

LCD TV

MODELS: 32LC2D

32LC2DC 37LC2D 42LC2D

PLASMA TV

MODELS: 42PC3D 42PC1DVH

42PC3DC 42PC3DH 42PC3DV 42PC3DVA 50PC3D 50PC3DH

50PC3DX

OWNER'S MANUAL



http://www.lgcommercial.com

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



As an ENERGY STAR Partner LGE U. S. A.,Inc. has determined that this product meets the ENER-GY STAR guidelines for energy efficiency. Please read this manual carefully before operating your set. Retain it for future reference.

Record model number and serial number of the set. See the label attached on the back cover and quote this information to your dealer when you require service.

> P/NO: 38289U0527B (0607-REV07) 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

2

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.

- 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.
 - S2125A
- 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.



15. DISCONNECTING DEVICE FROM MAINS

 Mains plug is the disconnecting device. The plug must remain readily operable.

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.

For LCD TV

Note

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

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.

Contents

		2	Warnings		
		3~4	Safety Instructions		
_		7	Accessories		
ctior		8	Controls (Model Name: 32/37/42LC2D**) Swivel Stand (42LC2D** only)		
Introduction		8			
重		9	Connection Options (Model Name: 32/37/42LC2D**)		
		10	Controls (Model Name: 42PC1D**/42PC3D**/50PC3D**)		
		11	Connection Options (Model Name: 42PC1D**/42PC3D**/50PC3D**)		
		12~16	Remote Control Key Functions		
		17 18~20	Various Installation Basic Connection		
Installation		21	Antenna or Cable Connection		
Ħ		22~23	VCR Setup		
=	External	23	External AV Source Setup		
ta	Equipment	24~25	DVD Setup		
S	Connections	26~27	HDSTB Setup		
=		28	Monitor Out Setup		
		28	Digital Audio Output		
		29~31	PC Setup		
		32	Turning on the TV		
		32	Volume Adjustment		
	Basic operation	32	Channel Selection		
		32	On Screen Menus Language Selection		
	• • • • • • • • • • • • • • • • • •	33	On Screen Menus Selection and Adjustment		
		34 34	EZ Scan (Channel Search) Manual Scan		
	Setup Menu	35	Channel Edit		
	Options	36	DTV Signal Strength		
		36	Input Source		
-C		37	Input Label		
Operatic	• • • • • • • • • • • • • • • • • • • •				
ā		38	EZ Picture		
be	Video Menu	38	APM (Adaptive Picture Mode) Manual Picture Control (EZ Picture-Custom option)		
Ō	Options	39 39	Color Temperature Control		
		39	Video Reset		
	• • • • • • • • • • • • • • • • • • • •		••••••••••••		
	Audio Menu Options	40	Audio Language		
		40	EZ SoundRite		
		41	EZ Sound		
		41	Manual Sound Control (EZ Sound-Custom option)		
		42	Stereo/SAP Broadcasts Setup		
		42 43	Front Surround TV Speakers On/Off Setup		
		1 5	i v Opcanela Oli/Oli Oetup		

43

BBE

Introduction

Accessories

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

User must use the shield signal interface cable (D-sub 15 pin cable) with ferrite cores to maintain the standard compliance for the product.





Power Cord

 75Ω Round Cable

Owner's Manual

For 32/37/42LC2D**

Remote Control / **Batteries**

For 42PC1D**, 42PC3D**, 50PC3D**





2-Wall brackets 2-eye-bolts



2-bolts (Refer p.19)

2-Wall brackets



2-TV Bracket Bolts



Twister Holder Arrange the wires with the twister holder.



Cable Management (Refer p.18)





Polishing Cloth Polish the TV with the cloth.

32LC2D** only



4-bolts for stand assembly See below for detail information.



Polishing Cloth

- Slightly wipe stained spot on the exterior only with the cleansing cloths for the product exterior if there is stain or fingerprint on surface of the exterior.
- Do not wipe roughly when removing stain. Please be cautious of that excessive power may cause scratch or discoloration.

Option Extras



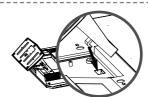
D-sub 15 pin Cable

Stand Installation for 32LC2D**

Carefully place the product screen side down on a 1 cushioned surface that will protect product and screen from damage.



Place the hook of the stand in the back of the product as shown.

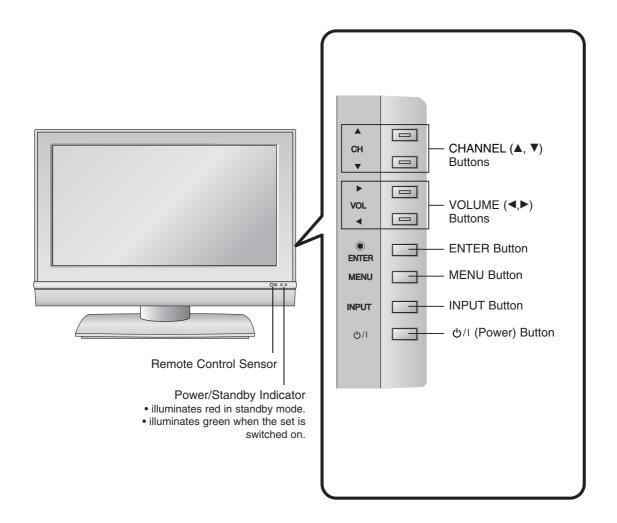


Install the 4 bolts provided securely, in the back of the product.

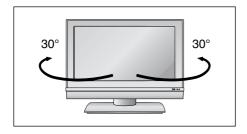


Controls (Model Name: 32/37/42LC2D**)

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



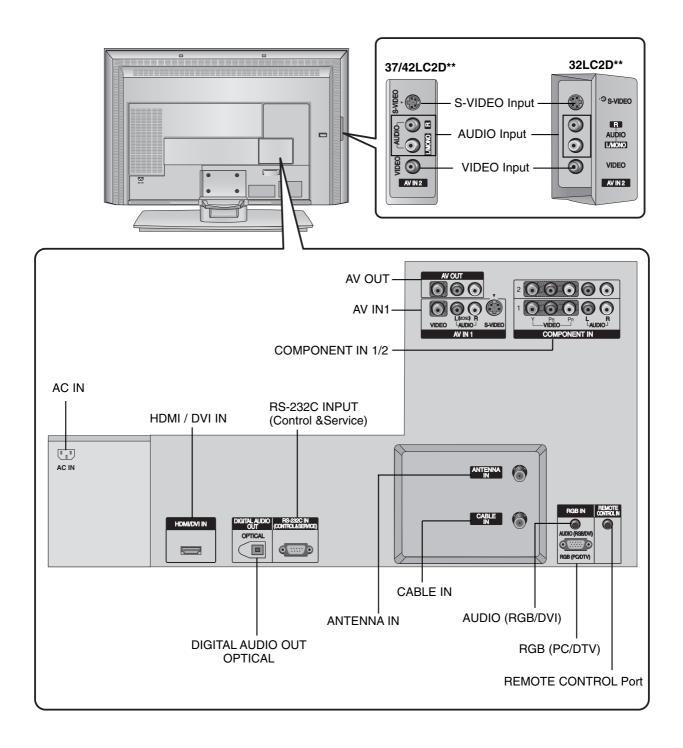
Swivel Stand (42LC2D** only)



- The TV can be conveniently swivelled on its stand 30° to the left or right to provide the optimum viewing angle.

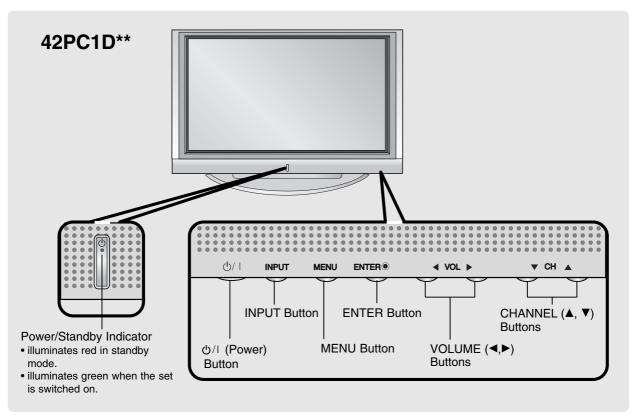
Connection Options (Model Name: 32/37/42LC2D**)

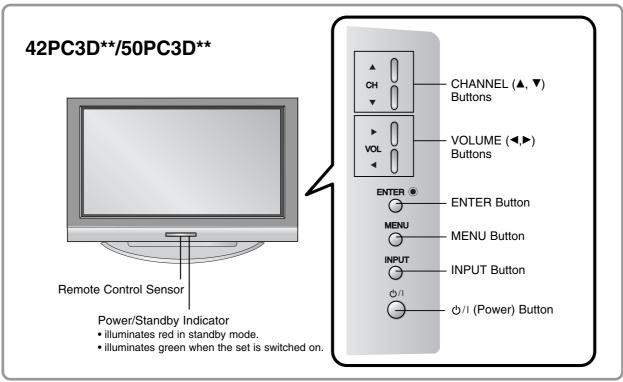
- Here shown may be somewhat different from your TV.



Controls (Model Name: 42PC1D**/42PC3D**/50PC3D**)

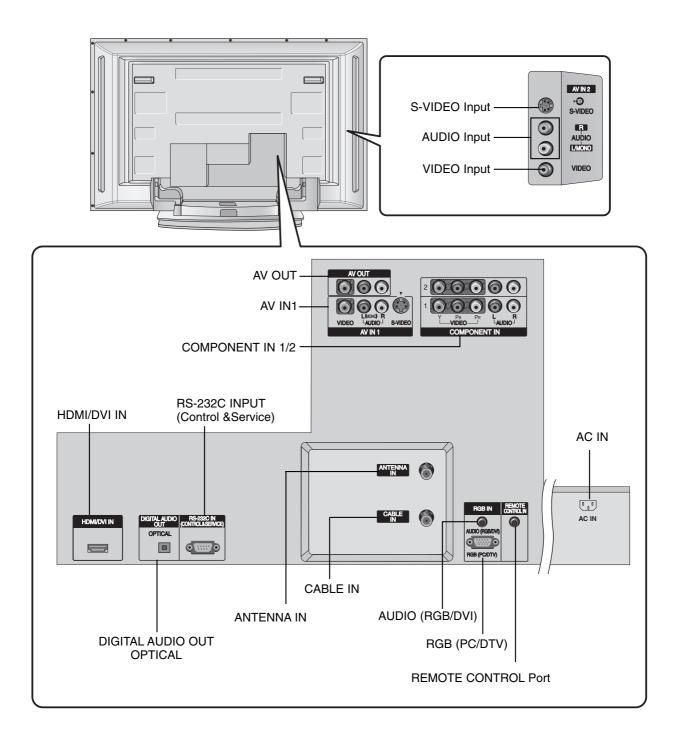
- This is a simplified representation of front panel.
- This picture shown below may be somewhat different from your TV.



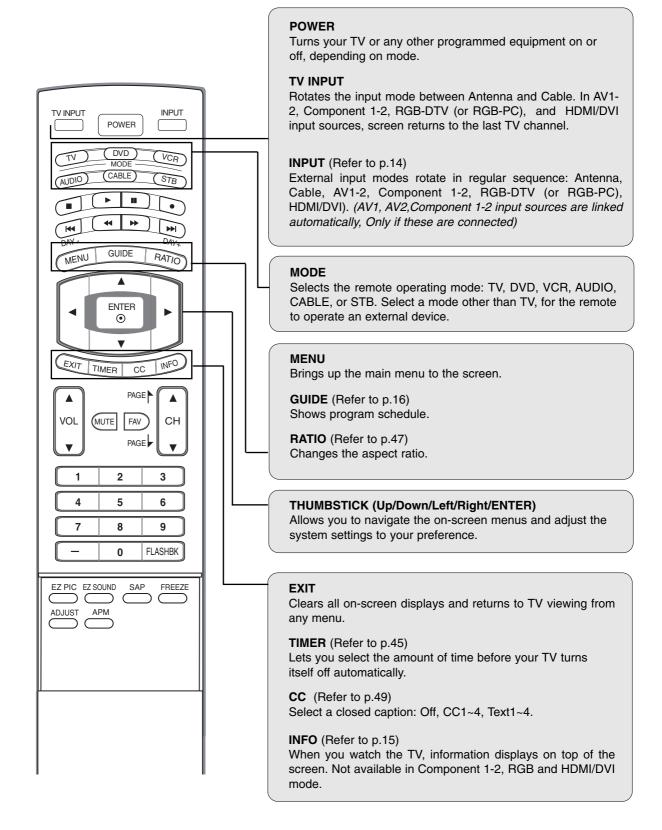


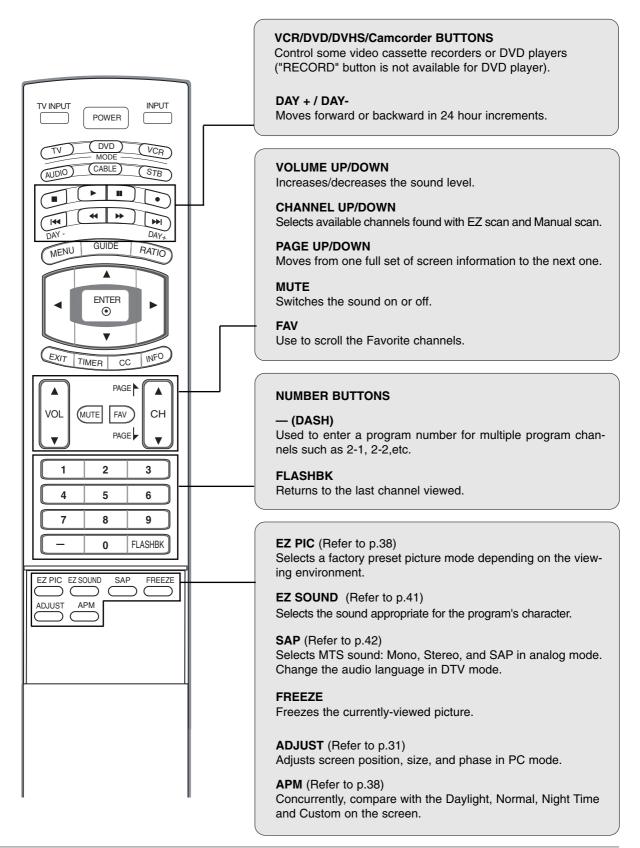
Connection Options (Model Name: 42PC1D**/42PC3D**/50PC3D**)

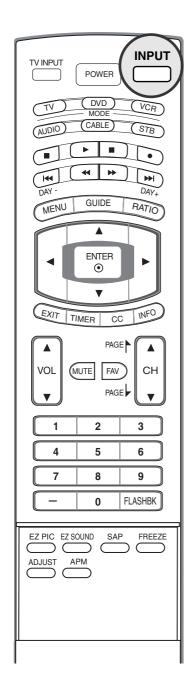
- Here shown may be somewhat different from your TV.



Remote Control Key Functions

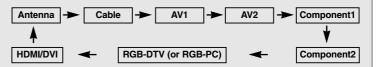






Auto Link

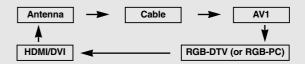
1. When every external equipment is connected:



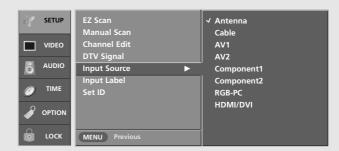
2. When no external equipment is connected:



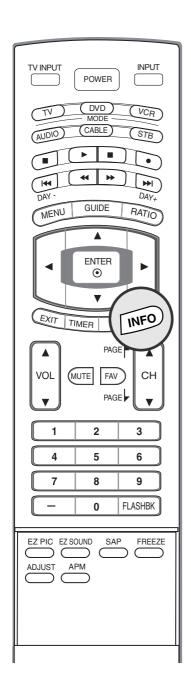
3. When some External Equipment is connected: (ex: When connected to AV IN1)



• You can also select **Input Source** in the **SETUP** menu.



- Antenna: Select it when watching the TV/DTV.
- Cable: Select it when watching the CATV/CADTV.
- AV1, AV2: Select it when watching the VCR or external equipment.
- Component 1-2: Select it when using a DVD or Digital set-top box depend on connector.
- **RGB-PC / RGB-DTV**: Select it when using PC or Digital set-top box depend on connector.
- HDMI / DVI: Select it when using DVD, PC or Digital set-top box depend on connector.



Brief Info.

What is Brief Info?

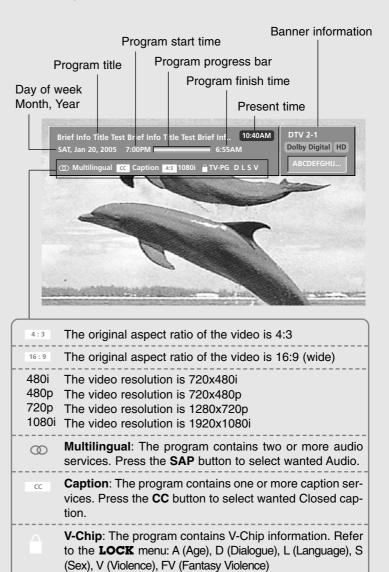
: Brief Info shows the present screen information.

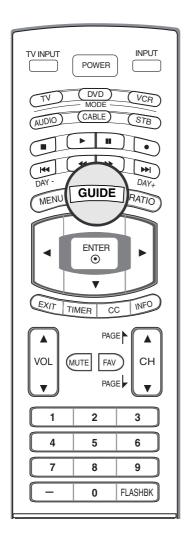
How to use?

- 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, RGB, and HDMI/DVI modes.

This function works in the following mode:

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





EPG (Electronic Program Guide) (In DTV mode)

- This system has an Electronic Program Guide (EPG) to help your navigate through all the possible viewing options.
- The EPG supplies information such as program listings, start and end times for all available services.
- This function can be used only when the EPG information is broadcasted by broadcasting companies.
- The EPG displays the program description for next 3 days.
- This function is only supported in DTV mode.



- 1 Press the **GUIDE** button to switch on EPG.
- Press the ▲ / ▼ / ◀ / ▶ button to select desired program, then press the ENTER button to display the selected program.
- **3** Press the **GUIDE** or **EXIT** button again to switch off EPG and return to TV viewing.

Remote Control Buttons	Function
▲ /▼/ ⋖ /►	Select the desired program
•	Change to the selected channel
44 / >>	Jump Page
I ⊲⊲ / ▶▶I	Change the date
GUIDE/EXIT	Switch off EPG

Installing Batteries

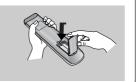
1 Open the battery compartment cover on the back side.

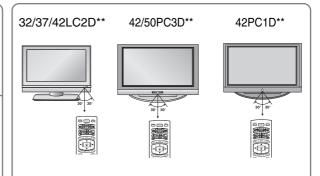


Insert two batteries in correct polarity (+ with +, - with -). Don't mix old or used batteries with new ones.



3 Close the cover.





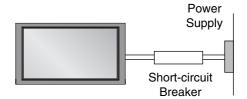
- * Use a remote control 7 meter distance and 30 degree (left/right) within the receiving unit scope.
- Dispose of used batteries in a recycle bin to prevent environmental hazards.

Installation

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

GROUNDING

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

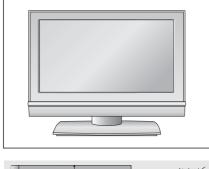


Various Installation

Desktop Pedestal Installation

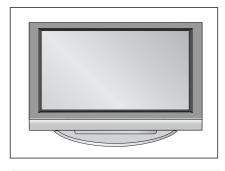
For proper ventilation, allow a clearance of 4" on each side and from the wall.

32/37/42LC2D**





42PC1D**, 42PC3D**, 50PC3D**





Installation

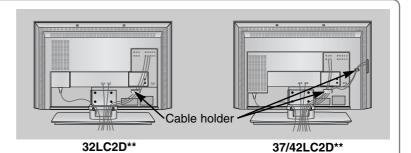
Basic Connection (For 32/37/42LC2D)**

1 Connect the cables as necessary.

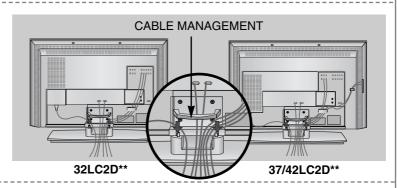
After connecting the cables neatly, arrange the cables to the

Cable Holder.

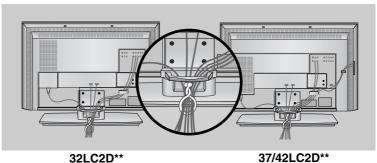
To connect an additional equipment, see the External equipment Connections section.



2 Reinstall the CABLE MANAGE-MENT as shown.

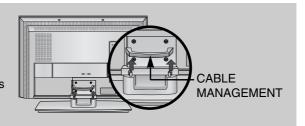


3 Bundle the cables using the supplied twister holder.



How to remove the CABLE MANAGEMENT

- Hold the **CABLE MANAGEMENT** with both hands and pull it upward.





Do not hold the CABLE MANAGEMENT when moving the product.

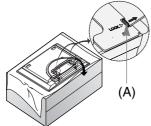
- If the product is dropped, you may be injured or the product may be broken.

Basic Connection

How to use stand (For 42PC1D**, 42PC3D**)

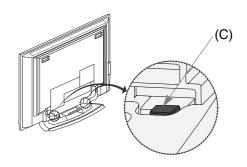
1 Place the set with the screen facing down on a cushion or soft cloth as shown.

Before unfolding the stand, please make sure two locks (A) on the bottom of the stand push outward.

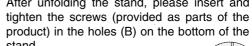


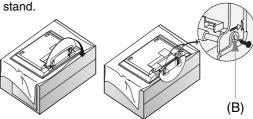
When connecting cables to the set, Do not disengage the lock (C).

This may cause the set to fall, causing serious bodily injury and serious damage to the set.



Pull the stand out as shown.
After unfolding the stand, please insert and

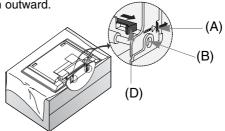




* Image shown here may be slightly different from your set.

When closing the stand for storage

- First remove the screws in the holes (B) on the bottom of the stand. And then pull two Hooks (D) of the stand bottom and fold the stand into the back of the set.
- After folding, push the two Locks (A) of the stand bottom outward.

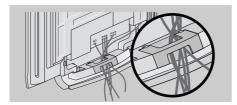


How to arrange the cable (For 50PC3D**)

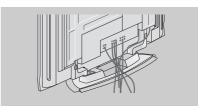
1 Hold the **CABLE MANAGEMENT** with both hands and push it as shown.



3 Reinstall the CABLE MANAGEMENT as shown.

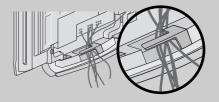


2 Connect the cables as necessary.
To connect an additional equipment, see the
External equipment Connections section.



For 42PC1D**, 42PC3D**

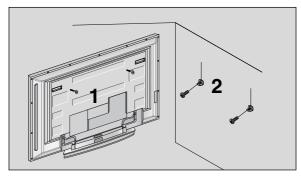
Arrange the cable as shown.

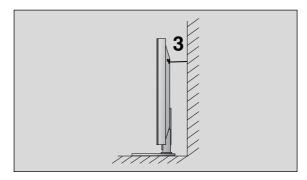


How to join the product assembly to the wall to protect the set tumbling

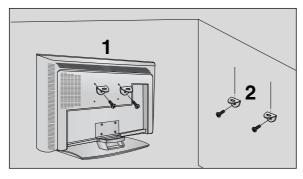
- Set it up close to the wall so the product doesn't fall over when it is pushed backwards.
- The instructions shown below is a safer way to set up the product, which is to fix it on the wall so the product doesn't fall over when it is pulled in the forward direction. It will prevent the product from falling forward and causing injury. 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.

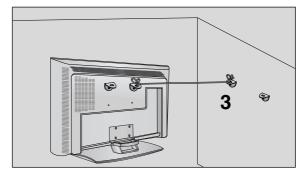
42PC1D**/42PC3D**/50PC3D**





32/37/42LC2D**





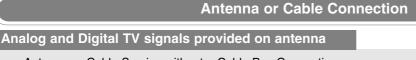
- 1 Use the eye-bolts or TV brackets/bolts to fix the product to the wall as shown in the picture. (If your product has the bolts in the eye-bolts position, loosen the bolts.)
 - * Insert the eye-bolts or TV brackets/bolts and tighten them securely in the upper holes.
- 2 Secure the wall brackets with the bolts (not provided as parts of the product, must purchase separately) on the wall. Match the height of the bracket that is mounted 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

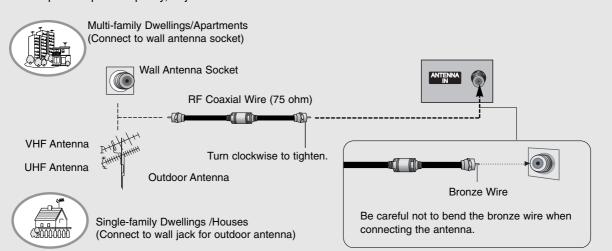
- When moving the product to another place undo the ropes first.
- Use a product holder or a cabinet that is big and strong enough for the size and weight of the product.
- To use the product safely make sure that the height of the bracket that is mounted on the wall is same as that of the product.

External Equipment Connections

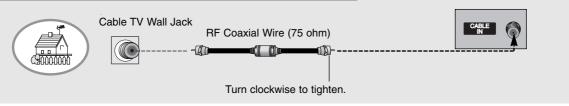
NOTE: All cables shown are not included with the TV



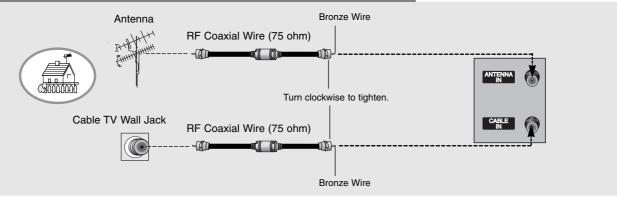
Antenna or Cable Service without a Cable Box Connection.
 For optimum picture quality, adjust antenna direction if needed.

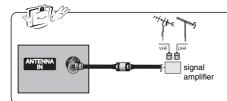


Analog and Digital TV signals provided on cable



Analog and Digital TV signals provided on cable and antenna



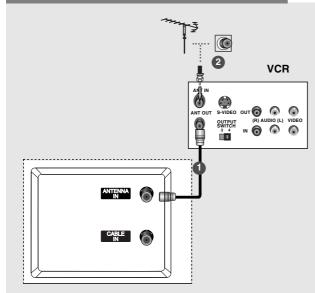


- In a poor signal area to improve picture quality, purchase and install a signal amplifier.
- If the antenna needs to be split for two TV's, install a "2-Way Signal Splitter" in the connections.
- If the antenna is not installed properly, contact your dealer for assistance.

VCR Setup

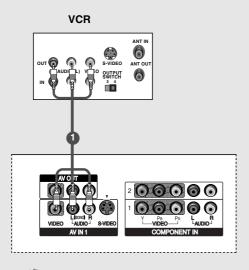
- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- Typically a frozen still picture from a VCR. If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen.

When connecting with an antenna



- Connect the RF antenna out socket of the VCR to the Antenna socket on the set.
- Connect the antenna cable to the RF antenna in socket of the VCR.
- Set VCR output switch to 3 or 4 and then tune TV to the same channel number.
- 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

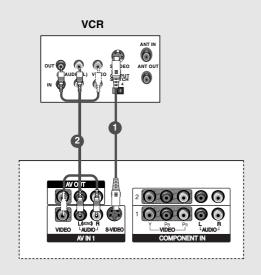


- Connect the AUDIO/VIDEO jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select AV1 input source using the INPUT button on the remote control.
 - If connected to AV IN2, select AV2 input source.



- If you have a mono VCR, connect the audio cable from the VCR to the AUDIO L/MONO jack of the set.
- This TV finds the connected input sources automatically for AV1, AV2 and Component 1-2. It is presumed that RGB and HDMI/DVI sources are connected.

When connecting with an S-Video cable

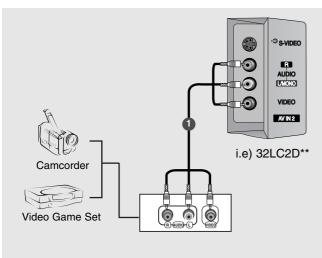


- Connect the S-VIDEO output of the VCR to the S-VIDEO input on the set. The picture quality is improved; compared to normal composite (RCA cable) input.
- Connect the audio outputs of the VCR to the AUDIO input jacks on the set.
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select AV1 input source with using the INPUT button on the remote control.
 - If connected to AV IN2, select AV2 input source.



Do not connect to both Video and S-Video at the same time. In the event that you connect both Video and the S-Video cables, only the S-Video will work.

External AV Source Setup



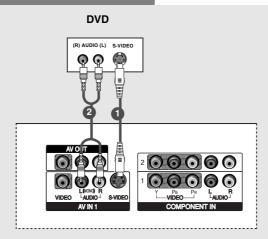
- Connect the AUDIO/VIDEO jacks between TV and external equipment. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
- Select AV2 input source with using the INPUT button on the remote control.
 - If connected to AV IN1 input, select AV1 input source.
- **3** Operate the corresponding external equipment. Refer to external equipment operating guide.



 This TV finds the connected input sources automatically for AV1, AV2 and Component 1-2. It is presumed that RGB and HDMI/DVI sources are connected.

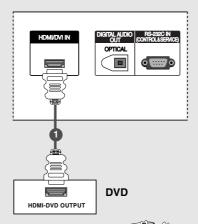
DVD Setup

When connecting with a S-Video cable



- ① Connect the S-VIDEO output of the DVD to the S-VIDEO input on the set.
- Connect the audio outputs of the DVD to the AUDIO input jacks on the set.
- 3 Turn on the DVD player, insert a DVD.
- Select AV1 input source with using the INPUT button on the remote control. If connected to AV IN2, select AV 2 input source.
- 6 Refer to the DVD player's manual for operating instructions.

When connecting with a HDMI cable

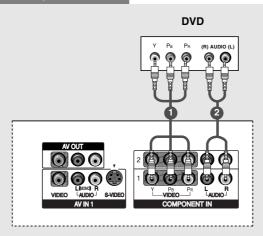


- ① Connect the HDMI output of the DVD to the HDMI/DVI IN jack on the set.
- Select HDMI/DVI input source with using the INPUT button on the remote control.
- 3 Refer to the DVD player's manual for operating instructions.



- TV can receive the video and audio signal simultaneously by using a HDMI cable.
- If the DVD supports Auto HDMI function, the DVD output resolution will be automatically set to 1280x720p.
- If the DVD does not support Auto HDMI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the DVD to 1280x720p.

When connecting with a component cable



- 1 Connect the video outputs (Y, PB, PR) of the DVD to the COMPONENT IN VIDEO jacks on the set.
- 2 Connect the audio outputs of the DVD to the COMPONENT IN AUDIO jacks on the set.
- 3 Turn on the DVD player, insert a DVD.
- Select Component 1 input source with using the INPUT button on the remote control.
 If connected to COMPONENT 2, select Component 2 input source.
- 5 Refer to the DVD player's manual for operating instructions.



• Component Input ports

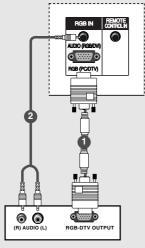
To get better picture quality, connect a DVD player to the component input ports as shown below.

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

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.

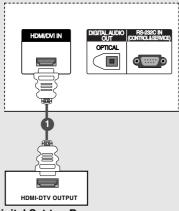
When connecting with a D-sub 15 pin cable



Digital Set-top Box

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

When connecting with a HDMI cable



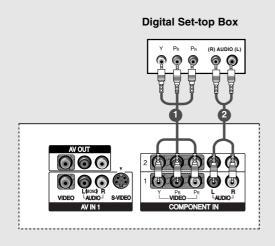
Digital Set-top Box

- Connect the HDMI output of the digital set-top box to the HDMI/DVI IN jack on the set.
- 2 Select HDMI/DVI input source with using the INPUT button on the remote control.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)



- TV can receive the video and audio signal simultaneously with using a HDMI cable.
- If the digital set-top box supports Auto HDMI function, output resolution of the digital set-top box will be automatically set to 1280x720p.
- If the digital set-top box does not support Auto HDMI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the digital set-top box to 1280x720p.

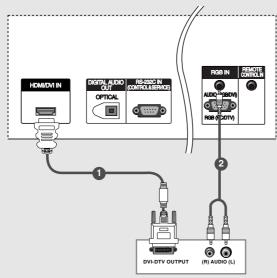
When connecting with a Component cable



- ① Connect the video outputs (Y, PB, PR) of the digital set-top box to the **COMPONENT IN VIDEO** jacks on the set.
- Connect the audio output of the digital set-top box to the COMPONENT IN AUDIO jacks on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- Select Component 1 input source with using the INPUT button on the remote control.
 - If connected to COMPONENT 2, select Component 2 input source.

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

When connecting with a HDMI to DVI cable



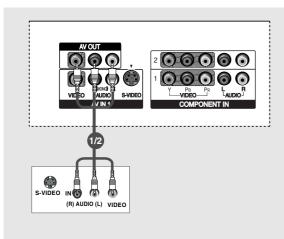
- **Digital Set-top Box**
- 1 Connect the DVI output of the digital set-top box to the HDMI/DVI IN jack on the set.
- 2 Connect the audio outputs of the set-top box to the AUDIO (RGB/DVI) jack on the set.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 4 Select HDMI/DVI input source with using the INPUT button on the remote control.



- If the digital set-top box has a DVI output and no HDMI output, a separated audio connection is necessary.
- If the digital set-top box supports Auto DVI function, the output resolution of the digital set-top box will be automatically set to 1280x720p.
- If the digital set-top box does not support Auto DVI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of the digital set-top box to 1280x720p.

Monitor Out Setup

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



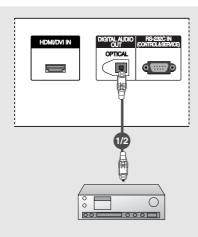
- Connect the second TV or monitor to the TV's AV OUTPUT jacks.
- See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.



- Component 1-2, RGB-PC/RGB-DTV, HDMI/DVI, DTV input sources cannot be used for Monitor out.
- We recommend to use the video and audio output jacks for VCR recording.

Digital Audio Output

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



- Connect one end of an optical cable to the TV Digital Audio Optical Output port.
- Connect the other end of the optical cable to the digital audio optical input on the audio equipment.
- 3 See the external audio equipment instruction manual for operation.

When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off. (Refer to p.43)



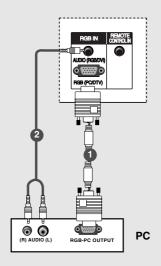
CAUTION

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

PC Setup

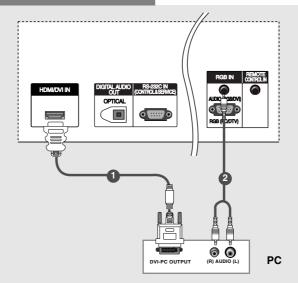
- This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.

When connecting with a D-sub 15 pin cable



- Connect the RGB output of the PC to the RGB (PC/DTV) jack on the set.
- Connect the PC audio outputs to the AUDIO (RGB/DVI) jack on the set.
- Turn on the PC and the set.
- Select RGB-PC input source with using the INPUT button on the remote control.

When connecting with a HDMI to DVI cable



- ① Connect the DVI output of the PC to the HDMI/DVI IN jack on the set.
- 2 Connect the audio outputs of the PC to the AUDIO (RGB/DVI) jack on the set.
- 3 Turn on the PC and the set.
- 4 Select HDMI/DVI input source with using the INPUT button on the remote control.



- If the PC has a DVI output and no HDMI output, a separated audio connection is necessary.
- If the PC does not support Auto DVI, you need to set the output resolution appropriately. To get the best picture quality, adjust the output resolution of PC graphics card's output resolution to 1024x768, 60Hz.



- To get the best picture quality, adjust the PC graphics card to 1024x768, 60Hz.
- Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.
- When Source Devices connected with HDMI/DVI Input, output PC Resolution (VGA, SVGA, XGA), Position and Size may not fit to Screen.Press the ADJUST button to adjust the screen Position of TV SET and contact an PC graphics card service center.
- When Source Devices connected with HDMI/DVI Input, output TV SET Resolution (480p, 720p, 1080i) and TV SET Display fit EIA/CEA-861-B Specification to Screen. If not, refer to the Manual of HDMI/DVI Source Devices or contact your service center.
- In case HDMI/DVI Source Devices is not connected Cable or poor cable connection, "NO SIGNAL"
 OSD display in HDMI/DVI Input. In case that Video Resolution is not supported TV SET output in HDMI/DVI Source Devices, "INVALID FORMAT"

- OSD display. Refer to the Manual of HDMI/DVI Source Devices or contact your service center.
- 6. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC, HDMI/DVI mode. If noise is present, change the PC or HDMI/DVI 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.
- 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.
- 8. The synchronization input form for Horizontal and Vertical frequencies is separate.

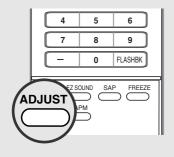
Supported Display Resolution (RGB-PC, HDMI/DVI Mode)

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
* 640x350	31.468	70.08	800x600	35.156	56.25
* 720x400	31.469	70.08		37.879	60.31
	31.469	59.94		48.077	72.18
640x480	37.861	72.80		46.875	75.00
	37.500	75.00	1024x768	48.363	60.00
* RGB-PC	only			56.476	70.06
ngb-PC	Oilly			60.023	75.02

Screen Setup for PC mode

- When RGB is connected to PC input and select the RGB-PC, this function is used.
- When HDMI/DVI is connected to PC input and select HDMI/DVI input, this function is used.
- In RGB-DTV mode, SIZE and PHASE is not available.
- After connecting RGB-PC or HDMI/DVI to PC input and checking the screen quality.

* Adjustment for screen Position, Size, and Phase







Mini Glossary

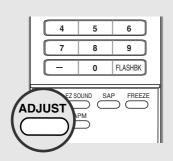
Position This function is to adjust picture to left/right and up/down as you prefer.

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

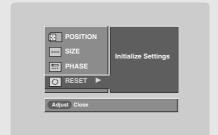
Phase This function allows you to remove any horizontal noise and clear or sharpen the image of characters.

- 1 Press the ADJUST button and then use ▲ / ▼ button to select POSITION, SIZE, or PHASE.
- 2 Press ENTER button and then use ▲ / ▼ / ▼ / ▶ buttons to make appropriate adjustments.
 - The **PHASE** adjustment range is -16 ~ +16. (In HDMI/DVI-PC mode, **PHASE** is not available.)
 - The **SIZE** adjustment range is -30 ~ +30.
- 3 Press ENTER 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 ENTER button and then use ◀ / ▶ button to select Yes.
- 3 Press ENTER button.

Operation

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 ტ/I, INPUT, CH ▲ / ▼ button on the TV or press the POWER, TV INPUT, INPUT, CH ▲ / ▼, Number (0 ~ 9) button on the remote control.
- Select the viewing source by using TV INPUT, INPUT button on the remote control.
 This TV is programmed to remember which power state it was last set to, even if the power cord is out.
- 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.

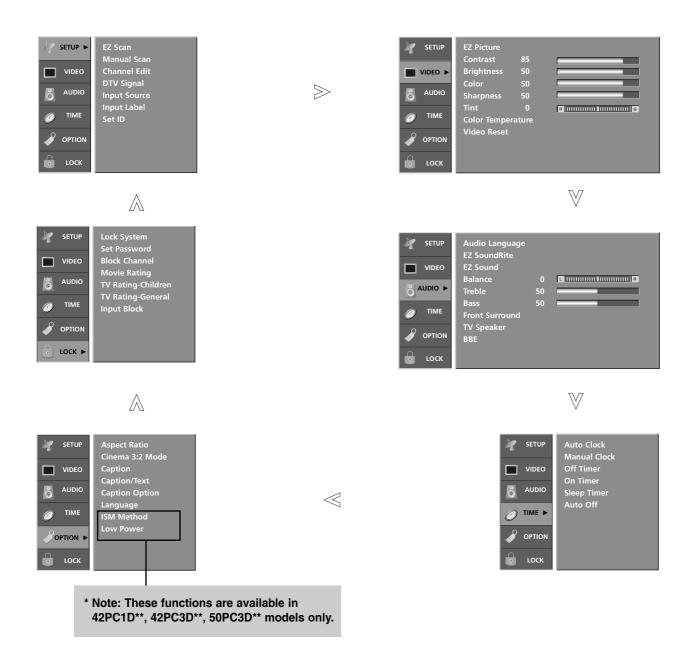


- 1 Press the MENU button and then use ▲ / ▼ button to select the **OPTION** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Language.
- Press the ▶ button and then use ▲ / ▼ button to select your desired language. From this point on, the on-screen menus will be shown in the selected language.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



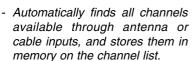
• Your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.



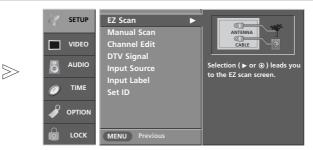
Setup Menu Options

EZ Scan (Channel Search)





- 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 ENTER 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.



- 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
- Press the ▶ button and then use ▲ / ▼ button to select channel number you want to add or delete.
- 5 Press the ENTER button to add or delete for the channel number.
- 6 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Mini Glossary

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

Channel Edit VIDEO VIDEO AUDIO TIME OPTION COPTION CONTROL CHANNEL Edit DTV Signal Input Label Set ID Ch

- 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 the ENTER button. The channels in the Custom List are displayed in black color, and the channels deleted from the Custom List are displayed in gray color. Once a channel is highlighted you can add or delete the channel by referring to the small window at the top-left corner of the screen. You can create your own Favorite List. Using the FAV button on the remote control when a channel is highlighted and then you can add or delete the channel to/from the Favorite List.
- 1 Press the MENU button and then use ▲ / ▼ button to select the SETUP menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select **Channel Edit**.
- **3** Press the ▶ button. You will now see a screen filled with channel numbers and a preview picture.
- 4 Use ▲ /▼ / ◀ / ▶ button to select a channel and then use the ENTER button to add or delete it. Press FAV button to add the channel to the Favorite List. 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





- SETUP

 EZ Scan
 Manual Scan
 Channel Edit

 DTV Signal
 Input Source
 Input Label
 Set ID

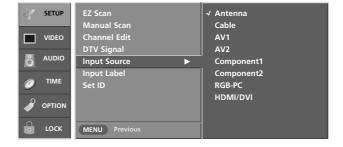
 OPTION

 MENU Previous
- Shows how strong your DTV signal is and whether you need to adjust your antenna or digital cable input. The higher the signal strength, the less likely you are to experience picture degradation.
- DTV Signals: Only when the input signal is DTV or CADTV, this function is available.
- 1 Press the **MENU** button and then use ▲ /▼ button to select the **SETUP** menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select DTV Signal.
- **3** View the on-screen signal strength monitor to see the quality of the signal being received.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Input Source







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

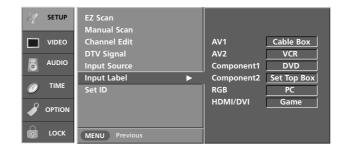
- Press the **MENU** button and then use ▲ / ▼ button to select the **SETUP** menu.
- Press the button and then use ▲ / ▼ button to select Input Source.
- Press the ► button and then use ▲ / ▼ button to select the source: Antenna, Cable, AV1, AV2, Component1, Component2, RGB-DTV (or RGB-PC), or HDMI/DVI.
 - To toggle RGB-DTV and RGB-PC, select RGB-DTV(or RGB-PC) and press ▶ button.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

Input Label





 Sets a label to each input source or lets you skip the input source which is not in use when you press INPUT button.



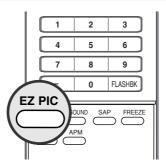
- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **SETUP** menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select Input Label.
- 3 Press the ▶ button and then use ▲ / ▼ button to select the source: AV1-2, Component1-2, RGB or HDMI/DVI.
- **4** Press the **◄** / **▶** button to select the label.
- **5** Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



Video Menu Options

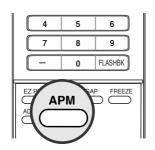
EZ Picture

- 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 adjust **EZ Picture** in the **VIDEO** menu.
- **2** Press the **EXIT** button to save and return to TV viewing.

APM (Adaptive Picture Mode)





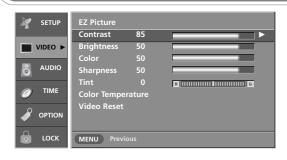
- Night Time Custom

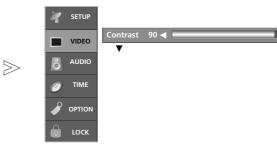
 Custom

 Navigate ② Select EXIT Exit
- It allows a viewer to select their preferred mode after comparing picture (Daylight, Normal, Night Time and Custom) settings.
- Note: While operating the 4-split, any button except APM, ENTER, EXIT, ▲ / ▼ / ▼ / ▶, VOLUME ▲ / ▼ , MUTE button on the remote control are not available.
- 1 Press the **APM** button. The screen is divided to 4-split.
- 2 Press the ▲ / ▼ / ▼ / ▶ button to navigate 4 EZ Pictures. By pressing the ENTER button, you can select the desired mode.

Press the **EXIT** button to save and return to TV viewing.

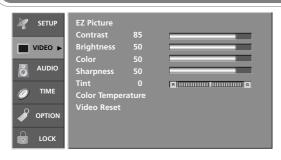
Manual Picture Control (EZ Picture-Custom option)



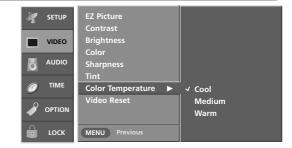


- Adjust the picture appearance to suit your preference and viewing situations.
- Press the **MENU** button and then use ▲ / ▼ button to select the **VIDEO** menu.
- Press the ▶ button and then use ▲ / ▼ button to select the desired picture option (Contrast, Brightness, Color, Sharpness, or Tint).
- 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

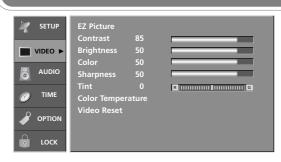






- Choose one of three automatic color adjustments. Set to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.
- Press the **MENU** button and then use ▲ / ▼ button to select the **VIDEO** menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select **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





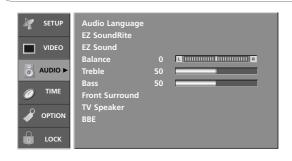


- Use to quickly reset all the Video menu options to their original factory preset values.
- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **VIDEO** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Video Reset.
- 3 Press the ▶ button to reset the Video menu options to original values.



Audio Menu Options

Audio Language

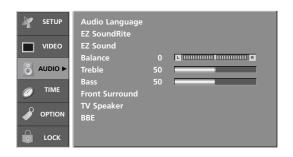






- Other languages may be available if a digital signal is provided by the broadcasting station.
- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **AUDIO** menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select Audio Language.
- Press the ▶ button and then use ▲ / ▼ button 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



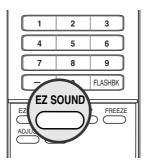




- Scans for changes in sound level during commercials, then adjusts the sound to match the specified audio level. EZ SoundRite makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.
- 1 Press the MENU button and then use ▲ / ▼ button to select 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 appropriate sound setup as shown below: Custom (your own settings), Normal, Stadium, News, Music, and Theater.
 - You can also adjust **EZ Sound** in the **AUDIO** menu.
- **2** Press **EXIT** button to save and return to TV viewing.

Manual Sound Control (EZ Sound-Custom option)







- Adjust the sound in your preference and surrounded environment.
- 1 Press the MENU button and then use ▲ / ▼ button to select the AUDIO menu.
- 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

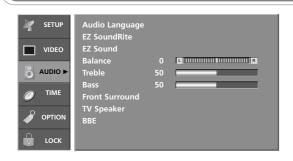
Stereo/SAP Broadcasts Setup

- 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 when 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.

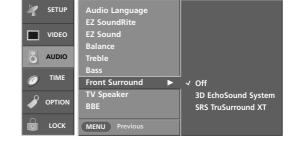


- Use the SAP button to select your desired MTS mode in analog signal. Each time you press the SAP button, Mono, Stereo, or SAP appear in turn.
 - If other languages available on the digital signal, select them with the SAP button.
- Press EXIT button to save and return to TV viewing.

Front Surround







- SRS(O) 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.
- Press the ▶ button and then use ▲ / ▼ button to select Front Surround.
- 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

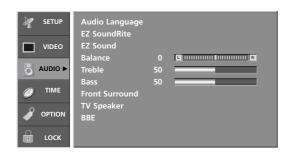
SRS TruSurround XT

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.

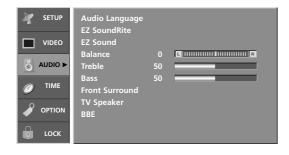
TV Speakers On/Off Setup





- 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







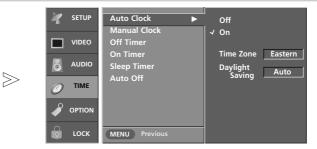
- BBE High Definition Sound restores clarity and presence for better speech intelligibility and music realism.
- 1 Press the MENU button and then use ▲ / ▼ button to select the AUDIO menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select **BBE**.
- 3 Press the ▶ button and then use ▲ / ▼ button 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 current time will be set automatically from a digital channel signal 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.
 - U.S.A: Eastern, Central, Mountain, Pacific, Alaska, or Hawaii.
 - Canada: Eastern, Central, Mountain, Pacific, Nfld, or Atlantic.
- 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

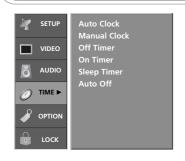


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- If current time setting is wrong, reset the clock manually.
- 1 Press the **MENU** button and then use ▲ /▼ button to select the **TIME** menu.
- Press the ▶ button and then use ▲ / ▼ button to select **Manual** Clock.
- 3 Press the ▶ button and 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**.
- 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

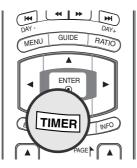
Press the \blacktriangleright button and then use \blacktriangle , \blacktriangledown button to select the channel at turn-on.

Press the \blacktriangleright button and then use \blacktriangle / \blacktriangledown 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.



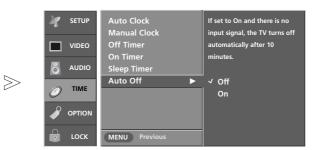
- Press the **TIMER** button repeatedly to select the number of minutes. First the **Off** option appears on the screen, followed by the following sleep timer options: 10, 20, 30, 60, 90, 120, 180, and 240 minutes.
- When the number of minutes you want is displayed on the screen, press the TIMER button. 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





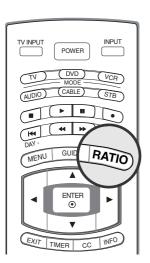
- If the TV is on and there is no input signal, the TV turns off automatically after 10 minutes.
- ↑ Press the **MENU** button and then use **A** / **V** button to select the **TIME** menu.
- Press the ▶ button and then use ▲ / ▼ button to select Auto Off.
- 3 Press the ▶ button and then use ▲ / ▼ button 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 (720p/1080i) / RGB-DTV (720p/1080i)/HDMI/DVI-DTV (720p/1080i) /DTV (720p/1080i) input source.
- In RGB-PC/DVI-PC input source, only either 4:3 or 16:9 aspect ratio is available.
- If a fixed image is displayed on the screen for a long time, the 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. $(4:3 \rightarrow 4:3, 16:9 \rightarrow 16:9)$

· 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.

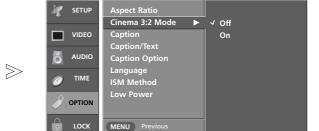
You can adjust the enlarge proportion of Cinema Zoom using ▲ /▼ button. The adjustment range is 1~16.



Option Menu Features continued

Cinema 3:2 Mode Setup

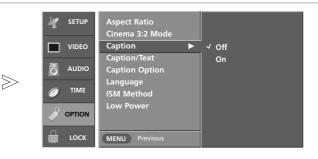




- Most movies are 24 frames/sec, but TV signal is 30 frames/sec.
- This option lets the TV do 3:2 pull-down operation for you to watch movies at the best motion appearance.
- This feature operates only in AV1, AV2, Component 480i mode.
- 1 Press the **MENU** button and then use ▲ / ▼ button to select 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





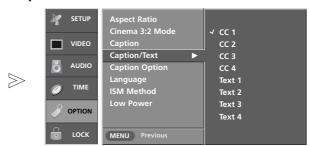
- 1 Press the **MENU** button and then use ▲ / ▼ button to select the **OPTION** menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select **Caption**.
- 3 Press the ▶ button and then use ▲ / ▼ button to select Off or On.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button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



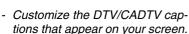
- 1 Press the MENU button and then use ▲ / ▼ button to select the OPTION menu.
- Press the button and then use Δ / ▼ button to select Caption/Text.
- 3 Press the ▶ button and then use ▲ / ▼ button to select available caption languages: **English**, **Spanish**, or **French**.
- 4 Press **EXIT** button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

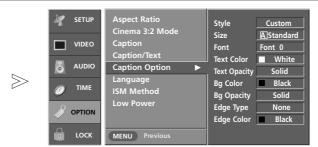


Option Menu Features continued

Caption Option







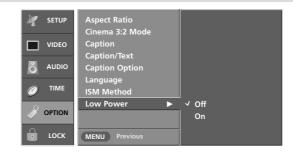
- 1 Press the MENU button and then use ▲ / ▼ button to select the OPTION menu.
- 2 Press the ▶ button and then use ▲ / ▼ button to select Caption Option.
- **3** Press the ▶ button and then use ◀ / ▶ button to select **Custom**.
- 4 Use ▲ / ▼ button to customize the Style, Font, etc., to your preference. 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.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.

Low Power (42PC1D**, 42PC3D**, 50PC3D** only)



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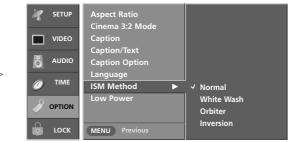
- Low power reduces the power consumption of plasma display.



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

ISM (Image Sticking Minimization) Method (42PC1D**, 42PC3D**, 50PC3D** only)





 A frozen still picture from a PC/video game displayed on the screen for prolonged periods will result in a ghost image; even though the image is changed. Use our unique method to minimize any fixed image on the 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 **ISM Method.**
- 3 Press the ▶ button and then use ▲ / ▼ button to select **Normal**, **White Wash**, **Orbiter** or **Inversion**.

Normal

If image sticking is never a problem, ISM is not necessary - set to Normal.

• White Wash

White Wash removes permanent images from the screen.

Note: An excessive permanent image may be impossible to clear entirely with White Wash. To return to normal viewing, press the any button.

Orbiter

Orbiter may help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen. To avoid a permanent image on the screen, the image will move once per 2 minutes: Left \rightarrow Right \rightarrow Upside \rightarrow Downside \rightarrow Right \rightarrow Left \rightarrow Downside \rightarrow Upside.

Inversion

Inversion will automatically invert the plasma display panel color every 30 minutes.

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.

For USA

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)
- (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:

(applies to TV-Y, TV-Y7) Age • 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,
- Violence (applies to TV-PG, TV-14, TV-MA)

Input Block

• AV1, 2	(On, Off)
 Component 1, 2 	(On, Off)
 RGB, HDMI/DVI 	(On, Off)

For Canada

TV Rating-English:

- E (Exempt) • C (Children)
- C8+ (8 years and up)
- G (General programming. Suitable
 - for all audiences)
- PG (Parental guidance suggested) (Viewers 14 years and up) 14+
- 18+ (Adult programming)
- Blocking off (Permits all programming)

TV Rating-French:

- E (Exempt)
- G (General)
- 8 ans+ (8 years and up)
- 13 ans+ (13 years and up)
- (16 years and up) 16 ans+
- 18 ans+ (Adults only)
- Blocking off (Permits all programming)

Input Block

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

Parental Lock Setup

* For U.S.A.



* For Canada



- 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.

♠ For USA

- 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.

For Canada

- TV Rating-English / TV Rating-French: Selecting canadian English /French language rating system.
- **3** Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

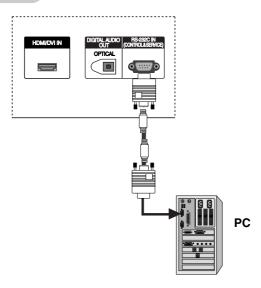


 If you ever forget your password, key in '7', '7', '7', '7' on the remote control. Then, the password reset to '7', '7', '7', '7'

External Control Device Setup

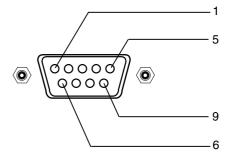
- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the Monitor's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the TV back panel.
- RS-232C connection cables are not supplied with the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

RS-232C Setup



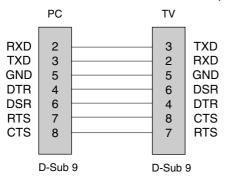
Type of Connector; D-Sub 9-Pin Male

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

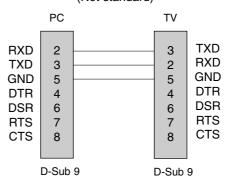


RS-232C Configurations

7-Wire Configurations (Serial female-female NULL modem cable)



3-Wire Configurations (Not standard)



Set ID

- Use this function to specify a TV ID number.
- Refer to 'Real Data Mapping'. See page 56.
- 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**.
- Press the ▶ button and then use ▲ / ▼ button to adjust Set ID to choose the desired TV ID number. The adjustment range of Set ID is 1 ~ 99.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.

SETUP > EZ Scan Manual Scan Channel Edit DTV Signal Input Source Input Label Set ID LOCK MENU Previous

Communication Parameters

• Baud rate: 9600 bps (UART)

Data length: 8 bitsParity: NoneStop bit: 1 bit

• Communication code : ASCII code

* Use a crossed (reverse) cable.

Command Reference List

CC	OMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	а	0 ~ 1
02. Input Select	k	b	* (Refer to p.56)
03. Aspect Ratio	k	С	* (Refer to p.56)
04. Screen Mute	k	d	0 ~ 1
05. Volume Mute	k	е	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	<u> </u>	0 ~ 1
13. Remote Control Lock	Mode k	m	0 ~ 1
14. Treble	k	r	0 ~ 64
15. Bass	k	S	0 ~ 64
16. Balance	k	t	0 ~ 64
17. Color Temperature	k	u	0 ~ 2
18. ISM Method	j	р	* (Refer to p.58)
19. Low Power	j	q	0 ~ 1
20. Orbiter Time Setting	ı j	r	1 ~ FE
21. Orbiter Pixel Setting	j j	s	1 ~3

* Command 18~21: 42PC1D**, 42PC3D**, 50PC3D** models only

Transmission / Receiving Protocol

Transmission

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

- * [Command 1]: First command to control the set.(j,k,m or x)
- * [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

	COM- MAND 1	COM- MAND 2	DATA 0 (Hexadecimal)	DATA 1 (Hexadecimal)	DATA 2 (Hexadecimal)	DATA 3 (Hexadecimal)	DATA 4 (Hexadecimal)	DATA 5 (Hexadecimal)
22. Channel Tuning	m	а	physical/program high	major/program low	major low	minor high	minor low	attribute
23. Channel Add/Del	m	b	00 ~ 01					
24. Key	m	С	key code					
25. Input Select	х	b	*(Refer to p.59)				

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

<u>Acknowledgement</u>

[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]

*For 32/37/42LC2D, 42PC1D**, 42PC3D**, 50PC3D**

Data 0: DTV 5: Component 2
1: Analog 6: RGB-DTV
2: AV1 7: RGB-PC
3: AV2 8: HDMI/DVI

4: Component 1

*For 32LC2DC and 42PC3DC

Data 0: DTV 5: Component 2
1: Analog 6: RGB-DTV
2: AV1 7: RGB-PC
3: AV2 8: HDMI-DTV
4: Component 1 9: HDMI-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]

Date 1: 4:3 6: Set by program
2: 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]

*For 32/37/42LC2D, 42PC1D**, 42PC3D**, 50PC3D**

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

*For 32LC2DC and 42PC3DC

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

<u>Acknowledgement</u>

[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.

<u>Acknowledgement</u>

[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.

<u>Acknowledgement</u>

[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.

<u>Acknowledgement</u>

[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)

:

63 : Step 99 (SET ID 99) 64 : Step 100

04 . Step 100

' Tint : R50 ~ G50 ' Balance : L50 ~ R50

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 56.

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 56.

<u>Acknowledgement</u>

[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 56.

Acknowledgement

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

12. OSD Select (Command2:I)

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

Transmission

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

Data 0: OSD off

1: OSD on

Acknowledgement

[I][][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. 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 56.

<u>Acknowledgement</u>

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

15. 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 56.

<u>Acknowledgement</u>

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

16. 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 56.

Acknowledgement

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

17. 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: Medium 1: Cool 2: Warm

Acknowledgement

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

These functions are available in 42PC1D**, 42PC3D**, 50PC3D** models only.

18. ISM Method (Command2:p)

To avoid having a fixed image remain on screen.

Transmission

[j][p][][Set ID][][Data][Cr]

Data 1: Inversion

- 2: Orbiter
- 4: White Wash
- 8: Normal

Acknowledgement

[p][][Set ID][][OK][Data][x]

19. Low Power (Command2:q)

➤ To control the Low Power function on/off. You can also adjust Low Power in Option menu.

Transmission

[j][q][][Set ID][][Data][Cr]

Data 0: Low Power off

1: Low Power on

<u>Acknowledgement</u>

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

20. Orbiter Time Setting (Command2:r)

► To adjust orbiter operation time term.

Transmission

[j][r][][Set ID][][Data][Cr]

Data Min: 1 ~ Max: FE

<u>Acknowledgement</u>

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

21. Orbiter Pixel Setting (Command2:s)

To adjust pixel number in orbiter function.

Transmission

[j][s][][Set ID][][Data][Cr]

Data Min: 1 ~ Max: 3

<u>Acknowledgement</u>

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

22. Tune Command (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, Data 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, Data 4: Minor Channel Number Data3: High byte Data4: Low byte Data 5:

7	Main Picture	6	Two/One Part Channel	5	Using Physical Channel	4 Reserv ed	3	2	1	0	Step
0	Main	0	Two	0	Use	х	0	0	0	0	NTSC Air
1		1	One	1	No Use	х	0	0	0	1	NTSC Cable
						х	0	0	1	0	ATSC Air
						х	0	0	1	1	ATSC Cable_std
						х	0	1	0	0	ATSC Cable_hrc
						х	0	1	0	1	ATSC Cable_irc
						х	0	1	1	0	ATSC cable_auto
						х	0	1	1	1	Reserved
						х	х	х	х	х	
						х	1	1	1	1	Reserved

* All data are transmitted by Hexadecimal code

*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)

- Analog channel: NTSC cable, channel number(35), main picture Command: ma 00 23 xx xx xx xx 01attribute(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.
- Digital channel: ATSC air, channel number(don't know physical channel, major(30), minor(3)), main picture
 Command: ma 00 xx 00 1E 00 03 22 attribute(0x22): main 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 (5)), main picture

 Command: ma 00 14 00 1E 00 05 02 attribute(0x02): main 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]

23. 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

<u>Acknowledgement</u>

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

24. Key (Command: m c)

► To send IR remote key code

Transmission

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

Data Key code: Refer to page 61.

<u>Acknowledgement</u>

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

25. Input select(Command: x b) (Main Picture Input)

► To select input source for TV. <u>Transmission</u>

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

Data Structure

DATA(Hex)	INPUT
00	DTV (Antenna)
01	DTV (Cable)
10	Analog (Antenna)
11	Analog (Cable)
20	AV1
21	AV2
40	Component 1
41	Component 2
50	RGB DTV
60	RGB PC
90	HDMI/DVI

Acknowledgement

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

IR Codes

How to Connect

Connect your wired remote control to the Remote Control port on the TV.

Remote Control IR Codes

Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz

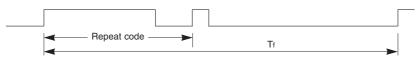


► Configuration of frame

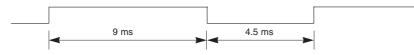
• 1st frame

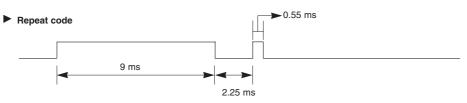
	Lea	 Low custom code					High custom code							Data code					Data code														
Ī		C0	C1	C2	СЗ	C4	C5	C6	C7	C0	C1	C2	СЗ	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7

• Repeat frame

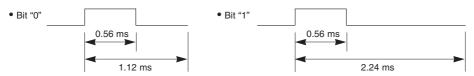


► Lead code



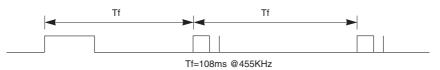


▶ Bit description



Frame interval : Tf

The waveform is transmitted as long as a key is depressed.



Code (Hexa)	Function	Note
0B	INPUT	R/C Button
0F	TV 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)
79	RATIO	R/C Button
0E	TIMER	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 A	R/C Button
03	VOL▼	R/C Button
00	CH A	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	ENTER	R/C Button
43	MENU	R/C Button
A9	GUIDE	R/C Button
52	EZ SOUND	R/C Button
4D	EZ PIC	R/C Button
5B	EXIT	R/C Button
65	FREEZE	R/C Button
0A	SAP	R/C Button
СВ	ADJUST	R/C Button
D6	TV	Discrete IR Code (TV Input Selection)
5A	AV1	Discrete IR Code (AV1 Input Selection)
D0	AV2	Discrete IR Code (AV2 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	HDMI/DVI	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 Zoom1 Mode)

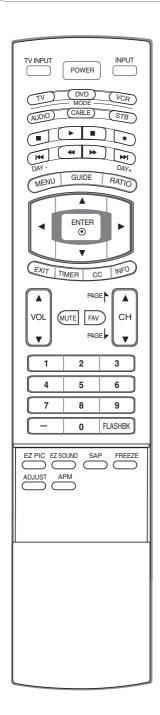
Programming the Remote

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

gramming to operate the device.



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 pro-

- 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		145 147	TOSHIBA	008 013 042 047
CAPEHART	108	MAGNAVOX	031 033 034 041	REALISTIC	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	l	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
СІТОН	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	

Audio

Brand	Cod	es			Brand	Code	es			Brand	Cod	les			Brand	Cod	es		
AIWA	014	028	070	096	JVC	004	013	141		PHILIPS	026	112	143		TOSHIBA	137			
	125	129	139	229	KEC	185	186	187		PIONEER	039	042	043	063	THE	061			
	230				KENWOOD	038	050	067	089		065	091	093	094	VICTOR	088	131		
AKAI	163					170	171	197	206		115	123	127	250	WARDS	089			
ANAM	003	014	017	023		215	222			QUASAR	113				YAMAHA	054	055	066	092
	059	106	189	216	KOHEL	030				RCA	080					199			
	217	235	236		NAD	045	046			RCX	092								
BURMECTER	252				LOTTE	014	016	036	098	REALISTIC	103	106							
CARVER	086					100	172	173	174	SAMSUNG	124	145	146	182					
CLARION	199					175	176	177	178		193	194	195	203					
DAEWOO	027	053	060	084		179	180	181	183		204	244	245	246					
	102	148	198	221		201	202	208	213	SANSUI	011	135	138	144					
DENON	015	075	130	143		214	219	223	232	SANYO	019	083	234						
FANTASIA	071					238	240			SCOTT	106	186							
FINEARTS	022				LXI	103				SHARP	031	032	051	052					
FISHER	089	099			MAGNAVOX	111					072	082	117	119					
LG(GOLDSTAR)	001	021	024	029	MARANTZ	002	018	020	025		156	184	199	200					
	087	107	108	110		034	041	081	090		206	209							
	190	191	192	210		097	112			SHERWOOD	005	006	158						
	211	212	239		MCINTOSH	049				SONY	044	045	109	114					
HAITAI	034	035	188	222	MCS	104					118	126	248	249					
HARMAN/KARDON	068				MEMOREX	107				TAEKWANG	012	020	073	074					
INKEL		058			NAD	046							105						
	078	079	095	121	ONKYO	013	040	041	047		162	163	164	165					
	122	149	150	151		048	056	057	132		166	167	168	169					
	152	153	154	155		133	140				205	231	233	242					
		158			OPTIMUS	158				TEAC			106	136					
		207			PANASONIC	007							237						
	225	226	227	243		142	220	241	251	TECHNICS	101	113	128	134					
	247				PENNEY	104					147	218							

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		MITSUBISHI	002	PROCEED	021	TOSHIBA	019 008
HARMAN KARDON		NAD	023	PROSCAN	005 006	YAMAHA	009 018
JVC LG	012 001 010 016 025	ONKYO PANASONIC	008 017 003 009	RCA SAMSUNG	005 006 011 015	ZENITH	010 016 025

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.				
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/verti- cal bars or pic- ture 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 back- ground & Horizontal Noise & Incorrect position	Work the Auto configure or adjust clock, phase, or H/V position. (Option)			
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 do not 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

32LC2D (32LC2D-UD) 32LC2DC	Dimensions	including stand	31.9 x 24.8 x 9.3 inches		
	(Width x Height x Depth)		811 x 630 x 235 mm		
		excluding stand	31.9 x 22.3 x 4.9 inches		
			811.0 x 566.8 x 123.5 mm		
(32LC2DC-UD)	Weight	including stand	48.3 pounds / 21.9 kg		
		excluding stand	40.8 pounds / 18.5 kg		
	Dimensions	including stand	37.2 x 28.7 x 11.3 inches		
	(Width x Height x Depth)		944 x 729 x 286 mm		
37LC2D		excluding stand	37.2 x26.0 x 5.1 inches		
(37LC2D-UD)			944.0 x 659.3 x 129.7 mm		
	Weight	including stand	65.0 pounds / 29.5 kg		
		excluding stand	54.9 pounds / 24.9 kg		
	Dimensions	including stand	41.5 x 32.0 x 11.9 inches		
	(Width x Height x Depth)		1054 x 813 x 302 mm		
42LC2D		excluding stand	41.5 x 29.4x 5.4 inches		
(42LC2D-UD)			1054.0 x 746.0 x 136.8 mm		
	Weight	including stand	81.6 pounds / 37.0 kg		
		excluding stand	67.0 pounds / 30.4 kg		
Power requireme	ent		AC100-240V ~ 50/60Hz		
Television Syste	m		NTSC-M, ATSC, 64 & 256 QAM		
Program Covera	ıge		VHF 2 ~ 13, UHF 14 ~ 69,		
			CATV 1 ~ 135, CADTV 1 ~ 135, DTV 2 ~ 69		
External Antenna Impedance			75 Ω		
Operating Temperature			32 ~ 104°F (0 ~ 40°C)		
Environmental condition		Operating Humidity	Less than 80%		
		Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)		
		Storage Humidity	Less than 85%		

[•] The specifications shown above may be changed without prior notice for quality improvement.

	Dimensions	including stand	44.4 x 29.5 x 15.0 inches		
42PC1DVH (42PC1DVH-UD)	(Width x Height x Depth)		1129.0 x 748.5 x 380.0 mm		
		excluding stand	44.5 x 27.4 x 4.1 inches		
			1129.0 x 695.0 x 103.7 mm		
	Weight	including stand	61.1 pounds / 27.7 kg		
		excluding stand	53.4 pounds / 24.2 kg		
42PC3D	Dimensions	including stand	44.4 x 29.5x 15.0 inches		
(42PC3D-UD)	(Width x Height x Depth)		1129.0 x 748.5 x 380.0 mm		
42PC3DC		excluding stand	44.4 x 27.4 x 4.1 inches		
(42PC3DC-UD)			1129.0 x 695 x 103.7 mm		
42PC3DH	Weight	including stand	64.4 pounds / 29.2 kg		
(42PC3DH-UD)		excluding stand	55.8 pounds / 25.3 kg		
	Dimensions	including stand	44.4 x 29.5x 15.0 inches		
42PC3DV	(Width x Height x Depth)		1129.0 x 748.5 x 380.0 mm		
(42PC3DV-UD)		excluding stand	44.4 x 27.4 x 4.1 inches		
42PC3DVA			1129.0 x 695 x 103.7 mm		
(42PC3DVA-UD)	Weight	including stand	62.6 pounds / 28.4 kg		
		excluding stand	54.0 pounds / 24.5 kg		
50PC3D	Dimensions	including stand	51.3 x 34.3 x 14.0 inches		
(50PC3D-UD)	(Width x Height x Depth)		1302.6 x 872.0 x 355.8 mm		
50PC3DH		excluding stand	51.3 x 31.9 x 4.2 inches		
(50PC3DH-UD)			1302.6 x 810.0 x 107.7 mm		
50PC3DX	Weight	including stand	114.4 pounds / 51.9 kg		
(50PC3DX-UD)		excluding stand	95.0 pounds / 43.1 kg		
Power requireme	ent		AC100-240V ~ 50/60Hz		
Television Syste	m		NTSC-M, ATSC, 64 & 256 QAM		
Program Coverage			VHF 2 ~ 13, UHF 14 ~ 69,		
-			CATV 1 ~ 135, CADTV 1 ~ 135, DTV 2 ~ 69		
External Antenna Impedance			75 Ω		
Operating Temperature			32 ~ 104°F (0 ~ 40°C)		
Environmental condition		Operating Humidity	Less than 80%		
		Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)		
		Storage Humidity	Less than 85%		

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