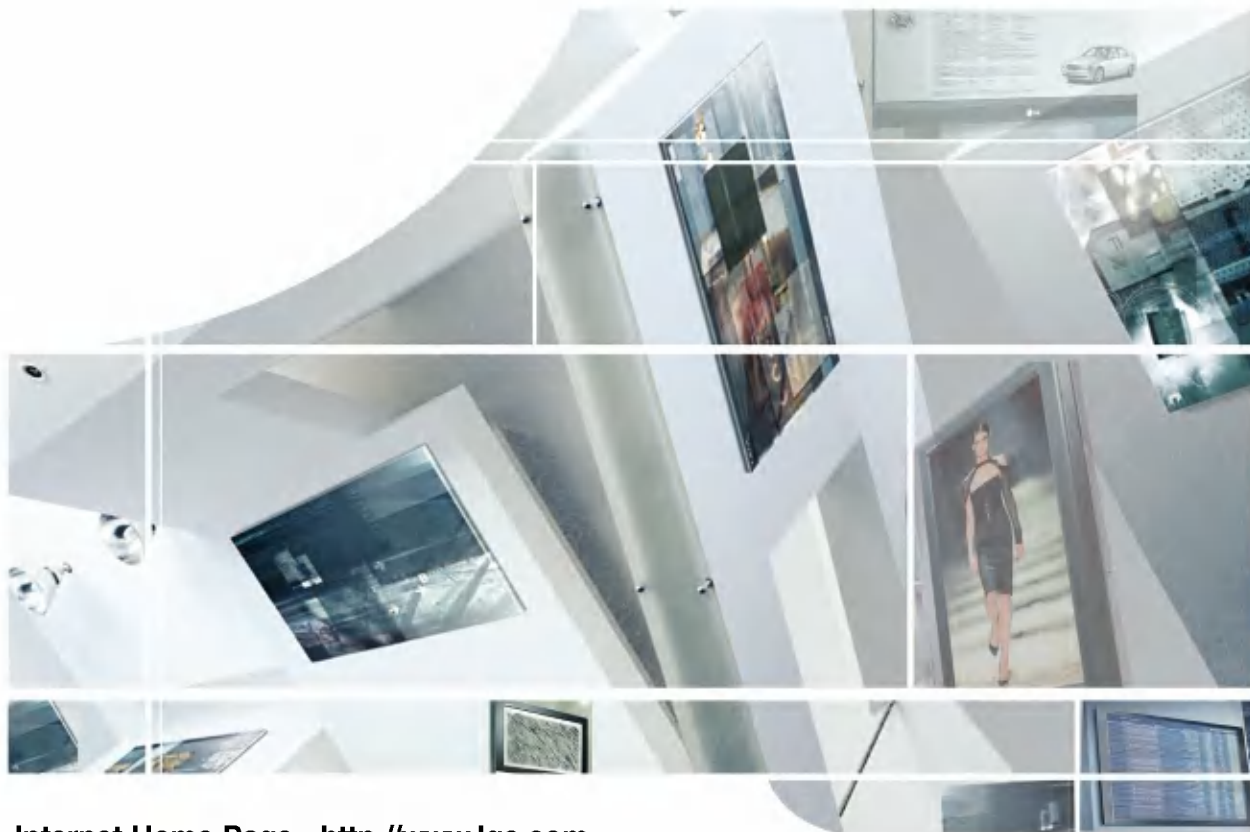




# LCD TV

## OWNER'S MANUAL

MODELS: 26LX2R ■ 32LX2R



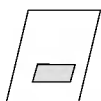
Internet Home Page : <http://www.lge.com>  
<http://www.lge.com.br>

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 : 38289U0498D (0512-REV01)  
Printed in Korea

## Accessories

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



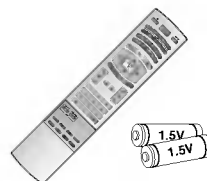
Owner's Manual



Twister Holder  
Arrange the wires  
with the twister holder.



Polishing Cloth  
Polish the screen with the cloth.



Remote Control /  
AA Batteries



Power Cord



DVI-D Cable



D sub to DVI Cable



PC Sound Cable



2-TV Bracket Bolts



2-TV Brackets, 2-Wall Bracket



- If the TV feels cold to the touch, there may be a small “flicker” when turned on. This is normal, there is nothing wrong with TV.
- Some dot defects may appear on the screen, like red, green or blue spots. However, this will 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.

# Safety Instructions

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

**CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER(OR BACK). NO USER-SERVICEABLE PARTS IN SIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

## Cleaning

Unplug this television receiver from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Do not use attachments not recommended by the television receiver manufacturer as they may cause hazards.

## Power Supply

This television receiver should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company.

## Installation

Do not use this television receiver near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.

Do not place this television receiver on an unstable cart, stand, or table. The television receiver may fall, causing serious injury to a child or an adult, and serious damage to the appliance.

Use only with a cart or stand recommended by the manufacturer, or sold with the television receiver. Wall or shelf mounting should follow the manufacturer's instructions and should use a mounting kit approved by the manufacturer.

Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver, and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the

television receiver on a bed, sofa, rug, or other similar surface. This television receiver should not be placed in a builtin installation such as a bookcase unless proper ventilation is provided.

It is recommended not to operate this unit near speakers or big metallic furnitures in order to keep their magnetism from disturbing colors purity (uniformity) on the screen.

## Use

Do not allow anything to rest on the power cord. Do not locate this television receiver where the cord will be abused by persons walking on it.

Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Never push objects of any kind into this television receiver through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock.

Never spill liquid of any kind on the television receiver.

## Service

Do not attempt to service this television yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.

## Writing Model And Serial Numbers

The serial number and model number are found on the back of this unit. The serial number is unique to this unit. You should record requested information here and retain this guide as a permanent record of your purchase. Please retain your purchase receipt as your proof of purchase.

Date of Purchase \_\_\_\_\_

Dealer Purchased from \_\_\_\_\_

Dealer Address \_\_\_\_\_

Dealer Phone No. \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

# Contents

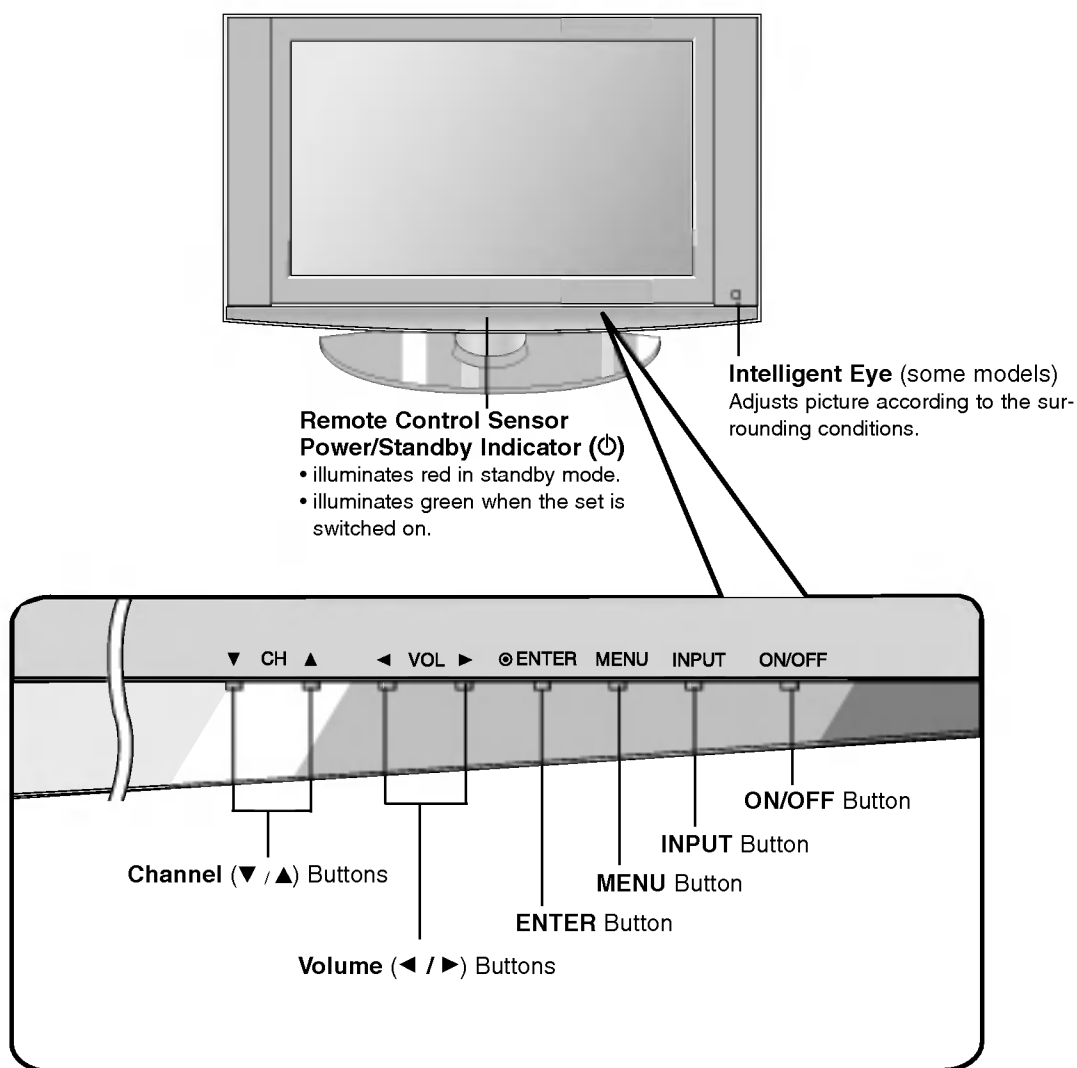
|              |                                |             |                                                                          |
|--------------|--------------------------------|-------------|--------------------------------------------------------------------------|
| Introduction |                                | <b>2</b>    | <b>Accessories</b>                                                       |
|              |                                | <b>3</b>    | <b>Safety Instructions</b>                                               |
|              |                                | <b>6</b>    | <b>Controls</b>                                                          |
|              |                                | <b>7</b>    | <b>Connection Options (Model: 32LX2R)</b>                                |
|              |                                | <b>8</b>    | <b>Connection Options (Model:26LX2R)</b>                                 |
| Installation |                                | <b>9~11</b> | <b>Remote Control Key Functions</b>                                      |
|              | Installation Instruction       | 12          | Various Installation                                                     |
|              |                                | 13          | How to use back cover                                                    |
|              | External Equipment Connections | 13          | Swivel Stand                                                             |
|              |                                | 14          | How to join the product assembly to the wall to protect the set tumbling |
|              |                                | 15          | Antenna Connection                                                       |
|              |                                | 15          | Headphone Socket                                                         |
|              |                                | 16~17       | VCR Setup                                                                |
|              |                                | 17          | External AV Source Setup                                                 |
|              |                                | 18~19       | DVD Setup                                                                |
|              |                                | 20          | Cable TV Setup                                                           |
|              |                                | 21          | Monitor Out Setup                                                        |
|              |                                | 21          | External Stereo                                                          |
|              |                                | 22~23       | STB Setup                                                                |
|              |                                | 24~25       | PC Setup                                                                 |
|              |                                | 26          | Power Cord Connection                                                    |
| Operation    | Basic operation                | 27          | Turning on the TV                                                        |
|              |                                | 27          | Volume Adjustment                                                        |
|              |                                | 27          | Channel Selection                                                        |
|              |                                | 27          | Menu Language Selection                                                  |
|              |                                | 28          | How to adjust the OSD screen                                             |
|              | Channel Menu Options           | 29          | Auto Program: Channel Search                                             |
|              |                                | 29          | Manual Program: Adding/Deleting Channels                                 |
|              |                                | 30          | Fine Tuning Adjustment                                                   |
|              |                                | 30          | Favorite Channels Setup                                                  |
|              |                                | 30          | System Color (some models)                                               |
|              | Picture Menu Options           | 31          | EZ PICTURE                                                               |
|              |                                | 31          | XD                                                                       |
|              |                                | 32          | Color Temperature Control                                                |
|              |                                | 33          | ACM (Active Color Management)                                            |
|              |                                | 33          | sRGB (DVI PC or HDMI PC mode only)                                       |
|              | Sound Menu Options             | 34          | Manual Picture Control (EZ Picture set to User option)                   |
|              |                                | 35          | EZ SOUND                                                                 |
|              |                                | 35          | SRS WOW                                                                  |
|              |                                | 36          | AVL (Auto Volume Leveler)                                                |
|              |                                | 36          | Manual Sound Control                                                     |
|              | Timer Menu Options             | 37          | TV Speakers Setup                                                        |
|              |                                | 37          | Stereo/SAP Broadcasts Setup                                              |
|              |                                | 38          | Clock Setup                                                              |
|              |                                | 38          | On/Off Timer Setup                                                       |
|              |                                | 39          | Auto Off                                                                 |
|              |                                | 39          | Sleep Timer                                                              |

|           |                                                    |       |                                                                     |
|-----------|----------------------------------------------------|-------|---------------------------------------------------------------------|
| Operation | Special Menu Options                               | 40    | Key Lock                                                            |
|           |                                                    | 40    | XD Demo                                                             |
|           |                                                    | 41    | Closed Captions                                                     |
|           |                                                    | 41    | Caption/Text                                                        |
|           |                                                    | 42    | Front Light                                                         |
|           | Screen Menu Options                                | 43    | Auto Adjustment (DVI PC (RGB), Analogue PC mode only)               |
|           |                                                    | 43    | Manual Configure                                                    |
|           |                                                    | 44    | Selecting XGA mode (DVI PC (RGB) and XGA/WXGA (60Hz) mode only)     |
|           |                                                    | 44    | Setting Picture Format                                              |
|           |                                                    | 45    | Picture Size Zoom                                                   |
|           |                                                    | 45    | Screen Position                                                     |
|           |                                                    | 46    | Cinema Mode Setup (TV, Video, S-Video and Component 480i mode only) |
|           |                                                    | 46    | NR (Noise Reduction)                                                |
|           |                                                    | 47    | Reset to original factory value (Initializing)                      |
|           | PIP (Picture-In-Picture) / DW (Double Window) Menu | 48    | Watching PIP/POP/Double Window                                      |
|           |                                                    | 48    | Selecting an Input Signal Source for PIP/Double Window              |
|           |                                                    | 49    | PIP Size                                                            |
|           |                                                    | 49    | Moving the PIP (PIP Mode only)                                      |
|           |                                                    | 50    | PIP Transparency                                                    |
| Reference |                                                    | 50    | TV Program Selection for PIP                                        |
|           |                                                    | 51    | Swapping the PIP/Double Window                                      |
|           |                                                    | 52~55 | External Control Device Setup                                       |
|           |                                                    | 56~57 | IR Codes                                                            |
|           |                                                    | 58    | Programming the Remote                                              |
|           |                                                    | 59~60 | Programming Codes                                                   |
|           |                                                    | 61~62 | Troubleshooting Checklist                                           |
|           |                                                    | 63    | Product Specifications                                              |

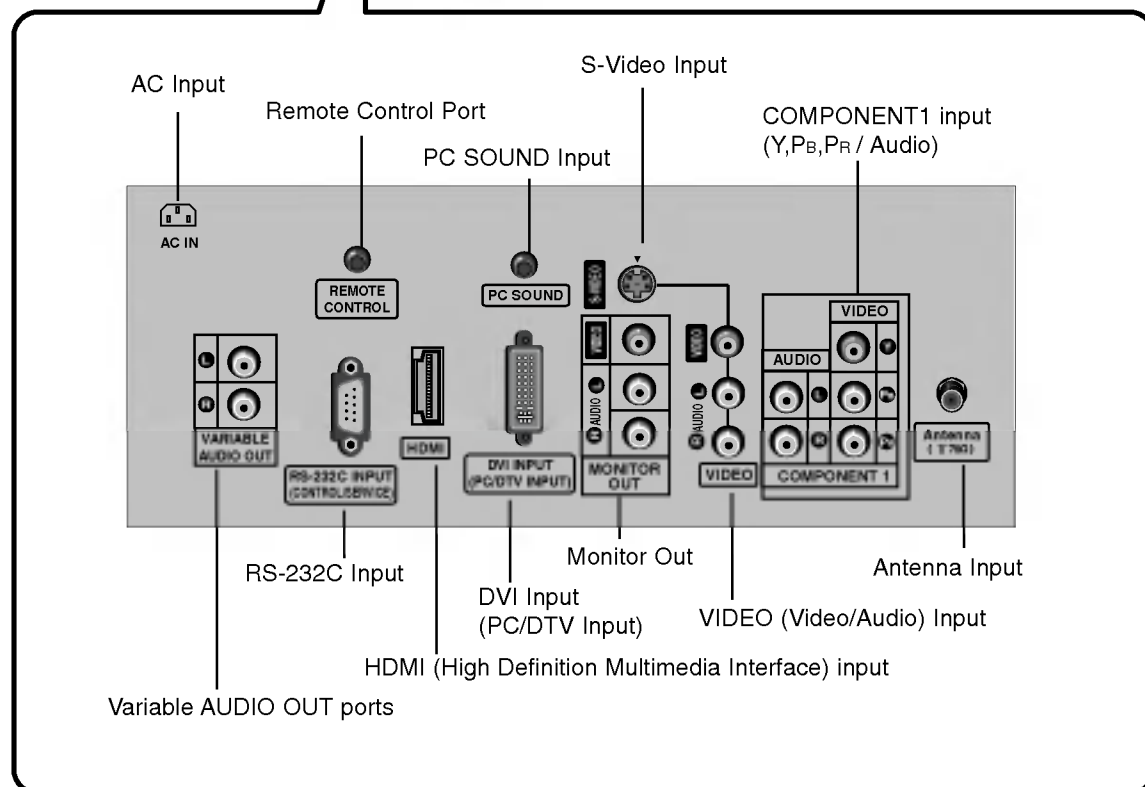
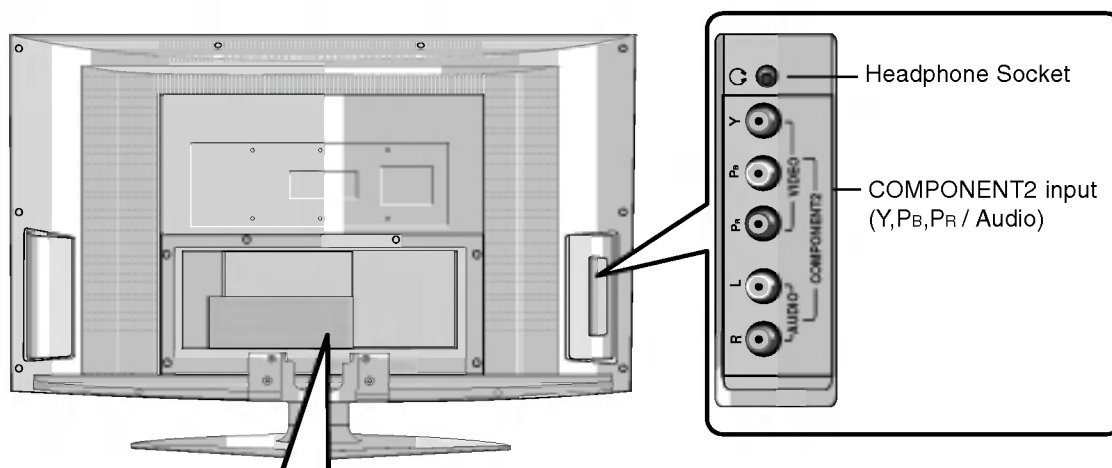
# Introduction

## Controls

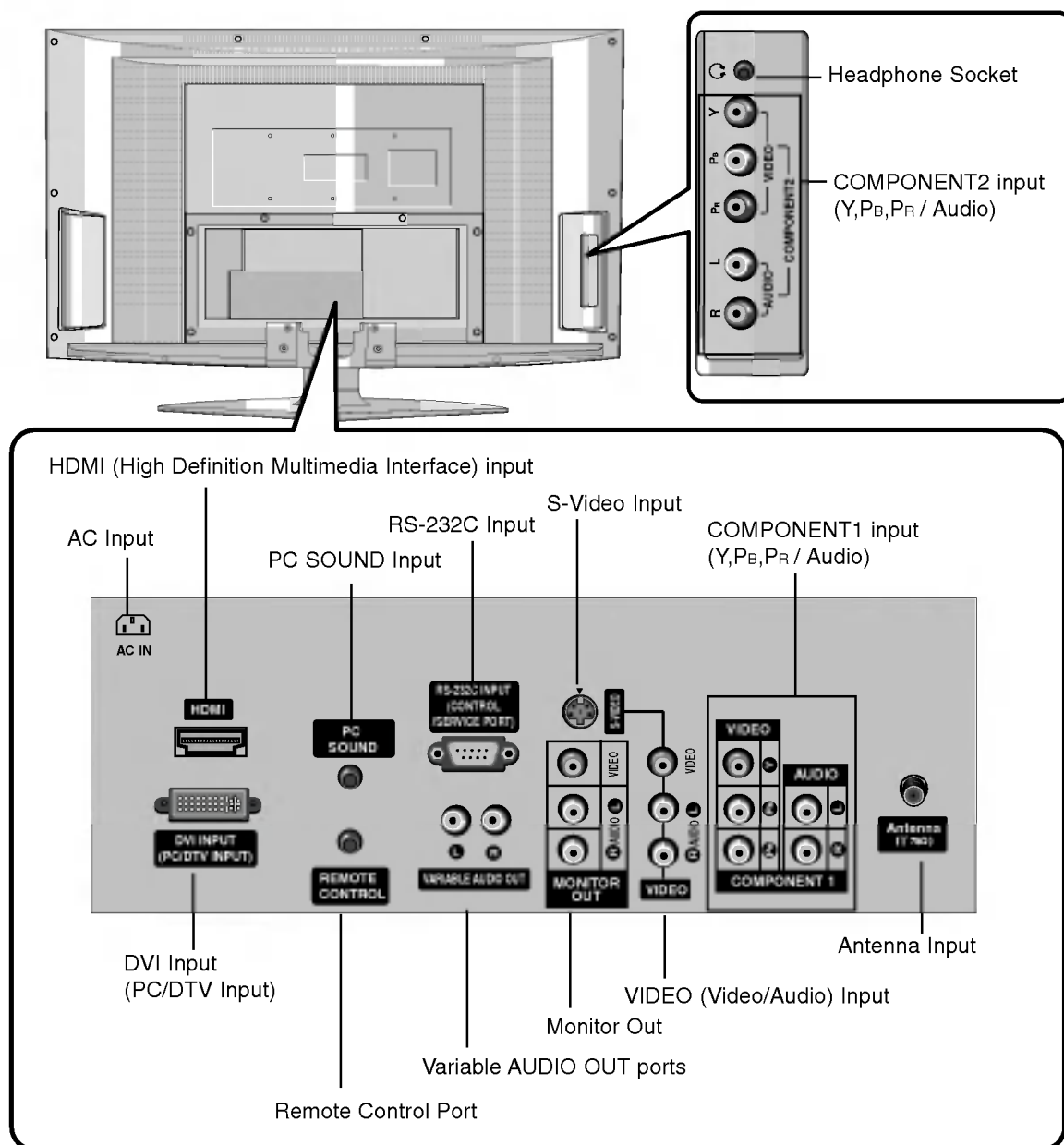
- This is a simplified representation of front panel.
- Here shown may be somewhat different from your TV.



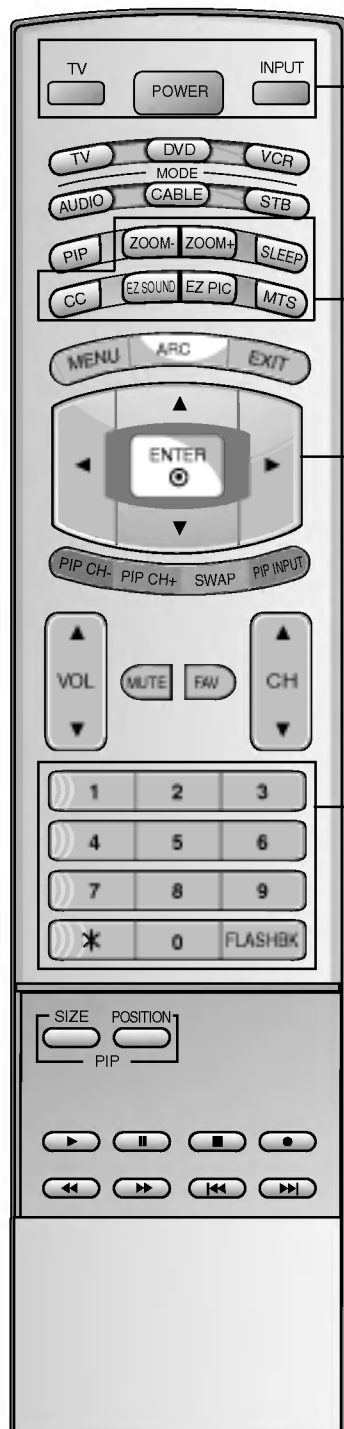
## Connection Options (Model: 32LX2R)



## Connection Options (Model:26LX2R)



# Remote Control Key Functions



## POWER

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

## TV

Returns to TV viewing from any mode.

## INPUT



If you press the button once, the input source OSD will appear on screen as shown. Press the **▲ / ▼** button and then **ENTER** button to select the desired input source (**TV**, **Video**, **S-Video**, **Component1**, **Component2**, **DVI PC/DVI DTV**, or **HDMI PC/HDMI DTV**).

## ZOOM+/ZOOM- (Refer to p.45)

Enlarges or reduces the main picture size.

## SLEEP (Refer to p.39)

Sets the sleep timer.

## CC (Refer to p.41)

Selects CAPTION mode.

## EZ SOUND (Refer to p.35)

Selects the sound appropriate for the program's character.

## EZ PIC (Refer to p.31)

Adjusts the factory preset picture according to the room.

## MTS (Refer to p.37)

Selects the MTS sound: Mono, Stereo, or SAP.

## THUMBSTICK (Up/Down/Left/Right/ENTER)

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

## NUMBER BUTTONS

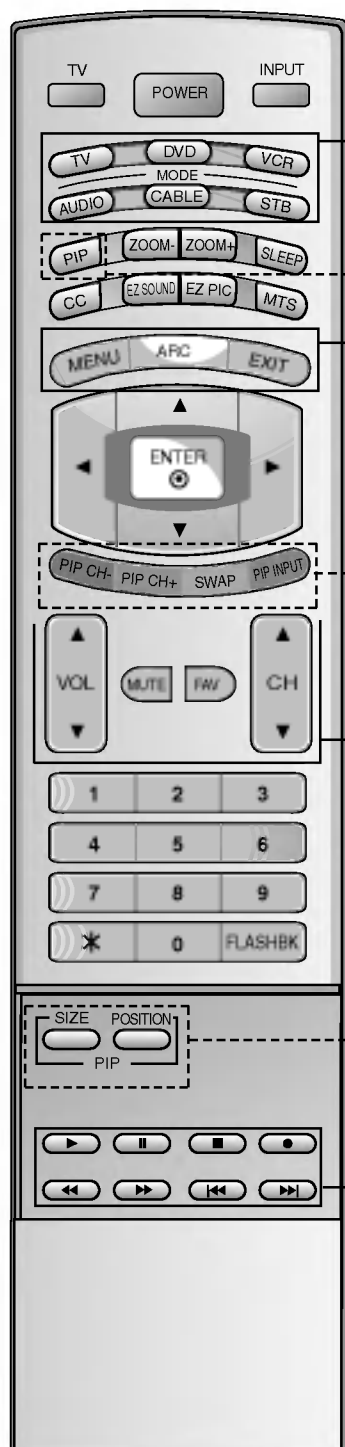
### FLASHBK

Returns to the last channel viewed.

### \*

No function.

## Remote Control Key Functions



### MODE

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

### MENU

Brings up the main menu to the screen.

### ARC (Refer to p.44)

Changes the aspect ratio.

### EXIT

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

### PIP (Refer to p.48)

Switches between PIP, POP (Picture-out-of-Picture) and Double window modes.

### PIP CH-/PIP CH+ (Refer to p.50)

Changes to next higher/lower PIP channel.

### PIP INPUT (Refer to p.48)

Selects the input source for the sub picture in PIP/Double window mode.

### SWAP (Refer to p.51)

Exchanges the main/sub images in PIP/Double window mode.

### SIZE (Refer to p.49)

Adjusts the sub picture size.

### POSITION (Refer to p.49)

Moves the sub picture in pip mode.

### VOLUME UP/DOWN

Increases/decreases the sound level.

### CHANNEL UP/DOWN

Selects available channels found with Automatic program and Manual program.

### MUTE

Switches the sound on or off.

### FAV

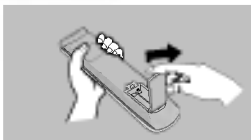
Use to scroll the Favorite channels.

### VCR/DVD BUTTONS

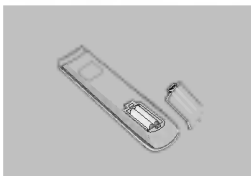
Control some video cassette recorders or DVD players ("RECORD" button is not available for DVD player).

### Installing Batteries

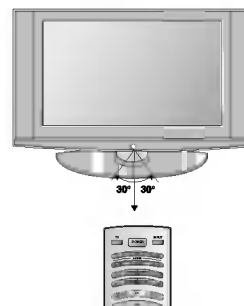
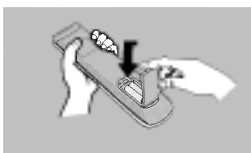
- 1** Open the battery compartment cover on the back side.



- 2** Insert two 1.5V AA 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 environment.

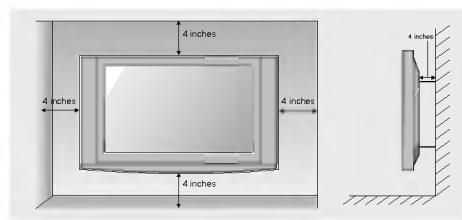
# Installation

## Various Installation

### Wall Mount installation



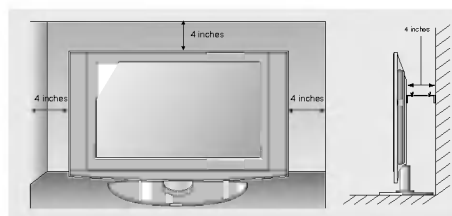
For proper ventilation, allow a clearance of 4" on each side and from the wall. Detailed installation instructions are available from your dealer, see the optional Tilt Wall Mounting Bracket Installation and Setup Guide.



### Desktop Pedestal Installation

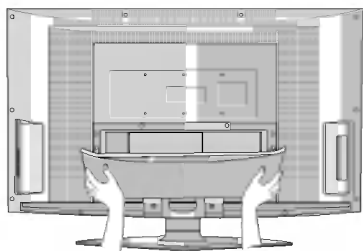


For proper ventilation, allow a clearance of 4" on each side and from the wall.

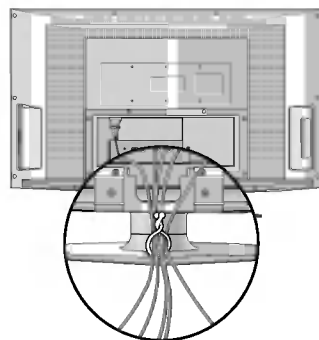


### How to use back cover

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

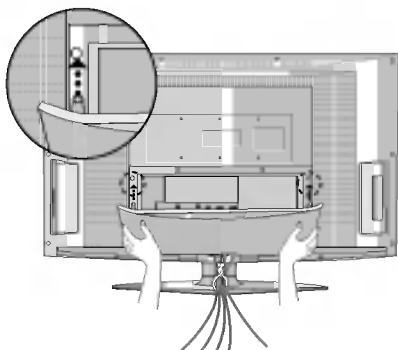


- 2** Install wires as necessary.  
(To install various wires, refer to p.15~26.)

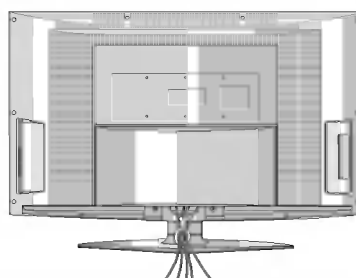


\* Arrange the signal input cable and the power cord by holder, as shown.

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



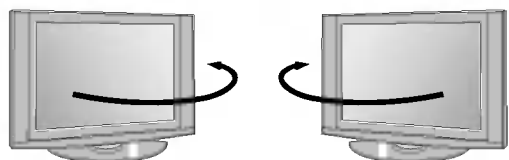
- 4** Reinstall the cover.



#### Wire Arrangement

- Pull the cables through the hole on the set.

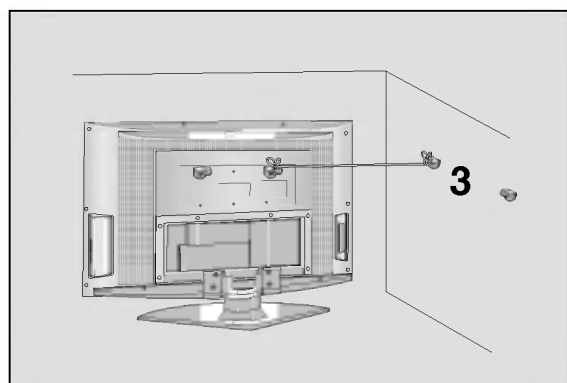
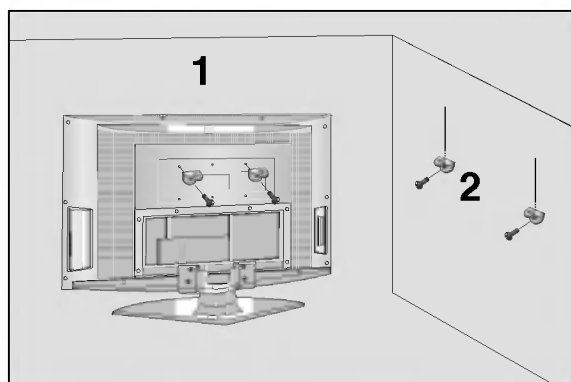
### Swivel Stand



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

### 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 hurting people. It will also prevent the product from damage caused by fall. Please make sure that children don't climb on or hang from the product.



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

#### Notes

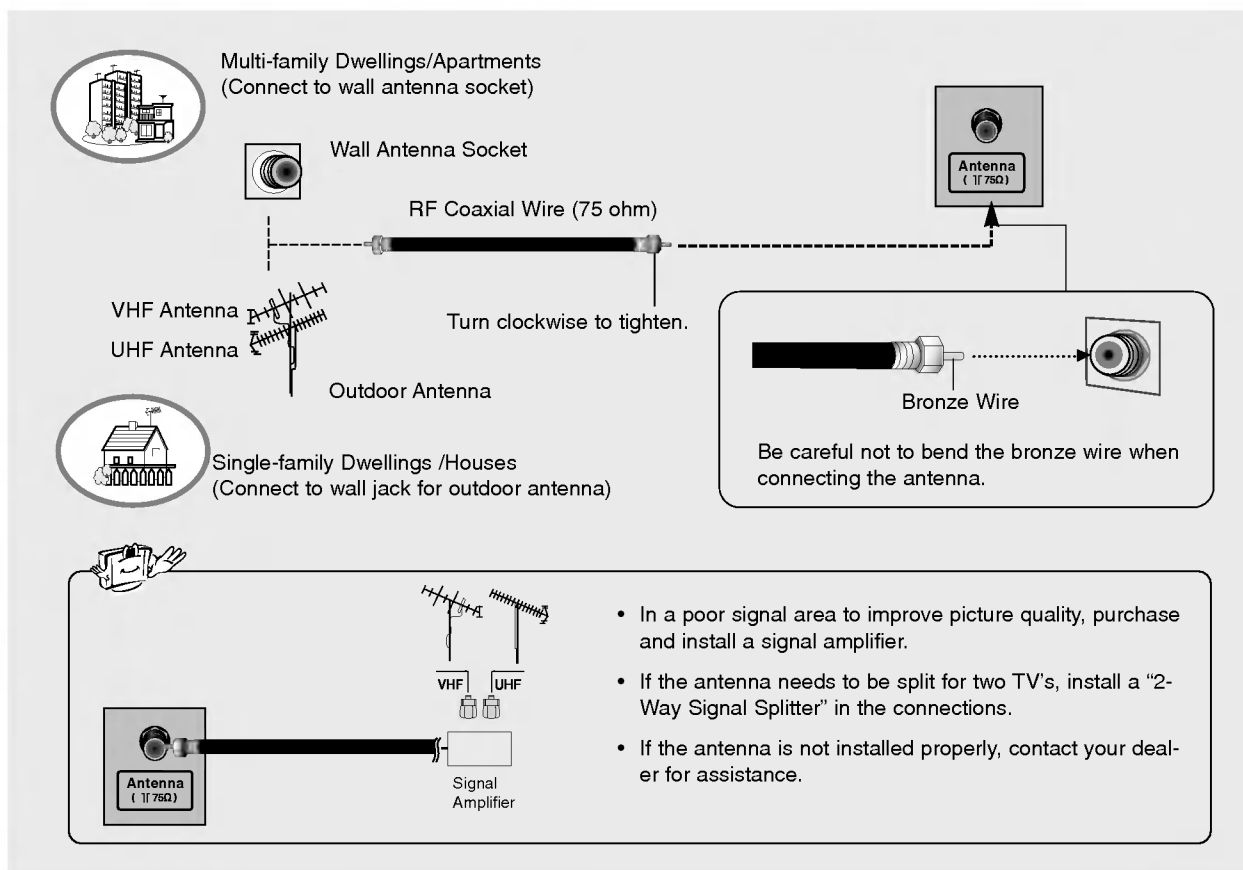
- When moving the product to another place undo the ropes first.
- Use a product holder or a cabinet that is big and strong enough for the size and weight of the product.
- To use the product safely make sure that the height of the bracket that is mounted on the wall is same as that of the product.

# External Equipment Connections

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

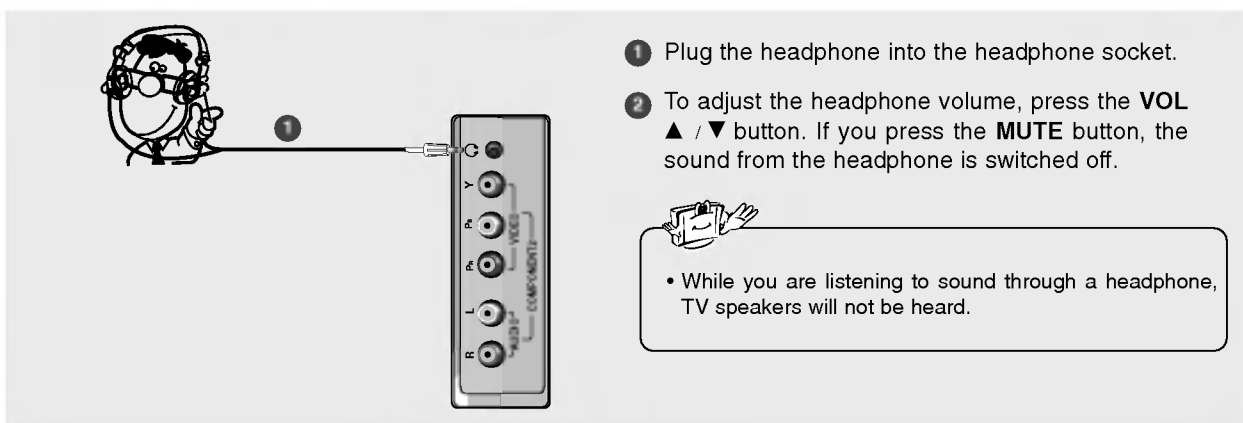
## Antenna Connection

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



## Headphone Socket

- You can listen to the sound through the headphone.

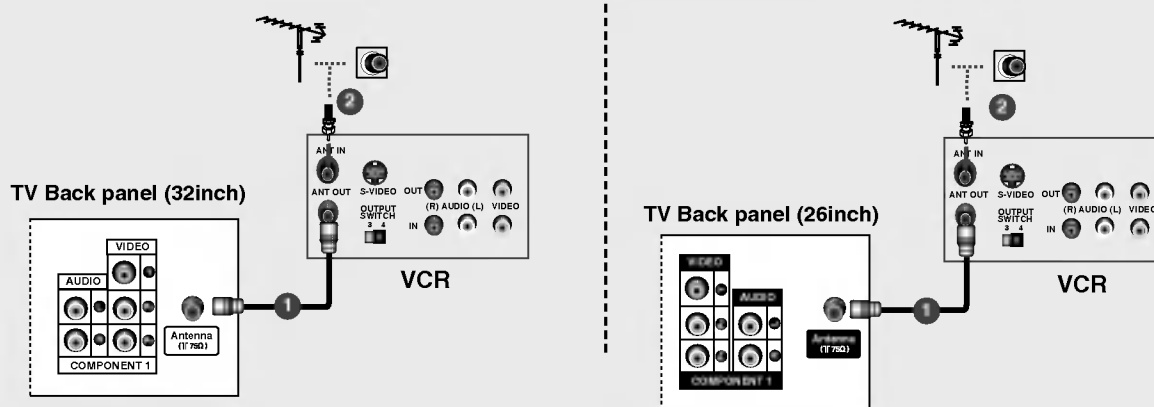


**NOTE: All cables shown are not included with the TV.**

## VCR Setup

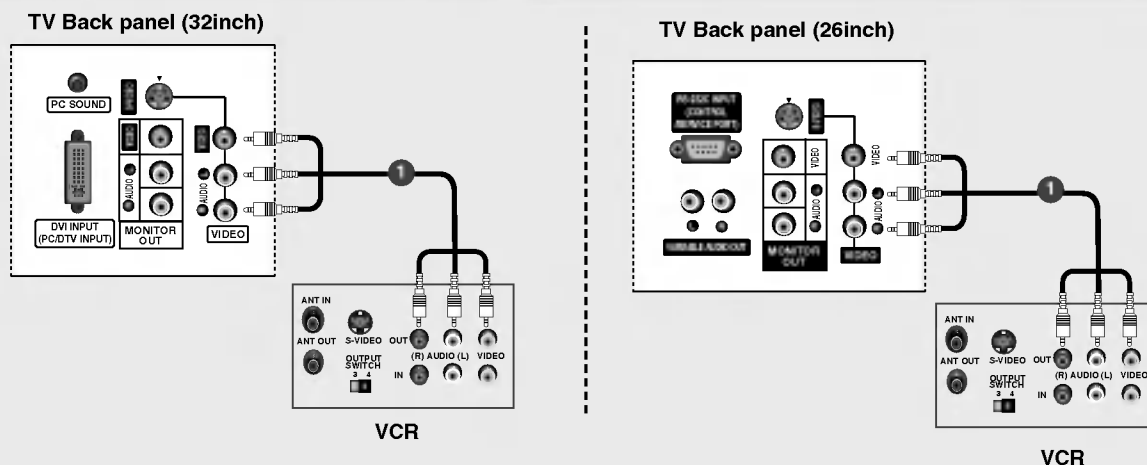
- To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
- Typically a frozen still picture from a VCR. If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen.

### When connecting with an antenna cable



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

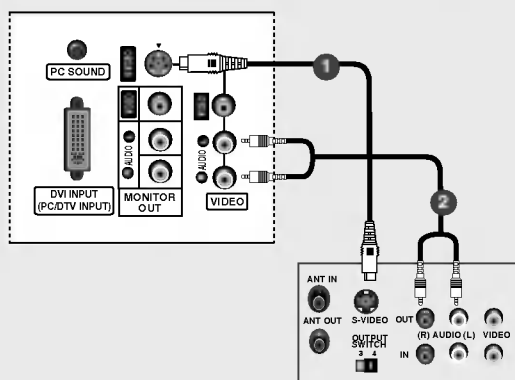
### When connecting with a RCA cable



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

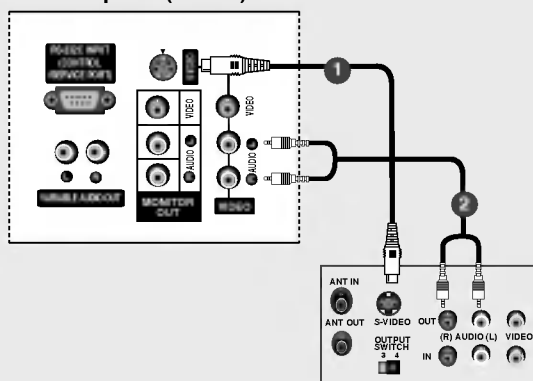
### When connecting with an S-Video cable

TV Back panel (32inch)



VCR

TV Back panel (26inch)

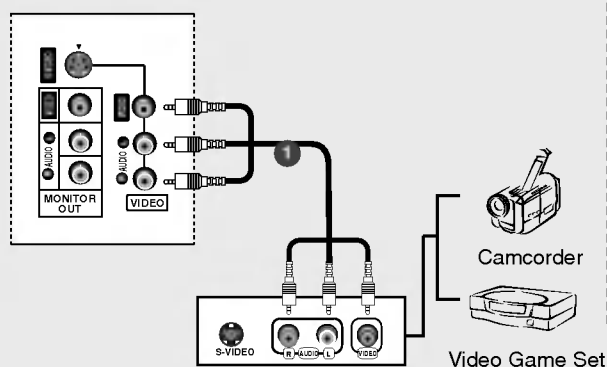


VCR

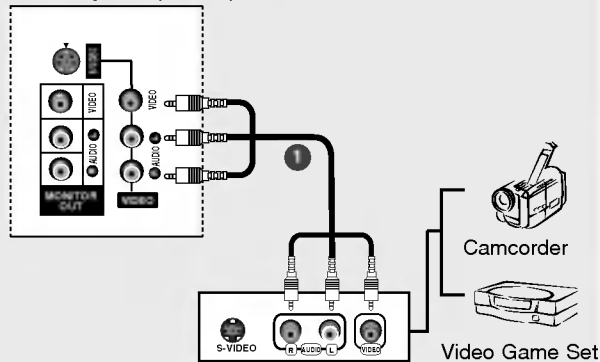
- ❶ Connect the an S-VIDEO output of the VCR to the **S-VIDEO** input on the set. The picture quality is improved; compared to connecting a regular VCR to the Video input.
- ❷ Connect the audio outputs of the VCR to the **AUDIO** input jacks on the set.
- ❸ Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- ❹ Select **S-Video** input source with using the **INPUT** button on the remote control.

### External AV Source Setup

TV Back panel (32inch)



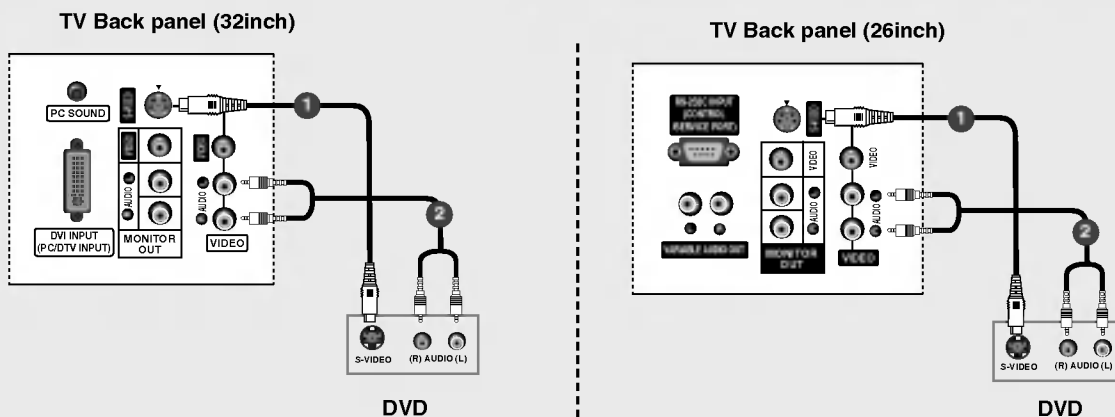
TV Back panel (26inch)



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

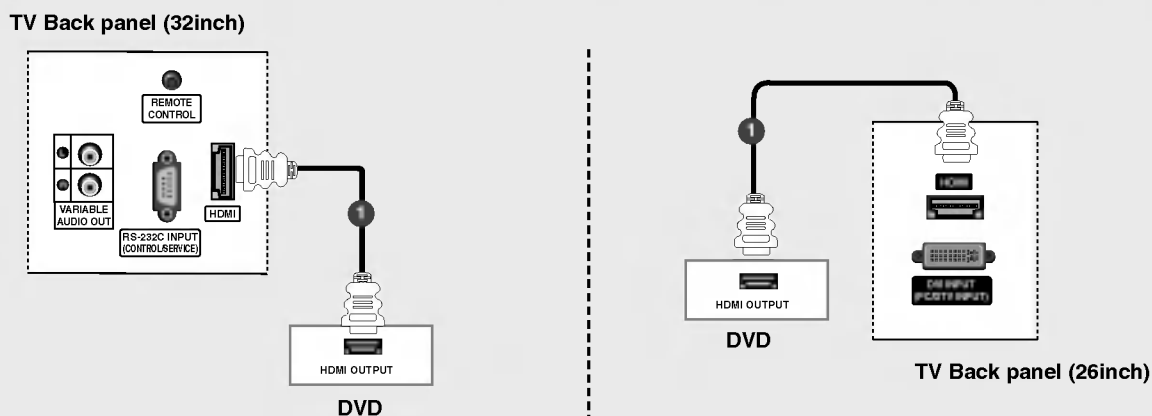
## DVD Setup

### When connecting with a S-Video cable



- ❶ Connect the S-VIDEO output of the DVD to the **S-VIDEO** input on the set.
- ❷ Connect the audio outputs of the DVD to the **AUDIO** input jacks on the set.
- ❸ Turn on the DVD player, insert a DVD.
- ❹ Select **S-Video** input source with using the **INPUT** button on the remote control.
- ❺ Refer to the DVD player's manual for operating instructions.

### When connecting with a HDMI cable



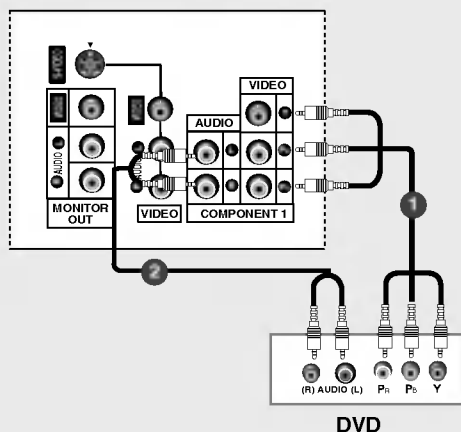
- ❶ Connect the HDMI output of the DVD to the **HDMI** jack on the set.
- ❷ Select **HDMI DTV** input source with using the **INPUT** button on the remote control.
- ❸ Refer to the DVD player's manual for operating instructions.



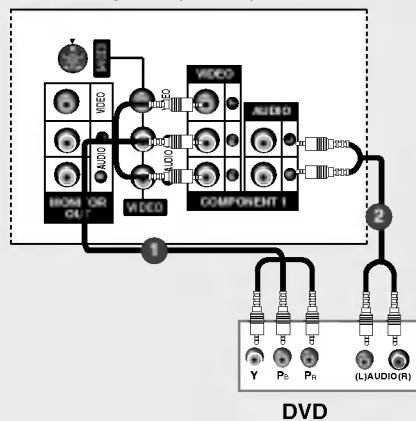
- TV can receive the video and audio signal simultaneously with using a HDMI cable.

## When connecting with a component cable

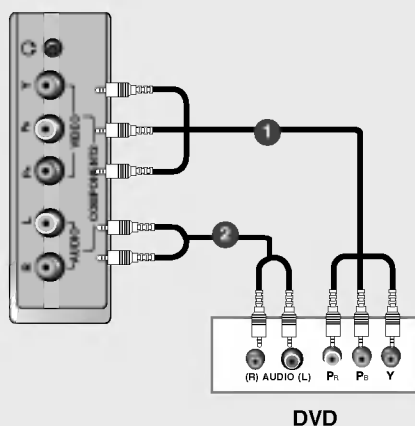
TV Back panel (32inch)



TV Back panel (26inch)



TV side panel (32, 26inch)



- 1 Connect the video outputs (Y, Pb, Pr) of the DVD to the **COMPONENT1 VIDEO (Y, Pb, Pr)** jacks on the set.
- 2 Connect the audio outputs of the DVD to the **COMPONENT1 AUDIO** jacks on the set.
- 3 Turn on the DVD player, insert a DVD.
- 4 Select **Component 1** input source with using the **INPUT** button on the remote control.  
- If connected to COMPONENT2, select **Component2** input source.
- 5 Refer to the DVD player's manual for operating instructions.



#### • Component Input ports

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

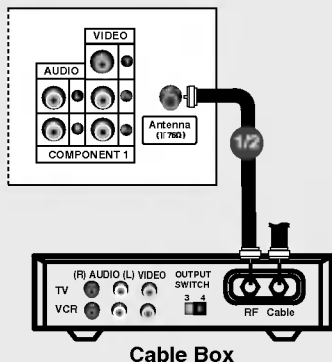
| Component ports on the TV        | Y | Pb  | Pr  |
|----------------------------------|---|-----|-----|
| Video output ports on DVD player | Y | Pb  | Pr  |
|                                  | Y | B-Y | R-Y |
|                                  | Y | Cb  | Cr  |
|                                  |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

## Cable TV Setup

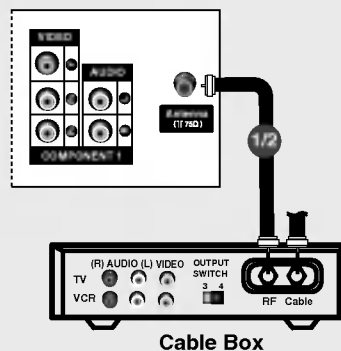
- After subscribing to a cable TV service from a local provider and installing a converter, you can watch cable TV programming. The TV cannot display TV programming unless a TV tuner device or cable TV converter box is connected to the TV.
- For further information regarding cable TV service, contact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

### When connecting with an antenna

TV Back panel (32inch)



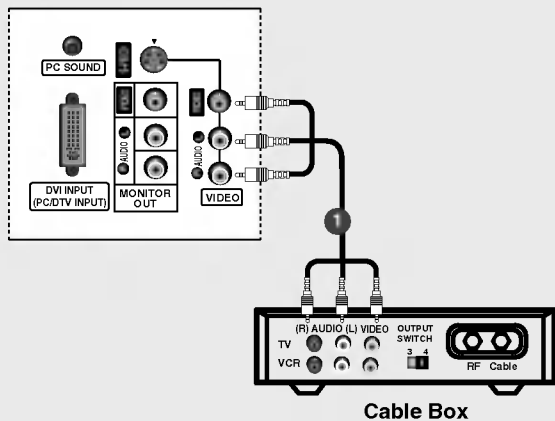
TV Back panel (26inch)



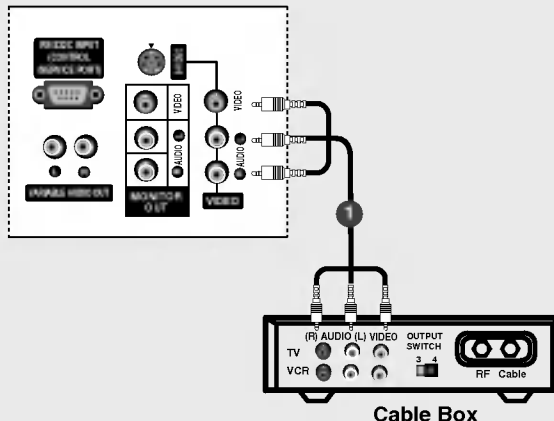
- 1 Connect the RF antenna socket of the cable box to the **Antenna** socket on the set.
- 2 Connect the antenna cable to the RF antenna socket of the cable box.
- 3 Select 3 or 4 with channel switch on the cable box.
- 4 Tune the TV channel to the same selected output channel on the cable box.
- 5 Select channels at the cable box or with the cable box remote control.

### When connecting with a RCA cable

TV Back panel (32inch)



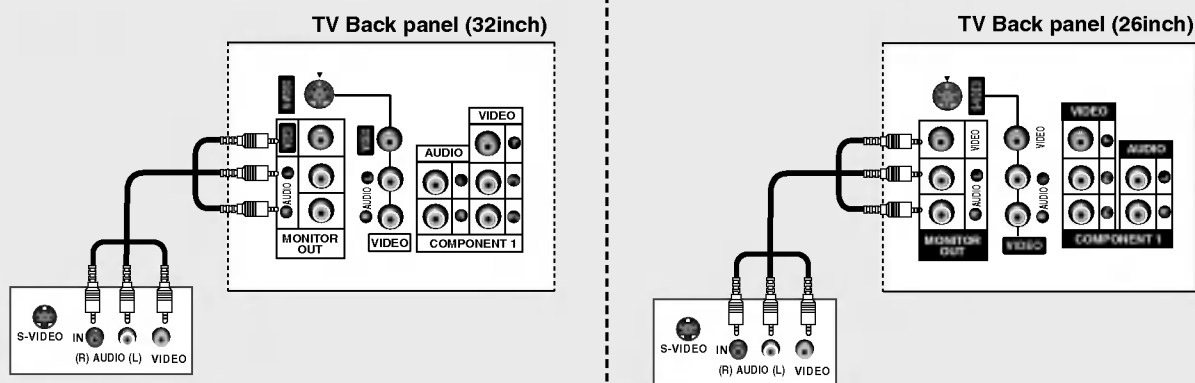
TV Back panel (26inch)



- 1 Connect the **AUDIO/VIDEO** jacks between TV and Cable box. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)
- 2 Select **Video** input source with using the **INPUT** button on the remote control.
- 3 Select your desired channel with the remote control for the cable box.

## Monitor Out Setup

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



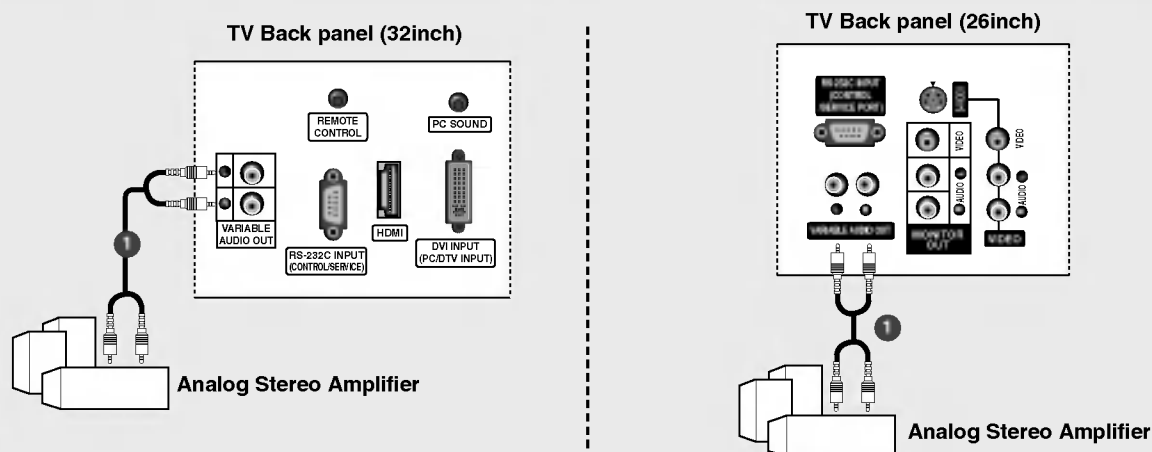
- 1 Connect the second TV or monitor to the TV's **MONITOR OUT** jacks.
- 2 See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.



- S-Video, Component 1-2, DVI PC/DVI DTV, HDMI PC/HDMI DTV input sources cannot be used for Monitor out.

## External Stereo

- Use to connected either an external amplifier, or add a sub-woofer to your surround sound system.

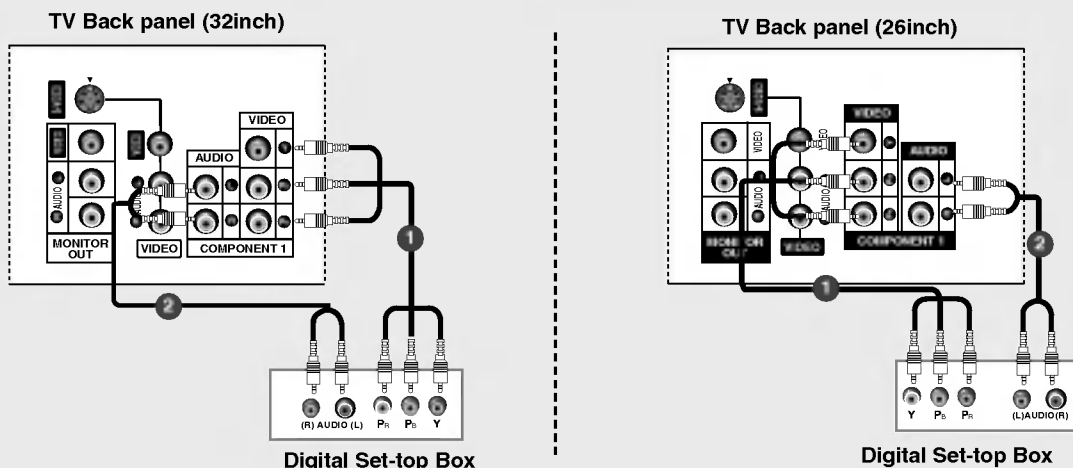


- 1 Connect the input jack of the stereo's amplifier to the **VARIABLE AUDIO OUT** jacks on the set.
- 2 Set up your speakers through your analog stereo amplifier, according to the instructions provided with the amplifier.
  - When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off. (Refer to p.37)

## STB Setup

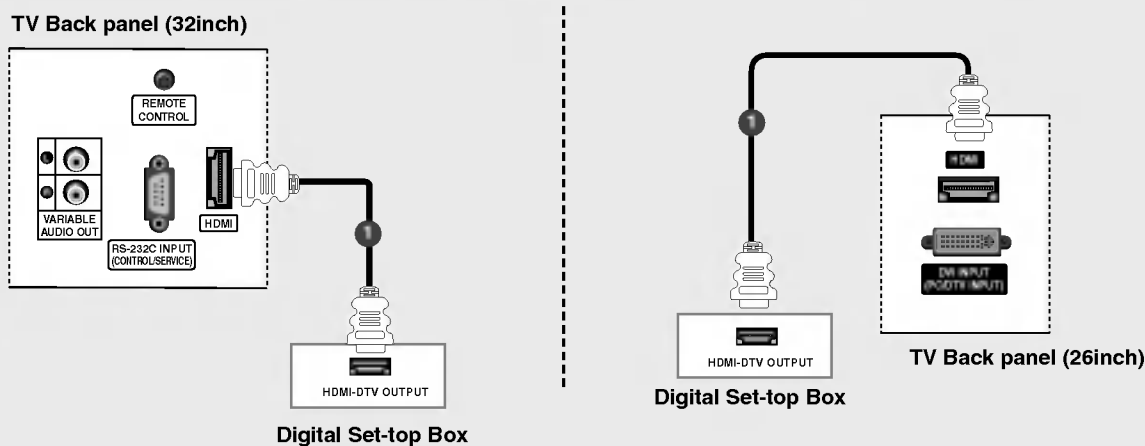
- To watch digitally broadcast programs, purchase and connect a digital set-top box.

### When connecting with a component cable



- 1 Connect the video outputs (Y, PB, PR) of the digital set-top box to the **COMPONENT1 VIDEO (Y, PB, PR)** jacks on the set.
- 2 Connect the audio outputs of the digital set-top box to the **COMPONENT1 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.)
- 4 Select **Component 1** input source with using the **INPUT** button on the remote control.  
- If connected to COMPONENT2 input, select **Component 2** input source.

### When connecting with a HDMI cable



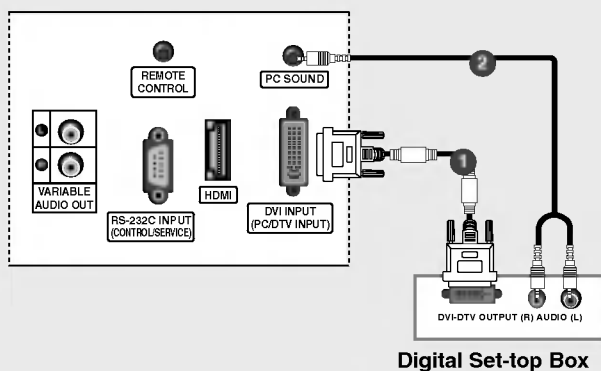
- 1 Connect the HDMI output of the digital set-top box to the **HDMI** jack on the set.
- 2 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 3 Select **HDMI DTV** input source with using the **INPUT** button on the remote control.



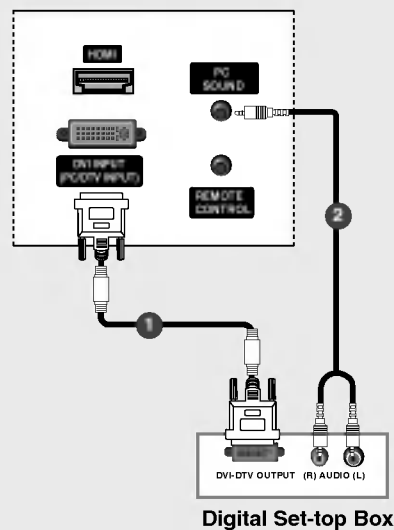
- TV can receive the video and audio signal simultaneously with using a HDMI cable.

### When connecting with a DVI cable

TV Back panel (32inch)



TV Back panel (26inch)

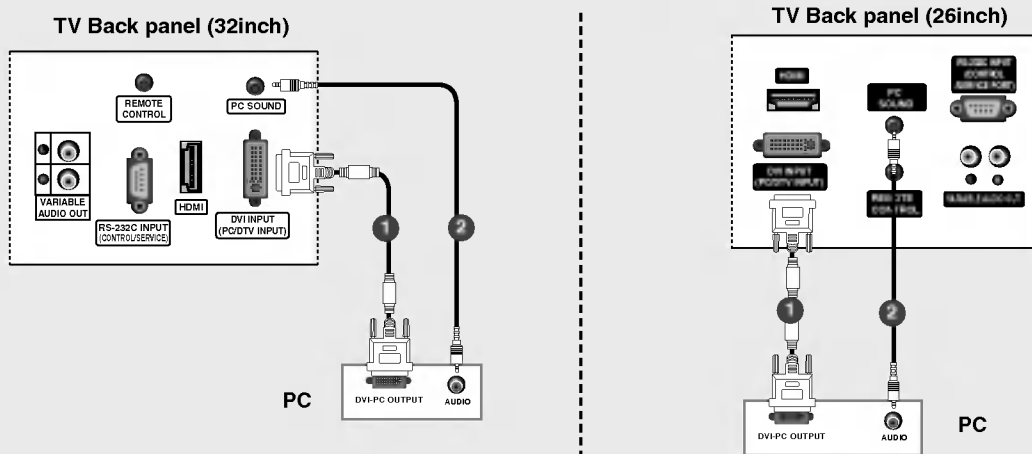


- ❶ Connect the DVI output of the digital set-top box to the **DVI INPUT (PC/DTV INPUT)** jack on the set.
- ❷ Connect the digital audio outputs of the set-top box to the **PC SOUND** jack on the set.
- ❸ Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- ❹ Select **DVI DTV** input source with using the **INPUT** button on the remote control.

## PC Setup

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

### When connecting with a DVI-D cable

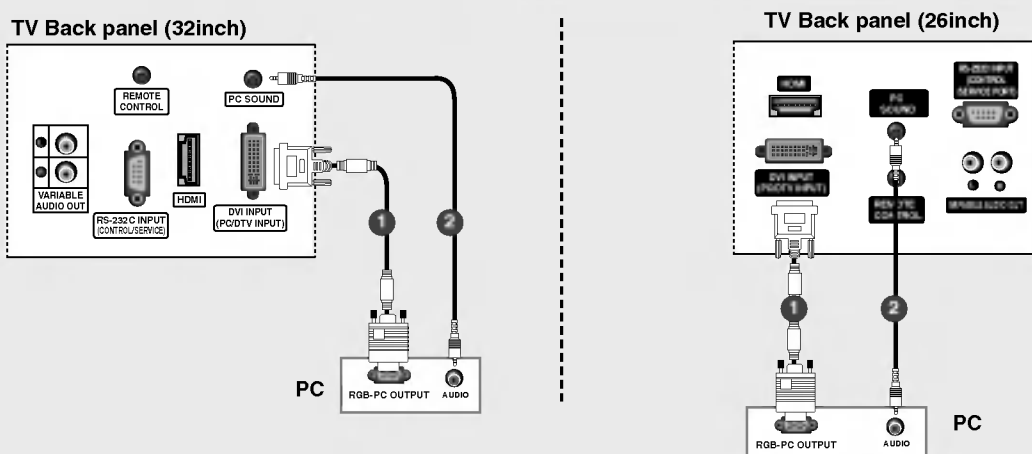


- 1 Connect the DVI output of the PC to the **DVI INPUT (PC/DTV INPUT)** jack on the set.
- 2 Connect the PC audio outputs to the **PC SOUND** jack on the set.
- 3 Turn on the PC and the set.
- 4 Select **DVI PC** input source with using the **INPUT** button on the remote control.



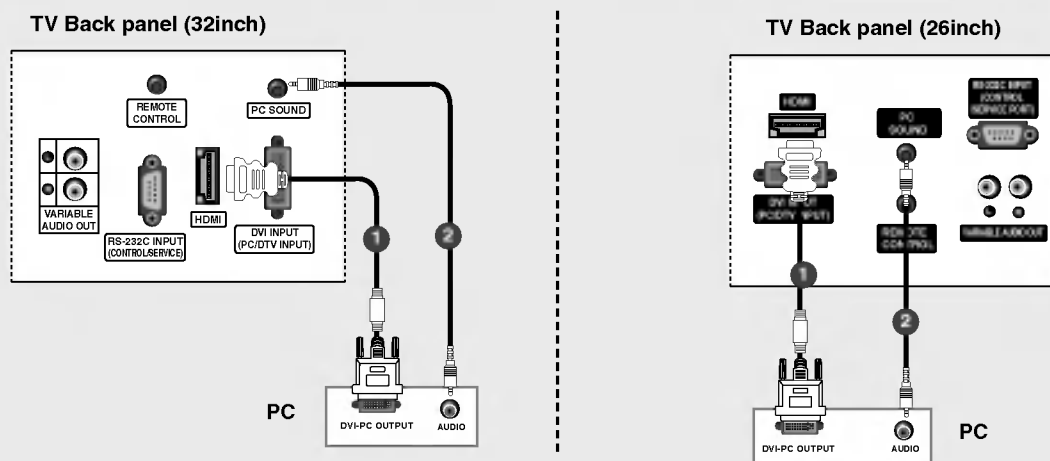
- Connect the signal cable (DVI-D cable, Not DVI to D-Sub cable) from the DVI output socket of the PC to the DVI input socket of the set when using a PC with DVI output. In some video cards, DVI-Analog output may not be supported.

### When connecting with a DVI to D-Sub cable



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

### When connecting with a HDMI to DVI cable



- ❶ Connect the DVI output of the PC to the **HDMI** jack on the set.
- ❷ Connect the PC audio output to the **PC SOUND** jack on the set.
- ❸ Turn on the PC and the set.
- ❹ Select **HDMI PC** 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.
- It's not available to connect with a HDMI to DVI cable to the **DVI INPUT** jack on the set.

## Supported Display Resolution

### ■ PC

| Resolution | Horizontal Frequency (kHz) | Vertical Frequency (Hz) |
|------------|----------------------------|-------------------------|
| 720x400    | 31.468                     | 70                      |
| 640x480    | 31.469                     | 60                      |
|            | 37.500                     | 75                      |
| 800x600    | 37.879                     | 60                      |
|            | 46.875                     | 75                      |
| 832x624    | 49.725                     | 75                      |
|            | 48.363                     | 60                      |
| 1024x768   | 56.470                     | 70                      |
|            | 60.123                     | 75                      |
| 1280 x 768 | 47.776                     | 60                      |
| 1360 x 768 | 47.720                     | 60                      |
| 1366 x 768 | 47.720                     | 60                      |



- a. For optimum picture quality, use standard WXGA 1360x768 computer output at a 60Hz refresh rate. Using other formats (VGA, SVGA, etc.) or refresh rates may result in reduced picture quality. (To change the computer video output format, please refer to the operating manual for the computer you are using).
- b. If the message **No signal** appears on the screen, adjust the PC output to a format listed in the **Monitor Display Specifications** table.
- c. The synchronization input form for Horizontal and Vertical frequencies is separate.

### DPM (Display Power Management) mode

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

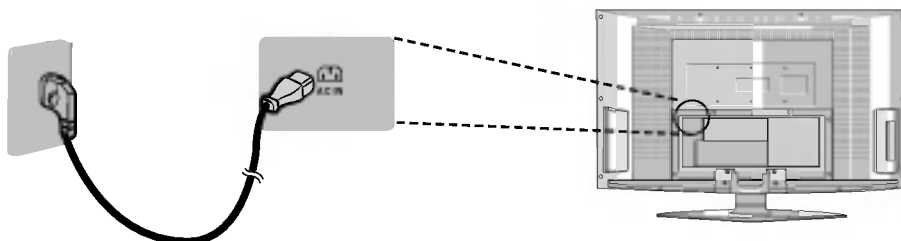
*\* In HDMI PC mode, DPM mode is not available.*

### ■ DTV

| Terminal Mode | Component | DVI (DTV) | HDMI (DTV) |
|---------------|-----------|-----------|------------|
| 480i          | o         | x         | x          |
| 480p          | o         | o         | o          |
| 720p          | o         | o         | o          |
| 1080i         | o         | o         | o          |

## Power Cord Connection

- Connect the power cord as shown.



# Operation

## Basic operation

### Turning on the TV

1. First, connect power cord correctly. At this moment, the TV switches to standby mode.  
Press the **ON/OFF**, **INPUT**, **CH ▲ / ▼** button on the TV or press the **POWER**, **TV**, **INPUT**, **CH ▲ / ▼**, Number (0 ~ 9) button on the remote control and then the TV will turn on.
2. Select the viewing source by using **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.



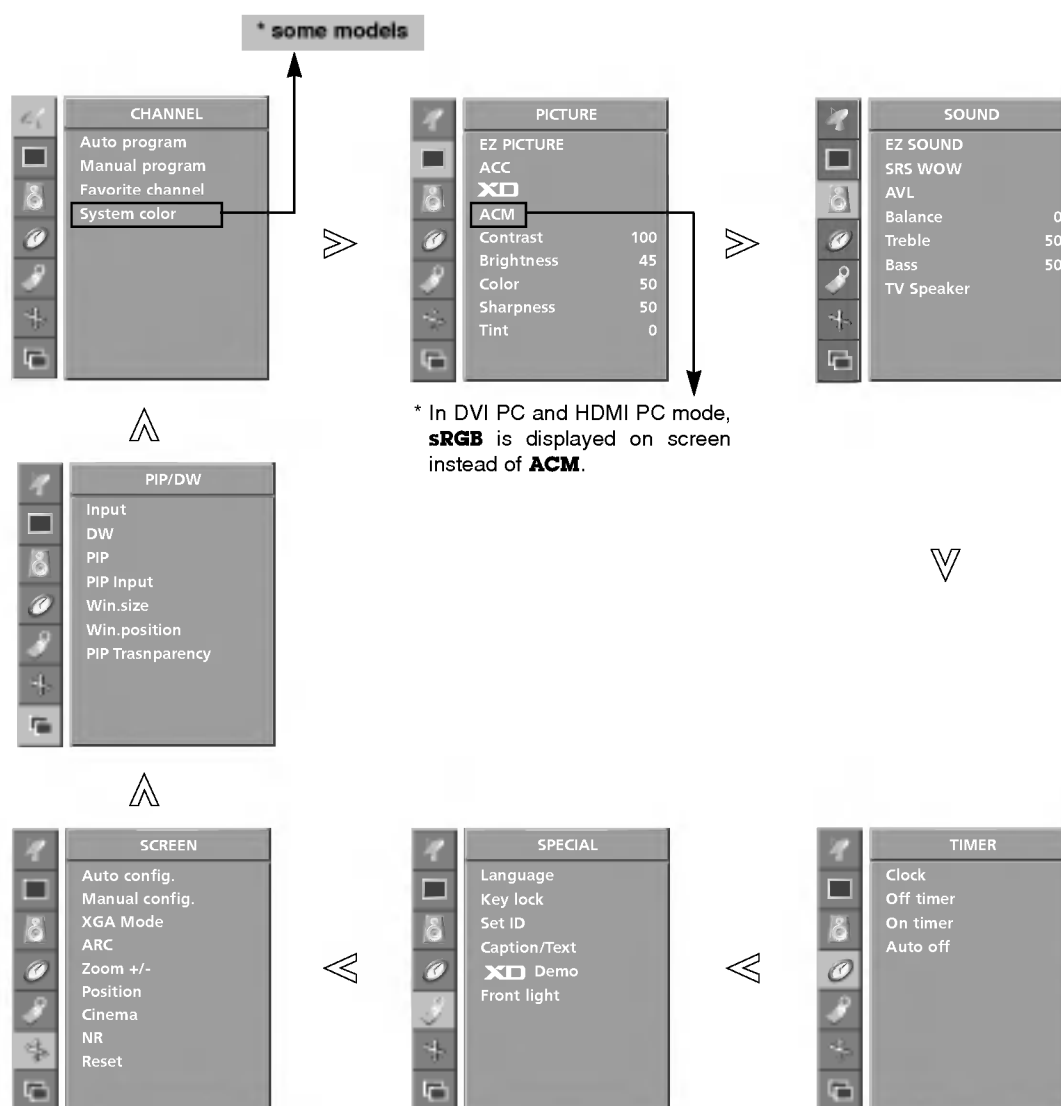
- If you intend to be away on vacation, disconnect the power plug from the wall power outlet.

### Menu Language Selection

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

## 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.



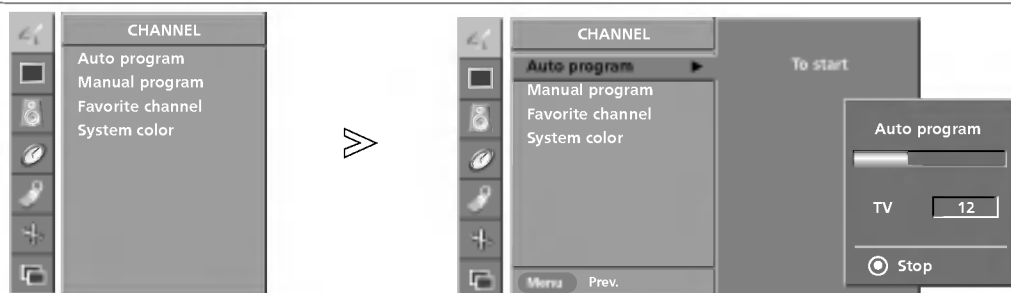
- Your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.



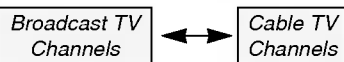
## Channel Menu Options

- Auto Program should be used to memorize all the active channels in your area before you are able to use the TV.
- There are two ways of storing channels in the TV's memory. You can use either.
- One is called AUTO PROGRAM and the other is called MANUALPROGRAM.
- In AUTO PROGRAM mode, the TV will memorize the channels in ascending numerical order. If there are additional channels you want to add or delete, you can manually add or delete those channels with Manual Program.

### Auto Program: Channel Search



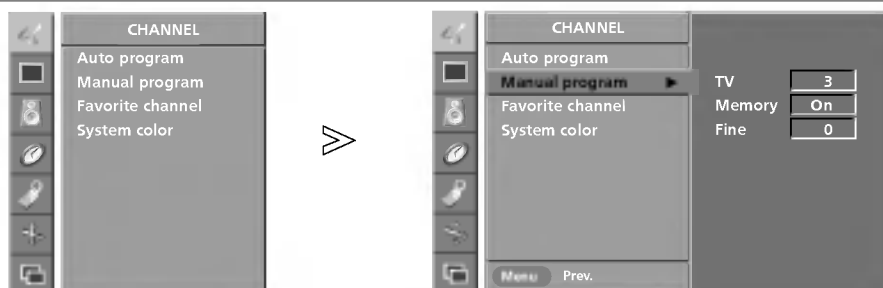
- Redo **Auto program** if the TV is ever moved to another location.
- **Auto program** will search for channels only through the Antenna jack.
- If channels numbers for broadcast over-the air TV and cable TV are duplicated where different channels have the same number, press the same number buttons again to toggle between:



(For example, press 17 to go to the channel, press 17 again to go to the duplicated channel.)

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **CHANNEL** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Auto program**.
- 3 Press the **▶** button. AUTO PROGRAM starts the channel search.
- 4 If you want to stop auto programming, press the **ENTER** button. Only the channels found up to at that time are memorized.

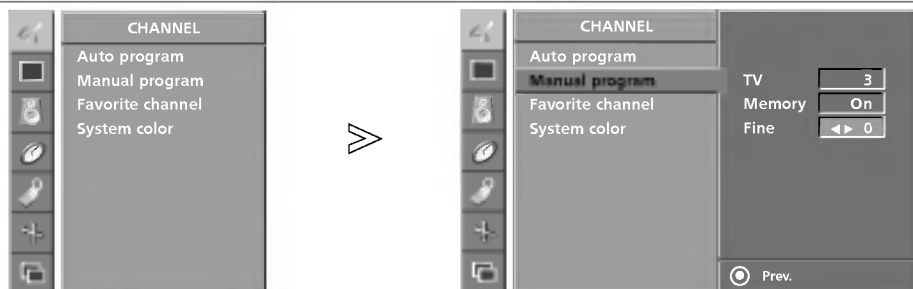
### Manual Program: Adding/Deleting Channels



- You can add or delete channels from the channel scan manually.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **CHANNEL** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Manual program**.
- 3 Press the **▶** button and then use **◀ / ▶** button to select a channel you want to add or erase.
- 4 Press the **▼** button and then use **◀ / ▶** button to select **On (memory)** or **Off (erase)**.
- 5 Press the **EXIT** button to return to normal TV viewing. The current channel is added to Memory or Erased from the channel list.

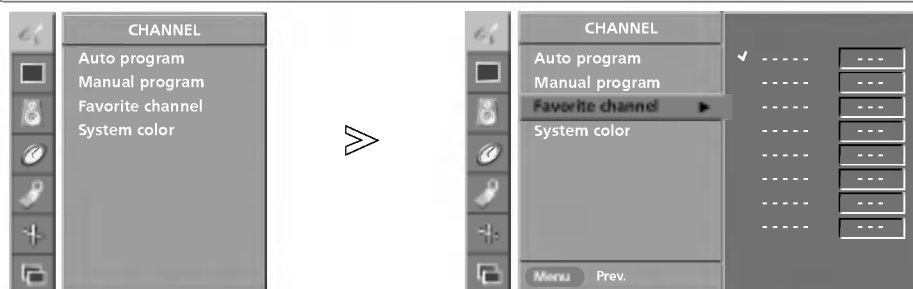
## Fine Tuning Adjustment



- Use this function to correct the picture's instability and condition if it is poor.
- To remove fine tuning from a channel, reprogram the finely-tuned channel with Auto program or Manual Program.
- If a finely-tuned channel is memorized, the color of the channel number changes to yellow.

- 1 Press the **MENU** button and then use **▲/▼** button to select the **CHANNEL** menu.
- 2 Press the **►** button and then use **▲/▼** button to select **Manual program**.
- 3 Press the **►** button and then use **▲/▼** button to select **Fine**.
- 4 Use **◀/▶** button to adjust the picture to your preference.
- 5 Press the **EXIT** button to return to normal TV viewing.

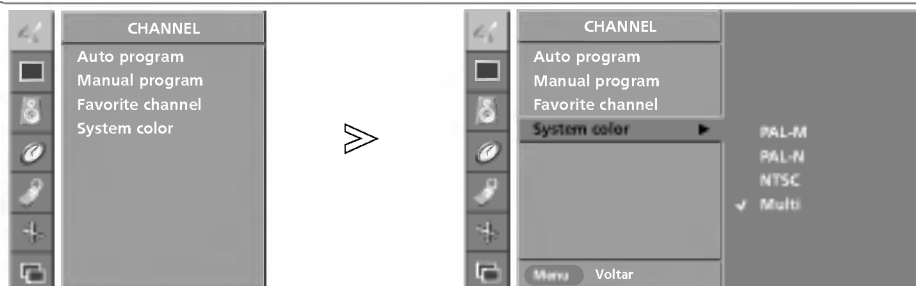
## Favorite Channels Setup



- Favorite Channels is a convenient feature that lets you quickly scan up to 8 channels of your choice without having to wait for the TV to scan through all the in-between channels.
- To tune to a favorite channel, press the **FAV** button repeatedly. The eight favorite channels appear on the screen in numerical order.

- 1 Press the **MENU** button and then use **▲/▼** button to select the **CHANNEL** menu.
- 2 Press the **►** button and then use **▲/▼** button to select **Favorite channel**.
- 3 Press the **►** button and then use **▲/▼** button to select the first favorite channel position.
- 4 Use the **◀/▶** button to set the desired channel number for first favorite channel.
- 5 Press the **ENTER** button to save.
- 6 Repeat steps 3 to 5 to memorize other favorite channels.

## System color (Some models)



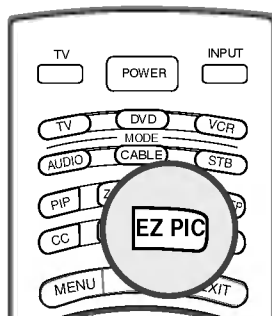
- When the screen is wrong color, you can adjust this function.
- It's available to use this function in TV mode. (This function doesn't work for sub picture in PIP mode.)

- 1 Press the **MENU** button and then use **▲/▼** button to select the **CHANNEL** menu.
- 2 Press the **►** button and then use **▲/▼** button to select **System color**.
- 3 Press the **►** button and then use **▲/▼** button to select **PAL-M**, **PAL-N**, **NTSC** ou **Multi**.
- 4 Press the **EXIT** button to return to normal TV viewing.

## Picture Menu Options

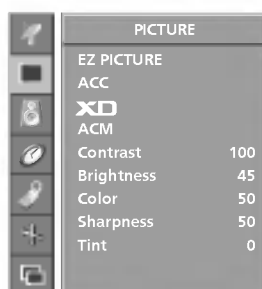
### EZ PICTURE

- **EZ PICTURE** adjusts the TV to the best picture appearance.
- If adjusting picture options (**Contrast**, **Brightness**, **Color**, **Sharpness**, or **Tint**) manually, **EZ PICTURE** automatically changes to **User**.
- **Clear**, **Optimum**, and **Soft** settings are preset for good picture quality at the factory and cannot be changed.



- 1 Press the **EZ PIC** button repeatedly to select the picture appearance setup option as shown: **Intelligent Eye** (some models), **Clear**, **Optimum**, **Soft**, and **User**.
  - You can also adjust **EZ PICTURE** in the **PICTURE** menu.
- 2 Press the **EXIT** button to return to normal TV viewing.

### XD



- **XD** is LG Electronic's unique picture improving technology to display a real HD source through an advanced digital signal processing algorithm.
- When selecting **EZ PICTURE** options (**Clear**, **Optimum**, and **Soft**), **XD** is automatically change to **On**.
- If **XD** setting is **Off**, **EZ PICTURE** is automatically change to **User** and **ACM** function is not available.
- This function is not available in DVI PC and HDMI PC sources.

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

## Picture Menu Options Continued

### Color Temperature Control

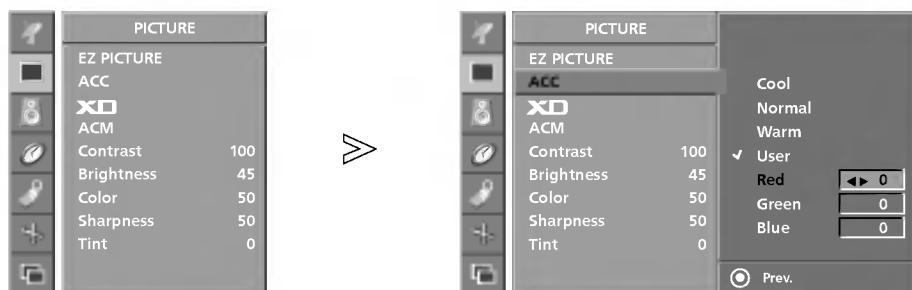
#### \* Auto Color Temperature Control



- To initialize values (reset to default settings), select the **Normal** option.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **ACC**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select either: **Cool** (Preset), **Normal** (Default), or **Warm** (Preset).
- 4 Press the **EXIT** button to return to normal TV viewing.

#### \* Manual Color Temperature Control (ACC set to User option)



- You can adjust red, green, or blue to any color temperature you prefer.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **PICTURE** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **ACC**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select **User**.
- 4 Press the **▶** button and then use **▲ / ▼** button to select **Red**, **Green**, or **Blue**.
- 5 Use the **◀ / ▶** button to make appropriate adjustments.
  - The adjustment range of **Red**, **Green**, or **Blue** is -30 ~ +30.
- 6 Press the **EXIT** button to return to normal TV viewing.

## ACM (Active Color Management)



- Adjust the **ACM** to select the desired skin color option.
- This function is not available in DVI PC and HDMI PC sources.

- 1 Press the **MENU** button and then **▲ / ▼** button to select the **PICTURE** menu.
- 2 Press the **▶** button and then **▲ / ▼** button to select **ACM**.
- 3 Press the **▶** button and then **▲ / ▼** button to select **Fleshtone**, **Greentone**, or **Bluetone**.
- 4 Press the **◀ / ▶** button to make appropriate adjustments.
  - The adjustment range of **Fleshtone**, **Greentone**, or **Bluetone** is 0 ~ 3.
- 5 Press the **EXIT** button to return to normal TV viewing.

## sRGB (DVI PC or HDMI PC mode only)



- If the TV is connected to external equipment using sRGB, set sRGB to On to adjust for the color difference.

- 1 Press the **MENU** button and then **▲ / ▼** button to select the **PICTURE** menu.
- 2 Press the **▶** button and then **▲ / ▼** button to select **sRGB**.
- 3 Press the **▶** button and then **▲ / ▼** button to select **On** or **Off**.
- 4 Press the **EXIT** button to return to normal TV viewing.

## Picture Menu Options Continued

### Manual Picture Control (EZ Picture set to User option)



- You can adjust picture **Contrast**, **Brightness**, **Color**, **Sharpness**, and **Tint** options to the levels you prefer.
- In the broadcasting system PAL-M/N, the picture item **Tint** is not displayed.
- In PC mode, **Color**, **Sharpness**, and **Tint** is not available.

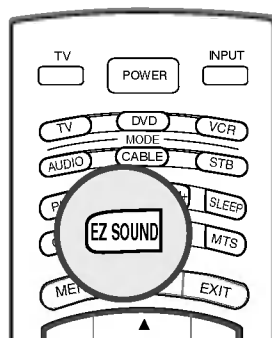
- 1 Press the **MENU** button and then **▲ / ▼** button to select the **PICTURE** menu.
- 2 Press the **▶** button and then **▲ / ▼** button to select the desired picture option (**Contrast**, **Brightness**, **Color**, **Sharpness**, or **Tint**).
- 3 Press the **▶** button and then **◀ / ▶** button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



## Sound Menu Options

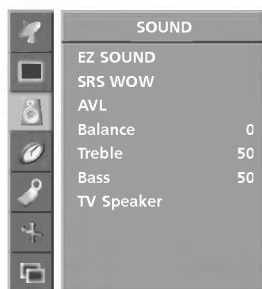
### EZ SOUND

- This function lets you enjoy the best sound without any special adjustment because the TV has the appropriate sound options based on the program content.
- If you adjust sound options (**Treble** and **Bass**) manually, **EZ SOUND** automatically changes to **User**.
- **Flat**, **Music**, **Movie**, and **Sports** are preset for good sound quality at the factory and cannot be changed.



- 1 Press the **EZ SOUND** button repeatedly to select the appropriate sound setup as shown below: **Flat**, **Music**, **Movie**, **Sports**, and **User**.  
• You can also adjust **EZ SOUND** in the **SOUND** menu.
- 2 Press **EXIT** button to save and return to TV viewing.

### SRS WOW



- The **SRS WOW** function plays back the mono or stereo sound input with the dynamic surround effects. It will provide rich and profound sound tone.
  - If you set the **SRS WOW** **ON**, **Treble/Bass** can not be adjusted.
- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
  - 2 Press the **▶** button and then use **▲ / ▼** button to select **SRS WOW**.
  - 3 Press the **▶** button and then use **▲ / ▼** button to select **On** or **Off**.
  - 4 Press the **EXIT** button to return to normal TV viewing.

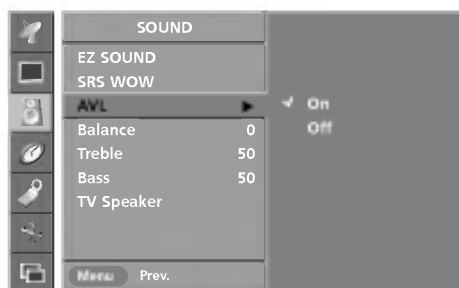


is a trademark of SRS Labs, Inc.  
technology is incorporated under license from SRS Labs, Inc.



## Sound Menu Options continued

### AVL (Auto Volume Leveler)



- **AVL** maintains an equal sound level; even if you change channels.

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

### Manual Sound Control



- You can adjust sound options **Balance**, **Treble**, and **Bass** to the levels you prefer.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SOUND** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select the desired sound option (**Balance**, **Treble**, or **Bass**).
- 3 Press the **▶** button and then use **◀ / ▶** button to make appropriate adjustments.
- 4 Press the **EXIT** button to return to normal TV viewing.

## TV Speakers Setup

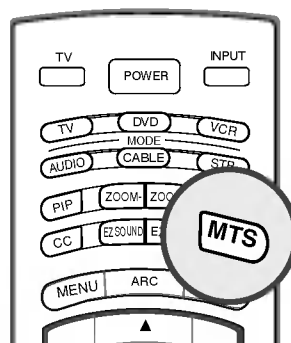


- You can adjust internal speaker status.
- If you want to use your external hi-fi stereo system, turn off the internal speakers of the set.

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

## Stereo/SAP Broadcasts Setup

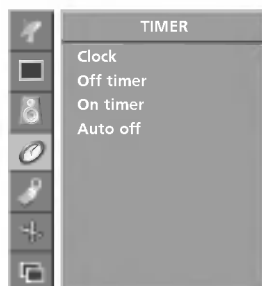
- The TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program; if the broadcaster transmits one additional sound signal in addition to the original one.
- **Mono**: The primary language is heard from left and right speakers. Signal mode is mono.
- **Stereo**: The primary language is heard from left and right speakers. Signal mode is stereo.
- **SAP**: The secondary language is heard from left and right speakers in mono sound.



- 1 Press the **MTS** button repeatedly. **Mono**, **Stereo**, or **SAP** appear in turn.
  - Select mono sound mode if the signal is not clear or in poor signal reception areas.
  - **Stereo**, **SAP** modes are available only if included on the broadcast signal.
- 2 Press the **ENTER** button to save.

## Timer Menu Options

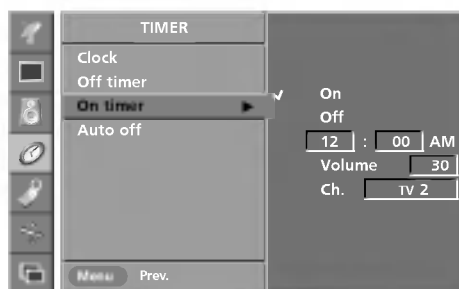
### Clock Setup



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

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **TIMER** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Clock**.
- 3 Press the **▶** button and then use **▲ / ▼** button to set the hour.
- 4 Press the **▶** button and then use **▲ / ▼** button to set the minutes.
- 5 Press the **EXIT** button to return to normal TV viewing.

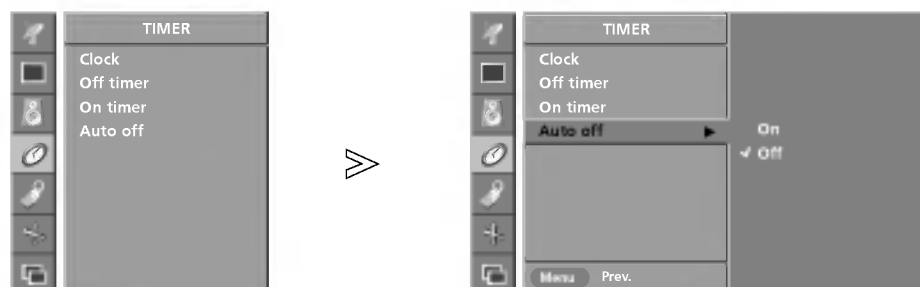
### On/Off Timer Setup



- **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 **TIMER** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Off timer** or **On timer**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select **On**.
  - To cancel **On/Off timer** function, select **Off**.
- 4 Press the **▶** button and then use **▲ / ▼** button to set the hour.
- 5 Press the **▶** button and then use **▲ / ▼** button to set the minutes.
- 6 **For only On timer function**
  - Press the **▶** button and then use **▲ / ▼** button to set the volume level at turn-on.
  - Press the **▶** button and then use **▲ / ▼** button to select the channel at turn-on.
- 7 Press the **EXIT** button to return to normal TV viewing.

## Auto Off



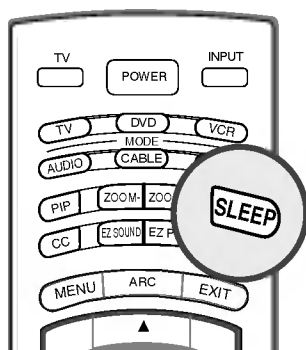
- If set to on and there is no input signal, the TV turns off automatically after 10 minutes.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **TIMER** menu.
- 2 Press the **►** button and then use **▲** / **▼** button to select **Auto off**.
- 3 Press the **►** button and then use **▲** / **▼** button to select **Off** or **On**.
- 4 Press the **EXIT** button to return to normal TV viewing.

## 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.

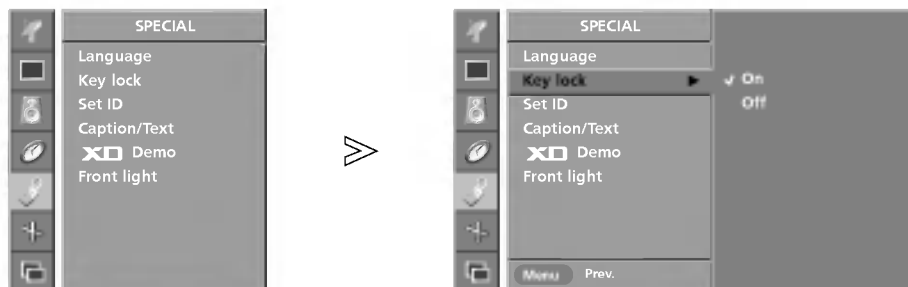
- 1 Press the **SLEEP** button repeatedly to select the number of preset minutes. First the --- option appears on the screen, followed by the following sleep timer options: 10, 20, 30, 60, 90, 120, 180, and 240 minutes.
- 2 When the number of minutes you want is displayed on the screen, press the **ENTER** 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 **SLEEP** button once.
- 4 To cancel the Sleep Timer, press the **SLEEP** button repeatedly to select until --- appears.





## Special Menu Options

### Key Lock



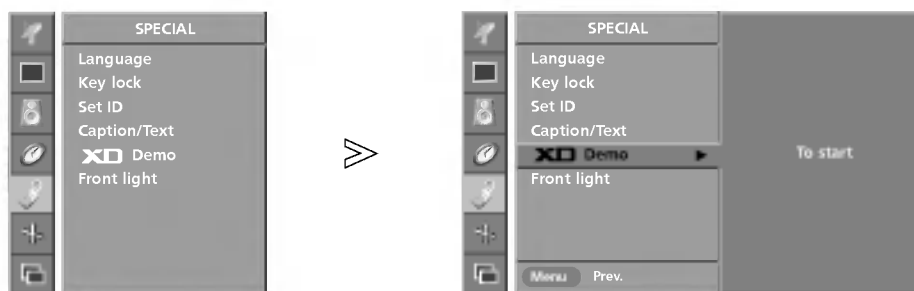
- The TV can be set up so that it can only be used with the remote control.

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



- This feature can be used to prevent unauthorized viewing by locking out the front panel controls.
- This TV is programmed to remember which option it was last set to even if you turn the TV off.
- With the Key lock On, the display '**! Key lock**' appears on the screen if any button on the front panel is pressed.
- In **Key lock 'On'**, if the set is turned off, press the **POWER**, **INPUT**, **CH ▲ / ▼** button on the set or **POWER**, **INPUT**, **CH ▲ / ▼** or **NUMBER** buttons on the remote control.

### XD Demo



- Use it to see the difference between XD Demo on and XD Demo off.
- This function is not available in DVI PC and HDMI PC sources.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SPECIAL** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **XD Demo**.
- 3 Press the **▶** button to begin **XD Demo**.
- 4 Press the **EXIT** button to stop **XD Demo**.

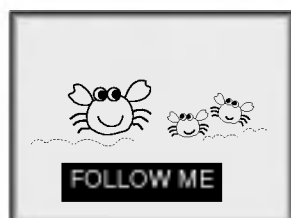
## Closed Captions

Closed captioning is a process which converts the audio portion of a television program into written words which then appear as subtitles on the television screen. Closed captions allow viewers to read the dialogue and narration of television programs.

### Using Closed Captions

Captions are the subtitles of the dialogue and narration of television programs. For prerecorded programs, program dialogue can be arranged into captions in advance. Its possible to caption a live program by using a process called real-time captioning, which creates captions instantly. Real-time captioning is normally done by professional reporters using a machine shorthand system and computer for translation into English.

Captioning is an effective system for the hearing-impaired, and it can also aid in teaching language skills.



- The picture at left shows a typical caption.

### Caption Tips

- Not all TV broadcasts include closed caption signals.
- Sometimes TV stations broadcast four different caption signals on the same channel. By selecting **Model** to **Model2**, you can choose which signal you view. **Model** is usually the signal with the captions, while **Model2** might show demonstration or programming information.
- Your TV might not receive caption signals normally in the following situations.

1. Poor reception conditions are encountered:



#### • IGNITION:

Picture may flutter, drift, suffer from black spots, or horizontal streaking. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.



#### • GHOSTS:

Ghosts are caused when the TV signal splits and follows two paths. One is the direct path and the other is reflected off tall buildings, hills or other objects. Changing the direction or position of the antenna may improve reception.

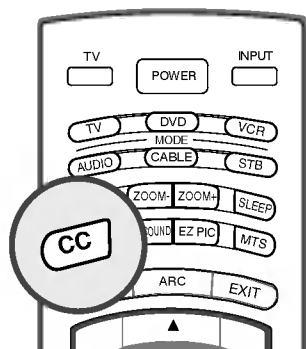


#### • SNOW:

If your receiver is located at the weak, fringe area of a TV signal, your picture may be marred by small dots. It may be necessary to install a special antenna to improve the picture.

2. An old, bad, or illegally recorded tape is being played.
3. Strong, random signals from a car or airplane interfere with the TV signal.
4. The signal from the antenna is weak.
5. The program wasn't captioned when it was produced, transmitted, or taped.

### Caption/Text

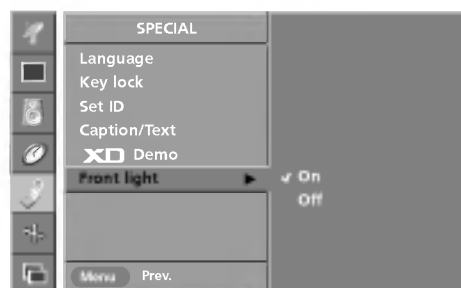


- 1 Press the **CC** button repeatedly to select your caption selection as shown below: **Model**, **Model2**, **Text1**, **Text2**, or **Off**.  
• You can also adjust **Caption/Text** in the **SPECIAL** menu.
- 2 Press the **EXIT** button to return to normal TV viewing.



## Special Menu Options Continued

### Front Light

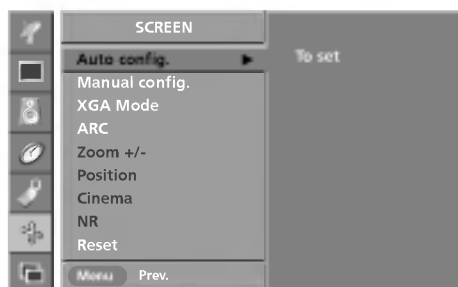


- If you select on, the lamp on the TV front panel turns on.

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

## Screen Menu Options

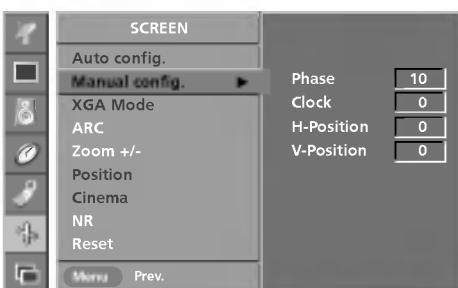
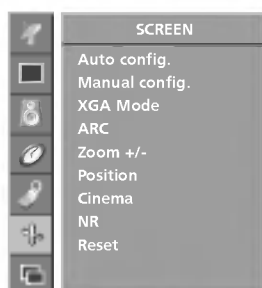
### Auto Adjustment (DVI PC (RGB), Analogue PC mode only)



- Automatically adjusts picture position and minimizes image shaking.
- After adjustment, if the image is still not correct, your TV is functioning properly but needs further adjustment.
- Automatically adjusts the screen position, clock, and phase. (The displayed image will disappear for a few seconds while Auto-configuration is in progress.)

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Auto config.**
- 3 Press the **▶** button to run Auto configure.
  - When **Auto config.** has finished, OK will be shown on screen.
  - If the position of the image is still not correct, try Auto adjustment again.
- 4 If the image needs to be adjusted more after using **Auto config.**, you can make further adjustments with the **Manual config.** option.

### Manual Configure

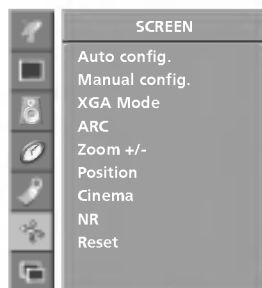


- If the image still isn't clear after auto adjustment and especially if characters are still jittery, adjust the picture Phase manually.
- To correct the screen size, adjust **Clock**.
- This function is available in DVI PC (RGB) and Component sources. (In some input mode, the **Manual config.** options (**Phase**, **Clock**, **H-Position**, or **V-Position**) may not work.)

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Manual config.**
- 3 Press the **▶** button and then use **▲ / ▼** button to select **Phase**, **Clock**, **H-Position**, or **V-Position**.
  - **Phase**: Remove any horizontal noise and clear up or sharpen the character images.
  - **Clock**: Minimizes any vertical bars or stripes appearing on the screen background.
  - **H-Position / V-Position**: Adjusts picture left/right and up/down.
- 4 Press the **◀ / ▶** button to make appropriate adjustments.
- 5 Press the **EXIT** button to return to normal TV viewing.

## Screen Menu Options continued

### Selecting XGA mode (DVI PC (RGB) and XGA/WXGA (60Hz) mode only)



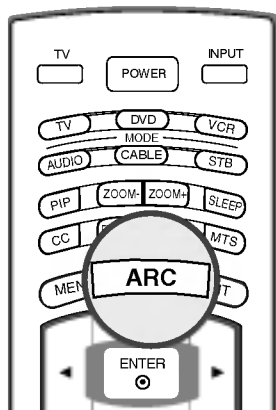
- For more improved or better picture quality, select the same mode corresponding to computer resolution.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **XGA Mode**.
- 3 Press the **▶** button and then use **▲ / ▼** button to select the desired XGA resolution.  
From this point on, the adjustment starts.

### Setting Picture Format

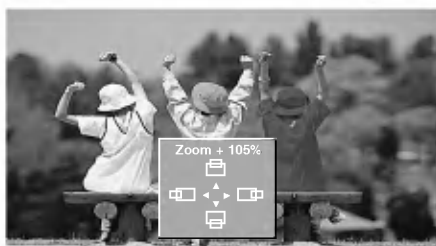
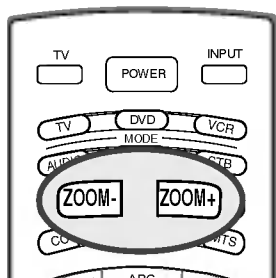
- Caution: If a 4:3 fixed image is on the screen for a long time, it may remain visible.
- Set every aspect ratio for TV, Video, and S-Video input sources.

- 1 Press the **ARC** button repeatedly to select the desired picture format.
  - You can also adjust **ARC** in the **SCREEN** menu.
- **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**  
Choose Zoom when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.



- Use 4:3, or 16:9 for other RGB-PC and HDMI-PC sources.
- In the DW (Double Window) mode, ARC function isn't available.
- In Component, DVI DTV and HDMI DTV mode, only **4:3**, **16:9** and **Zoom** aspect ratios are available.

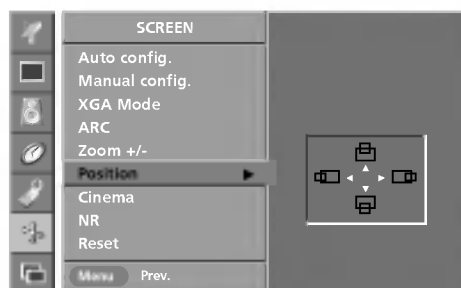
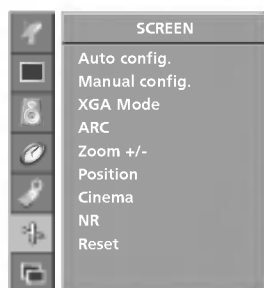
## Picture Size Zoom



- When enlarging or reducing the picture, the screen may be display unnatural picture.
- You can also adjust **Zoom**+/- in the **SCREEN** menu.
- This function is not available in DVI PC (RGB) source.

- 1 Press the **Zoom+/Zoom-** button.
- 2 Press the **Zoom+/Zoom-** button to enlarge or reduce the picture size.
  - The adjustment range of Zoom is 100 ~ 300.
- 3 Adjust the picture position using the **▲ / ▼ / ◀ / ▶** buttons while in enlarged picture mode.

## Screen Position



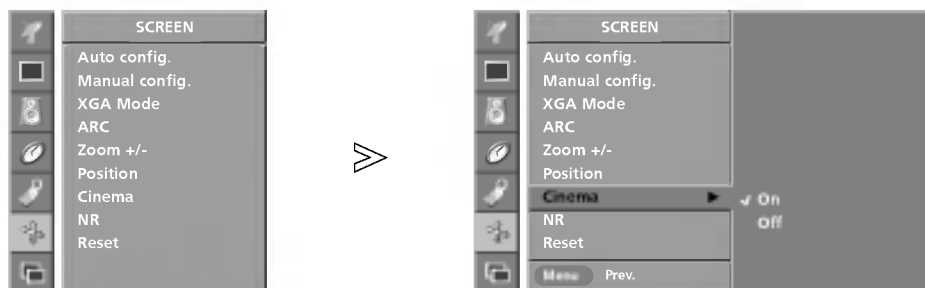
- When screen is enlarged, you can change the position of the picture.
- You are available to this function after adjusting **Zoom**+/-.
- This function is not available in DVI PC (RGB) source.

- 1 Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
- 2 Press the **▶** button and then use **▲ / ▼** button to select **Position**.
- 3 Press the **▶** button and then use **▲ / ▼ / ◀ / ▶** button to adjust the position.
- 4 Press the **EXIT** button to return to normal TV viewing.



## Screen Menu Options continued

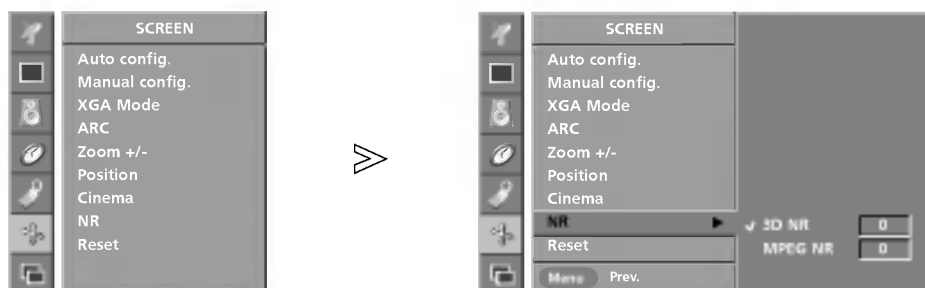
### Cinema Mode Setup (TV, Video, S-Video and Component 480i mode only)



- Sets up the TV for the best picture appearance for viewing movies.

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

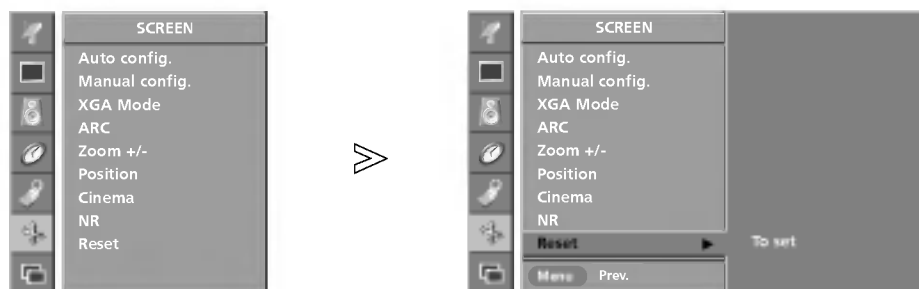
### NR (Noise Reduction)



- You can select **3D NR** or **MPEG NR** to reduce the picture noise which may appear on the screen during watching in TV mode.
- This function is not available for use in **DVI PC**, **HDMI PC** mode.
- **3D NR** is not available or use in **Component**, **DVI DTV**, **HDMI DTV** mode.

- 1 Press the **MENU** button and then use **▲** / **▼** button to select the **SCREEN** menu.
- 2 Press the **▶** button and then use **▲** / **▼** button to select **NR**.
- 3 Press the **▶** button and then use **▲** / **▼** button to select **3D NR** or **MPEG NR**.
- 4 Press the **◀** / **▶** button to make appropriate adjustments.
  - The adjustment range of **3D NR** is 0~2.
  - The adjustment range of **MPEG NR** is 0~15.
- 5 Press the **EXIT** button to return to normal TV viewing.

## Reset to original factory value (Initializing)



- You can initialize Zoom +/-, Position, Manual Config., PIP size, PIP position and sub picture size for Double window.

- This function operates in every mode. To initialize the adjusted value.

- 1** Press the **MENU** button and then use **▲ / ▼** button to select the **SCREEN** menu.
- 2** Press the **►** button and then use **▲ / ▼** button to select **Reset**.
- 3** Press the **►** button.  
The display **OK** will appear.

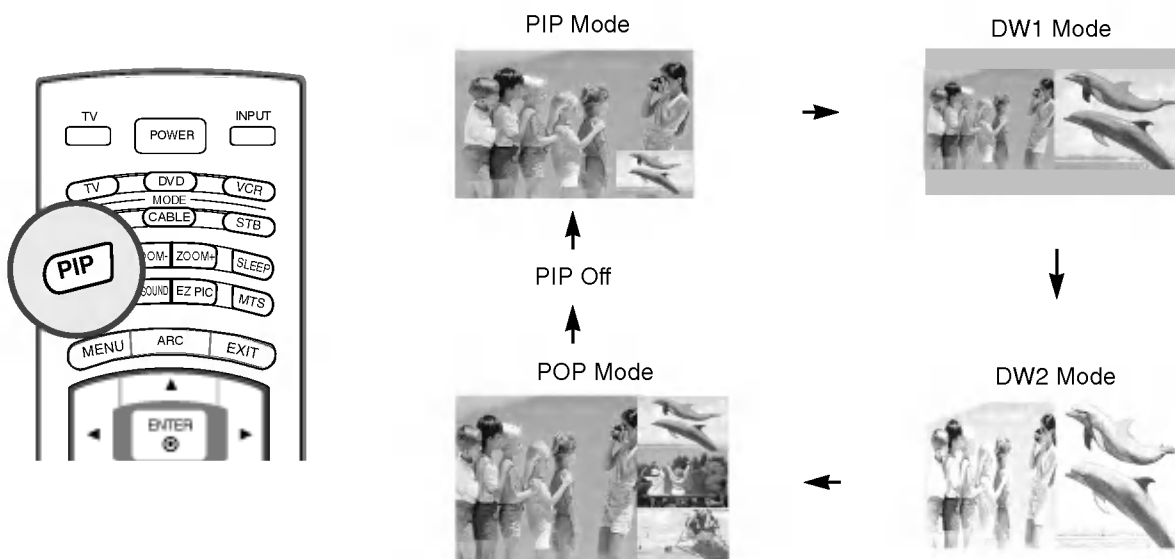
## PIP (Picture-In-Picture) / DW (Double Window) Menu

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

### Watching PIP/POP/Double Window

Press the **PIP** button to access the sub picture. Each press of PIP changes the PIP options as shown below. You can hear the main picture sound in PIP mode. Exchange the main and sub picture to hear the sub picture sound.

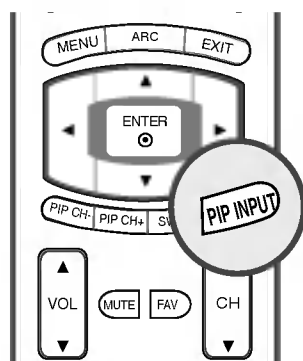
- You can also adjust **PIP** and **DW** in the **PIP/DW** menu.



#### POP (Picture-out-of-Picture: Channel Scan) Mode

- Use POP to search the programs of all the memorized channels one-by-one on the 3 POP screen display, (while the main picture source remains the current channel). The pictures of all the programmed channels are searched with the 3 POP screen.
- Use the **SWAP** button to enlarge the selected channel being searched on the POP screen to shift it for viewing on the main screen.
- Run Auto programm channel search before using POP mode.

### Selecting an Input Signal Source for PIP/Double Window

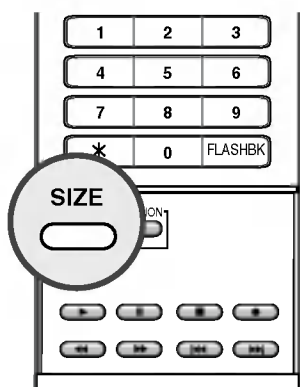


Use the **PIP INPUT** button to select the input source for the sub picture. Each press of **PIP INPUT** button changes the PIP source.

- You can also select sources for the **PIP Input** in the **PIP/DW** menu.

| Main picture       | Sub picture              |               |
|--------------------|--------------------------|---------------|
|                    | PIP/DW                   | POP           |
| TV                 | All (Except TV)          | TV            |
| Video              | All (Except Video)       |               |
| S-Video            | All (Except S-Video)     |               |
| Component 1        | All (Except Component 1) |               |
| Component 2        | All (Except Component 2) |               |
| DVI PC / DVI DTV   | All (Except DVI, HDMI)   |               |
| HDMI PC / HDMI DTV | All (Except DVI, HDMI)   |               |
|                    |                          | Not available |

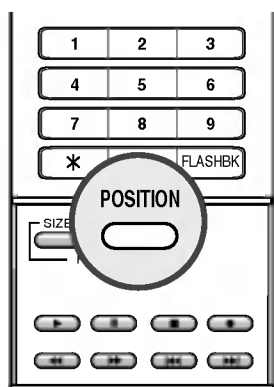
## PIP Size



Press the **SIZE** button and then use ◀ / ▶ button to change the sub picture size.

- Using the **Win.size** function in Double Window mode, main and sub picture sizes are changed simultaneously. Using the **Win.size** function in PIP mode, sub picture size is changed.
- You can also change the sub picture size with **Win.size** in the **PIP/DW** menu.

## Moving the PIP (PIP Mode only)

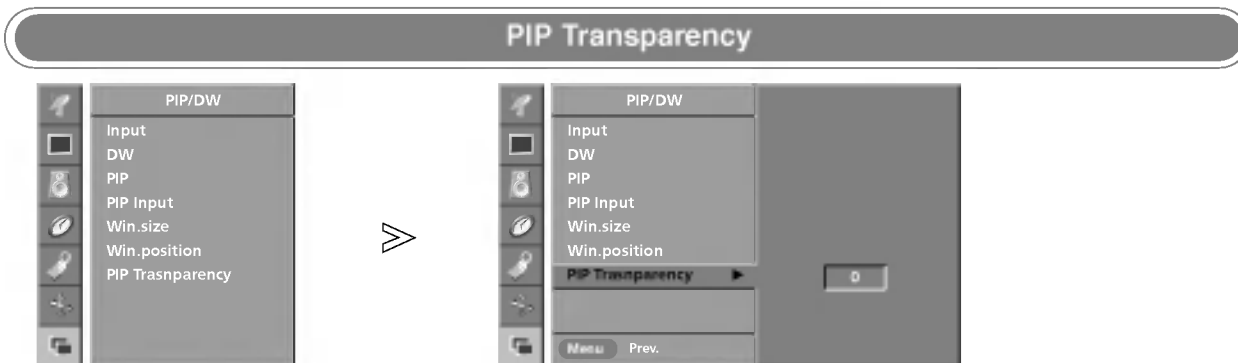


Press the **POSITION** button.

Press the ▲ / ▼ / ◀ / ▶ button repeatedly until desired position is achieved. The sub picture moves up/down/left/right.

- You can also move the PIP position with **Win.position** in the **PIP/DW** menu.

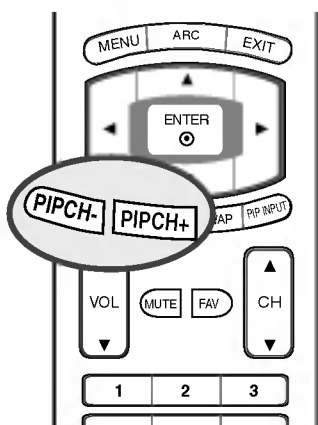
## PIP (Picture-In-Picture) / DW (Double Window) Menu continued



- This function is to make the PIP clear or opaque.

- 1** Press the **MENU** button and then use **▲** / **▼** button to select the **PIP/DW** menu.
- 2** Press the **▶** button and then use **▲** / **▼** button to select **PIP Transparency**.
- 3** Press the **▶** button and then use **◀** / **▶** button to adjust PIP transparency.
  - The adjustment range of **PIP Transparency** is 0 ~ 10.
- 4** Press the **EXIT** button to return to normal TV viewing.

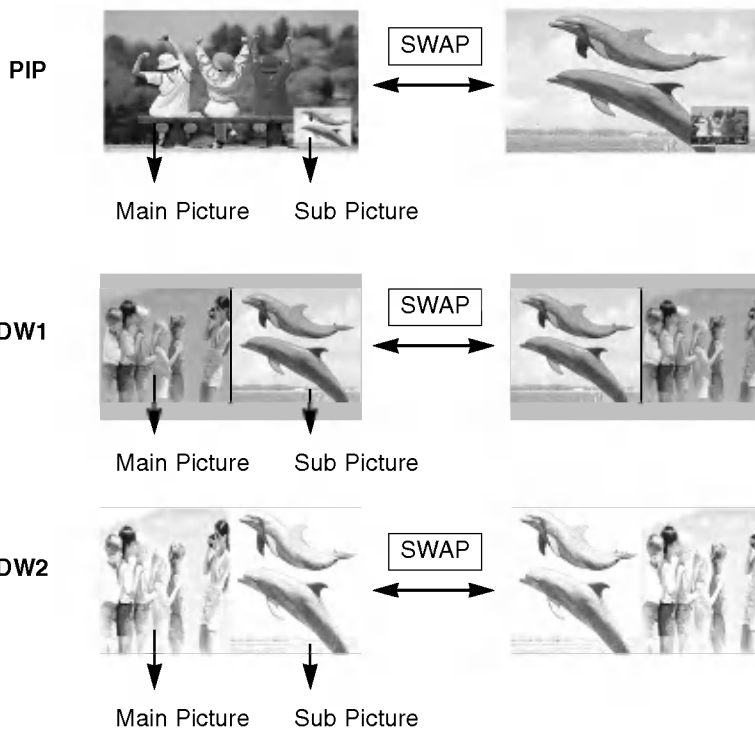
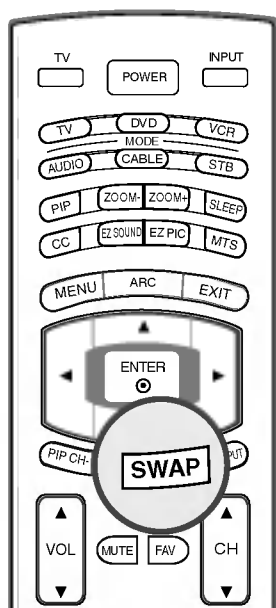
## TV Program Selection for PIP



- 1** Press the **PIPCH+** / **PIPCH-** button to select a channel for the sub picture in PIP mode.

## Swapping the PIP/Double Window

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



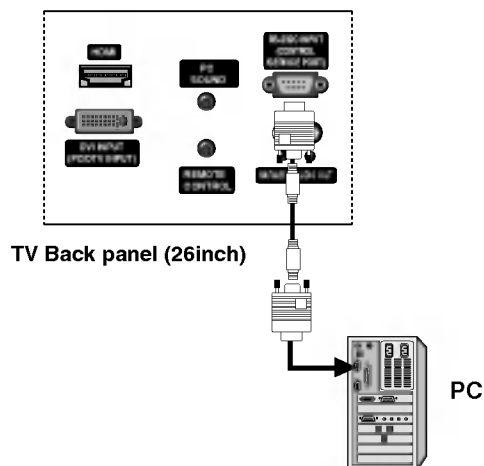
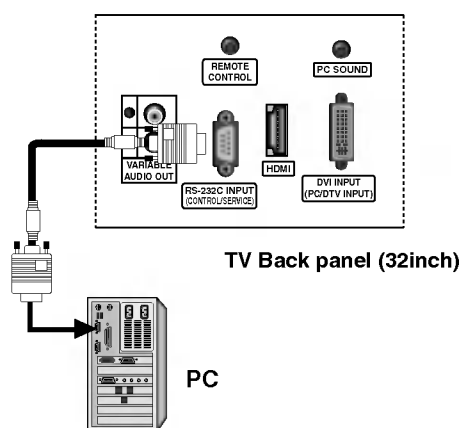
- In some case of PIP/DW mode, picture quality can be different between main picture and sub picture. The sub picture may appear poor as compared to main picture.

# Reference

## External Control Device Setup

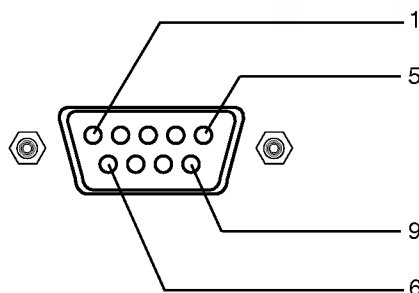
- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the Monitor's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the TV back panel.
- RS-232C connection cables are not supplied with the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

### RS-232C Setup



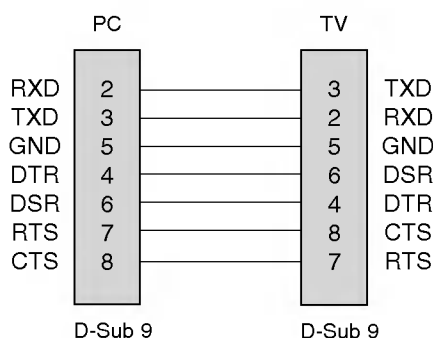
### Type of Connector; D-Sub 9-Pin Male

| 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        |

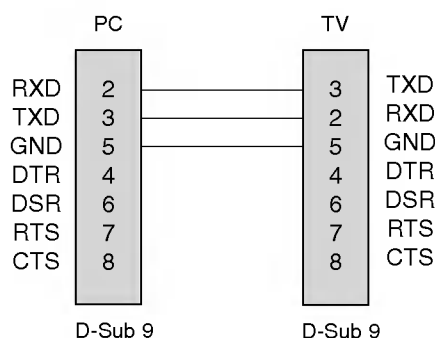


### RS-232C Configurations

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



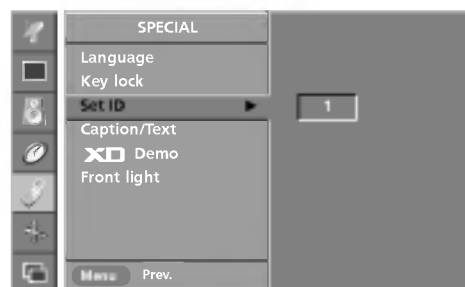
3-Wire Configurations  
(Not standard)



## Set ID

- Use this function to specify a TV ID number.
- Refer to 'Real Data Mapping'. See page 54.

1. Press the **MENU** button and then use **▲ / ▼** button to select the **SPECIAL** menu.
2. Press the **►** button and then use **▲ / ▼** button to select **Set ID**.
3. Press the **►** button and then use **▲ / ▼** button to adjust **Set ID** to choose the desired TV ID number. The adjustment range of **Set ID** is 1 ~ 99.
4. Press **EXIT** button to return to normal TV viewing.



## Communication Parameters

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

\* Use a crossed (reverse) cable.

## Command Reference List

|                                 | COMMAND 1 | COMMAND 2 | DATA<br>(Hexadecimal) |
|---------------------------------|-----------|-----------|-----------------------|
| 01. Power                       | k         | a         | 0 ~ 1                 |
| 02. Input Select (Main Picture) | x         | b         | *                     |
| 03. Input Select (Sub Picture)  | x         | y         | *                     |
| 04. Aspect Ratio                | k         | c         | 0 ~ 3                 |
| 05. Screen Mute                 | k         | d         | 0 ~ 1                 |
| 06. Volume Mute                 | k         | e         | 0 ~ 1                 |
| 07. Volume Control              | k         | f         | 0 ~ 64                |
| 08. Contrast                    | k         | g         | 0 ~ 64                |
| 09. Brightness                  | k         | h         | 0 ~ 64                |
| 10. Color                       | k         | i         | 0 ~ 64                |
| 11. Tint                        | k         | j         | 0 ~ 64                |
| 12. Sharpness                   | k         | k         | 0 ~ 64                |
| 13. OSD Select                  | k         | l         | 0 ~ 1                 |
| 14. Key Lock                    | k         | m         | 0 ~ 1                 |
| 15. Balance                     | k         | t         | 0 ~ 64                |
| 16. Key                         | m         | c         | Key Code              |

\* : Refer to '02~03 Input select'. See page 54.

## Transmission / Receiving Protocol

### Transmission

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

- \* [Command 1]: First command. (k, x or m)
- \* [Command 2]: Second command.
- \* [Set ID]: You can adjust the set ID to choose desired monitor ID number in Special menu. Adjustment range is 1 ~ 99. When selecting Set ID '0', every connected TV set 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

### \*\*Error messages

1. **Illegal ID** : If Wrong or no ID in the command is written.
2. **B\_TokenLength !=2** : If the first argument of the command does not equals to 2.
3. **Error ==TOKEN\_ERROR** : If some Special character or Numeric are written to the first argument of the command or wrong Space position is written to the first argument of the command.
4. **Illegal Opcodes** : If the Wrong Alphabet is written to the first argument of the command.
5. **Illegal Params** : If the Wrong parameter is supplied to the end of the command line (means that value of the parameter that is not supported).

**01. Power On (Command:a)**

- To control Power On/Off of the TV.

Transmission

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

Data 0 : Power Off                      1 : Power On

Acknowledgement

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

- To show Power On/Off.

Transmission

[k][a][ ][Set ID][ ][FF][Cr]

Acknowledgement

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

Data 0 : Power Off                      1 : Power On

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

- To select input source for the TV.  
You can also select an input source using the INPUT button on the TV's remote control.

Transmission

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

|                  |                    |
|------------------|--------------------|
| Data 10 : TV     | 50 or 60 : DVI PC  |
| 20 : Video       | 51 or 61 : DVI DTV |
| 30 : S-Video     | 90 : HDMI PC       |
| 40 : Component 1 | 91 : HDMI DTV      |
| 41 : Component 2 |                    |

Acknowledgement

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

**03. Input Select (Command:y) (Sub Picture Input)**Transmission

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

|                  |                  |
|------------------|------------------|
| Data 10 : TV     | 41 : Component 2 |
| 20 : Video       | 50 or 60 : DVI   |
| 30 : S-Video     | 90 : HDMI        |
| 40 : Component 1 |                  |

Acknowledgement

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

**04. Aspect Ratio (Command:c) (Main picture format)**

- To adjust the screen format.  
You can also adjust the screen format using the ARC (Aspect Ratio Control) button on remote control or in the Screen menu.

Transmission

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

Data 0 : Normal screen (4:3)  
1 : Wide screen (16:9)  
2 : Horizon  
3 : Zoom

\* In PC mode only 16:9 and 4:3 aspect ratios are available.

Acknowledgement

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

**05. Screen Mute (Command: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)

**06. Volume Mute (Command:e)**

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

Transmission

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

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

Acknowledgement

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

**07. Volume Control (Command: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 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1' as shown below.

Acknowledgement

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

**08. Contrast (Command:g)**

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

Transmission

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

Data Min: 0 ~ Max: 64 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1' as shown below.

Acknowledgement

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

**\* Real data mapping 1**

0 : Step 0  
⋮  
A : Step 10  
⋮  
F : Step 15  
10 : Step 16  
⋮  
64 : Step 100

\* Tint : R50 ~ G50  
\* Balance : L50 ~ R50

### 09. Brightness (Command:h)

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

#### Transmission

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

Data Min: 0 ~ Max: 64 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1'. See page 54.

#### Acknowledgement

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

### 10. Color (Command:i)

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

#### Transmission

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

Data Min: 0 ~ Max: 64 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1'. See page 54.

#### Acknowledgement

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

### 11. Tint (Command:j)

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

#### Transmission

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

Data Min: 0 ~ Max: 64 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1'. See page 54.

#### Acknowledgement

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

### 12. Sharpness (Command:k)

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

#### Transmission

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

Data Min: 0 ~ Max: 64 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1'. See page 54.

#### Acknowledgement

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

### 13. OSD Select (Command:l)

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

#### Transmission

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

Data 0: OSD mute on 1: OSD mute off

#### Acknowledgement

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

### 14. Key Lock (Command:m)

- To lock the front panel controls on the TV.

#### Transmission

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

Data 0: Lock off 1: Lock on

#### Acknowledgement

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

- If you're not using the front panel controls on the TV, use this mode. When main power is on/off, remote control lock is released.

### 15. Balance (Command:t)

- To adjust balance.

#### Transmission

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

Data Min: 0 ~ Max: 64 (transmit by Hexadecimal code)  
• Refer to 'Real data mapping 1'. See page 54.

#### Acknowledgement

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

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

- To send IR remote key code.

#### Transmission

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

Data: Key code (Refer to P.57)

#### Acknowledgement

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

# IR Codes

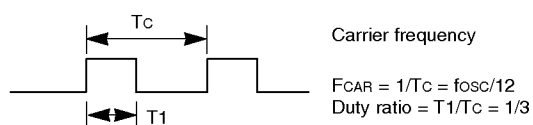
## How to Connect

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

## Remote Control IR Codes

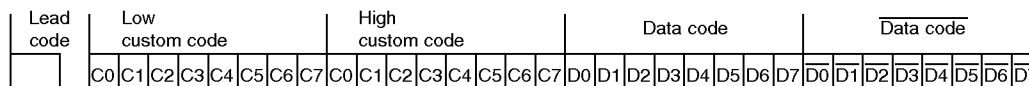
### ► Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz

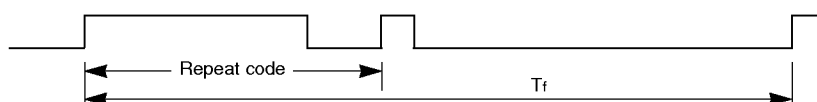


### ► Configuration of frame

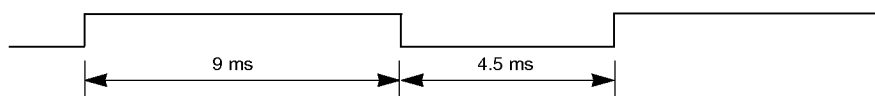
- 1st frame



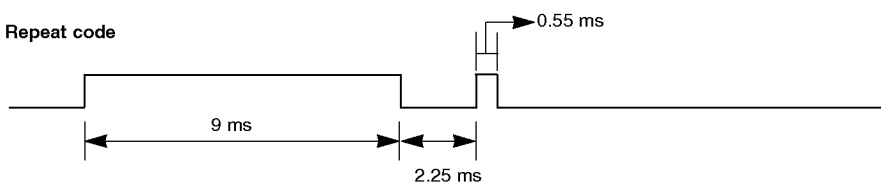
- Repeat frame



### ► Lead code

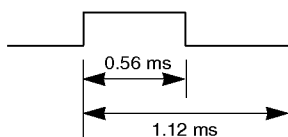


### ► Repeat code

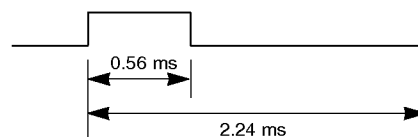


### ► Bit description

- Bit "0"

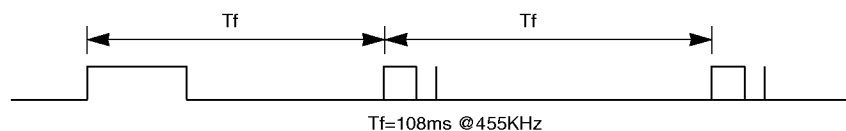


- Bit "1"



### ► Frame interval : $T_f$

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



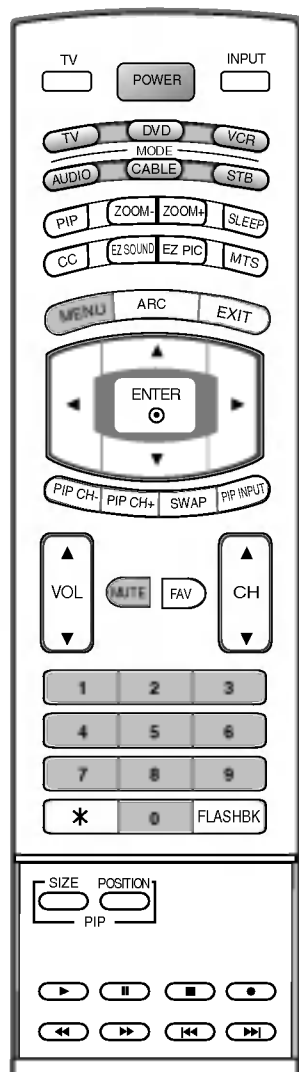
| Code (Hexa) | Function        | Note                              |
|-------------|-----------------|-----------------------------------|
| 0F          | TV              | Remote Control Button             |
| 08          | POWER           | Remote Control Button             |
| 0B          | INPUT           | Remote Control Button             |
| C4          | POWER ON        | Discrete IR Code (Only Power On)  |
| C5          | POWER OFF       | Discrete IR Code (Only Power OFF) |
| 60          | PIP             | Remote Control Button             |
| 5D          | ZOOM-           | Remote Control Button             |
| 5C          | ZOOM+           | Remote Control Button             |
| 0E          | SLEEP           | Remote Control Button             |
| 39          | CC              | Remote Control Button             |
| 52          | EZ SOUND        | Remote Control Button             |
| 4D          | EZ PIC          | Remote Control Button             |
| 0A          | MTS             | Remote Control Button             |
| 43          | MENU            | Remote Control Button             |
| 79          | ARC             | Remote Control Button             |
| 5B          | EXIT            | Remote Control Button             |
| 07          | ◀               | Remote Control Button             |
| 06          | ▶               | Remote Control Button             |
| 40          | ▲               | Remote Control Button             |
| 41          | ▼               | Remote Control Button             |
| 44          | ENTER           | Remote Control Button             |
| 72          | PIP CH-         | Remote Control Button             |
| 71          | PIP CH+         | Remote Control Button             |
| 63          | SWAP            | Remote Control Button             |
| 61          | PIP INPUT       | Remote Control Button             |
| 02          | VOL ▲           | Remote Control Button             |
| 03          | VOL ▼           | Remote Control Button             |
| 00          | CH ▲            | Remote Control Button             |
| 01          | CH ▼            | Remote Control Button             |
| 09          | MUTE            | Remote Control Button             |
| 1E          | FAV             | Remote Control Button             |
| 10~19       | Number Key 0~ 9 | Remote Control Button             |
| 1A          | FLASHBK         | Remote Control Button             |
| 64          | SIZE            | Remote Control Button             |
| 62          | POSITION        | Remote Control Button             |

## Programming the Remote

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

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

### Programming a code into a remote mode



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

# Programming Codes

## VCRs

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

## Cable Box

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

## Digital Cable/Satellite Box

| Brand          | Codes           | Brand              | Codes           | Brand                | Codes           | Brand    | Codes           |
|----------------|-----------------|--------------------|-----------------|----------------------|-----------------|----------|-----------------|
| ALPHASTAR DSR  | 123             |                    | 133 134         | PACE SKY SATELLITE   | 143             |          | 088 090 107 130 |
| AMPLICA        | 050             | GENERAL INSTRUMENT | 003 004 016 029 | PANASONIC            | 060 142         |          | 137             |
| BIRDVIEW       | 051 126 129     |                    | 031 059 101     | PANSAT               | 121             | TOSHIBA  | 002 127         |
| CHANNEL MASTER | 013 014 015 018 | HITACHI            | 139 140         | PERSONAL CABLE       | 117             | UNIDEN   | 016 025 042 043 |
|                | 036 055         | HOUSTON TRACKER    | 033 037 039 051 | PHILIPS              | 071             |          | 044 045 048 049 |
| CHAPARRAL      | 008 009 012 077 |                    | 057 104         | PICO                 | 105             |          | 078 079 080 086 |
| CITOH          | 054             | HUGHES             | 068             | PRESIDENT            | 019 102         |          | 101 135 136     |
| CURTIS MATHES  | 050 145         | JANIEL             | 060 147         | 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              | 062 144         |                      | 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         | Codes           | Brand     | Codes           | Brand     | Codes           | Brand   | Codes           |
|---------------|-----------------|-----------|-----------------|-----------|-----------------|---------|-----------------|
| 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 | MCINTOSH  | 097 112         | SHERWOOD  | 005 006 158     |         |                 |
|               | 211 212 239     | MCS       | 049             | SONY      | 044 045 109 114 |         |                 |
| HAITAI        | 034 035 188 222 | MEMOREX   | 104             |           | 118 126 248 249 |         |                 |
| HARMAN/KARDON | 068             | NAD       | 107             | TAEKWANG  | 012 020 073 074 |         |                 |
| INKEL         | 037 058 062 069 | ONKYO     | 046             |           | 076 077 105 161 |         |                 |
|               | 078 079 095 121 |           | 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             | TEAC      | 010 085 106 136 |         |                 |
|               | 189 207 222 224 | PANASONIC | 007 033 064 113 |           | 185 187 237     |         |                 |
|               | 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            | 005 006         | MITSUBISHI | 002     | PROCEED | 021     | TOSHIBA  | 019 008     |
| HARMAN KARDON | 027             | NAD        | 023     | PROSCAN | 005 006 | YAMAHA   | 009 018     |
| JVC           | 012             | ONKYO      | 008 017 | RCA     | 005 006 | ZENITH   | 010 016 025 |
| LG            | 001 010 016 025 | PANASONIC  | 003 009 | SAMSUNG | 011 015 |          |             |

# Troubleshooting Checklist

| The operation does not work normally.  |                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>The remote control doesn't work</b> | <ul style="list-style-type: none"> <li>• Check to see if there is any object between the product and the remote control causing obstruction.</li> <li>• Are batteries installed with correct polarity (+ to +, - to -)?</li> <li>• Correct remote operating mode set: TV, VCR etc.?</li> <li>• Install new batteries.</li> </ul> |
| <b>Power is suddenly turned off</b>    | <ul style="list-style-type: none"> <li>• Is the sleep timer set?</li> <li>• Check the power control settings. Power interrupted</li> <li>• No broadcast on station tuned with Auto off activated.</li> </ul>                                                                                                                     |

| The video function does not work.                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>No picture &amp; No sound</b>                   | <ul style="list-style-type: none"> <li>• Check whether the product is turned on.</li> <li>• Try another channel. The problem may be with the broadcast.</li> <li>• Is the power cord inserted into wall power outlet?</li> <li>• Check your antenna direction and/or location.</li> <li>• Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.</li> </ul> |
| <b>Picture appears slowly after switching on</b>   | <ul style="list-style-type: none"> <li>• 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.</li> </ul>                                                                                                                                                                                                                |
| <b>No or poor color or poor picture</b>            | <ul style="list-style-type: none"> <li>• Adjust Color in menu option.</li> <li>• Keep a sufficient distance between the product and the VCR.</li> <li>• Try another channel. The problem may be with the broadcast.</li> <li>• Are the video cables installed properly?</li> <li>• Activate any function to restore the brightness of the picture.</li> </ul>                                                                     |
| <b>Horizontal/vertical bars or picture shaking</b> | <ul style="list-style-type: none"> <li>• Check for local interference such as an electrical appliance or power tool.</li> </ul>                                                                                                                                                                                                                                                                                                   |
| <b>Poor reception on some channels</b>             | <ul style="list-style-type: none"> <li>• Station or cable product experiencing problems, tune to another station.</li> <li>• Station signal is weak, reorient antenna to receive weaker station.</li> <li>• Check for sources of possible interference.</li> </ul>                                                                                                                                                                |
| <b>Lines or streaks in pictures</b>                | <ul style="list-style-type: none"> <li>• Check antenna (Change the direction of the antenna).</li> </ul>                                                                                                                                                                                                                                                                                                                          |

| The audio function does not work.     |                                                                                                                                                                                                                                                                           |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Picture OK & No sound                 | <ul style="list-style-type: none"><li>• Press the <b>VOL</b> or <b>VOLUME</b> button.</li><li>• Sound muted? Press <b>MUTE</b> button.</li><li>• Try another channel. The problem may be with the broadcast.</li><li>• Are the audio cables installed properly?</li></ul> |
| No output from one of the speakers    | <ul style="list-style-type: none"><li>• Adjust Balance in menu option.</li></ul>                                                                                                                                                                                          |
| Unusual sound from inside the product | <ul style="list-style-type: none"><li>• 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.</li></ul>                                                         |

| There is a problem in PC mode.<br>(Only PC mode applied)                     |                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The signal is out of range.                                                  | <ul style="list-style-type: none"><li>• Adjust resolution, horizontal frequency, or vertical frequency.</li><li>• Check it whether the signal cable is connected or loose.</li><li>• Check the input source.</li></ul> |
| Vertical bar or stripe on background & Horizontal Noise & Incorrect position | <ul style="list-style-type: none"><li>• Work the Auto configure or adjust clock, phase, or H/V position.</li></ul>                                                                                                     |
| Screen color is unstable or single color                                     | <ul style="list-style-type: none"><li>• Check the signal cable.</li><li>• Reinstall the PC video card.</li></ul>                                                                                                       |

# Product Specifications

| MODEL                      | 26LX2R                                 | 32LX2R                    |
|----------------------------|----------------------------------------|---------------------------|
| Power Requirement          | AC 100-240V~ 50/60Hz 1.5A              | AC 100-240V~ 50/60Hz 2.0A |
| Power Consumption          | 115W                                   | 140W                      |
| Television System          | NTSC, PAL - M/N                        |                           |
| Program Coverage           | VHF 2 ~ 13, UHF 14 ~ 69, Cable 1 ~ 125 |                           |
| External Antenna Impedance | 75 $\Omega$                            |                           |

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

