LCD TV
OWNER'S MANUAL

37LG50
42LG50
47LG50
52LG50

42LG50DC
47LG50DC
52LG50DC

42LG55
47LG55

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.

www.lgusa.com / www.lg.ca

WARNING / CAUTION

WARNING / CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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

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

WARNING/CAUTION

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

NOTE TO CABLE/TV INSTALLER

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

WARNING / CAUTION

To prevent fire or shock hazards, do not expose this product to rain or moisture.

FCC NOTICE

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

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

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION

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

SAFETY INSTRUCTIONS

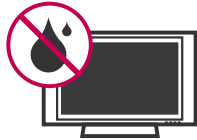## IMPORTANT SAFETY INSTRUCTIONS

Read these instructions.
Keep these instructions.
Heed all warnings.
Follow all instructions.

1 Do not use this apparatus near water.

2 Clean only with dry cloth.

3 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

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

5 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong, The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

6 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

7 Only use attachments/accessories specified by the manufacturer.

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

S3125A

9 Unplug this apparatus during lighting storms or when unused for long periods of time.
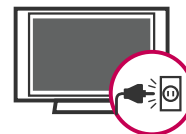
10 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
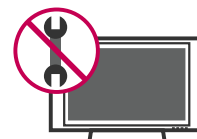
SAFETY INSTRUCTIONS

11 Never touch this apparatus or antenna during a thunder or lighting storm.

12 When mounting a TV on the wall, make sure not to install the TV by the hanging power and signal cables on the back of the TV.

13 Do not allow an impact shock or any objects to fall into the product, and do not drop onto the screen with something.

14 CAUTION concerning the Power Cord:

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

Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

Do not make the TV with the power cord plugged in. Do not use a damaged or loose power cord. Be sure do grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the TV.

15 WARNING - To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids. Do not touch the TV with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the TV to direct air conditioning.

16 Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).

17 GROUNDING

Ensure that you connect the earth ground wire to prevent possible electric shock (i.e. a TV with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet). If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

Do not try to ground the unit by connecting it to telephone wires, lightening rods, or gas pipes.

Short-circuit Breaker

Power Supply
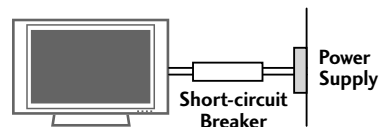
18 DISCONNECTING DEVICE FROM MAINS

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

19 Keep the product away from direct sunlight.
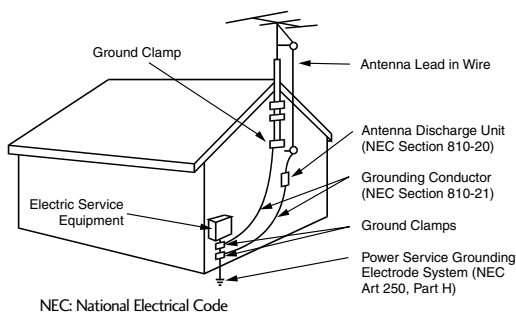
20 **ANTENNAS**
Outdoor antenna grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of over-head power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits as death or serious injury can occur.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code (NEC) in the U.S.A. provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

Antenna grounding according to the National Electrical Code, ANSI/NFPA 70

Ground Clamp

Antenna Lead in Wire

Antenna Discharge Unit
(NEC Section 810-20)

Grounding Conductor
(NEC Section 810-21)

Electric Service
Equipment

Ground Clamps

Power Service Grounding
Electrode System (NEC
Art 250, Part H)

NEC: National Electrical Code

21 **Cleaning**

When cleaning, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the TV as electric shock may occur. Do not clean with chemicals such as alcohol, thinners or benzene.

22 **Moving**

Make sure the product is turned off, unplugged and all cables have been removed. It may take 2 or more people to carry larger TVs. Do not press against or put stress on the front panel of the TV.

23 **Ventilation**

Install your TV where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials (e.g.) plastic while plugged in. Do not install in excessively dusty places.

24 If you smell smoke or other odors coming from the TV or hear strange sounds, unplug the power cord contact an authorized service center.

25 Do not press strongly upon the panel with hand or sharp object such as nail, pencil or pen, or make a scratch on it.

CONTENTS

SOUND & LANGUAGE CONTROL

TIME SETTING

PARENTAL CONTROL / RATINGS

APPENDIX

FEATURE OF THIS TV

SRS(●) TruSurround XT **SRS(●) TruSurround XT** is a trademark of SRS Labs, Inc. TruSurround XT technology is incorporated under license from SRS Labs, Inc.

DOLBY DIGITAL Manufactured under license from Dolby Laboratories. "*Dolby* "and the double-D symbol are trademarks of Dolby Laboratories.

isf ccc CALIBRATE LIKE A PRO: Sophisticated and detailed calibrations can be made through the ISFccc mode. Detailed calibration requires a licensed technician. Please contact your local dealer to inquire about an ISF certified technician.

FOR LCD TV

■ If the TV feels cold to the touch, there may be a small "flicker" when it is turned on. This is normal, there is nothing wrong with TV.

■ Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the monitor's performance.

■ Avoid touching the LCD screen or holding your finger(s) against it for long periods of time. Doing so may produce some temporary distortion effects on the screen.

On Disposal (Only Hg lamp used LCD TV)

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

PREPARATION

ACCESSORIES

Ensure that the following accessories are included with your TV. If an accessory is missing, please contact the dealer where you purchased the TV.
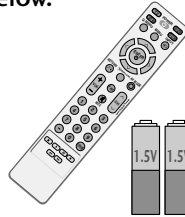
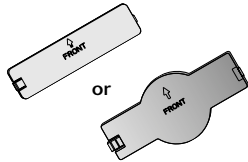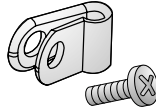The accessories included may differ from the images below.
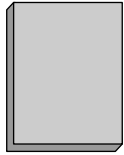
Owner's Manual	CD Manual	Remote Control, Batteries	Power Cord

1.5V 1.5V

Protection Cover

or

Protective Bracket and Bolt for Power Cord
(This feature is not available for all models.)
(Refer to P.14)

Only 37/42LG5*

x 4   x 4

Bolts for stand assembly
(Refer to P.12)

Screw for stand fixing
(Refer to P.15)
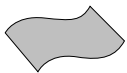
Polishing Cloth
(This feature is not available for all models.)

* Wipe spots on the exterior only with the polishing cloth.
* Do not wipe roughly when removing stain. Excessive pressure may cause scratch or discoloration.

Option Extras
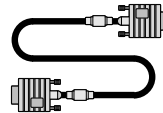
D-sub 15 pin Cable

When using the VGA (D-sub 15 pin cable) PC connection, the user must use shielded signal interface cables with ferrite cores to maintain standards compliance.
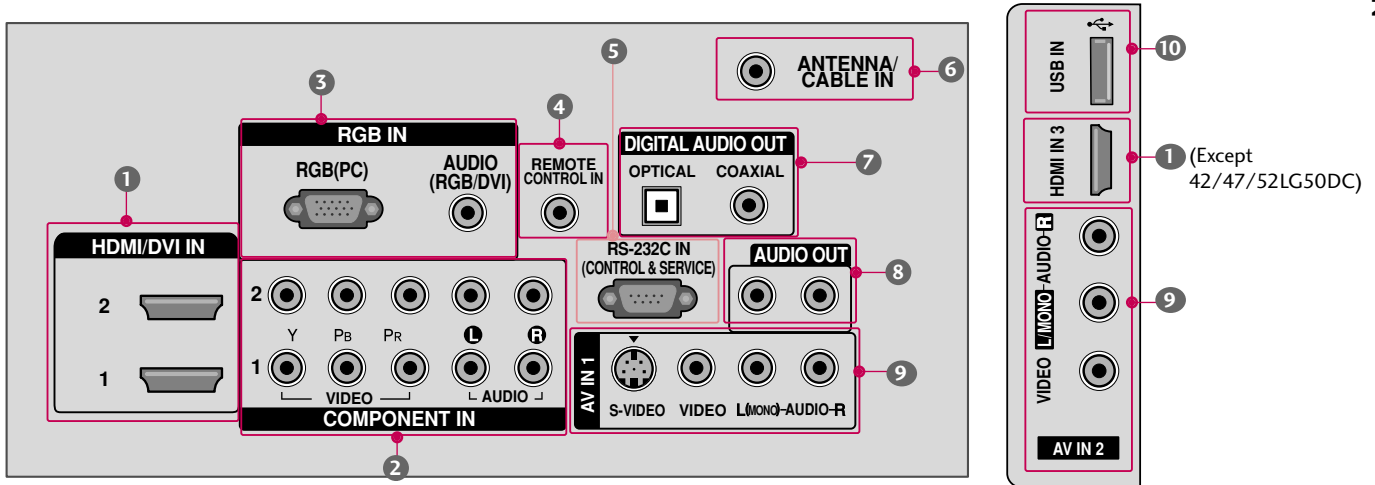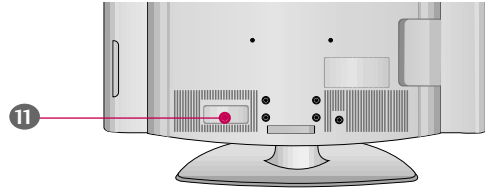
PREPARATION

FRONT PANEL INFORMATION

■ Image shown may differ from your TV.

■ **NOTE**: If your TV has a protection tape attached, remove the tape.
And then wipe the TV with a cloth (If a polishing cloth is included with your TV, use it).

Intelligent Sensor
Adjusts picture according to the surrounding conditions

Power/Standby Indicator
Illuminates red in standby mode.
Illuminates blue when the set is switched on.
(Can be adjusted using **Power Indicator** in the OPTION menu. ▶ **p.67**)

Remote Control Sensor

POWER Button

CHANNEL (∧ , ∨) Buttons

VOLUME (+, -) Buttons

ENTER
ENTER Button

MENU
MENU Button

INPUT
INPUT Button

CH

VOL

10

BACK PANEL INFORMATION

■ Image shown may differ from your TV.

① **HDMI/DVI IN, HDMI IN**
Digital Connection.
Supports HD video and Digital audio. Doesn't support 480i.
Accepts DVI video using an adapter or HDMI to DVI cable (not included).

② **COMPONENT IN**
Analog Connection.
Supports HD.
Uses a red, green, and blue cable for video & red and white for audio.

③ **RGB (PC)**
Analog PC Connection. Uses a D-sub 15 pin cable (VGA cable).
AUDIO (RGB/DVI)
1/8" headphone jack for analog PC audio input.

④ **REMOTE CONTROL IN PORT**
For a wired remote control.

⑤ **RS-232C IN (CONTROL & SERVICE) PORT**
Used by third party devices.

⑥ **ANTENNA/CABLE IN**
Connect over-the air signals to this jack.
Connect cable signals to this jack.

⑦ **DIGITAL AUDIO OUT**
Digital audio output for use with amps and home theater systems.
Includes an optical and coaxial connection.
Note: In standby mode, these ports do not work.

⑧ **AUDIO OUT**
Analog audio output for use with amps and home theater systems.

⑨ **AV (Audio/Video) IN**
Analog composite connection. Supports standard definition video only (480i).
S-VIDEO
Better quality than standard composition. Supports standard definition video only (480i).

⑩ **USB INPUT**
Used for viewing photos and listening to MP3s.

⑪ **Power Cord Socket**
For operation with AC power.
Caution: Never attempt to operate the TV on DC power.

PREPARATION

STAND INSTRUCTION

■ Image shown may differ from your TV.
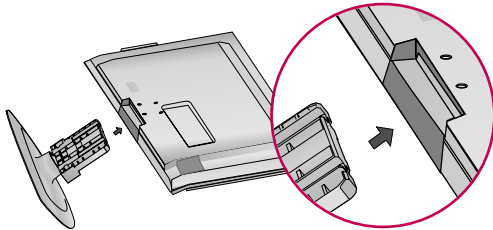
INSTALLATION (Only 37/42LG5*)

1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.
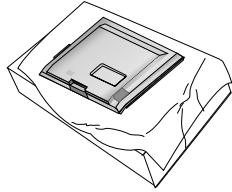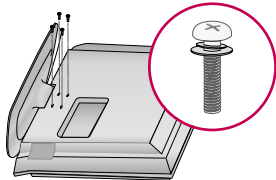

2 Assemble the parts of the **STAND BODY** with **COVER BASE** of the TV.

STAND BODY

COVER BASE
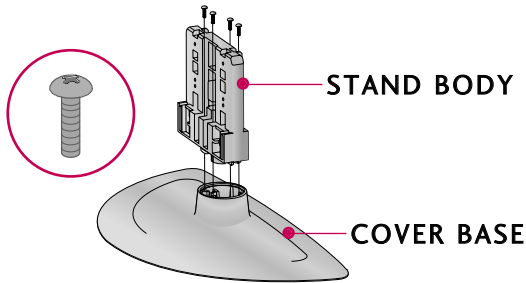
3 Assemble the TV as shown.

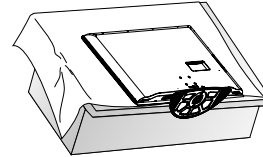**4** Fix the 4 bolts securely using the holes in the back of the TV.

> ⚠ **NOTE**
>
> ▶ When assembling the desk type stand, make sure the bolt is fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.

DETACHMENT

1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.

2 Loose the bolts from TV.
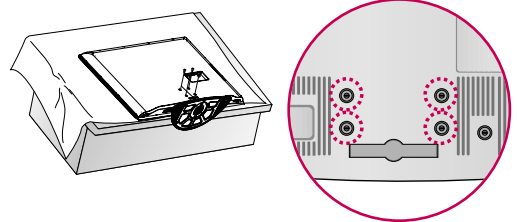
3 Detach the stand from TV.
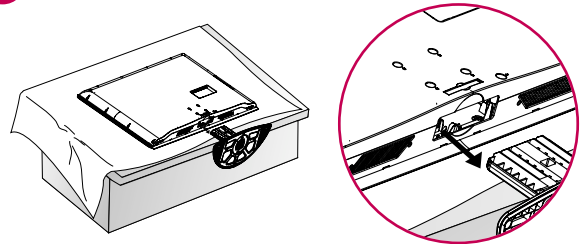
PROTECTION COVER

After removing the stand, install the included **protection cover** over the hole for the stand.

Press the **PROTECTION COVER** into the TV until you hear it click.
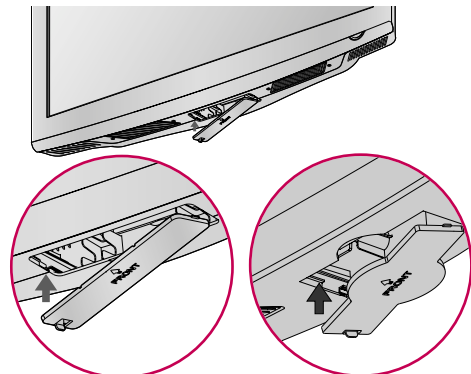
VESA WALL MOUNTING

Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest dealer.

If installed on a ceiling or slanted wall, it may fall and result in severe personal injury.

We recommend that you use an LG brand wall mount when mounting the TV to a wall.

LG recommends that wall mounting be performed by a qualified professional installer.
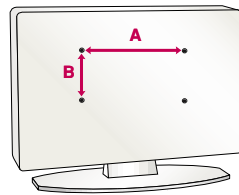
Product	Model	VESA (A * B)	Standard Screw	Quantity
LCD TV	37LG5* 42LG5* 47LG5*	200 * 200	M6	4
	52LG5*	800 * 400	M6	4

❶ NOTE

▶ Screw length needed depends on the wall mount used. For further information, refer to the instructions included with the mount.

▶ Standard dimensions for wall mount kits are shown in the table.

▶ When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.

▶ Do not use screws longer then the standard dimension, as they may cause damage to the inside to the TV.

▶ For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on their specifications.

▶ Do not use screws that do not comply with the VESA standard screw specifications.

Do not use fasten the screws too strongly, this may damage the TV or cause the TV to a fall, leading to personal injury. LG is not liable for these kinds of accidents.

▶ LG is not liable for TV damage or personal injury when a non-VESA or non specified wall mount is used or the consumer fails to follow the TV installation instructions.

⚠ CAUTION

▶ Do not install your wall mount kit while your TV is turned on. It may result in personal injury due to electric shock.
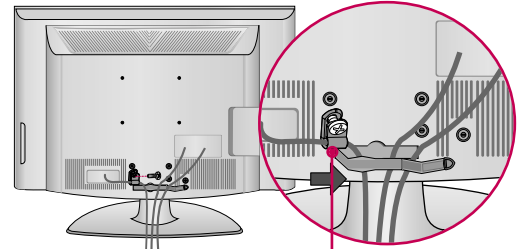
PREPARATION

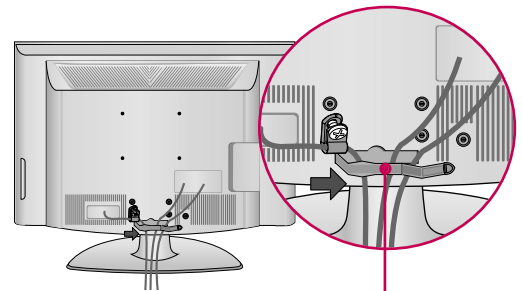## CABLE MANAGEMENT

■ Image shown may differ from your TV.

1 Connect the cables as necessary.

To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.

Secure the power cable with the **PROTECTIVE BRACKET** and the screw as shown. It will help prevent the power cable from being removed by accident.
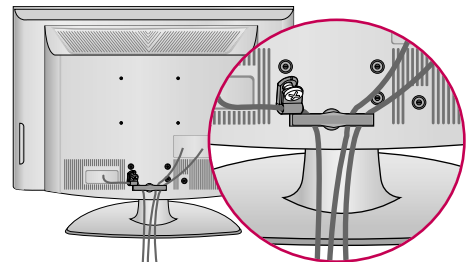
PROTECTIVE BRACKET
(This feature is not available for all models.)
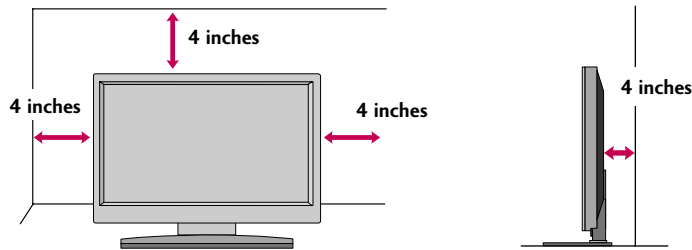
2 Install the **CABLE MANAGEMENT CLIP** as shown.

CABLE MANAGEMENT CLIP

3 Put the cables inside the **CABLE MANAGEMENT CLIP** and snap it closed.

DESKTOP PEDESTAL INSTALLATION

■ Image shown may differ from your TV.

For proper ventilation, allow a clearance of 4 inches on all four sides from the wall.

4 inches

4 inches

4 inches

4 inches

⚠ **CAUTION**
▶ Ensure adequate ventilation by following the clearance recommendations.
▶ Do not mount near or above any type of heat source.

SWIVEL STAND

After installing the TV, you can adjust the TV set manually to the left or right direction by 20 degrees to suit your viewing position.
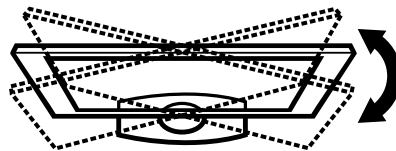
ATTACHING THE TV TO A DESK (Only 37/42LG5*)

The TV must be attached to a desk so it cannot be pulled in a forward/backward direction, potentially causing injury or damaging the product.

1-Screw
(provided as parts of the product)

Stand

Desk
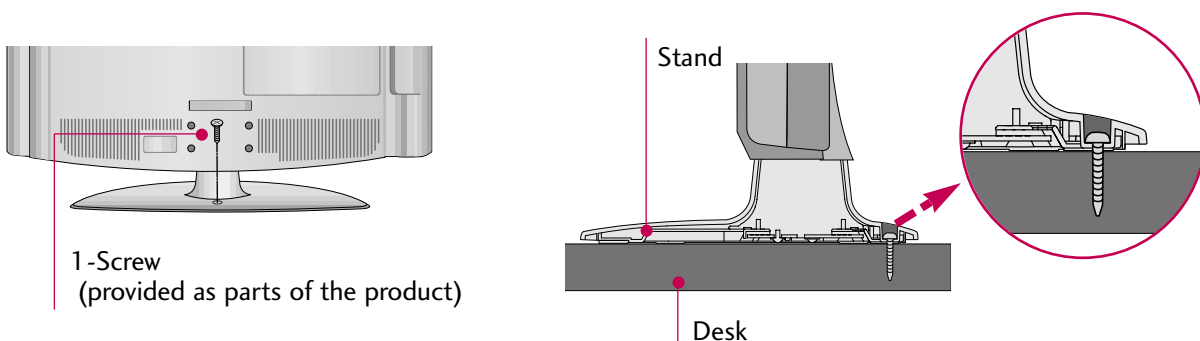
⚠ **WARNING**

▶ To prevent TV from falling over, the TV should be securely attached to the floor/wall per installation instructions. Tipping, shaking, or rocking the machine may cause injury.

PREPARATION

SECURING THE TV TO THE WALL TO PREVENT FALLING WHEN THE TV IS USED ON A STAND

■ You should purchase necessary components to prevent TV from falling off of the stand.
■ Image shown may differ from your TV.

We recommend that you set up the TV close to a wall so it cannot fall over if pushed backwards.
Additionally, we recommend that the TV be attached to a wall so it cannot be pulled in a forward direction, potentially causing injury or damaging the product.
Caution: Please make sure that children don't climb on or hang from the TV.
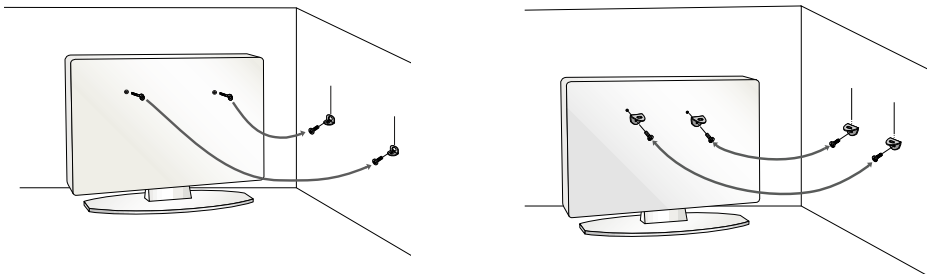
■ Insert the eye-bolts (or TV brackets and bolts) to tighten the product to the wall as shown in the picture.
　*If your product has the bolts in the eye-bolts position before inserting the eye-bolts, loosen the bolts.
　* Insert the eye-bolts or TV brackets/bolts and tighten them securely in the upper holes.
　Secure the wall brackets with the bolts (sold separately) to the wall. Match the height of the bracket that is mounted on the wall to the holes in the product.
　Ensure the eye-bolts or brackets are tightened securely.
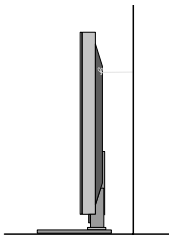
■ Use a sturdy rope (sold separately) to tie the product. It is safer to tie the rope so it becomes horizontal between the wall and the product.

🛈 NOTE

▶ Use a platform or cabinet strong enough and large enough to support the size and weight of the TV.
▶ To use the TV safely make sure that the height of the bracket on the wall and the one on the TV are the same.

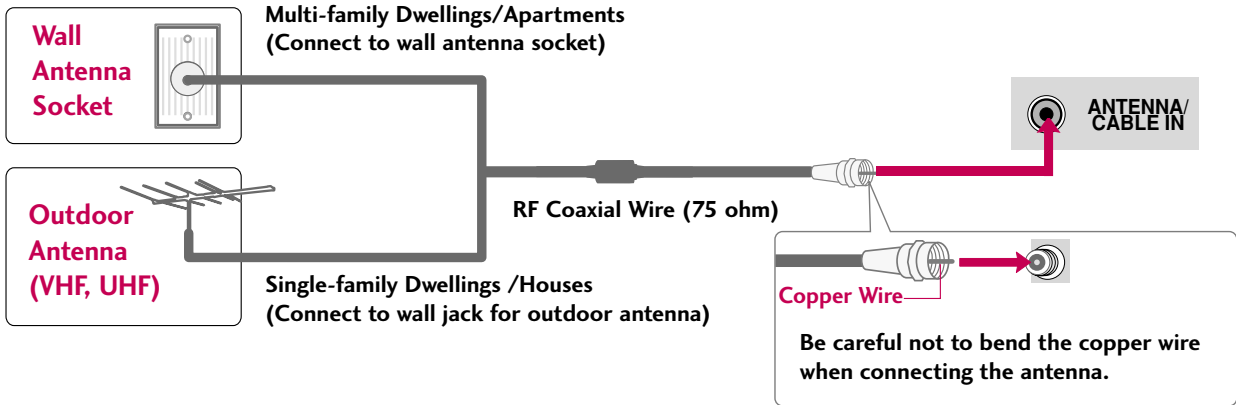■ To prevent damage do not connect to the power outlet until all connections are made between the devices.
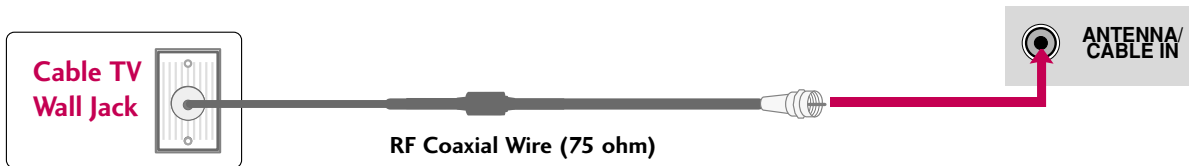
ANTENNA OR CABLE CONNECTION

1. Antenna (Analog or Digital)

Wall Antenna Socket or Outdoor Antenna without a Cable Box Connection.

For optimum picture quality, adjust the antenna direction if needed.

Wall Antenna Socket

Multi-family Dwellings/Apartments (Connect to wall antenna socket)

Outdoor Antenna (VHF, UHF)

Single-family Dwellings /Houses (Connect to wall jack for outdoor antenna)

RF Coaxial Wire (75 ohm)

ANTENNA/ CABLE IN

Copper Wire

Be careful not to bend the copper wire when connecting the antenna.

2. Cable

Cable TV Wall Jack

ANTENNA/ CABLE IN

RF Coaxial Wire (75 ohm)

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

EXTERNAL EQUIPMENT SETUP

■ To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.

■ Image shown may differ from your TV.

HD RECEIVER SETUP

This TV can receive digital over-the-air/digital cable signals without an external digital set-top box. However, if you do receive digital signals from a digital set-top box or other digital external device.

Component Connection

1. How to connect

1 Connect the video outputs (Y, PB, PR) of the digital set-top box to the **COMPONENT IN VIDEO 1** jacks on the TV. Match the jack colors (Y = green, PB = blue, and PR = red).

2 Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO 1** jacks on the TV.
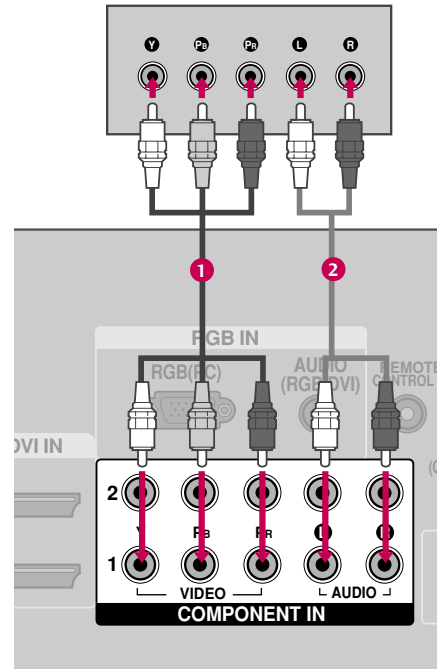
2. How to use

■ Turn on the digital set-top box.
(Refer to the owner's manual for the digital set-top box. operation)

■ Select the **Component 1** input source on the TV using the **INPUT** button on the remote control.

■ If connected to **COMPONENT IN2** input, select the **Component 2** input source on the TV.

Supported Resolutions

Signal	Component	HDMI
480i	Yes	No
480p	Yes	Yes
720p	Yes	Yes
1080i	Yes	Yes
1080p	Yes	Yes

Y, CB/PB, CR/PR

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
720x480i	15.73 15.73	59.94 60.00
720x480p	31.47 31.50	59.94 60.00
1280x720p	44.96 45.00	59.94 60.00
1920x1080i	33.72 33.75	59.94 60.00
1920x1080p	26.97 27.00 33.71 33.75 67.432 67.50	23.976 24.00 29.97 30.00 59.94 60.00

HDMI Connection

1. How to connect

1 Connect the digital set-top box to **HDMI/DVI IN1**, **2**, or **3*** jack on the TV.

**2** No separate audio connection is necessary. HDMI supports both audio and video.

2. How to use

■ Turn on the digital set-top box.
  (Refer to the owner's manual for the digital set-top box.)

■ Select the **HDMI1**, **HDMI2**, or **HDMI3*** input source on the TV using the **INPUT** button on the remote control.

* HDMI 3: Except 42/47/52LG50DC

HDMI-DTV

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
720x480p	31.47 31.50	59.94 60.00
1280x720p	44.96 45.00	59.94 60.00
1920x1080i	33.72 33.75	59.94 60.00
1920x1080p	26.97 27.00 33.71 33.75 67.432 67.50	23.976 24.00 29.97 30.00 59.939 60.00

RGB IN
RGB(PC)
HDMI/DVI IN
2
1
Y   P_B   P_R
VIDEO
COMPONENT
HDMI-DTV OUTPUT

EXTERNAL EQUIPMENT SETUP

DVI to HDMI Connection

1. How to connect

① Connect the DVI output of the digital set-top box to the **HDMI/DVI IN** **1**, **2**, or **3*** jack on the TV.

② Connect the PC audio output to the **AUDIO (RGB/DVI)** jack on the TV.

2. How to use

■ Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)

■ Select the **HDMI1**, **HDMI2**, or **HDMI3*** input source on the TV using the **INPUT** button on the remote control.

* HDMI 3: Except 42/47/52LG50DC

> ⓘ **NOTE**

▶ A DVI to HDMI cable or adapter is required for this connection. DVI doesn't support audio, so a separate audio connection is necessary.
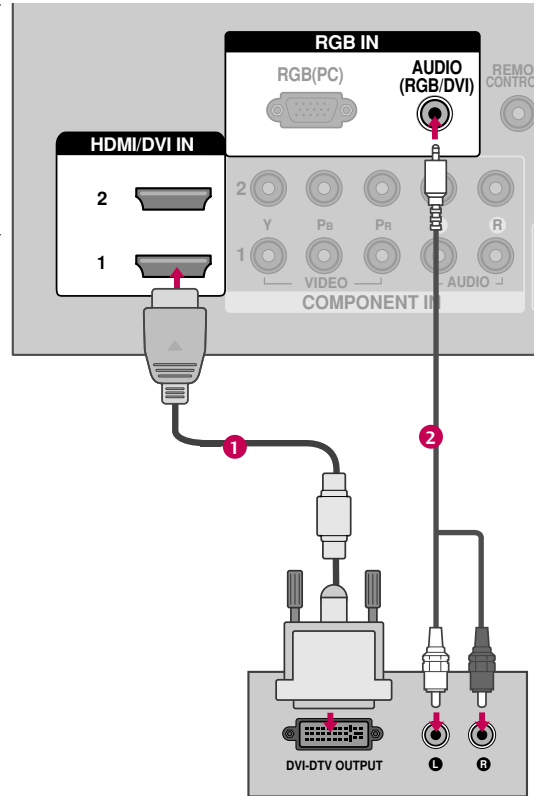
DVD SETUP

Component Connection

1. How to connect

1 Connect the video outputs (Y, PB, PR) of the DVD to the
COMPONENT IN VIDEO1 jacks on the TV.
Match the jack colors (Y = green, PB = blue, and PR = red).

2 Connect the audio outputs of the DVD to the
COMPONENT IN AUDIO1 jacks on the TV.

2. How to use

- Turn on the DVD player, insert a DVD.
- Select the **Component 1** input source on the TV using
  the **INPUT** button on the remote control.
- If connected to **COMPONENT IN 2** input, select the
  Component 2 input source on the TV.
- Refer to the DVD player's manual for operating instructions.
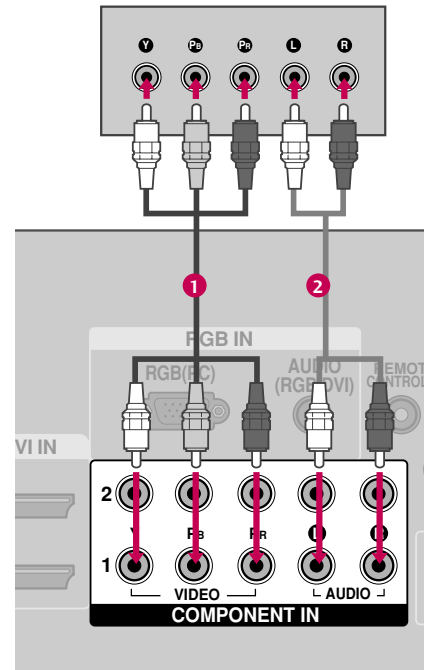
Component Input ports
To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	PB	PR

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

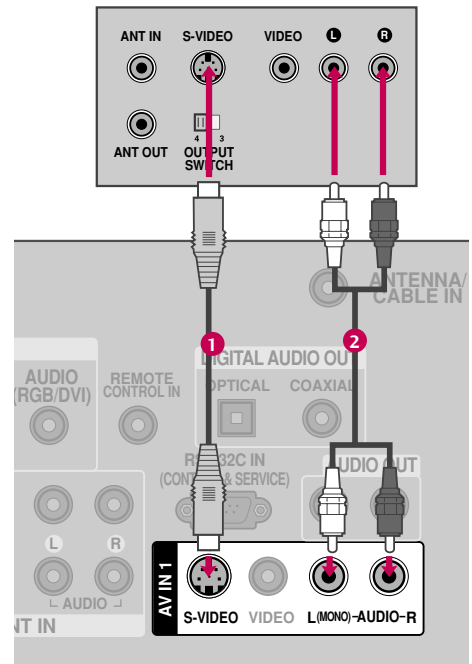# EXTERNAL EQUIPMENT SETUP

S-Video Connection

1. How to connect

1 Connect the S-VIDEO output of the DVD to the **S-VIDEO** input on the TV.

2 Connect the audio outputs of the DVD to the **AUDIO** input jacks on the TV.

2. How to use

■ Turn on the DVD player, insert a DVD.
■ Select the **AV1** input source on the TV using the **INPUT** button on the remote control.
■ Refer to the DVD player's manual for operating instructions.
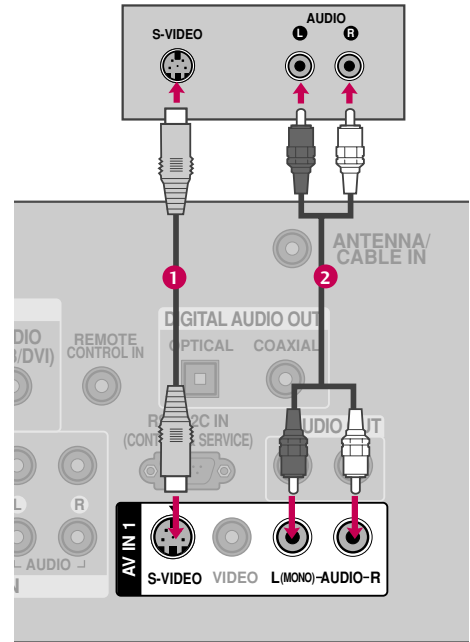
HDMI Connection

1. How to connect

1 Connect the HDMI output of the DVD to the **HDMI/DVI IN1**, **2**, or **3*** jack on the TV.

2 No separate audio connection is necessary. HDMI supports both audio and video.

2. How to use

■ Select the **HDMI1**, **HDMI2**, or **HDMI3*** input source on the TV using the **INPUT** button on the remote control.
■ Refer to the DVD player's manual for operating instructions.

* HDMI 3: Except 42/47/52LG50DC

22
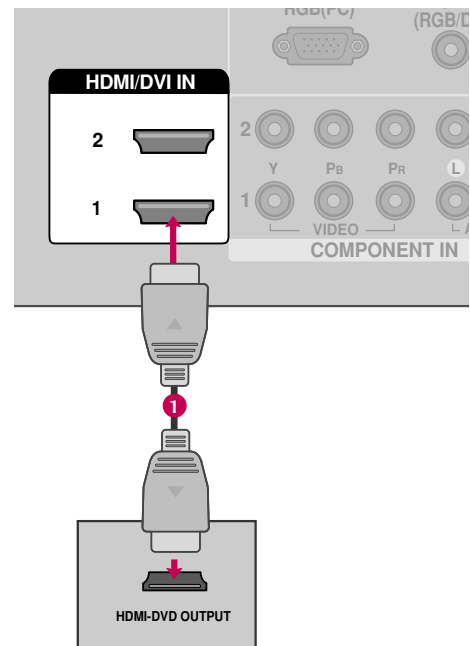
VCR SETUP

■ To avoid picture noise (interference), leave an adequate distance between the VCR and TV.
■ If the 4:3 picture format is used; the fixed images on the sides of the screen may remain visible on the screen. This phenomenon is common to all TVs and is not covered by warranty.

Antenna Connection

1. How to connect

1 Connect the RF antenna out socket of the VCR to the **ANTENNA/CABLE IN** socket on the TV.

2 Connect the antenna cable to the RF antenna in socket of the VCR.

2. How to use

■ Set VCR output switch to 3 or 4 and then tune TV to the same channel number.
■ Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)

ANTENNA/
CABLE IN

JDIO UT
COAX

AUDIO OUT

EO L(MONO)-AUDIO-R

1

ANT OUT   S-VIDEO   VIDEO   L   R

4   3
ANT IN   OUTPUT
SWITCH

2   Wall Jack

Antenna

EXTERNAL EQUIPMENT SETUP
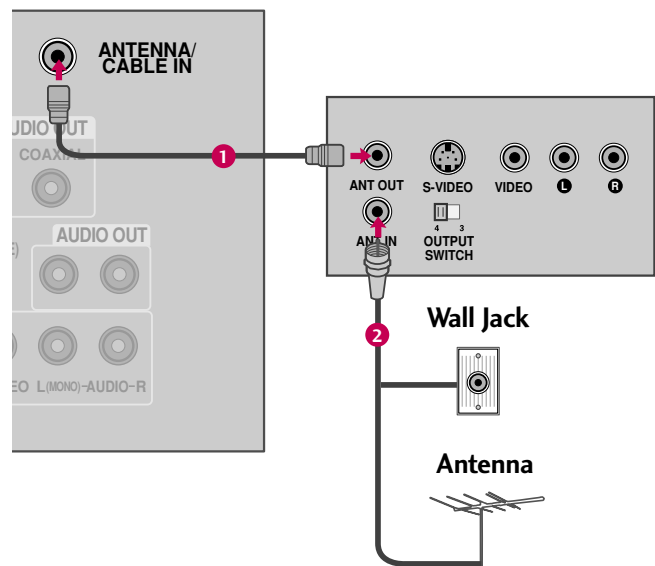
EXTERNAL EQUIPMENT SETUP

Composite (RCA) Connection

1. How to connect

1 Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red)

2. How to use

- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select the **AV1** input source on the TV using the **INPUT** button on the remote control.
- If connected to **AV IN2**, select **AV2** input source on the TV.

❗ NOTE

▶ If you have a mono VCR, connect the audio cable from the VCR to the **AUDIO L/MONO** jack of the TV.
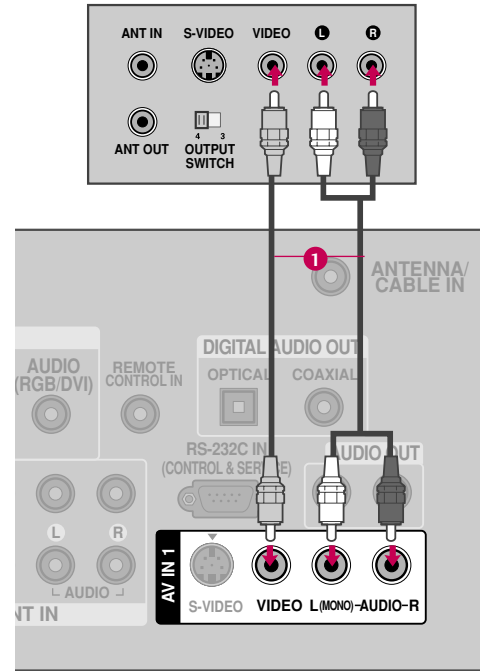
S-Video Connection

1. How to connect

1 Connect the S-VIDEO output of the VCR to the **S-VIDEO** input on the TV.

2 Connect the audio outputs of the VCR to the **AUDIO** input jacks on the TV.

2. How to use

- Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)
- Select the **AV1** input source on the TV using the **INPUT** button on the remote control.

⚠ CAUTION

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

❗ NOTE

▶ S-Video provides better quality than composite. Use it when available.

OTHER A/V SOURCE SETUP

1. How to connect

1 Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colors.

(Video = yellow, Audio Left = white, and Audio Right = red)

2. How to use

- Select the **AV2** input source on the TV using the **INPUT** button on the remote control.
- If connected to **AV IN1** input, select the **AV1** input source on the TV.
- Operate the corresponding external equipment.

Camcorder

Video Game Set

VIDEO **L** **R**

VIDEO L/MONO-AUDIO-R

AV IN 2
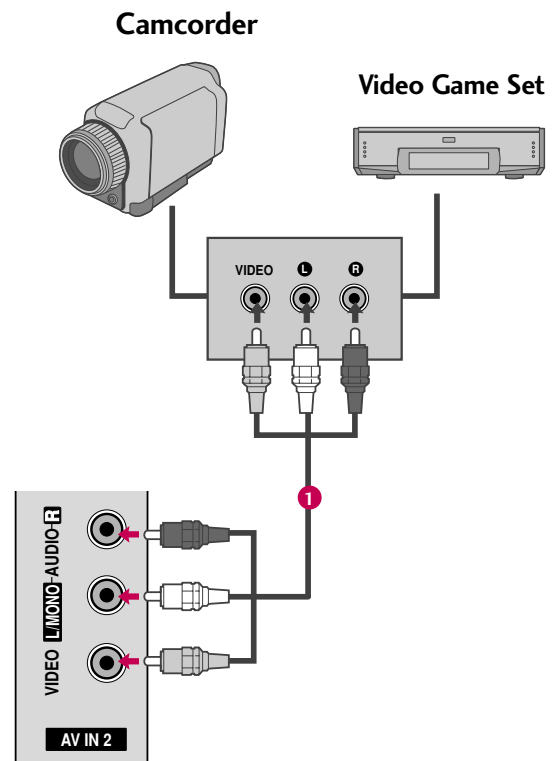
EXTERNAL EQUIPMENT SETUP

PC SETUP

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

VGA (D-Sub 15 pin) Connection

1. How to connect

1 Connect the VGA output of the PC to the **RGB (PC)** jack on the TV.

2 Connect the PC audio output to the **AUDIO (RGB/DVI)** jack on the TV.

2. How to use

■ Turn on the PC and the TV.
■ Select the **RGB-PC** input source on the TV using the **INPUT** button on the remote control.
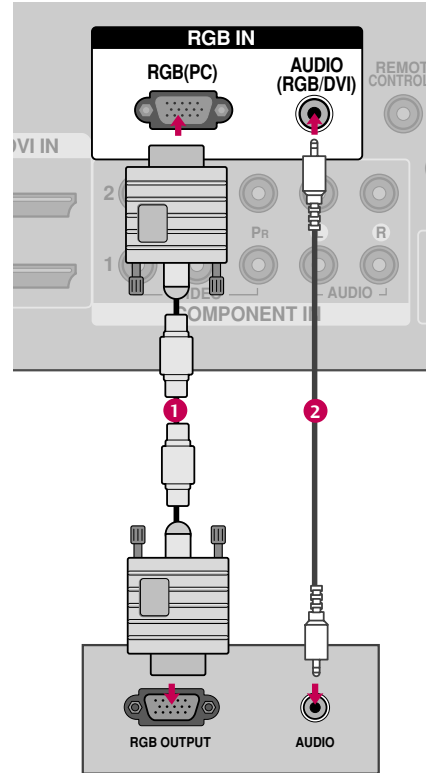
DVI to HDMI Connection

1. How to connect

1 Connect the DVI output of the PC to the **HDMI/DVI IN 1**, **2**, or **3**∗ jack on the TV.

2 Connect the PC audio output to the **AUDIO (RGB/DVI)** jack on the TV.

2. How to use

■ Turn on the PC and the TV.
■ Select the **HDMI1**, **HDMI2**, or **HDMI3**∗ input source on the TV using the **INPUT** button on the remote control.

∗ HDMI 3: Except 42/47/52LG50DC
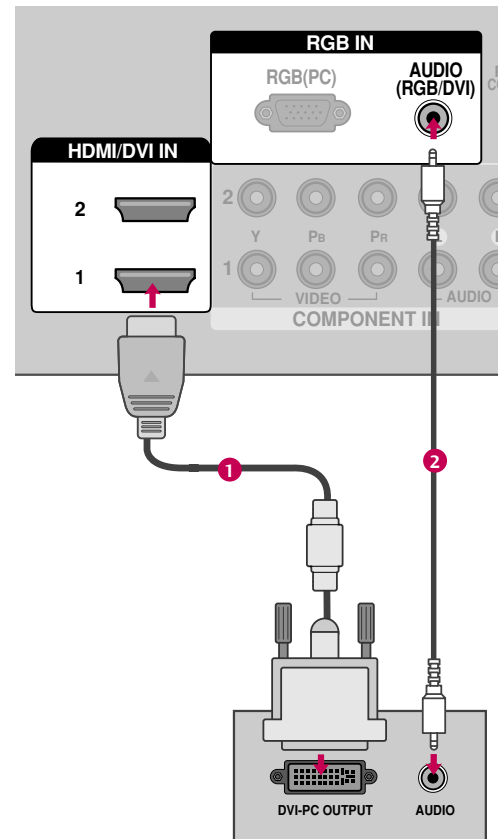
🛈 NOTES

▶ To get the the best picture quality, adjust the PC graphics card to 1920x1080.

▶ Depending on the graphics card, DOS mode may not work if a HDMI to DVI Cable is in use.

▶ In PC mode, there may be noise associated with the resolution, vertical pattern, contrast or brightness. If noise is present, change the PC output to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the PICTURE menu until the picture is clear.

▶ Avoid keeping a fixed image on the screen for a long period of time. The fixed image could become permanently imprinted on the screen.

▶ The synchronization input form for Horizontal and Vertical frequencies is separate.

▶ Depending on the graphics card, some resolution settings may not allow the image to be positioned on the screen properly.

▶ If there are overscan in HDMI-PC 1920x1080, change aspect ratio to **Just scan**.

Supported Display Specifications (RGB-PC, HDMI-PC)

Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
640x350	31.468	70.09
720x400	31.469	70.08
640x480	31.469	59.94
800x600	35.156 37.879	56.25 60.31
1024x768	48.363 56.476	60.00 70.06
1280x768	47.776	59.87
1280x1024	63.981	60.02
1360x768	47.712	60.015
1600x1200	75.00	60.00
1920x1080 RGB-PC	66.587	59.934
1920x1080 HDMI-PC	67.5	60.00
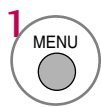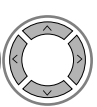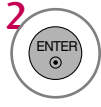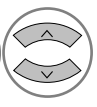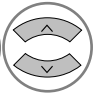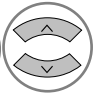
Screen Setup for PC mode

Selecting Resolution

You can choose the resolution in RGB-PC mode.
The **Position**, **Phase**, and **Size** can also be adjusted.

PICTURE   ◇ Move ⊙ Enter

▲
• **Backlight**   80
• **Contrast**   90
• **Brightness**   50
• **Sharpness**   60
• **Color**   60
• **Tint**   0   R ||||||||||||||||| G
• **Advanced Control**
• **Reset**
Screen (RGB-PC)   ◉

SCREEN   ◁▷ Move   MENU Prev.

 + Resolution ► ✓ 1024 x 768
                        1280 x 768
   Auto config.   1360 x 768

   Position

   Size

   Phase

   Reset

1 MENU   Select **PICTURE**.
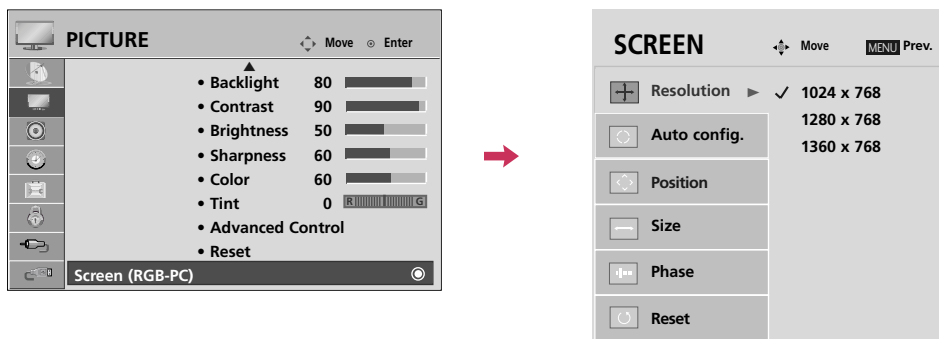
2 ENTER   Select **Screen (RGB-PC)**.

3 ENTER   Select **Resolution**.

4 ENTER   Select the desired resolution.

5 ENTER

Auto Configure

Automatically adjusts picture position and minimizes image instability. After adjustment, if the image is still not correct, try using the manual settings or a different resolution or refresh rate on the PC.

PICTURE ⟨⟩ Move ⊙ Enter

- Backlight   80
- Contrast   90
- Brightness   50
- Sharpness   60
- Color   60
- Tint   0 R||||||||||||||||||G
- Advanced Control
- Reset
Screen (RGB-PC) ◉

SCREEN ⬧ Move [MENU] Prev.

Resolution

Auto config. ▶

Position   **To Set**

Size   [Yes] [No]

Phase

Reset

---
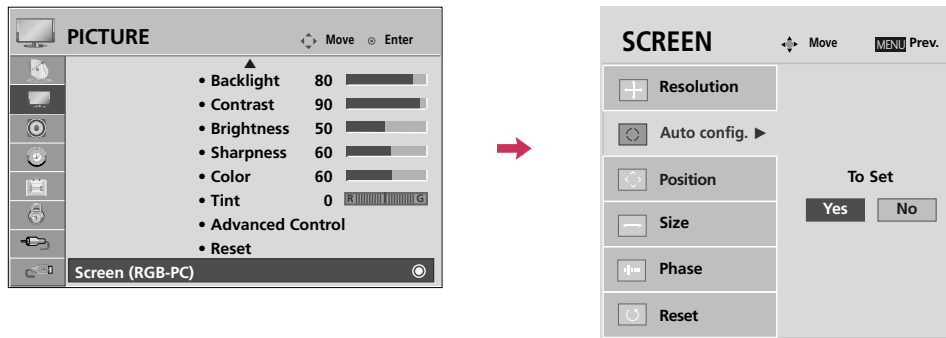
1 MENU Select **PICTURE**.

2 ENTER Select **Screen (RGB-PC)**.

3 ENTER Select **Auto config.**.

4 ENTER Select **Yes**.

5 ENTER Start Auto Configuration.

- If the position of the image is still not correct, try Auto adjustment again.
- If picture needs to be adjusted again after Auto adjustment in RGB-PC, you can adjust the **Position**, **Size** or **Phase**.

29
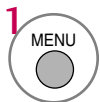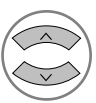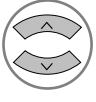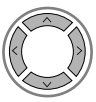
Adjustment for screen Position, Size, and Phase

If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.

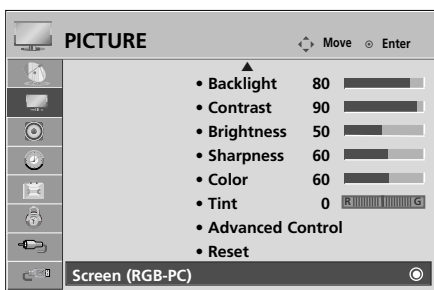This feature operates only in RGB-PC mode.

PICTURE	◈ Move ⊙ Enter
• Backlight	80
• Contrast	90
• Brightness	50
• Sharpness	60
• Color	60
• Tint	0
• Advanced Control	
• Reset	
Screen (RGB-PC)	

SCREEN	◈ Move MENU Prev.
Resolution	
Auto config.	
Position	►
Size	
Phase	
Reset	

1 MENU | Select **PICTURE**.
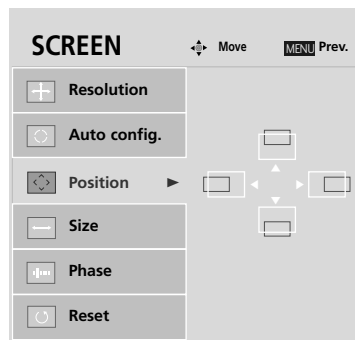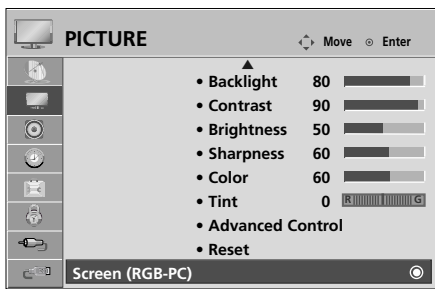
2 ENTER | Select **Screen (RGB-PC)**.

3 ENTER | Select **Position**, **Size**, or **Phase**.

4 ENTER | Make appropriate adjustments.

5 ENTER

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

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

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

Screen Reset (Reset to original factory values)

Returns **Position**, **Size**, and **Phase** to the default factory settings.
This feature operates only in RGB-PC mode.
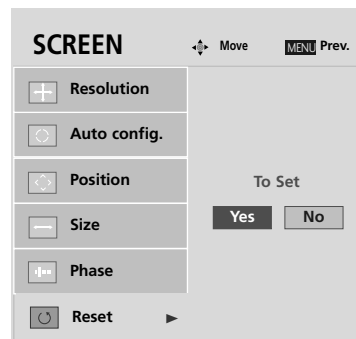
PICTURE	◊ Move ⊙ Enter
• Backlight	80
• Contrast	90
• Brightness	50
• Sharpness	60
• Color	60
• Tint	0 R‖‖‖‖‖‖‖G
• Advanced Control	
• Reset	
Screen (RGB-PC)	◎

SCREEN	◊ Move MENU Prev.
⊞ Resolution	
◇ Auto config.	
▢ Position	**To Set**
▭ Size	Yes No
▮▮ Phase	
↻ Reset	►

---

1 MENU Select **PICTURE**.

2 ENTER Select **Screen (RGB-PC)**.

3 ENTER Select **Reset**.

4 ENTER Select **Yes**.

5 ENTER

USB CONNECTION

1. How to connect

1 Connect the USB device to the **USB IN** jack on the side of TV.

2. How to use

■ After connecting the **USB IN** jack, you use the USB function. (▶ **p.48**)

USB IN

HDMI IN 3   (Except 42/47/52LG50DC)

VIDEO L/MONO -AUDIO- R

AV IN 2
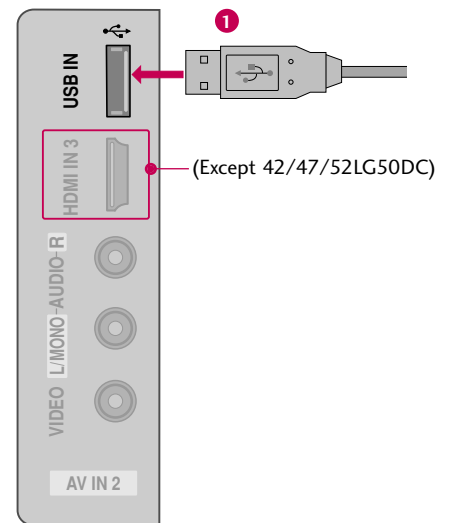
AUDIO OUT CONNECTION

Send the TV's audio to external audio equipment via the Audio Output port.

Analog

1. How to connect

❶ Connect audio outputs to the TV's **AUDIO OUT** jacks.

❷ Set the "TV Speaker option - Off" in the AUDIO menu. (▶ **p.73**). See the external audio equipment instruction manual for operation.
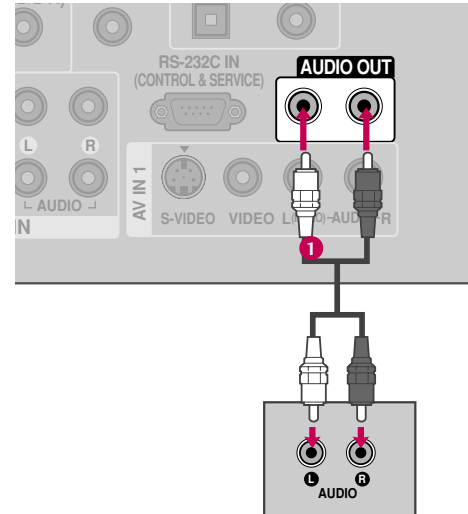
Digital

1. How to connect

❶ Connect one end of the optical or coaxial cable to the TV's **OPTICAL** or **COAXIAL** port of **DIGITAL AUDIO OUT**.

❷ Connect the other end of the optical or coaxial cable to the digital audio input on the audio equipment.

❸ Set the "TV Speaker option - Off" in the AUDIO menu. (▶ **p.73**). See the external audio equipment instruction manual for operation.
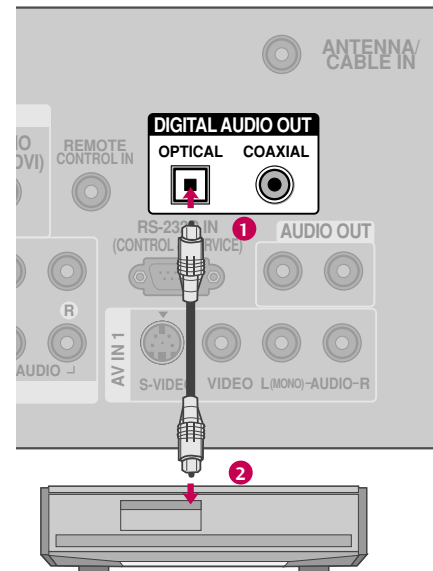
❗ NOTE

▶ When connecting with external audio equipments, such as amplifiers or speakers, you can turn the TV speakers off in the menu. (▶ **p.73**)

⚠ CAUTION

▶ Do not look into the optical output port. Looking at the laser beam may damage your vision.
▶ Block the SPDIF out (optical/coaxial) about the contents with ACP(Audio Copy Protection) function.

WATCHING TV / CHANNEL CONTROL

REMOTE CONTROL FUNCTIONS

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

TV/STB/DVD/VCR	Select the remote operating mode: TV, STB, DVD, or VCR.
POWER	Turns your TV or any other programmed equipment on or off, depending on the mode.
Q.MENU	Select the desired quick menu source. ▶ **p.37**
MENU	Displays the main menu. Clear all on-screen displays and return to TV viewing from any menu.
INPUT	External input modes rotate in regular sequence.

VOLUME UP /DOWN	Increase/decrease the sound level.
FAV	Scroll through the programmed Favorite channels. ▶ **p.37**
MUTE	Switch the sound on or off. ▶ **p.36**
CHANNEL UP/DOWN	Select available channels.
PAGE UP/DOWN	Move from one full set of screen information to the next one.

NUMBER button	
— (DASH)	Used to enter a program number for multiple program channels such as 2-1, 2-2, etc.
FLASHBK	Tune to the last channel viewed.

VCR/DVD, USB, SIMPLINK Control buttons	◎ Control video cassette recorders or DVD players. ◎ Control USB menu (Photo List and Music List.) ◎ Control the SIMPLINK compatible devices.
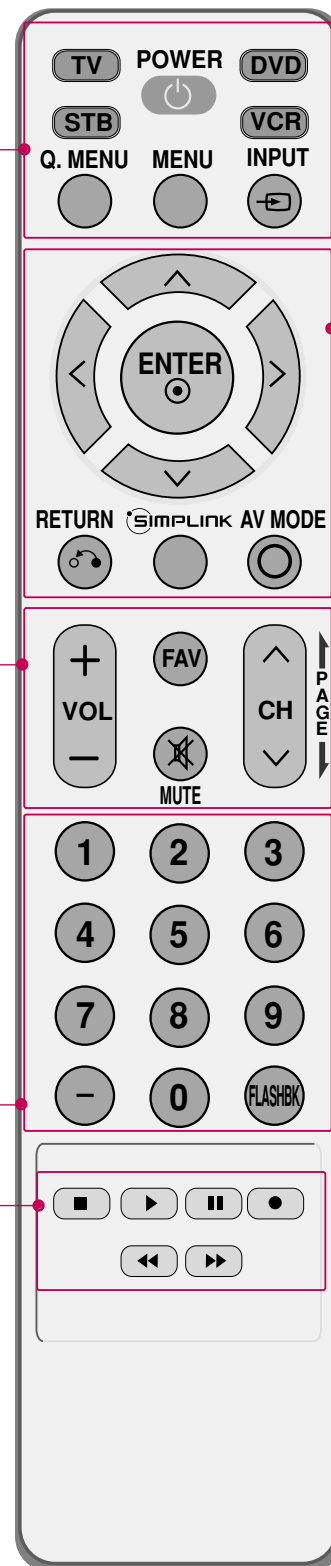
THUMBSTICK (Up/Down/Left Right/ENTER)	Navigate the on-screen menus and adjust the system settings to your preference.
RETURN	Allows the user to move return one step in an interactive application or other user interaction function.
SIMPLINK	See a list of AV devices connected to TV. When you toggle this button, the SIMPLINK menu appears at the screen. ▶ **p.46-47**
AV MODE	It helps you select and set images and sounds. ▶ **p.45**

Installing Batteries
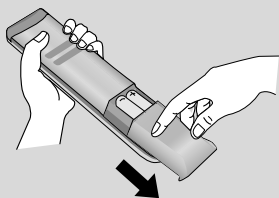
■ Open the battery compartment cover on the back side and install the batteries matching correct polarity (+with +,-with -).

■ Install two 1.5V AAA batteries. Don't mix old or used batteries with new ones.

■ Close cover.

TURNING ON THE TV

1 First, connect power cord correctly.
At this moment, the TV switches to standby mode.
- In standby mode to turn TV on, press the ⏻/I , **INPUT, CH (∧ ∨)** button on the TV or press the **POWER, INPUT, CH(** ∧ or ∨ **), Number (0~9)** button on the remote control.

2 Select the viewing source by using the **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.

❗ NOTE

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

CHANNEL SELECTION

1 Press the **CH (∧** or ∨ **)** or **NUMBER** buttons to select a channel number.

VOLUME ADJUSTMENT

Adjust the volume to suit your personal preference.

1 Press the **VOL (+** or **-)** button to adjust the volume.

2 If you want to switch the sound off, press the **MUTE** button.

3 You can cancel the Mute function by pressing the **MUTE** or **VOL (+** or **-)** button.
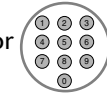
QUICK MENU / FAVORITE CHANNEL SETUP

Your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.
Q.Menu (Quick Menu) is a menu of features which users might use frequently.

- **Aspect Ratio**: Selects your desired picture format.
- **Backlight**: Adjust the brightness of LCD panel to control the brightness of the screen.
- **Clear Voice**: By differentiating the human sound range from others, it helps make human voices sound better.
- **Picture Mode**: Selects the factory preset picture depend on the viewing environment.
- **Sound Mode**: Selects the factory preset sound for type of program.
- **Caption**: Select on or off.
- **Multi Audio**: Changes the audio language (Digital signal).
  SAP: Selects MTS sound (Analog signal).
- **Sleep Timer**: Select the amount of time before your TV turns off automatically.
- **Del/Add/Fav**: Select channel you want to add/delete or add the channel to the Favorite List.
- **USB Eject**: Select "USB Eject" in order to eject USB device.

Favorite Channle Setup

1 CH or [keypad]   Select your desired channel.

2 Q. MENU   Select **Del/Add/Fav**.

3 Select **Favorite**.

4 Q. MENU   Return to TV viewing.

- To tune to a favorite channel, press the **FAV** (Favorite) button repeatedly.

Q.Menu

⊟ Aspect Ratio	◄ 16:9 ►
☼ Backlight	3
I□ Clear Voice	Off
◉ Picture Mode	Vivid
♫ Sound Mode	Standard
▢ Caption	Off
((◉)) Multi Audio	English
◷ Sleep Timer	Off
CH Del/Add/Fav	Add
◌→ USB Eject	Eject
Close	
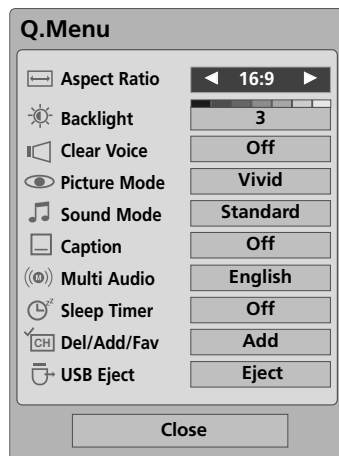
1 Q. MENU   Display each menu.

2 Make appropriate adjustments.

3 Q. MENU   Return to TV viewing.

WATCHING TV / CHANNEL CONTROL
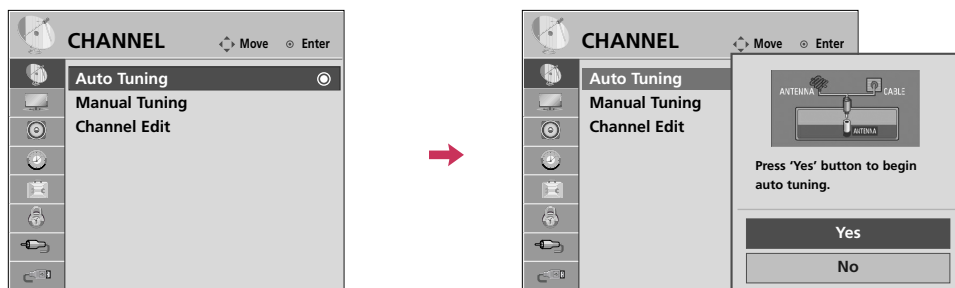
37

INITIAL SETTING

This Function guides the user to easily set the essential items for viewing the TV for the first time when purchasing the TV. It will be displayed on the screen when turning the TV on for the first time. It can also be activated from the user menus.

■ Default selection is "**Home**". We recommend setting the TV to "**Home**" mode for the best picture in your home environment.

■ "**In-store**" Mode is only intended for use in retail environments. Customers can adjust the "**Picture** menu - **Picture mode**" manually while inspecting the TV, but the TV will automatically return to preset in-store mode after 5 minutes.

Step1. Mode Setting

Step1. Mode Setting

⚠ Selecting the environment.
Choose the setting mode you want.

| In Store | Home |

◉ Enter   RETURN Exit

1 Select **Home** Mode.

2 ENTER

Step2. Time Setting

Step2. Time Setting

Current Time Setting	◄ **Auto** ►
Year	2007
Month	11
Date	15
Hour	5 PM
Minute	52
Time Zone	Eastern
Daylight Saving	Off

◉ Enter   RETURN Exit
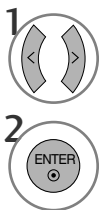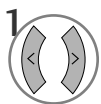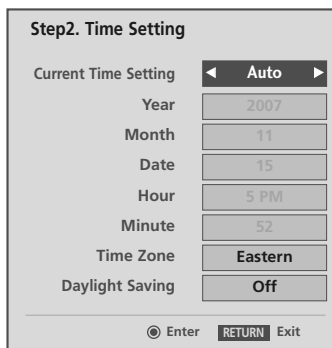
1 Select **Auto** or **Manual**.

2 Select desired time option.

3 ENTER

Step3. Option Setting

Step3. Option Setting

| 1. OSD Language Setting | ◄ **English** ► |
| 2. Audio Language Setting | French |

◉ Enter   RETURN Exit
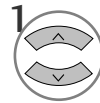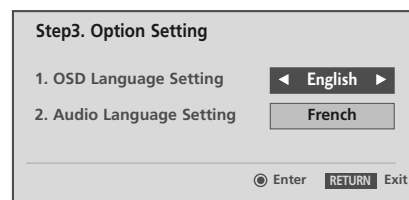
1 Select **OSD Language Setting** or **Audio Language Setting**.

2 Select your desired language.

3 ENTER

Step4. Auto Tuning

Step4. Auto Tuning

Auto Tuning can change channel map.
Do you want to start Auto Tuning?

Enter

◉ Enter   RETURN Exit
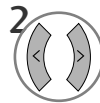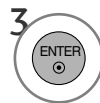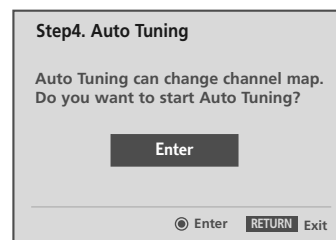
1 ENTER   Start **Auto Tuning**.

ⓘ NOTE

■ You can also adjust **Initial Setting** in the **OPTION** menu.

ON-SCREEN MENUS SELECTION

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

CHANNEL	Move ⊙ Enter
Auto Tuning	
Manual Tuning	
Channel Edit	

PICTURE	Move ⊙ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	
• Backlight 80	
• Contrast 90	
• Brightness 50	
• Sharpness 60	
• Color 60	
• Tint 0	R G
• Advanced Control	

AUDIO	Move ⊙ Enter
Auto Volume : Off	
Clear Voice : On	
Balance 0	L R
Sound Mode : Standard	
• SRS TruSurround XT: Off	
• Treble 50	
• Bass 50	
• Reset	
TV Speaker : On	

OPTION	Move ⊙ Enter
Language : English	
Input Label	
SIMPLINK : On	
Key Lock : Off	
Caption : Off	
Set ID : 1	
Power Indicator	
Initial Setting : Home	

CHANNEL   PICTURE   AUDIO   TIME

OPTION   LOCK   INPUT   USB

TIME	Move ⊙ Enter
Clock : Feb/21/2008/ 2:10 AM	
Off Time : Off	
On Time : Off	
Sleep Timer : Off	
Auto Sleep : Off	

LOCK	Move ⊙ Enter
Lock System : Off	
Set Password	
Block Channel	
Movie Rating	
TV Rating-Children	
TV Rating-General	
Downloadable Rating	
Input Block	

Lock System : Off
Set Password
Block Channel
TV Rating-English
TV Rating-French
Downloadable Rating
Input Block

INPUT	Move ⊙ Enter
Antenna	
Cable	
AV1	
AV2	
Component1	
Component2	
RGB-PC	
HDMI1	
HDMI2	

USB	Move ⊙ Enter
Photo List	
Music List	

For USA   **For Canada**

1
MENU — Display each menu.

2
ENTER — Select a menu item.

3
ENTER — Enter to the pop up menu.

4
MENU — Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

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CHANNEL SETUP

Auto Scan (Auto Tuning)

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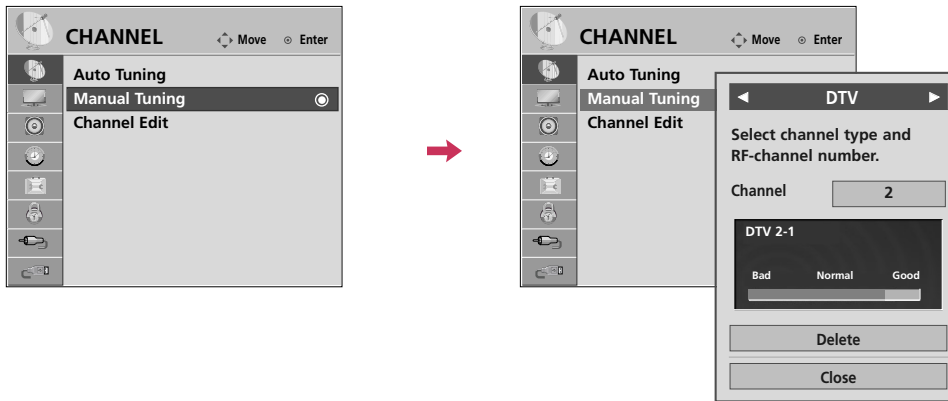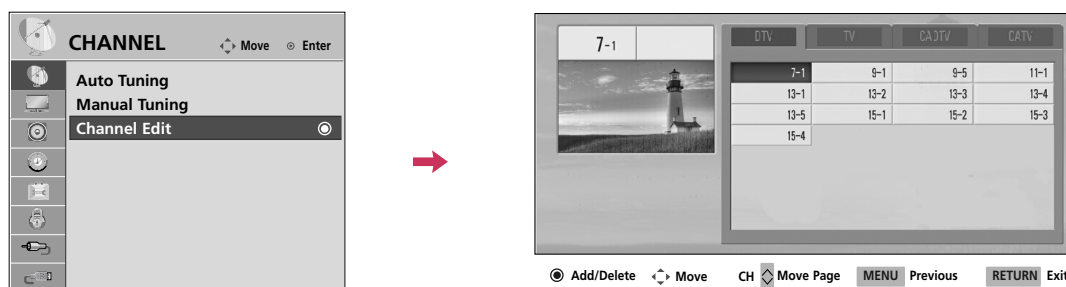**Run Auto Tuning again after any Antenna/Cable connection changes.**

CHANNEL	‹›Move ⊙ Enter
Auto Tuning	⊙
Manual Tuning	
Channel Edit	

➡

CHANNEL	‹›Move ⊙ Enter
Auto Tuning	
Manual Tuning	
Channel Edit	

ANTENNA   CABLE

ANTENNA

Press 'Yes' button to begin auto tuning.

Yes
No

1 MENU   Select **CHANNEL**.

2 ENTER   Select **Auto Tuning**.

3 ENTER   Select **Yes**.

4 ENTER   Run **Auto tuning**.

5 RETURN   Return to the previous menu.

MENU   Return to TV viewing.

■ A password is required to gain access to Auto Tuning menu if the Lock System is turned on.
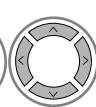
Add/Delete Channel (Manual Tuning)

If selecting DTV or CADTV input signal, you can view the on-screen signal strength monitor to see the quality of the signal being received.

	CHANNEL	Move	Enter
	Auto Tuning		
	Manual Tuning		◉
	Channel Edit		

➡

	CHANNEL	Move	Enter
	Auto Tuning		
	Manual Tuning		
	Channel Edit		

◀   **DTV**   ▶

Select channel type and RF-channel number.

Channel   2

DTV 2-1

Bad   Normal   Good

Delete

Close

---

1 MENU — Select **CHANNEL**.

2 ENTER — Select **Manual Tuning**.

3 ENTER — Select **DTV**, **TV**, **CADTV**, or **CATV**.

4 — Select channel you want to add or delete.

5 ENTER — Select **Add** or **Delete**.

6 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

■ A password is required to gain access to Manual Tuning menu if the Lock System is turned on.
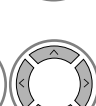
CHANNEL SETUP

Channel Editing

A custom list can be created by toggling each channel on or off with **ENTER** button. The channels in the Custom List are displayed in black and the channels deleted from the Custom List are displayed in gray.

Once a channel is highlighted you can add or delete the channel by referring to the small window at the top-right corner of the screen.

CHANNEL	◊ Move ⊙ Enter
Auto Tuning	
Manual Tuning	
Channel Edit	◉

7-1		DTV	TV	CADTV	CATV
		7-1	9-1	9-5	11-1
		13-1	13-2	13-3	13-4
		13-5	15-1	15-2	15-3
		15-4			

◉ Add/Delete   ◊ Move   CH ◇ Move Page   MENU Previous   RETURN Exit

1 MENU   Select **CHANNEL**.

2 ENTER   Select **Channel Edit**.

3 ENTER   Select a channel.

4 ENTER   Select channel you want to add or delete.

5 MENU   Return to the previous menu.

RETURN   Return to TV viewing.

INPUT LIST

Only these input signals which are connected to a TV can be activated and selected.

Antenna	Cable	AV1	AV2	Component1

1 INPUT ENTER
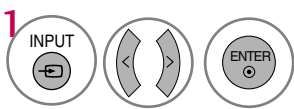
Select the desired input source.

■ You can also select the desired input source in the **INPUT** menu.

Antenna → Cable → AV1 → AV2 → Component1 → Component2

HDMI3 ← HDMI2 ← HDMI1 ← RGB-PC

Except 42/47/52LG50DC

Antenna	Cable	AV1	AV2	Component1

Q.MENU Input Label   RETURN Exit
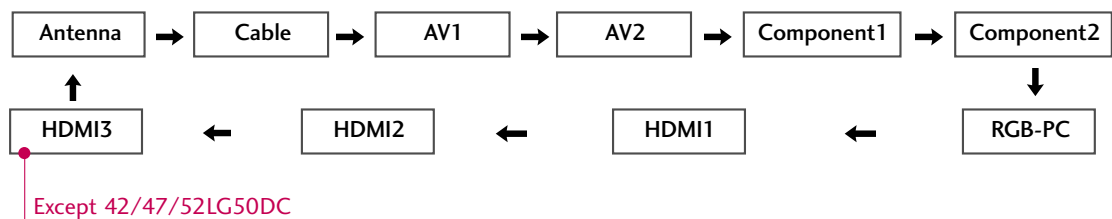
Disconnected inputs are inactive (grayed out)

Select a desired input source (except **Antenna** or **Cable**). Then, you can select your desired Input Label with using Q. MENU button. ▶ **p.44**

■ **Antenna**: Select it to watch over-the-air broadcasts.
■ **Cable**: Select it to watch cable and digital cable.
■ **AV**: Select them to watch a VCR or other external equipment.
■ **Component**: Select them to watch DVD or a Digital set-top box.
■ **RGB-PC**: Select it to view PC input.
■ **HDMI**: Select them to watch high definition devices.

INPUT LABEL

You can set a label for each input source when it's not in use.

|	OPTION	◆ Move ⊙ Enter
	Language	: English
	Input Label	◎
	SIMPLINK	: On
	Key Lock	: Off
	Caption	: Off
	Set ID	: 1
	Power Indicator	
	Initial Setting	: Home

➡

	OPTION	◆ Move ⊙ Enter
	Language	: English
	Input Label	
	SIMPLINK	: On
	Key Lock	: Off
	Caption	: Off
	Set ID	: 1
	Power Indicator	
	Initial Setting	: Ho

AV1	◄ ►
AV2	
Component1	
Component2	
RGB-PC	
HDMI1	
HDMI2	
HDMI3	

Close

Except
42/47/52LG50DC
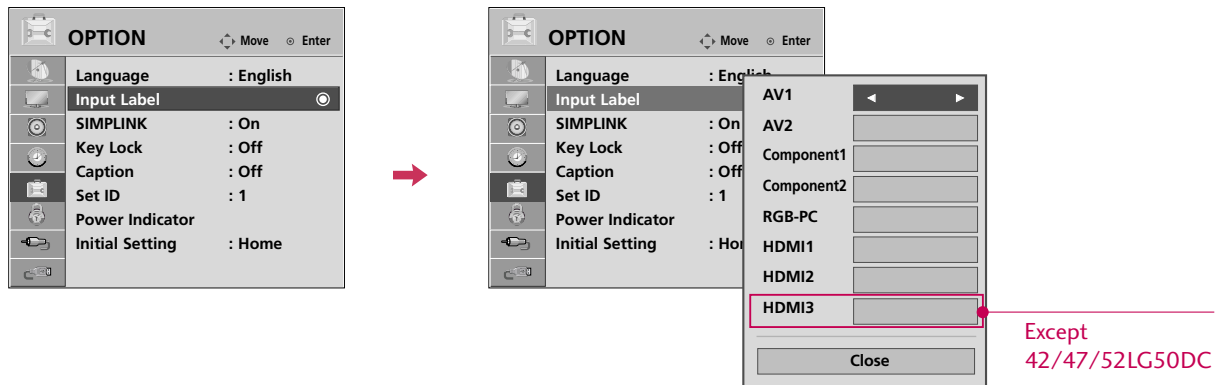
With using OPTION menu

1 MENU — Select **OPTION**.

2 ENTER — Select **Input Label**.

3 ENTER — Select the source.

4 ◄ ► — Select the label.

5 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

With using INPUT button

1 INPUT — Select the source.

2 Q. MENU — Select the label.

3 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

- When new external device is connected, this popup menu is displayed automatically.
  If selecting **Yes**, you can select input source that you want to appreciate.
- But, when selecting "**SIMPLINK - On**", popup menu for HDMI input will not be displayed.

⚠	**New external device is connected.** **Do you want to enjoy this?**
	Yes No

➡

⚠	Select input source that you want to appreciate.
	AV1
	AV2
	Component1
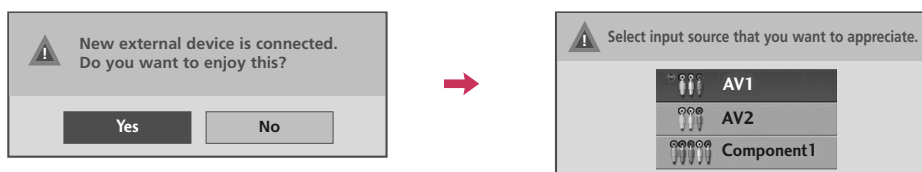
AV MODE

You can select the optimal images and sounds.

Off	➡	Cinema

Game ⬅ Sport

1
AV MODE
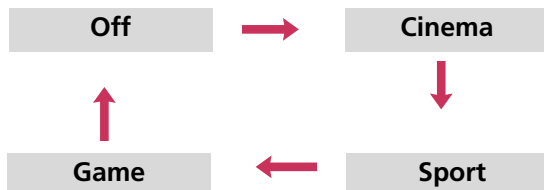
Press the **AV MODE** button repeatedly to select the desired source.

2
ENTER

■ If you select "**Cinema**" in AV mode, **Cinema** will be selected both for "PIC-TURE menu - Picture Mode" and "AUDIO menu - Sound Mode" respectively.

■ If you select "**Off**" in AV mode, the "**Picture Mode**" and "**Sound Mode**" return to previous selected value.

SimpLINK

This function operates only with devices with the **SimpLINK** logo.

The TV might not function properly when using it with other products with HDMI-CEC function.

This allows you to control and play other AV devices connected with HDMI cable without additional cables and settings.

To start using SIMPLINK, turn it on in the user menus.
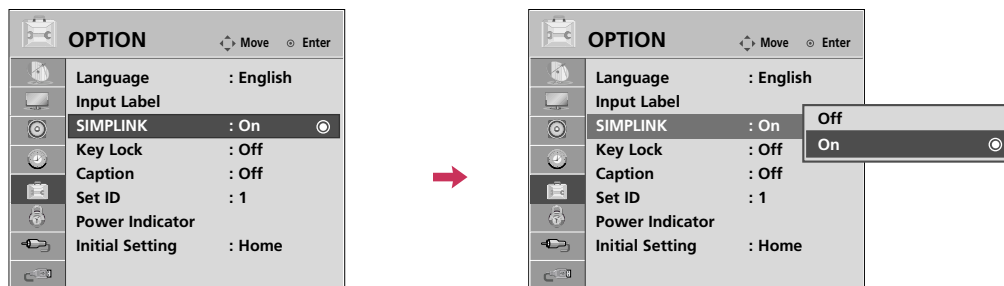
OPTION	⟷ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	**: On** ◉
Key Lock	: Off
Caption	: Off
Set ID	: 1
Power Indicator	
Initial Setting	: Home

➡

OPTION	⟷ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	: Off
Set ID	: 1
Power Indicator	
Initial Setting	: Home

Off
On ◉

1 MENU Select **OPTION**.

2 ENTER Select **SIMPLINK**.

3 ENTER Select **On** or **Off**.

4 RETURN Return to the previous menu.

MENU Return to TV viewing.

❗ NOTE

► Connect the HDMI/DVI IN or HDMI IN terminal of the TV to the rear terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable.

► When you switch the Input source with the INPUT button on the remote control, the SIMPLINK device will stop.

► When you select a device with home theater functionality, the sound output automatically switches to the home theater speakers.

► If a connected SIMPLINK home theater system doesn't play the audio from the TV, connect the DIGITAL AUDIO OUT terminal on the back of the TV to the DIGITAL AUDIO IN terminal on the back of the SIM-PLINK device with an OPTICAL cable.

SIMPLINK Functions

■ **Direct Play:** After connecting AV devices to the TV, you can directly control the devices and play media without additional settings.

■ **Select AV device:** Enables you to select one of the AV devices connected to TV.

■ **Disc playback:** Control connected AV devices by pressing the ∧ ∨ < > , **ENTER**, ►, ■, II, ◄◄ and ►► buttons.

■ **Power off all devices:** When you power off the TV, all connected devices are turned off.

■ **Switch audio-out:** Offers an easy way to switch audio-out.

■ **Sync Power on:** When you play the connected AV device, TV will automatically turn on.

(A device, which is connected to the TV through a HDMI cable but does not support SIMPLINK, does not provide this function)

1 Display **SIMPLINK** menu.

2 Select the desired device.

3 Control connected AV devices.
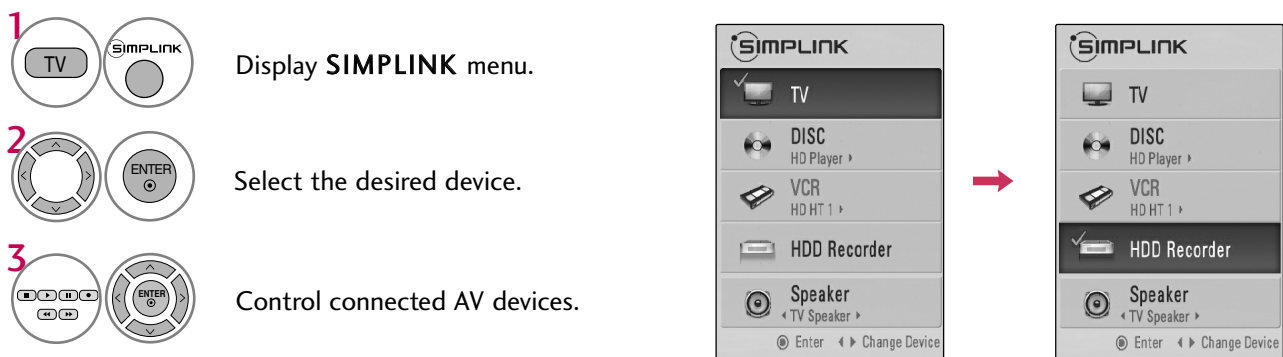
SIMPLINK Menu

❶ **TV viewing**: Switch to the previous TV channel regardless of the current mode.

❷ **DISC playback**: Select and play discs. When multiple discs are available, the titles of discs are conveniently displayed at the bottom of the screen.

❸ **VCR playback**: Control the connected VCR.

❹ **HDD Recordings playback**: Control recordings stored in HDD.

❺ **Audio Out to Home Theater speaker/Audio Out to TV**: Select Home Theater speaker or TV speaker for Audio Out.

► When no device is connected (displayed in gray)

► Selected Device

► When a device is connected (displayed in bright color)

USB

ENTRY MODES

When you connect a USB device, this screen is displayed automatically.
In USB device, you can not add a new folder or delete the existing folder.

1 Connect the USB device to the **USB IN** jacks on the side of TV.

USB IN

■ It doesn't support USB HDD
■ This TV supports JPG and MP3.

2 Select **Photo List** or **Music List**.

Photo List   Music List

3 ENTER

When removing the USB device

Select the **USB Eject** menu before removing the USB device.

1 Q. MENU   Select **USB Eject**.

2 ENTER
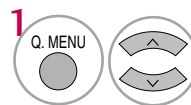
Precautions when using the USB device

▶ Only a USB storage device is recognizable.

▶ If the USB storage device is connected through a USB hub, the device is not recognizable.

▶ A USB storage device using an automatic recognition program may not be recognized.

▶ A USB storage device which uses its own driver may not be recognized.

▶ USB multi-card reader or USB hard drive may not operate smoothly or may not operate at all.

▶ The recognition speed of a USB storage device may depend on each device.

▶ Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.

▶ Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files or image files.

▶ Please use only a USB storage device which was formatted as a FAT or NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility program which is not supported by Windows, it may not be recognized.

▶ Please connect power to a USB storage device which requires an external power supply. If not, the device may not be recognized.

▶ Please connect a USB storage device with cable is offered by USB maker. If connected with cable is not offered by USB maker or an excessively long cable, the device may not be recognized.

▶ Some USB storage devices may not be supported or operated smoothly.

▶ Because the TV doesn't support file sorting for USB storage device, the file on the storage device will be displayed in the order saved.

▶ Please backup important files because data on USB device may be damaged. Data management is consumer's responsibility and as a result, the manufacturer does not cover data damage.

PHOTO LIST

You can view .JPG files from USB storage devices.
The On Screen Display on your model may be slightly different.
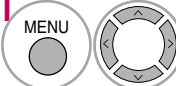
Supported photo file: ∗.JPG

- You can play JPG files only.
- Only baseline scan is supported among JPG.

Screen Components

1 MENU — Select **USB**.
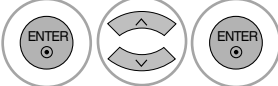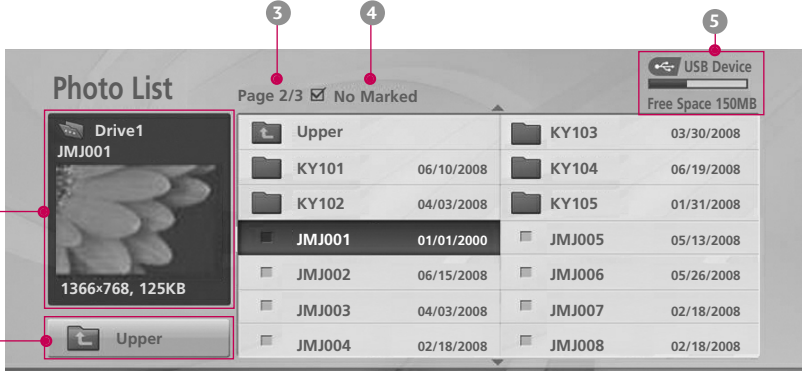
2 ENTER / ENTER — Select **Photo List**.

1 Moves to upper level folder
2 Preview: Display the thumbnail/folder name of the photo in the selected folder
3 Current page/Total pages
4 Total number of marked photos
5 Usable USB memory
6 Corresponding buttons on the remote control

Photo List	Page 2/3 ☑ No Marked		USB Device Free Space 150MB
Drive1 JMJ001	Upper	KY103	03/30/2008
	KY101 06/10/2008	KY104	06/19/2008
	KY102 04/03/2008	KY105	01/31/2008
	JMJ001 01/01/2000	JMJ005	05/13/2008
1366×768, 125KB	JMJ002 06/15/2008	JMJ006	05/26/2008
	JMJ003 04/03/2008	JMJ007	02/18/2008
Upper	JMJ004 02/18/2008	JMJ008	02/18/2008

◇ Move   ◉ PopUp Menu   CH ◇ Move Page   FAV Mark   RETURN Exit

---

- Non-supported files are displayed in the form of bitmap.

Photo List	Page 2/3 ☑ No Marked		USB Device Free Space 150MB
Drive1 JMJ001	Upper	KY103	03/30/2008
	KY101 06/10/2008	KY104	06/19/2008
	KY102 04/03/2008	KY105	01/31/2008
	JMJ001 01/01/2000	JMJ005	05/13/2008
0 × 0, 0KB	JMJ002 06/15/2008	JMJ006	05/26/2008
	JMJ003 04/03/2008	JMJ007	02/18/2008
Upper	JMJ004 02/18/2008	JMJ008	02/18/2008

◇ Move   ◉ PopUp Menu   CH ◇ Move Page   FAV Mark   RETURN Exit

- Some files may be displayed the preview image by icon only.

Photo List	Page 2/3 ☑ No Marked		USB Device Free Space 150MB
Drive1 JMJ001	Upper	KY103	03/30/2008
	KY101 06/10/2008	KY104	06/19/2008
?	KY102 04/03/2008	KY105	01/31/2008
	JMJ001 01/01/2000	JMJ005	05/13/2008
1366×768, 125KB	JMJ002 06/15/2008	JMJ006	05/26/2008
	JMJ003 04/03/2008	JMJ007	02/18/2008
Upper	JMJ004 02/18/2008	JMJ008	02/18/2008

◇ Move   ◉ PopUp Menu   CH ◇ Move Page   FAV Mark   RETURN Exit

USB

Photo Selection and Popup Menu

Photo List Page 2/3 ☑ No Marked

USB Device
Free Space 150MB

Drive1
JMJ001

Upper		KY103	03/30/2008
KY101	06/10/2008	KY104	06/19/2008
KY102	04/03/2008	KY105	01/31/2008
JMJ001	01/01/2000	JMJ005	05/13/2008
JMJ002	06/15/2008	JMJ006	05/26/2008
JMJ003	04/03/2008	JMJ007	02/18/2008
JMJ004	02/18/2008	JMJ008	02/18/2008

1366x768, 125KB

Upper

Move   ⦿ PopUp Menu   CH ◇ Move Page   FAV Mark   RETURN Exit

Photo List Page 2/3 ☑ No Marked

USB Device
Free Space 150MB

Drive1
JMJ001

Upper		KY103 03/30/2008
KY101	06/10/2008	1366x768 125KB
KY102	04/03/2008	View ⦿
JMJ001	01/01/2000	Mark All
JMJ002	06/15/2008	Delete
JMJ003	04/03/2008	Close
JMJ004	02/18/2008	JMJ008 02/18/2008

1366x768, 125KB

Upper

Move   ⦿ PopUp Menu   CH ◇ Move Page   FAV Mark   RETURN Exit

When you select a file (not folder), this PopUp menu is displayed.
▶ **View**: Display the selected item.
▶ **Mark All**: Mark all photos on the screen.
▶ **Unmark All**: Deselect all marked photos.
▶ **Delete**: Delete the selected photo item.
▶ **Close**: Close the pop-up menu.

1 Select the target folder or drive.

2 ENTER   Select the desired photos.

3 ENTER   Show the Popup menu.

4 ENTER   Select the desired Popup menu.

- Use the **CH** ∧ ∨ button to navigation in the photo page.
- Use the **FAV** button to mark or unmark a photo. When one or more photos are marked, you can view individual photos or a slide show of the marked photos. If no photos are marked, you can view all photos individually or all photos in the folder in a slide show.

Left sidebar "USB"

Full Screen Menu

You can change the Photo List view so that it fills the screen. More operations are available in full screen mode.
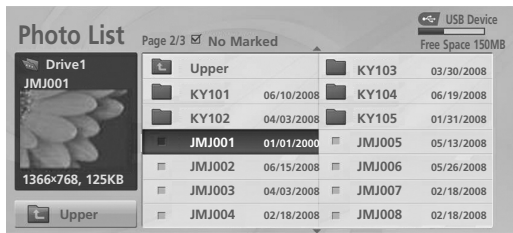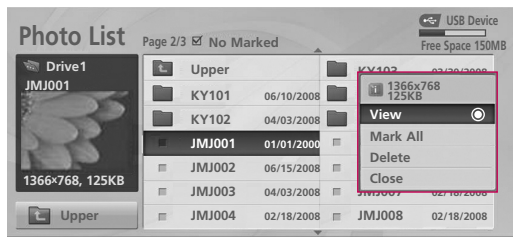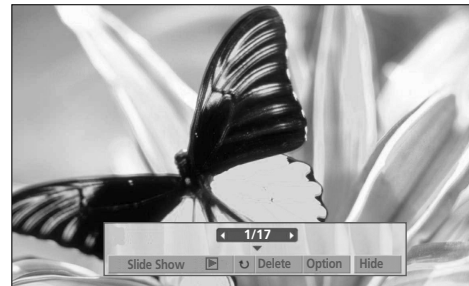
The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.

1 Select the target folder or drive.

2 ENTER Select the desired photos.

3 ENTER Show the Popup menu.

4 Select **View**.

5 ENTER The selected photo is displayed in full size.

■ Use the **CH** ∧ ∨ button to navigation in the photo page.

◄ 1/17 ►
Slide Show ▶ ↺ Delete Option Hide
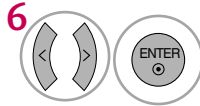
6
⟨ ⟩ ENTER Select the **Side Show**, ↺ **(Rotate)**,
Delete, **Option**, or **Hide.**

■ Use ⟨ ⟩ button to select the previous or next photo.
■ Use ∧ ∨ ⟨ ⟩ button to select and control the menu on the full-sized screen.

▶ **Slide Show**: Selected photos are displayed during the slide show. If no photo is selected, all photos in the current folder are displayed during slide show.
　■ Set the time interval of the slide show in **Option**.
　■ A slide show continues for a maximum of 4 hours. After 4 hours, the slide show will end and go to TV mode or external input mode.
▶ ↺ **(Rotate)**: Rotate photos.
　■ Rotates the photo 90°, 180°, 270°, 360° clockwise.
▶ **Delete**: Delete photos.
▶ **Option**: Set values for **Slide Speed**.
　■ Use ⟨ ⟩ button and **ENTER** button to set values. Then go to Enter and press **ENTER** to save the settings.
▶ **Hide** : Hide the menu on the full-sized screen.
　■ To see the menu again on the full-sized screen, press **ENTER** button to display.

Press ◄ ► to set the time interval between slides.

Slide Speed ◄ **Fast** ►

Enter　　　Cancel
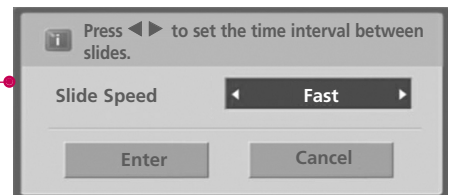
⚠ NOTE

▶ This TV will not be able to decode most JPG images saved using the Progressive option.

MUSIC LIST

You can use the Music List menu to play MP3 files form a USB storage device.

This TV cannot play back copy-protected files.

The On Screen Display on your model may be slightly different.

Screen Components

1 MENU — Select **USB**.

2 ENTER ⌄ ENTER — Select **Music List**.

❶ Moves to upper level folder

❷ Preview: If any album jacket for the file exists, this jacket is displayed.

❸ Current page/Total pages

❹ Total number of marked musics

❺ Usable USB memory

❻ Corresponding buttons on the remote control

Music List

Page 1/1   ☑ No Marked

USB Device
Free Space 150MB

Drive1
Arirang

3945 KB, 128 Kbps

❷

❶ Upper

	Title	Play Time
	Upper	
Arirang		04:12
Good Bye		05:30

◇ Move   ◉ PopUp Menu   CH ◇ Move Page   FAV Mark   RETURN Exit

❻

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USB

Music Selection and Popup Menu

Up to 6 music titles are listed per page.

Music List	Page 1/1 ☑ No Marked	USB Device Free Space 150MB
Drive1 Arirang	Title	Play Time
	Upper	
	Arirang	04:12
3945 KB, 128 Kbps	Good Bye	05:30
Upper		

◄► Move ⊙ PopUp Menu CH ◇ Move Page   FAV Mark   RETURN Exit

Music List	Page 1/1 ☑ No Marked	USB Device Free Space 150MB
Drive1 Arirang	Title	Play Time
	Upper	
	Arirang	
3945 KB, 128 Kbps	Good Bye	3945 KB 128 Kbps
Upper		Play ⊙
		Mark All
		Delete
		Close

◄► Move ⊙ PopUp Menu CH ◇ Move Page   FAV Mark   RETURN Exit

▶ **Play** (During stop): Play the selected music.
Once a song finishes playing, the next selected one will be played. When there are no selected musics to play, the next one in the current folder will be played. If you go to a different folder and press the **ENTER** button, the current music in playback will stop.

▶ **Stop Play** (During playback): Stop the playing musics.

▶ **Mark All**: Mark all musics in the folder.

▶ **Unmark All**: Deselect all marked music.

▶ **Delete**: Delete the selected music.

▶ **Close**: Close the pop-up menu.

1 Select the target folder or drive.

2 ENTER Select the desired musics.

3 ENTER Show the Popup menu.

4 ENTER Select the desired Popup menu.

5 RETURN Return to TV viewing

■ Use the **CH** ∧ ∨ button to navigation in the music page.

■ Use **FAV** button to mark or unmark a music file. If no music is marked, all the music in the folder will be played in sequence. When one or more music files are marked, the marked music files will be played in sequence. If you want to listen to only one song repeatedly, just mark that one file and play.

■ The play information box (as shown below) will automatically move across the screen when there is no user input to prevent a fixed image remaining on the screen for a extended period of time.

❶ NOTE

▶ When music is playing, ♪ is displayed in front of the music play time.

▶ A damaged or corrupted music file that does not play displays 00:00 as the play time.

▶ Music files with copy-protection will not play.

▶ Press **ENTER**, ■ , or **RETURN** button to stop the screen saver.

▶ This TV can not play music files less than 16 Kbytes.

PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV.
■ RGB-PC input source use 4:3 or 16:9 aspect ratio.
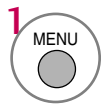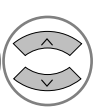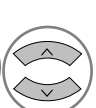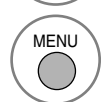
ⓘ NOTE

▶ If a fixed image is displayed on the screen for a long time, the image could become imprinted on the screen and remain visible.

This phenomenon is common to all manufacturers and is not covered by warranty. Although, after watching video that did not fill the screen, any after-image from the black bars will normally dissipate after a few minutes.

PICTURE	◇ Move ⊙ Enter
Aspect Ratio : 16:9	◎
Picture Mode : Standard	
• Backlight 80	
• Contrast 90	
• Brightness 50	
• Sharpness 60	
• Color 60	
• Tint 0	R‖‖‖‖‖‖‖G
• Advanced Control	
▼	

PICTURE	◇ Move ⊙ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	
• Backligh	
• Contrast	Set By Program
• Brightne	4:3
• Sharpnes	16:9 ◎
• Color	Zoom1
• Tint	Zoom2
• Advance	Just Scan
▼	
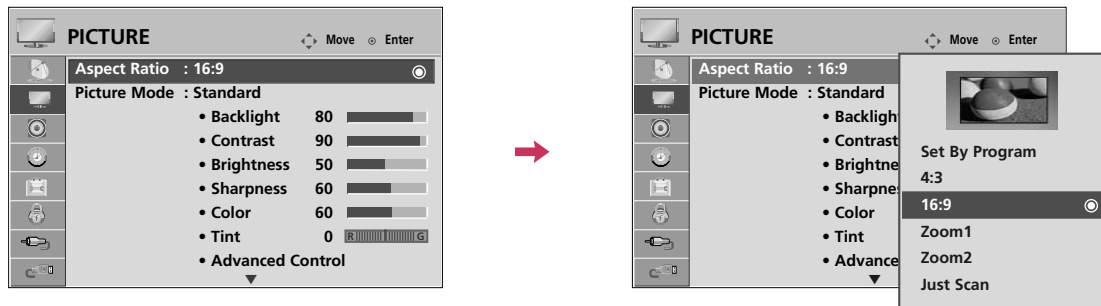
1 MENU / ◇ Select **PICTURE**.

2 ENTER ⊙ / ⌄ Select **Aspect Ratio**.

3 ENTER ⊙ / ⌄ Select the desired picture format.

4 RETURN ↩ Return to the previous menu.

MENU Return to TV viewing.

■ You can also adjust **Aspect Ratio** in the **Q-Menu**.

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Set by program

Selects the proper picture proportion to match the source's image.

(4:3 → 4:3)

(16:9 → 16:9)

4:3

Choose 4:3 when you want to view a picture with an original 4:3 aspect ratio.

16:9

Adjust the picture horizontally, in a linear proportion to fill the entire screen.

Zoom 1

Choose Zoom 1 when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.
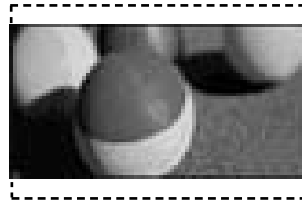
Zoom 2

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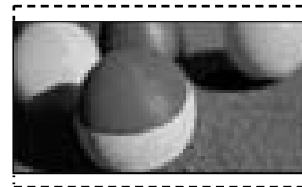
Just Scan

Normally the edges of video signals are cropped 1-2%. Just Scan turns off this cropping and shows the complete video.

Notes: If there is noise on the edges of the original signal, it will be visible when Just Scan is activated.

Just Scan operates only in DTV/CADTV/Component/HDMI-DTV/DVI-DTV (720p/1080i/1080p) input source.

PRESET PICTURE SETTINGS

Picture Mode - Preset

There are factory presets for picture settings available in the user menus. You can use a preset, change each setting manually, or use the Intelligent Sensor.

	PICTURE	⬦ Move ⊙ Enter
	Aspect Ratio : 16:9	
	Picture Mode : Standard	◉
	• **Backlight** 80	
	• **Contrast** 90	
	• **Brightness** 50	
	• **Sharpness** 60	
	• **Color** 60	
	• **Tint** 0 R◁|||||||||||||▷G	
	• **Advanced Control**	
	▼	

➡

	PICTURE	⬦ Move ⊙ Enter
	Aspect Ratio : 16:9	**Intelligent Sensor**
	Picture Mode : Standard	Vivid
	• **Backlight** 80	**Standard** ◉
	• **Contrast** 90	Cinema
	• **Brightness** 50	Sport
	• **Sharpness** 60	Game
	• **Color** 60	Expert1
	• **Tint** 0 R	Expert2
	• **Advanced Control**	
	▼	

1 MENU ⟨ ⟩ ∧ ∨   Select **PICTURE**.
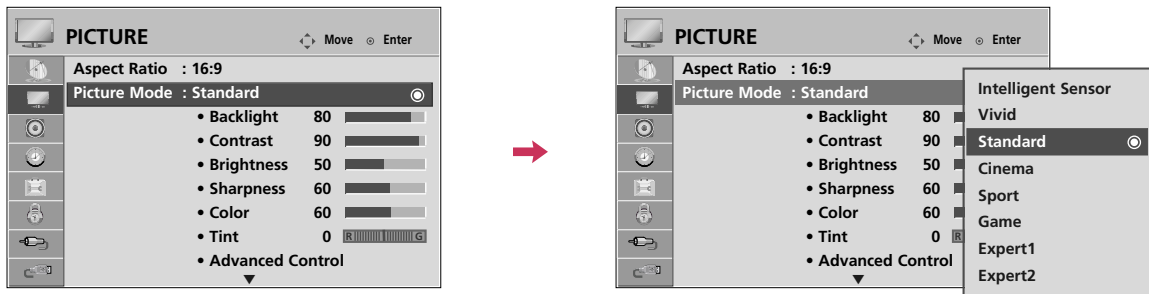
2 ENTER ∧ ∨   Select **Picture Mode**.

3 ENTER ∧ ∨   Select **Intelligent Sensor**, **Vivid**, **Standard**, **Cinema**, **Sport**, or **Game**.

4 RETURN   Return to the previous menu.

MENU   Return to TV viewing.

- ■ When selecting **Intelligent Sensor** the most suitable picture is automatically adjusted according to the surrounding conditions.
- ■ **Vivid**, **Standard**, **Cinema**, **Sport**, and **Game** Settings are preset for the optimum picture quality at the factory and are not adjustable.
- ■ You can also adjust **Picture Mode** in the **Q. Menu**.

Color Tone - Preset

Choose one of three automatic color adjustments. Set to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.

PICTURE		Move ⊙ Enter
	• **Backlight**	80
	• **Contrast**	90
	• **Brightness**	50
	• **Sharpness**	60
	• **Color**	60
	• Tint	0 R|||||||||||G
	• Advanced Control	⊚
	• Reset	
	Screen (RGB-PC)	

➡

PICTURE	Move ⊙ Enter
• **Backlight** 80	
• Cont **Color Temperature**	◀ **Medium** ▶
• Brigh Fresh Contrast	Off
• Shar Fresh Color	Off
• Colo Noise Reduction	Off
• Tint Gamma	Medium
• Adva Black Level	Low
• Rese Eye Care	Off
Screen (RGB-PC) Real Cinema	Off
	Close

1 MENU Select **PICTURE**.

2 ENTER Select **Advanced Control**.

3 ENTER Select **Color Temperature**.

4 Select **Cool**, **Medium**, or **Warm**.

5 RETURN Return to the previous menu.

MENU Return to TV viewing.
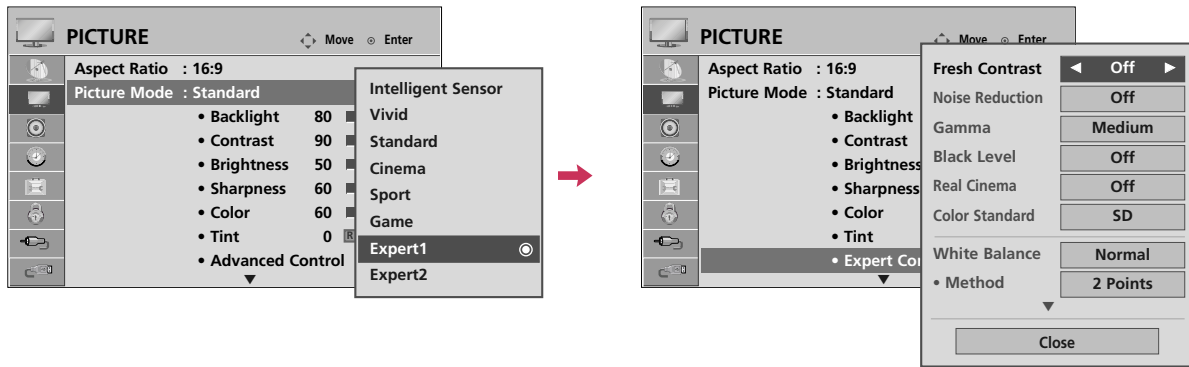
MANUAL PICTURE ADJUSTMENT

Picture Mode - User Mode

Adjust the picture appearance to suit your preference and viewing situations.
This feature is disable in "**Picture Mode-Intelligent Sensor**".

PICTURE   ◌ Move ◉ Enter

Aspect Ratio : 16:9
Picture Mode : Standard
          • Backlight   80
          • Contrast   90
          • Brightness   50
          • Sharpness   60
          • Color   60
          • Tint   0 R|||||||||||||G
          • Advanced Control

• Backlight   80 ◄ ||||||||| ►
                              ◉ Enter
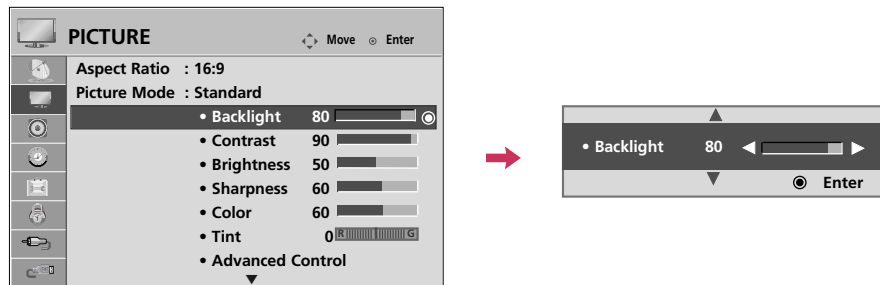
1 MENU   Select **PICTURE**.

2 ENTER   Select **Picture Mode**.

3 ENTER   Select **Vivid**, **Standard**, **Cinema**, **Sport**, or **Game**.

4 ENTER   Select **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Color**, or **Tint**.

5 ENTER   Make appropriate adjustments.

6 RETURN Return to the previous menu.

   MENU   Return to TV viewing.

Picture Mode - Expert Control

By segmenting categories, **Expert1** and **Expert2** provide more categories which users can set as they see fit, offering the optimal picture quality for users.

PICTURE	⟨⟩ Move ⊙ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	**Intelligent Sensor**
• **Backlight** 80 ▪	**Vivid**
• **Contrast** 90 ▪	**Standard**
• **Brightness** 50 ▪	**Cinema**
• **Sharpness** 60 ▪	**Sport**
• **Color** 60 ▪	**Game**
• **Tint** 0 ▪	**Expert1** ◉
• **Advanced Control** ▼	**Expert2**

PICTURE	⟨⟩ Move ⊙ Enter
Aspect Ratio : 16:9	**Fresh Contrast** ◄ Off ►
Picture Mode : Standard	**Noise Reduction** Off
• **Backlight**	**Gamma** Medium
• **Contrast**	**Black Level** Off
• **Brightness**	**Real Cinema** Off
• **Sharpness**	**Color Standard** SD
• **Color**	**White Balance** Normal
• **Tint**	• **Method** 2 Points
• **Expert Co** ▼	▼
	Close

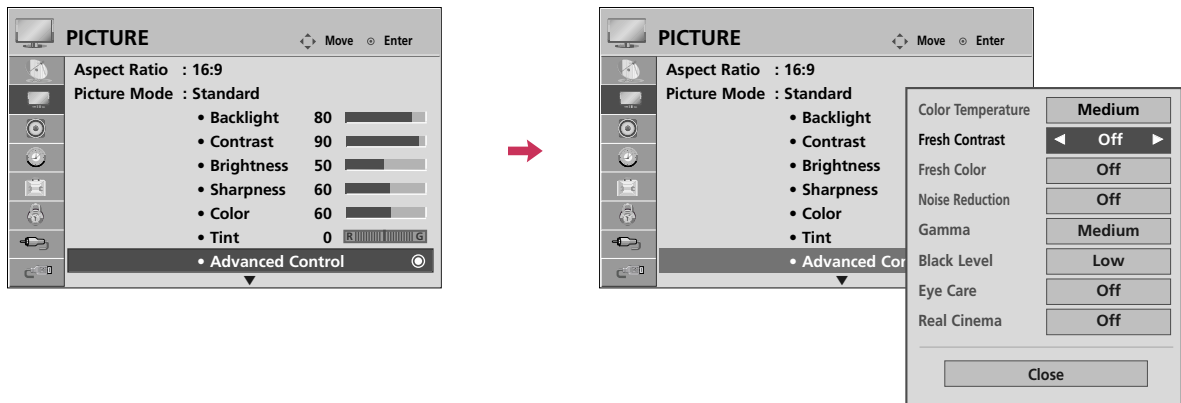|		
1 MENU ⌄⌃		Select **PICTURE**.
2 ENTER ⌄⌃		Select **Picture Mode**.
3 ENTER ⌄⌃		Select **Expert1** or **Expert2**.
4 ENTER ⌄⌃		Select **Expert Control**.
5 ENTER ⌄⌃		Select your desired menu option.
6 ‹ ›		Make appropriate adjustments.
7 RETURN		Return to the previous menu.
MENU		Return to TV viewing.

PICTURE IMPROVEMENT TECHNOLOGY

Fresh Contrast: Optimizes the contrast automatically according to the brightness of the reflection.
Fresh Color: Adjusts the color of the reflection automatically to reproduce as close as possible natural colors.
Noise Reduction: Removes interference up to the point where it does not damage the original picture.
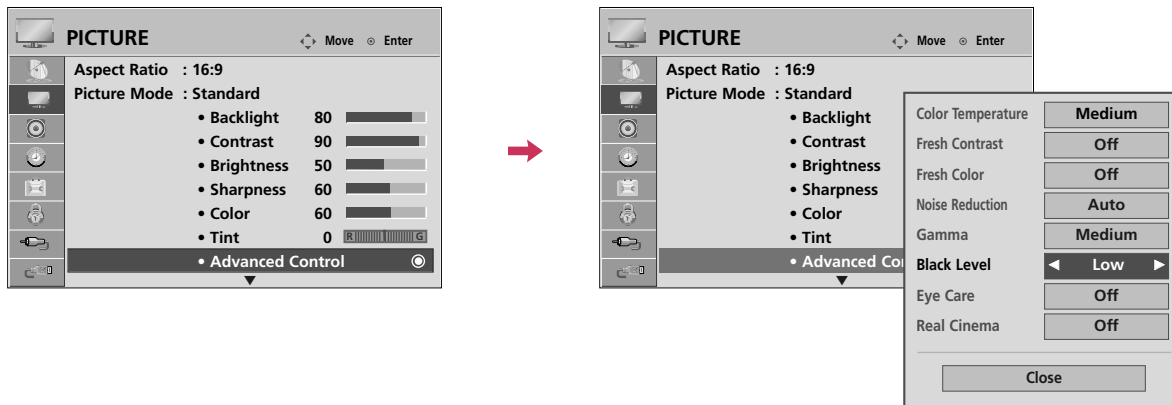**Gamma: High gamma values display whitish images and low gamma values display high contrast images.**

| PICTURE		Move ◎ Enter
Aspect Ratio : 16:9		
Picture Mode : Standard		
• Backlight	80	
• Contrast	90	
• Brightness	50	
• Sharpness	60	
• Color	60	
• Tint	0	R�G
• Advanced Control		◎

PICTURE	Move ◎ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	
• Backlight	
• Contrast	
• Brightness	
• Sharpness	
• Color	
• Tint	
• Advanced Cor	

Color Temperature	Medium
Fresh Contrast	◄ Off ►
Fresh Color	Off
Noise Reduction	Off
Gamma	Medium
Black Level	Low
Eye Care	Off
Real Cinema	Off
Close	

1 MENU Select **PICTURE**.

2 ENTER Select **Advanced Control**.

3 ENTER Select **Fresh Contrast**, **Fresh Color**, **Noise Reduction**, or **Gamma**.

4 Select your desired options.

5 RETURN Return to the previous menu.

MENU Return to TV viewing.

ADVANCED CONTROL - BLACK (DARKNESS) LEVEL

Adjusting the contrast and the brightness of the screen using the black level of the screen.
This feature is disabled in DTV and RGB-PC mode.

PICTURE	◇ Move ◉ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	
• Backlight	80
• Contrast	90
• Brightness	50
• Sharpness	60
• Color	60
• Tint	0 R▕▊▊▊▊▊▊▊▊▊▊▏G
• Advanced Control	◉

PICTURE	◇ Move ◉ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	
• Backlight	Color Temperature	**Medium**
• Contrast	Fresh Contrast	**Off**
• Brightness	Fresh Color	**Off**
• Sharpness	Noise Reduction	**Auto**
• Color	Gamma	**Medium**
• Tint	**Black Level**	**◄ Low ►**
• Advanced Co	Eye Care	**Off**
	Real Cinema	**Off**
	Close	

1 MENU — Select **PICTURE**.

2 ENTER — Select **Advanced Control**.

3 ENTER — Select **Black Level**.

4 — Select **Low** or **High**.

5 RETURN — Return to the previous menu.
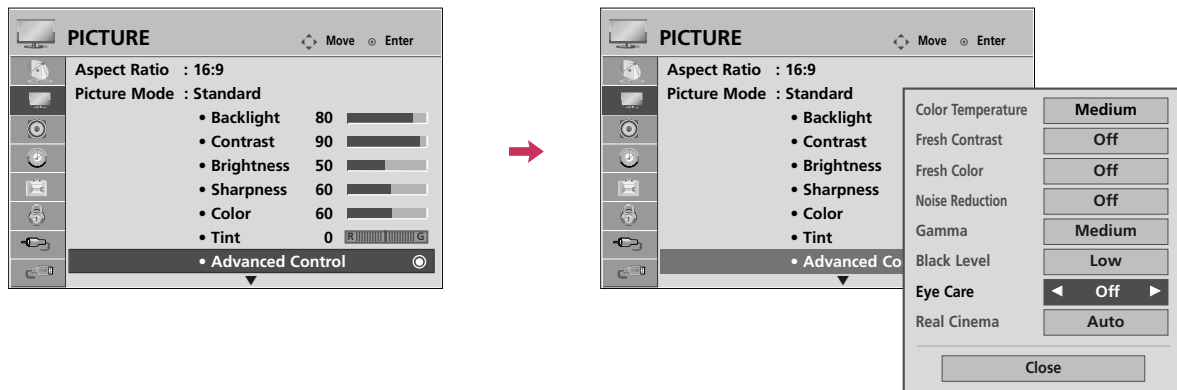
MENU — Return to TV viewing.

- **Low**: The reflection of the screen gets darker.
- **High**: The reflection of the screen gets brighter.
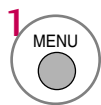- **Auto**: Realizing the black level of the screen and set it to High or Low automatically.
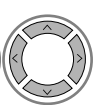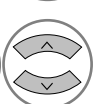
ADVANCED CONTROL - EYE CARE

Dims extremely bright pictures.
This feature is disabled in "**Picture Mode-Vivid**, **Cinema**".

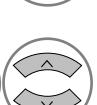|	PICTURE	⬦ Move ⊙ Enter
	Aspect Ratio : 16:9	
	Picture Mode : Standard	
	• **Backlight** 80	
	• **Contrast** 90	
	• **Brightness** 50	
	• **Sharpness** 60	
	• **Color** 60	
	• **Tint** 0 R|||||||||||||G	
	• **Advanced Control** ◎	

➡

	PICTURE	⬦ Move ⊙ Enter
	Aspect Ratio : 16:9	
	Picture Mode : Standard	
	• **Backlight**	
	• **Contrast**	
	• **Brightness**	
	• **Sharpness**	
	• **Color**	
	• **Tint**	
	• **Advanced Co**	

Color Temperature	**Medium**
Fresh Contrast	**Off**
Fresh Color	**Off**
Noise Reduction	**Off**
Gamma	**Medium**
Black Level	**Low**
Eye Care	◄ **Off** ►
Real Cinema	**Auto**
	Close

1 MENU Select **PICTURE**.

2 ENTER Select **Advanced Control**.

3 ENTER Select **Eye Care**.

4 Select **On** or **Off**.

5 RETURN Return to the previous menu.
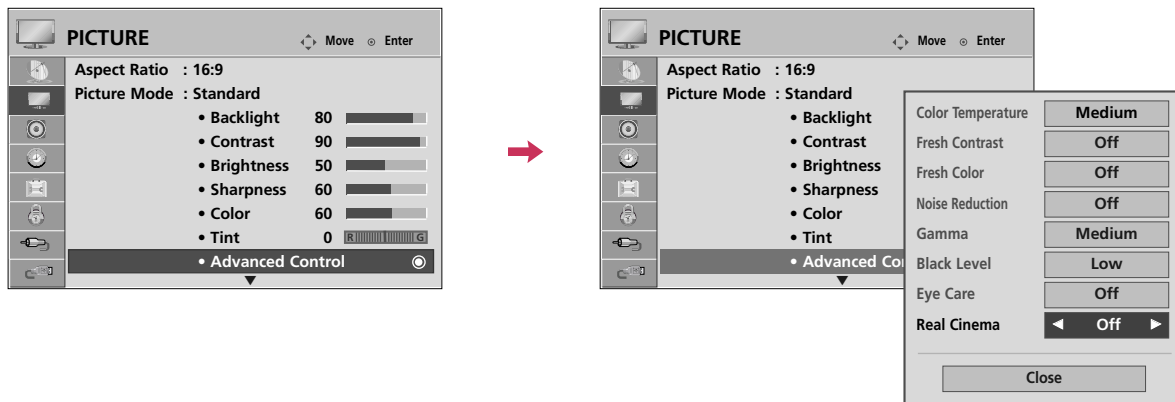
MENU Return to TV viewing.

ADVANCED CONTROL - REAL CINEMA

Set up the TV for the best picture appearance for viewing movies.

When you operate Real Cinema (3:2 Pull-Down Mode or Cinema Correction Mode), the TV will adjust 24 fps video from movies to 30 fps video for display.

This feature operates only in TV (Analog TV/CATV, Digital DTV/CADTV), AV1, AV2, Component 480i/1080i, and HDMI 1080i mode.

This TV ouputs 48Hz in DTV, Component, and HDMI 1080p (24Hz).

PICTURE	Move ⟡ Enter
Aspect Ratio : 16:9	
Picture Mode : Standard	
• Backlight	80
• Contrast	90
• Brightness	50
• Sharpness	60
• Color	60
• Tint	0 R||||||||||||G
• Advanced Control	◉
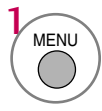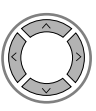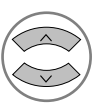
➡

PICTURE	Move ⟡ Enter		
Aspect Ratio : 16:9		Color Temperature	**Medium**
Picture Mode : Standard		Fresh Contrast	**Off**
• Backlight		Fresh Color	**Off**
• Contrast		Noise Reduction	**Off**
• Brightness		Gamma	**Medium**
• Sharpness		Black Level	**Low**
• Color		Eye Care	**Off**
• Tint		Real Cinema	◄ **Off** ►
• Advanced Co		**Close**	

PICTURE CONTROL

1 MENU Select **PICTURE**.

2 ENTER Select **Advanced Control**.

3 ENTER Select **Real Cinema**.

4 Select **On** or **Off**.

5 RETURN Return to the previous menu.

MENU Return to TV viewing.

PICTURE RESET

Settings of the selected picture modes return to the default factory settings.

PICTURE	‹›› Move ⊙ Enter
• Backlight	80
• Contrast	90
• Brightness	50
• Sharpness	60
• Color	60
• Tint	0 R||||||||||G
• Advanced Control	
• Reset	◉
Screen (RGB-PC)	

➡

PICTURE	‹›› Move ⊙ Enter
• Backlight	80
• Contrast	90
• Brightness	50
ℹ Resetting video configuration...	
• Color	60
• Tint	0 R||||||||||G
• Advanced Control	
• Reset	
Screen (RGB-PC)	

1 MENU Select **PICTURE**.

2 ENTER Select **Reset**.
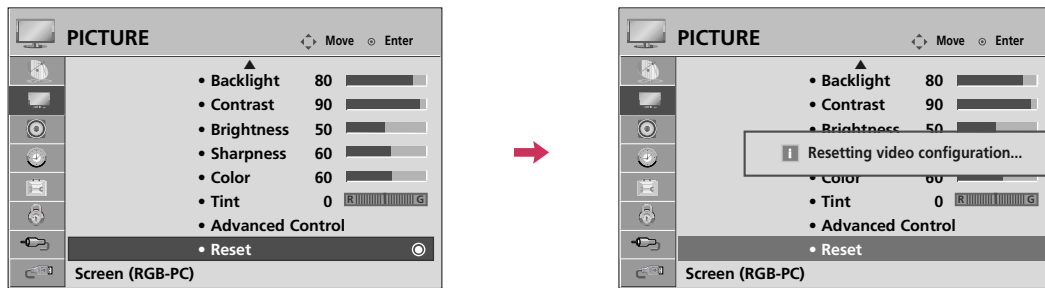
3 ENTER Initialize the adjusted value.

4 MENU Return to TV viewing.

POWER INDICATOR

	OPTION	⬯ Move ⊙ Enter
	Language	: English
	Input Label	
	SIMPLINK	: On
	Key Lock	: Off
	Caption	: Off
	Set ID	: 1
	Power Indicator	◉
	Initial Setting	: Home

➡

	OPTION	⬯ Move ⊙ Enter
	Language	: English
	Input Label	
	SIMPLINK	: On
	Key Lock	: Off
	Caption	: Off
	Set ID	: 1
	Power Indicator	
	Initial Setting	: Home

Standby Light	◄ Off ►
Power Light	On
Close	

---
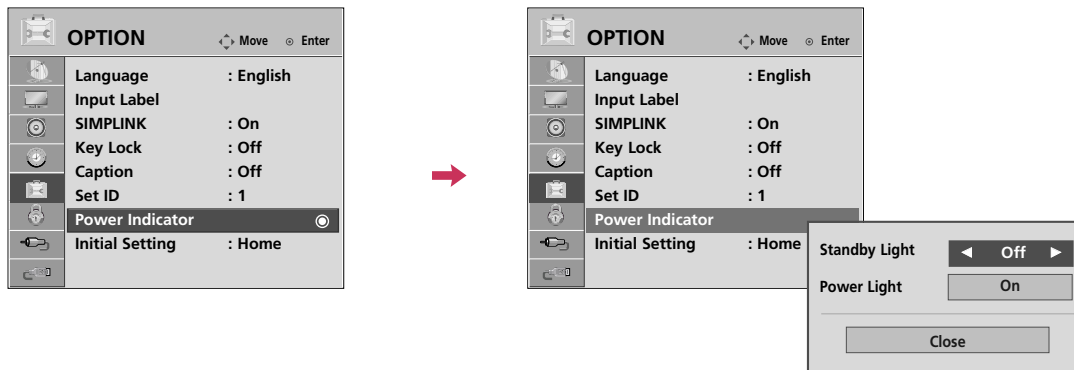
1 MENU Select **OPTION**.

2 ENTER Select **Power Indicator**.

3 ENTER Select **Standby Light** or **Power Light**.

4 Select your desired options.

5 RETURN Return to the previous menu.

MENU Return to TV viewing.

- **Standby Light**: You can set the brightness of the LED on the front side of the TV during power standby.
- **Power Light**: You can set the the LED on the front side of the TV to be turned on or off while watching the TV.

SOUND & LANGUAGE CONTROL

AUTO VOLUME LEVELER (AUTO VOLUME)

Auto Volume makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.
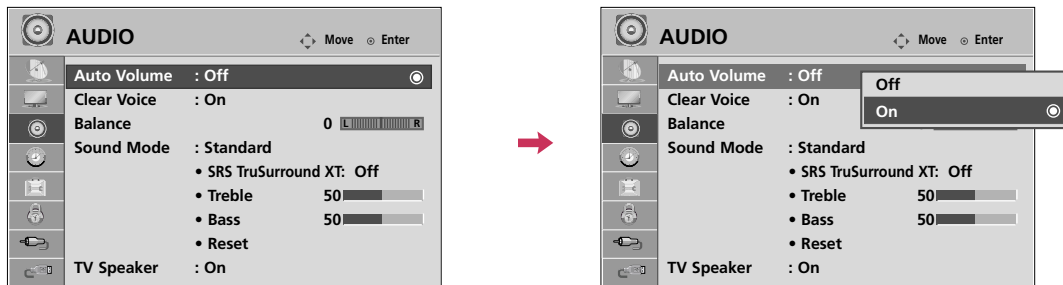
◉ **AUDIO**	‹◌› Move ◉ Enter
Auto Volume	**: Off** ◉
Clear Voice	: On
Balance	0
Sound Mode	: Standard
	• SRS TruSurround XT: Off
	• Treble 50
	• Bass 50
	• Reset
TV Speaker	: On

➡

◉ **AUDIO**	‹◌› Move ◉ Enter
Auto Volume	**: Off** Off
Clear Voice	: On On ◉
Balance	
Sound Mode	: Standard
	• SRS TruSurround XT: Off
	• Treble 50
	• Bass 50
	• Reset
TV Speaker	: On

---

1 MENU ⌄⌃ Select **AUDIO**.

2 ENTER ⌄⌃ Select **Auto Volume**.

3 ENTER ⌄⌃ Select **On** or **Off**.

4 RETURN Return to the previous menu.

MENU Return to TV viewing.

SOUND & LANGUAGE CONTROL

PRESET SOUND SETTINGS (SOUND MODE)

Sound Mode lets you enjoy the best sound without any special adjustment as the TV sets the appropriate sound options based on the program content.

Standard, **Music**, **Cinema**, **Sport**, and **Game** are preset for optimum sound quality at the factory and are not adjustable.
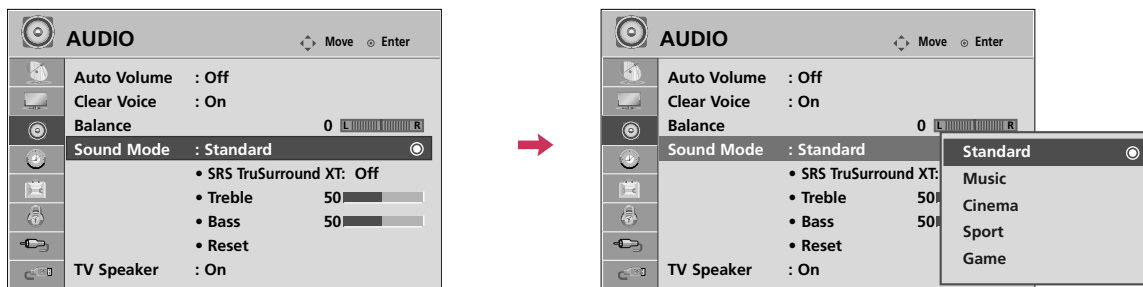
AUDIO	◇ Move ◎ Enter
Auto Volume	: Off
Clear Voice	: On
Balance	0 L▐▋▋▋▋▋▋▋▋▋R
Sound Mode	**: Standard** ◎
	• SRS TruSurround XT: Off
	• Treble 50▐
	• Bass 50▐
	• Reset
TV Speaker	: On

➡

AUDIO	◇ Move ◎ Enter	
Auto Volume	: Off	
Clear Voice	: On	
Balance	0 L▐▋▋▋▋▋▋▋▋▋R	
Sound Mode	**: Standard**	**Standard** ◎
	• SRS TruSurround XT:	Music
	• Treble 50▌	Cinema
	• Bass 50▌	Sport
	• Reset	Game
TV Speaker	: On	

1 MENU ∧ < ◇ > ∨   Select **AUDIO**.

2 ENTER ◉ ∧ ∨   Select **Sound Mode**.

3 ENTER ◉ ∧ ∨   Select **Standard**, **Music**, **Cinema**, **Sport**, or **Game**.

4 RETURN ↺   Return to the previous menu.

MENU   Return to TV viewing.

▪ You can also adjust **Sound Mode** in the **Q. Menu**.
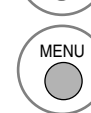
SOUND SETTING ADJUSTMENT - USER MODE

Adjust the sound to suit your taste and room situations.
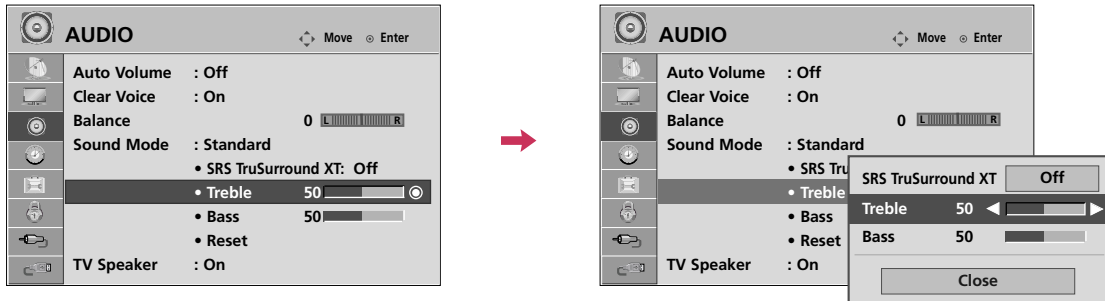
AUDIO		Move Enter

AUDIO menu:
- Auto Volume : Off
- Clear Voice : On
- Balance 0
- Sound Mode : Standard
  - SRS TruSurround XT: Off
  - Treble 50
  - Bass 50
  - Reset
- TV Speaker : On

AUDIO menu (right):
- Auto Volume : Off
- Clear Voice : On
- Balance 0
- Sound Mode : Standard
- TV Speaker : On

SRS TruSurround XT   Off
Treble 50
Bass 50
Close

1 MENU — Select **AUDIO**.

2 ENTER — Select **Sound Mode**.

3 ENTER — Select **Standard**, **Music**, **Cinema**, **Sport**, or **Game**.

4 ENTER — Select **Treble** or **Bass**.

5 ENTER — Make appropriate adjustments.

6 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

SRS TRUSURROUND XT

1 MENU — Select **AUDIO**.

2 ENTER — Select **SRS TruSurround XT**

3 ENTER — Select **On** or **Off**.

4 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

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

CLEAR VOICE

By differentiating the human sound range from others, it improves the sound quality of voices.

```
┌─────────────────────────────────────────┐      ┌─────────────────────────────────────────┐
│ ◎ AUDIO            ◁▷ Move  ◎ Enter      │      │ ◎ AUDIO            ◁▷ Move  ◎ Enter      │
│ ─────────────────────────────────────── │      │ ─────────────────────────────────────── │
│     Auto Volume  : Off                   │      │     Auto Volume  : Off                   │
│     Clear Voice  : On              ◎     │      │     Clear Voice  : On      ┌──────────┐  │
│     Balance           0  L|||||||||R     │  ➡   │     Balance                │ Off      │  │
│     Sound Mode   : Standard              │      │     Sound Mode   : Standard│ On    ◉  │  │
│                  • SRS TruSurround XT: Off│     │                  • SRS TruSurround XT: Off│
│                  • Treble      50▐       │      │                  • Treble      50▐       │
│                  • Bass        50▐       │      │                  • Bass        50▐       │
│                  • Reset                 │      │                  • Reset                 │
│     TV Speaker   : On                    │      │     TV Speaker   : On                    │
└─────────────────────────────────────────┘      └─────────────────────────────────────────┘
```
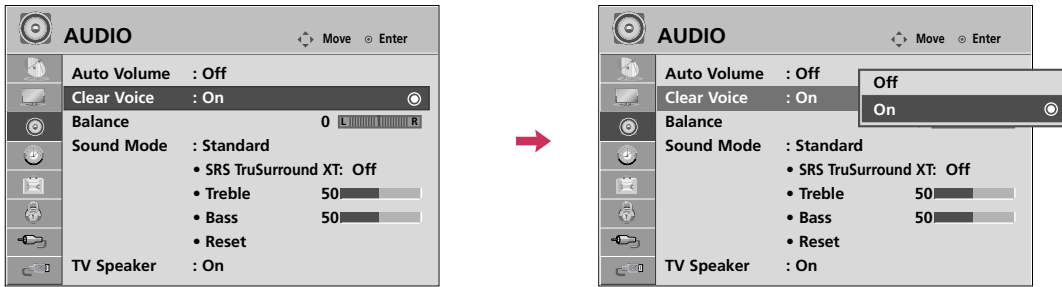
1 MENU — Select **AUDIO**.

2 ENTER — Select **Clear Voice**.

3 ENTER — Select **On** or **Off**.

4 RETURN — Return to the previous menu.

MENU — Return to TV viewing.
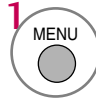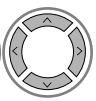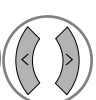
■ If you select "**Clear Voice-On**", **SRS TruSurround XT** feature will not work.

■ You can also adjust **Clear Voice** in the **Q-Menu**.

BALANCE

Adjust the left/right sound of speaker to suit your taste and room situations.
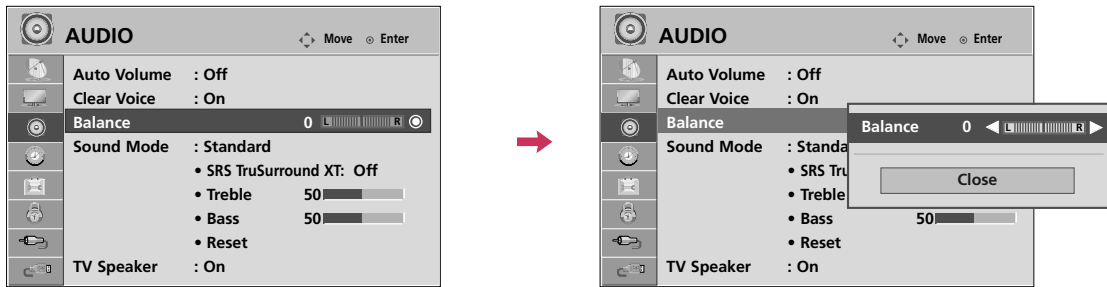
AUDIO	⟨ ⟩ Move ⊙ Enter
Auto Volume	: Off
Clear Voice	: On
Balance	**0** L|||||||||||||R ◎
Sound Mode	: Standard
	• SRS TruSurround XT: Off
	• Treble 50
	• Bass 50
	• Reset
TV Speaker	: On

➡

AUDIO	⟨ ⟩ Move ⊙ Enter
Auto Volume	: Off
Clear Voice	: On
Balance	
Sound Mode	: Standa
	• SRS Tru
	• Treble
	• Bass 50
	• Reset
TV Speaker	: On

Balance 0 ◄ L\|\|\|\|\|\|\|\|\|\|\|R ►

Close

1 MENU   Select **AUDIO**.

2 ENTER   Select **Balance**.

3 ENTER   Make appropriate adjustments.

4 RETURN   Return to the previous menu.

MENU   Return to TV viewing.

TV SPEAKERS ON/OFF SETUP

Turn the TV speakers off if using external audio equipment.
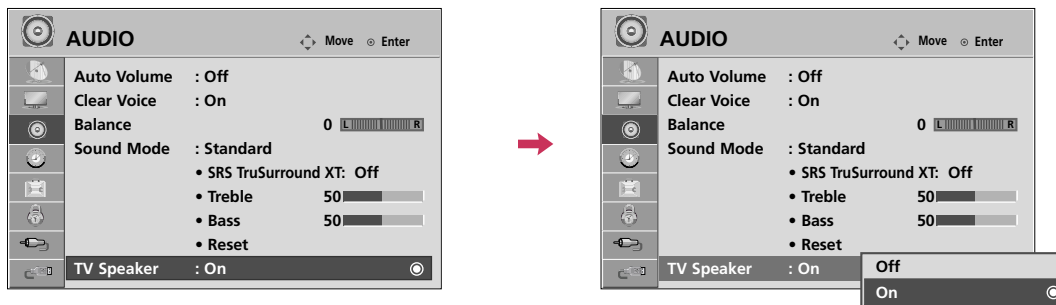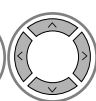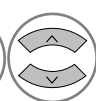
```
 ⊙  AUDIO              ‹⌃› Move  ⊙ Enter
🔊  Auto Volume    : Off
🖵  Clear Voice     : On
⊙  Balance                      0  L▧▧▧▧▧▧▧▧ R
🕐  Sound Mode     : Standard
▦                  • SRS TruSurround XT:  Off
🔒                  • Treble        50▮▭▭
⊸                  • Bass          50▮▭▭
⊏⊐                 • Reset
⊏⊐  TV Speaker    : On                      ⊚
```

➡

```
 ⊙  AUDIO              ‹⌃› Move  ⊙ Enter
🔊  Auto Volume    : Off
🖵  Clear Voice     : On
⊙  Balance                      0  L▧▧▧▧▧▧▧▧ R
🕐  Sound Mode     : Standard
▦                  • SRS TruSurround XT:  Off
🔒                  • Treble        50▮▭▭
⊸                  • Bass          50▮▭▭
⊏⊐                 • Reset        ┌──────────┐
⊏⊐  TV Speaker    : On          │ Off        │
                                │ On        ⊚│
                                └──────────┘
```

1
MENU

⌃ ‹ › ⌄

Select **AUDIO**.

2
ENTER ⊙

⌃ ⌄

Select **TV Speaker**.

3
ENTER ⊙

⌃ ⌄

Select **On** or **Off**.

4
RETURN

Return to the previous menu.

MENU

Return to TV viewing.

AUDIO RESET

Settings of the selected Sound Mode return to the default factory settings.

AUDIO	◊ Move ⊙ Enter
Auto Volume	: Off
Clear Voice	: On
Balance	0 L|||||||||||| R
Sound Mode	: Standard
	• SRS TruSurround XT: Off
	• Treble 50
	• Bass 50
	• Reset ⊚
TV Speaker	: On

➡

AUDIO	◊ Move ⊙ Enter
Auto Volume	: Off
Clear Voice	: On
Balance	
Sound Mode	⚪ Resetting audio configuration...
	• SRS TruSurround XT: Off
	• Treble 50
	• Bass 50
	• Reset
TV Speaker	: On

1 MENU   Select **AUDIO**.

2 ENTER   Select **Reset**.
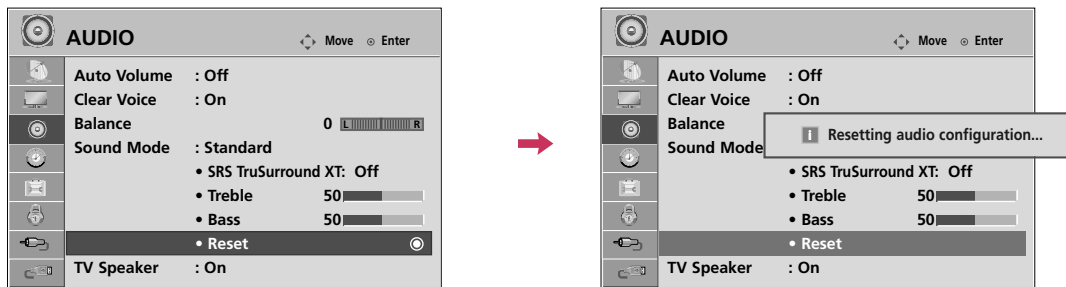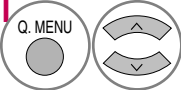
3 ENTER   Initialize the adjusted value.

4 MENU   Return to TV viewing.

STEREO/SAP BROADCAST SETUP
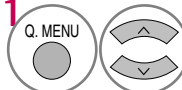
For Analog only: This TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program if the station transmits an additional sound signal. Mono sound is automatically used if the broadcast is only in Mono.

Q.Menu

⊟ Aspect Ratio	**16:9**
☼ Backlight	**3**
I⟨ Clear Voice	**Off**
⊙ Picture Mode	**Vivid**
♪ Sound Mode	**Standard**
☐ Caption	**Off**
((⊙)) Multi Audio	◄ **English** ►
⊘ Sleep Timer	**Off**
CH Del/Add/Fav	**Add**
⊖ USB Eject	**Eject**

Close
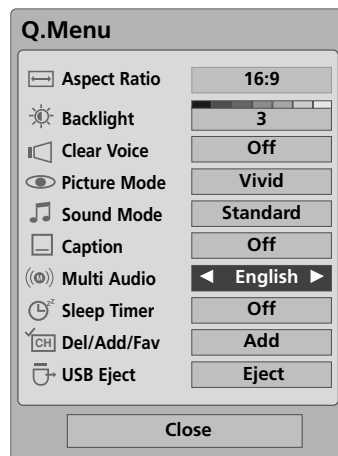
Analog TV

1 Q. MENU ⌃⌄   Select **SAP**.

2 ⟨ ⟩   Select **Mono**, **Stereo**, or **SAP**.

3 Q. MENU   Return to TV viewing.

Digital TV

1 Q. MENU ⌃⌄   Select **Multi Audio**.

2 ⟨ ⟩   Select other languages.

3 Q. MENU   Return to TV viewing.

AUDIO LANGUAGE

Other languages may be available if a digital signal is provided by the broadcasting station.
This feature operates only in DTV/CADTV mode.

OPTION	◇ Move ◉ Enter
Language	**: English** ◉
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	: Off
Set ID	: 1
Power Indicator	
Initial Setting	: Home

➡️

OPTION	◇ Move ◉ Enter	Menu	English
Language	: Eng	Audio	◄ English ►
Input Label			
SIMPLINK	: On		Close
Key Lock	: Off		
Caption	: Off		
Set ID	: 1		
Power Indicator			
Initial Setting	: Home		
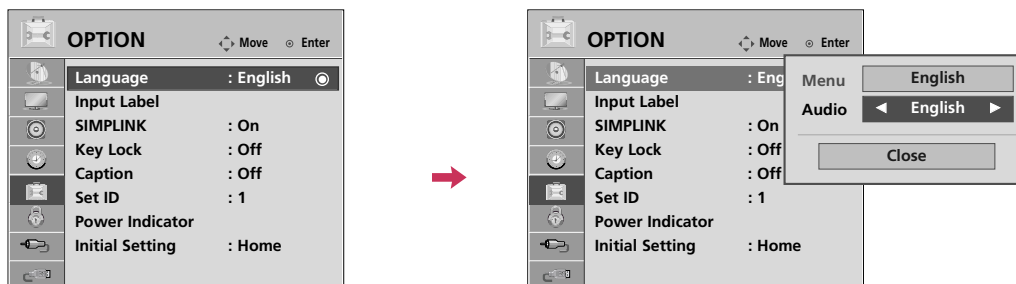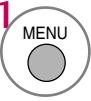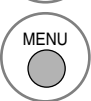
1	MENU	Select **OPTION**.
2	ENTER	Select **Language**.
3	ENTER	Select **Audio**.
4		Select your desired language: **English**, **Spanish**, or **French**
5	RETURN	Return to the previous menu.
	MENU	Return to TV viewing.

ON-SCREEN MENUS LANGUAGE SELECTION

The menus can be shown on the screen in the selected language.

<table>
<tr><td colspan="2">⊞ **OPTION**   ◇ Move   ◉ Enter</td></tr>
<tr><td>**Language**</td><td>**: English** ◉</td></tr>
<tr><td>**Input Label**</td><td></td></tr>
<tr><td>**SIMPLINK**</td><td>**: On**</td></tr>
<tr><td>**Key Lock**</td><td>**: Off**</td></tr>
<tr><td>**Caption**</td><td>**: Off**</td></tr>
<tr><td>**Set ID**</td><td>**: 1**</td></tr>
<tr><td>**Power Indicator**</td><td></td></tr>
<tr><td>**Initial Setting**</td><td>**: Home**</td></tr>
</table>

➡

<table>
<tr><td colspan="2">⊞ **OPTION**   ◇ Move   ◉ Enter</td></tr>
<tr><td>**Language**</td><td>: Eng</td></tr>
<tr><td>**Input Label**</td><td></td></tr>
<tr><td>**SIMPLINK**</td><td>: On</td></tr>
<tr><td>**Key Lock**</td><td>: Off</td></tr>
<tr><td>**Caption**</td><td>: Off</td></tr>
<tr><td>**Set ID**</td><td>: 1</td></tr>
<tr><td>**Power Indicator**</td><td></td></tr>
<tr><td>**Initial Setting**</td><td>: Home</td></tr>
</table>

Menu	◄	**English**	►
Audio		**English**	
Close			

SOUND & LANGUAGE CONTROL

1 MENU

Select **OPTION**.

2 ENTER

Select **Language**.

3 ENTER
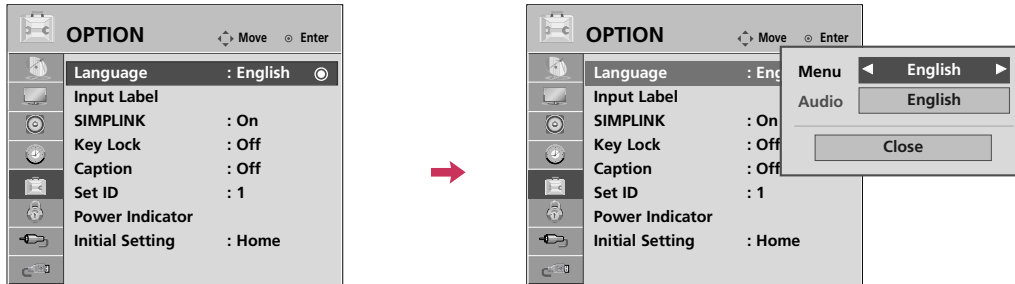
Select **Menu**.

4

Select your desired language.
From this point on, the on-screen menus will be shown in the selected language.

5 RETURN

Return to the previous menu.

MENU

Return to TV viewing.
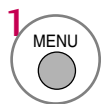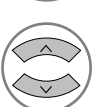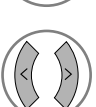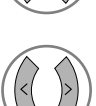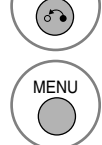
SOUND & LANGUAGE CONTROL

CAPTION MODE

Analog Broadcasting System Captions

Caption must be provided to help people with hearing loss watch TV. Select a caption mode for displaying captioning information if provided on a program. Analog caption displays information at any position on the screen and is usually the program's dialog. Caption/Text, if provided by the broadcaster, would be available for both digital and analog channels on the Antenna/Cable. This TV is programmed to memorize the caption/text mode which was last set when you turned the power off. This function is only available when **Caption** Mode is set **On**.

OPTION	◁▷ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	: Off ◎
Set ID	: 1
Power Indicator	
Initial Setting	: Home

➡

OPTION	◁▷ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	: Off
Set ID	: 1
Power Indicator	
Initial Setting	: H

◀　　　On　　　▶
Mode　　CC1
Digital Option
Close

1	MENU	Select **OPTION**.
2	ENTER	Select **Caption**.
3	ENTER	Select **On**.
4		Select **CC1**-**4** or **Text1**-**4**.
5	RETURN	Return to the previous menu.
	MENU	Return to TV viewing.

- When selecting **Off**, Sub-menus for Analog, DTV, and Digital Option become disabled.
- **CAPTION**
  The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.
- **TEXT**
  The term for the words that appear in a large black frame and almost cover the entire screen; usually messages provided by the broadcaster.

Digital Broadcasting System Captions

Choose the language you want the DTV/CADTV Captions to appear in.
Other Languages can be chosen for digital sources only if they are included on the program.
This function in only available when **Caption** Mode is set **On.**

	OPTION	⬩ Move ⊙ Enter
	Language	**: English**
	Input Label	
	SIMPLINK	**: On**
	Key Lock	**: Off**
	Caption	**: Off** ⊙
	Set ID	**: 1**
	Power Indicator	
	Initial Setting	**: Home**

	OPTION	⬩ Move ⊙ Enter
	Language	**: English**
	Input Label	
	SIMPLINK	**: On**
	Key Lock	**: Off**
	Caption	**: CC1**
	Set ID	**: 1**
	Power Indicator	
	Initial Setting	**: Ho**

◄ **On** ►
Mode **CC1**
Digital Option
Close

1 MENU — Select **OPTION**.

2 ENTER — Select **Caption**.

3 ENTER — Select **On**.

4 — Select **CC1-4**, **Text1-4**, or **Service1 - 6**.

5 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

Caption Option

**Customize the DTV/CADTV captions that appear on your screen.
This function in only available when Caption Mode is set On.**

OPTION	⬦ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	**: Off** ◉
Set ID	: 1
Power Indicator	
Initial Setting	: Home

➡

OPTION	⬦ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	**: CC**
Set ID	: 1
Power Indicator	
Initial Setting	: Ho

◄ **On** ►
Mode   Service1
Digital Option
Close

➡

◄	Custom	►
Size		A Standard
Font		Font 1
Text Color		☐ White
Text Opacity		Solid
Bg Color		■ Black
Bg Opacity		Solid
Edge Type		None
Edge Color		■ Black
	Close	

1 MENU   Select **OPTION**.

2 ENTER   Select **Caption**

3 ENTER   Select **On**.

4   Select **Digital Option**.

5 ENTER   Select **Custom**.

6   Customize the **Style**, **Font**, etc., to your preference. A preview icon is provided at the bottom of the screen, use it to see the caption language.

7 RETURN   Return to the previous menu.

MENU   Return to TV viewing.

■ **Size**: Set the word size.
■ **Font**: Select a typeface for the text.
■ **Text Color**: Choose a color for the text.
■ **Text Opacity**: Specify the opacity for the text color.
■ **Bg (Background) Color**: Select a background color.
■ **Bg (Background) Opacity**: Select the opacity for the background color.
■ **Edge Type**: Select an edge type.
■ **Edge Color**: Select a color for the edges.

TIME SETTING

CLOCK SETTING

Auto Clock Setup

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

TIME	◄‡► Move ⊙ Enter
Clock	**: Feb/21/2008/ 2:10 AM** ⊙
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Sleep	: Off

➡

TIME	◄‡► Move Enter
Clock	**: Feb/21/2008/ 2:**
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Sleep	: Off

◄	Auto	►
Year		2008
Month		2
Date		21
Hour		2 AM
Minute		10
Time Zone		**Eastern**
Daylight Saving		**Auto**
Close		

---

1 MENU — Select **TIME**.

2 ENTER — Select **Clock**.
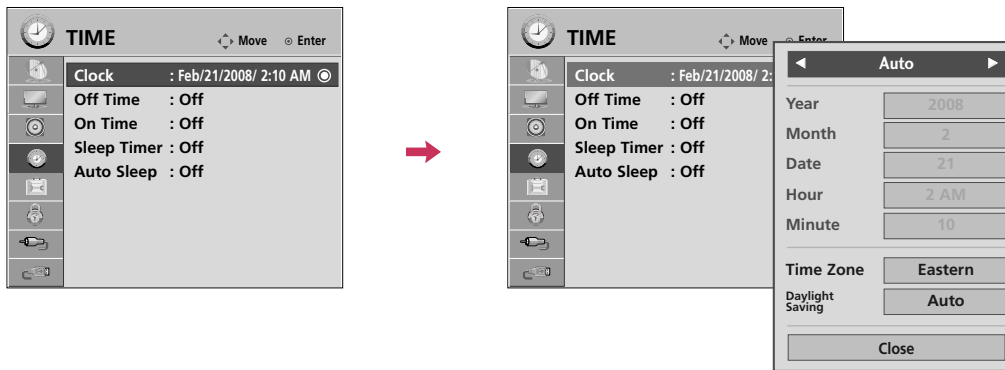
3 ENTER — Select **Auto**.

4 Select your viewing area time zone.
- U.S.A: **Eastern**, **Central**, **Mountain**, **Pacific**, **Alaska**, or **Hawaii**.
- Canada: **Eastern**, **Central**, **Mountain**, **Pacific**, **New F.land**, or **Atlantic**.

5 Select **Auto**, **Off**, or **On** (depending on whether or not your viewing area observes Daylight Saving time).

6 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

TIME SETTING

TIME SETTING

Manual Clock Setup

If the current time setting is wrong, set the clock manually.

TIME	◊ Move ◉ Enter
Clock	**: Feb/21/2008/ 2:10 AM** ◉
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Sleep	: Off

➡

TIME	◊ Move ◉ Enter
Clock	**: Feb/21/2008/**
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Sleep	: Off

◄	**Manual**	▶
Year		2008
Month		2
Date		21
Hour		2 AM
Minute		10
Time Zone		Eastern
Daylight Saving		Auto
	Close	

1 MENU Select **TIME**.

2 ENTER Select **Clock**.
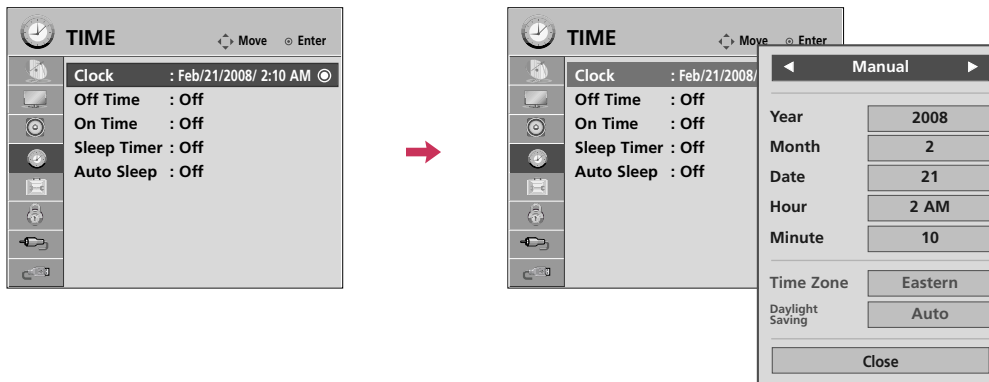
3 ENTER Select **Manual**.

4 Select the Year, Month, Date, Hour, or Minutes option.

5 Set the Year, Month, Date, Hour, or Minutes option.

6 RETURN Return to the previous menu.

MENU Return to TV viewing.

AUTO ON/OFF TIME SETTING

This function operates only if the current time has been set.

The **Off Time** function overrides the **On Time** function if they are both set to the same time.

The TV must be in standby mode for the **On Time** to work.

If you do not press any button within 2 hours after the TV turns on with the **On Time** function, the TV will automatically revert to standby mode.

TIME	⟨⟩ Move ⊙ Enter
Clock	: Feb/21/2008/ 2:10 AM
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Sleep	: Off

➡

TIME	⟨⟩ Move ⊙ Enter
Clock	: Feb/21/2008/ 2:10 AM
Off Time	: Off
On Time	: 6:30 A
Sleep Timer	: Off
Auto Sleep	: Off

Repeat	◄ Once ►
Hour	6 AM
Minute	30
Input	TV
Channel	TV 2-0
Volume	30
Close	
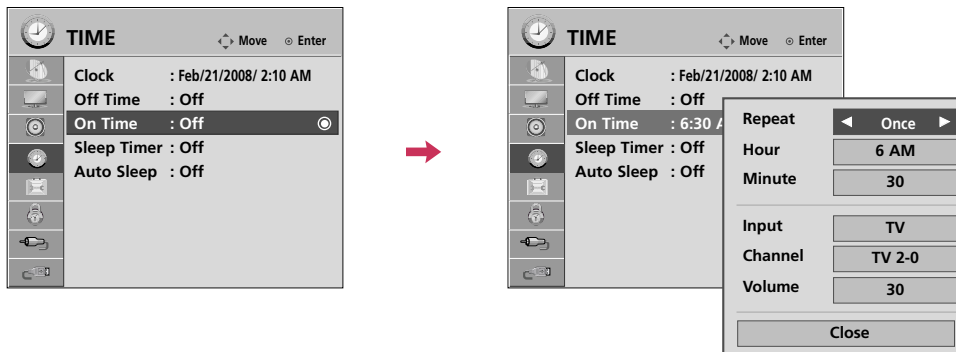
1 MENU / ⌃⌄ — Select **TIME**.

2 ENTER / ⌃⌄ — Select **Off time** or **On time**.

3 ENTER / ⌃⌄ — Select **Repeat**.

4 ‹ › — Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Weekend**, or **Sunday**.

5 ⌃⌄ / ‹ › — Select and set **Hour** or **Minute**.

6 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

■ To cancel **On/Off Time** function, select **Off**.
■ Only for On Time function

1 ENTER / ⌃⌄ — Select **Input**.

2 ‹ › — Select the desired input source.

3 ⌃⌄ / ‹ › — When Selecting **TV**: set the channel at turn-on.

4 ⌃⌄ / ‹ › — Adjust to sound level at turn-on.

SLEEP TIMER SETTING

The Sleep Timer turns the TV off at the preset time.
Note that this setting is cleared when the TV is turned off.

TIME	⬩ Move ⦿ Enter
Clock	: Feb/21/2008/ 2:10 AM
Off Time	: Off
On Time	: Off
Sleep Timer	**: Off** ⦿
Auto Sleep	: Off

➡

TIME	⬩ Move ⦿ Enter
Clock	: Feb/21/2008/ 2:10 AM
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Sleep	: Off

◄   Off   ►
Close
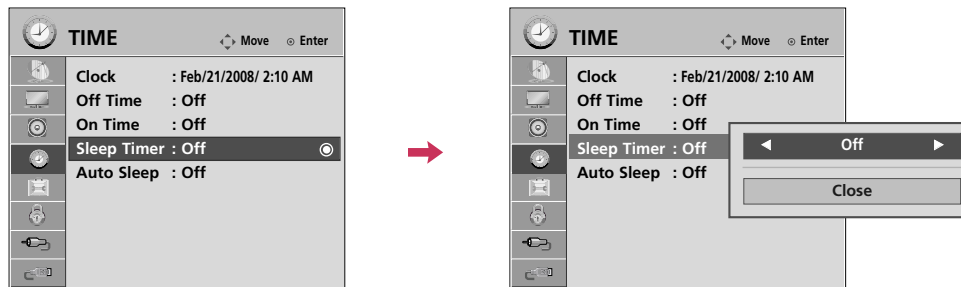
1 MENU Select **TIME**.

2 ENTER Select **Sleep Timer**.

3 ENTER Select **Off**, **10**, **20**, **30**, **60**, **90**, **120**, **180**, or **240** minutes.

■ You can also adjust **Sleep Timer** in the **Q-Menu**.

4 RETURN Return to the previous menu.

MENU Return to TV viewing.

AUTO SHUT-OFF SETTING

TV will be automatically turned off, in case of no signal for 10 minutes.

TIME	⬦ Move ⊙ Enter
Clock	**: Feb/21/2008/ 2:10 AM**
Off Time	**: Off**
On Time	**: Off**
Sleep Timer	**: Off**
Auto Sleep	**: Off** ◉

➡

TIME	⬦ Move ⊙ Enter
Clock	**: Feb/21/2008/ 2:10 AM**
Off Time	**: Off**
On Time	**: Off**
Sleep Timer	**: Off**
Auto Sleep	**: Off**

Off
On ◉
TV will be automatically turned off, in case of No Signal for 10 minutes.

1 MENU

Select **TIME**.

2 ENTER
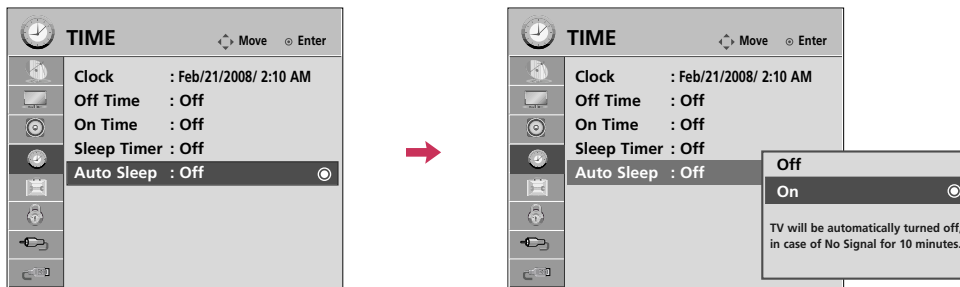
Select **Auto Sleep**.

3 ENTER

Select **On** or **Off**.

4 RETURN

Return to the previous menu.

MENU

Return to TV viewing.

PARENTAL CONTROL / RATINGS

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

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

1. Set ratings and categories to be blocked.

2. Specify a password

3. Enable the lock

V-Chip rating and categories

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

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

- TV-G (General audience)
- TV-PG (Parental guidance suggested)
- TV-14 (Parents strongly cautioned)

- TV-MA (Mature audience only)
- TV-Y (All children)
- TV-Y7 (Children 7 years older)

SET PASSWORD & LOCK SYSTEM

Setting up Your Password

Set up blocking schemes to block specific channels, ratings, and external viewing sources.

A password is required to gain access to this menu.

For USA   For Canada

```
     LOCK          ◇ Move   ⊙ Enter
     Lock System       : Off
     Set Password
     Block Channel
     Movie Rating
     TV Rating-Children
     TV Rating-General
     Downloadable Rating
     Input Block
```

```
     LOCK          ◇ Move   ⊙ Enter
     Lock System       : Off
     Set Password
     Block Channel
     TV Rating-English
     TV Rating-French
     Downloadable Rating
     Input Block
```

```
     Enter Password
     [*]  [*]  [*]  [*]
     ┌─────────────────┐
     │      Close      │
     └─────────────────┘
```
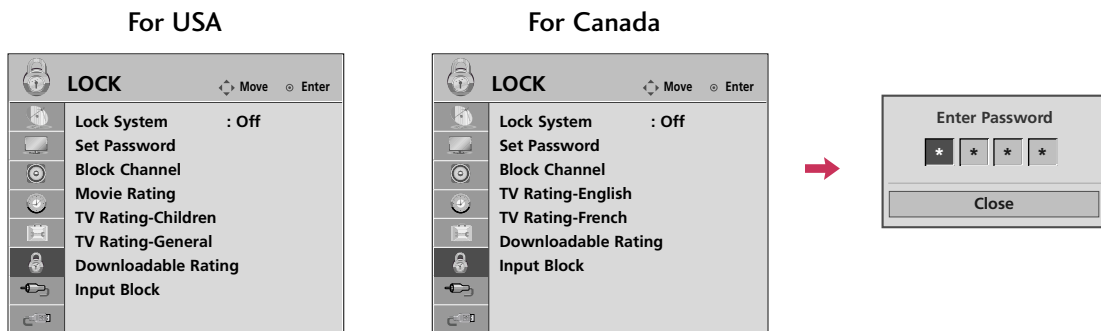
1 MENU · · · ENTER   Select **LOCK**.

2 (keypad)   Input the password.

- Enter the password as requested.
- The TV is set up with the initial password "0-0-0-0".

Lock System

Enables or disables the blocking scheme you set up previously.

LOCK	◀╬▶ Move ◉ Enter	
Lock System	**: Off**	◉
Set Password		
Block Channel		
Movie Rating		
TV Rating-Children		
TV Rating-General		
Downloadable Rating		
Input Block		

➡

LOCK	◀╬▶ Move ◉ Enter		
Lock System	**: Off**	Off	
Set Password		On	◉
Block Channel			
Movie Rating			
TV Rating-Children			
TV Rating-General			
Downloadable Rating			
Input Block			

1 MENU / ENTER — Select **LOCK**.
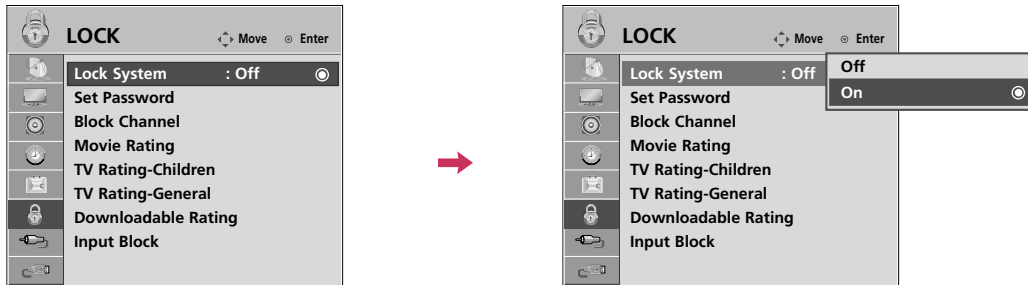
2 Input the password.

3 Select **Lock System**.

4 ENTER — Select **On** or **Off**.
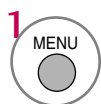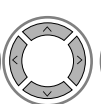
■ When you select **On**, the Lock System is enable.

5 RETURN — Return to the previous menu.

MENU — Return to TV viewing.
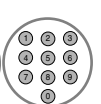
Set Password

Change the password by inputting a new password twice.

LOCK	Move Enter	
	Lock System	: Off
	Set Password	◉
	Block Channel	
	Movie Rating	
	TV Rating-Children	
	TV Rating-General	
	Downloadable Rating	
	Input Block	

➡

LOCK	Move Enter	
	Lock System	: Off
	Set Password	
	Block Channel	
	Movie Rating	
	TV Rating-Children	
	TV Rating-General	
	Downloadable Rating	
	Input Block	

New * * * *
Confirm * * * *

Close

1 MENU ⌄⌃ ENTER Select **LOCK**.
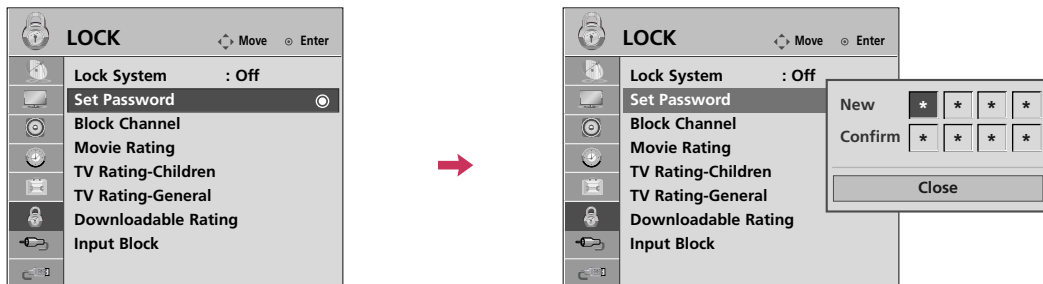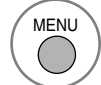
2 Input the password.

3 Select **Set password**.

4 ENTER Choose any 4 digits for your new password.
As soon as the 4 digits are entered, re-enter the same 4 digits on the **Confirm**.

5 RETURN Return to the previous menu.

MENU Return to TV viewing.

PARENTAL CONTROL / RATING

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CHANNEL BLOCKING

Blocks any channels that you do not want to watch or that you do not want your children to watch.

LOCK	◄► Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	◉
Movie Rating	
TV Rating-Children	
TV Rating-General	
Downloadable Rating	
Input Block	

7-1		DTV	TV	CADTV	CATV
		7-1	9-1	9-5	11-1
		13-1	13-2	13-3	13-4
		13-5	15-1	15-2	15-3
		15-4			
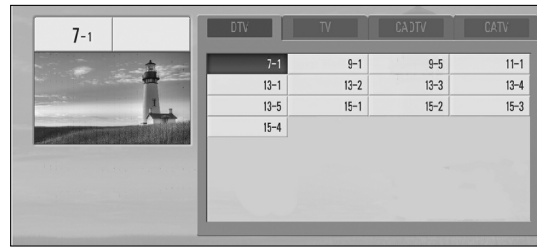
◉ Block/Unblock ◄► Move   CH △▽ Move Page   MENU Previous   RETURN Exit

1 MENU / ⌃⌄⟨⟩ / ENTER   Select **LOCK**.

2 Input the password.

3 Select **Block Channel**.

4 ENTER / ⌃⌄⟨⟩   Select a channel to block or unblock.

5 ENTER   Block or unblock a channel.

6 MENU   Return to the previous menu.

RETURN   Return to TV viewing.

PARENTAL CONTROL / RATING

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MOVIE & TV RATING

Movie Rating (MPAA) *- For USA only*

Blocks movies according to the movie ratings limits specified, so children cannot view certain movies. You can set the ratings limit by blocking out all the movies with the ratings above a specified level. Keep in mind that the movie ratings limit only applies to movies shown on TV, not TV programs, such as soap operas.

LOCK	◁▷ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
Movie Rating	◎
TV Rating-Children	
TV Rating-General	
Downloadable Rating	
Input Block	

➡

LOCK	◁▷ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
Movie Rating	
TV Rating-Children	
TV Rating-General	
Downloadable Rating	
Input Block	

Blocking off : Permits all programs

G
PG
PG-13
R
NC-17
X
Blocking Off 🔓

1 MENU ⟨⌄⟩ ENTER Select **LOCK**.
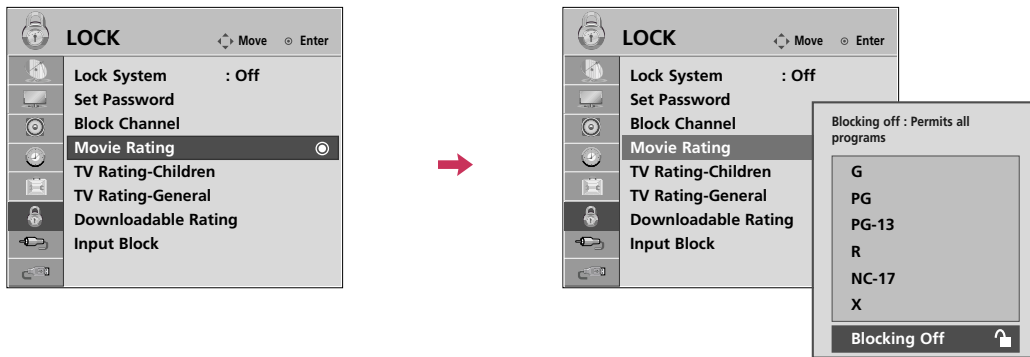
2 Input the password.

3 Select **Movie Rating**.

4 ENTER Select **G**, **PG**, **PG-13**, **R**, **NC-17**, **X**, or **Blocking Off**.

5 RETURN Return to the previous menu.

MENU Return to TV viewing.

- G (General audience)
- PG (Parental guidance suggested)
- PG-13 (Parents strongly cautioned)
- R (Restricted)
- NC-17 (No one 17 and under admitted)
- X (Adult only)
- Blocking Off (Permits all programs)
- ▶ If you set PG-13: G and PG movies will be available, PG-13, R, NC-17 and X will be blocked.

TV Rating Children - *For USA only*

Prevents children from watching certain children's TV programs, according to the ratings limit set. The children rating does not apply to other TV programs. Unless you block certain TV programs intended for mature audiences in the TV Rating - sub menu, your children can view those programs.

LOCK	⟨‡⟩ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
Movie Rating	
TV Rating-Children	⊚
TV Rating-General	
Downloadable Rating	
Input Block	

➡

LOCK	⟨‡⟩ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
Movie Rating	
TV Rating-Children	**Age**
TV Rating-General	**Fantasy Violence**
Downloadable Ratin	
Input Block	**Close**

1 MENU | ENTER | Select **LOCK**.

2 Input the password.

3 Select **TV Rating-Children**.

4 ENTER | Select **Age** or **Fantasy Violence**.

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

5 ENTER | Select block options.

6 RETURN | Return to the previous menu.

MENU | Return to TV viewing.

PARENTAL CONTROL / RATING

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PARENTAL CONTROL / RATINGS

TV Rating General - *For USA only*

Based on the ratings, blocks certain TV programs that you and your family do not want to view.

| 1 | MENU ⌃⌄ ENTER | Select **LOCK**. |

2 Input the password.

3 ⌃⌄ Select **TV Rating-General**.

4 ENTER ⌃⌄ Select **Age**, **Dialogue**, **Language**, **Sex** or **Violence**.

5 ENTER ⌃⌄ Select block options.

6 RETURN Return to the previous menu.

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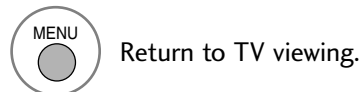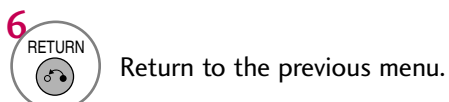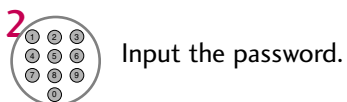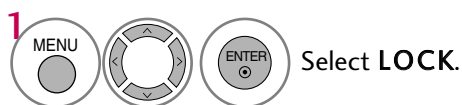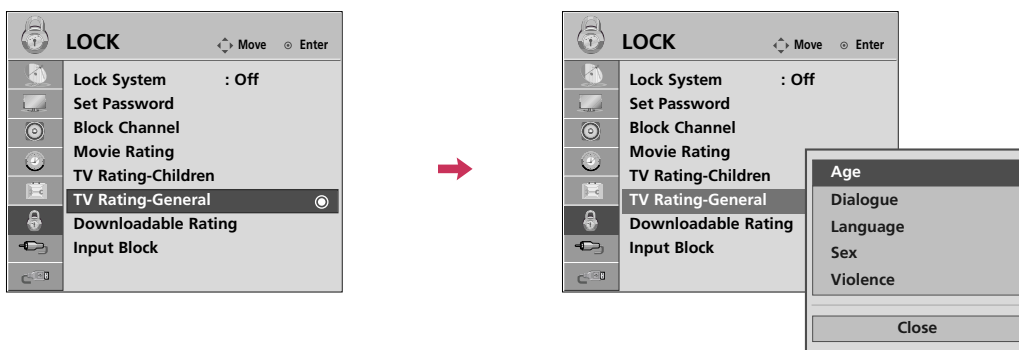
- Age (applies to TV-G,TV-PG,TV-14,TV-MA).
- Dialogue-sexual dialogue (applies to TV-PG,TV-14).
- Language-adult language (applies to TV-PG, TV-14, TV-MA).
- Sex-sexual situations (applies to TV-PG, TV-14, TV-MA).
- Violence (applies to TV-PG, TV-14, TV-MA).

PARENTAL CONTROL / RATING

TV Rating English - *For CANADA only*

Selecting canadian english language rating system.

LOCK	◁▷ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
TV Rating-English	◉
TV Rating-French	
Downloadable Rating	
Input Block	

➡

LOCK	◁▷ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
TV Rating-English	
TV Rating-French	
Downloadable Rating	
Input Block	

Blocking off : Permits all programs

- E
- C
- C8+
- G
- PG
- 14+
- 18+
- **Blocking Off** 🔓

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1 MENU / ENTER — Select **LOCK**.
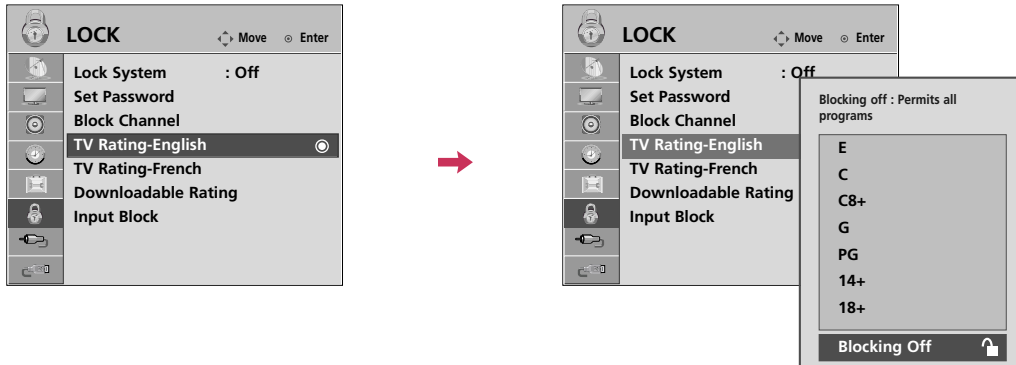
2 Input the password.

3 Select **TV Rating-English**.

4 ENTER — Select **E**, **C**, **C8+**, **G**, **PG**, **14+**, **18+**, or **Blocking Off**.

5 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

- ■ E (Exempt)
- ■ C (Children)
- ■ C8+ (Children eight years and older)
- ■ G (General programming, suitable for all audiences)
- ■ PG (Parental Guidance)
- ■ 14+ (Viewers 14 years and older)
- ■ 18+ (Adult programming)
- ■ Blocking Off (Permits all programs)

PARENTAL CONTROL / RATING

PARENTAL CONTROL / RATINGS

TV Rating French - *For CANADA only*

Selecting canadian french language rating system.

1 MENU ⌃⌄⟨⟩ ENTER	Select **LOCK**.
2 (numeric keypad)	Input the password.
3 ⌃⌄	Select **TV Rating-French**.
4 ENTER ⌃⌄	Select **E**, **G**, **8ans+**, **13ans+**, **16ans+**, **18ans+**, or **Blocking off**.
5 RETURN	Return to the previous menu.
MENU	Return to TV viewing.
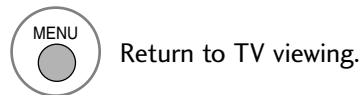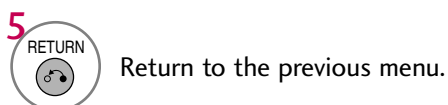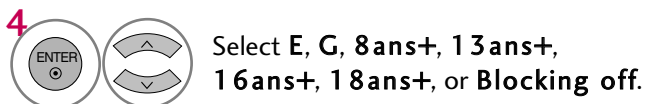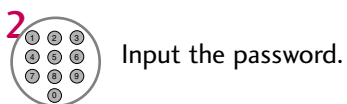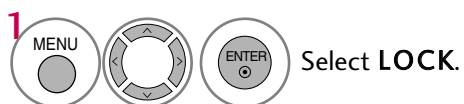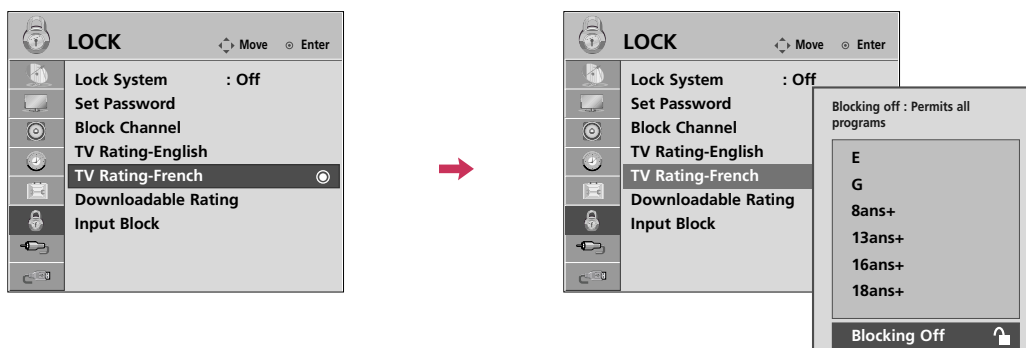
- E (Exempt)
- G (General)
- 8ans+ (General-Not convenient for little children)
- 13ans+ (Not convenient for children of 13 years and younger)
- 16ans+ (Not convenient for children of 16 years and younger)
- 18ans+ (This programs is only for adults)
- Blocking off (Permits all programs)

PARENTAL CONTROL / RATING

DOWNLOADABLE RATING

This function may become available in the future and will be available only for digital channels.
This function operates only when TV has received Region5 Rating data.

LOCK ◇ Move ⊙ Enter

Lock System　　: Off
Set Password
Block Channel
Movie Rating
TV Rating-Children
TV Rating-General
Downloadable Rating　　◉
Input Block

➡

LOCK ◇ Move ⊙ Enter

Lock System　　: O
Set Password
Block Channel
Movie Rating
TV Rating-Children
TV Rating-General
Downloadable Rating
Input Block

▲
Humor
Sport
Cruelty
Language
Sadness
Genre
Age
▼

Close
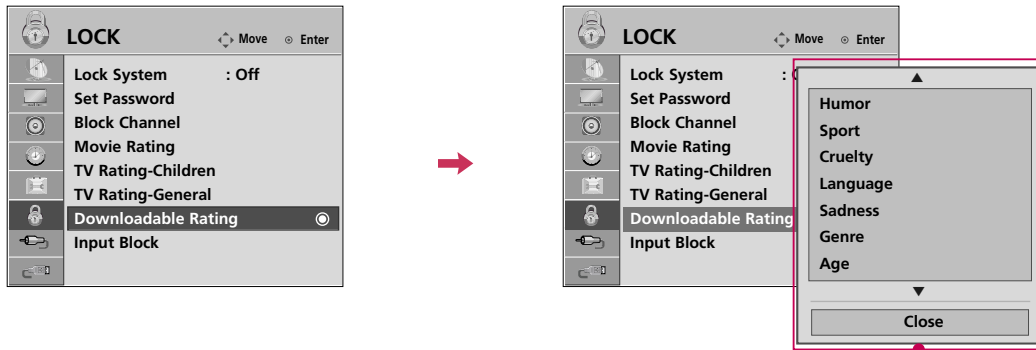
■ Based on rating table, your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.

---

1 MENU / ENTER — Select **LOCK**.

2 — Input the password.

3 — Select **Downloadable Rating**.

4 ENTER — Select desired **Downloadable Rating** option.

5 ENTER — Select desired option and block it.

6 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

EXTERNAL INPUT BLOCKING

Enables you to block an input.

LOCK	◇ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
Movie Rating	
TV Rating-Children	
TV Rating-General	
Downloadable Rating	
Input Block	◎

➡

LOCK	◇ Move ⊙ Enter
Lock System	: Off
Set Password	
Block Channel	
Movie Rating	
TV Rating-Children	
TV Rating-General	
Downloadable Rating	
Input Block	

AV1	◄ Off ►
AV2	Off
Component1	Off
Component2	Off
RGB-PC	Off
HDMI1	Off
HDMI2	Off
HDMI3	Off
Close	

Except
42/47/52LG50DC

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1 MENU ENTER Select **LOCK**.

2 Input the password.

3 Select **Input Block**.

4 ENTER Select input source.

5 Select **On** or **Off**.

6 RETURN Return to the previous menu.

MENU Return to TV viewing.

KEY LOCK

The TV can be set up so that it can only be used with the remote control.
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.
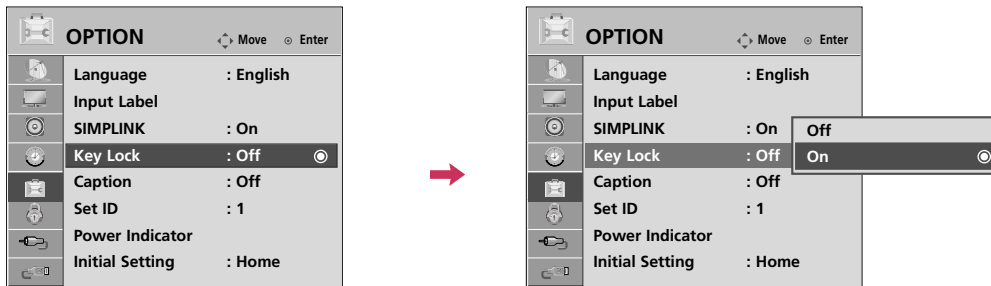
OPTION	‹›Move ⊙Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	**: Off** ◉
Caption	: Off
Set ID	: 1
Power Indicator	
Initial Setting	: Home

➡

OPTION	‹›Move ⊙Enter
Language	: English
Input Label	
SIMPLINK	: On	Off
Key Lock	**: Off**	On ◉
Caption	: Off
Set ID	: 1
Power Indicator	
Initial Setting	: Home

1 MENU — Select **OPTION**.

2 ENTER — Select **Key Lock**.

3 ENTER — Select **On** or **Off**.

4 RETURN — Return to the previous menu.

MENU — Return to TV viewing.

- In **Key Lock** '**On**', if the TV is turned off, press the ⏻ / I, **INPUT**, **CH (∧ ∨)** button on the TV or **POWER**, **INPUT**, **CH ∧ ∨** or NUMBER buttons on the remote control.
- With the **Key Lock On**, the display '⚠ **Key Lock**' appears on the screen if any button on the front panel is pressed while viewing the TV.

APPENDIX

TROUBLESHOOTING

The operation does not work normally.	
The remote control doesn't work	■ Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the TV. ■ Ensure that the batteries are installed with correct polarity (+ to +, - to -). ■ Ensure that the correct remote operating mode is set: TV, VCR etc. ■ Install new batteries.
Power is suddenly turned off	■ Is the sleep timer set? ■ Check the power control settings. Power interrupted.

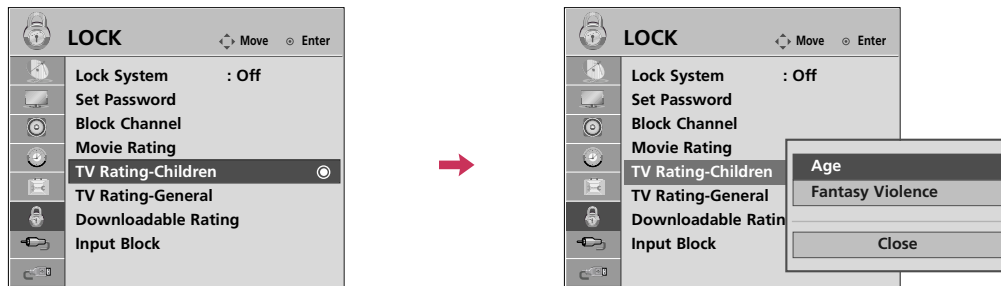| The video function does not work.	
No picture &No sound	■ Check whether the product is turned on. ■ Try another channel. The problem may be with the broadcast. ■ Is the power cord inserted into wall power outlet? ■ Check your antenna direction and/or location. ■ Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.
Picture appears slowly after switching on	■ This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes.
No or poor color or poor picture	■ Adjust Color in menu option. ■ Keep a sufficient distance between the product and the VCR. ■ Try another channel. The problem may be with the broadcast. ■ Are the video cables installed properly? ■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	■ Station or cable product experiencing problems, tune to another station. ■ Station signal is weak, reorient antenna to receive weaker station. ■ Check for sources of possible interference.
Lines or streaks in pictures	■ Check antenna (Change the direction of the antenna).
No picture when connecting HDMI	■ Check HDMI cable over version 1.3. The HDMI cables don't support HDMI version 1.3, it cause flickers or no screen display. In this case use the latest cables that support HDMI version 1.3.

The audio function does not work.	
Picture OK & No sound	■ Press the VOL or VOLUME button. ■ Sound muted? Press MUTE button. ■ Try another channel. The problem may be with the broadcast. ■ Are the audio cables installed properly?
No output from one of the speakers	■ Adjust Balance in menu option.
Unusual sound from inside the product	■ A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.
No sound when connecting HDMI/USB	■ Check HDMI cable over version 1.3. ■ Check USB cable over version 2.0. ■ Use normal MP3 file.

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

APPENDIX

MAINTENANCE

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

Cleaning the Screen

1 Here's a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.

2 Make sure the excess water is off the screen, and then let it air-dry before you turn on your TV.

Cleaning the Cabinet

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

Extended Absence

⚠ CAUTION

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

PRODUCT SPECIFICATIONS

MODELS		37LG50 (37LG50-UG)	42LG50 (42LG50-UG) 42LG50DC (42LG50DC-UG) 42LG55 (42LG55-UE)
Dimensions (Width x Height x Depth)	With stand	36.8 x 26.9 x 11.5 inches 936.4 x 685.4 x 293.4 mm	40.7 x 28.9 x 11.5 inches 1034.0 x 735.0 x 294.0 mm
	Without stand	36.8 x 24.1 x 3.4 inches 936.4 x 612.8 x 88.0 mm	40.7 x 26.1 x 3.5 inches 1034.0 x 663.0 x 91.0 mm
Weight	With stand Without stand	40.3 pounds / 18.3 kg 34.3 pounds / 15.6 kg	54.0 pounds / 24.5 kg 48.5 pounds / 22.0 kg
MODELS		47LG50 (47LG50-UG) 47LG50DC (47LG50DC-UG) 47LG55 (47LG55-UE)	52LG50 (52LG50-UG) 52LG50DC (52LG50DC-UG)
Dimensions (Width x Height x Depth)	With stand	45.5 x 32.0 x 13.5 inches 1156.2 x 813.1 x 342.9 mm	50.8 x 35.1 x 13.5 inches 1291.7 x 892.2 x 342.9 mm
	Without stand	45.5 x 29.1 x 4.0 inches 1156.2 x 739.2 x 103.0 mm	50.8 x 32.1 x 4.5 inches 1291.7 x 817.0 x 115.3 mm
Weight	With stand Without stand	64.3 pounds / 29.2 kg 54.2 pounds / 24.6 kg	87.0 pounds / 39.5 kg 76.9 pounds / 34.9 kg
Power requirement Television System Program Coverage External Antenna Impedance		AC100-240V ~ 50/60Hz NTSC-M, ATSC, 64 & 256 QAM VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 1-135 75 ohm	
Environment condition	Operating Temperature Operating Humidity	32 ~ 104°F (0 ~ 40°C) Less than 80%	
	Storage Temperature Storage Humidity	-4 ~ 140°F (-20 ~ 60°C) Less than 85%	

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

PROGRAMMING THE REMOTE CONTROL

The provided universal remote control can be programmed to operate most remote-controllable devices.
Note that the remote may not control all models of other brands.

Programming a code into a remote mode

1 Testing your remote control.

To find out whether your remote control can operate other components without programming, turn on a component such as a STB and press the corresponding mode button (such as a **STB**) on the remote control, while pointing at the component. Test the **POWER** and **CH** ∧ ∨ buttons to see if the component responds correctly. If the component does not operate correctly, the remote control requires programming to operate the device.

2 Turn on the component to be programmed, then press the corresponding mode button (such as **STB**) on the remote control. The remote control button of the desired device is illuminated.

3 Press the **MENU** and **MUTE** buttons simultaneously, and the remote control is ready to be programmed with the code.

4 Enter a code number using the number buttons on the remote control. Programming code numbers for the corresponding component can be found on the following pages. If the code is correct, the device will turn off.

5 Press the **MENU** button to store the code.

6 Test the remote control functions to see if the component responds correctly. If not, repeat from step 2.

Remote Control Code

VCR

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

HDSTB

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

DVD

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

IR CODES

1. How to Connect

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

2. Remote Control IR Codes

■ **Output waveform**

Single pulse, modulated with 37.917KHz signal at 455KHz

Tc

T1
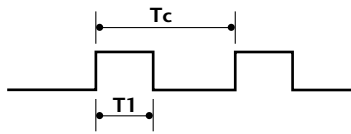
Carrier frequency

FCAR = 1/TC = fOSC/12

Duty ratio = T1/TC = 1/3

■ **Configuration of frame**

1st frame

Lead code	Low custom code	High custom code	Data code	Data code
	C0 C1 C2 C3 C4 C5 C6 C7	C0 C1 C2 C3 C4 C5 C6 C7	D0 D1 D2 D3 D4 D5 D6 D7	D0 D1 D2 D3 D4 D5 D6 D7

Repeat frame

Repeat code

Tf

■ **Lead code**

9 ms

4.5 ms

■ **Repeat code**

0.55 ms

9 ms

2.25 ms
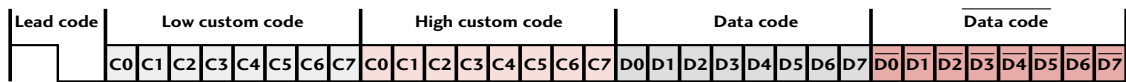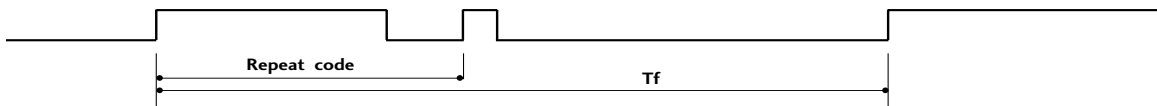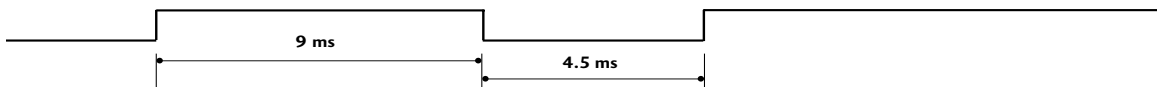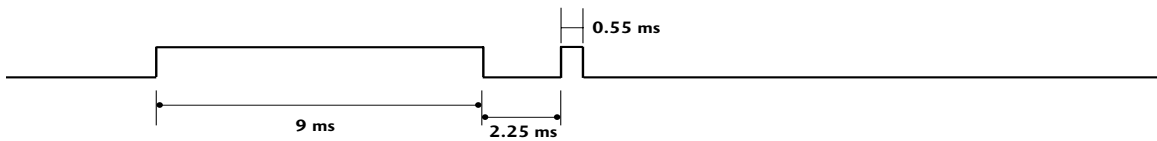
■ **Bit description**

Bit "0"

0.56 ms

1.12 ms

Bit "1"

0.56 ms

2.24 ms
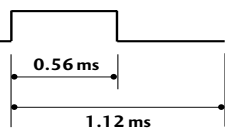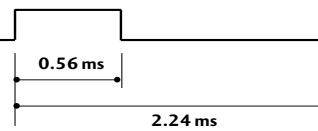
■ **Frame interval: Tf**

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

Tf

Tf

Tf=108ms @455KHz
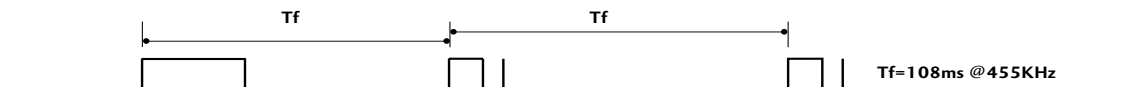
Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
08	POWER	Remote control Button (Power On/Off)	D6	TV	Discrete IR Code (TV Input Selection)
45	Q.MENU	Remote control Button			
43	MENU	Remote control Button	C4	POWER ON	Discrete IR Code (Only Power On)
0B	INPUT	Remote control Button			
10-19	Number Key 0-9	Remote control Button	C5	POWER OFF	Discrete IR Code (Only Power Off)
4C	- (Dash)	Remote control Button			
1A	FLASHBK	Remote control Button	5A	AV1	Discrete IR Code (AV1 Input Selection)
09	MUTE	Remote control Button			
02	VOL +	Remote control Button	D0	AV2	Discrete IR Code (AV2 Input Selection)
03	VOL -	Remote control Button			
00	CH ∧	Remote control Button	BF	COMPONENT1	Discrete IR Code (Component1 Input Selection)
01	CH ∨	Remote control Button			
1E	FAV	Remote control Button	D4	COMPONENT2	Discrete IR Code (Component2 Input Selection)
40	∧	Remote control Button			
41	∨	Remote control Button	D5	RGB-PC	Discrete IR Code (RGB-PC Input Selection)
07	<	Remote control Button			
06	>	Remote control Button	CE	HDMI1	Discrete IR Code (HDMI1 Input Selection)
44	ENTER	Remote control Button			
5B	RETURN	Remote control Button	CC	HDMI2	Discrete IR Code (HDMI2 Input Selection)
7E	SIMPLINK	Remote control Button			
30	AV MODE	Remote control Button	E9	HDMI3	Discrete IR Code (HDMI3 Input Selection)
B0	PLAY	Remote control Button			
BA	PAUSE	Remote control Button	76	Ratio 4:3	Discrete IR Code (Only 4:3 Mode)
B1	STOP	Remote control Button			
BD	REC	Remote control Button	77	Ratio 16:9	Discrete IR Code (Only 16:9 Mode)
8F	REW	Remote control Button			
8E	FF	Remote control Button	AF	Ratio Zoom	Discrete IR Code (Only Zoom1 Mode)

Except 42/47/52LG50DC

EXTERNAL CONTROL THROUGH RS-232C

The RS-232C port allows you connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) to control the TV's functions externally.

■ Note: RS-232C on this unit is intended to be used with third party RS-232C control hardware and software. The instructions below are provided to help with programming software or to test functionality using telenet software.

RS-232C Setup

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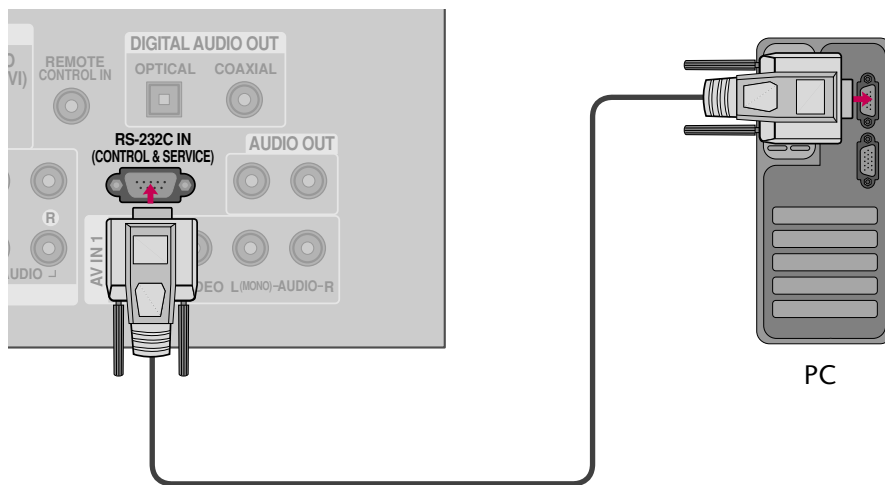
Type of Connector; D-Sub 9-Pin Male

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
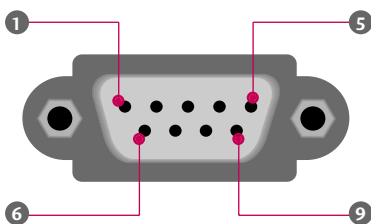
Communication Parameters

■ Baud rate : 9600 bps (UART)
■ Data length : 8 bits
■ Parity : None
■ Stop bit : 1 bit
■ Communication code : ASCII code
■ Use a crossed (reverse) cable.

❶ NOTE

▶ This product has command echo back in the RS-232C Command.

RS-232C Configurations

Either cable below can be used.

7-Wire Configuration (Serial female-female NULL modem cable)			
	PC	TV	
RXD	2 •————————• 3		TXD
TXD	3 •————————• 2		RXD
GND	5 •————————• 5		GND
DTR	4 •————————• 6		DSR
DSR	6 •————————• 4		DTR
RTS	7 •————————• 8		CTS
CTS	8 •————————• 7		RTS
	D-Sub 9	D-Sub 9	

3-Wire Configurations (Not standard)			
	PC	TV	
RXD	2 •————————• 3		TXD
TXD	3 •————————• 2		RXD
GND	5 •————————• 5		GND
DTR	4	6	DTR
DSR	6	4	DSR
RTS	7	7	RTS
CTS	8	8	CTS
	D-Sub 9	D-Sub 9	
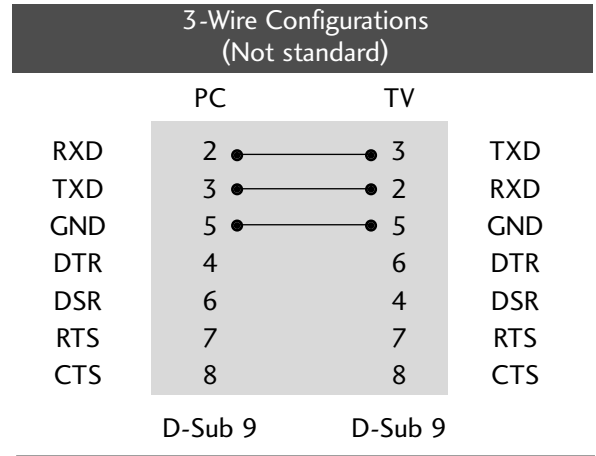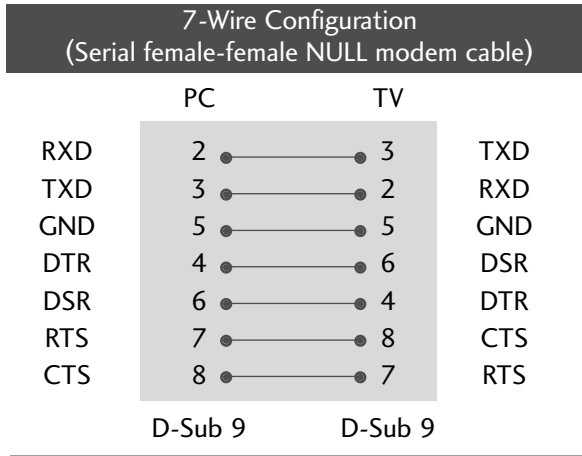
Set ID

Use this function to specify a TV ID number.
Refer to 'Real Data Mapping1'. ▶ p.111.

OPTION	⟨⟩ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	: Off
Set ID	**: 1** ⊚
Power Indicator	
Initial Setting	: Home

➡

OPTION	⟨⟩ Move ⊙ Enter
Language	: English
Input Label	
SIMPLINK	: On
Key Lock	: Off
Caption	: Off
Set ID	**: 1**
Power Indicator	
Initial Setting	: Hor

◄ **1** ►

Close

1 MENU / ⌃⌄⟨⟩   Select **OPTION**.

2 ENTER / ⌃⌄   Select **Set ID**.
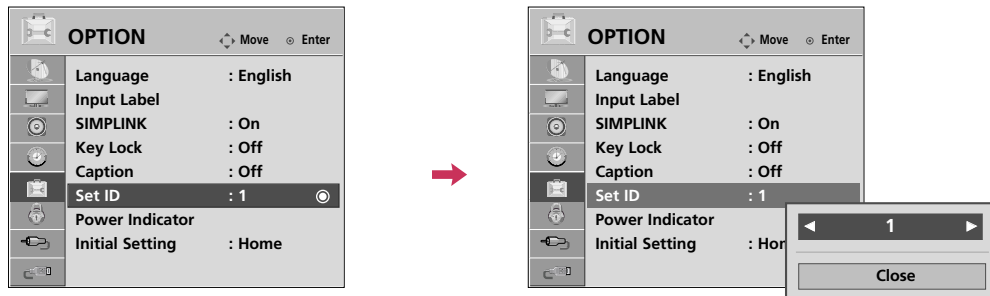
3 ENTER / ⟨⟩   Choose the desired TV ID number.
The adjustment range of Set ID is 1~99.

4 RETURN   Return to the previous menu.

MENU   Return to TV viewing.

Command Reference List

	COMMAND1	COMMAND2	DATA (Hexadecimal)		COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 ~ 01	14. Treble	k	r	00 ~ 64
02. Input Select	x	b	(► p.110)	15. Bass	k	s	00 ~ 64
03. Aspect Ratio	k	c	(► p.110)	16. Balance	k	t	00 ~ 64
04. Screen Mute	k	d	00 ~ 01	17. Color Temperature	k	u	00 ~ 02
05. Volume Mute	k	e	00 ~ 01	18. Auto Configuration	j	u	(► p.112)
06. Volume Control	k	f	00 ~ 64	20. Channel Add/Del	m	b	00 ~ 01
07. Contrast	k	g	00 ~ 64	21. Key	m	c	(► p.113)
08. Brightness	k	h	00 ~ 64	22. Backlight	m	g	00 ~ 64
09. Color	k	i	00 ~ 64				
10. Tint	k	j	00 ~ 64				
11. Sharpness	k	k	00 ~ 64				
12. OSD Select	k	l	00 ~ 01				
13. Remote Control Lock Mode	k	m	00 ~ 01				

	COMMAND1	COMMAND2	DATA00 (Hexadecimal)	DATA01 (Hexadecimal)	DATA02 (Hexadecimal)	DATA03 (Hexadecimal)	DATA04 (Hexadecimal)	DATA05 (Hexadecimal)
19. Channel Tuning	m	a	physical program high	major program low	major low	minor high	minor low	attribute

Transmission / Receiving Protocol

Transmission

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

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

[Command 2] : Second command to control the set.

[Set ID] : You can adjust the set ID to choose desired TV ID number in Setup menu. Adjustment range is 1~ 99. When selecting Set ID '0', every connected the TV is controlled. Set ID is indicated as decimal (1~ 99) on menu and as Hexa decimal (0x0~ 0x63) on transmission /receiving protocol.

[DATA] : To transmit the command data. Transmit the 'FF' data to read status of command.

[Cr] : Carriage Return ASCII code '0x0D'

[ ] : ASCII code 'space (0x20)'

* In this model, TV will not send the status during the standby mode.

OK Acknowledgement

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

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

* In this model, TV will not send the status during the standby mode.
* Data Format

[Command 2] : Use as command.

[Set ID] : Use the small character, if set ID is 10, it will send the '0', 'a'.

[DATA] : Use the small character, if data is 0 x ab, it will send the 'a', 'b'.

[OK] : Use the large character.

Error Acknowledgement

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

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

Data1: Illegal Code

Data2: Not supported function

Data3: Wait more time

* In this model, TV will not send the status during the standby mode.
* Data Format

[Command 2] : Use as command.

[Set ID] : Use the small character, if set ID is 10, it will send the '0', 'a'.

[DATA] : Use the small character, if data is 0 x ab, it will send the 'a', 'b'.

[NG] : Use the large character

APPENDIX

01. Power (Command: k a)

To control Power On/Off of the TV.

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

Data 00: Power Off   Data 01: Power On

Acknowledgement [a][ ][Set ID][ ][OK/NG][Data][x]

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

* Note: In this model, TV will send the Acknowledge after power on processing completion.

There might be a time delay between command and acknowledge.

02. Input Select (Command: x b)

To select input source for TV.

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

Data 00: DTV (Antenna)   Data 01: DTV (Cable)
Data 10: Analog (Antenna) Data 11: Analog (Cable)
Data 20: AV1   Data 21: AV2
Data 40: Component 1   Data 41: Component 2
Data 60: RGB-PC   Data 90: HDMI1
Data 91: HDMI2
Data 92: HDMI3 (Except 42/47/52LG50DC)

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

03. Aspect Ratio (Command: k c)

To adjust the screen format.

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

Data 01: 4:3   05: Zoom 2
      02: 16:9   06: Set by program
      04: Zoom 1   09: Just scan
                      ⋮
                      Reserved

Acknowledgement [c][ ][Set ID][ ][OK/NG][Data][x]

04. Screen Mute (Command: k d)

To select screen mute on/off.

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

Data 00: Screen mute off (Picture on)
Data 01: Screen mute on (Picture off)

Acknowledgement [d][ ][Set ID][ ][OK/NG][Data][x]

05. Volume Mute (Command: k 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 00: Volume mute on (Volume off)
Data 01: Volume mute off (Volume on)

Acknowledgement [e][ ][Set ID][ ][OK/NG][Data][x]

06. Volume Control (Command: k 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: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to 'Real data mapping'. See page 111.

Acknowledgement [f][ ][Set ID][ ][OK/NG][Data][x]

07. Contrast (Command: k g)

To adjust screen contrast.

You can also adjust contrast in the PICTURE menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to 'Real data mapping'. See page 111.

Acknowledgement [g][ ][Set ID][ ][OK/NG][Data][x]

08. Brightness (Command: k h)

To adjust screen brightness.

You can also adjust brightness in the PICTURE menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)
*Refer to 'Real data mapping'. See page 111.

Acknowledgement [h][ ][Set ID][ ][OK/NG][Data][x]

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09. Color (Command: k i)

To adjust screen color.

You can also adjust color in the PICTURE menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)

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

Acknowledgement [i][ ][Set ID][ ][OK/NG][Data][x]

10. Tint (Command: k j)

To adjust screen tint.

You can also adjust tint in the PICTURE menu.

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

Data Red: 00 ~ Green: 64 (*transmit by Hexadecimal code)

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

Acknowledgement [j][ ][Set ID][ ][OK/NG][Data][x]

11. Sharpness (Command: k k)

To adjust screen sharpness.

You can also adjust sharpness in the PICTURE menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)

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

Acknowledgement [k][ ][Set ID][ ][OK/NG][Data][x]

12. OSD Select (Command: k l)

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

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

Data 00: OSD off   Data 01: OSD on

Acknowledgement [l][ ][Set ID][ ][OK/NG][Data][x]

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

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

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

Data 00: Lock off   Data 01: Lock on

Acknowledgement [m][ ][Set ID][ ][OK/NG][Data][x]

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

14. Treble (Command: k r)

To adjust treble.

You can also adjust treble in the AUDIO menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)

*Refer to 'Real data mapping' as shown.

Acknowledgement [r][ ][Set ID][ ][OK/NG][Data][x]

15. Bass (Command: k s)

To adjust bass.

You can also adjust bass in the AUDIO menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)

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

Acknowledgement [s][ ][Set ID][ ][OK/NG][Data][x]

16. Balance (Command: k t)

To adjust balance.

You can also adjust balance in the AUDIO menu.

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

Data Min: 00 ~ Max: 64 (*transmit by Hexadecimal code)

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

Acknowledgement [t][ ][Set ID][ ][OK/NG][Data][x]

17. Color Temperature (Command: k u)

To adjust color temperature.

You can also adjust color temperature in the PICTURE menu.

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

Data 00: Medium   01: Cool   02: Warm

Acknowledgement [u][ ][Set ID][ ][OK/NG][Data][x]

*Real data mapping

0 : Step 0
⋮
A : Step 10 (SET ID 10)
⋮
F : Step 15 (SET ID 15)
10 : Step 16 (SET ID 16)
⋮
63 : Step 99 (SET ID 99)
64 : Step 100

18. Auto Configuration (Command: j u)

To adjust picture position and minimize image shaking automatically. Auto configuration only works in RGB-PC mode.

Transmission [j][u][ ][Set ID][ ][Data][Cr]

Data 1: To set

Acknowledgement [u][ ][Set ID][ ][OK/NG][Data][x]

19. Channel Tuning (Command: m a)

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

Transmission [m][a][ ][Set ID][ ][Data00][ ][Data01]
[ ][Data02][ ][Data03][ ][Data04][ ][Data05][Cr]

Digital channels have a Physical, Major, and Minor channel number. The Physical number is the actual digital channel number, the Major is the number that the channel should be mapped to, and the Minor is the sub-channel. Since the ATSC tuner automatically maps the channel to the Major number, the Physical number is not required when sending a command.

Data 00: Physical Channel Number

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

 ATSC air: 01~45, ATSC cable: 01~87

Data 01 & 02: Major Channel Number

 Data 01: High byte   Data 02: Low byte

 Two bytes are available for the Major and Minor, normally only the second byte is used.

Data 03 & 04: Minor Channel Number

  Not needed for NTSC.

Data05:

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

The table above lists the binary code which must be converted to Hexadecimal before sending. For example: The binary code to tune the sub source to an NTSC cable channel is "1000 0001", which translates to "81" in Hex.

* 7th bit : For which source do you want to change the channel.

* 6th bit: Use a two part or one part channel. Most cases just use 0 since it's ignored when using NTSC.

* 5th bit: Use 0 with NTSC since it can only use the physical channel number. Normally use 1 for ATSC since most times it doesn't matter what the physical number is.

* 4th bit: Set to 0.

* 3-0 bits: Choose signal type.

* Tune Command Examples:

1. Tune to the analog (NTSC) cable channel 35.
   Data 00 = Physical of 35 = 23
   Data 01 & 02 = No Major = 00 00
   Data 03 & 04 = No Minor = 00 00
   Data 05 = 0000 0001 in binary = 01
   Total = ma 00 23 00 00 00 00 01

2. Tune to the digital (ATSC) local channel 30-3.
   Data 00 = Don't know Physical = 00
   Data 01 & 02 = Major is 30 = 00 1E
   Data 03 & 04 = Minor is 3 = 00 03
   Data 05 = 0010 0010 in binary = 22
   Total = ma 00 00 00 1E 00 03 22

Acknowledgement [a] [ ] [Set ID] [ ] [OK] [Data00] [Data01] [Data02] [Data03] [Data04] [x] [a] [ ] [Set ID] [ ] [NG] [Data00] [x]

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

To add and delete the channels

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

Data 00: Channel Delete   Data 01: Channel Add

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

21. Key (Command: m c)

To send IR remote key code.

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

Data Key code: Refer to page 106.

Acknowledgement [c] [ ] [Set ID] [ ] [OK/NG] [Data] [x]

22. Backlight (Command: m g)

To adjust screen backlight.

Transmission [m] [g] [ ] [Set ID] [ ] [Data] [Cr]

Data Min:00 ~ Max:64 (*transmit by Hexadecimal code)

*Refer to 'Real data mapping'. See page 111.

Acknowledgement [g] [ ] [Set ID] [ ] [OK/NG] [Data] [x]

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