/sec.
- This option lets the TV do 3:2 pull-down operation for you to watch movies at the best motion appearance.
- This feature operates only in AV, S-Video, Component 480i mode.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **OPTION** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **Cinema 3:2 Mode**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **Off** or **On**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

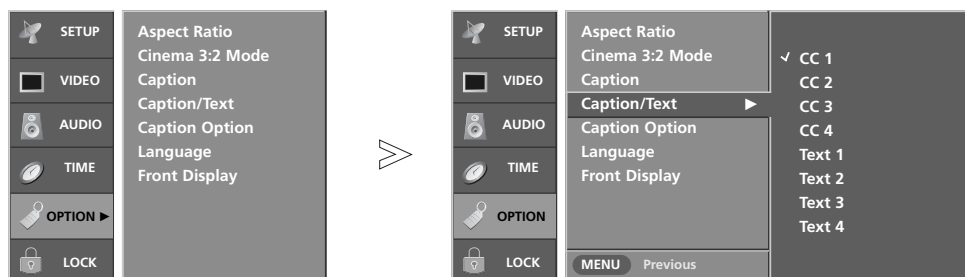
Caption



- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **OPTION** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **Caption**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **Off** or **On**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Caption/Text

* Analog Broadcasting System Captions



- Select a caption mode for displaying captioning information if provided on a program.
- Analog caption displays information at any position on the screen.
- Text displays information, usually at the bottom position and is used for a data service.
- Caption/Text, if provided by the broadcaster, would be available for both digital and analog channels on the Antenna/Cable.
- This TV is programmed to remember the caption/text mode it was last set to, when you turn the power off.

- 1 Use the **CC** button repeatedly to select Caption **Off**, **CC1**, **CC2**, **CC3**, **CC4**, **Text1**, **Text2**, **Text3**, or **Text4**.
- 2 Press **EXIT** button to save and return to TV viewing.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **OPTION** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Caption/Text**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select caption: **CC1**, **CC2**, **CC3**, **CC4**, **Text1**, **Text2**, **Text3**, or **Text4**.

• **CAPTION**

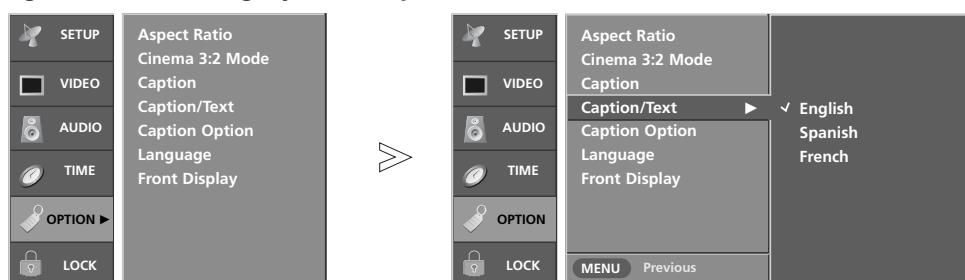
The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.

• **TEXT**

The term for the words that appear in a large black frame and almost cover the entire screen; usually messages provided by the broadcaster.

- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

* Digital Broadcasting System Captions



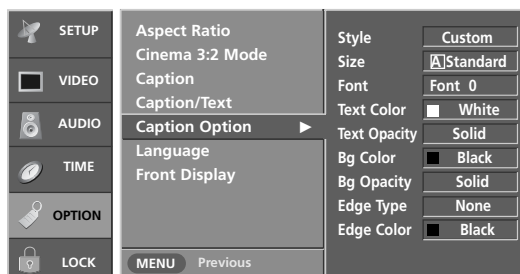
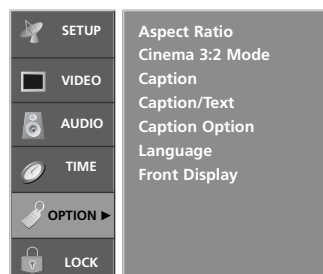
- Choose the language you want the DTV/CADTV Captions to appear in.
- Other languages can be chosen for digital sources only if they are included on the program.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **OPTION** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Caption/Text**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select available caption languages: **English**, **Spanish**, or **French**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Option Menu Features continued

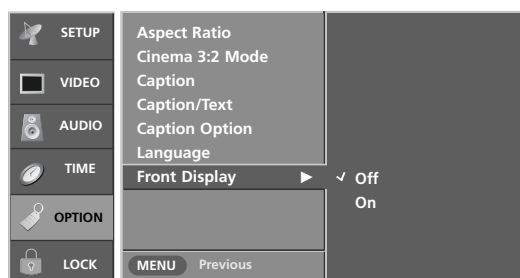
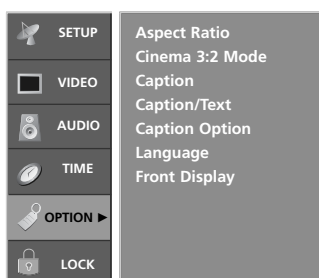
Caption Option



- Customize the DTV/CADTV captions that appear on your screen.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **OPTION** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **Caption Option**.
- 3 Press the **▶** button and then use **◀** / **▶** button to select **Custom**.
- 4 Use **▲** / **▼** button to customize the Style, Font, etc., to your preference. A preview icon is provided at the bottom of the screen, use it to see the caption language.
 - **Size**: Set the size the words will appear in.
 - **Font**: Select a typeface for the words.
 - **Text Color**: Choose a color for the text.
 - **Text Opacity**: Specify the opacity for the text color.
 - **Bg (Background) Color**: Select a background color.
 - **Bg (Background) Opacity**: Select the opacity for the background color.
 - **Edge Type**: Select an edge type.
 - **Edge Color**: Select a color for the edges.
- 5 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Front Display



- If you select on, the “**Liquid Crystal Display**” of TV front panel turns on.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **OPTION** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **Front Display**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **Off** or **On**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Lock Menu Options

Parental Control can be used to block specific channels, ratings and other viewing sources.

The Parental Control Function (V-Chip) is used to block program viewing based on the ratings sent by the broadcasting station. The default setting is to allow all programs to be viewed. Viewing can be blocked by the type of program and by the categories chosen to be blocked. It is also possible to block all program viewing for a time period.

To use this function, the following must be done :

1. Set ratings and categories to be blocked.
2. Specify a password
3. Enable the lock

V-Chip rating and categories

Rating guidelines are provided by broadcasting stations. Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System (MPAA) only.

Ratings for Movies previously shown in theaters:

Movie Ratings :

- Blocking Off (Permits all programs)
- G (General audience)
- PG (Parental guidance suggested)
- PG-13 (Parents strongly cautioned)
- R (Restricted)
- NC-17 (No one 17 and under admitted)
- X (Adult only)

If you set PG-13 : G and PG movies will be available , PG-13, R, NC-17 and X will be blocked.

Ratings for Television programs including made-for-TV movies :

- TV-G (General audience)
- TV-PG (Parental guidance suggested)
- TV-14 (Parents strongly cautioned)
- TV-MA (Mature audience only)
- TV-Y (All children)
- TV-Y7 (Children 7 years older)

TV Rating Children:

- Age (applies to TV-Y, TV-Y7)
- Fantasy Violence (applies to TV-Y7)

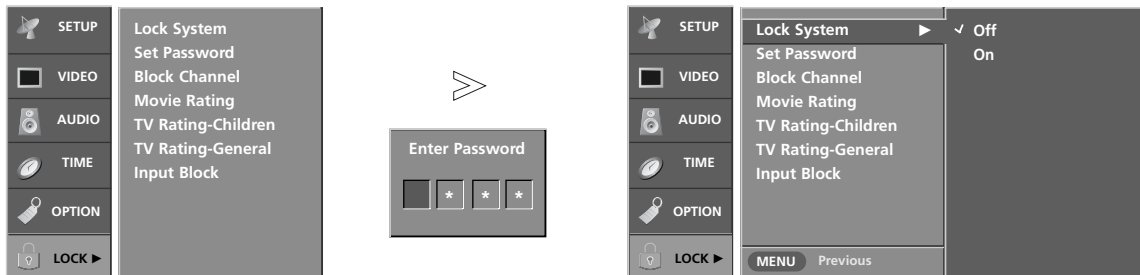
TV Rating General:

- Age (applies to TV-G, TV-PG, TV-14, TV-MA)
- Dialogue - sexual dialogue (applies to TV-PG, TV-14)
- Language - adult language (applies to TV-PG, TV-14, TV-MA)
- Sex - sexual situations (applies to TV-PG, TV-14, TV-MA)
- Violence (applies to TV-PG, TV-14, TV-MA)

Aux. Block

- AV 1, 2 (On, Off)
- Component 1, 2 (On, Off)
- RGB 1, 2, and DVI (On, Off)

Parental Lock Setup



- Lets you set up blocking schemes to block specific channels, ratings, and external viewing sources.
- A password is required to gain access to this menu if the Lock System is turned on.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **LOCK** menu. Then, press the **▶** button
 - If **Lock** is already set, enter the password as requested.
 - The TV is set up with the initial password "0-0-0-0".
- 2 Use the **▲ / ▼** button to choose from the following Lock Menu options. Once the option is selected, change the settings to your preference.
 - **Lock System:** Activates or disables the blocking scheme you set up previously.
 - **Set Password:** Change the password by inputting a new password twice.
 - **Block Channel:** Select a channel number that you wish to block.
 - **Input block:** Enables you to select a source to block from the external source devices you have hooked up.
 - **Movie Rating (MPPA):** Blocks movies according to the movie ratings limits specified, so children cannot view certain movies. You can set the ratings limit by blocking out all the movies with the ratings above a specified level. Keep in mind that the movie ratings limit only applies to movies shown on TV, not TV programs, such as soap operas.
 - **TV Rating-Children:** Prevents children from watching certain children's TV programs, according to the ratings limit set. The children rating does not apply to other TV programs. Unless you block certain TV programs intended for mature audiences in the TV Rating - sub menu, your children can view those programs.
 - **TV Rating-General:** Based on the ratings, blocks certain TV programs that you and your family do not want to view.
 - **Input Block:** Enables you to select a source to block from the external source devices you have hooked up.



- If you ever forget your password, key in '7', '7', '7', '7' on the remote control. Then, the password reset to '7', '7', '7', '7'.

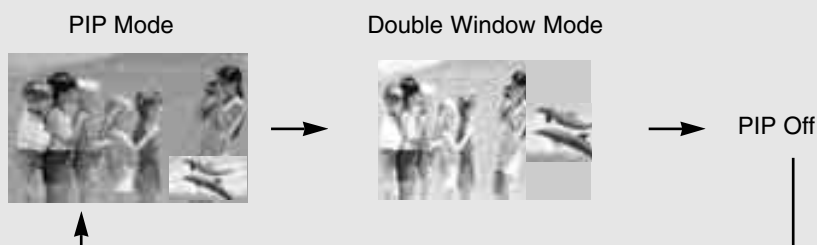
- 3 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

PIP (Picture-In-Picture) / Double Window

- PIP lets you view 2 different inputs (sources) on your TV screen at the same time. One source will be large, and the other source will show a smaller inset image.
- Double Window mode splits the screen into 2, allowing 2 picture sources to be shown on the TV screen at the same time. Each source is given half the screen.

Watching PIP/Double Window

Press the **PIP** button to access the sub picture. Each press of PIP changes the PIP options as shown below.



Selecting an Input Signal Source for PIP/Double Window

Use the **PIP INPUT** button to select the input source for the sub picture. Each press of **PIP INPUT** button changes the PIP source. You can also select sources for the **Sub Input** in the **SETUP** menu.

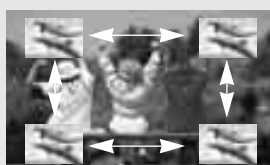
Main Picture Source	Available Sub Picture Sources			
	DTV Signal	Analog Signal	Video 1	Video 2
DTV Signal	X	X	O	O
Analog Signal	X	X	O	O
Video 1	O	O	O	O
Video 2	O	O	O	O

TV Program selection for PIP

1. Press the **PIP** button.
2. Select the Analog or DTV option on the Sub input menu or with the **PIP INPUT** button. Use the **PIPCH+ / PIPCH-** button to select a channel for the sub picture.

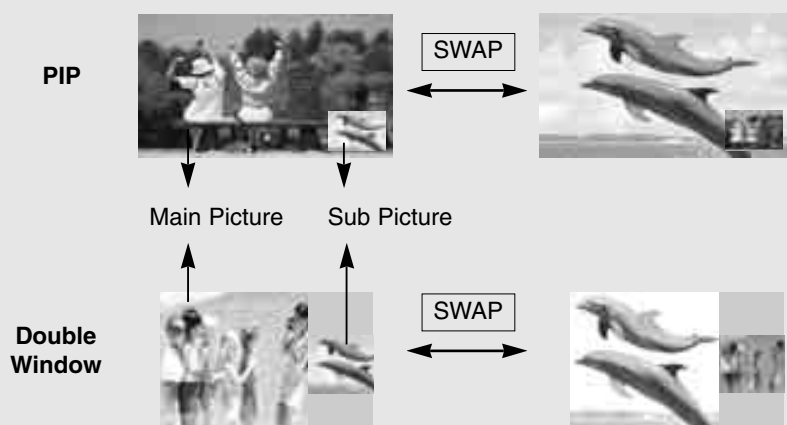
Moving the PIP sub picture

In PIP mode, press the ▲ / ▼ / ◀ / ▶ button to move the sub picture to a different location on the screen.



Swapping the PIP/Double Window

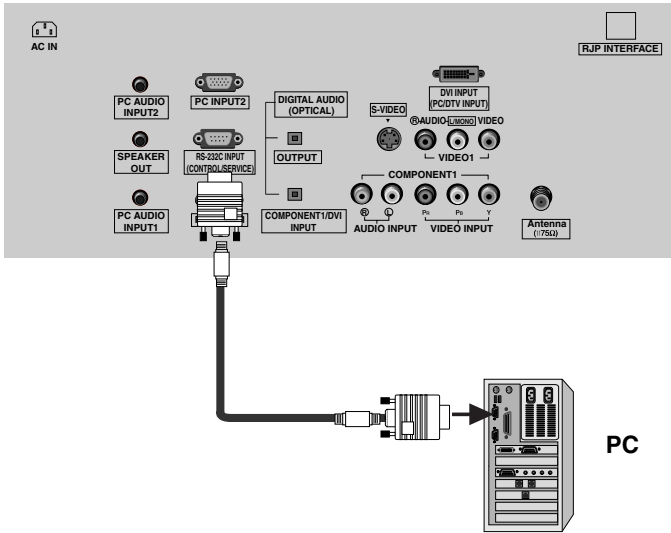
Use the **SWAP** button to switch the main and sub pictures.



External Control Device Setup

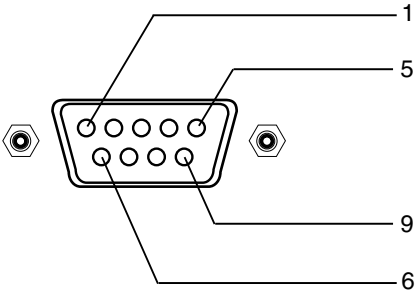
- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the Monitor's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the TV back panel.
- RS-232C connection cables are not supplied with the TV.

RS-232C Setup

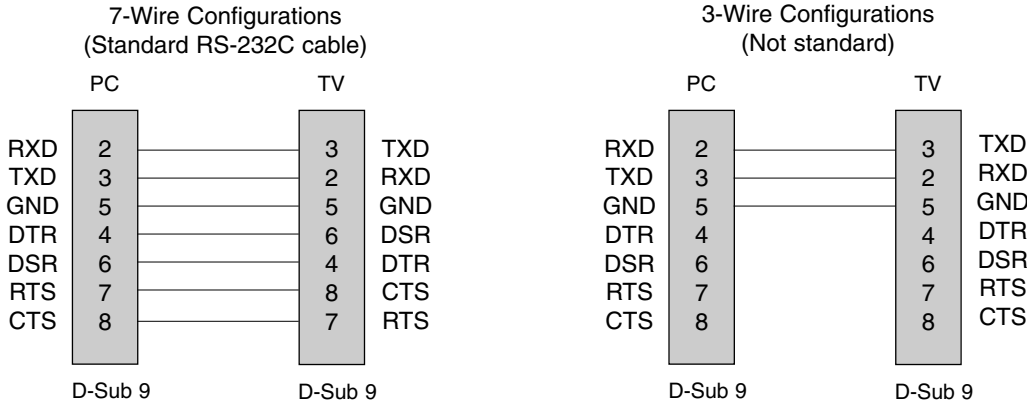


Type of Connector; D-Sub 9-Pin Male

No.	Pin Name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection



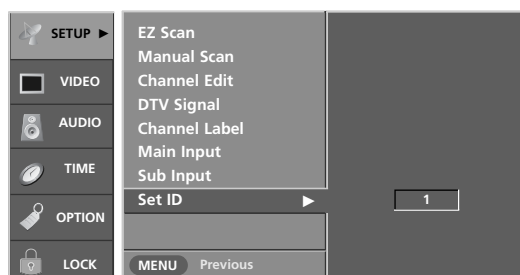
RS-232C Configurations



Set ID

- Use this function to specify a monitor ID number.
- Refer to 'Real Data Mapping'. See page 49.

1. Press the **MENU** button and then use **▲** / **▼** button to select the **SETUP** menu.
2. Press the **▶** button and then use **▲** / **▼** button to select **SET ID**.
3. Press the **▶** button and then use **▲** / **▼** button to adjust **SET ID** to choose the desired monitor ID number. The adjustment range of **SET ID** is 1 ~ 99.
4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Communication Parameters

- Baud rate : 9600 bps (UART)
- Data length : 8 bits
- Parity : None
- Stop bit : 1 bit
- Communication code : ASCII code

* Use a crossed (reverse) cable.

Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	a	0 ~ 1
02. Input Select	k	b	0 ~ 9
03. Aspect Ratio	k	c	1 ~ 1F
04. Screen Mute	k	d	0 ~ 1
05. Volume Mute	k	e	0 ~ 1
06. Volume Control	k	f	0 ~ 64
07. Contrast	k	g	0 ~ 64
08. Brightness	k	h	0 ~ 64
09. Color	k	i	0 ~ 64
10. Tint	k	j	0 ~ 64
11. Sharpness	k	k	0 ~ 64
12. OSD Select	k	l	0 ~ 1
13. Remote Control Lock Mode	k	m	0 ~ 1
14. PIP/Double Wondow	k	n	0 ~ 3
15. PIP Position	k	q	0 ~ 3
16. Treble	k	r	0 ~ 64
17. Bass	k	s	0 ~ 64
18. Balance	k	t	0 ~ 64
19. Color Temperature	k	u	0 ~ 2
20. PIP Input Source	k	y	0 ~ 3
24. Input Select	x	b	0 ~ 80
25. PIP Input Source	x	y	0 ~ 21

	COM- MAND 1	COM- MAND 2	DATA 0 (Hexadecimal)	DATA 1 (Hexadecimal)	DATA 2 (Hexadecimal)	DATA 3 (Hexadecimal)	DATA 4 (Hexadecimal)	DATA 5 (Hexadecimal)
21. Channel Tuning	m	a	01 ~ 87	01 ~ 87	00 ~ FE	00 ~ FE	00 ~ FE	00 ~ FE
22. Channel Add/Del	m	b	00 ~ 01					
23. Key	m	c	*					

Transmission / Receiving Protocol

Transmission

[Command1][Command2][][Set ID][][Data][Cr]

- * [Command 1]: First command to control the set. (j or k)
- * [Command 2]: Second command to control the set.
- * [Set ID]: You can adjust the set ID to choose desired monitor ID number in Setup menu. Adjustment range is 1 ~ 99. When selecting Set ID '0', every connected the TV is controlled. Set ID is indicated as decimal (1~99) on menu and as Hexa decimal (0x0~0x63) on transmission/receiving protocol.
- * [DATA]: To transmit command data.
Transmit 'FF' data to read status of command.
- * [Cr]: Carriage Return
ASCII code '0x0D'
- * []: ASCII code 'space (0x20)'

OK Acknowledgement

[Command2][][Set ID][][OK][Data][x]

- * The Monitor transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][][Set ID][][NG][Data][x]

- * The Monitor transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

Data 1: Illegal Code
2: Not supported function
3: Wait more time

01. Power (Command2:a)

- To control Power On/Off of the TV.

Transmission

[k][a][][Set ID][][Data][Cr]

Data 0 : Power Off 1 : Power On

Acknowledgement

[a][][Set ID][][OK][Data][x]

* In a like manner, if other functions transmit 'FF' data based on this format, Acknowledgement data feedback presents status about each function.

02. Input Select (Command2:b) (Main Picture Input)

- To select input source for the TV.

Transmission

[k][b][][Set ID][][Data][Cr]

Data 0: Antenna	5: Component 2
1: Cable	6: RGB1-DTV
2: AV 1	7: RGB1-PC
3: AV 2	8: DVI-DTV
4: Component 1	9: DVI-PC

Acknowledgement

[b][][Set ID][][OK][Data][x]

03. Aspect Ratio (Command2:c) (Main picture format)

- To adjust the screen format.
You can also adjust the screen format using the RATIO button on remote control or in the Option menu.

Transmission

[k][c][][Set ID][][Data][Cr]

Data 1: Normal screen (4:3)	6: Auto (Set by program)
2: Wide screen (16:9)	10: Cinema Zoom (1)
3: Horizon	⋮
4: Zoom 1	⋮
5: Zoom 2	1F: Cinema Zoom (16)

Acknowledgement

[c][][Set ID][][OK][Data][x]

04. Screen Mute (Command2:d)

- To select screen mute on/off.

Transmission

[k][d][][Set ID][][Data][Cr]

Data 0 : Screen mute off (Picture on)
1 : Screen mute on (Picture off)

Acknowledgement

[d][][Set ID][][OK][Data][x]

05. Volume Mute (Command2:e)

- To control volume mute on/off.
You can also adjust mute using the MUTE button on remote control.

Transmission

[k][e][][Set ID][][Data][Cr]

Data 0 : Volume mute off (Volume on)
1 : Volume mute on (Volume off)

Acknowledgement

[e][][Set ID][][OK][Data][x]

06. Volume Control (Command2:f)

- To adjust volume.
You can also adjust volume with the volume buttons on remote control.

Transmission

[k][f][][Set ID][][Data][Cr]

Data Min : 0 ~ Max : 64

- Refer to 'Real data mapping' as shown below.

Acknowledgement

[f][][Set ID][][OK][Data][x]

07. Contrast (Command2:g)

- To adjust screen contrast.
You can also adjust contrast in the Video menu.

Transmission

[k][g][][Set ID][][Data][Cr]

Data Min : 0 ~ Max : 64

- Refer to 'Real data mapping' as shown below.

Acknowledgement

[g][][Set ID][][OK][Data][x]

08. Brightness (Command2:h)

- To adjust screen brightness.
You can also adjust brightness in the Video menu.

Transmission

[k][h][][Set ID][][Data][Cr]

Data Min : 0 ~ Max : 64

- Refer to 'Real data mapping' as shown below.

Acknowledgement

[h][][Set ID][][OK][Data][x]

*** Real data mapping**

0 : Step 0
⋮
A : Step 10 (SET ID 10)
⋮
F : Step 15 (SET ID 15)
10 : Step 16 (SET ID 16)
⋮
64 : Step 100

09. Color (Command2:i)

- To adjust the screen color.
You can also adjust color in the Video menu.

Transmission

[k][i][][Set ID][][Data][Cr]

Data Min : 0 ~ Max : 64

- Refer to 'Real data mapping'. See page 49.

Acknowledgement

[i][][Set ID][][OK][Data][x]

10. Tint (Command2:j)

- To adjust the screen tint.
You can also adjust tint in the Video menu.

Transmission

[k][j][][Set ID][][Data][Cr]

Data Red : 0 ~ Green : 64

- Refer to 'Real data mapping'. See page 49.

Acknowledgement

[j][][Set ID][][OK][Data][x]

11. Sharpness (Command2:k)

- To adjust the screen sharpness.
You can also adjust sharpness in the Video menu.

Transmission

[k][k][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 64

- Refer to 'Real data mapping'. See page 49.

Acknowledgement

[k][][Set ID][][OK][Data][x]

12. OSD Select (Command2:l)

- To select OSD (On Screen Display) on/off.

Transmission

[k][l][][Set ID][][Data][Cr]

Data 0: OSD off 1: OSD on

Acknowledgement

[l][][Set ID][][OK][Data][x]

13. Remote Control Lock Mode (Command2:m)

- To lock the remote control and the front panel controls on the set.

Transmission

[k][m][][Set ID][][Data][Cr]

Data 0: Lock off 1: Lock on

Acknowledgement

[m][][Set ID][][OK][Data][x]

14. PIP/ Double Window (Command2:n)

- To control the PIP (Picture-in-Picture)/Double Window.
You can also control the PIP/Double Window using the PIP button on the remote control.

Transmission

[k][n][][Set ID][][Data][Cr]

Data 0: PIP off 2: Double Window
1: PIPAcknowledgement

[n][][Set ID][][OK][Data][x]

15. PIP Position (Command2:q)

- To select sub picture position for PIP.

Transmission

[k][q][][Set ID][][Data][Cr]

Data 0: Right down on screen
1: Right up on screen
2: Left up on screen
3: Left down on screenAcknowledgement

[q][][Set ID][][OK][Data][x]

16. Treble (Command2:r)

- To adjust treble.
You can also adjust treble in the Audio menu.

Transmission

[k][r][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 64

- Refer to 'Real data mapping'. See page 49.

Acknowledgement

[r][][Set ID][][OK][Data][x]

17. Bass (Command2:s)

- To adjust bass.
You can also adjust bass in the Audio menu.

Transmission

[k][s][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 64

- Refer to 'Real data mapping'. See page 49.

Acknowledgement

[s][][Set ID][][OK][Data][x]

18. Balance (Command2:t)

- To adjust balance.
You can also adjust balance in the Audio menu.

Transmission

[k][t][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 64

- Refer to 'Real data mapping'. See page 49.

Acknowledgement

[t][][Set ID][][OK][Data][x]

19. Color Temperature (Command2:u)

- To adjust color temperature.
You can also adjust color temperature in the Video menu.

Transmission

```
[k][u][ ][Set ID][ ][Data][Cr]
```

Data 0: Normal (Medium) 1: Cool 2: Warm

Acknowledgement

```
[u][ ][Set ID][ ][OK][Data][x]
```

20. PIP Input Select (Command2:y)

- To select input source for sub picture in PIP/Double Window mode.

Transmission

```
[k][y][ ][Set ID][ ][Data][Cr]
```

Data 0: Antenna
1: Cable
2: AV 1
3: AV 2

Acknowledgement

```
[y][ ][Set ID][ ][OK][Data][x]
```

21. Channel Tuning (Command: m a)

- To tune channel to following physical/major/minor number

Transmission

```
[m][a][ ][Set ID][ ][Data0][ ][Data1][ ][Data2][ ][Data3][ ][Data4][ ][Data5][Cr]
```

Data 0: Physical channel number (Transmit by Hexadecimal code)

* NTSC air: 02 ~ 45
NTSC cable: 01, 0E ~ 7D
ATSC air: 01 ~ 45
ATSC cable: 01 ~ 87

Data 1, 2: Major channel number(two part) or channel number(One part)

* Data1: High byte
Data2: Low byte
Two part channel number: Major number-Minor number
One part channel number: If the channel band is ATSC digital cable, it can be used. In case of using one part channel number, minor channel does not need.

Data 3, 4: Minor Channel Number

* Data3: High byte
* Data4: Low byte
5: Attribute

7	Main/Sub Picture	6	Two/One Part Channel	5	Using Physical Channel	4	Reserved	3	2	1	0	Step
0	Main	0	Two	0	Use	x	0	0	0	0	0	NTSC Air
1	Sub	1	One	1	No Use	x	0	0	0	0	1	NTSC Cable
						x	0	0	1	0	0	ATSC Air
						x	0	0	1	1	0	ATSC cable_std
						x	0	1	0	0	0	ATSC cable_hrc
						x	0	1	0	1	0	ATSC cable_irc
						x	0	1	1	0	0	ATSC cable auto
						x	0	1	1	1	0	Reserved
						x	x	x	x	x	x	...
						x	1	1	1	1	1	Reserved

*Two/One part Channel: 6th bit
This bit is used in a cable-ready system.

*Using physical channel: 5th bit
If the channel band is NTSC air or NTSC cable, channel tuning can be done by only physical channel. In this case, using physical channel bit must be low(0).
But if the channel band is ATSC air or ATSC cable, there are two cases that physical channel enable or disable.
If the physical channel sending is meaningful, you should set this bit low(0). If the physical channel sending is meaningless, you should set this bit high(1).

Example)

1. Analog channel: NTSC cable, channel number(35), main picture
Command: ma 00 23 xx xx xx xx 01
attribute(0x01): main picture, two part(it's not mandatory), using physical channel, NTSC cable
'xx' data: don't care major and minor channel number in case analog channel tuning
2. Digital channel: ATSC air, channel number(don't know physical channel, major(30), minor(3)), sub picture
Command: ma 00 xx 00 1E 00 03 A2
attribute(0xA2): sub picture, two part, not using physical channel, ATSC air
'xx' data: don't care analog channel number in case digital channel tuning.
3. Digital channel: ATSC air, channel number(physical(20), major(30), minor(3)), sub picture
Command: ma 00 14 00 1E 00 03 82
attribute(0x82): sub picture, two part, using physical channel, ATSC air

Acknowledgement

```
[a][ ][Set ID][ ][OK][Data0][Data1][Data2][Data3][Data4][Data5][x]  
[a][ ][Set ID][ ][NG][Data0][x]
```

22. Channel Add/Del (Command: m b)

- To add and delete the channels

Transmission

```
[m][b][ ][Set ID][ ][Data][Cr]
```

Data 0: Channel Delete
1: Channel Add

Acknowledgement

```
[b][ ][Set ID][ ][OK][Data][x]  
[b][ ][Set ID][ ][NG][Data][x]
```

23. Key (Command: m c)

- To send IR remote key code

Transmission

```
[m][c][ ][Set ID][ ][Data][ ][Cr]
```

Data Key code: Refer to page 52.

Acknowledgement

```
[c][ ][Set ID][ ][OK][Data][x]
```

24. Input Select (Command:x b) (Main Picture Input)

- To select input source for sub picture in PIP/Double Window mode.

Transmission

[x][b][][Set ID][][Data][Cr]

DTV	0x00	RGB1-DTV	0x50
Analog	0x10	RGB2-DTV	0x51
Video 1	0x20	RGB1-PC	0x60
Video 2	0x21	RGB2-PC	0x61
Component 1	0x40	DVI-DTV	0x70
Component 2	0x41	DVI-PC	0x80

Acknowledgement

[b][][Set ID][][OK/NG][Data][x]

* In case Video/S-video is selected automatically by TV, use only single video input.

* In case Video/S-video is selected by user manually, use separate Video/S-video input.

25. PIP Input Select (Command:x y)

- To adjust the input source for sub picture in PIP mode

Transmission

[x][y][][Set ID][][Data][Cr]

DTV	0x00
Analog	0x10
Video 1	0x20
Video 2	0x21

Acknowledgement

[y][][Set ID][][OK/NG][Data][x]

* In case Video/S-video is selected automatically by TV, use only single video input.

* In case Video/S-video is selected by user manually, use separate Video/S-video input.

IR Codes

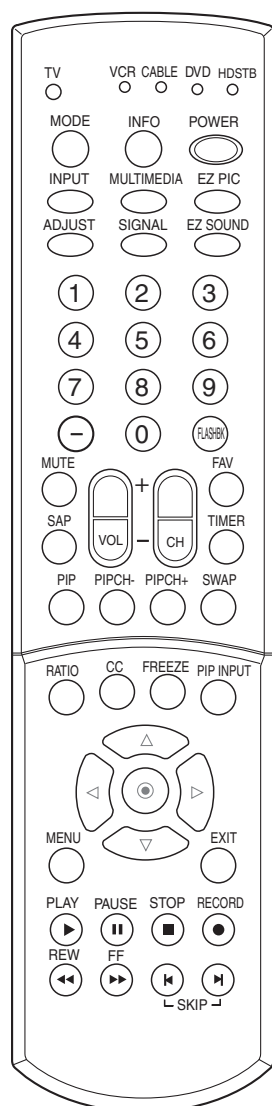
Code (Hexa)	Function	Note
0B	INPUT	R/C Button
08	POWER	R/C Button (Power On/Off)
C4	POWER ON	Discrete IR Code (Only Power On)
C5	POWER OFF	Discrete IR Code (Only Power Off)
98	MULTIMEDIA	R/C Button
79	RATIO	R/C Button
10 ~ 19	Number Key 0~ 9	R/C Button
4C	- (Dash)	R/C Button
1A	FLASHBK	R/C Button
09	MUTE	R/C Button
02	VOL +	R/C Button
03	VOL -	R/C Button
00	CH +	R/C Button
01	CH -	R/C Button
1E	FAV	R/C Button
AA	INFO	R/C Button
39	CC	R/C Button
40	▲	R/C Button
41	▼	R/C Button
07	◀	R/C Button
06	▶	R/C Button
44	●	R/C Button
43	MENU	R/C Button
4D	EZ PIC	R/C Button
52	EZ SOUND	R/C Button
5B	EXIT	R/C Button
60	PIP	R/C Button
72	PIPCH -	R/C Button
71	PIPCH +	R/C Button
61	PIP INPUT	R/C Button
0E	TIMER	R/C Button
65	FREEZE	R/C Button
7B	ZOOM	R/C Button
0A	SAP	R/C Button
CB	ADJUST	R/C Button
D6	TV	Discrete IR Code (TV Input Selection)
5A	AV 1	Discrete IR Code (Video1 Input Selection)
D0	AV 2	Discrete IR Code (Video2 Input Selection)
BF	COMPONENT 1	Discrete IR Code (Component1 Input Selection)
D4	COMPONENT 2	Discrete IR Code (Component2 Input Selection)
D5	RGB-PC	Discrete IR Code (RGB-PC Input Selection)
D7	RGB-DTV	Discrete IR Code (RGB-DTV Input Selection)
C6	DVI-DTV	Discrete IR Code (DVI-DTV Input Selection)
76	Ratio 4:3	Discrete IR Code (Only 4:3 Mode)
77	Ratio 16:9	Discrete IR Code (Only 16:9 Mode)
AF	Ratio Zoom	Discrete IR Code (Only Zoom Mode)
70	MULTI PIP	Channel Search
96	SIGNAL	R/C Button

Programming the Remote

- The remote control is a multi-brand or universal remote control. It can be programmed to operate most remote-controllable devices of other manufacturers.

Note that the remote control may not control all models of other brands.

Programming a code into a remote mode



1. Test your remote control.
To find out whether your remote control can operate the component without programming, turn on the component such as a VCR and press the corresponding **MODE** button (VCR) on the remote control, while illuminating on the selected component. Test the **POWER** button to see if the component responds properly. If not, the remote requires programming to operate the device.
2. Turn on the component to be programmed, then press the corresponding **MODE** button on the remote control.
3. Press the **MENU** and **MUTE** buttons simultaneously for 2 seconds, the button selected component lights on the remote control. If you don't press any button for 20 seconds, the button selected component will turn off on the remote control. At a moment, you have to repeat from step 2.
4. Enter a code number using the number buttons on the remote. When pressing the button, the light is blinked at a time. Programming code numbers for the corresponding component can be found on the following pages. Again, if the code is correct, the device will turn off.
5. Press the **MENU** button to store the code. After blinking twice, this code is stored.
6. Test the remote control functions to see if the component responds properly. If not, repeat from step 2.

Programming Codes

VCRs

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
AIWA	034	KENWOOD	014 034 039 043	PORTLAND	108	TATUNG	039 043
AKAI	016 043 046 124		047 048	PULSAR	072	TEAC	034 039 043
	125 146	LG (GOLDSTAR)	001 012 013 020	QUARTZ	011 014	TECHNICS	031 033 070
AMPRO	072		101 106 114 123	QUASAR	033 066 075 145	TEKNIKA	019 031 033 034
ANAM	031 033 103	LLOYD	034	RCA	013 020 033 034		101
AUDIO DYNAMICS	012 023 039 043	LXI	003 009 013 014		040 041 062 063	THOMAS	034
BROKSONIC	035 037 129		017 034 101 106		107 109 140 144	TMK	006
CANON	028 031 033	MAGIN	040	REALISTIC	145 147	TOSHIBA	008 013 042 047
CAPEHART	108	MAGNAVOX	031 033 034 041		003 008 010 014		059 082 112 131
CRAIG	003 040 135		067 068		031 033 034 040	TOTEVISION	040 101
CURTIS MATHES	031 033 041	MARANTZ	012 031 033 067		053 054 101	UNITECH	040
DAEWOO	005 007 010 064		069	RICO	058	VECTOR RESEARCH	012
	065 108 110 111	MARTA	101	RUNCO	148	VICTOR	048
	112 116 117 119	MATSUI	027 030	SALORA	014	VIDEO CONCEPTS	012 034 046
DAYTRON	108	MEI	031 033	SAMSUNG	032 040 102 104	VIDEOSONIC	040
DBX	012 023 039 043	MEMOREX	003 010 014 031		105 107 109 112	WARDS	003 013 017 024
DYNATECH	034 053		033 034 053 072		113 115 120 122		031 033 034 040
ELECTROHOME	059		101 102 134 139		125		053 054 131
EMERSON	006 017 025 027	MGA	045 046 059	SANSUI	022 043 048 135	YAMAHA	012 034 039 043
	029 031 034 035	MINOLTA	013 020	SANYO	003 007 010 014	ZENITH	034 048 056
	036 037 046 101	MITSUBISHI	013 020 045 046		102 134		058 072 080 101
	129 131 138 153		049 051 059 061	SCOTT	017 037 112 129		
FISHER	003 008 009 010		151		131		
FUNAI	034	MTC	034 040	SEARS	003 008 009 010		
GE	031 033 063 072	MULTITECH	024 034		013 014 017 020		
	107 109 144 147	NEC	012 023 039 043		031 042 073 081		
GO VIDEO	132 136		048		101		
HARMAN KARDON	012 045	NORDMENDE	043	SHARP	031 054 149		
HITACHI	004 018 026 034	OPTONICA	053 054	SHINTOM	024		
	043 063 137 150	PANASONIC	066 070 074 083	SONY	003 009 031 052		
INSTANTREPLAY	031 033		133 140 145		056 057 058 076		
JCL	031 033	PENTAX	013 020 031 033		077 078 149		
JCPENNY	012 013 015 033		063	SOUNDESIGN	034		
	040 066 101	PHILCO	031 034 067	STS	013		
JENSEN	043	PHILIPS	031 033 034 054	SYLVANIA	031 033 034 059		
JVC	012 031 033 043		067 071 101		067		
	048 050 055 060	PILOT	101	SYMPHONIC	034		
	130 150 152	PIONEER	013 021 048	TANDY	010 034		

Cable box

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
ABC	003 004 039 042	GOLDEN CHANNEL	030		065 085 090	SPRUCER	047 078
	046 052 053	HAMLIN	049 050 055	PIONEER	034 051 052 063	STARCOM	002 004 008 009
AJIN	112	HITACHI	052 055		076	STARGATE	008 030
ANTRONIK	014	HOSPITALITY	070 077	POST NEWS WEEK	016	TADIRAN	030
ARCHER	005 007 014 024	JERROLD	002 003 004 008	PRUCER	059	TAEKWANG	110
CABLE STAR	026		009 010 052 069	PTS	011 048 071 072	TAIHAN	105
CENTURION	092		074		073 074	TANDY	017
CENTURY	007	LG (GOLDSTAR)	001 106 101 005	PULSAR	100	TEXSCAN	029
CITIZEN	007	M-NET	037	RCA	047	TOCOM	039 040 056
COLOUR VOICE	065 090	MACOM	033	REGAL	049 050	TOSHIBA	100
COMBANO	080 081	MAGNAVOX	010 012 064 079	REGENCY	057	UNIKA	007 014 024
COMTRONICS	019 030	MEMOREX	100	REMBRANT	025	UNITED CABLE	004 053
DIAMOND	023	MOVIE TIME	028 032	SAMSUNG	102 107 030 068	UNIVERSAL	005 007 014 024
EAGLE	020 030 040	NSC	015 028 038 071	SCIENTIFIC ATLANTA	003 011 041 042		026 027 032 035
EASTERN	057 062 066		073		043 045 046	VIEWSTAR	012 015 018 086
ELECTRICORD	032	OAK	016 031 037 053	SHERITECH	022		087 088 089
GE	072	PANASONIC	044 047	SIGNAL	030	ZENITH	100 114 060 093
GEMINI	008 022 025 054	PARAGON	100	SIGNATURE	052		
GI	052 074	PHILIPS	006 012 013 020	SL MARX	030		

Digital Cable/Satellite Box

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
ALPHASTAR DSR	123		133 134	PACE SKY SATELLITE	143		088 090 107 130
AMPLICA	050	GENERAL INSTRUMENT	003 004 016 029	PANASONIC	060 142		137
BIRDVIEW	051 126 129		031 059 101	PANSAT	121	TOSHIBA	002 127
CHANNEL MASTER	013 014 015 018	HITACHI	139 140	PERSONAL CABLE	117	UNIDEN	016 025 042 043
	036 055	HOUSTON TRACKER	033 037 039 051	PHILIPS	071		044 045 048 049
CHAPARRAL	008 009 012 077		057 104	PICO	105		078 079 080 086
CITOH	054	HUGHES	068	PRESIDENT	019 102		101
CURTIS MATHES	050 145	JANIEL	060 147	PRIMESTAR	030 110 111	UNIDEN	135 136
DRAKE	005 006 007 010	JERROLD	061	PROSAT	072	VIEWSTAR	115
	011 052 112 116	KATHREIN	108	RCA	066 106	WINEGARD	128 146
	141	LEGEND	057	REALISTIC	043 074	ZENITH	081 082 083 084
DX ANTENNA	024 046 056 076	LG	001	SAMSUNG	123		091 120
ECHOSTAR	038 040 057 058	LUTRON	132	SATELLITE SERVICE CO	028 035 047 057		
	093 094 095 096	LUXOR	062 144		085		
	097 098 099 100	MACOM	010 059 063 064	SCIENTIFIC ATLANTA	032 138		
	122		065	SONY	103		
ELECTRO HOME	089	MEMOREX	057	STARCAST	041		
EUROPLUS	114	NEXTWAVE	028 124 125	SUPER GUIDE	020 124 125		
FUJITSU	017 021 022 027	NORSAT	069 070	TEECOM	023 026 075 087		

DVD

Brand	Codes	Brand	Codes	Brand	Codes	Brand	Codes
APEX DIGITAL	022	MAGNAVOX	013	PHILIPS	013	SONY	007
DENON	020 014	MARANTZ	024	PIONEER	004 026	THOMPSON	005 006
GE	005 006	MITSUBISHI	002	PROCEED	021	TOSHIBA	019 008
HARMAN KARDON	027	NAD	023	PROSCAN	005 006	YAMAHA	009 018
JVC	012	ONKYO	008 017	RCA	005 006	ZENITH	010 016 025
LG	001 010 016 025	PANASONIC	003 009	SAMSUNG	011 015		

Troubleshooting Checklist

The operation does not work normally.	
The remote control doesn't work	• Check to see if there is any object between the product and the remote control causing obstruction. • Are batteries installed with correct polarity (+ to +, - to -)? • Correct remote operating mode set: TV, VCR etc.? • Install new batteries.
Power is suddenly turned off	• Is the sleep timer set? • Check the power control settings. Power interrupted • No broadcast on station tuned with Auto off activated.

The video function does not work.	
No picture & No sound	• Check whether the product is turned on. • Try another channel. The problem may be with the broadcast. • Is the power cord inserted into wall power outlet? • Check your antenna direction and/or location. • Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.
Picture appears slowly after switching on	• This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes.
No or poor color or poor picture	• Adjust Color in menu option. • Keep a sufficient distance between the product and the VCR. • Try another channel. The problem may be with the broadcast. • Are the video cables installed properly? • Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	• Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	• Station or cable product experiencing problems, tune to another station. • Station signal is weak, reorient antenna to receive weaker station. • Check for sources of possible interference.
Lines or streaks in pictures	• Check antenna (Change the direction of the antenna).

The audio function does not work.	
Picture OK & No sound	• Press the VOL or VOLUME button. • Sound muted? Press MUTE button. • Try another channel. The problem may be with the broadcast. • Are the audio cables installed properly?
No output from one of the speakers	• Adjust Balance in menu option.
Unusual sound from inside the product	• A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.

There is a problem in PC mode. (Only PC mode applied)	
The signal is out of range.	• Adjust resolution, horizontal frequency, or vertical frequency. • Check it whether the signal cable is connected or loose. • Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	• Work the Auto configure or adjust clock, phase, or H/V position.
Screen color is unstable or single color	• Check the signal cable. • Reinstall the PC video card.

Maintenance

- Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you will have your new TV. Be sure to turn the power off and unplug the power cord before you begin any cleaning.

Cleaning the Screen

1. Here's a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.
2. Make sure the excess water is off the screen, and then let it air-dry before you turn on your TV.

Cleaning the Cabinet

To remove dirt or dust, wipe the cabinet with a soft, dry, lint-free cloth.
Please be sure not to use a wet cloth.

Extended Absence



If you expect to leave your TV dormant for a long time (such as a vacation), it's a good idea to unplug the power cord to protect against possible damage from lightning or power surges.

Product Specifications

MODEL	32LX4DC
Width (inches / mm)	36.3 / 922
Height (inches / mm)	24.1 / 613.4
Depth (inches / mm)	11.3 / 287.5
Weight (pounds / kg)	55.8 / 25.3
Power requirement	AC 100-240V~ 50/60Hz
Television System	NTSC-M, ATSC
Program Coverage	VHF 2 ~ 13, UHF 14 ~ 69, CATV 1 ~ 125, CADTV 1 ~ 135. DTV 2 ~ 69
External Antenna Impedance	75 Ω

- The specifications shown above may be changed without prior notice for quality improvement.

