

# PLASMA TV OWNER'S MANUAL

MODELS: 42PX3DBV/42PX3DLV 42PX3DBV-UC/ 42PX3DLV-UC

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

Retain this manual for future reference.

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

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

Model Number : Serial Number :

LG Electronics U.S.A., Inc.

# Warning/Caution







#### WARNING/CAUTION:

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



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



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

#### WARNING/CAUTION:

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

#### **FCC NOTICE**

#### · A Class B digital device

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### CAUTION:

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

#### COMPLIANCE:

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

#### WARNING/CAUTION

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

# Safety Instructions

#### IMPORTANT SAFETY INSTRUCTIONS

Important safety instructions shall be provided with each apparatus. This information shall be given in a separate booklet or sheet, or be located before any operating instructions in an instruction for installation for use and supplied with the apparatus. This information shall be given in a language acceptable to the country where the apparatus is intended to be used. The important safety instructions shall be entitled "Important Safety Instructions". The following safety instructions shall be included where applicable, and, when used, shall be verbatim as follows. Additional safety information may be included by adding statements after the end of the following safety instruction list. At the manufacturer's option, a picture or drawing that illustrates the intent of a specific safety instruction may be placed immediately adjacent to that safety instruction:

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



# Safety Instructions

- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. CAUTION concerning the Power Cord:

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

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

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

#### 16. Outdoor Use Marking:

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

#### 17. Wet Location:

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

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# **Setup and Operation Checklist**

Setup and Operation Checklist

(See pages 12~17 for available connection and operational setup options.)

- 1. Unpack TV and all accessories.
- 2. Connect all external video and audio equipment. see pages 15 ~ 17.
- 3 Install batteries in remote control. See page 9~10.
- 4. Turn TV on. See page 19.

- 5. Turn video source equipment on.
- 6. Select viewing source for TV. See page 21.
- 7. Fine-tune source image and sound to your personal preference or as required by source. See pages 22 ~ 25.
- 8. Additional features set up See Contents above.

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

# Introduction

#### What is a Plasma Display Panel (PDP)?

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

#### How does it work?

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

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

#### 160° - Wide angle range of vision

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

#### Wide Screen

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

#### Multimedia

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

#### Versatile

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

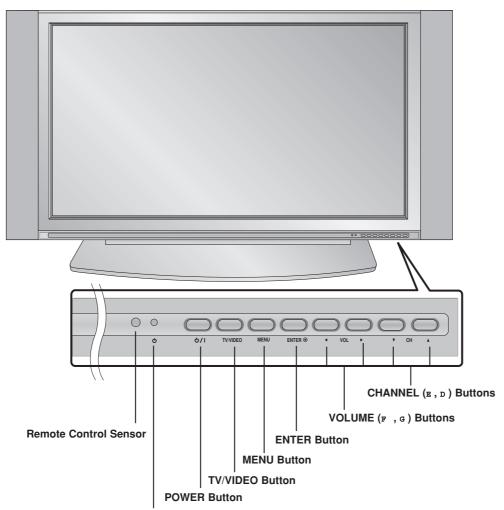
#### The PDP Manufacturing Process: a few minute colored dots may be present on the PDP screen

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

### **Controls**

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

#### Front Panel Controls

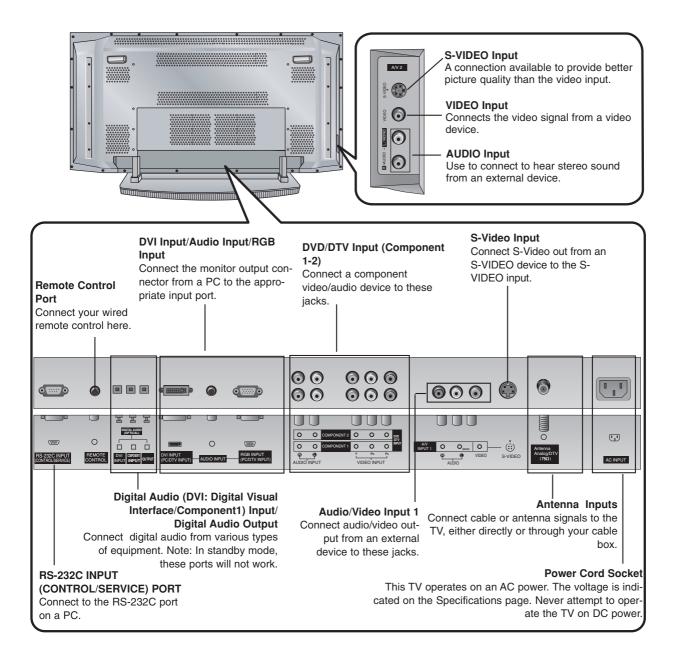


#### **Power Standby Indicator**

Illuminates red in standby mode, Illuminates green when the TV is turned on.

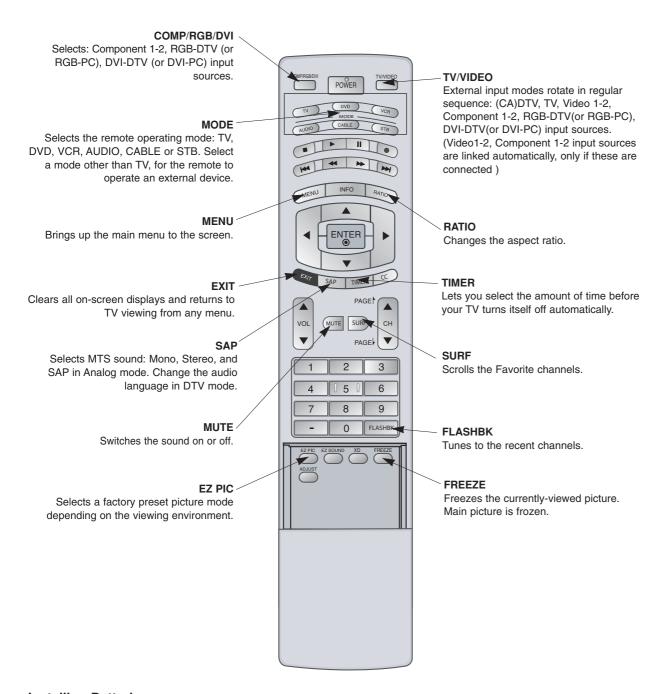
# **Connection Options**

#### **Back Connection Panel**



# **Remote Control Key Functions**

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

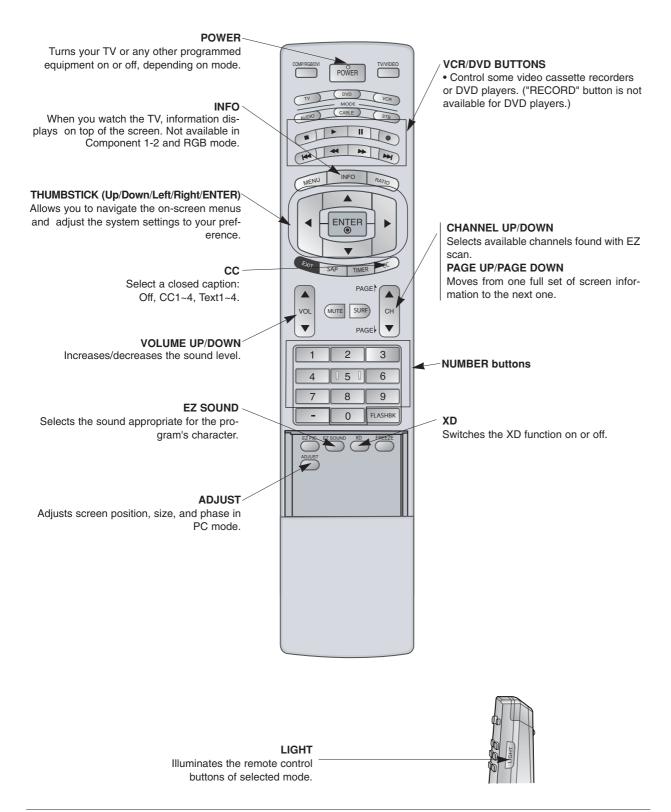


#### **Installing Batteries**

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

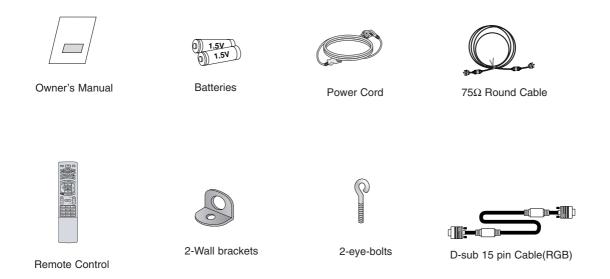


# **Remote Control Key Functions**



# Installation

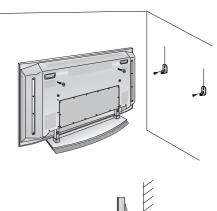
Ensure that the following accessories are included with your plasma display. If an accessory is missing, please contact the dealer where you purchased the product.



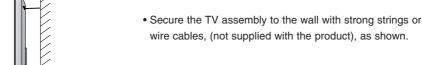
### Installation Instructions

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

- Secure the TV assembly by joining it to a wall by using the TV/Wall brackets.
- Here shown may be somewhat different from your TV.



- If the set will be mounted on a desk top, insert the 2 eyebolts and tighten them securely in the upper holes as shown.
  - Install the wall brackets on the wall with 2 bolts\*, (not supplied with the product), as shown.
  - Match the height of the eye-bolts and the wall brackets. Check to be sure the eye-bolts and the brackets are tightened securely.

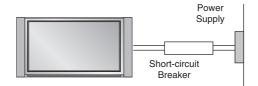


# **Installation Instructions**

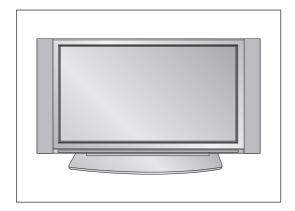
- The TV can be installed in various ways such as on a wall, or on a desktop etc.
- The TV is designed to be mounted horizontally.

#### **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.

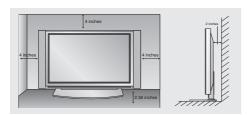


#### **Desktop Pedestal Installation**



For proper ventilation, allow a clearance of 4" on each side and the top, 2.36" on the bottom, and 2" from the wall.

Detailed installation instructions are included in the optional Desktop Stand Installation and Setup Guide available from your dealer.



#### To Install on a Desktop

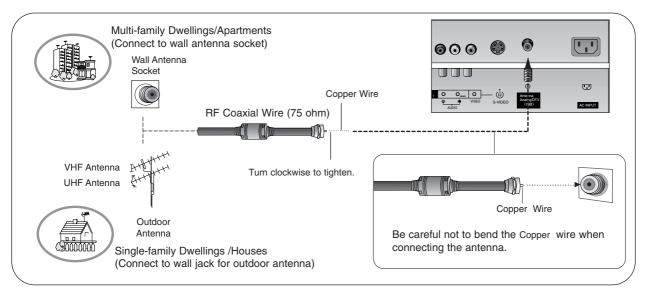
Pedestal mount minimum allowable clearances for adequate ventilation.

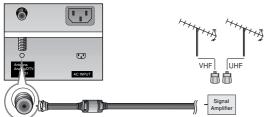
# External Equipment Connections

#### **Antenna Connection**

#### Analog and Digital TV signals provided on one antenna

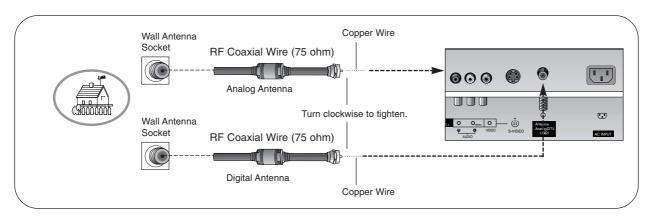
- Antenna or Cable Service without a Cable Box Connections
- For optimum picture quality, adjust antenna direction if needed.





- 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.

#### Analog and DTV signals provided on two separate antennas



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

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

#### VCR Setup

- To avoid picture noise (interference), leave an adequate distance between the VCR and TV
- Use the ISM Method (on the Option menu) feature to avoid having a fixed image remain on the screen for a long period of time.
   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.

#### **Connection Option 1**

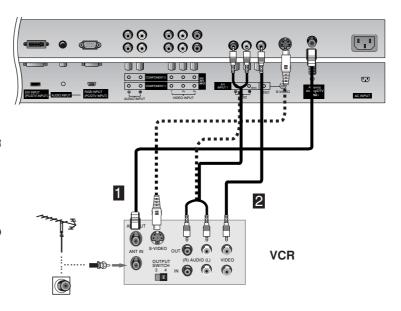
Set VCR output switch to 3 or 4 and then tune TV to the same channel number.

#### **Connection Option 2**

- Connect the audio and video cables from the VCR's output jacks to the TV input jacks, as shown in the figure.
  - When connecting the TV to a VCR, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
  - If you connect the S-VIDEO output from a VCR to the S-VIDEO input, the picture quality is improved; compared to connecting the Video input.
- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select the input source by using the TV/VIDEO button on the remote control. (If connected to A/V INPUT 1, select Video 1 input source)



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



#### Cable TV Setup

- After subscribing to a cable TV service from a local provider and installing a converter, you can watch cable TV programming. The TV cannot display TV programming unless a TV tuner device or cable TV converter box is connected to the TV.
- For further information regarding cable TV service, contact your local cable TV service provider(s).

#### **Connection Option 1**

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

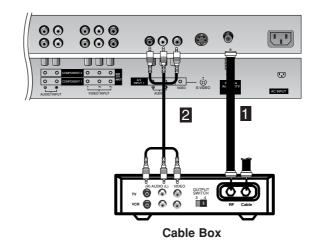
### **Connection Option 2**

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

  When connecting the TV to a Cable Box,

  Output

  Description:
  - match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).
- Select the input source by using the TV/VIDEO button on the remote control. (If connected to A/V INPUT 1, select Video 1 input source)
- 3. Select your desired channel with the remote control for cable box.



#### External A/V Source Setup

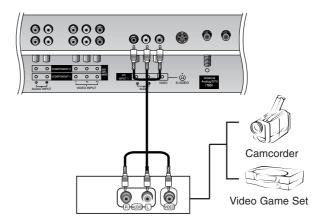
#### How to connect

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

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

#### How to use

- 1. Select the input source by using the TV/VIDEO button on the remote control. (If connected to A/V INPUT 1, select Video 1 input source).
- 2. Operate the corresponding external equipment. Refer to external equipment operating guide.



#### **DVD** Setup

#### How to connect

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

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

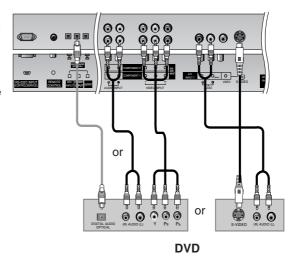
#### How to use

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

#### · Component Input ports

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

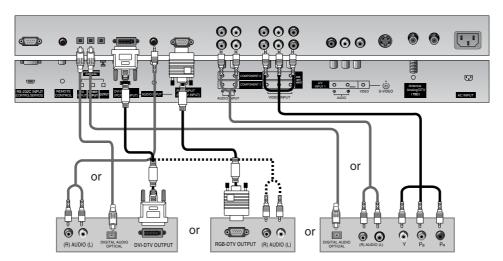
Component ports on the TV	Υ	Рв	PR
Video output ports on DVD player	Y Y Y	Pb B-Y Cb PB	Pr R-Y Cr PR



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

#### HDSTB Setup

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



**Digital Set-top Box** 

#### How to connect

Use the TV's COMPONENT (Y, PB, P $_{\rm R}$ ) INPUT, RGB or DVI jack for video connections, depending on your set-top box connector. Then, make the corresponding audio connections.

#### How to use

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

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

#### Digital Audio Output

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

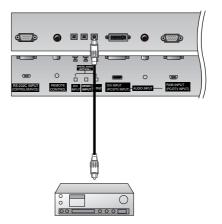
### How to connect

- Connect one end of an optical cable to the TV Digital Audio Optical Output port.
- 2. Connect the other end of the optical cable to the digital audio optical input on the audio equipment.

See the external audio equipment instruction manual for operation.



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

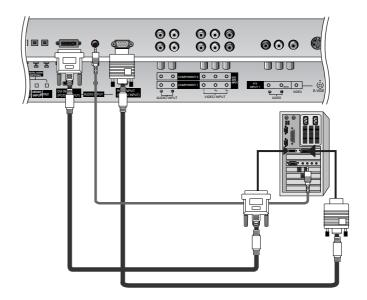


#### PC Setup

- This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings. The TV sends configuration information (EDID) to the PC using the Video Electronics Standard Association (VESA) Display Data Channel (DDC) protocol.
- The TV perceives 640x480, 60Hz as DTV 480p based on the PC graphic card, change the screen scanning rate for the graphic card accordingly.

#### How to connect

- 1. To get the best picture quality, adjust the PC graphics card to 1024x768, 60Hz.
- Use the TV's RGB INPUT or DVI (Digital Visual Interface) INPUT port for video connections, depending on your PC connector.
  - If the graphic card on the PC does not output analog and digital RGB simultaneously, connect only one of either RGB INPUT or DVI INPUT to display the PC on the TV.
  - If the graphic card on the PC does output analog and digital RGB simultaneously, set the TV to either RGB or DVI; (the other mode is set to Plug and Play automatically by the TV.)
- Then, make the corresponding audio connections. If using a sound card, adjust the PC sound as required.



#### How to use

- 1. Turn on the PC and the TV.
- 2. Turn on the display by pressing the POWER button on the TV's remote control.
- 3. Select RGB-PC or DVI-PC input source in main input option of SETUP menu. (Refer to P.21)
- 4. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in PC mode. If noise is present, change the PC mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
- NOTES: Depending on the graphics card, DOS mode may not work if you use a DVI-I cable.
  - 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. Use the Orbiter screen saver when possible.
  - The synchronization input form for Horizontal and Vertical frequencies is separate.

#### Monitor Display Specifications (RGB-PC / DVI-PC Mode)

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x350	31.468	70.09		35.156	56.25
640X330	37.861	85.08		37.879	60.31
700-400	31.469	70.08	800x600	48.077	72.18
720x400	37.927	85.03		46.875	75.00
	31.469	59.94		53.674	85.06
640x480	37.861	72.80		48.363	60.00
040X480	37.500	75.00	1024x768	56.476	70.06
	43.269	85.00		60.023	75.02

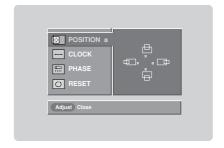
# Operation

# Screen Setup for PC mode

- Be sure to select the RGB-PC/RGB-DTV source before operation.
   (For RGB-DTV input source, Position and Reset are available.)
- In DVI-PC and DVI-DTV input source, settings are not adjustable.
- You can manually adjust picture position and minimize image shaking for the PC input source.

#### Adjustment for screen Position, Clock, and Phase

- Press the ADJUST button and then use D / E button to select POSITION, CLOCK, or PHASE.
- 2. Press the **ENTER** button and then use  $_D$  / $_E$  / $_F$  / $_G$  buttons to make appropriate adjustments.
  - The **PHASE** adjustment range is -16 ~ +16.
  - The **CLOCK** adjustment range is -30 ~ +30.
- 3. Press the **ENTER** button.



#### Initializing (Reset to original factory values)

- To initialize the adjusted values
- 1. Press the **ADJUST** button and then use  $_{D}$  / $_{E}$  button to select the **RESET** option.
- 2. Press the **ENTER** button and then use  $\mathbf{F} / \mathbf{G}$  button to select **Yes**.
- 3. Press the ENTER button.



#### XD

- XD is LG Electronics unique picture improving technology to display a real HD source through an advanced digital signal processing algorithm.
- 1. Press the **XD** button.
- 2. To return to normal viewing, press the  $\boldsymbol{XD}$  button again.



# Turning the TV On

#### Turning on the TV just after installation

- 1. Connect power cord correctly.
- 2. Press the  $\lozenge/|$  button on the TV. At this moment, the TV is switched to standby mode. Press the POWER button on the remote control and then the TV will switch on.

#### Turning on the TV (power cord is still connected)

- 1. If the TV was turned off with the 6/1 button on the TV
- Press the 🖖 button on the TV to turn the TV on.
- 2. If the TV was turned off with the remote control and then the 0/1 button on the TV
- Press the 0/1 button on the TV and then press the **POWER** button on the remote control to turn the TV on.

#### NOTE

- If you intend to be away on vacation, disconnect the power plug from the wall power outlet.
- \* In this manual, the OSD (On Screen Display) may be different from your TV's because it is just example to help the TV operation.



## On-screen Menus Language Selection

- The menus will be shown on the screen in the selected language. First select your language.
- 1. Press the MENU button and then use  $_{\mbox{\scriptsize D}}$   $\,$  /  $_{\mbox{\scriptsize E}}$   $\,$  button to select the  $\mbox{\scriptsize OPTION}$  menu.
- 2. Press the g button and then use D / E button to select **Language**.
- 3. Press the g button and then use D / E button to select your desired language. From this point on, the on-screen menus will be shown in the selected language.
- 4. Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.

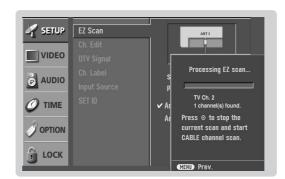


## **Setup Menu Options**

#### EZ Scan (Channel Search)

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





- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **SETUP** menu.
- 2. Press the g button and then use D / E button to select EZ Scan.
- 3. Press the g button and then use p / g button to select antenna input.
  - Analog/DTV Air:
  - Watching the Over-the-air, cable, and digital over-the-air signals via antenna input port
  - Analog/DTV Cable:
  - Watching the Over-the-air, cable, and digital cable signals via antenna input port
  - \* Cable Service Band Note: Select Std=Standard, HRC=HRC Band, or IRC=IRC Band. (For further band information, contact your cable service provider.)
- Press the ENTER button to begin the channel search.
   Allow EZ Scan to complete the channel search cycle for TV, CATV, and DTV/CADTV.

#### Channel Edit

- Create two different types of channel lists in memory: "Custom list" and "Surf" (Favorite) channel list" from the default channel list created from the EZ Scan channel search.
- A custom list can be created by toggling each channel on or off with ENTER button. Once a channel is highlighted, you will be able to see whether the channel is currently added or deleted by referring to the small window at the top-left corner of the screen. You can create your own Surf channel list with up to 10 channels. It appears at the bottom-left corner of the screen. Use the SURF button on the remote control when a channel is highlighted, to add or delete the channel from the Surf channel list.
- You can create your SURF channel list from the channel list memorized from EZ Scan.
- CATV is available for 1-135 channel.



- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **SETUP** menu.
- 2. Press the g button and then use D / E button to select **Ch. Edit**.
- 3. Press the a button. You will now see a screen filled with channel numbers and a preview picture.
- 4. Use D /E /F /G button to select a channel and then use the **ENTER** button to add or delete it. Press **SURF** to add the channel to the Surf List.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.



#### DTV Signal Strength

- Reveals how strong your DTV signal is and whether you need to adjust your antenna or digital cable input. The higher the signal strength, the less likely you are to experience picture degradation.
- Digital DTV Signals: May not be available in all areas, nor are broadcast on all programs.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **SETUP** menu.
- 2. Press the g button and then use D / E button to select **DTV Signal**.
- 3. View the on-screen signal strength monitor to see the quality of the signal being received.
- Press the EXIT button to return to TV viewing or press MENU button to return to the previous menu.



#### Channel Label Setup

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





- 1. Press the **MENU** button and then use D / E button to select the **SETUP** menu.
- 2. Press the g button and then use D / E button to select **Ch. Label**.
- 3. Press the g button. You will now see a screen filled with Labels and a preview screen.
- 4. Use the CHp /B button to select a channel to Label.
- 5. Use D /E /F /G button to select the appropriate label for the channel, then press the **ENTER** button to set the Label to the selected channel.
- 6. Press the **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

#### Input Source

- Change the picture source so you can watch your TV, cable TV, VCR, DVD, or any other devices that are connected to your TV.
- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **SETUP** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **Input Source**.
- Press the g button and then use D / B button to select the source: DTV, Analog, Video1, Video2, Component1, Component2, RGB-DTV (or RGB-PC), DVI-DTV (or DVI-PC).
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.

#### Note:

• To toggle RGB-DTV and RGB-PC, select RGB-DTV(or RGB-PC) and press a



# **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 Off.
- Day Light, Normal, Night Time, Movie, Video Game, and Sports settings are preset for optimum picture quality at the factory and are not adjustable.
- Press the EZ PIC button repeatedly to select the picture appearance setup option as shown below:
   Off (your own settings), Day Light, Normal, Night Time, Movie, Video Game, and Sports.
  - You can also use the VIDEO menu to adjust EZ Picture.
- 2. Press the **EXIT** button to save and return to TV viewing.

#### Manual Picture Control (Off option)

- Adjust the picture appearance to suit your preference and viewing situations.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **VIDEO** menu.
- 2. Press the  $_{\tt G}$  button and then use  $_{\tt D}$  / $_{\tt E}$  button to select the desired picture option (Contrast, Brightness, Color, Sharpness, or Tint).
- 3. Press the g button and then use  $\mathbf{F}$  / g button to make appropriate adjustments.
- 4. Press the **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. Select warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.
- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **VIDEO** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **Color Temperature** .
- 3. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select either **Warm**, **Medium**, or **Cool**.
- Press the EXIT button to return to TV viewing or press MENU button to return to the previous menu.



#### Video Preset

- Use to quickly reset all the Video menu options to their original factory preset values.
- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **VIDEO** menu.
- 2. Press the g button and then use p / g button to select **Video Preset**.
- 3. Press the g 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  $_{D}$  / $_{E}$  button to select the **AUDIO** menu.
- 2. Press the g button and then use p / g button to select **Audio Language**.
- 3. Press the g button and then use D / E button to select: English, Spanish, or French.
- 4. Press the EXIT button to return to TV viewing or press MENU button to return to the previous menu.



#### EZ SoundRite

- Scans for changes in sound level during commercials, then adjusts the sound to match the specified audio level. SoundRite makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **AUDIO** menu.
- 2. Press the g button and then use D / E button to select **EZ SoundRite**.
- 3. Press the g button and then use p / g button to select **On** or **Off**.
- 4. Press the **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 Off.
- Normal, Stadium, Theater, and Music 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: Off (your own settings), Normal, Stadium, Theater, and Music.
- You can also adjust EZ Sound in the AUDIO menu.
- 2. Press the **EXIT** button to save and return to TV viewing.

# **Audio Menu Options**

#### Manual Sound Control (Off option)

- Adjust the sound to suit your taste and room situations.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **AUDIO** menu.
- Press the g button and then use D /E button to select the desired sound option (Balance, Treble, or Bass).
- 3. Press the g button and then use F / g button to make appropriate adjustments.
- Press the EXIT button to return to TV viewing or press MENU button to return to the previous menu.



#### 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.
- Stereo or SAP can be received only when the TV station transmits those signals even though you have selected Stereo or SAP.
- 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.
- Use the SAP button to select your desired MTS mode in analog signal. Each time you press the SAP button, Mono, Stereo, or SAP appear in turn.
  - If other languages available on the digital signal, select them with the SAP button.
- 2. Press EXIT button to save and return to TV viewing.

#### Front Surround

- **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  $_{D}$  / $_{E}$  button to select the **AUDIO** menu.
- 2. Press the g button and then use D / E button to select **Front Surround**.
- Press the g button and then use D / E button to select Off, 3D EchoSound System or SRS (Sound Retrieval System) TruSurround XT.

#### • 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 into stereo sound.

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



#### 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  $_{D}$  / $_{E}$  button to select the **AUDIO** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt p}$  /  ${\tt E}$  button to select **TV Speaker**.
- 3. Press the  ${\tt G}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **On** or **Off**.
- 4. Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



#### BBE

- BBE High Definition Sound restores clarity and presence for better speech intelligibility and music realism.
- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **AUDIO** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **BBE**.
- 3. Press the g button and then use p / g button to select **On** or **Off**.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.



# **Time Menu Options**

#### Auto Clock Setup

- The time is set automatically from a digital channel signal.
- The digital channel signal includes information for the current time provided by the broadcasting station.
- Set the clock manually, if the current time is set incorrectly by the auto clock function.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **TIME** menu.
- 2. Press the g button and then use D / E button to select Auto Clock.
- 3. Press the g button and then use D / E button to select **On**.
- Press the g button and then use D / B button to select your viewing area time zone: Eastern, Central, Mountain, Pacific, Alaska, or Hawaii.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.



#### Manual Clock Setup

- If current time setting is wrong, reset the clock manually.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **TIME** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt p}$  /  ${\tt g}$  button to select **Manual Clock**.
- Press the g button and then use F / G button to select either the year, date, or time option. Once selected, use the D / E button to set the year, date, and time options.
- 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  $_{D}$   $_{/E}$  button to select the **TIME** menu.
- 2. Press the G button and then use D / E button to select **Off Timer** or **On Timer**.
- 3. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select  ${\tt On}$ .
  - To cancel On/Off timer function, select Off.
- 4. Press the  ${\tt G}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to set the hour.
- 5. Press the g button and then use D / E button to set the minutes.
- 6. For only On timer function
  - Press the  ${\tt g}$  button and then use  ${\tt D}$  / ${\tt E}$  button to select the channel at turn-on. Press the  ${\tt g}$  button and then use  ${\tt D}$  / ${\tt E}$  button to set the sound level at turn-on.
- 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.
- 2. When the number of minutes you want is displayed on the screen, press the **ENTER** button. The timer begins to count down from the number of minutes selected.
- 3. To check the remaining minutes before the TV turns off, press the TIMER button once.
- 4. To cancel the Sleep Timer, press the TIMER button repeatedly to select Off.

#### Auto Off

- If set to on and there is no input signal, the TV turns off vertically after 10 minutes.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **TIME** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **Auto Off**.
- 3. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select  ${\tt On}$  or  ${\tt Off}$ .
- 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)/DVI-DTV (720p/1080i)/DTV(720p/1080i) input source.
- RGB-PC/DVI-PC input source use 4:3 or 16:9 aspect ratio.
- Note: If a fixed image is displayed on the screen for a long time, that fixed image may become imprinted on the screen and remain visible
- 1. Press the RATIO button repeatedly to select the desired picture format.

You can also adjust Aspect Ratio in the OPTION menu.

#### Set By Program

Selects the proper picture proportion to match the source's image. (4:3  $\rightarrow$  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 black 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 spectacular 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 D / E button. The adjustment range is 1~16.

#### Caption

- 1. Use the CC button repeatedly to select Caption Off, or On.
- You can also use the **OPTION** menu to select **Caption**.
- 2. Press the EXIT button to save and return to TV viewing.



#### Caption Mode

#### **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 usually the program's dialog.
- Text displays information, usually at the bottom position and is used for a data service, generally not program related.
- Caption/Text, if provided by the broadcaster, would be available for both digital and analog channels on the Antenna source.
- This TV is programmed to remember the caption/text mode it was last set to, when you turn the power off.
- 1. Press the MENU button and then use  $_{D}$  /  $_{E}$  button to select the **OPTION** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt p}$  /  ${\tt E}$  button to select **Caption Mode**.
- 3. Press the g button and then use D / E button to select caption: CC1, CC2, CC3, CC4, Text1, Text2, Text3, or Text4.

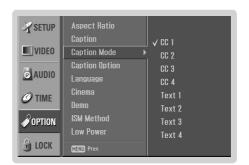
#### • CAPTION

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 the **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.
- Languages can be chosen for digital sources only if they are included on the program.
- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **OPTION** menu.
- 2. Press the g button and then use D / E button to select Caption Mode.
- 3. Press the g button and then use D / E button to select available caption languages: English, Spanish, or French.
- 4. Press the EXIT button to return to TV viewing or press MENU button to return to the previous menu.



# **Option Menu Features**

- Customize the DTV/CADTV captions that appear on your screen.
- 1. Press the **MENU** button and then use  $_{D}$   $_{/\,E}$  button to select the **OPTION** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **Caption Option**.
- 3. Press the g button and then use F / g button to select **Custom**.
- Use D / E 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.



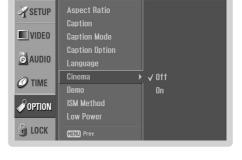
#### Cinema Mode Setup

- 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.
- 1. Press the **MENU** button and then use  $_{D}$  /  $_{E}$  button to select the **OPTION** menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt p}$  /  ${\tt g}$  button to select **Cinema**.
- 3. Press the G button and then use D / E button to select **On** or **Off**.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.

Note: This feature operates only in 480i mode.

#### Demo

- **EZ Demo** Use to scan the features and menu options available on your TV.
- XD Demo Use to see the difference between XD Demo On and XD Demo Off.
- 1. Press the MENU button and then use  $_{\textbf{D}}$   $_{/\,\textbf{E}}$   $\,$  button to select the OPTION menu.
- 2. Press the  ${\tt g}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **Demo**.
- 3. Press the G button and then use D / E button to select **EZ Demo** or **XD Demo**.
- Press the g button to start EZ Demo or XD Demo. Press EXIT button to stop EZ Demo or XD Demo.





#### ISM (Image Sticking Minimization) Method

- A frozen still picture from a PC/video game displayed on the screen for prolonged periods will result in an ghost image remaining; even when you change the image. Avoid allowing any fixed image to remain on the TV's screen for a long period of time.
- 1. Press the **MENU** button and then use  $\mathbf{p}_{-}/\mathbf{g}_{-}$  button to select the **OPTION** menu.
- 2. Press the  ${\tt G}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **ISM Method**.
- 3. Press the g button and then use D /E button to select either **Normal**, **Orbiter**, Inversion, or White Wash.

If image sticking is never a problem, ISM is not necessary - set to Normal. When image is stopped, screen light automatically get dark to prevent ghost images, and image is appeared, screen light get bright, automatically.

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 minute: Right ightarrow Right ightarrow Downside ightarrowDownside  $\rightarrow$  Left  $\rightarrow$  Left  $\rightarrow$  Upside  $\rightarrow$  Upside.

#### Inversion

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

#### White Wash

White Wash remove s 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.

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

#### **SETUP** Caption Mode Caption Option **■** VIDEO **AUDIO √** Normal **O** TIME ISM Method OPTION Low Powe White Wash 🔒 LOCK

#### Low Power

- Low power reduces the plasma display's power consumption.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **OPTION** menu.
- 2. Press the g button and then use D / E button to select **Low Power**.
- 3. Press the G button and then use D / E button to select **On** or **Off**.
  - If you select **On**, the screen darkens.
- 4. Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.



## **Lock Menu Options**

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

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

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

#### V-Chip rating and categories

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

#### Ratings for Movies previously shown in theaters:

#### Movie Ratings:

Blocking Off(Permits all programs)G(General audience)

PG (Parental guidance suggested)PG-13 (Parents strongly cautioned)

• R (Restricted)

• NC-17 (No one 17 and under admitted)

• X (Adult only)

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

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

• TV-G (General audience)

TV-PG (Parental guidance suggested)
 TV-14 (Parents strongly cautioned)
 TV-MA (Mature audience only)

• TV-Y (All children)

• TV-Y7 (Children 7 years older)

### TV Rating Children:

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

#### TV Rating General:

Age (applies to TV-G, TV-PG, TV-14, TV-MA)

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

#### Aux. Block

Video 1, 2 (On, Off)
 Component 1, 2 (On, Off)
 RGB, DVI (On, Off)

#### Parental Lock Setup

- Lets you set up blocking schemes to block specific channels, ratings, and external viewing sources.
- A password is required to gain access to this menu.
- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **LOCK** menu. Then, press the  $_{G}$  button
  - Enter the password as requested.
  - The TV is set up with the initial password "7-7-7-7".
- 2. Use the  $_{\rm D}$  / $_{\rm E}$  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 Ch.: Blocks any channels that you do not want to watch or that you do not want your children to watch.
  - 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.
  - Aux. Block: Enables you to select a source to block from the external source devices you have hooked up.
- Press EXIT button to return to TV viewing or press MENU button to return to the previous menu.

#### Note

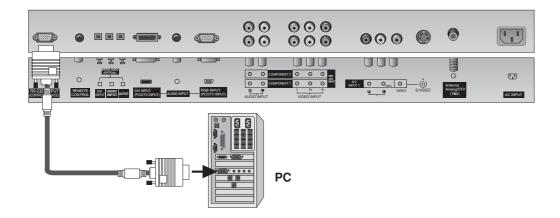
• If you ever forget your password, key in '7', '7', '7', '7' on the remote control.



# **External Control Device Setup**

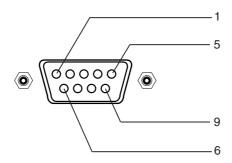
- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the TV's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the Monitor back panel.
- RS-232C connection cables are not supplied with the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

#### RS-232C Setup



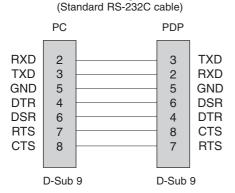
#### Type of Connector; D-Sub 9-Pin Male

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

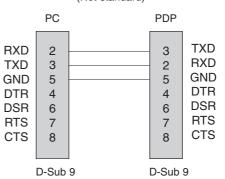


#### **RS-232C Configurations**

7-Wire Configurations



# 3-Wire Configurations (Not standard)



#### Set ID

Use this function to specify a monitor ID number. Refer to 'Real Data Mapping'. See page 36.

- 1. Press the **MENU** button and then use  $_{D}$  / $_{E}$  button to select the **SETUP** menu.
- 2. Press the  ${\tt G}$  button and then use  ${\tt D}$  /  ${\tt E}$  button to select **SET ID**.
- Press the g button and then use D /E button to adjust SET ID to choose the desired monitor 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.



#### Communication Parameters

• Baud rate: 9600 bps (UART)

Data length: 8 bitsParity: None

\* Use a crossed (reverse) cable.

• Stop bit : 1 bit

• Communication code : ASCII code

#### Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	а	0 ~ 1
02. Input Select	k	b	0 ~ 9
03. Aspect Ratio	k	С	1 ~ 1F
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	1	0 ~ 1
13. Key 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 Temperatur	re k	u	0 ~ 2
18. ISM Method	j	р	0 ~ 8
19. Orbiter Time Sett	ing j	r	1 ~ 64
20. Orbiter Pixel Sett	ing j	S	0 ~A

#### Transmission / Receiving Protocol

#### **Transmission**

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

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

  Transmit 'FF' data to read status of command.
- \* [Cr]: Carriage Return ASCII code '0x0D'
- \* [ ]: ASCII code 'space (0x20)'

#### OK Acknowledgement

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

\* The TV 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 TV 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-	COM-	DATA 0	DATA 1	DATA 2	DATA 3	DATA 4	DATA 5
	MAND 1	MAND 2	(Hexadecimal)	(Hexadecimal)	(Hexadecimal) (	Hexadecimal)	(Hexadecimal)	(Hexadecimal)
21. Channel Tuning	g m	а	01 ~ 87	00	00 ~ 87	00 ~ 3	00 ~ FF	*
22. Channel Add/D	el m	b	00 ~ 01					
23. Key	m	С						

#### 01. Power (Command:a)

G To control Power On/Off of the TV.

#### Transmission

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

Data 0 : Power Off 1 : Power On

**Acknowledgement** 

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

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

#### 02. Input Select (Command:b) (Main Picture Input)

G To select input source for the TV.

#### Transmission

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

Data 0: DTV 5: Component 2
1: Analog 6: RGB-DTV
2: Video 1 7: RGB-PC
3: Video 2 8: DVI-DTV
4: Component 1 9: DVI-PC

#### **Acknowledgement**

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

#### 03. Aspect Ratio (Command:c) (Main picture format)

G To adjust the screen format.

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

#### Transmission

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

Data 1: Normal screen (4:3) 6: Auto (Set by program)
2: Wide screen (16:9) 10: Cinema Zoom (1)
3: Horizon 1A: Cinema Zoom (11)
4: Zoom 1 1F: Cinema Zoom (16)

**Acknowledgement** 

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

#### 04. Screen Mute (Command:d)

G 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)

<u>Acknowledgement</u>

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

#### 05. Volume Mute (Command:e)

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

#### **Transmission**

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

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

#### <u>Acknowledgement</u>

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

#### 06. Volume Control (Command:f)

G 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 (Command:g)

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 (Command:h)

G 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)

: ' `

64 : Step 100

#### 09. Color (Command:i)

G 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 36.

<u>Acknowledgement</u>

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

#### 10. Tint (Command:j)

G 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 36.

<u>Acknowledgement</u>

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

#### 11. Sharpness (Command:k)

G 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 36.

**Acknowledgement** 

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

#### 12. OSD Select (Command:I)

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

Transmission

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

Data 0: OSD off 1: OSD on

<u>Acknowledgement</u>

[I][ ][Set ID][ ][OK][Data][x]

#### 13. Remote Control Lock Mode (Command:m)

G 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

<u>Acknowledgement</u>

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

#### 14. Treble (Command:r)

G 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 36.

<u>Acknowledgement</u>

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

#### 15. Bass (Command:s)

G 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 36.

<u>Acknowledgement</u>

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

#### 16. Balance (Command:t)

G 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 36.

<u>Acknowledgement</u>

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

#### 17. Color Temperature (Command:u)

G 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

<u>Acknowledgement</u>

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

#### 18. ISM Method (Command:p)

G To avoid having a fixed image remain on screen.

**Transmission** 

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

Data 1: Inversion

4: White Wash

2: Orbiter 8: Normal

**Acknowledgement** 

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

#### 19. Orbiter Time Setting (Command:r)

G To adjust orbiter operation time term.

Transmission

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

Data Min: 1 ~ Max: FE

• Refer to 'Real data mapping'. See page 36.

<u>Acknowledgement</u>

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

#### 20. Orbiter Pixel Setting (Command:s)

G To adjust pixel number in orbiter function.

**Transmission** 

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

Data Min: 1 ~ Max: 9

<u>Acknowledgement</u>

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

#### 21. Channel Tuning (Command: m a)

G 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

\* Data 1: High byte Data 2: Low byte

Data 3, Data 4: Minor channel number

\* Data 3: High byte Data 4: Low byte

Data 5: Attribute

\* (0: NTSC Air, 1:NTSC Cable, 2: ATSC air, 3: ATSC cable\_STD, 4: ATSC cable\_HRC, 5: ATSC cable\_IRC)

**Acknowledgement** 

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

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

G 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]

#### 23. Key (Command: m c)

 ${\tt G}\,$  To send IR remote key code

Transmission

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

Data Key code: Refer to page 40.

<u>Acknowledgement</u>

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

\* It's impossible to command the IR Code 0x08 and 0xC4 with RS-232C.

## **IR Codes**

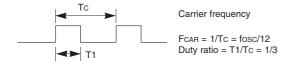
#### How to Connect

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

#### Remote Control IR Codes

#### **G** Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz

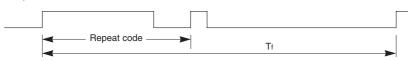


#### **G** Configuration of frame

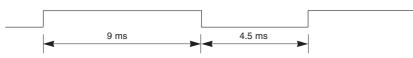
#### • 1st frame

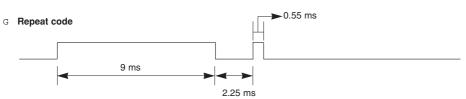
Lea cod		Low custom code					High custom code						Data code					Data code														
	C0	C1	C2	СЗ	C4	C5	C6	C7	C0	C1	C2	СЗ	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7

#### • Repeat frame



#### G Lead code





#### **G** Bit description



#### G Frame interval: Tf

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





Code (Hexa)	Function	Note
0B	TV/VIDEO	R/C Button
98	COMP/RGB/DVI	R/C Button
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 D	R/C Button
03	VOL <sub>E</sub>	R/C Button
00	CH <sub>D</sub>	R/C Button
01	CH E	R/C Button
1E	SURF	R/C Button
AA	INFO	R/C Button
39	CC	R/C Button
40	D	R/C Button
41	Е	R/C Button
07	F	R/C Button
06	G	R/C Button
44	ENTER	R/C Button
43	MENU	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
92	XD	R/C Button
D6	TV	Discrete IR Code (TV Input Selection)
5A	VIDEO 1	Discrete IR Code (Video1 Input Selection)
D0	VIDEO 2	Discrete IR Code (Video2 Input Selection)
BF	COMPONENT 1	Discrete IR Code (Component1 Input Selection)
D4	COMPONENT 2	Discrete IR Code (Component2 Input Selection)
D5	RGB-PC	Discrete IR Code (RGB-PC Input Selection)
D7	RGB-DTV	Discrete IR Code (RGB-DTV Input Selection)
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**

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

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

#### Programming a code into a remote mode

- 1. Test your remote control.
  - To find out whether your remote control can operate the component without programming, turn on the component such as a VCR and press the corresponding **MODE** button (VCR) on the remote control, while pointing at the component.
- 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, the remote control is ready to be programmed for the code.
- 4. Enter a code number using the number buttons on the remote. 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.
- 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		067 071 101		067		
	048 050 055 060	PILOT	101	SYMPHONIC	034		
	130 150 152	PIONEER	013 021 048	TANDY	010 034		

### CATV

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		

### HDSTB

Brand	Codes	Brand Codes		Brand	Codes	Brand	Codes
ALPHASTAR DSR	123	133 13	34	PACE SKY SATELLITE	143		088 090 107 130
AMPLICA	050	GENERAL INSTRUMENT 003 00	04 016 029	PANASONIC	060 142		137
BIRDVIEW	051 126 129	031 05	9 101	PANSAT	121	TOSHIBA	002 127
CHANNEL MASTER	013 014 015 018	HITACHI 139 14	10	PERSONAL CABLE	117	UNIDEN	016 025 042 043
	036 055	HOUSTON TRACKER 033 03	87 039 051	PHILIPS	071		044 045 048 049
CHAPARRAL	008 009 012 077	057 10	)4	PICO	105		078 079 080 086
CITOH	054	HUGHES 068		PRESIDENT	019 102		101 135 136
CURTIS MATHES	050 145	JANIEL 060 14	17	PRIMESTAR	030 110 111	VIEWSTAR	115
DRAKE	005 006 007 010	JERROLD 061		PROSAT	072	WINEGARD	128 146
	011 052 112 116	KATHREIN 108		RCA	066 106	ZENITH	081 082 083 084
	141	LEGEND 057		REALISTIC	043 074		091 120
DX ANTENNA	024 046 056 076	LG 001		SAMSUNG	123		
ECHOSTAR	038 040 057 058	LUTRON 132		SATELLITE SERVICE CO	028 035 047 057		
	093 094 095 096	LUXOR 062 14	14		085		
	097 098 099 100	MACOM 010 05	9 063 064	SCIENTIFIC ATLANTA	032 138		
	122	065		SONY	103		
ELECTRO HOME	089	MEMOREX 057		STARCAST	041		
EUROPLUS	114	NEXTWAVE 028 12	24 125	SUPER GUIDE	020 124 125		
FUJITSU	017 021 022 027	NORSAT 069 07	70	TEECOM	023 026 075 087		

### Audio

Brand	Cod	es			Brand	Code	s			Brand	Coc	es			Brand	Cod	les	
AIWA	014	028	070	096	JVC	004	013	141		PHILIPS	026	112	143			147	218	
	125	129	139	229	KEC	185	186	187		PIONEER	039	042	043	063	TOSHIBA	137		
	230				KENWOOD	038	050	067	089		065	091	093	094	THE	061		
AKAI	163					170	171	197	206		115	123	127	250	VICTOR	088	131	
ANAM	003	014	017	023		215	222			QUASAR	113				WARDS	089		
	059	106	189	216	KOHEL	030				RCA	080				YAMAHA	054	055	066 093
	217	235	236		NAD	045	046			RCX	092					199		
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	037	058	062	069	NAD	046					076	077	105	161				
	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				
	157	158	159	160	OPTIMUS	158												
	189	207	222	224	PANASONIC	007	033	064	113	TEAC	010	085	106	136				
	225	226	227	243		142	220	241	251		185	187	237					
	247				PENNEY	104				TECHNICS	101	113	128	134				

### DVD

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

## **Troubleshooting Checklist**

No picture &	<ul><li>Check whether the TV is turned on.</li><li>Is the power cord inserted into wall power outlet?</li></ul>
No sound	Test the wall power outlet, plug another product's power cord into the outlet where the TV's power cord was plugged in.
Picture OK &	• Press the <b>VOLUME</b> ( <sub>p</sub> ) button.
No sound	Sound muted? Press MUTE button.
	Check to see if there is any object between the TV and the remote control causing obstruction.
The remote control doesn't work	<ul> <li>Are batteries installed with correct polarity (+ to +, - to -)?</li> <li>(Refer to p.9)</li> </ul>
docon't work	Correct remote operating mode set: TV, VCR etc.?
	Install new batteries. (Refer to p.9)
Picture appears slowly after switching on	This is normal, the image is muted during the TV startup process. Please contact your service center, if the picture has not appeared after five minutes.
	Select <b>Color</b> in the <b>Video</b> menu and press the <sub>G</sub> button.  (Refer to p.22)
No or poor color	
No or poor color or poor picture	(Refer to p.22)
	<ul> <li>(Refer to p.22)</li> <li>Keep a sufficient distance between the TV and the VCR.</li> <li>Activate any function to restore the brightness of the picture.</li> </ul>
or poor picture  Horizontal/vertical bars	<ul> <li>(Refer to p.22)</li> <li>Keep a sufficient distance between the TV and the VCR.</li> <li>Activate any function to restore the brightness of the picture.</li> <li>(If still picture is on the screen for more than 5 minutes, the screen gets dark.)</li> </ul>

## **Maintenance**

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

#### Cleaning the Screen

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

#### Cleaning the Cabinet

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

#### **Extended Absence**



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

# **Product Specifications**

MODELS	42PX3DBV-UC / 42PX3DLV-UC
Width (inches / mm)	47.6 / 1210
Height (inches / mm)	27.6 / 701
Depth (inches / mm)	11.6 / 295
Weight (pounds / kg)	66.1 / 30
Resolution	852 x 480 (Dot)
Power requirement	AC100-240V ~ 50/60Hz
Television System	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 Range	32 ~ 104°F (0 ~ 40°C)
Operating Humidity Range	Less than 80%

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



## LG ELECTRONICS, INC. PLASMA TV U.S. LIMITED WARRANTY

Your LG Plasma TV will be repaired or replaced in accordance with the terms of this warranty, at LGE s option, if it proves to be defective in material or workmanship under normal use, during the warranty period (Warranty Period) listed below, effective from the date (Date of Purchase) of original consumer purchase of the product. This warranty is good only to the original purchaser of the product and effective only when used in the United States, including Alaska, Hawaii, and U.S. Territories.

#### WARRANTY PERIOD:

LABOR and PARTS: 2 YEARS from the Date of Purchase. Your unit will be repaired or replaced with a new, substitute model or factory reconditioned unit, at LGE s option. If repaired, parts used in the repair may be new or remanufactured.

Replacement Units and Repair Parts are warranted for the remaining portion of the original units warranty period.

EFFECTIVE DATE OF WARRANTY: Your warranty period begins on the date of sale to the original consumer/end user.

KEEP THE DEALER S DATED BILL OF SALE OR PROOF OF

DELIVERY as evidence of the purchase date. You will be required to submit a legible copy of your bill of sale or proof of delivery when requesting warranty service.

#### HOW SERVICE IS HANDLED:

In-Home Service: Please retain dealers dated bill of sale or delivery ticket as evidence of the Date of Purchase for proof of warranty, and submit a copy of the bill of sale to the service person at the time warranty service is provided.

Please call 1-800-243-0000 to locate your nearest LGE Authorized Service Center.

Visit our website at: http://www.lgservice.com

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT ANY IMPLIED WARRANTY IS REQUIRED BY LAW, IT IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD ABOVE. NEITHER THE MANUFACTURER NOR ITS U.S. DISTRIBUTOR SHALL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST OR CORRUPTED PROGRAMMING OR DATA, OR ANY OTHER DAMAGE WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

CONCERNING PIXEL FUNCTIONALITY: Your Plasma TV contains about one million individual pixels. Plasma TV typically contain a small number of pixels that do not function normally. Your display has been inspected and is in compliance with manufacturers specifications, indicating that any pixel defects do not effect the operation or use of your display.

IMPORTANT: Please fill out and mail in your Product Registration Card or go to www.lgservice.com to register your product online. This information will allow us to reach you promptly should we discover a safety or reliability problem that could affect you.

- damage caused in shipping or transit
- service required as a result of improper installation, including incorrect or insufficient AC supply (please consult the owners manual for power supply requirements)
- installation or repair of antenna systems, cable converters, cable company supplied equipment, or other components in a video system
- set-up or adjustment on consumer controls, or damage caused by improper adjustments
- damage caused by other system components
- any panel that has been modified or incorporated into any other product
- replacement of batteries on the remote control.
- damage (including cosmetic damage), failure, loss or personal injury due to misuse, abuse, negli-

- gence, improper maintenance or storage, or to acts of nature or other causes beyond our control. (Causes beyond our control include but are not limited to lightning strike, power surges, power outages and water damage.)
- image burn-in
- repair or replacement of warranted parts by other than LGE authorized service centers.
- units purchased or serviced outside of the coverage
- product where the original factory serial numbers have been removed, defaced or changed in any
- product sold and labeled as as is, where is or similar disclaimer.

The cost of repair or replacement under these excluded circumstances shall be borne by the consumer.

#### CUSTOMER INTERACTIVE CENTER NUMBERS:

To obtain customer assistance, product information or Dealer or Service locations

Call 1-800-243-0000 24 hours a day, 365 days per year

#### FOR SERVICE:

Before you call for warranty service, check your operating guide - you may avoid a service call. For warranty service information, please contact the LGE Customer Interactive Center telephone number.

When calling for service, please have your product model number, serial number and the date of purchase or the date of original installation available.

If a replacement unit is required, under some circumstances you may be asked to provide a reserve deposit to the LGE Service Center against a credit card number as surety for advanced shipment. Your credit card will not be charged if you return the defective unit within 10 working days.

If a replacement unit is received, please use the carton and packaging from that unit in returning the defective unit to the LG Brand Service Center.

Parts and service in accordance with the LGE warranty are LGE s responsibility and will be provided without charge. Other service requirements will be at the owner s expense. If you have problems in obtaining satisfactory warranty service, write or call the LGE Customer Interactive Center. Service may be provided by independently owned and operated service organizations.

To assure proper credit and avoid unnecessary charges, you must obtain an LGE Return Authorization before returning any product to the LGE Service Center. Contact the Customer Interactive Center for details.

TO CONTACT THE LGE CUSTOMER SERVICE CENTER BY MAIL: LGE Customer Interactive Center P.O. Box 240007

201 James Record Road Huntsville, Alabama 35824 http://www.lgservice.com

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