

**LG**

Life's Good

OWNER'S MANUAL

LED LCD TV / LCD TV / PLASMA TV

Please read this manual carefully before operating your set and retain it for future reference.

LED LCD TV MODELS

22LE5300 22LE6500
26LE5300 26LE6500
32LE5300 32LE4600
37LE5300 42LE4600
42LE5300 47LE4600
47LE5300 55LE4600
55LE5300

LCD TV MODELS

32LD350 32LD465 32LD420C
32LD460 37LD465 42LD420C
37LD460 42LD465
42LD460 47LD465
47LD460 32LD420
37LD461C 42LD420
42LD461C

PLASMA TV MODELS

42PJ230
50PJ230
42PJ250
50PJ250
42PJ350
50PJ350

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.

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



- 6** Only use attachments/accessories specified by the manufacturer.



- 7** 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

- 8** Unplug this apparatus during lightning storms or when unused for long periods of time.



- 9** 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.



- 10** Never touch this apparatus or antenna during a thunder or lightning storm.

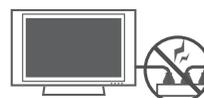
- 11** When mounting a TV on the wall, make sure not to install the TV by the hanging power and signal cables on the back of the TV.

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

- 13** 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.



SAFETY INSTRUCTIONS

- 14** **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.



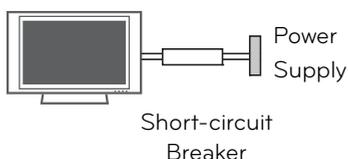
- 15** Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).



16 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.



17 DISCONNECTING DEVICE FROM MAINS

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

- 18** As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.

19 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.

20 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.

21 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.

- 22** Take care not to touch the ventilation openings. When watching the TV for a long period, the ventilation openings may become hot.

- 23** If you smell smoke or other odors coming from the TV, unplug the power cord and contact and authorized service center.

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



- 25** Keep the product away from direct sunlight.

26 Dot Defect

The Plasma or LCD panel is a high technology product with resolution of two million to six million pixels. In a very few cases, you could see fine dots on the screen while you're viewing the TV. Those dots are deactivated pixels and do not affect the performance and reliability of the TV.

27 Generated Sound

"Cracking" noise: A cracking noise that occurs when watching or turning off the TV is generated by plastic thermal contraction due to temperature and humidity. This noise is common for products where thermal deformation is required.

Electrical circuit humming/panel buzzing: A low level noise is generated from a high-speed switching circuit, which supplies a large amount of current to operate a product. It varies depending on the product.

This generated sound does not affect the performance and reliability of the product.

28 For LED LCD TV/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.

CONTENTS

WARNING / CAUTION	2
SAFETY INSTRUCTIONS	3
FEATURE OF THIS TV	8

PREPARATION

Accessories.....	9
Front Panel Information.....	12
Back Panel Information.....	18
Stand Instructions.....	23
Woofer Installation: When Using The Wall Mount.....	30
VESA Wall Mounting.....	31
Cable Management.....	33
Desktop Pedestal Installation.....	37
Swivel Stand.....	37
Attaching the TV to a Desk.....	38
Kensington Security System.....	38
Securing the TV to the wall to prevent falling when the tv is used on a stand.....	39
Antenna or Cable Connection.....	40

EXTERNAL EQUIPMENT SETUP

HD Receiver Setup.....	41
DVD SETUP.....	44
VCR SETUP.....	46
Other A/V Source Setup.....	47
USB Connection.....	48
Headphone Setup.....	48
Audio Out Connection.....	49
External Equipment Wireless Connection.....	50
PC Setup.....	51

WATCHING TV / CHANNEL CONTROL

Remote Control Functions.....	58
Turning on the TV.....	60
Channel Selection.....	60
Volume Adjustment.....	60
Initial Setting.....	61
On-Screen Menus Selection.....	63
Quick Menu.....	65
Customer Support	
- Software Update.....	66

- Picture Test/Sound Test.....	67
- Product/Service Info.....	68
Simple Manual.....	69
Channel Setup	
- Auto Scan (Auto Tuning).....	70
- Add/Delete Channel (Manual Tuning).....	71
Channel Editing.....	72
Favorite Channel Setup.....	73
Favorite Channel List.....	73
Channel List.....	74
Scan Option.....	75
System Color.....	76
Channel Brief Information.....	77
EPG (Electronics Program Guide).....	79
Input List.....	82
Input Label.....	83
Mode Setting.....	84
Demo Mode.....	85
Initial Setting (Reset to Factory Default).....	86
AV Mode.....	87
SIMPLINK.....	88

MY MEDIA

Connection Method.....	90
Entry Mode.....	91
Movie list.....	92
Photo list.....	99
Music list.....	105
DivX Registration Code.....	110
Deactivation.....	111

PICTURE CONTROL

Picture Size (Aspect Ratio) Control.....	112
Picture Wizard.....	114
e○ Energy Saving.....	116
Preset Picture Settings (Picture Mode).....	117
Manual Picture Adjustment - User Mode.....	118
Picture Improvement Technology (Advanced Control).....	119
Expert Picture Control.....	120
Picture Reset.....	123
TruMotion.....	124
Power Indicator.....	125
Image Sticking Minimization (ISM) Method.....	126

SOUND & LANGUAGE CONTROL

Auto Volume.....	127
Balance	127
Clear Voice II	128
Preset Sound Settings (Sound Mode).....	129
Sound Setting Adjustment - User Mode.	130
Audio Reset.....	131
Digital Audio Out	131
TV Speakers On/Off Setup	132
Stereo/SAP Broadcast Setup	133
Audio Language	134
On-screen Menus Language Selection....	135
Caption Mode	
- Analog Broadcasting System Captions.	136
- Digital Broadcasting System Captions....	137

TIME SETTING

Clock Setting	
- Auto Clock Setup.....	138
- Manual Clock Setup	139
Auto On/Off Time Setting	140
Sleep Timer Setting	141

PARENTAL CONTROL / RATINGS

Set Password & lock system-	
- Setting up Your Password.....	142
- Set Password	143
- Lock System.....	144
Channel Blocking.....	145
Movie Rating	146
External Input Blocking	147
Key Lock	148

APPENDIX

Troubleshooting	149
Maintenance	152
Product Specifications	153
IR Codes.....	158
External Control through RS-232C	159
Open Source Software Notice.....	165

FEATURE OF THIS TV

- Some of these features are not available on all models.



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



HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC."



ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content. To generate the registration code, locate the DivX VOD section in the device setup menu. Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD.

"DivX Certified to play DivX video up to HD 1080p, including premium content"

"Pat. 7,295,673; 7,460,668; 7,515,710; 7,519,274"



IMPORTANT INFORMATION TO PREVENT "IMAGE BURN / BURN-IN" ON YOUR TV SCREEN

- When a fixed image (e.g. logos, screen menus, video game, and computer display) is displayed on the TV for an extended period, it can become permanently imprinted on the screen. This phenomenon is known as "image burn" or "burn-in." Image burn is not covered under the manufacturer's warranty.
- In order to prevent image burn, avoid displaying a fixed image on your TV screen for a prolonged period (2 or more hours for LCD, 1 or more hours for Plasma).
- Image burn can also occur on the letterboxed areas of your TV if you use the 4:3 aspect ratio setting for an extended period.



PREPARATION

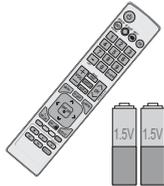
ACCESSORIES

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

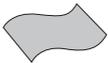


Remote Control,
Batteries (AAA)



RF Adapter (Some models)
You must connect it to the antenna wire after fixing in Antenna Input. This adapter is for supplied in Argentina.

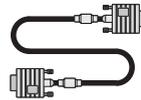
Not included with all models



Polishing Cloth

- * 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.

Plasma TV



(M5 x 14) x 3 (M4 x 28) x 4
Screws for stand assembly
(Refer to P.23)



x 2
Cable Holder
(Refer to P.33)



Protection Cover
(Refer to P.23)



Power Cord

32LD350, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465



x 8
(M4 x 20)
Screws for stand assembly
(Refer to P.24)

(Except 47LD460,
47LD465)



Screw for stand fixing
(Refer to P.38)



Protection Cover
(Refer to P.24)



Power Cord

32/42LD420, 32/42LD420C



x 4
(M4 x 24)
Screws for stand assembly
(Refer to P.25)



Screw for stand fixing
(Refer to P.38)



Protection Cover
(Refer to P.25)



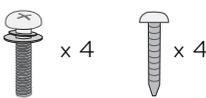
Power Cord

PREPARATION

PREPARATION

22/26LE5300

(For 26LE5300)



x 4 x 4

(M4 x 14) (M4 x 20)

Screws for stand assembly
(Refer to P.26, 28)

(For 26LE5300)



x 4

Cable Tie
(Refer to p.36)

(For 26LE5300)



x 4

Ring spacers
(Refer to p.32)



AC/DC Adaptor



Power Cord

22/26LE6500



x 2

(M4 x 16)

Screws for stand assembly
(Refer to P.27)



Cable Tie
(Refer to p.35)



AC/DC Adaptor



Power Cord

32/37/42/47/55LE5300, 32/42/47/55LE4600

(32LE5300,
32/42/47/55LE4600)



x 4

(M4 x 22)

(37/42LE5300)



x 4

(M4 x 24)

(47/55LE5300)



x 4

(M4 x 26)



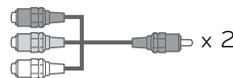
x 4

(M4 x 16)

Screws for stand assembly
(Refer to P.28)



Cable Holder
(Refer to p.36)



Component gender cable
AV gender cable

(For 32LE5300,
32/42/47/55LE4600)



Screw for stand fixing
(Refer to P.38)

(32/42/47/55LE4600)



x 2 x 2

Woofer PEM nut Woofer Fixing Screw
(Refer to P.30) (Refer to P.30)

OPTIONAL EXTRAS (FOR 32/37/42/47/55LE5300)

Optional extras can be changed or modified for quality improvement without any notification.
Contact your dealer for buying these items.

This device only works with compatible LG LED LCD TV, LCD TV, or Plasma TV.



Wireless Media Box
(AN-WL100W)

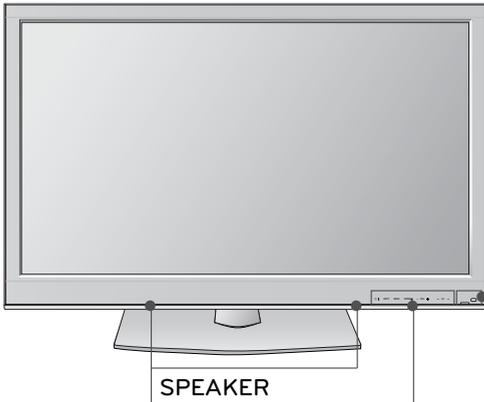
PREPARATION

FRONT PANEL INFORMATION

■ Image shown may differ from your TV.

Plasma TV

42/50PJ230, 42/50PJ250



Remote Control Sensor

Intelligent Sensor
Adjusts picture according to the surrounding conditions

Power/Standby Indicator
Illuminates red in standby mode.
The lighting is off while the TV remains on.

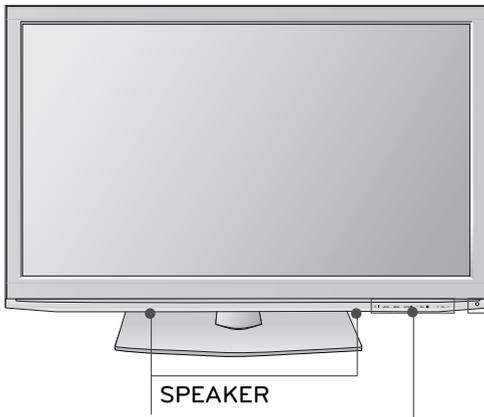
Detailed description: This callout box shows a close-up of the top edge of the TV. It identifies the Remote Control Sensor (a lens), the Intelligent Sensor (a small sensor), and the Power/Standby Indicator (a small red light).

Touch Button
You can operate the button just by touching the button lightly with your finger.

POWER Button **INPUT Button** **MENU Button** **ENTER Button** **VOLUME (+, -) Buttons** **CHANNEL (^, v) Buttons**

Detailed description: This diagram shows a row of touch-sensitive buttons. From left to right: a power button with a power symbol, an input button with "INPUT", a menu button with "MENU", an enter button with "ENTER" and a small circle icon, a volume button with "-", "VOL", and "+", and a channel button with a down arrow, "CH", and an up arrow.

42/50PJ350



Remote Control Sensor

Intelligent Sensor
Adjusts picture according to the surrounding conditions

Power/Standby Indicator
Illuminates red in standby mode.
The lighting is off while the TV remains on.

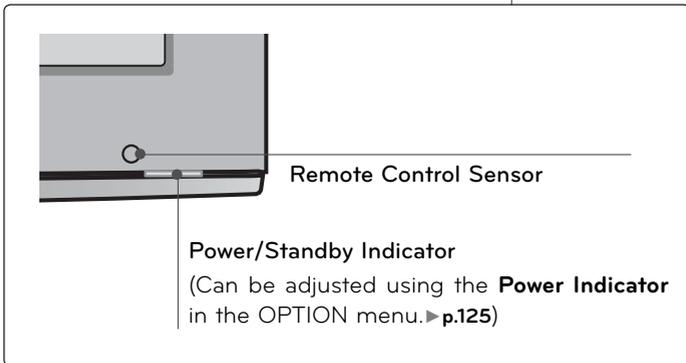
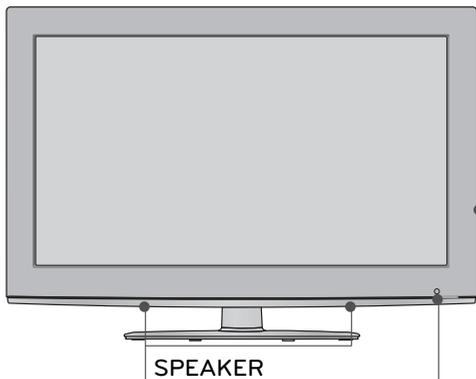
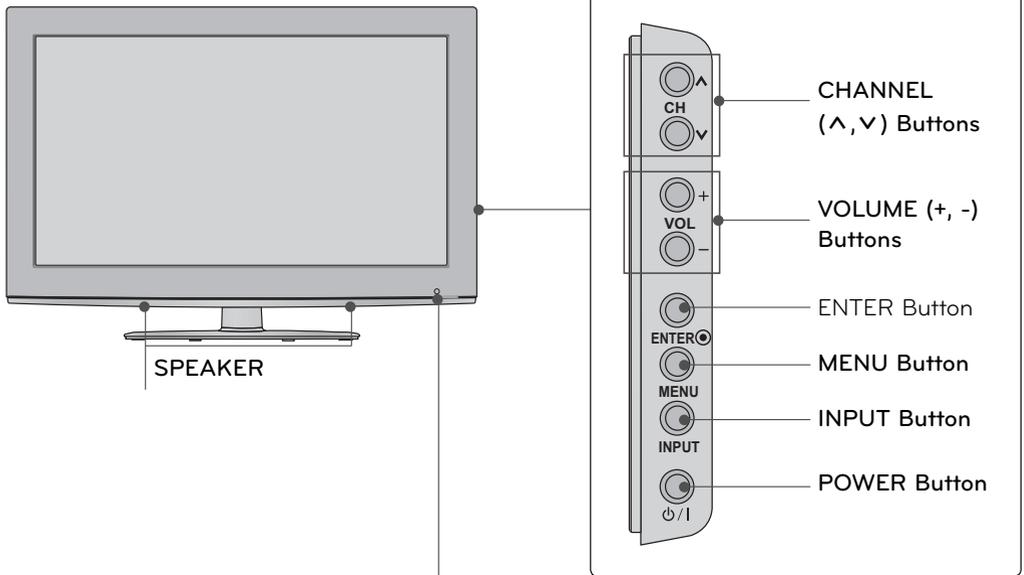
Detailed description: This callout box shows a close-up of the top edge of the TV. It identifies the Remote Control Sensor (a lens), the Intelligent Sensor (a small sensor), and the Power/Standby Indicator (a small red light).

Touch Button
You can operate the button just by touching the button lightly with your finger.

POWER Button **INPUT Button** **MENU Button** **ENTER Button** **VOLUME (+, -) Buttons** **CHANNEL (^, v) Buttons**

Detailed description: This diagram shows a row of touch-sensitive buttons. From left to right: a power button with a power symbol, an input button with "INPUT", a menu button with "MENU", an enter button with "ENTER" and a small circle icon, a volume button with "-", "VOL", and "+", and a channel button with a down arrow, "CH", and an up arrow.

32LD350

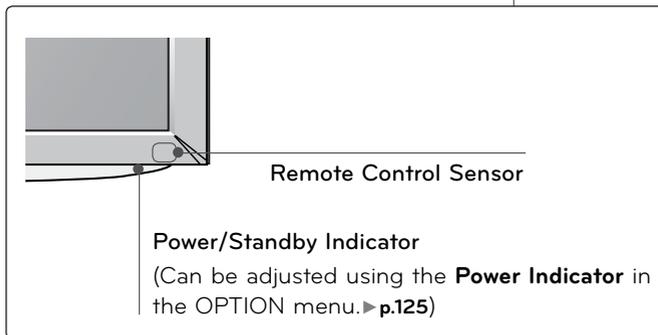
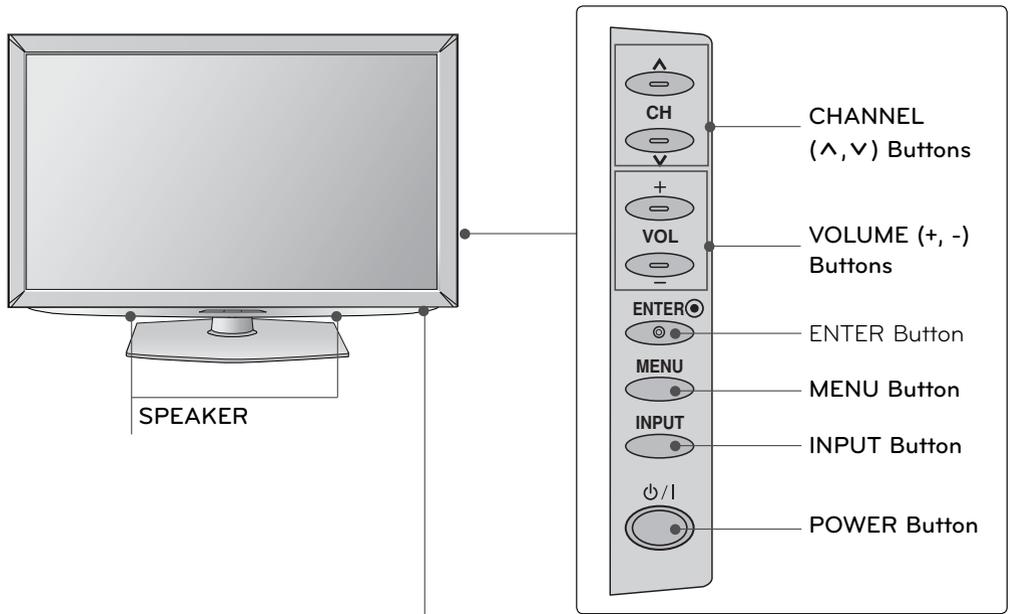


PREPARATION

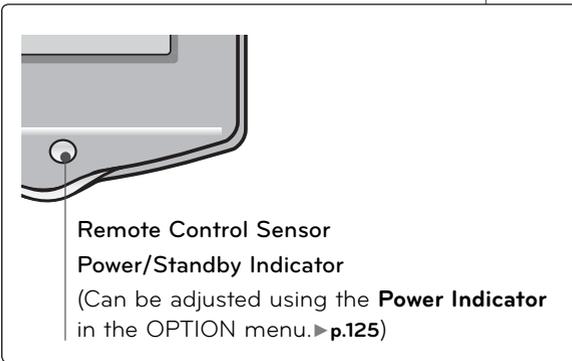
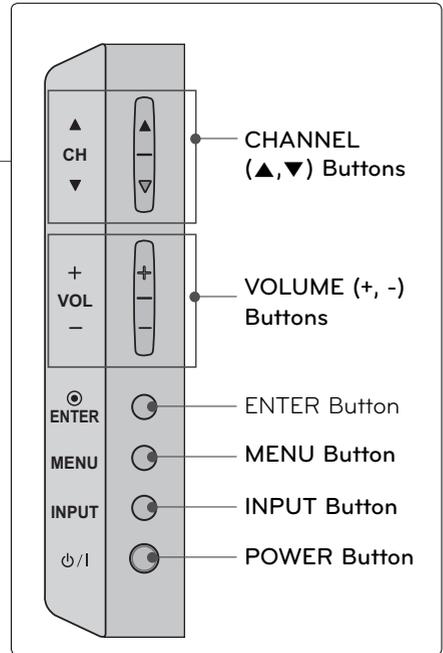
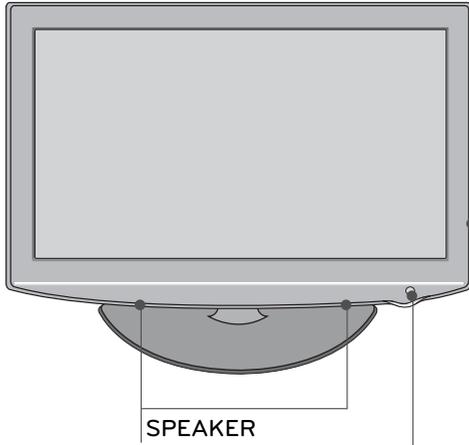
■ Image shown may differ from your TV.

PREPARATION

32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465



32/42LD420, 32/42LD420C

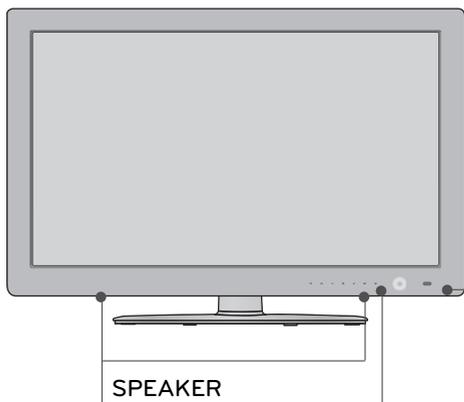


PREPARATION

■ Image shown may differ from your TV.

22/26/32/37/42/47/55LE5300

PREPARATION



22/26LE5300

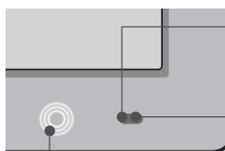


Remote Control Sensor

Power/Standby Indicator

(Can be adjusted using the **Power Indicator** in the OPTION menu. ▶ p.125)

32/37/42/47/55LE5300



Remote Control Sensor

Intelligent Sensor

Adjusts picture according to the surrounding conditions

Power/Standby Indicator

(Can be adjusted using the **Power Indicator** in the OPTION menu. ▶ p.125)

22/26LE5300



CHANNEL
(v, ^)
Buttons

VOLUME
(-, +)
Buttons

ENTER
Button

MENU
Button

INPUT
Button

POWER
Button

32/37/42/47/55LE5300



CHANNEL
(v, ^)
Buttons

VOLUME
(-, +)
Buttons

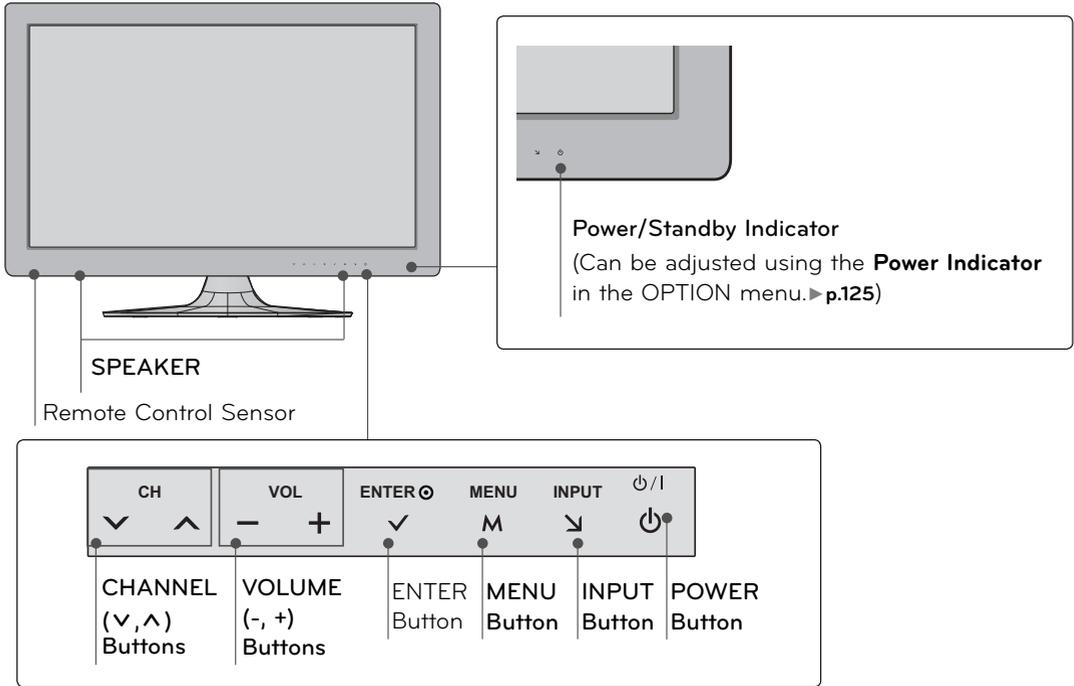
ENTER
Button

MENU
Button

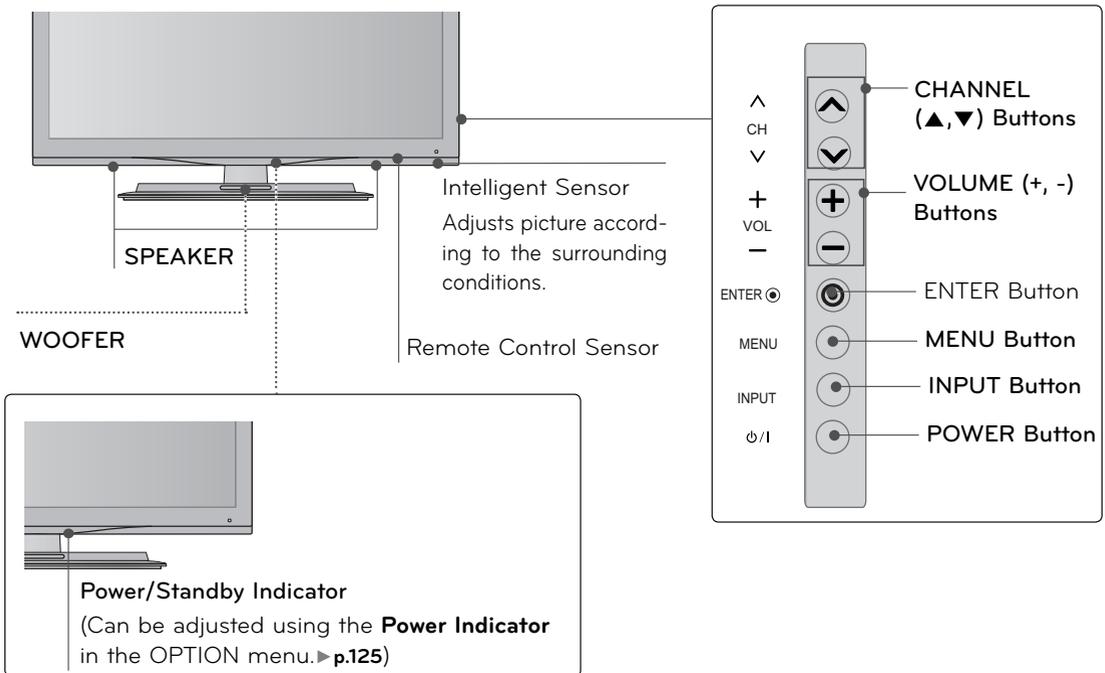
INPUT
Button

POWER
Button

22/26LE6500



32/42/47/55LE4600



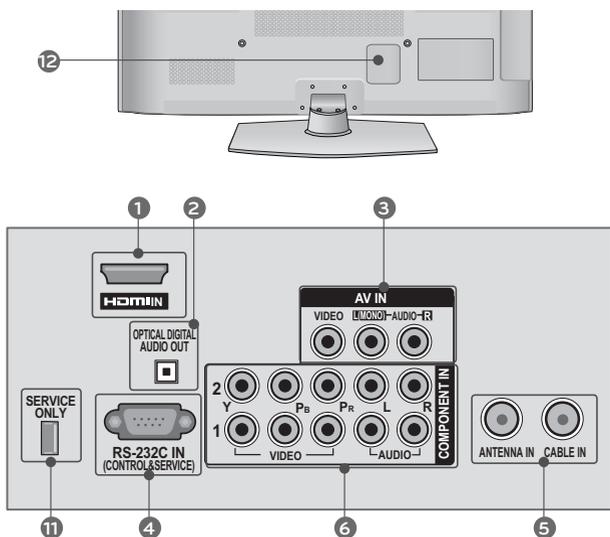
PREPARATION

BACK PANEL INFORMATION

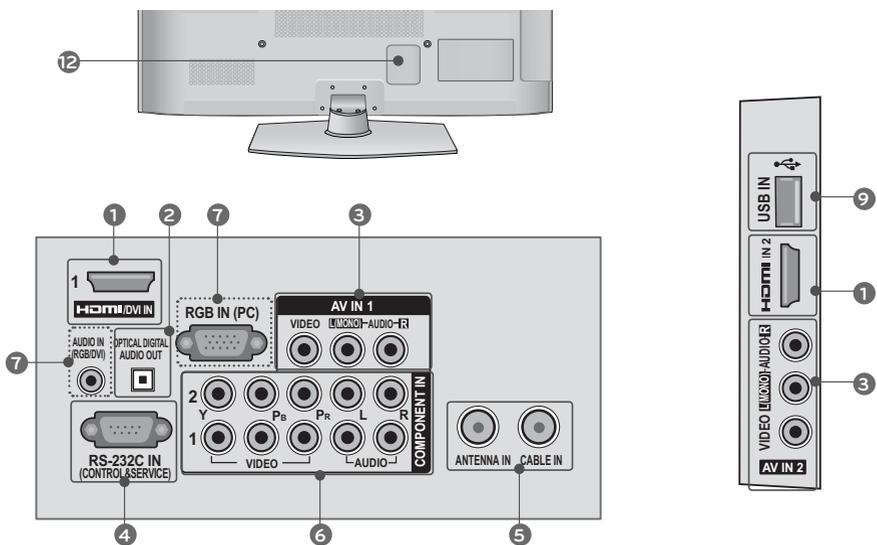
■ Image shown may differ from your TV.

PREPARATION

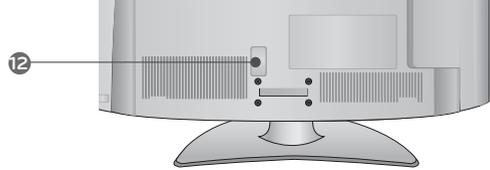
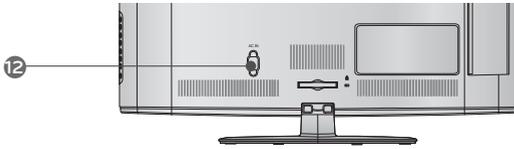
42/50PJ230



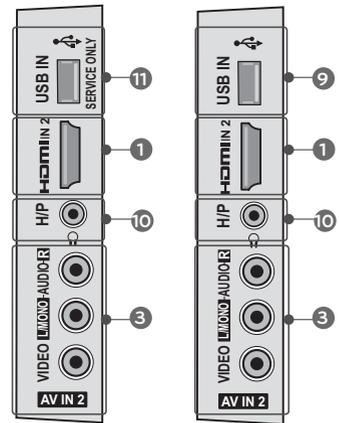
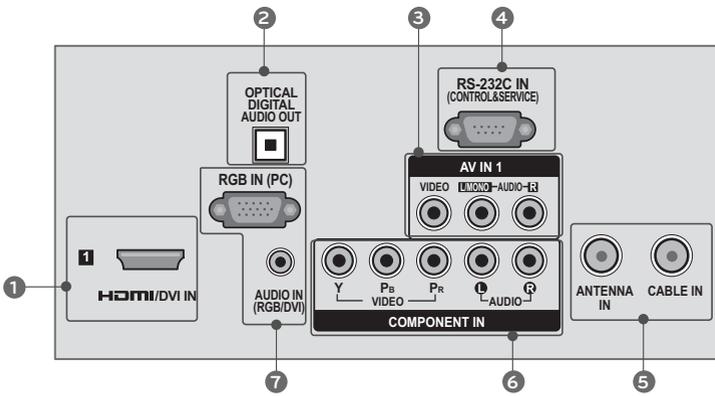
42/50PJ250, 42/50PJ350



32LD350, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465, 32/42LD420, 32/42LD420C

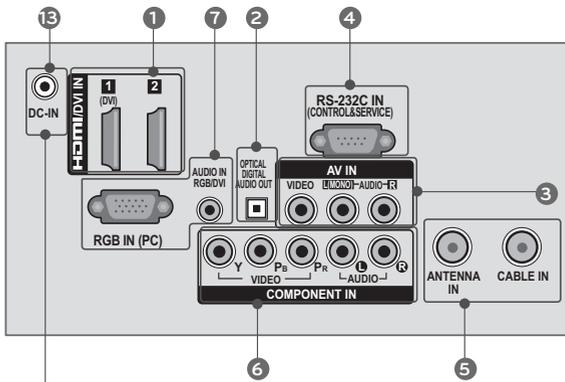
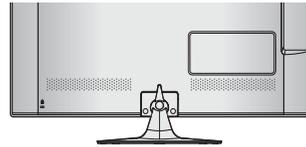
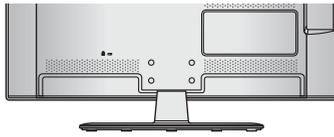


32/37/42/47LD460,
37/42LD461C,
32/37/42/47LD465,
32/42LD420,
32LD350 32/42LD420C

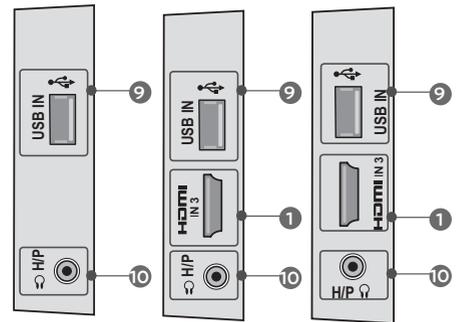


PREPARATION

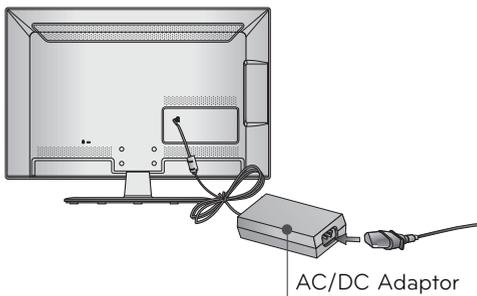
22/26LE5300, 22/26LE6500



22LE5300 26LE5300 22/26LE6500



Power Connection

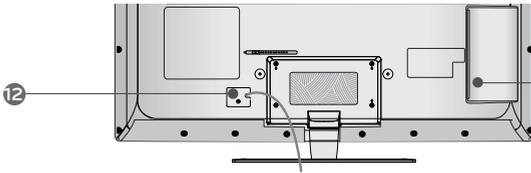


- 1 Connect the AC/DC adapter plug to the power input jack on the TV.
- 2 Connect the power cord to the AC/DC adapter first, then plug the power cord into the wall power outlet.

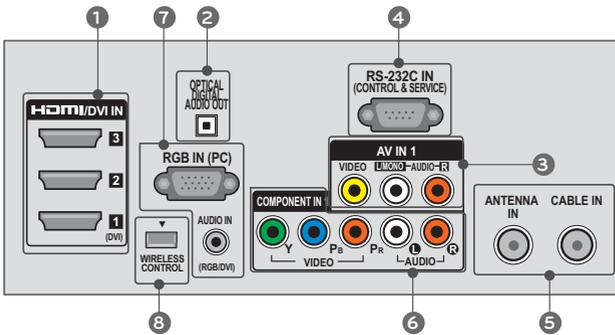
⚠ CAUTION

- ▶ Please be sure to connect the TV to the AC/DC power adapter before connecting the TV's power plug to a wall power outlet.

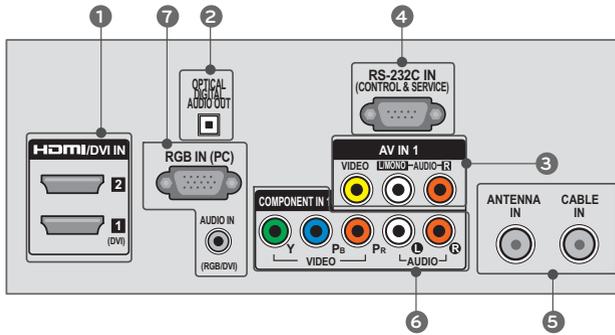
32/37/42/47/55LE5300, 32/42/47/55LE4600



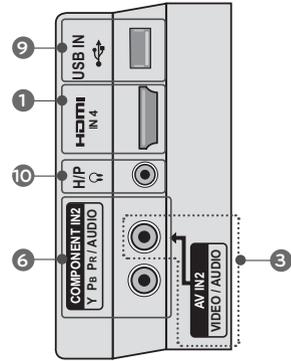
32/37/42/47/55LE5300



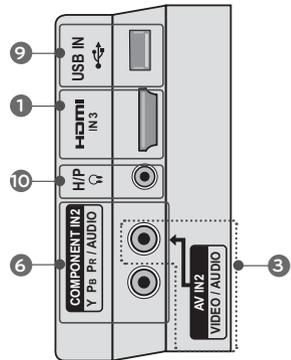
32/42/47/55LE4600



32/37/42/47/55LE5300



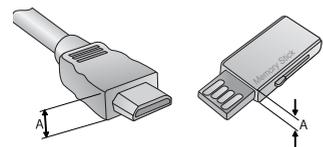
32/42/47/55LE4600



CAUTION

For HDMI IN 3, 4 and USB IN

► For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm (0.39 inches) thick.



*A ≤ 10 mm (0.39 inches)

PREPARATION

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 OPTICAL DIGITAL AUDIO OUT

Digital optical audio output for use with amps and home theater systems.

Note: In standby mode, this port doesn't work.

3 AV (Audio/Video) IN

Analog composite connection. Supports standard definition video only (480i).

4 RS-232C IN (CONTROL & SERVICE) PORT

Used by third party devices.

This port is used for service or Hotel mode.

5 ANTENNA IN/CABLE IN

Connect over-the air signals to this jack.

Connect cable signals to this jack.

6 COMPONENT IN

Analog Connection.

Supports HD.

Uses a red, green, and blue cable for video & red and white for audio.

7 RGB IN (PC)

Analog PC Connection. Uses a D-sub 15 pin cable (VGA cable).

AUDIO IN (RGB/DVI)

1/8" (0.32 cm) headphone jack for analog PC audio input.

8 WIRELESS CONTROL

Connect the Wireless Dongle to the TV to control the external input devices connected to Media Box wirelessly.

9 USB INPUT

Used for viewing photos, movies and listening to MP3s.

10 HEADPHONE INPUT

0.32 cm (1/8 inch) headphone jack

Impedance 16 Ω , Maximum audio out 15 mW

11 SERVICE ONLY, USB IN SERVICE ONLY

This port is used for service.

12 Power Cord or Socket

For operation with AC power.

Caution: Never attempt to operate the TV on DC power.

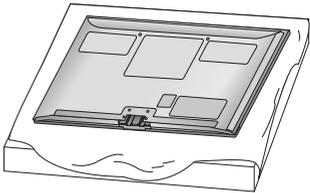
13 DC IN

STAND INSTRUCTIONS (For Plasma TV)

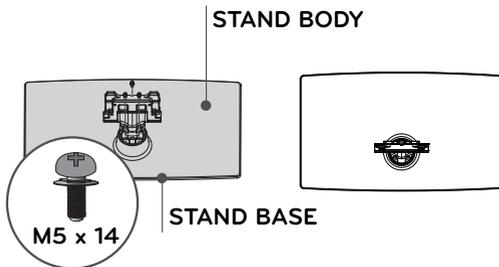
■ Image shown may differ from your TV.

INSTALLATION

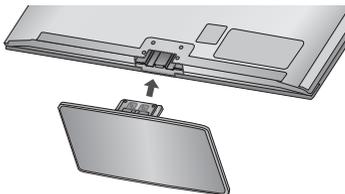
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



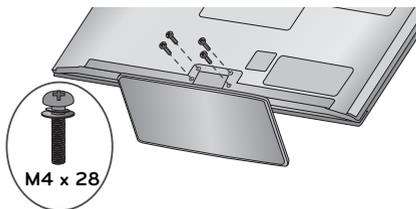
- 2 Assemble the parts of the **STAND BODY** with the **STAND BASE** of the TV.



- 3 Assemble the TV as shown.



- 4 Fix the 4 screws securely using the holes in the back of the TV.

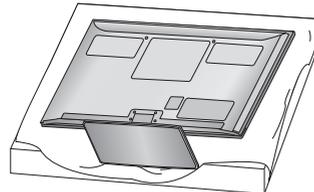


NOTE

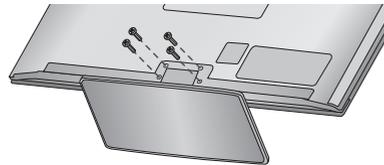
- ▶ When assembling the desk type stand, make sure the screws are fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.

DETACHMENT

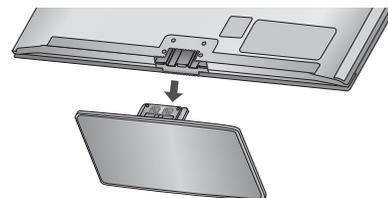
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Remove the screws that hold the stand on.



- 3 Detach the stand from TV.

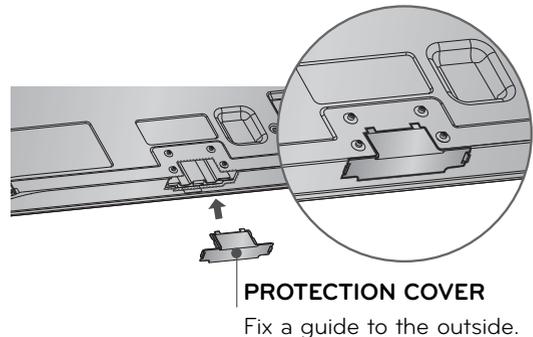


PROTECTION COVER

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.

When installing the wall mounting bracket, use the **PROTECTION COVER**.



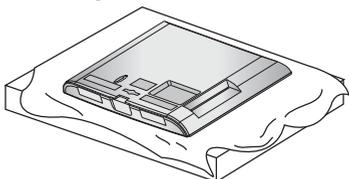
PREPARATION

STAND INSTRUCTIONS (For 32LD350, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465)

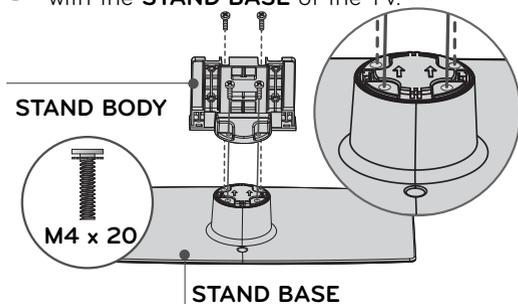
■ Image shown may differ from your TV.

INSTALLATION

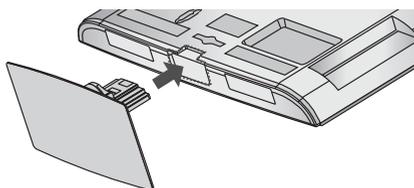
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



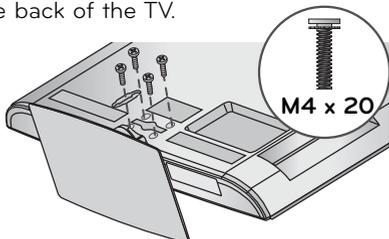
- 2 Assemble the parts of the **STAND BODY** with the **STAND BASE** of the TV.



- 3 Assemble the TV as shown.



- 4 Fix the 4 screws securely using the holes in the back of the TV.

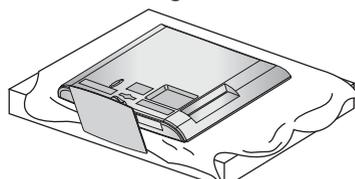


NOTE

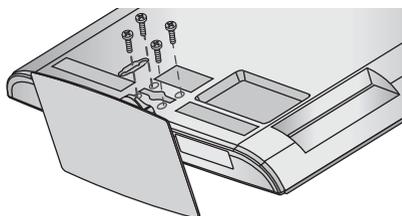
- ▶ When assembling the desk type stand, make sure the screws are fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.

DETACHMENT

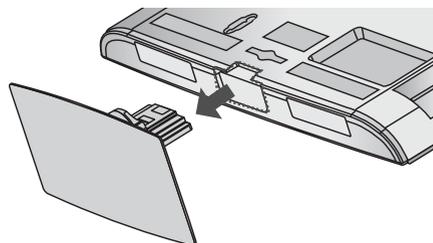
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Remove the screws that hold the stand on.



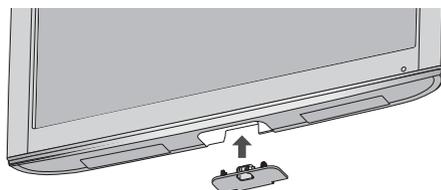
- 3 Detach the stand from TV.



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.

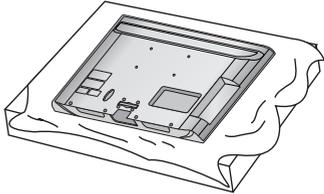


STAND INSTRUCTIONS (For 32/42LD420, 32/42LD420C)

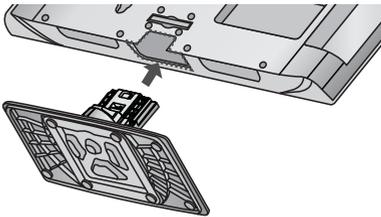
■ Image shown may differ from your TV.

INSTALLATION

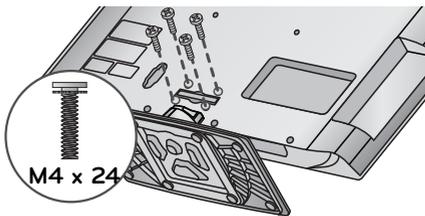
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Assemble the TV as shown.



- 3 Install the 4 screws into the holes shown.

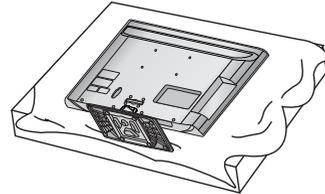


NOTE

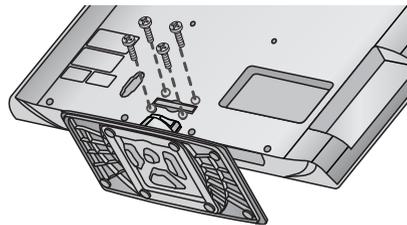
- ▶ When assembling the desk type stand, make sure the screws are fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.

DETACHMENT

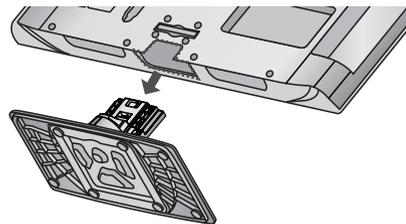
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Remove the screws that hold the stand on.



- 3 Detach the stand from TV.

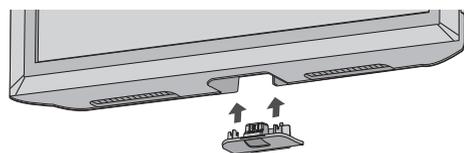


PROTECTION COVER

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.

When installing the wall mounting bracket, use the **PROTECTION COVER**.



PREPARATION

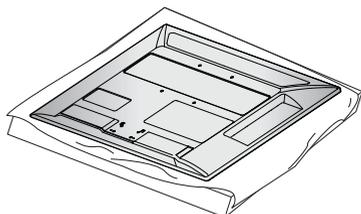
STAND INSTRUCTIONS (For 22LE5300)

■ Image shown may differ from your TV.

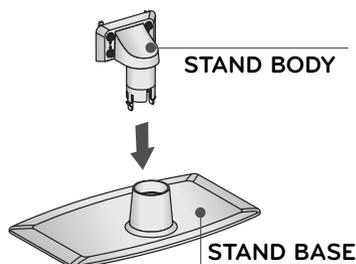
PREPARATION

INSTALLATION

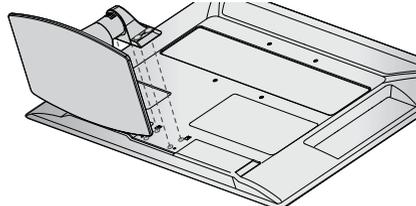
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



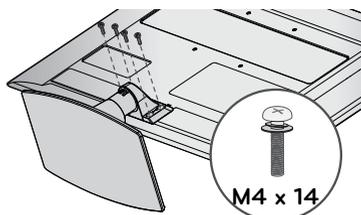
- 2 Assemble the parts of the **STAND BODY** with the **STAND BASE** of the TV.



- 3 Assemble the TV as shown.



- 4 Fix the 4 screws securely using the holes in the back of the TV.

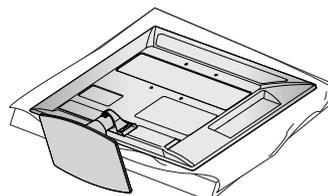


NOTE

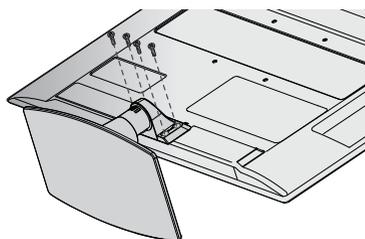
- ▶ When assembling the desk type stand, make sure the screws are fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.

DETACHMENT

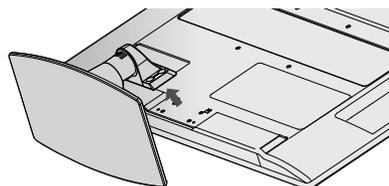
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Remove the screws that hold the stand on.



- 3 Detach the stand from TV.

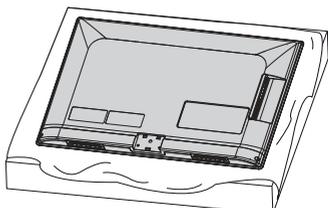


STAND INSTRUCTIONS (For 22/26LE6500)

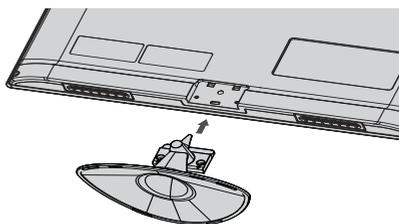
■ Image shown may differ from your TV.

INSTALLATION

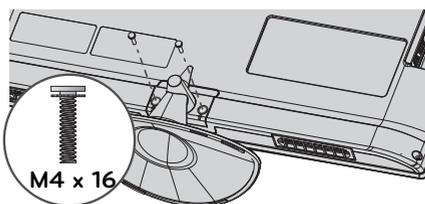
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Assemble the TV as shown.



- 3 Install the 2 screws into the holes shown.

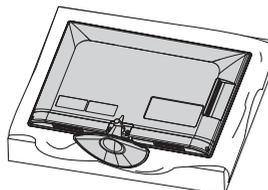


NOTE

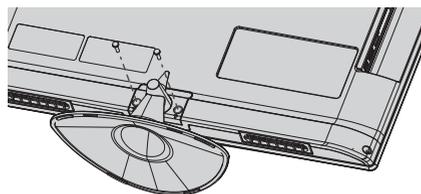
- ▶ When assembling the desk type stand, make sure the screws are fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.

DETACHMENT

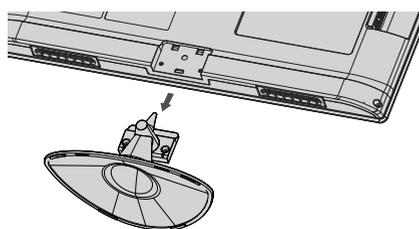
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Remove the screws that hold the stand on.



- 3 Detach the stand from TV.



PREPARATION

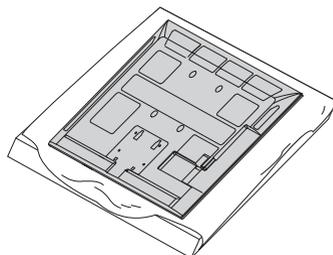
STAND INSTRUCTIONS (For 26/32/37/42/47/55LE5300, 32/42/47/55LE4600)

■ Image shown may differ from your TV.

PREPARATION

INSTALLATION

- 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 the **STAND BASE** of the TV.



26LE5300



32LE5300,



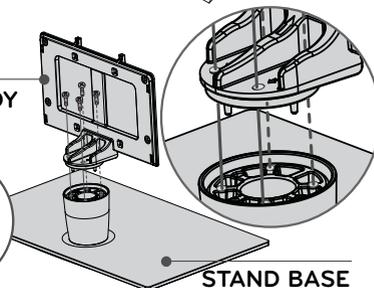
37/42LE5300



47/55LE5300

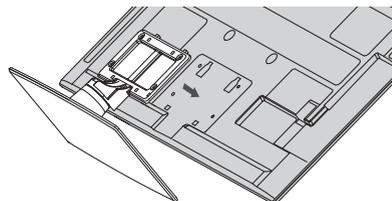
32/42/47/55LE4600

STAND BODY



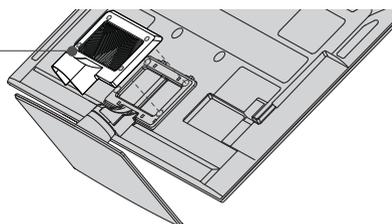
STAND BASE

- 3 Assemble the TV as shown.



- 4 Assemble the part of the **STAND REAR COVER** with the TV.

STAND REAR COVER



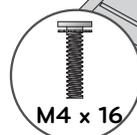
- 5 Install the 4 screws into the holes shown.

NOTE

- ▶ When assembling the desk type stand, make sure the screws are fully tightened (If not tightened fully, the TV can tilt forward after the product installation). Do not over tighten.



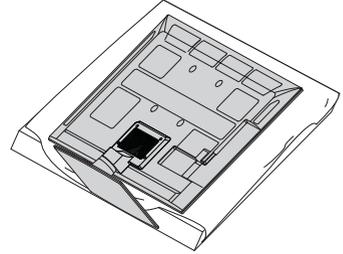
For 26LE5300



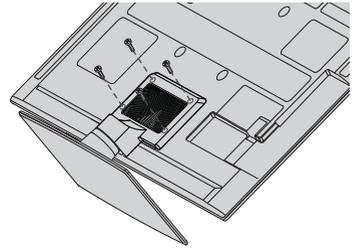
Other models

DETACHMENT

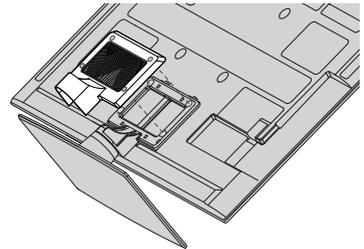
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



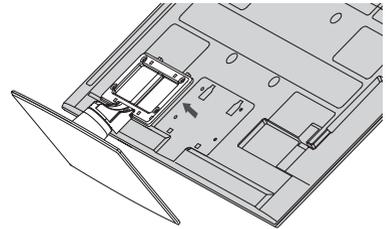
- 2 Remove the screws that hold the stand on.



- 3 Detach the **STAND REAR COVER** from TV.



- 4 Detach the stand from TV.

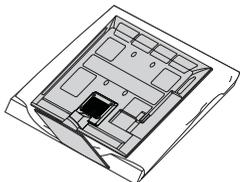


PREPARATION

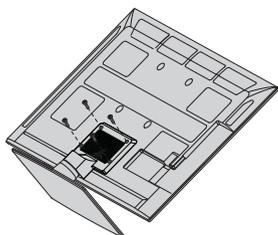
WOOFER INSTALLATION: WHEN USING THE WALL MOUNT (For 32/42/47/55LE4600)

PREPARATION

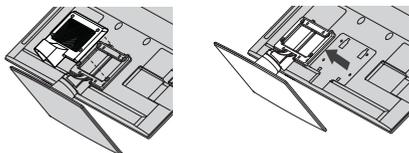
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



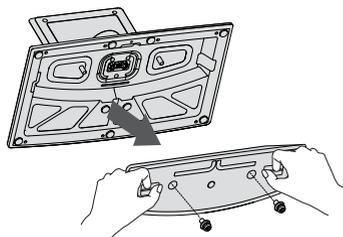
- 2 Remove the screws from the TV.



- 3 Detach the **STAND REAR COVER** and **STAND** from TV.

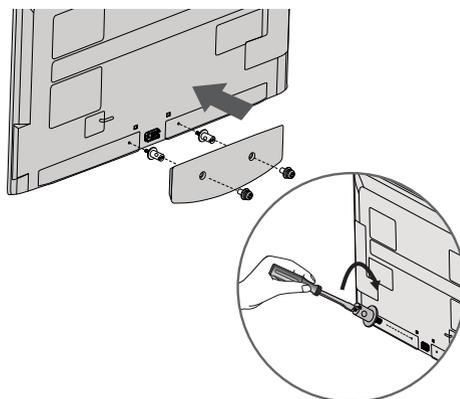


- 4 Detach the **WOOFER** from the stand.



- 5 Assemble the **WOOFER** with the TV.
Turn the PEM nut for the woofer using a flathead driver and install the 2 screws as shown.

When installing the woofer in the TV, make sure that the power cord is not twisted, bent or pinched.



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 installer.

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.

Model	VESA (A * B) 	Standar Screw	Quantity	Wall Mounting Bracket (sold separately)
22LE5300, 26LE5300, 22LE6500, 26LE6500	100 * 100	M4	4	LSW100B, LSW100BG
32LD350, 32LD420, 32LD420C, 32LD460, 32LD465, 32LE5300, 32LE4600	200 * 100	M4	4	LSW100B, LSW100BG
37LD460, 37LD461C, 37LD465, 42LD460, 42LD461C, 42LD465, 42LD420, 42LD420C, 47LD460, 47LD465, 37LE5300, 42LE5300, 47LE5300, 42LE4600, 47LE4600	200 * 200	M6	4	LSW200B, LSW200BG
55LE5300, 55LE4600	400 * 400	M6	4	LSW400B, LSW400BG, DSW400BG
42/50PJ230, 42/50PJ250, 42/50PJ350	400 * 400	M6	4	PSW400B PSW400BG

PREPARATION

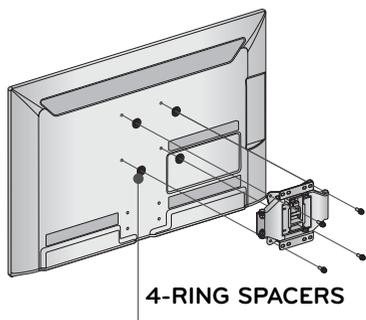
NOTE

- ▶ 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 than 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.

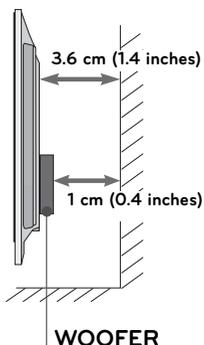
For 26LE5300



Place the on the set before installing the wall mounting bracket so that the inclination of the backside of the set can be adjusted perpendicularly.

- Image shown may differ from your TV.

For 32/42/47/55LE4600



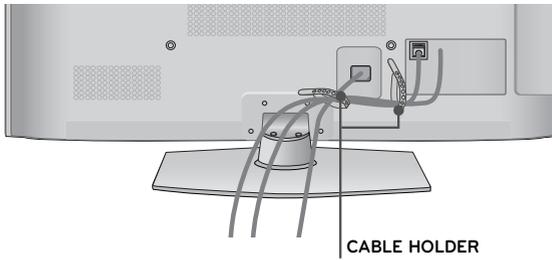
The clearance from the wall is 3.6 cm (1.4 inches) for this product.

CABLE MANAGEMENT

■ Image shown may differ from your TV.

Plasma TV

- 1 After connecting the cables as necessary, install the **CABLE HOLDER** as shown and bundle the cables.

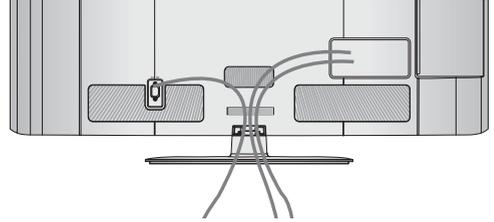


PREPARATION

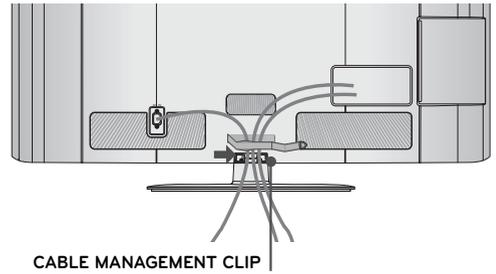
■ Image shown may differ from your TV.

32LD350, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465

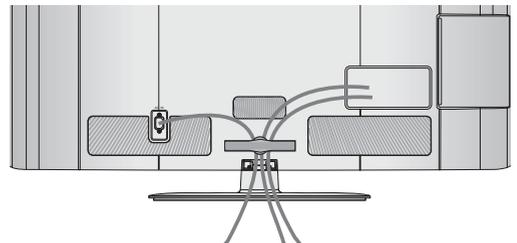
- 1 Connect the cables as necessary.
To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.



- 2 Open the **CABLE MANAGEMENT CLIP** as shown.

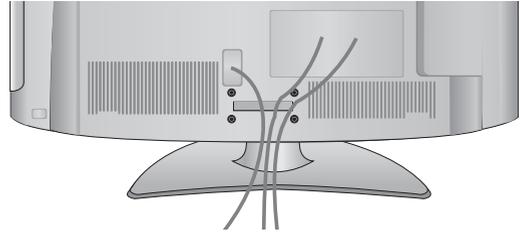


- 3 Put the cables inside the **CABLE MANAGEMENT CLIP** and snap it closed.

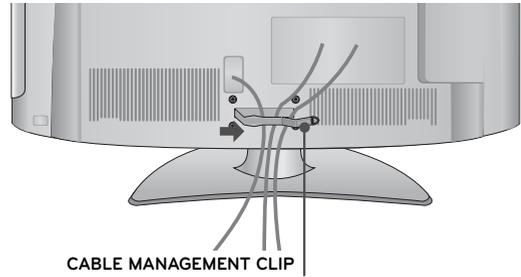


32/42LD420, 32/42LD420C

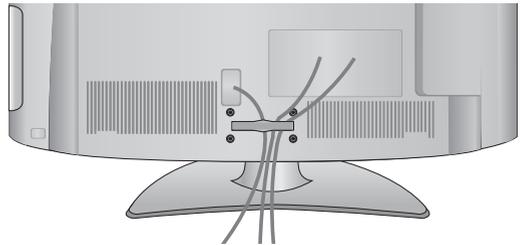
- 1 Connect the cables as necessary.
To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.



- 2 Open the **CABLE MANAGEMENT CLIP** as shown.

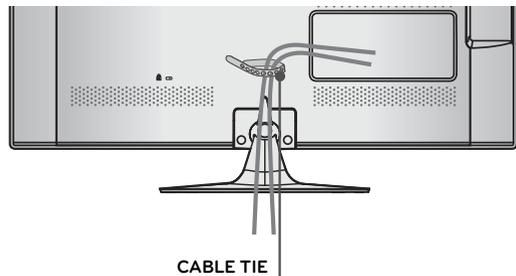


- 3 Put the cables inside the **CABLE MANAGEMENT CLIP** and snap it closed.



22/26LE6500

- 1 After connecting the cables as necessary, install the **CABLE TIE** as shown and bundle the cables.

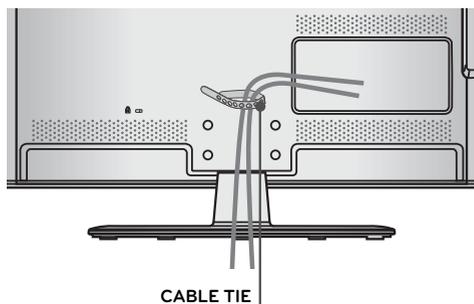


PREPARATION

■ Image shown may differ from your TV.

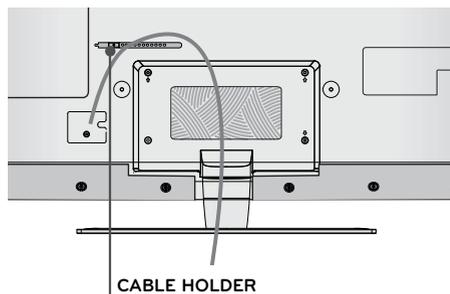
22/26LE5300

- 1 After connecting the cables as necessary, install **CABLE TIE** as shown and bundle the cables.

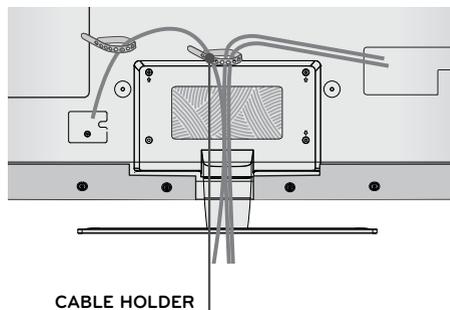


32/37/42/47/55LE5300, 32/42/47/55LE4600

- 1 Secure the power cord with the **CABLE HOLDER** on the TV back cover. It will help prevent the power cable from being removed by accident.



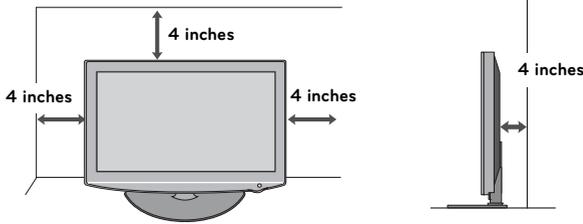
- 2 After connecting the cables as necessary, install **CABLE HOLDER** as shown and bundle the cables.



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.

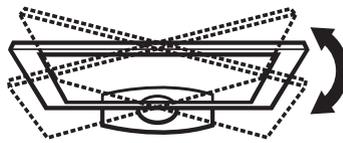


⚠ CAUTION

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

SWIVEL STAND (Except 22LE5300, 22LE6500)

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.



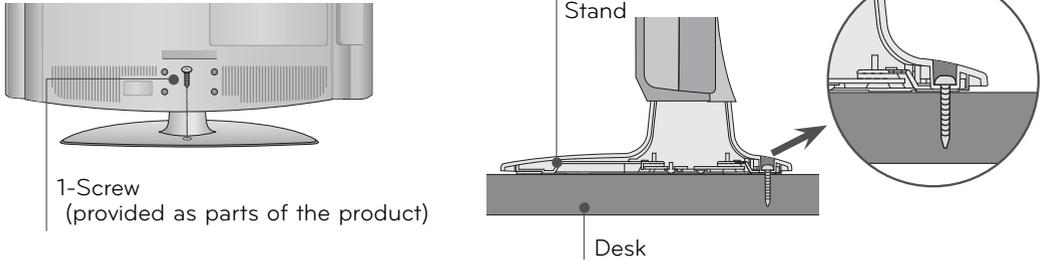
PREPARATION

ATTACHING THE TV TO A DESK

(For 32LD350, 32/37/42LD460, 37/42LD461C, 32/37/42LD465, 32LE5300, 32/42LD420, 32/42LD420C, 32/42/47/55LE4600)

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.

PREPARATION



⚠ 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.

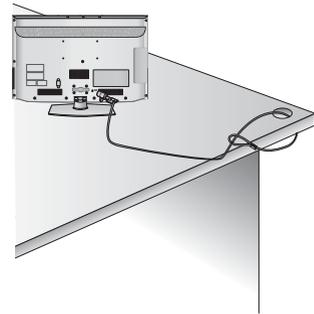
KENSINGTON SECURITY SYSTEM

■ This feature is not available for all models.

- The TV is equipped with a Kensington Security System connector on the back panel. Connect the Kensington Security System cable as shown below.
- For the detailed installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.

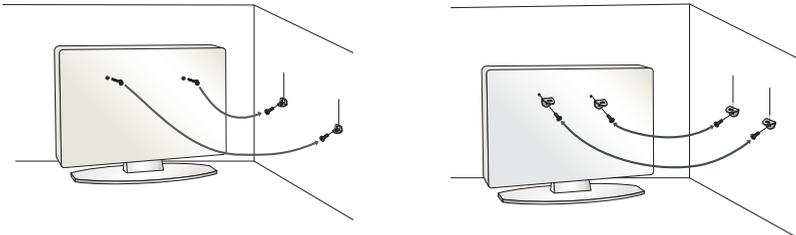
For further information, contact <http://www.kensington.com>, the internet homepage of the Kensington company. Kensington sells security systems for expensive electronic equipment such as notebook PCs and LCD projectors.

NOTE: The Kensington Security System is an optional accessory.



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

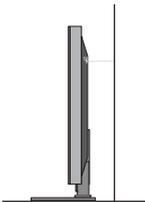
- You should purchase necessary components to prevent the TV from tipping over (when not using a wall mount).
- Image shown may differ from your TV.
We recommend that you set up the TV close to a wall so it cannot fall over if pushed backwards. Additionally, we recommend that the TV be attached to a 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.

PREPARATION

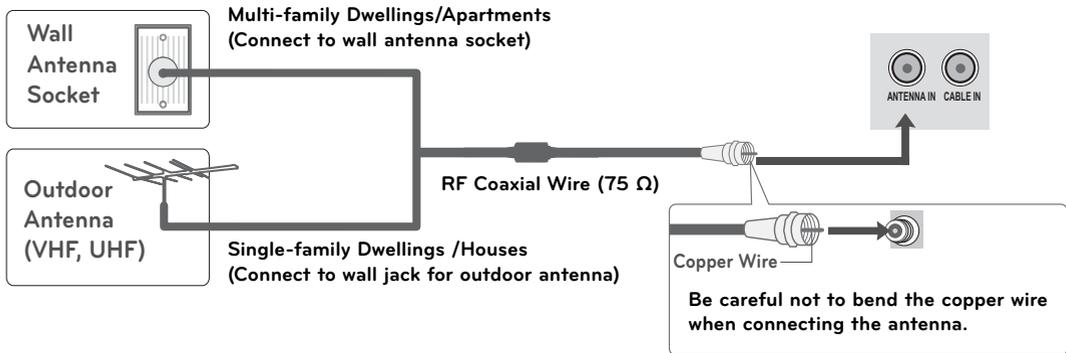
- To prevent damage do not connect to the power outlet until all connections are made between the devices.
- Image shown may differ from your TV.

ANTENNA OR CABLE CONNECTION

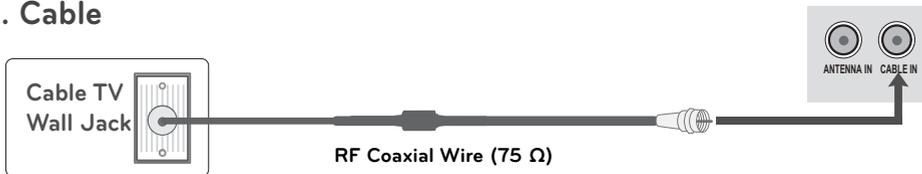
1. Antenna (Analog or Digital)

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

For optimum picture quality, adjust antenna direction if needed.



2. Cable



- 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.

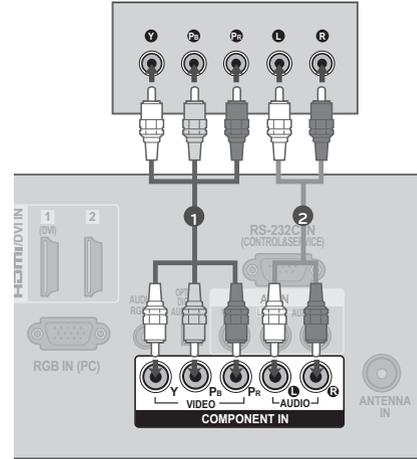
HD RECEIVER SETUP

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** or **2*** 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** or **2*** jacks on the TV.



2. How to use

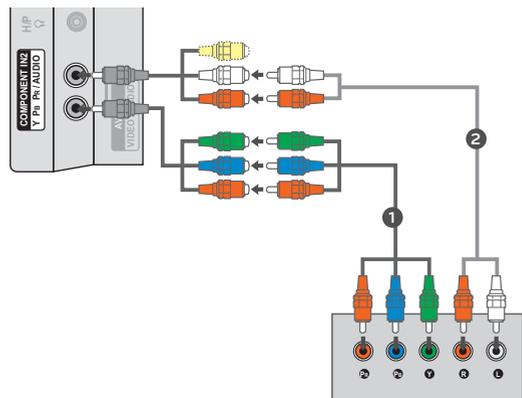
- Turn on the digital set-top box.
(Refer to the owner's manual for the digital set-top box operation.)
- Select the **Component**, **Component1** or **Component2*** input source on the TV using the **INPUT** button on the remote control.

* *Component2: For Plasma TV, 32/37/42/47/55LE5300, 32/42/47/55LE4600*

Y, CB/PB, CR/PR

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

For 32/37/42/47/55LE5300, 32/42/47/55LE4600



EXTERNAL EQUIPMENT SETUP

HDMI Connection

1. How to connect

- 1 Connect the digital set-top box to **HDMI/DVI IN 1, 2, 3***, or **4**** jack on the TV.
- 2 No separate audio connection is necessary. HDMI supports both audio and video.

2. How to use

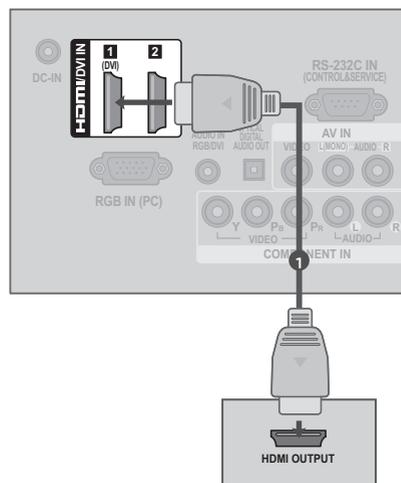
- Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- Select the **HDMI**, **HDMI1**, **HDMI2** **HDMI3***, or **HDMI4**** input source on the TV using the **INPUT** button on the remote control.

* HDMI3: For 26LE5300, 22/26LE6500, 32/42/47/55LE4600

** HDMI4: For 32/37/42/47/55LE5300

NOTE

- ▶ If an HDMI cable doesn't support High Speed HDMI, it can cause flickers or no screen display. In this case use the latest cables that support High Speed HDMI.
- ▶ HDMI Audio Supported Format: Dolby Digital (32 KHz, 44.1 KHz, 48 KHz), Linear PCM (32 KHz, 44.1 KHz, 48 KHz)



HDMI-DTV

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

DVI to HDMI Connection

1. How to connect

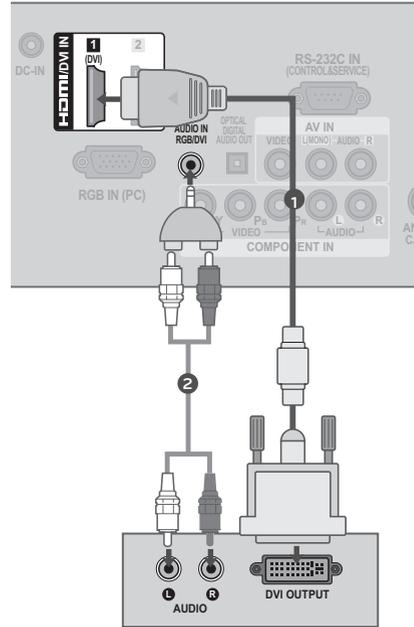
- 1 Connect the DVI output of the digital set-top box to the **HDMI/DVI IN** or **1** jack on the TV.
- 2 Connect the digital set-top box audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.

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 **HDMI** or **HDMI1** input source on the TV using the **INPUT** button on the remote control.

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.



EXTERNAL EQUIPMENT SETUP

DVD SETUP

Component Connection

1. How to connect

- 1 Connect the video outputs (Y, PB, PR) of the DVD to the **COMPONENT IN VIDEO 1** or **2** * 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 AUDIO 1** or **2** * jacks on the TV.

2. How to use

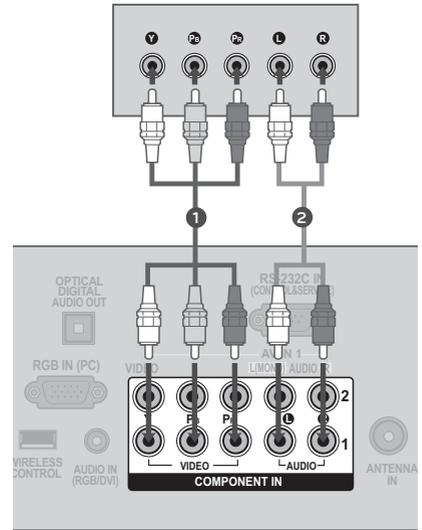
- Turn on the DVD player, insert a DVD.
- Select the **Component**, **Component1** or **Component2*** input source on the TV using the **INPUT** button on the remote control.
- Refer to the DVD player's manual for operating instructions.

* *Component2: For Plasma TV, 32/37/42/47/55LE5300, 32/42/47/55LE4600*

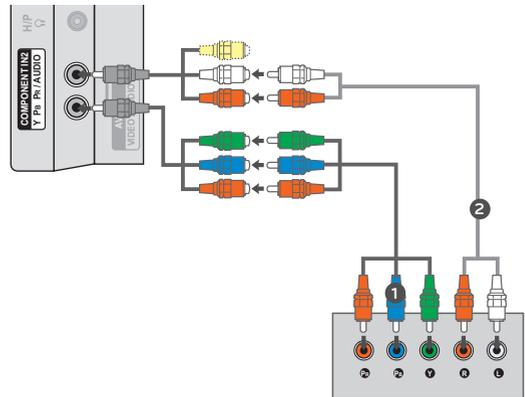
Component Input ports

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

Component ports on the TV	Y	P _B	P _R
Video output ports on DVD player	Y	P _B	P _R
	Y	B-Y	R-Y
	Y	C _b	C _r
	Y	P _b	P _r



For 32/37/42/47/55LE5300, 32/42/47/55LE4600



Composite (RCA) Connection

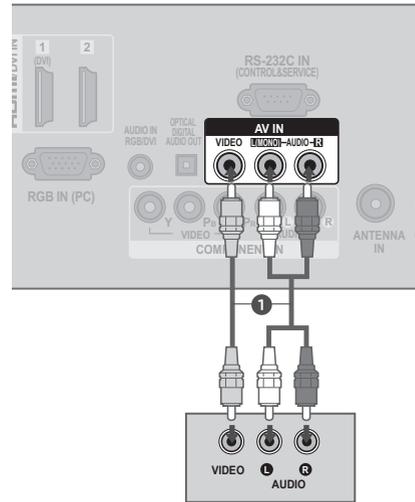
1. How to connect

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

2. How to use

- Turn on the DVD player, insert a DVD.
- Select the **AV**, **AV1** or **AV2*** input source on the TV using the **INPUT** button on the remote control.
- Refer to the DVD player's manual for operating instructions.

* **AV2:** For 42/50PJ250, 42/50PJ350, 32LD350, 32/42LD420, 32/42LD420C, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465, 32/37/42/47/55LE5300, 32/42/47/55LE4600



HDMI Connection

1. How to connect

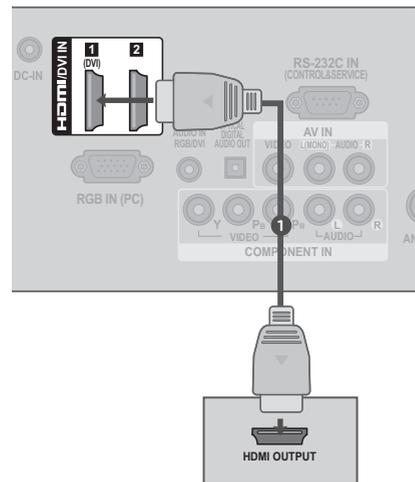
- 1 Connect the HDMI output of the DVD to the **HDMI/DVI IN 1, 2, 3***, or **4**** jack on the TV.
- 2 No separate audio connection is necessary. HDMI supports both audio and video.

2. How to use

- Select the **HDMI**, **HDMI1**, **HDMI2** **HDMI3***, or **HDMI4**** input source on the TV using the **INPUT** button on the remote control. ■ Refer to the DVD player's manual for operating instructions.

* **HDMI3:** For 26LE5300, 22/26LE6500, 32/42/47/55LE4600

** **HDMI4:** For 32/37/42/47/55LE5300



NOTE

- ▶ If an HDMI cable doesn't support High Speed HDMI, it can cause flickers or no screen display. In this case use the latest cables that support High Speed HDMI.
- ▶ HDMI Audio Supported Format: Dolby Digital (32 KHz, 44.1 KHz, 48 KHz), Linear PCM (32 KHz, 44.1 KHz, 48 KHz)

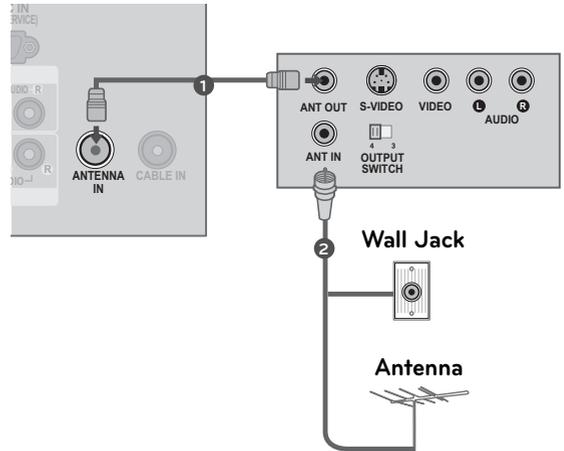
EXTERNAL EQUIPMENT SETUP

VCR SETUP

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).

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)

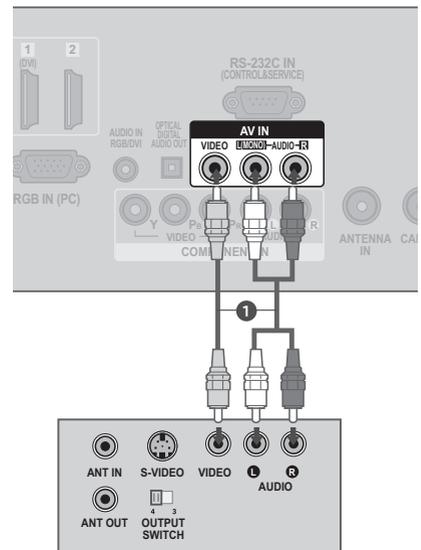
2. How to use

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

* AV2: For 42/50PJ250, 42/50PJ350, 32LD350, 32/42LD420, 32/42LD420C, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465, 32/37/42/47/55LE5300, 32/42/47/55LE4600

NOTE

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



OTHER A/V SOURCE SETUP

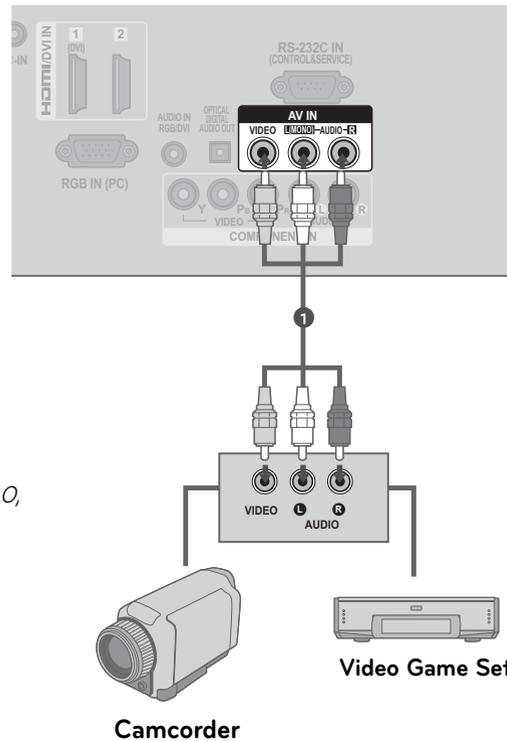
1. How to connect

- 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 AV, AV1 or AV2* input source on the TV using the **INPUT** button on the remote control.
- Operate the corresponding external equipment.

* AV2: For 42/50PJ250, 42/50PJ350, 32LD350, 32/42LD420, 32/42LD420C, 32/37/42/47LD460, 37/42LD461C, 32/37/42/47LD465, 32/37/42/47/55LE5300, 32/42/47/55LE4600



EXTERNAL EQUIPMENT SETUP

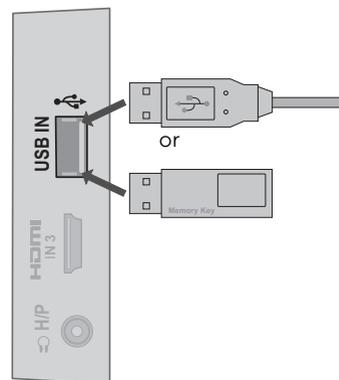
USB CONNECTION (Except 32LD350, 42/50PJ230)

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.90)



HEADPHONE SETUP (For LED LCD TV/LCD TV)

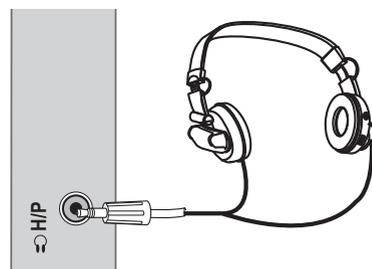
You can listen to the sound through the headphone.

1. How to connect

- 1 Plug the headphone into the headphone socket.
- 2 To adjust the headphone volume, press the **VOL +/-** button. If you press the **MUTE** button, the sound from the headphone is switched off.

NOTE

- ▶ AUDIO menu options are disabled when connecting a headphone.
- ▶ When changing AV MODE with a headphone connected, the change is applied to video but not to audio.
- ▶ Optical Digital Audio Out is not available when connecting a headphone.



AUDIO OUT CONNECTION

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

If you want to enjoy digital broadcasting through 5.1-channel speakers, connect the OPTICAL DIGITAL AUDIO OUT terminal on the back of TV to a Home Theater (or amp).

1. How to connect

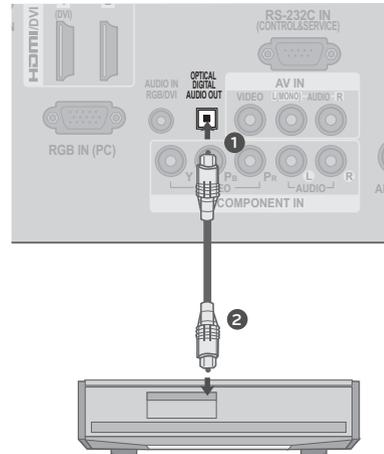
- 1 Connect one end of the optical cable to the TV port of **OPTICAL DIGITAL AUDIO OUT**.
- 2 Connect the other end of the optical cable to the digital audio input on the audio equipment.
- 3 Set the "TV Speaker option - Off" in the AUDIO menu. (▶ p.132). See the external audio equipment instruction manual for operation.

NOTE

- ▶ When connecting with external audio equipment, such as amplifiers or speakers, you can turn the TV speakers off in the menu. (▶ p.132)

CAUTION

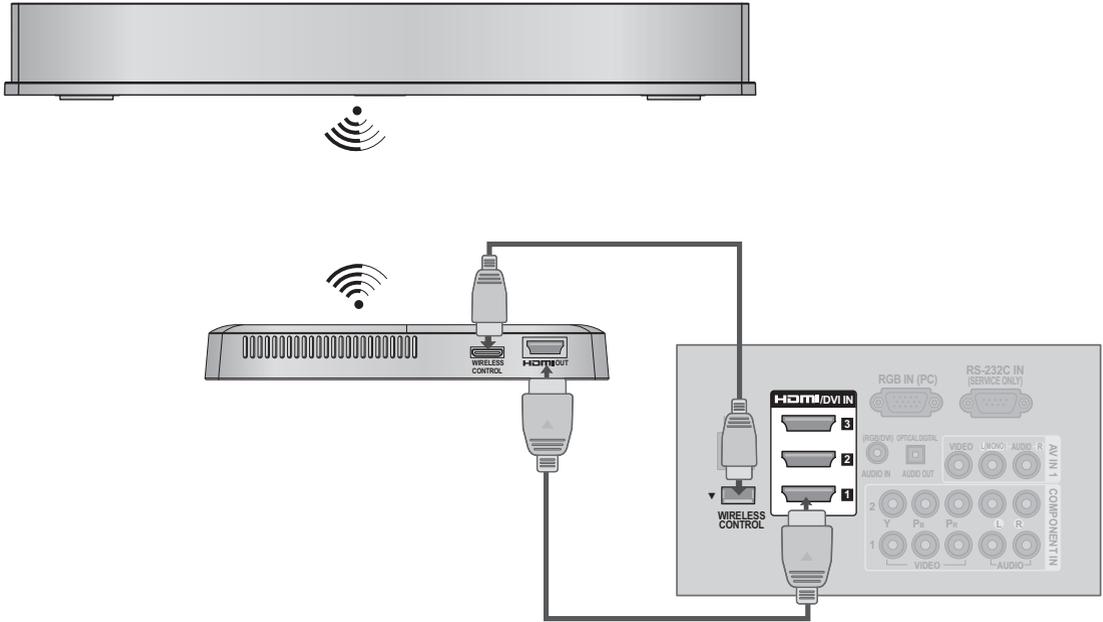
- ▶ Do not look into the optical output port. Looking at the laser beam may damage your vision.
- ▶ Audio with ACP (Audio Copy Protection) function may block digital audio output.



EXTERNAL EQUIPMENT SETUP

EXTERNAL EQUIPMENT WIRELESS CONNECTION (32/37/42/47/55LE5300 OPTIONAL EXTRA)

LG TVs with a Wireless Control port support the LG Wireless Media Box, which is sold separately. When you connect the wireless ready dongle (included with the media box) to the TV, external devices can be connected to the LG Wireless Media Box and video and audio will be sent to the TV wirelessly.



1. How to connect

- 1 Connect the **WIRELESS CONTROL** jack of the Wireless Dongle to the **WIRELESS CONTROL** jack on the TV.
- 2 Connect **HDMI OUT** jack of the Wireless Dongle to the **HDMI IN** jack on the TV.

2. How to use

- Select the desired input source on the TV using the **INPUT** button on the remote control.
- Refer to the Wireless Media Box manual for operating instructions.

PC SETUP (Except 42/50PJ230)

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

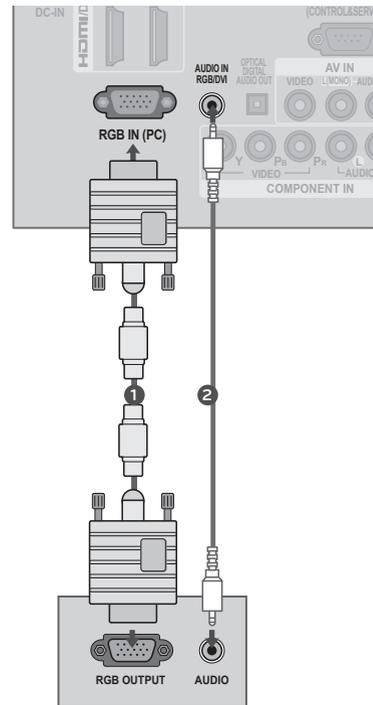
VGA (D-Sub 15 Pin) Connection

1. How to connect

- 1 Connect the VGA output of the PC to the **RGB IN (PC)** jack on the TV.
- 2 Connect PC audio output to the **AUDIO IN (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.



EXTERNAL EQUIPMENT SETUP

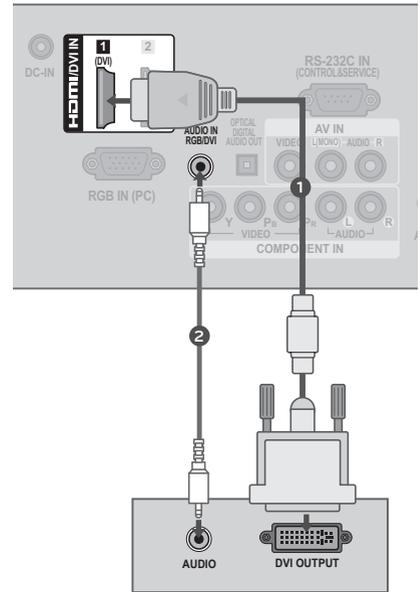
DVI to HDMI Connection

1. How to connect

- 1 Connect the DVI output of the PC to the **HDMI/DVI IN** or **1** jack on the TV.
- 2 Connect the PC audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.

2. How to use

- Turn on the PC and the TV.
- Select the **HDMI** or **HDMI1** input source on the TV using the **INPUT** button on the remote control.



NOTE

- ▶ LED LCD TV/LCD TV: To get the best picture quality, adjust the PC graphics card to **1360x768** (32LD350, 22/26/32LE5300) or **1920x1080** (Other models).
- ▶ Plasma TV: To get the best picture quality, adjust the PC graphics card to **1360x768**.
- ▶ 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 may 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.
- ▶ When selecting HDMI-PC, set the "Input Label - PC" in the OPTION menu.

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	37.879	60.31
1024x768	48.363	60.00
1280x768	47.776	59.87
1360x768	47.712	60.015
1280x1024	63.981	60.02
1600x1200	75.00	60.00
1920x1080	67.50	60.00

Except 32LD350, 22/26/32LE5300,
42/50PJ250, 42/50PJ350

EXTERNAL EQUIPMENT SETUP

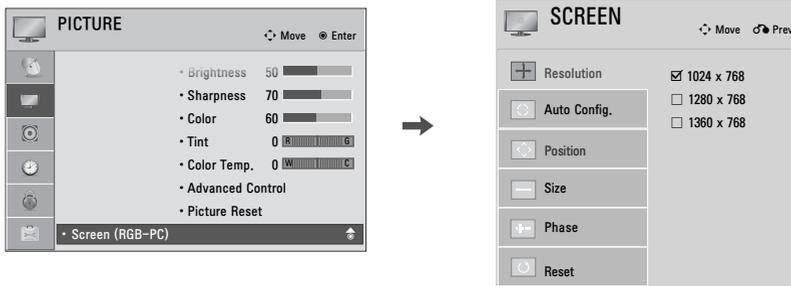
Screen Setup for PC mode

Selecting Resolution

You can choose the resolution in RGB-PC mode.

The Position, Phase, and Size can also be adjusted.

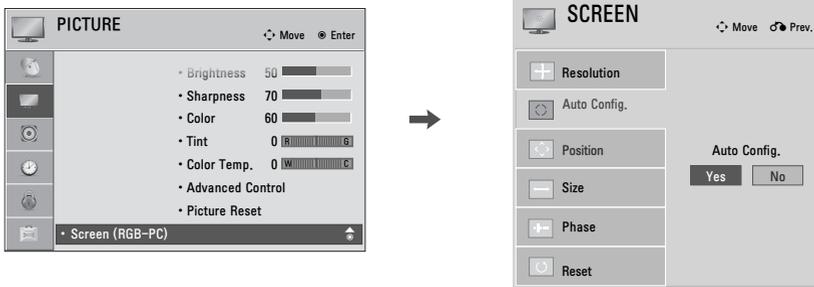
You can choose this option only when the PC resolution is set to 1024X768, 1280X768 or 1360X768.



-   Select **PICTURE**.
-   Select **Screen (RGB-PC)**.
-   Select **Resolution**.
-   Select the desired resolution.
- 

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.



- 1   Select **PICTURE**.
- 2   Select **Screen (RGB-PC)**.
- 3   Select **Auto Config.**.
- 4   Select **Yes**.
- 5 

- 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**.

EXTERNAL EQUIPMENT SETUP

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.

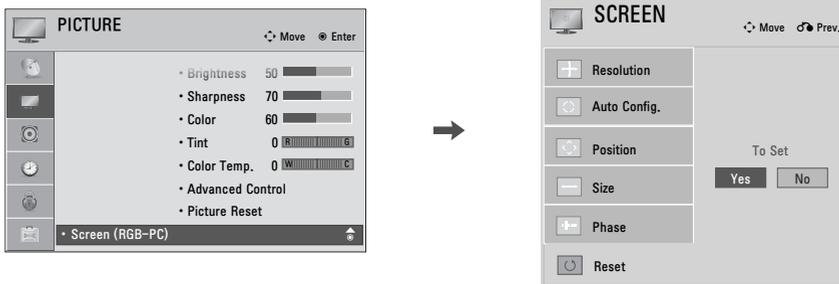


1.   Select **PICTURE**.
2.   Select **Screen (RGB-PC)**.
3.   Select **Position, Size, or Phase**.
4.   Make appropriate adjustments.
5. 

- **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 initial values)

Returns **Position**, **Size**, and **Phase** to the default initial settings.
This feature operates only in RGB-PC mode.



- 1   Select **PICTURE**.
- 2   Select **Screen (RGB-PC)**.
- 3   Select **Reset**.
- 4   Select **Yes**.
- 5 

WATCHING TV / CHANNEL CONTROL

REMOTE CONTROL FUNCTIONS

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

POWER	Turns the TV on from standby or off to standby.
ENERGY SAVING	Adjusts the Energy Saving setting. ▶ p.116
AV MODE	Toggles through preset Video and Audio modes. ▶ p.87
INPUT	Rotates through inputs. Also switches the TV on from standby. ▶ p.82
TV	Returns to the last TV channel.

NUMBER button	
- (DASH)	Used to enter a program number for multiple program channels such as 5-1, 5-2, etc.
LIST	Displays the channel table. ▶ p.74
Q.VIEW	Tunes to the last channel viewed.

MENU	Displays the main menu or clears all on-screen displays and return to TV viewing.
GUIDE	Displays the program event according to time scheduler. ▶ p.79
Q.MENU	Opens the list of Quick Menu options. ▶ p.65
THUMBSTICK (Up/Down/Left Right/ENTER)	Navigates the on-screen menus and adjusts the system settings to your preference.
BACK	Allows the user to move return one step in an interactive application or other user interaction function.
INFO	Displays the information of watching program. ▶ p.78
EXIT	Clears all on-screen displays and return to TV viewing.



VOLUME UP/DOWN	Adjusts the volume.
FAV	Set up desired favorite channels list ▶ p.73
MARK	Select the input to apply the Picture Wizard settings. ▶ p.115 Use to mark or unmark a photo/music/movie. ▶ p.95, 100, 106
RATIO	Changes the aspect ratio. ▶ p.112
MUTE	Switches the sound on or off. ▶ p.60
CHANNEL UP/DOWN	Changes the channel.
PAGE UP/DOWN	Moves from one full set of screen information to the next one.

COLOR BUTTON Access special functions in some menus.

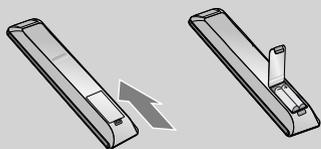
USB, SIMPLINK Control buttons

- Controls MY MEDIA menu (Photo List, Music List, Movie List)
- Controls the SIMPLINK compatible devices.

FREEZE (For Plasma TV) Freeze the current frame while viewing the TV, AV, Component, RGB-PC. or HDMI input source.

SIMPLINK See a list of AV devices connected to TV.
When you toggle this button, the SIMPLINK menu appears at the screen. ▶ **p.88**

Installing Batteries



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

WATCHING TV / CHANNEL CONTROL

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 (▲ or ▼)** 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.
- 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.
- ▶ If you do not complete the **Initial setting**, it will appear whenever the TV is switched on until the **Initial setting** procedure is completed.

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.

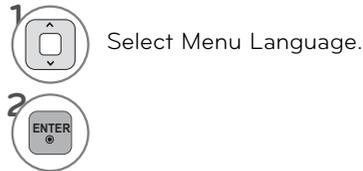
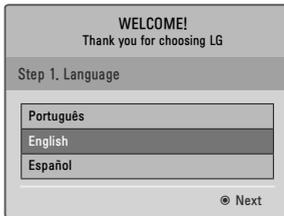
- 1 Press the **VOL (+ or -)** button to adjust the volume.
- 2 If you want to switch the sound off, press the **MUTE** button.
- 3 You can cancel the Mute function by pressing the **MUTE** or **VOL (+ or -)** button.

INITIAL SETTING

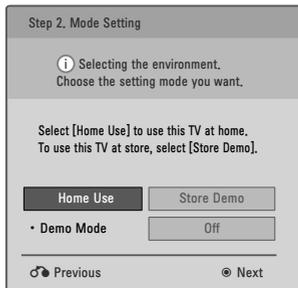
This Function guides the user to easily set the essential items for viewing the TV for the first time when purchasing the TV. It will be displayed on the screen when turning the TV on for the first time. It can also be activated from the user menus.

- Default selection is "**Home Use**". We recommend setting the TV to "**Home Use**" mode for the best picture in your home environment.
- "**Store Demo**" 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.
- "**Store Demo**" Mode is an optimal setting for displaying at stores. "Store Demo" mode initializes the TV to set the image quality:

Step1. Selecting Language

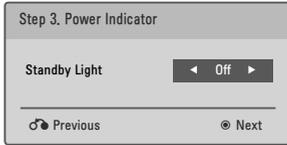


Step2. Mode setting



WATCHING TV / CHANNEL CONTROL

Step3. Power Indicator (For LED LCD TV)

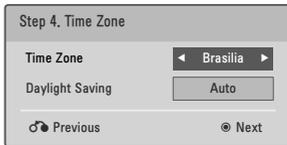


1  Select **On** or **Off**.



■ This function is disable in "Step2. Mode Setting - Store Demo".

Step4. Time Zone

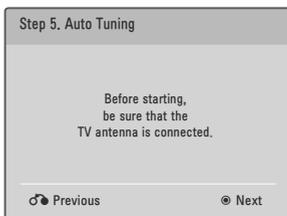


1  Select **Time Zone** option.

2   Select **Daylight Saving** option.



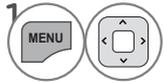
Step5. Auto Tuning



1  Check your antenna connection and start **Auto Tuning**.

ON-SCREEN MENUS SELECTION

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



Display each menu.



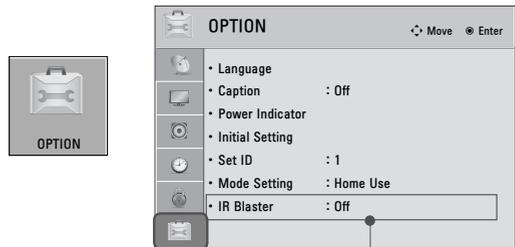
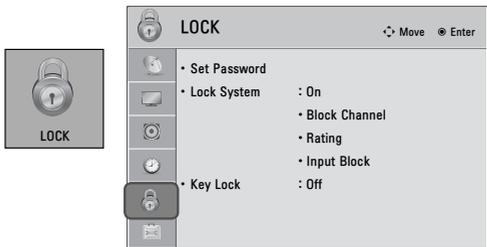
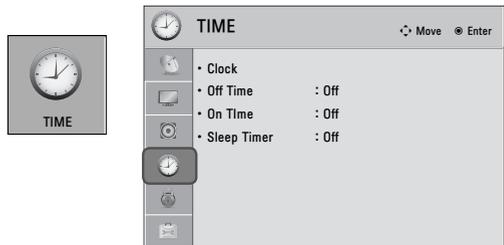
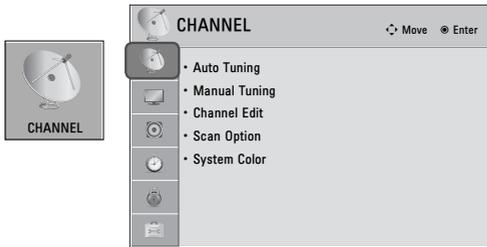
Select a menu item.



Accept the current selection.



Return to TV viewing.



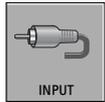
- For further information, refer to the optional **"Wireless Media Box"** manual for operating instructions.

NOTE

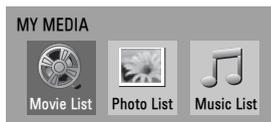
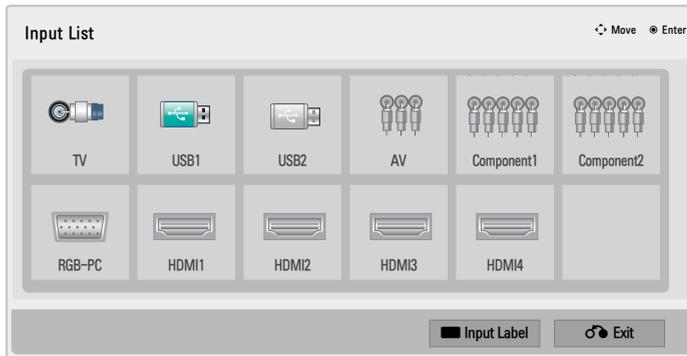
- ▶ **ISM Method:** For **Plasma TV**.
- ▶ **Backlight, TruMotion, Power Indicator:** For **LED LCD TV/LCD TV**.

WATCHING TV / CHANNEL CONTROL

WATCHING TV / CHANNEL CONTROL



i.e)



Except 42/50PJ230, 32LD350

QUICK MENU

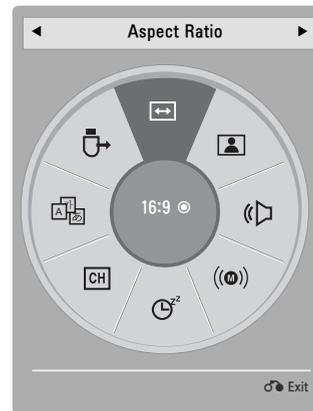
Your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual. Q.Menu (Quick Menu) is a menu of features which users might use frequently.

-  **Aspect Ratio:** Selects your desired picture format.
-  **Picture Mode:** Selects the desired preset picture setting.
-  **Sound Mode:** Selects the desired preset sound setting.
-  **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:** Select channel you want to add or delete.
-  **Caption:** Select on or off.
-  **Energy Saving:** Select the energy saving level to reduce the TV's power consumption.
-  **USB Device:** Select "Eject" in order to eject a USB device.

42/50PJ230, 32LD350



Other models



- 1   Display each menu.
- 2   Make appropriate adjustments.
- 3  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

CUSTOMER SUPPORT

Software Update

You can update the TV with the latest software to enhance the product operation and/or add new features.

You can update the software by connecting the TV directly to the software update server.

The Software Update function may not work properly depending on your internet environment. In this case, you can obtain the latest software from the authorized LG Electronics Service Center then update your TV.

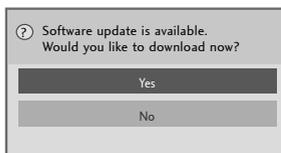


- Select **Customer Support**.
- Select **Software Update**.
- Select **On**. The user confirm message box will be displayed to notify that new software is found.
- Return to the previous menu.
- Return to TV viewing.

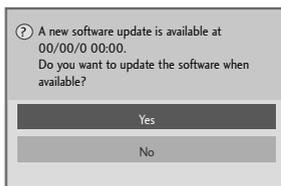
- If you cancel the update, select **Software - Off**.
- This TV cannot be updated to previous software version.
- After software update, you can confirm the update software version at software Update menu.
- The TV function may be improved or changed by software update.
- When an update is completed, some CHANNEL, PICTURE, and AUDIO menu settings may need to resetting.

When setting "Software Update"

Occasionally, a transmission of updated digital software information will result in the following menu on the TV screen.



Simple Update : for current update stream

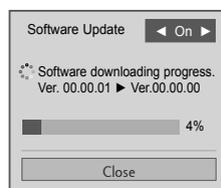


Schedule Update : for scheduled update stream

When the Software Update menu is "Off", the message to change it to "On" appears.

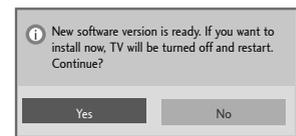
Download starts when "Yes" is selected. At this time, progressing pop-up window does not display.

Download progress status can be checked from Software Update menu.



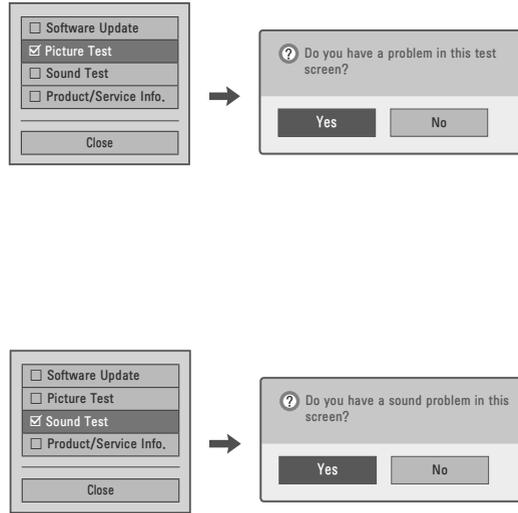
A window as display below appears when download completes.

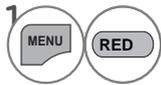
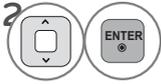
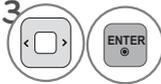
TV is restarted when "Yes" button is pressed.



Picture Test/Sound Test

This function is a customer support function that can execute picture and sound tests.

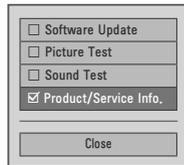


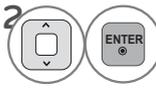
- 1  Select **Customer Support**.
- 2  Select **Picture Test** or **Sound Test**.
- 3  Select **Yes**.
- 4  Return to the previous menu.
-  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

Product/Service Info.

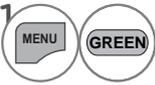
This function shows support and product information.



-
-  Select **Customer Support**.
 -  Select **Product/Service Info..**
You can check the various product/Service information based on your model.
 -  Return to the previous menu.
 -  Return to TV viewing.

SIMPLE MANUAL

You can easily and effectively access the TV information by viewing a simple manual on the TV. During the Simple Manual operation, audio will be muted.

-  Select **Simple Manual**.
-  Select the part of the manual you would like to see.
-  Go to the **Index** page.
-  Play the **Simple Manual** automatically or manually.
-  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

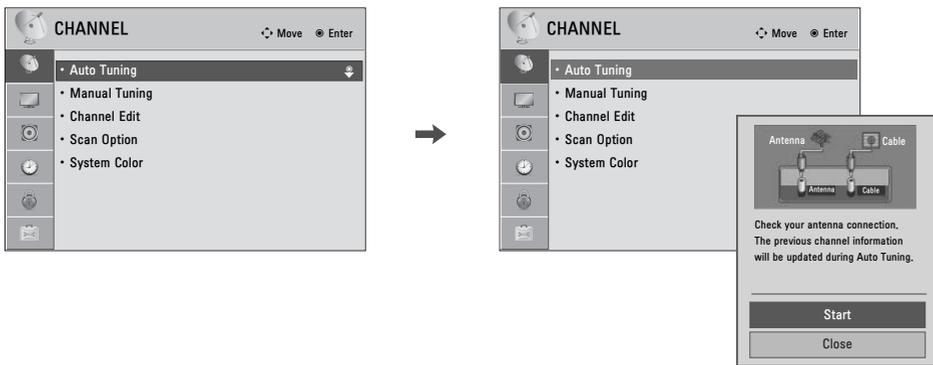
CHANNEL SETUP

Auto Scan (Auto Tuning)

Automatically finds all channels available through antenna or cable inputs, and stores them in memory on the channel list.

Run this function if you change your residence or move the TV.

Auto Tuning memorizes only the channels available at the time.

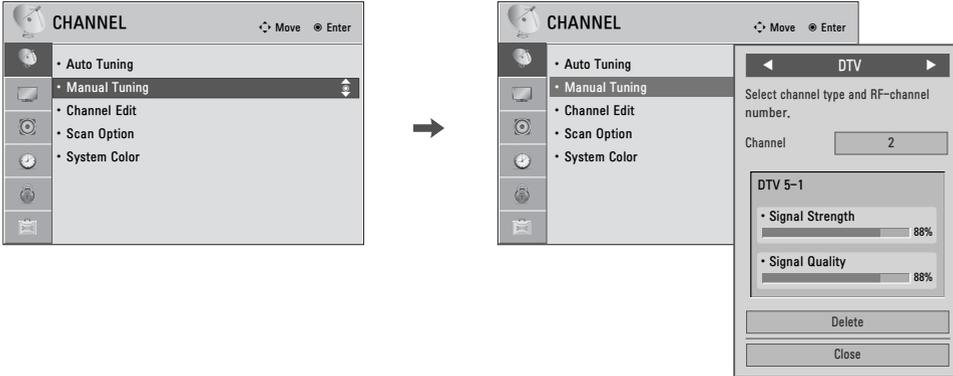


-   Select **CHANNEL**.
-   Select **Auto Tuning**.
-   Select **Start**.
-  Run **Auto tuning**.
-  Return to the previous menu.
-  Return to TV viewing.

- The TV will ask for a password if parental control has been activated (LOCK Menu). Use the password you set up in the LOCK Menu to allow a channel search.
- The maximum number of channels the TV can store is 500.
- Found channels are grouped in the order of DTV, TV, and Cable TV.

Add/Delete Channel (Manual Tuning)

When selecting DTV input signal in the **Manual Tuning**, you can view the on-screen signal strength monitor to see the quality of the signal being received.



- 1   Select **CHANNEL**.
- 2   Select **Manual Tuning**.
- 3   Select **DTV**, **TV**, or **Cable TV**.
- 4   Select channel you want to add or delete.
- 5   Select **Add** or **Delete**.
- 6  Return to the previous menu.
-  Return to TV viewing.

- The TV will ask for a password if parental control has been activated (LOCK Menu). Use the password you set up in the LOCK Menu to allow a channel search.
- The maximum number of channels the TV can store is 500.

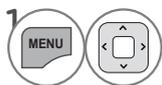
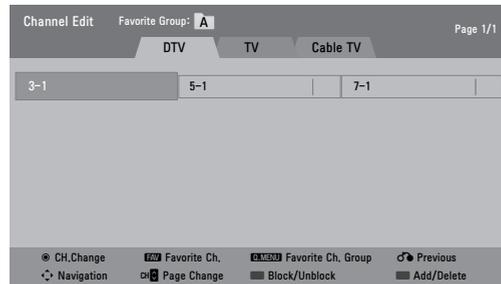
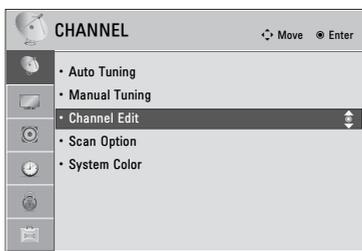
WATCHING TV / CHANNEL CONTROL

Channel Editing

The channels in the Channel Edit List are displayed in black and the channels deleted from the Channel Edit List are displayed in blue.

When a channel number is deleted, it means that you will be unable to select it using CH/V button during TV viewing.

If you wish to select the deleted channel, directly enter the channel number with the NUMBER buttons or select it in the Channel Edit menu.



Select **CHANNEL**.



Select **Channel Edit**.



Select a channel.



Add or delete a channel.



Block or unblock the channel.
You can block/unblock channels even if you select "Lock system-Off" in the LOCK menu.



Switch to the chosen channel number.



Move the pages when the channel list is too long.



Return to the previous menu.



Return to TV viewing.

■ Keep pressing the ^ button and use the < or > buttons to move between DTV, TV, and Cable TV.

FAVORITE CHANNEL SETUP

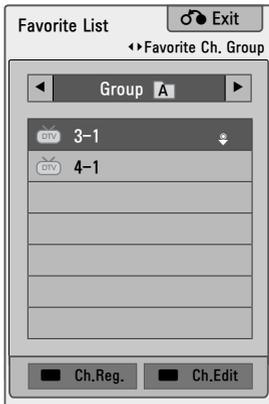
Favorite Channels are a convenient feature that lets you quickly select channels of your choice without waiting for the TV to select all the in-between channels.



- 1  or  Select your desired channel.
- 2   Select your desired favorite channel group from A to D.
- 3  Register or cancel the current channel in favorite channel list.
-  Go to the "CHANNEL menu - Channel Edit".
- 4  Return to TV viewing.

■ You can also setup **Favorite List** in the **CHANNEL** menu - **Channel Edit**.

FAVORITE CHANNEL LIST



Displaying the favorite channel list

- 1  Display the Favorite channel list.

Selecting a channel in the favorite channel list

- 1  Select a channel.
- 2  Switch to the chosen channel number.

Paging through a favorite channel list

- 1  Turn the pages.
- 2  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

CHANNEL LIST

You can check which channels are stored in the memory by displaying the channel list.



This padlock is displayed when the channel is locked with parental control.

Displaying Channel List

- 1  Display the **Channel List**.
- 2  Tune to the "**CHANNEL** menu - **Channel Edit**".

Selecting a channel in the channel list

- 1  Select a channel.
- 2  Switch to the chosen channel number.

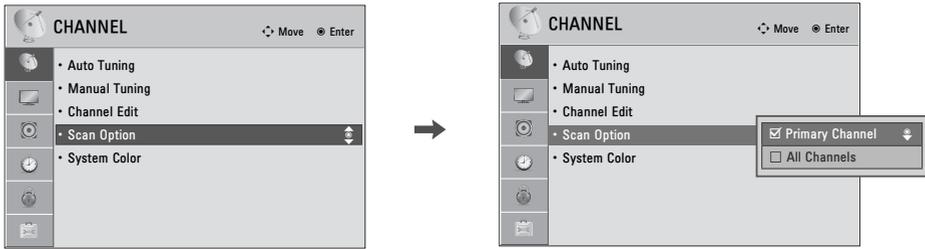
Paging through a channel list

- 1  Turn the pages.
- 2  Return to TV viewing.

SCAN OPTION

*This feature is not available for all models.

Whether to search all channels or the first channel of virtual channels is switched with CH \wedge V button when one or more virtual channels exist at one physical channel.



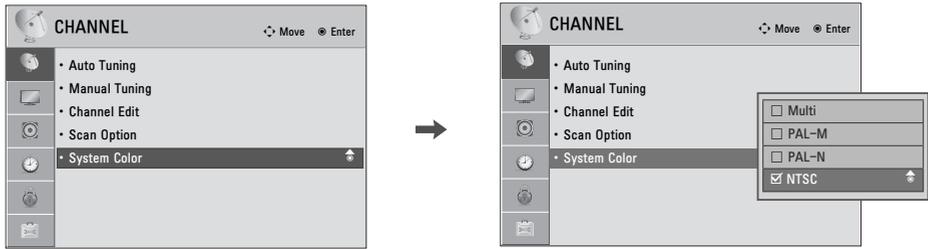
-   Select **CHANNEL**.
-   Select **Scan Option**.
-   Select **Primary Channel** or **All Channels**.
-  Return to the previous menu.
-  Return to TV viewing.

- **Primary Channel:** Only scan the first channel of virtual channels.
- **All Channels:** Scan full channel.

WATCHING TV / CHANNEL CONTROL

SYSTEM COLOR

This function set color suited the each signal.
This feature is disable in digital channel.



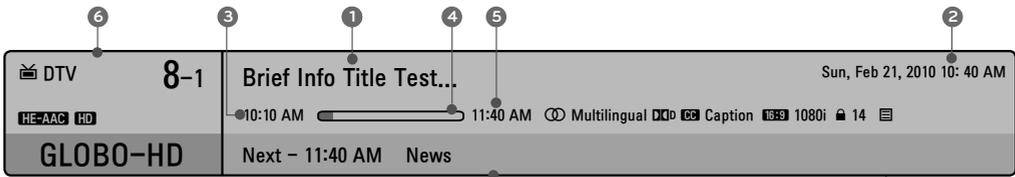
-   Select **CHANNEL**.
-   Select **System Color**.
-   Select **Multi, PAL-M, PAL-N, or NTSC**.
-  Return to the previous menu.
-  Return to TV viewing.

CHANNEL BRIEF INFORMATION

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

1  Show the Brief Info on the screen.

2  Return to TV viewing.



Multilingual : The program contains two or more audio services. Use the **Q.MENU** menu to select wanted Audio.



Caption : The program contains one or more caption services. Use the **Q.MENU** menu to select wanted Closed caption.



Dolby Digital: The program contains a Dolby Digital audio signal in TV and HDMI input source.



The original aspect ratio of the video is 4:3



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

480i

The video resolution is 720x480i

480p

The video resolution is 720x480p

720p

The video resolution is 1280x720p

1080i

The video resolution is 1920x1080i



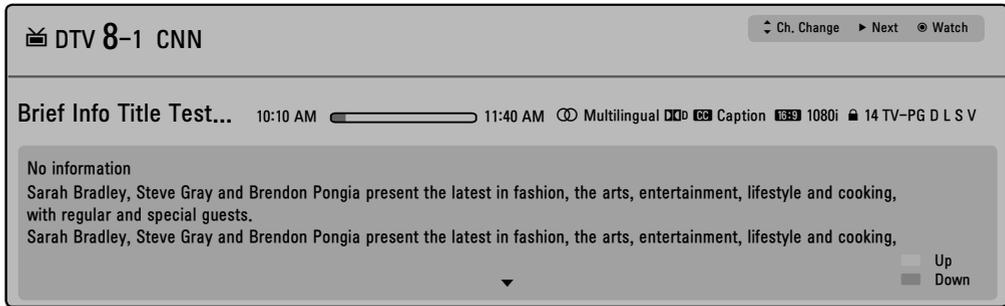
Description



Refer to the LOCK menu.

- 1 Program title
- 2 Day, Month, Year, Present time
- 3 Program start time
- 4 Program progress bar
- 5 Program finish time
- 6 Banner information

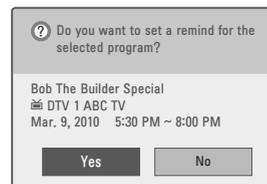
WATCHING TV / CHANNEL CONTROL



-  Shows current channel information
-  Shows next channel information.
-  Show other channel's program information

Channel Program Reservation

- 1  Show the current channel program Information on the screen.
- 2  Select a next channel program information
- 3    Select **Yes** or **No**.
- 4  Return to TV viewing.



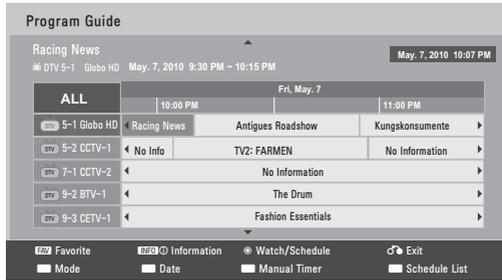
EPG (ELECTRONIC PROGRAM GUIDE) (IN DIGITAL MODE)

This system has an Electronic Program Guide (EPG) to help your navigation through all the possible viewing options.

The EPG supplies information such as program listings, start and end times for all available services. In addition, detailed information about the program is often available in the EPG (the availability and amount of these program details will vary, depending on the particular broadcaster).

This function can be used only when the EPG information is broadcast by broadcasting companies.

The EPG displays the program details for next 8 days.



Display the **Program Guide**.



Select the desired program.

NOW/NEXT Guide Mode

You can view a program being broadcasted and one scheduled to follow.



Change EPG mode.



Enter Manual Timer mode.



Enter Schedule List mode.



When 'Now' is selected, it is moved to selected program and EPG disappears
When 'Next' is selected, a reservation pop-up window appears.



Select NOW or NEXT Programme.



Select the Broadcast Programme.



Page Up/Down.



WATCHING TV / CHANNEL CONTROL

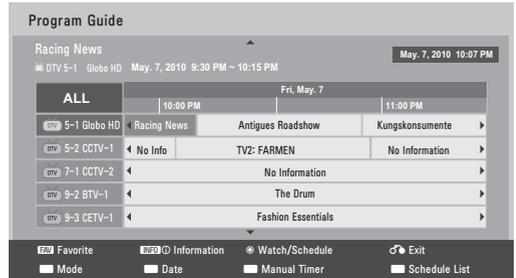
8 Day Guide Mode

-  Change EPG mode.
-  Enter Date setting mode.
-  Enter Manual Timer mode.
-  Enter Schedule List mode.

When 'Currently broadcasting program' is selected, it is moved to selected program and EPG disappears.

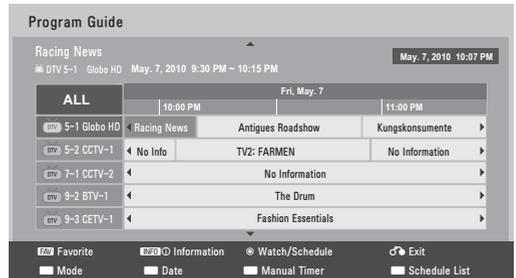
When 'Future broadcasting program' is selected, a reservation pop-up window appears.

-  Select Programme.
-  Select the Broadcast Programme.



Date Setting Mode

-  Switch off Date setting mode.
-  Change to the selected date.
-  Select a date.
-  Switch off Date setting mode.
-  or  Switch off EPG.



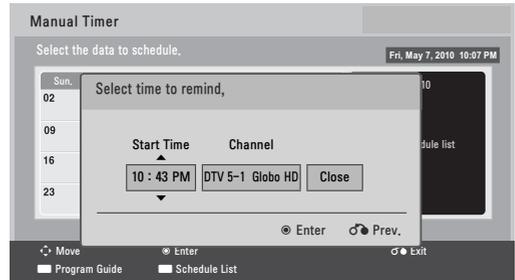
Detailed Information Box

-  Text Up/Down.
-  Select Remind setting mode.
-  or  The detail information on or off.
-  Switch off EPG.



Remind Setting Mode

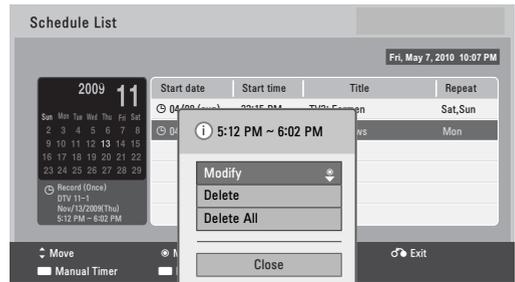
-  Switch off Manual Timer mode.
-  Select Remind function setting.
-  Select Start Time or Program.
-  Change to Guide mode.
-  Change to Schedule List mode.
-  Save Timer Remind.



Schedule List Mode

If you've created a schedule list, a scheduled program is displayed at the scheduled time even when you are watching a different program at the time.

-  Change to Manual Timer mode.
-  Change to Guide mode.
-  Switch off **Schedule List**.
-  Select your desired Option (Modify/ Delete/Delete All).
-  Select **Schedule List**.
-  Page Up/Down.

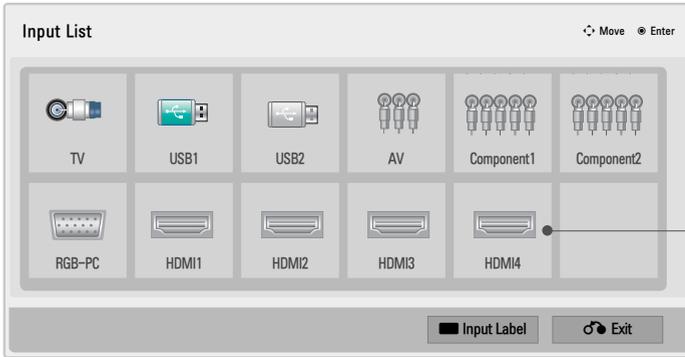


WATCHING TV / CHANNEL CONTROL

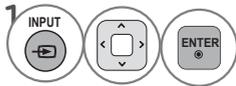
INPUT LIST

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

i.e)



Disconnected inputs are inactive (grayed out)



Select the desired input source.

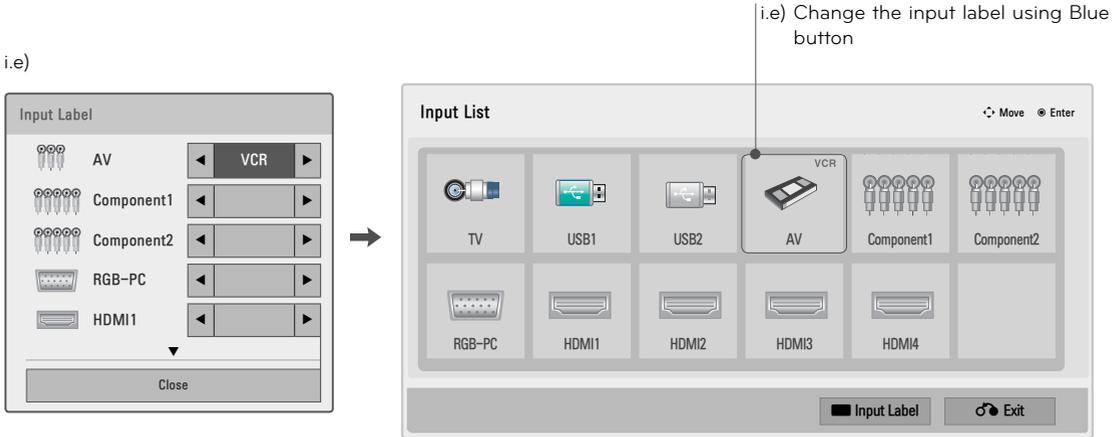
- When new external device is connected, this popup menu is displayed automatically. If selecting **Yes**, you can select input source that you want to appreciate.
- But, when selecting "**SIMPLINK - On**", popup menu for HDMI input will not be displayed.



- **TV**: Select it to watch over-the-air, cable and digital cable broadcasts.
- **USB**: Select it to use movie, photo, or music files.
- **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.
This indicates which device is connected to which input port.

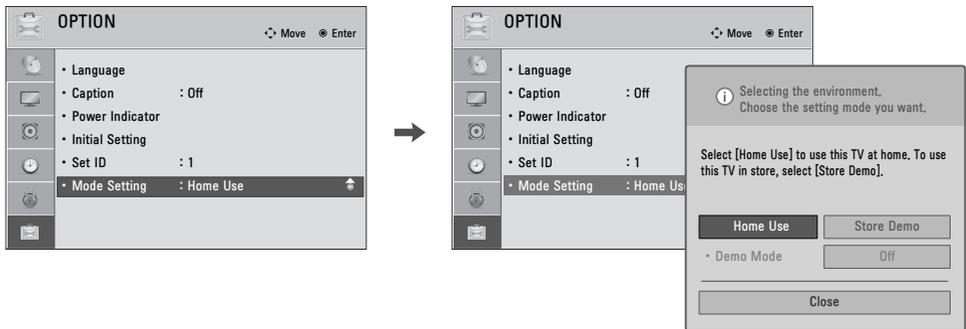


-   Select the desired input source.
-   Select the label.
-  Return to the previous menu.
-  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

MODE SETTING

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

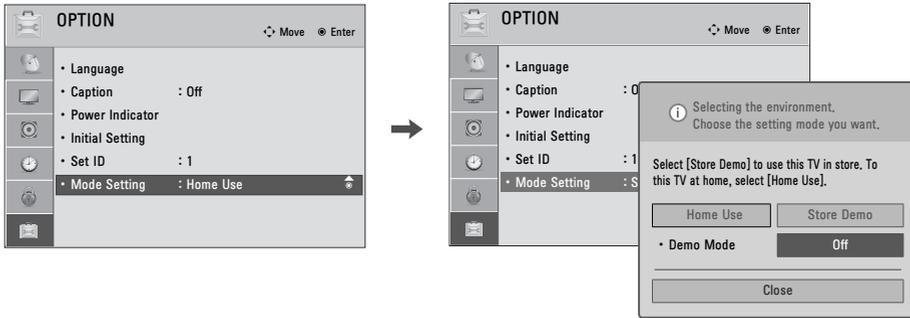


- 1   Select **OPTION**.
- 2   Select **Mode Setting**.
- 3   Select **Home Use**.
- 4  Return to the previous menu.
-  Return to TV viewing.

- "Store Demo" Mode is only intended for use in retail environments. Customers can adjust the "Picture mode" manually while inspecting the TV, but the TV will automatically return to preset in-store mode after 5 minutes.
- "Store Demo" Mode is an optimal setting for displaying at stores. "Store Demo" mode initializes the TV to set the image quality:

DEMO MODE

Displays a slide show to explain the various feature of this TV.



1   Select **OPTION**.

2   Select **Mode Setting**.

3   Select **Store Demo**.

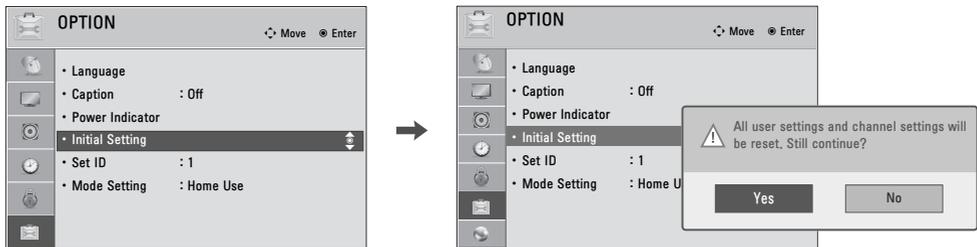
4    Select **On**.

5  Return to TV viewing.
After a while, **Demo Mode** starts.
If you want to stop the demo, press any button (Except VOL +, - and MUTE button).

WATCHING TV / CHANNEL CONTROL

INITIAL SETTING (RESET TO FACTORY DEFAULT)

This function resets the TV to factory default and erases all stored channels.

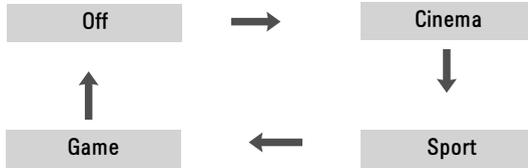


-   Select **OPTION**.
-   Select **Initial Setting**.
-   Select **Yes**.
-  TV turns off automatically and start factory reset.

- When selecting "**Lock System - On**" in the LOCK menu, the message to enter the password appears.
- If you forget your password, press "0-3-2-5" on the remote control.

AV MODE

AV Mode toggles through preset Video and Audio settings.



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



- If you select "**Cinema**" in AV mode, **Cinema** will be selected both for "PICTURE 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.
- **Off**: Disables the AV MODE.
- **Cinema**: Optimizes video and audio for watching movies.
- **Sport**: Optimizes video and audio for watching sports events.
- **Game**: Optimizes video and audio for playing games.

When playing a video game using PlayStation or Xbox, it is recommended to use the **Game** mode.

When in **Game** mode, functions related to picture quality will be optimized for playing games.

WATCHING TV / CHANNEL CONTROL

SIMPLINK

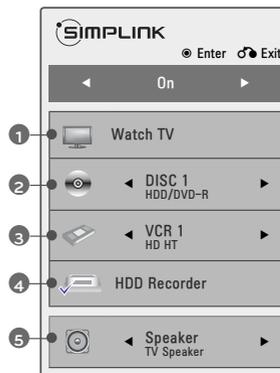
SIMPLINK allows you to control and play other AV devices connected with HDMI cable without additional cables and settings. This TV may work with devices with HDMI-CEC support, but only devices with the SIMPLINK logo are fully supported.

SIMPLINK can be turned on and off in the user menus.



- 1 Display **SIMPLINK** menu.
- 2 Select **On**.
- 3 Select the desired device.
- 4 Control connected AV devices.

- 1 **TV viewing:** Switch to the previous TV channel regardless of the current mode.
- 2 **DISC playback:** Select and play discs. When multiple discs are available, the disc devices are conveniently displayed at the bottom of the screen.
- 3 **VCR playback:** Control the connected VCR.
- 4 **HDD Recordings playback:** Control recordings stored in HDD.
- 5 **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)

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 the TV.
- **Disc playback:** Control connected AV devices by pressing the **^ v < >**, **ENTER**, **▶**, **■**, **||**, **◀** 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 the equipment with Simplink function connected HDMI terminal starts to play, The TV will automatically turn on.

Note: To operate SIMPLINK, an HDMI cable over Version 1.3 with *CEC function should be used. (*CEC: Consumer Electronics Control).

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

NOTE

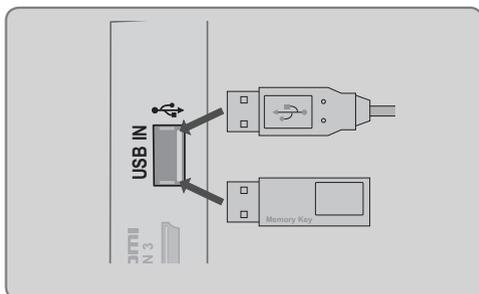
- ▶ Connect the HDMI/DVI IN or HDMI IN terminal of the TV to the rear terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable
- ▶ When you switch the Input source with the INPUT button on the remote control, the SIMPLINK device will stop.
- ▶ When you select a device with home theater functionality, the sound output automatically switches to the home theater speakers and the TV speakers are turned off.
- ▶ 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 SIMPLINK device with an OPTICAL cable.

MY MEDIA (EXCEPT 42/50PJ230, 32LD350)

CONNECTION METHOD

USB Connection

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



Precautions when using the USB device

- ▶ Only a USB storage device is recognizable.
- ▶ Connecting a USB storage device through a USB hub is not supported.
- ▶ A USB storage device which uses its own driver may not be recognized.
- ▶ 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.
- ▶ Only use 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 32 or NTFS file system provided with the Windows operating system. Others may not be recognized.
- ▶ Some USB storage devices require a power adapter. The power adapter must be connected in order to be seen by the TV.
- ▶ If a device is not recognized by the TV, try a different cable. Excessively long cables are not supported.
- ▶ Some USB storage devices may not be supported or operate properly.
- ▶ Please backup important files because data on USB device could be damaged. Data management is consumer's responsibility and as a result, the manufacturer does not cover data damage.
- ▶ If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- ▶ File alignment method of USB storage device is similar to Window XP and file names can be up to 100 English characters.
- ▶ The recommended capacity is 1TB or less for a USB external hard disk and 32 GB or less for USB memory.
- ▶ If a USB external hard disk with a "Energy Saving" function doesn't work, turn the hard disk off and on again to make it work properly. Refer to the user manual of the USB external hard disk.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.

ENTRY MODE

The My Media menu will open automatically when you insert a USB drive. My Media can also be accessed by choosing My Media in the user menu.

On USB device, you can not add a new folder or delete the existing folder.



- 1   Select **MY MEDIA**.
- 2   Select **Movie List**, **Photo List** or **Music List**.
- 3 

■ This TV can view JPG image files, HD DivX files or play MP3 audio files.

When removing the USB device

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

- 1   Select **USB Device**.
- 2  Select **Eject**.

MOVIE LIST

The movie list is activated once a USB drive is detected. It is used when playing movie files on the TV. It displays all of the video files it recognizes.

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

Supported movie file

- Resolution: under 1920 pixel (width) x 1080 pixel (height)
- Frame Rate: under 30 frame/sec (1920x1080), under 60 frame/sec (1280x720)
- Max bitrate of playable movie file: 20 Mbps (Mega bit per second)
- Bit rate of audio format: within 32 kbps to 320 kbps (MP3)
- Supported subtitle format: *.smi, *.srt, *.sub (MicroDVD, SubViewer 1.0/2.0), *.ass, *.ssa, *.txt (TMPlayer), *.psb (PowerDivX)

Precautions when playing the video files

- ▶ Some user-created subtitles may not work properly.
- ▶ Some special characters are not supported in subtitles.
- ▶ HTML tags are not supported in subtitles.
- ▶ Time information in an external subtitle file should be arranged in ascending order to be played.
- ▶ The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- ▶ A damaged video file may not be played correctly, or some functions may not be usable.
- ▶ Video files produced with some encoders may not be played correctly.
- ▶ If the video and audio structure of recorded file is not interleaved, the file not playback properly.
- ▶ Video with resolution higher than maximum resolution supported for each frame, cannot be guaranteed for smooth playback.
- ▶ Movie files other than the specified types and formats may not work properly.
- ▶ The movie file encoded by the GMC (Global Motion Compensation) is not supported.
- ▶ Only the files saved in ASCII Code is supported in subtitles.
- ▶ Only 250 Korean characters, 500 letters and 500 numbers are supported for each line of the subtitle.
- ▶ Only 10,000 sync blocks are supported within the subtitle file.
- ▶ We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264.
- ▶ DTS Audio codec is not supported.
- ▶ A video file more than 30GB in file size is not supported for playback.
- ▶ Playing a video via a USB connection that doesn't support high speed may not work properly.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- ▶ The video file and its subtitle file must be located in the same folder.
At this time, a video file name and its subtitle file name must be identical for it to be displayed.
- ▶ When you are watching a movie via the Movie List function, you can adjust the picture with the ENERGY SAVING and AV MODE button on the remote control. User setup for each picture mode is not supported.

Supported Video Formats

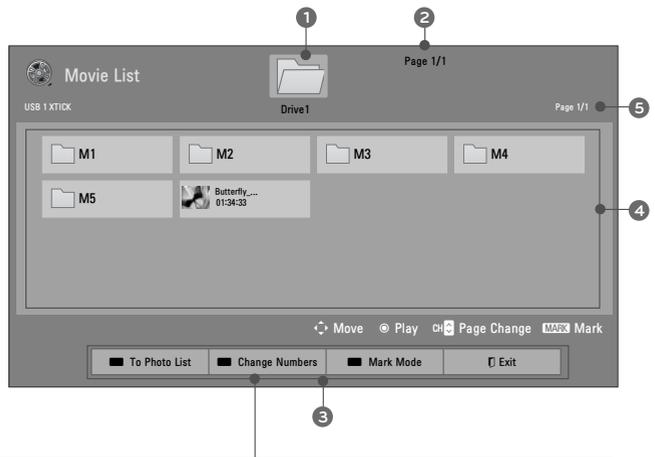
File Extension name	Video Decoder	Audio Codec	Max Resolution
mpg, mpeg	MPEG1, MPEG2	MP2, MP3, Dolby Digital, LPCM	1920 x 1080 @ 30p (Only Motion JPEG 640x480@30p)
dat	MPEG1	MP2	
ts, trp, tp	MPEG2, H.264, AVS, VC1	MP2, MP3, Dolby Digital, AAC, HE-AAC	
vob	MPEG1, 2	MP2, MP3, Dolby Digital, LPCM	
mp4, mov	MPEG4, DivX 3.11, DivX 4.12, DivX 5.x, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2H.264	AAC, HE-AAC, MP3	
mkv	H.264, MPEG-1,2,4	MP2, MP3, Dolby Digital, AAC HE-AAC, LPCM	
divx, avi	MPEG2, MPEG4, DivX 3.11, DivX 4, DivX 5, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2H.264	MP2, MP3, Dolby Digital, LPCM, ADPCM, AAC, HE-AAC	
Motion JPEG (avi, mp4, mkv)	JPEG	LPCM, ADPCM	
asf, wmv	VC1	WMA	
flv	Sorenson H.263, H264	MP3, AAC	

MY MEDIA

Screen Components

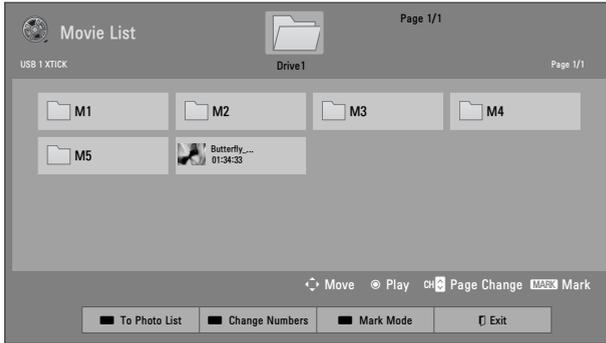


- 1 Moves to upper level folder
- 2 Current page/Total pages
- 3 Corresponding buttons on the remote control
- 4 Contents under the folder focused on 1
- 5 Current page/total pages of contents



GREEN	Move to Photo List or Music List .
YELLOW	Change Numbers: Changes the number or thumbnails displayed at a time.
BLUE	Allows you to mark certain files.
EXIT	Return to TV viewing.

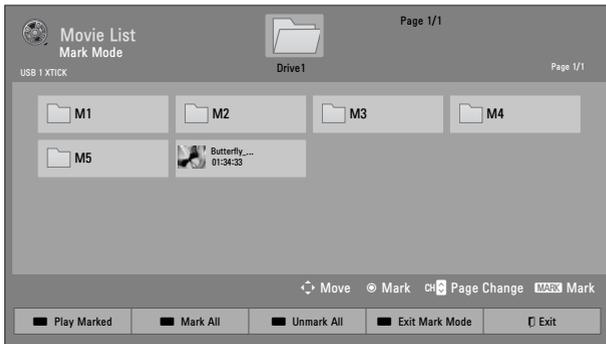
Movie Selection



- 1 Select the target folder or drive.
- 2 Select the desired movie title.
- 3 Play the movie file.

■ Use the CH (^ v) button to navigate in the movie page.

Mark Mode



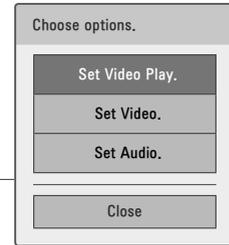
- 1 Select the target folder or drive.
- 2 Select the desired movie title.
- 3 Mark your desired movie file.
- 4 Play the marked movie file. It displays the current movie status progress bar on the bottom of the screen.

	Play Marked: Play the first selected file. Once a movie finishes playing, the next selected one will be played automatically.
	Mark All: Mark all files in the folder.
	Unmark All: Deselect all marked files.
	Exit the Mark Mode.

■ When one or more movie files are marked, the marked movies will be played in sequence.

MY MEDIA

Using the Movie List Function



- 1 Show the **Option** menu.
- 2 Select **Set Video Play.**, **Set Video.**, or **Set Audio.**

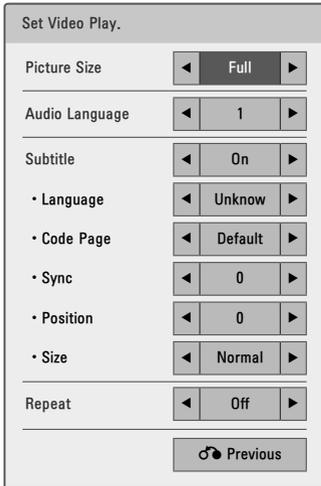
NOTE

- ▶ When replaying a video file after stopping, you can play from where it stopped automatically.
- ▶ If you select "Yes" when playing the same file after the video file has been stopped, it will restart where it stopped previously.
- ▶ If continuous series files exist within the folder, the next file will automatically be played. But, this excludes cases when the Repeat function of Movie List Option is turned "On" (Refer to page 97) or when set as **Marked Play**.

Using the remote control

	Return to TV viewing.
	Select the required speed: x2, x4, x8, x16, x32 (backward/forward).
	Pauses the media player. If no buttons are pressed on the remote control for 10 minutes after pausing, the TV returns to the playback state.
	Displays a slow motion.
	Move to a specific frame forward or backward while playing a video. A cursor indicating the position can be viewed on the screen. It may not work properly for some movie files.
	Return to normal playback.
	Hide the menu on screen. To see the menu again, press ENTER button to display.
	Press the ENERGY SAVING button repeatedly to increase the brightness of your screen (Refer to p.116).
	Press the AV MODE button repeatedly to select the desired source (Refer to p.87).

Set Video Play Menu Options



1 Select **Picture Size**, **Audio Language**, **Subtitle**, or **Repeat**.



2 Make appropriate adjustments.

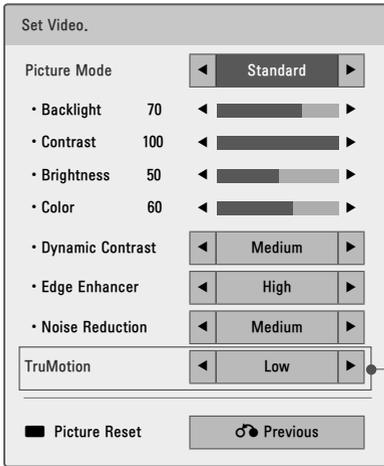
Code Page

Subtitle Language Group	Supported Language
Latin1	English, Spanish, Portuguese

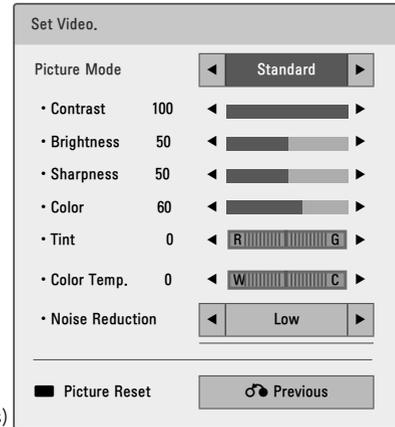
- **Picture Size:** Selects your desired picture format for videos.
- **Audio Language:** Changes the Language Group of the audio for video files.
- **Subtitle Language:** The subtitles can be turned on or off. If there are two or more subtitles, you can select one of them.
- **Language:** Activated for SMI subtitles and can select the language within the subtitle.
- **Code Page:** Subtitle font selection. When set to default, same font as general menu will be used.
- **Sync:** When the video is not synchronized with the captions, it can be adjusted by 0.5 second.
- **Position:** Move the location of the subtitles.
- **Size:** Changes the subtitle font size.
- **Repeat:** Turn on/off repeat function of movie playback. When turned on, the file within the folder will be played back repeatedly.

Set Video Menu Options

For LED LCD TV/LCD TV



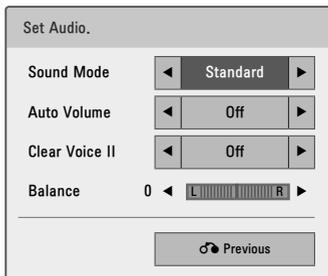
For Plasma TV



("TruMotion" depending on models)

- 1 Select **Picture Mode** or **TruMotion**.
- 2 Make appropriate adjustments.
- Reset picture settings to default.

Set Audio Menu Options



- 1 Select **Sound Mode, Auto Volume, Clear Voice II** or **Balance**.
- 2 Make appropriate adjustments.

PHOTO LIST

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

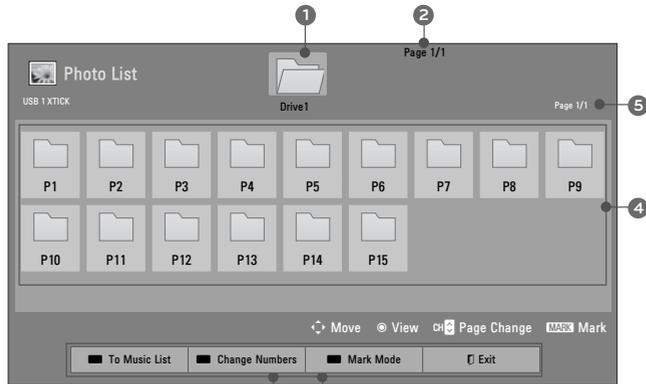
Supported photo file: *.JPG

- Baseline: 64 pixel (width) x 64 pixel (height) to 15360 pixel (width) x 8640 pixel (height)
- Progressive: 64 pixel (width) x 64 pixel (height) to 1920 pixel (width) x 1440 pixel (height)
- You can play JPEG files only.
- Non-supported files are displayed in the form of predefined icon.

Screen Components



- 1 Moves to upper level folder
- 2 Current page/total pages
- 3 Corresponding buttons on the remote control
- 4 Contents under the folder focused on 1
- 5 Current page/total pages of contents



GREEN Move to **Music List** or **Movie List**.

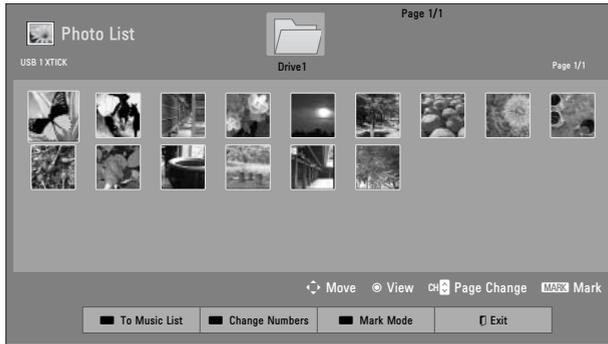
YELLOW **Change Numbers:** Changes the number or thumbnails displayed at a time.

BLUE Allows you to mark certain files.

EXIT Return to TV viewing.

MY MEDIA

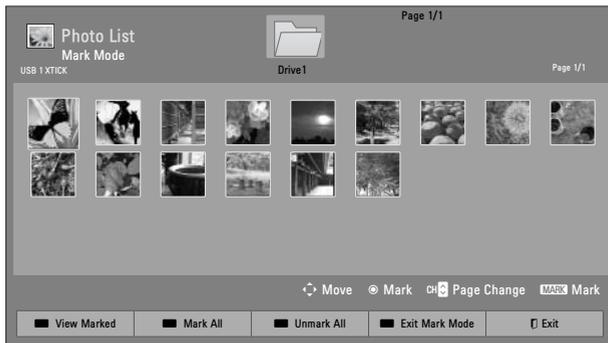
Photo Selection



- 1  Select the target folder or drive.
- 2   Select the desired photos.
- 3  Photo file is displayed.

■ Use the CH (^ v) button to navigate in the photo page.

Mark Mode



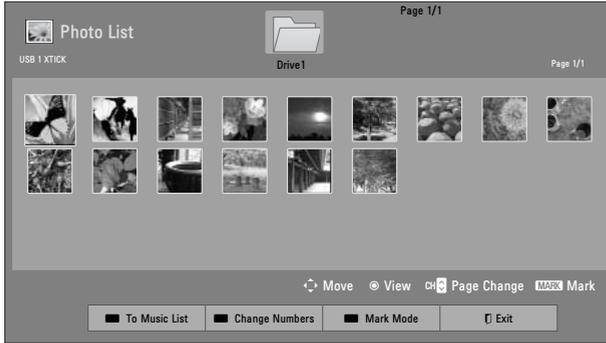
- 1  Select the target folder or drive.
- 2   Select the desired photo files.
- 3  Mark your desired photo files.
- 4  View the marked photo files.

	View Marked: Display the selected photo.
	Mark All: Mark all photos on the screen.
	Unmark All: Deselect all marked photos.
	Exit the Mark Mode.

■ 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.

How to View Photos

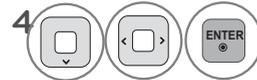
Detailed operations are available on full-sized photo view screen.



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   Select the desired photos.
- 3  The selected photo is displayed in full size.

■ Use the CH (▲ ▼) button to navigate in the photo page.



Select the **Slideshow**,

BGM, **⤵ (Rotate)**,

Q (Zoom In), **⚡ (Energy Saving)**,
Option, or **Hide**.

- Use **< >** button to select the previous or next photo.

- ▶ **Slideshow**: 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-Set Photo View**. menu (Refer to p.103).
 - You can adjust **Option** by using the **Q.MENU** button on the remote control.
- ▶ **BGM (Background Music)**: Listen to music while viewing photos in full size.
 - Set the BGM device and album in in **Option-Set Photo View**. menu (Refer to p.103).
 - You can adjust **Option** by using the **Q.MENU** button on the remote control.
- ▶ **⤵ (Rotate)** : Rotate photos.
 - Rotates the photo 90°, 180°, 270°, 360° clockwise.
 - Photos cannot be rotated if its width is greater than the available supported resolution height.
- ▶ **Q (Zoom In)**: View the photo by zoom in 2, 4 times by using Blue button.
- ▶ **⚡ (Energy Saving)**: Increase the brightness of your screen by using ENERGY SAVING button.
- ▶ **Option** : Set values for **Slide Speed** and **Music Folder** (Refer to p.103).
 - You cannot change **Music Folder** while BGM is playing.
 - You can only select the MP3 folder saved on the device that currently displays the photo.
- ▶ **Hide** : Hide the menu on the full-sized screen.
 - To see the menu again on the full-sized screen, press **ENTER** button to display.
- ▶ **Exit** : Move to the previous menu screen.

Using the Photo List Function



1 Show the **Option** menu.

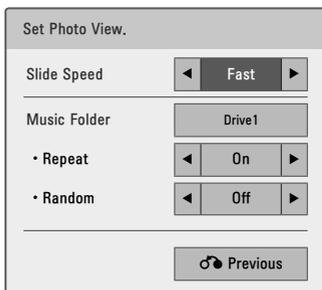


2 Select **Set Photo View.**, **Set Video** or **Set Audio**.

NOTE

- ▶ Option values changed in Photo List do not affect Movie List and Music List.
- ▶ Option values changed in Photo List or Music List are changed likewise in Photo List and Music List, but not Movie List.

Set Photo View Menu Options



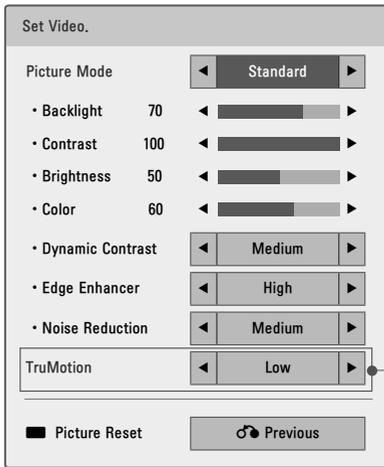
1 Select **Slide Speed** or **Music Folder**.



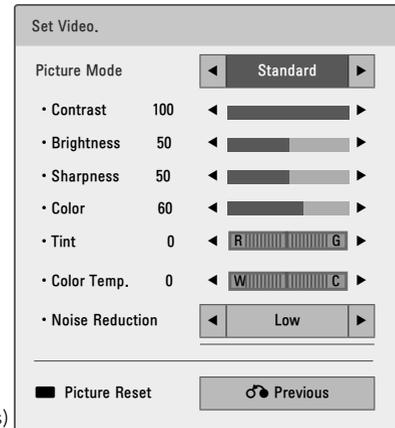
2 Make appropriate adjustments.

Set Video Menu Options

For LED LCD TV/LCD TV



For Plasma TV



('TruMotion' depending on models)



1 Select **Picture Mode** or **TruMotion**.

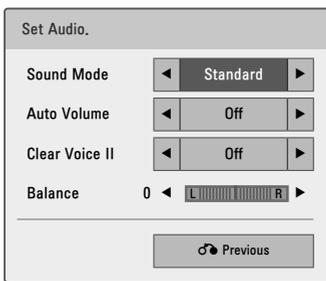


2 Make appropriate adjustments.



3 Initialize the adjusted picture value.

Set Audio Menu Options



1 Select **Sound Mode**, **Auto Volume**, **Clear Voice II** or **Balance**.



2 Make appropriate adjustments.

MUSIC LIST

Purchased music files(*.MP3) may contain copyright restrictions. Playback of these files may not be supported by this TV.

The On Screen Display below may be different from your TV. Images are an example to assist with the TV operation.

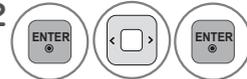
MUSIC (*.MP3) supporting file
 Bit rate 32 Kbps ~ 320 Kbps

- Sampling rate MPEG1 Layer3 : 32kHz, 44.1kHz, 48kHz
- Sampling rate MPEG2 Layer3 : 16kHz, 22.05kHz, 24kHz
- Sampling rate MPEG2.5 Layer3 : 8kHz, 11.025kHz, 12kHz

Screen Components

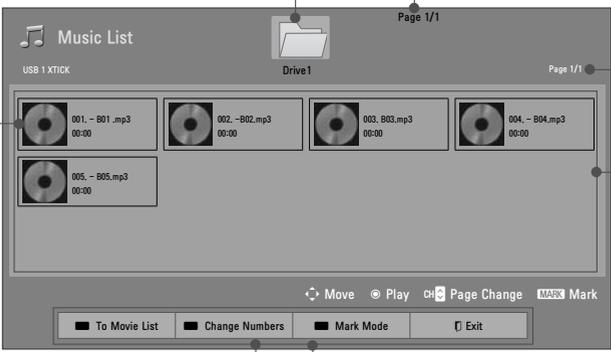


1 Select **MY MEDIA**.



2 Select **Music List**.

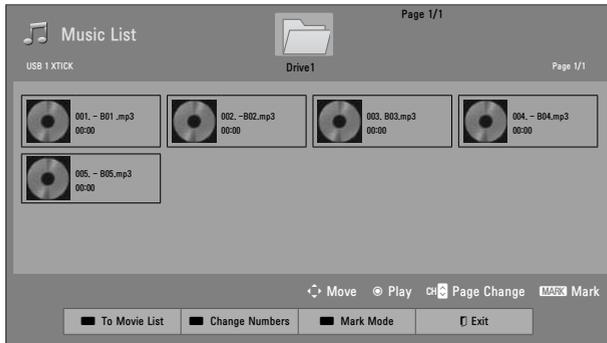
- 1 Preview: If any album jacket for the file (Album Art Image) exists, this picture is displayed.
- 2 Moves to upper level folder
- 3 Current page/Total pages
- 4 Corresponding buttons on the remote control
- 5 Contents under the folder focused on 2
- 6 Current page/total pages of contents



	Move to Movie List or Photo List .
	Change Numbers: Changes the number or thumbnails displayed at a time.
	Allows you to mark certain files.
	Return to TV viewing.
	Press the ENERGY SAVING button repeatedly to increase the brightness of your screen (Refer to p. 116). (For LED LCD TV, LCD TV: It's available " ENERGY SAVING - Off, Screen Off " only.)

MY MEDIA

Music Selection

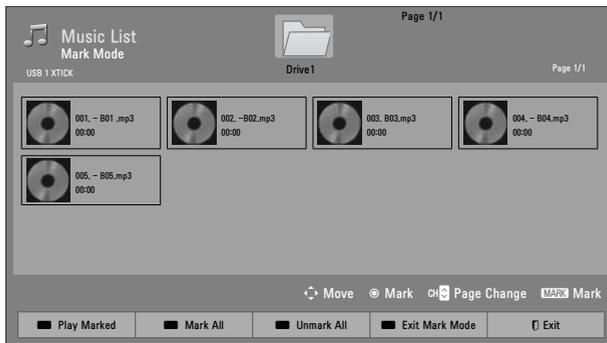


- 1 Select the target folder or drive.
- 2 Select the desired music file.
- 3 Music files are played.

■ Use the CH (^ v) button to navigate in the music page.

MY MEDIA

Mark Mode



- 1 Select the target folder or drive.
- 2 Select the desired music file.
- 3 Mark your desired music file.
- 4 Play the marked music file.

RED

Play Marked: Play the selected songs. Once a song finishes playing, the next selected one will be played automatically.

GREEN

Mark All: Mark all songs in the folder.

YELLOW

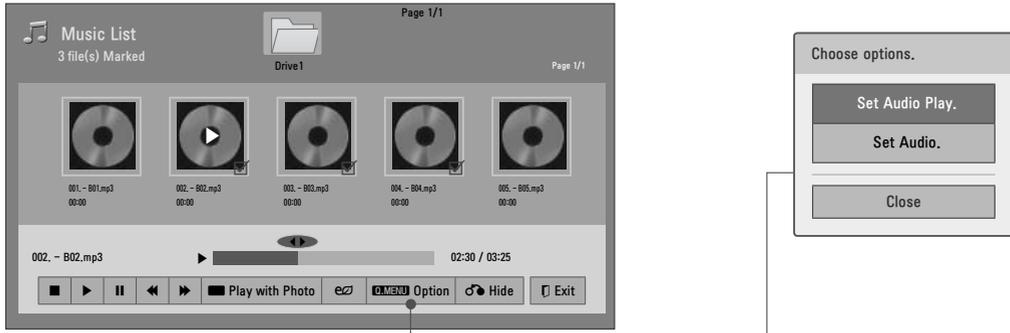
Unmark All: Deselect all marked song.

BLUE

Exit the Mark Mode.

■ When one or more music files are marked, the marked music files will be played in sequence.

Using the Music List Function



- 1 Show the **Option** menu.
- 2 Select **Set Audio Play** or **Set Audio**.

NOTE

- ▶ Option values changed in Movie List does not affect Photo List and Music List.
- ▶ Option value changed in Photo List and Music List are changed likewise in Photo List and Music List excluding Movie List.
- ▶ You can listen to the music only within the device currently played.

Using the remote control

	Stop the song.
	Return to normal playback.
	Paused the song.
	Select the previous or next song.
	Play with Photo: Start playing the selected songs and then move to the Photo List.
	Press the ENERGY SAVING button repeatedly to increase the brightness of your screen (Refer to p. 116). (For LED LCD TV, LCD TV: It's available " ENERGY SAVING - Off, Screen Off " only.)
	A cursor indicating the position can be played on the screen.
	Move to the previous menu screen.

Set Audio Play Menu Options

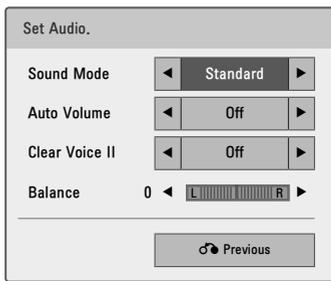


1 Select **Repeat** or **Random**.



2 Make appropriate adjustments.

Set Audio Menu Options



1 Select **Sound Mode**, **Auto Volume**, **Clear Voice II** or **Balance**.



2 Make appropriate adjustments.

- If you don't press any buttons for a while, the play information box will float across the screen. This prevents screen pixel damage due to a fixed image remaining on the screen for an extended period of time.



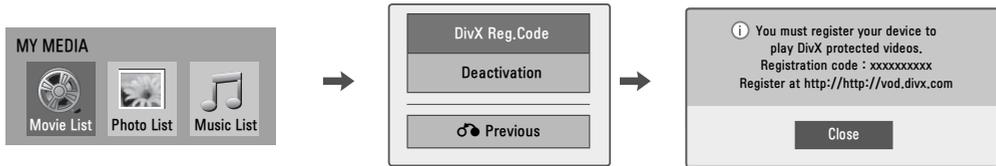
! NOTE

- ▶ Music files with copy-protection will not play.
- ▶ Press ENTER, ■ or BACK button to stop the screen saver.

MY MEDIA

DIVX REGISTRATION CODE

Using the registration number, movies can be rented or purchased at www.divx.com/vod. Only DivX files matched with the registration code of the purchased TV are playable.



MY MEDIA

- 1   Select **MY MEDIA**.
- 2   Select DivX Option.
- 3  Select **DivX Reg. Code**.
- 4  Display DivX Reg. Code.

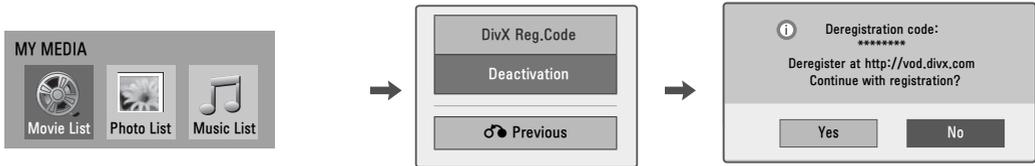
NOTE

- ▶ When loading, some buttons may not work.
- ▶ If you use the DivX registration code of another device, the rented or purchased DivX file cannot be played. Therefore always use the DivX registration code assigned to this product.
- ▶ The video or audio of a file converted based on a standard other than the DivX codec standard may be corrupted or unable to be played.

DEACTIVATION

The purpose of deactivation is to allow deactivation of devices for users who have activated all the available devices through the web server and are blocked from activating more devices. DivX VOD allows the consumer to activate up to 6 devices under one account.

Delete the existing authentication information to receive a new DivX user authentication for TV. Once this function is executed, a DivX user authentication is required again to see DivX DRM files.

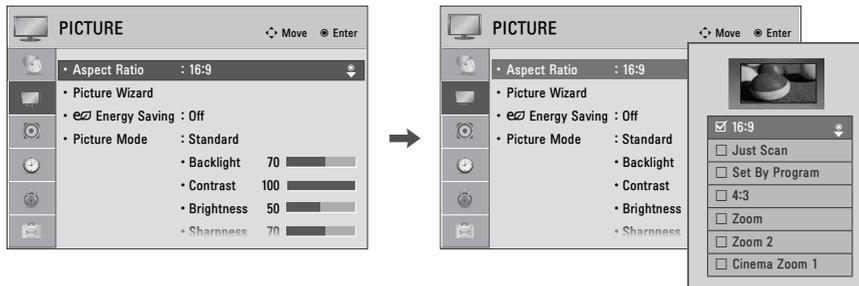


-   Select **MY MEDIA**.
-   Select DivX Option.
-  Select **Deactivation**.
-   Select **Yes**.
-  Display **Deactivation**.

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. You can select a different aspect ratio depending on input source (analog broadcasting, digital broadcasting, aux).

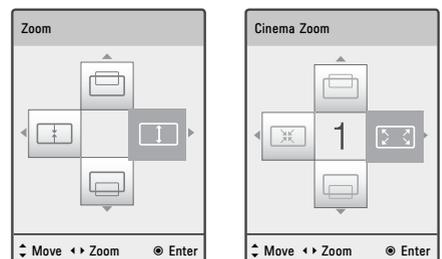


- 1 Select **PICTURE**.
- 2 Select **Aspect Ratio**.
- 3 Select the desired picture format.
- 4 Return to the previous menu.
- Return to TV viewing.

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

When adjusting Zoom or Cinema Zoom in Q.MENU

- 1 Select **Aspect Ratio**.
- 2 Select **Zoom** or **Cinema Zoom**.
- 3 Adjust proportion of Zoom or Cinema Zoom. The Cinema Zoom adjustment range is 1-16.
- 4 Move the image on the screen.



16:9

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



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/Component/HDMI-DTV/DVI-DTV (720p/1080i/1080p) input source.



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.



Zoom

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



Zoom 2

With this function, when the SD screen is sent to the HD with black at the left side and the right side, this screen can be extended to be fully displayed with no black area.

It is enabled only at the DTV HD broadcasting (It is the reference for displaying 'HD' at the channel banner if the height is greater than 480).



Cinema Zoom

Choose Cinema Zoom when you want to enlarge the picture in correct proportion.

This enlarges an image with cinemascope aspect ratio (2.35:1) without distortion.

Note: When enlarging or reducing the picture, the image may become distorted.



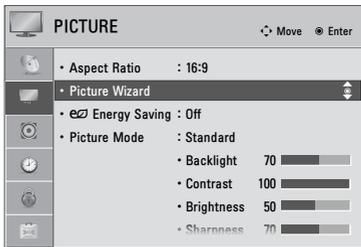
PICTURE CONTROL

PICTURE WIZARD

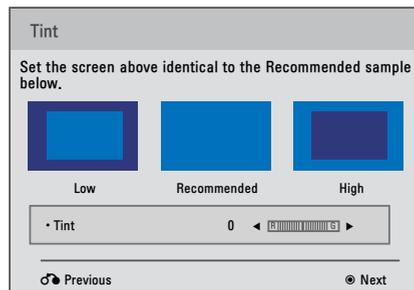
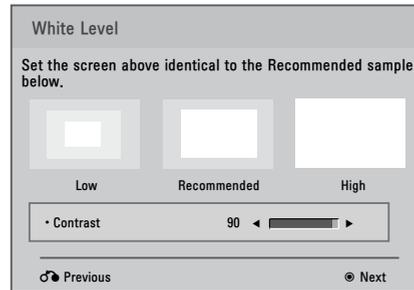
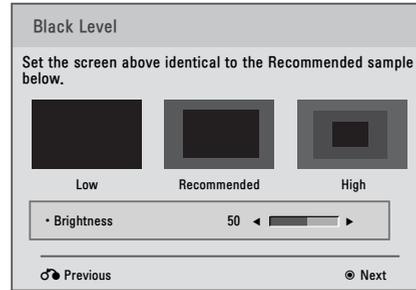
This feature lets you adjust the picture quality of the original image.

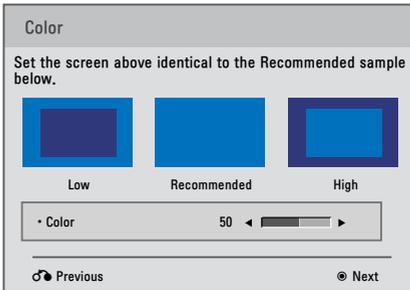
Use this to calibrate the screen quality by adjusting the Black and White Level etc. You can calibrate the screen quality by easily following each step.

When you adjust the image to **Low**, **Recommended** or **High**, you can see the example of the changes you made.

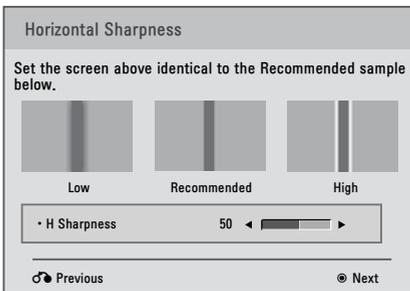


- If you select **Preferred**, OSD (On Screen Display) differ from that shown in this manual.

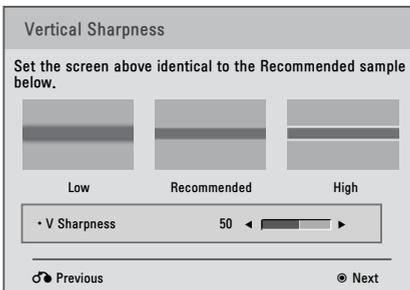




8 Adjust **Color**.

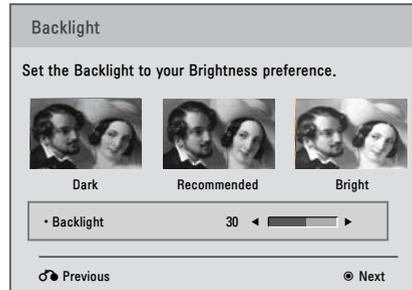


9 Adjust **Horizontal Sharpness**.



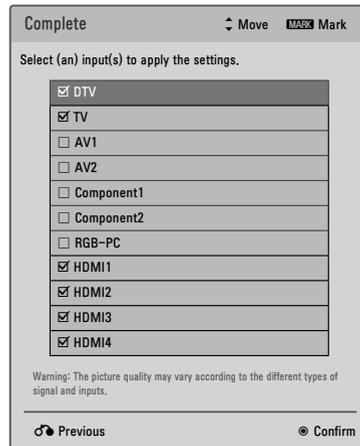
10 Adjust **Vertical Sharpness**.

For LED LCD TV/LCD TV



11 Adjust **Backlight**.

i.e)



12 Select input source to apply the settings.

13 Save.



14 Finish the Picture Wizard.

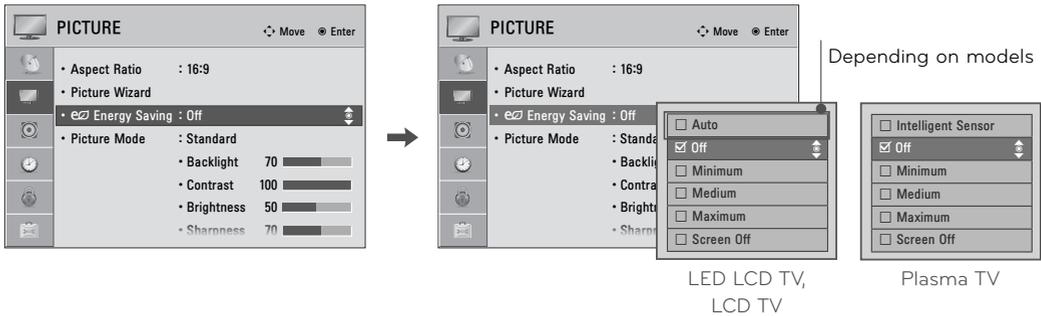
- If you stop the Picture Wizard before the final step, the changes will not be saved to the TV.
- Once the **Picture Wizard** sets the picture quality, **Energy Saving** is changed to **Off** automatically (For LED LCD TV/LCD TV).
- To reset changes made by **Picture Wizard**, operate **Picture Reset** when **Picture Mode** is on **Expert1**.

PICTURE CONTROL

e ENERGY SAVING

It reduces the TV's power consumption by lowering the backlight level.

You can increase the brightness of your screen by adjusting the **Energy Saving** level or by setting the **Picture Mode**.



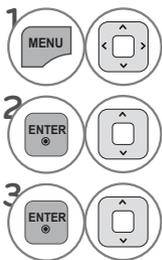
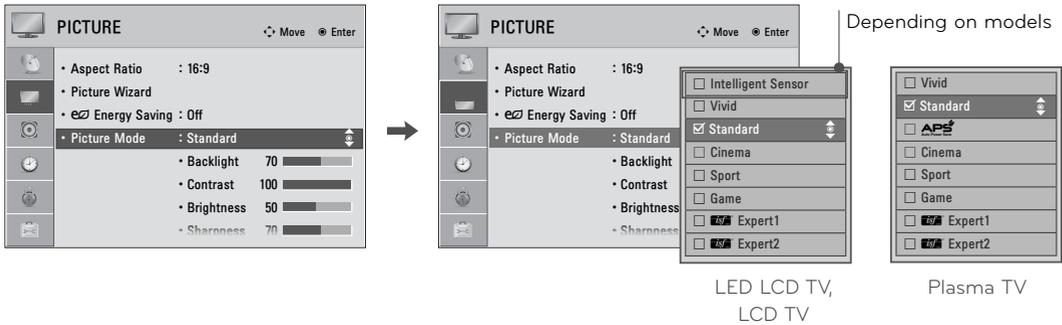
PICTURE CONTROL

- 1 Select **PICTURE**.
- 2 Select **e Energy Saving**.
- 3 Select your desired options.
- 4 Return to the previous menu.
- Return to TV viewing.

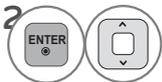
- When selecting **Screen off**, the screen will turn off after 3 seconds.
- If you adjust "**Energy Saving-Auto**" (For 32/37/42/47/55LE5300), **Maximum**", **Backlight** option will not work (For LED LCD TV/LCD TV).
- When selecting **Auto**, **Backlight** is automatically adjusted through **Intelligent Sensor** according to the surrounding conditions. (For LED LCD TV/LCD TV)
- Press the **ENERGY SAVING** button repeatedly to select the appropriate Energy Saving setup.

PRESET PICTURE SETTINGS (PICTURE MODE)

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.



Select **PICTURE**.



Select **Picture Mode**.



Select your desired options.



Return to the previous menu.



Return to TV viewing.

- **Vivid, Standard, Cinema, Sport, and Game** Settings are preset for the optimum picture quality at the factory.
- **Vivid:** This is the mode to maximize the effect of the video in the retail store. Strengthen the contrast, brightness, color and sharpness for vivid picture.
- **Standard:** This is the mode to realize optimum viewing condition for the general user.
- **APS (Auto Power Saving):** This is the mode to maximize reducing the power consumption without hurting the picture quality. This feature is available only on Plasma TV.
- **Cinema:** This mode optimizes video for watching movies.
- **Sport:** This is the video mode to emphasize dynamic video and primary color (e.g, white, uniform, grass, sky blue etc.) by realizing the optimal screen for sports.

- **Game:** This is the mode to realize fast response speed in a fast gaming screen.
- **Expert:** This is the mode to adjust the video in detail for video quality expert and general user.
- You can also adjust **Picture Mode** in the **Q.MENU**.
- When selecting **Intelligent Sensor, Energy Saving** is changed to **Auto** automatically (For LED LCD TV/LCD TV).
- When selecting **Intelligent Sensor**, it changes Backlight, contrast, brightness, sharpness, color and tint automatically (For LED LCD TV/LCD TV).
- **Intelligent Sensor:** The most suitable picture is automatically adjusted according to the surrounding conditions (Except 32LD350, 22/26LE5300, 22/26LE6500, 32/37/42/47LD460, 37/42LD461C).

PICTURE CONTROL

MANUAL PICTURE ADJUSTMENT - USER MODE

Adjust the picture appearance to suit your preference and viewing situations.

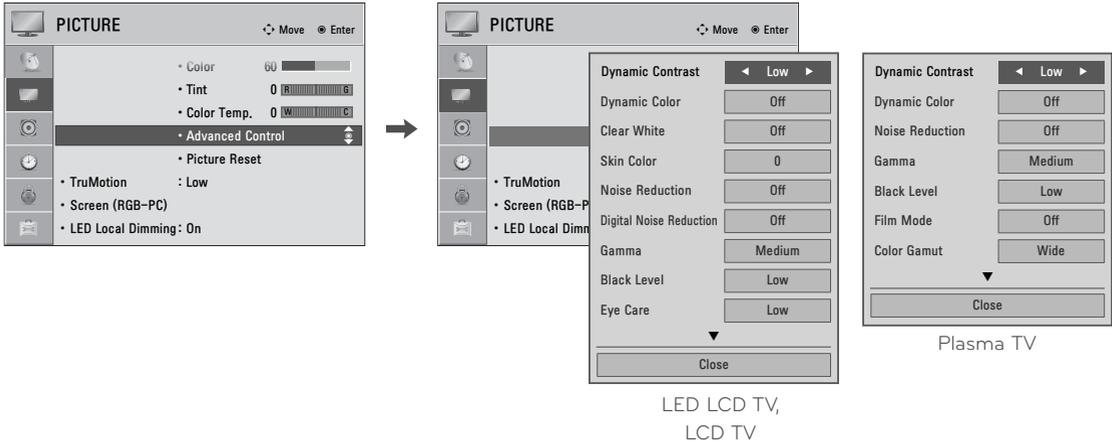


-   Select **PICTURE**.
-   Select **Picture Mode**.
-   Select your desired options.
-   Select **Backlight** (For LED LCD TV/ LCD TV), **Contrast**, **Brightness**, **Sharpness**, **Color**, **Tint**, **Color Temp.**, or **Advanced Control**.
-   Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.

- **Backlight** (For LED LCD TV/LCD TV): This function adjusts the brightness of the backlight behind the LCD screen. Adjusting the backlight is recommended when setting the brightness of the TV. When decreasing the backlight, the brightness of the black becomes darker without any loss in video signal and the power consumption is reduced.
- **Contrast**: Increase or decrease the gradient of the video signal. You may use Contrast when the bright part of the picture is saturated.
- **Brightness**: Adjusts the base level of the signal in the picture. You may use Brightness when the dark part of the picture is saturated.
- **Sharpness**: Adjusts the level of crispness in the edges between the light and dark areas of the picture. The lower the level, the softer the image.
- **Color**: Adjusts intensity of all colors.
- **Tint**: Adjusts the balance between red and green levels.
- **Color Temp.**: Set to warm to enhance hotter colors such as red, or set to cool to enhance cooler colors such as blue.

PICTURE IMPROVEMENT TECHNOLOGY (ADVANCED CONTROL)

Advanced Control allows you to adjust some of the advanced features of your LG display. To reset to the factory default after making adjustments to each input source, execute the **Picture Reset** function for each Picture Mode.

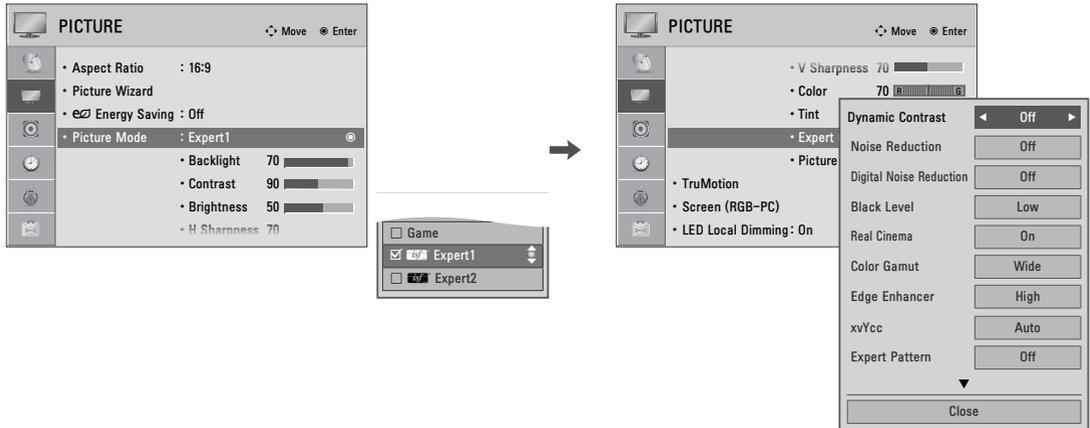


- 1   Select **PICTURE**.
- 2   Select **Advanced Control**.
- 3   Select your desired options.
- 4  Make appropriate adjustments.
- 5  Return to the previous menu.
-  Return to TV viewing.

PICTURE CONTROL

EXPERT PICTURE CONTROL

isf Expert1 and **isf** Expert2 provide even more advanced picture settings for users. Typical used by professionals for calibrating the TV.



-   Select **PICTURE**.
-   Select **Picture Mode**.
-   Select **isf Expert1** or **isf Expert2**.
-   Select **Expert Control**.
-   Select your desired menu option.
-  Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.

*This feature is not available for all models.

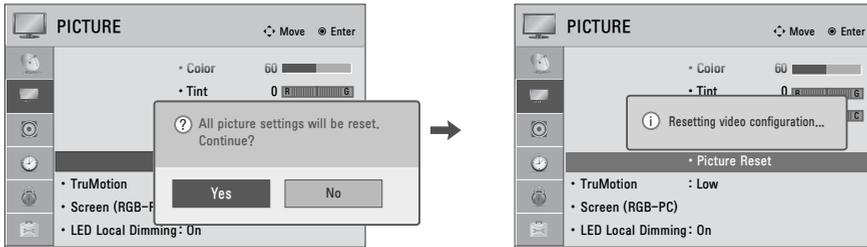
Dynamic Contrast	<ul style="list-style-type: none"> Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.
Dynamic Color	<ul style="list-style-type: none"> Adjusts screen colors so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, and green look more vivid.
Skin Color	<ul style="list-style-type: none"> It detects the skin area of video and adjusts it to express a natural skin color.
Noise Reduction	<ul style="list-style-type: none"> Reduces screen noise without compromising video quality.
Digital Noise Reduction	<ul style="list-style-type: none"> Removes noise caused by compressing video.
Gamma	<ul style="list-style-type: none"> You can adjust brightness of dark areas and middle gray level areas of the picture. Low : Make brighter and middle gray level areas of the picture brighter. Medium : Express original picture levels. High: Make dark and middle gray level areas of the picture darker.
Black Level	<p>Low: The reflection of the screen gets darker. High: The reflection of the screen gets brighter.</p> <ul style="list-style-type: none"> Set black level of the screen to proper level. This function is available in the following modes: AV (NTSC-M), HDMI or Component.
Clear White	<ul style="list-style-type: none"> Make the white area of screen brighter and more white.
Eye Care	<ul style="list-style-type: none"> Adjust the brightness of the screen to prevent the screen from being too bright. Dims extremely bright pictures. This feature is enabled in "Picture Mode-Standard, Sports, Game".
Real Cinema or Film Mode	<ul style="list-style-type: none"> Makes video clips recorded in film look more natural by eliminating judder effect. DVD and Blu-ray movies are filmed at 24 frames per second (fps). With LG Real Cinema, every frame is consistently processed 5 times in 1/24 of a second producing 120 fps with TruMotion or 2 times in 1/24 of a second producing 48 fps without TruMotion, thus totally eliminating the judder effect. This function can also work when TruMotion is off.
Color Gamut	<p>LED LCD TV/LCD TV: Advanced Control Plasma TV: Advanced Control, Expert Control</p> <ul style="list-style-type: none"> Maximize the utilization of colors to increase color quality. Standard: Displays standard set of colors. Wide: Increase number of colors used. <p>LED LCD TV/LCD TV: Expert Control</p> <ul style="list-style-type: none"> Displays color domain of the signal. Standard: Displays standard set of colors. Wide: Increase number of colors used. <p>EBU: Mode to display EBU standard color area. SMPTE: Mode to display SMPTE standard color area. BT709: Mode to display BT709 standard color area.</p>

PICTURE CONTROL

Edge Enhancer	<ul style="list-style-type: none"> ■ Show clearer and distinctive yet natural edges in the video. ■ This function is enabled in "Picture mode - Expert" (For LED LCD TV, LCD TV)
xvYCC	<ul style="list-style-type: none"> ■ This produces richer colors. ■ This feature represents rich color as much as conventional video signal. ■ This function is enabled in "Picture mode - Cinema, Expert" when a xvYCC signal is inputted through HDMI.
Color Filter	<ul style="list-style-type: none"> ■ This function filters specific colors in the video. You can use the RGB filter to set color saturation and hue accurately.
Expert Pattern	<ul style="list-style-type: none"> ■ This is a pattern used for expert adjustment. ■ This function is enabled in "Picture mode - Expert" when you watch DTV.
Color Temperature	<ul style="list-style-type: none"> ■ Adjusts the overall color of the screen by changing the white baseline. <ul style="list-style-type: none"> a. Gamma : Select 1.9, 2.2, 2.4 b. Method : 2 Points <ul style="list-style-type: none"> - Pattern: Inner, Outer - Red/Green/Blue Contrast, Red/Green/Blue Brightness: The adjustment range is -50 - +50. c-1. Method : 10 Point IRE (LED LCD TV, LCD TV) <ul style="list-style-type: none"> - Pattern: Inner, Outer - IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 10, 20, 30 - 100. You can adjust Red, Green or Blue according to each setting. - Luminance: This function displays calculated luminance value for 2.2 gamma. You can input luminance value you want at 100 IRE, then the target luminance value for 2.2 gamma is displayed at every 10 steps from 10 IRE to 90 IRE. - Red/Green/Blue: The adjustment range is -50 - +50. c-2. Method : 20 Point IRE (Plasma TV) <ul style="list-style-type: none"> - IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 5, 10, 15 - 100. You can adjust Red, Green or Blue according to each setting. - Red/Green/Blue: The adjustment range is -50 - +50. d. Apply to all inputs
Color Management System	<ul style="list-style-type: none"> ■ A tool used by the experts to make adjustments by using the test patterns, this does not affect other colors but can be used to selectively adjust the 6 color areas (Red/Green/Blue/Cyan/Mgt/Yellow). Color difference may not be distinctive even when you make the adjustments for the general video. Adjusts Red/Green/Blue/Yellow/Cyan, Magenta. <ul style="list-style-type: none"> - Red/Green/Blue/Yellow/Cyan/Magenta Color: The adjustment range is -30 - +30. - Red/Green/Blue/Yellow/Cyan/Magenta Tint: The adjustment range is -30 - +30. - This feature is disabled in RGB-PC and HDMI-PC mode.

PICTURE RESET

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



- 1   Select **PICTURE**.
- 2   Select **Picture Reset**.
- 3   Select **Yes**.
- 4  Initialize the adjusted value.
-  Return to TV viewing.

PICTURE CONTROL

TRUMOTION - For 37/42/47/55LE5300, 32/42/47/55LE4600

Advance video technology that provides clearer, smoother images, even during fast action scenes creating a more stable structure for a crisper picture.



-   Select **PICTURE**.
-   Select **TruMotion**.
-   Select **Low, High, User, or Off**.

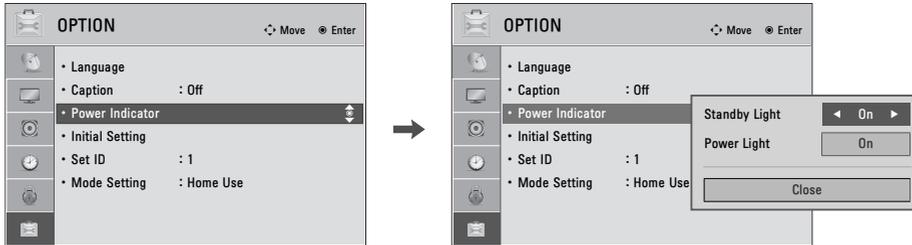
Adjustment for TruMotion (Judder and Blur) with selecting User

-   Select **Judder** or **Blur**.
-  Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.

- **Off**: Turn off **TruMotion** operation.
- **Low**: Provides smooth picture movement. Use this setting for standard use.
- **High**: Provides smoother picture movement.
- **User**:
 - **Judder**: Adjusts noise of the screen.
 - **Blur**: Adjusts after-image of the screen.
- **TruMotion** works with all inputs except PC mode.
- If you enable "**TruMotion**", noise may appear on the screen. If this occurs, set "**TruMotion**" to "**Off**".
- If you select "**Picture Mode-Game**" set "**TruMotion**" to "**Off**".

POWER INDICATOR - For LED LCD TV, LCD TV

Adjust the power/standby indicator light on the front of the TV.



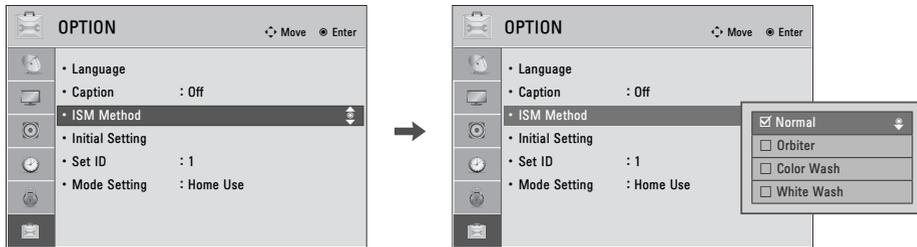
-   Select **OPTION**.
-   Select **Power Indicator**.
-   Select **Standby Light** or **Power Light**.
-  Select your desired options.
-  Return to the previous menu.
-  Return to TV viewing.

- **Standby Light:** Determines whether to set the indicator light on the front of the TV to **On** or **Off** in standby mode.
- **Power Light:** Determines whether to set the indicator light on the front of the TV to **On** or **Off** when the power turns on.

PICTURE CONTROL

IMAGE STICKING MINIMIZATION (ISM) METHOD - For Plasma TV

A frozen still picture displayed on the screen for prolonged periods can result in a ghost image. You can use Orbiter to help prevent image sticking. The other two functions are for removing a ghost image.



-   Select **OPTION**.
-   Select **ISM Method**.
-   Select **Normal, Orbiter, Color Wash, or White Wash**.
-  Return to TV viewing.

- **Normal:** If image sticking is never a problem, ISM is not necessary - set to Normal.
- **Orbiter:** To avoid a ghost image on the screen, the image will move every 2 minutes to help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen.
- **Color Wash:** The color block with the screen moved a little and the white pattern are alternately displayed. It is difficult to see the after image on all colors.
Once it has been corrected it will not be visible in any color.
- **White Wash:** White Wash removes ghost images from the screen. Use sparingly. Watch the TV normally for a while before using this feature to see if the ghost image disappears on its own.

NOTE

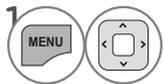
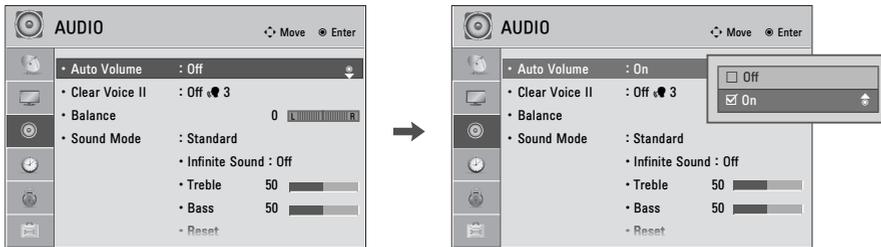
- ▶ An excessive ghosted image may be impossible to clear entirely with White Wash. To return to normal viewing, press the any button.

SOUND & LANGUAGE CONTROL

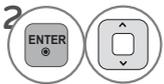
AUTO VOLUME

Auto Volume makes sure that the volume level remains consistent whether you are watching a commercial or a regular TV program.

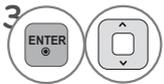
Because each broadcasting station has its own signal conditions, volume adjustment may be needed every time the channel is changed. This feature allows users to enjoy stable volume levels by making automatic adjustments for each program.



Select **AUDIO**.



Select **Auto Volume**.



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



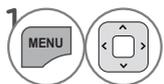
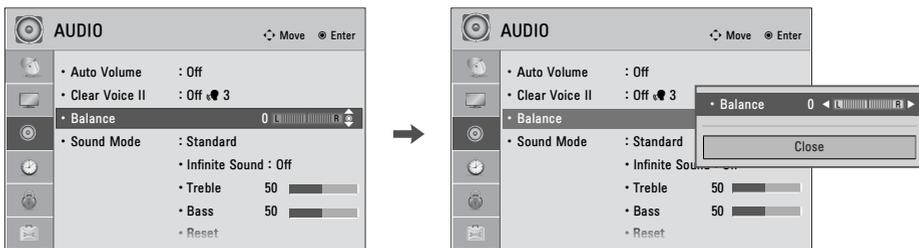
Return to the previous menu.



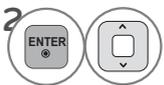
Return to TV viewing.

BALANCE

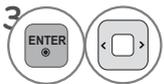
Adjust the left/right sound of speaker to suit your taste and room situations.



Select **AUDIO**.



Select **Balance**.



Make appropriate adjustments.



Return to the previous menu.

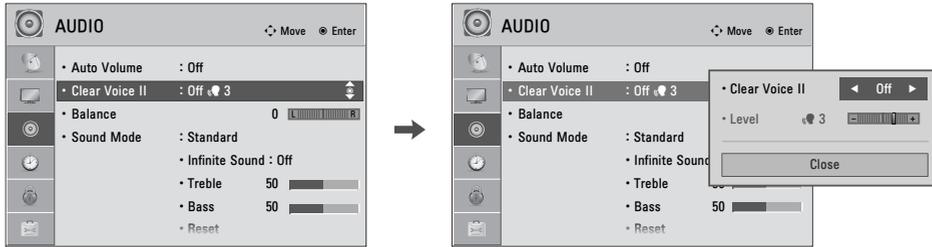


Return to TV viewing.

SOUND & LANGUAGE CONTROL

CLEAR VOICE II

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



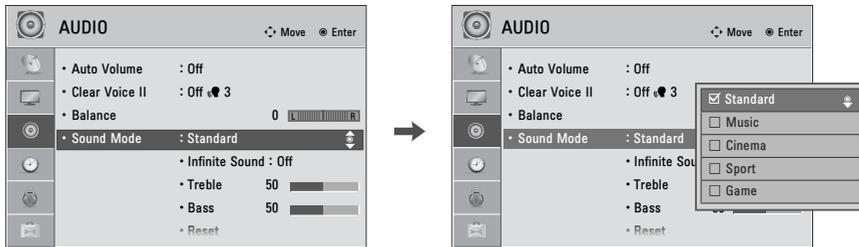
- 1   Select **AUDIO**.
- 2   Select **Clear Voice II**.
- 3   Select **On** or **Off**.

Adjustment for Clear Voice Level with selecting **On**

- 4  Select **Level**.
- 5  Make appropriate adjustments.
- 6  Return to the previous menu.
-  Return to TV viewing.

PRESET SOUND SETTINGS (SOUND MODE)

Sound Mode lets you enjoy the best sound without any special adjustment using factory presets.



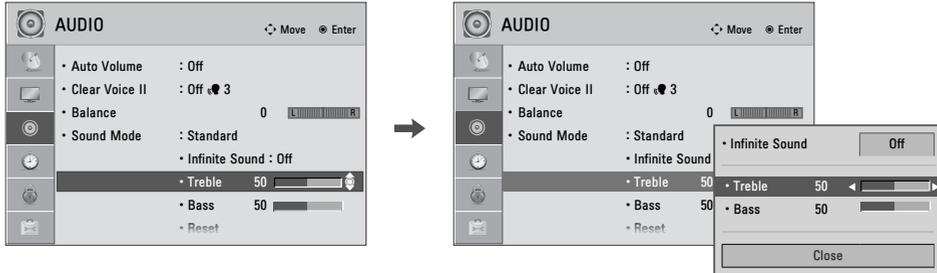
-   Select **AUDIO**.
-   Select **Sound Mode**.
-   Select **Standard, Music, Cinema, Sport, or Game**.
-  Return to the previous menu.
-  Return to TV viewing.

- **Standard, Music, Cinema, Sport, and Game** are preset for optimum sound quality at the factory.
- You can also adjust **Sound Mode** in the **Q.MENU**.
- **Standard**: Offers standard-quality sound.
- **Music**: Optimizes sound for listening to music.
- **Cinema**: Optimizes sound for watching movies.
- **Sport**: Optimizes sound for watching sports events.
- **Game**: Optimizes sound for playing games.

SOUND & LANGUAGE CONTROL

SOUND SETTING ADJUSTMENT - USER MODE

Adjust the sound to suit your taste and room situations.

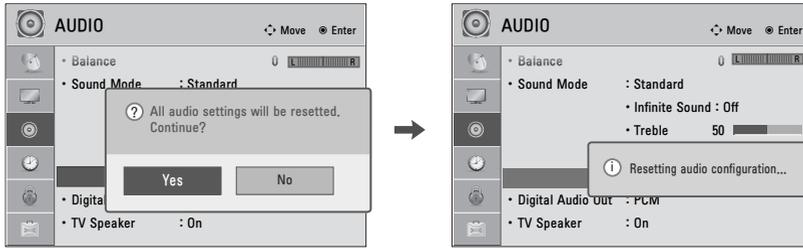


- 1   Select **AUDIO**.
- 2   Select **Sound Mode**.
- 3   Select **Standard, Music, Cinema, Sport, or Game**.
- 4   Select **Infinite Sound, Treble, or Bass**.
- 5   Make appropriate adjustments.
- 6  Return to the previous menu.
-  Return to TV viewing.

- If sound quality or volume is not at the level you want, it is recommended to use a separate home theater system or amp to cope with different user environments.
- If you select "**Clear Voice II-On**", the **Infinite Sound** feature will not operate.
- **Infinite Sound**: Infinite Sound is a patented LG technology that solves the problem of playing 5.1 multi-channel content over two speakers.

AUDIO RESET

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



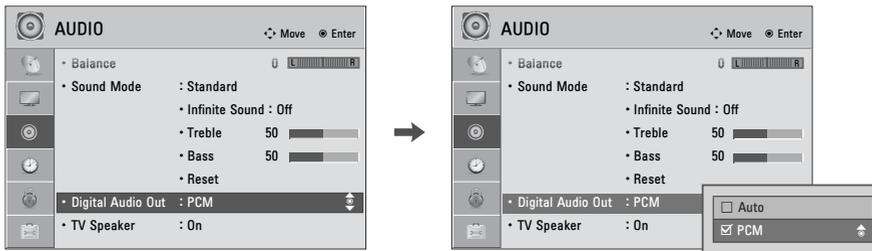
- 1 Select **AUDIO**.
- 2 Select **Reset**.
- 3 Select **Yes**.
- 4 Initialize the adjusted value.
- Return to TV viewing.

DIGITAL AUDIO OUT

This function is setting the Dolby digital/PCM to connect the audio outputs.

If you select "Digital Audio Out - Auto" when Dolby digital is available, SPDIF (Sony Philips Digital InterFace) output will be Dolby Digital.

If you select "Digital Audio Out - PCM" when Dolby digital is not available, SPDIF output will be PCM (Pulsecode modulation).



- 1 Select **AUDIO**.
- 2 Select **Digital Audio Out**.
- 3 Select **Auto** or **PCM**.
- 4 Return to the previous menu.
- Return to TV viewing.

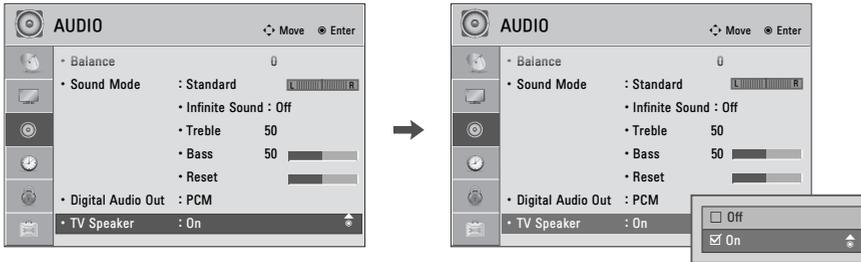
Item	Audio Input	Digital Audio output
Auto (Speaker On)	MPEG	PCM
	DD	DD
	HE-AAC	PCM
Auto (Speaker Off)	MPEG	PCM
	DD	DD
	HE-AAC	DD
PCM	PCM	PCM

To set "SPDIF OUT - Dolby Digital" in DTV input signal, select "Digital Audio Out - Auto" and "TV Speaker - Off".

SOUND & LANGUAGE CONTROL

TV SPEAKERS ON/OFF SETUP

If you wish to use an external Hi-Fi system, turn off the TV's internal speakers.



-   Select **AUDIO**.
-   Select **TV Speaker**.
-   Select **On** or **Off**.
-  Return to the previous menu.
-  Return to TV viewing.

STEREO/SAP BROADCAST SETUP

On analog signals, 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.



Analog TV

- 1 Select **SAP**.
- 2 Select **Mono, Stereo,** or **SAP**.
- 3 Return to TV viewing.

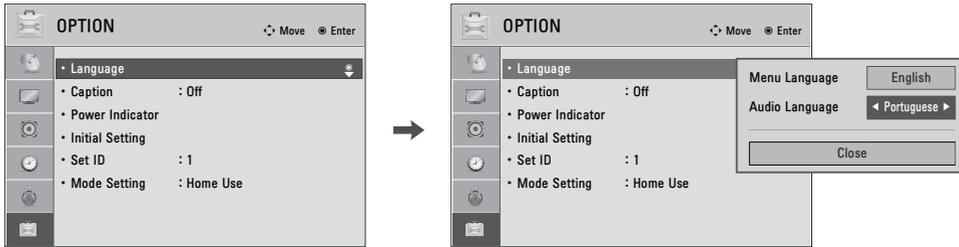
Digital TV

- 1 Select **Multi Audio**.
- 2 Select other languages.
- 3 Return to TV viewing.

SOUND & LANGUAGE CONTROL

AUDIO LANGUAGE

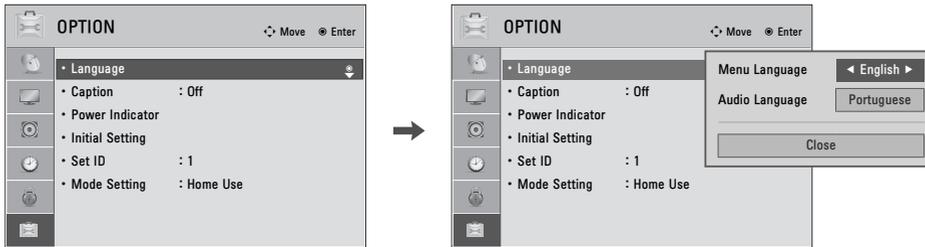
This feature operates only in DTV mode.



-   Select **OPTION**.
-   Select **Language**.
-   Select **Audio Language**.
-  Select your desired language.
-  Return to the previous menu.
-  Return to TV viewing.

ON-SCREEN MENUS LANGUAGE SELECTION

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



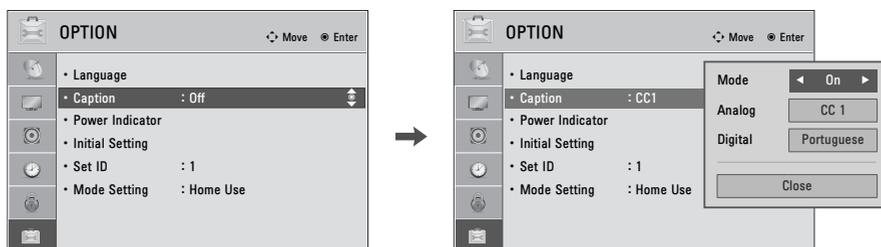
- 1   Select **OPTION**.
- 2   Select **Language**.
- 3   Select **Menu Language**.
- 4  From this point on, the on-screen menus will be shown in the selected language.
- 5  Return to the previous menu.
-  Return to TV viewing.

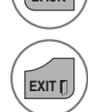
SOUND & LANGUAGE CONTROL

CAPTION MODE

Analog Broadcasting System Captions

Captions are provided to help the hearing impaired 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**.



-   Select **OPTION**.
-   Select **Caption**.
-   Select **Mode-On**.
-  Select **Analog**.
-   Select **CC1-2** or **Text1-2**.
-  Return to the previous menu.
-  Return to TV viewing.

■ CC

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

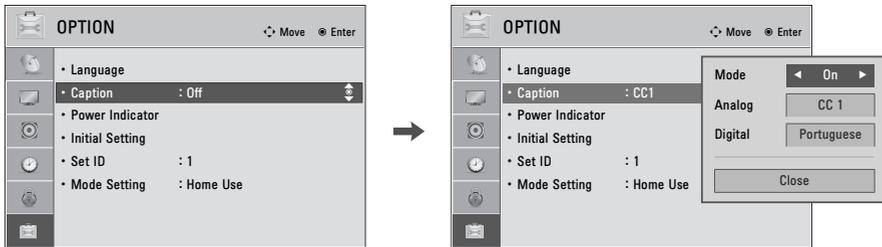
The term for the words that appear in a large black frame and almost cover the entire screen; usually messages provided by the broadcaster.

Digital Broadcasting System Captions

Choose the language you want the DTV Captions to appear in.

Other Languages can be chosen for digital sources only if they are included on the program.

This function is only available when **Caption Mode** is set **On**.



-   Select **OPTION**.
-   Select **Caption**.
-   Select **Mode-On**.
-  Select **Digital**.
-   Select **Portuguese** or **English**.
-  Return to the previous menu.
-  Return to TV viewing.

TIME SETTING

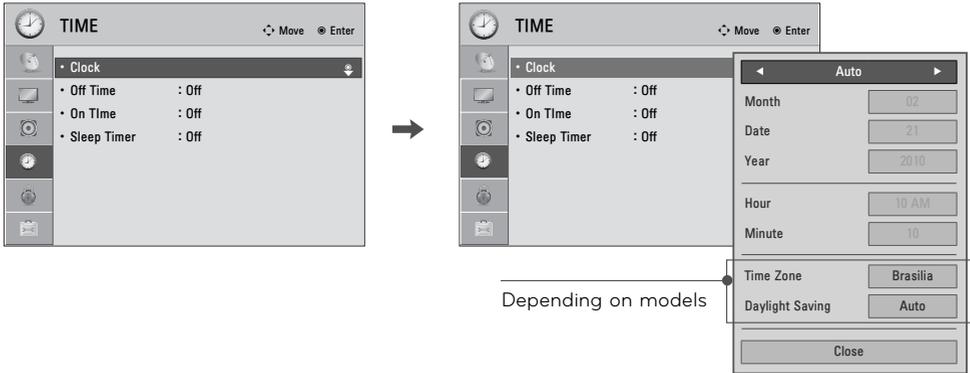
CLOCK SETTING

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.

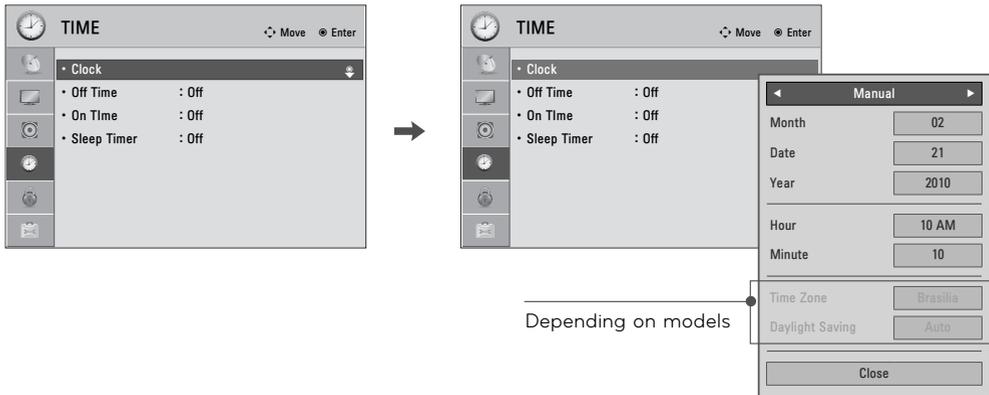
Set the clock manually if the current time is set incorrectly by the auto clock function.



-   Select **TIME**.
-   Select **Clock**.
-   Select **Auto**.
-   Select your viewing area time zone.
-   Select **Auto**, **Off**, or **On** (depending on whether or not your viewing area observes Daylight Saving time).
-  Return to the previous menu.
-  Return to TV viewing.

Manual Clock Setup

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



- 1   Select **TIME**.
- 2   Select **Clock**.
- 3   Select **Manual**.
- 4  Select the Year, Month, Date, Hour, or Minutes option.
- 5  Set the Year, Month, Date, Hour, or Minutes option.
- 6  Return to the previous menu.
-  Return to TV viewing.

TIME SETTING

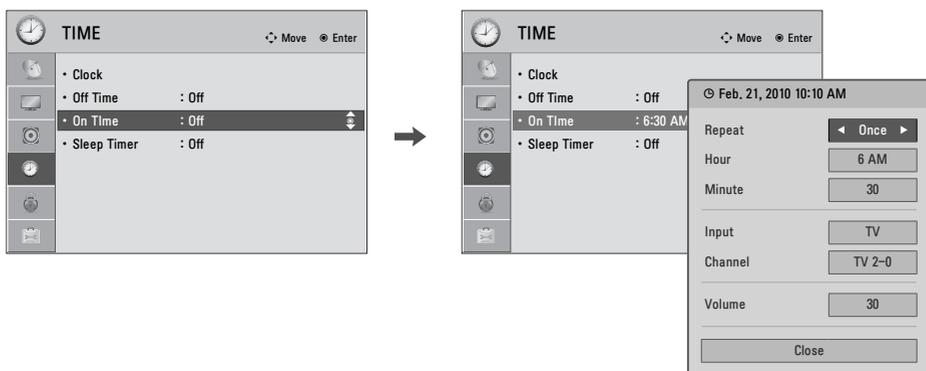
AUTO ON/OFF TIME SETTING

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.



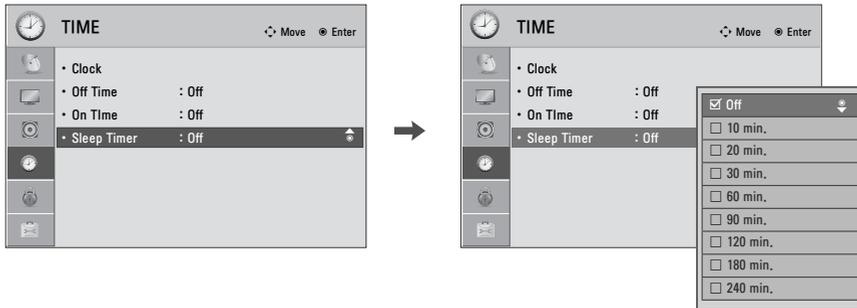
- 1 Select **TIME**.
- 2 Select **Off Time** or **On Time**.
- 3 Select **Repeat**.
- 4 Select **Off, Once, Daily, Mon.~Fri., Mon.~Sat., Sat.~ Sun., or Sun.**
- 5 Select and set Hour or Minute.
- 6 Return to the previous menu.
- Return to TV viewing.

- To cancel **On/Off Time** function, select **Off**.
 - Only for **On Time** function
- 1 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.



- 1   Select **TIME**.
- 2   Select **Sleep Timer**.
- 3   Make appropriate adjustments.
- 4  Return to the previous menu.
-  Return to TV viewing.

- To cancel the **Sleep Timer**, select **Off**.
- You can also adjust **Sleep Timer** in the **Q.MENU**.

PARENTAL CONTROL / RATINGS

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

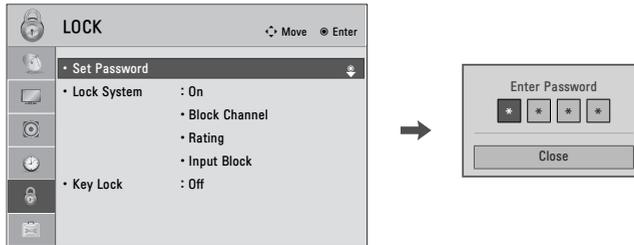
The Parental Control Function (V-Chip) is used to block program viewing based on the ratings sent by the broadcasting station. The default setting is to allow all programs to be viewed. Viewing can be blocked by choosing the type of the program and the categories. It is also possible to block all program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

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.

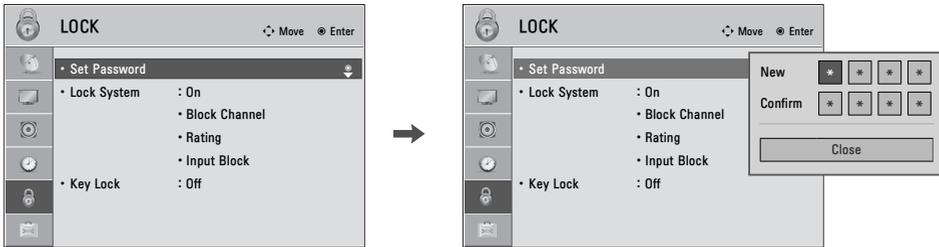


1.    Select **LOCK**.
2.  Input the password.

- Enter the password as requested.
- The TV is set up with the initial password "0-0-0-0".
- If you forget your password, press "0-3-2-5" on the remote control.

Set Password

Change the password by inputting a new password twice.



1    Select **LOCK**.

2  Input the password.

3  Select **Set Password**.

4   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**.

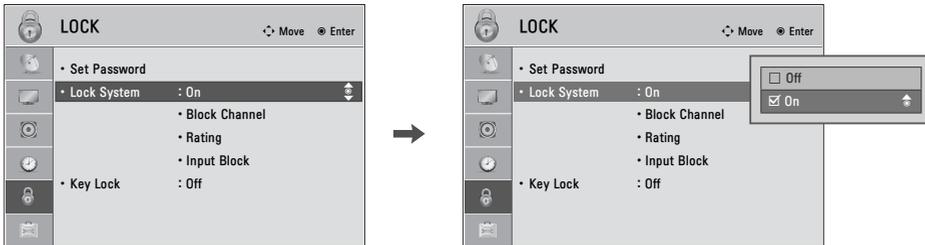
5  Return to the previous menu.

 Return to TV viewing.

PARENTAL CONTROL / RATINGS

Lock System

Enables or disables the blocking scheme you set up previously.



1    Select **LOCK**.

2  Input the password.

3  Select **Lock System**.

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

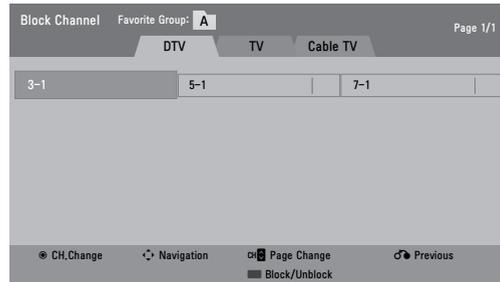
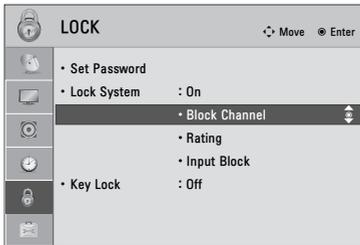
5  Return to the previous menu.

 Return to TV viewing.

■ When you select **On**, the Lock System is enable.

CHANNEL BLOCKING

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



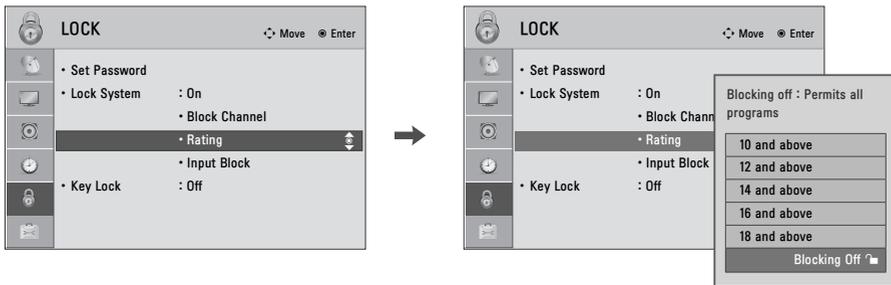
-    Select **LOCK**.
-  Input the password.
-  Select **Block Channel**.
-   Select a channel to block or unblock.
-  Block or unblock a channel.
-  Return to the previous menu.
-  Return to TV viewing.

■ If a channel is locked, enter the password to unlock it temporarily.

PARENTAL CONTROL / RATINGS

MOVIE RATING

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.



1    Select **LOCK**.

2  Input the password.

3  Select **Rating**.

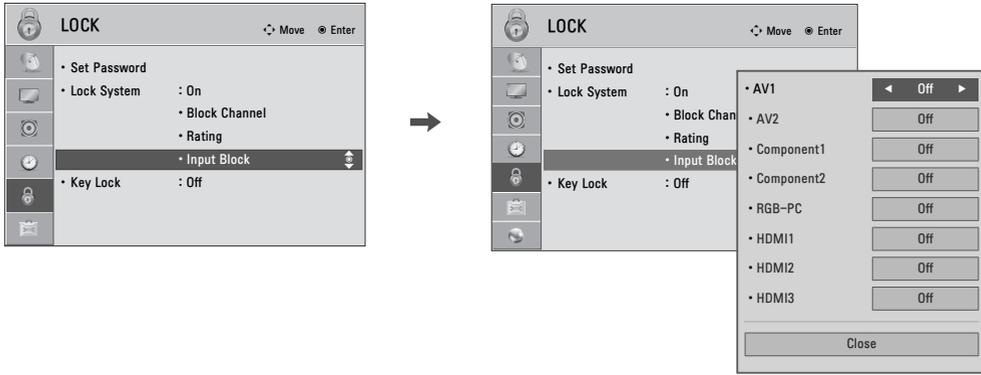
4   Select desired option.

5  Return to the previous menu.

 Return to TV viewing.

EXTERNAL INPUT BLOCKING

Enables you to block an input.



ie)

1 Select **LOCK**.

2 Input the password.

3 Select **Input Block**.

4 Select input source.

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

6 Return to the previous menu.

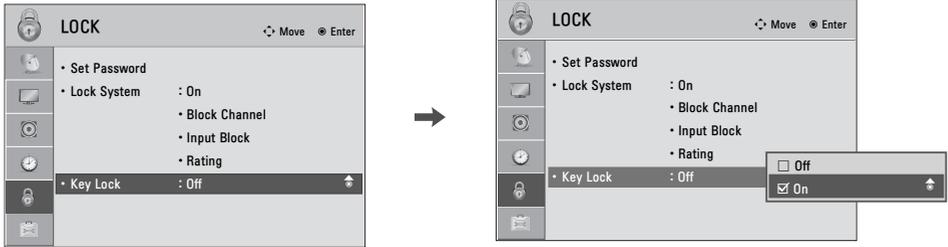
Return to TV viewing.

PARENTAL CONTROL / RATINGS

KEY LOCK

This feature can be used to prevent unauthorized viewing by locking out the front panel controls, so that it can only be used with the remote control.

This TV is programmed to remember which option it was last set to even if you turn the TV off.



1    Select **LOCK**.

2  Input the password.

3  Select **Key Lock**.

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

5  Return to the previous menu.

 Return to TV viewing.

- In Key Lock 'On', if the TV is turned off, press the  / I, INPUT, CH (  or  ) 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

Abnormal Operation	
The remote control doesn't work	<ul style="list-style-type: none"> ■ 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. *This feature is not available for all models.
TV turns off suddenly	<ul style="list-style-type: none"> ■ Is the sleep timer set? ■ Check the power control settings. Power interrupted. ■ If there is no signal, the TV turns off automatically in 15 minutes.

Video Problems	
No picture & No sound	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ Check antenna (Change the direction of the antenna).
No picture when connecting HDMI	<ul style="list-style-type: none"> ■ If an HDMI cable doesn't support High Speed HDMI, it can cause flickers or no screen display. In this case use the latest cables that support High Speed HDMI.

APPENDIX

Audio Problems	
No output from one of the speakers	<ul style="list-style-type: none"> Adjust Balance in menu option.
Unusual sound from inside the product	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Check High Speed HDMI cable. Check USB cable over version 2.0. Use normal MP3 file. <small>*This feature is not available for all models.</small>

PC Mode Problems	
The signal is out of range	<ul style="list-style-type: none"> Adjust resolution, horizontal frequency, or vertical frequency on the PC. Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	<ul style="list-style-type: none"> Activate the Auto configure feature or adjust size, phase, or H/V position. (Option)
Screen color is unstable or single color	<ul style="list-style-type: none"> Check the signal cable. Reinstall the PC video card.
When connecting the HDMI cable to the PC, there is no audio.	<ul style="list-style-type: none"> Check the manual for the video card in the PC to see if it supports HDMI audio and how to set it up properly.

Movie List Problems	
The file does not appear on the Movie List.	<ul style="list-style-type: none"> ▪ Check whether the extension is supported.
Message is displayed saying "This file is invalid" or the audio is working normally but the video is not working normally.	<ul style="list-style-type: none"> ▪ Check whether the file is playing normally on a PC. (Check whether the file is damaged.) ▪ Check whether the resolution is supported. ▪ Check whether the video/audio codec is supported. ▪ Check whether the frame rate is supported.
Message is displayed saying "Unsupported Audio" or the video is working normally but the audio is not working normally.	<ul style="list-style-type: none"> ▪ Check whether the file is playing normally on a PC. (Check whether the file is damaged.) ▪ Check whether the audio codec is supported. ▪ Check whether the bit rate is supported. ▪ Check whether the sample rate is supported.
Subtitle is not working.	<ul style="list-style-type: none"> ▪ Check whether the file is playing normally on a PC. (Check whether the file is damaged.) ▪ Check whether the video file and subtitle file name are the same. ▪ Check whether the video file and subtitle file are located in the same folder. ▪ Check whether the subtitle file is supported. ▪ Check whether the language is supported. (When you open the subtitle file in Memo Pad, you can check the language of the subtitle file.)

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		42PJ230 (42PJ230-SB) 42PJ250 (42PJ250-SA) 42PJ350 (42PJ350-SA)	50PJ230 (50PJ230-SB) 50PJ250 (50PJ250-SA) 50PJ350 (50PJ350-SA)
Dimensions (Width x Height x Depth)	With stand	988.0 mm x 678.7 mm x 260.0 mm (38.8 inch x 26.7 inch x 10.2 inch)	1171.4 mm x 781.8 mm x 309.7 mm (46.1 inch x 30.7 inch x 12.1 inch)
	Without stand	988.0 mm x 617.8 mm x 55.3 mm (38.8 inch x 24.3 inch x 2.1 inch)	1171.4 mm x 720.9 mm x 55.3 mm (46.1 inch x 28.3 inch x 12.1 inch)
Weight	With stand	21.6 kg (47.6 lbs)	30.0 kg (66.1 lbs)
	Without stand	20.0 kg (44.0 lbs)	27.6 kg (60.8 lbs)
Current Value		2.5 A	3.5 A

Power requirement	AC100-240V ~ 50/60Hz	
Television System	NTSC, PAL-M/N, SBTVD	
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135	
External Antenna Impedance	75 Ω	
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)
	Operating Humidity	Less than 80%
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)
	Storage Humidity	Less than 85%

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

APPENDIX

MODELS		32LD350 (32LD350-SB)
Dimensions (Width x Height x Depth)	With stand	800.0 mm x 565.0 mm x 206.8 mm (31.4 inch x 22.2 inch x 8.1 inch)
	Without stand	800.0 mm x 509.0 mm x 73.8 mm (31.4 inch x 20.0 inch x 2.9 inch)
Weight	With stand	9.2 kg (20.2 lbs)
	Without stand	8.2 kg (18.0 lbs)
Current Value		1.2 A

MODELS		32LD460 (32LD460-SA) 32LD465 (32LD465-SA)	37LD460 (37LD460-SA) 37LD465 (37LD465-SA) 37LD461C (37LD461C-SA)
Dimensions (Width x Height x Depth)	With stand	799.0 mm x 555.0 mm x 207.0 mm (31.4 inch x 21.8 inch x 8.1 inch)	916.0 mm x 625.0 mm x 261.0 mm (36.0 inch x 24.6 inch x 10.2 inch)
	Without stand	799.0 mm x 516.0 mm x 73.5 mm (31.4 inch x 20.3 inch x 2.8 inch)	916.0 mm x 584.0 mm x 77.4 mm (36.0 inch x 22.9 inch x 3.0 inch)
Weight	With stand	9.6 kg (21.1 lbs)	12.9 kg (28.4 lbs)
	Without stand	8.6 kg (18.9 lbs)	11.2 kg (24.6 lbs)
Current Value		1.2 A	1.6 A

MODELS		42LD460 (42LD460-SA) 42LD465 (42LD465-SA) 42LD461C (42LD461C-SA)	47LD460 (47LD460-SA) 47LD465 (47LD465-SA)
Dimensions (Width x Height x Depth)	With stand	1023.0 mm x 685.0 mm x 261.0 mm (40.2 inch x 26.9 inch x 10.2 inch)	1136.0 mm x 757.0 mm x 270.0 mm (44.7 inch x 29.8 inch x 10.6 inch)
	Without stand	1023.0 mm x 644.0 mm x 76.6 mm (40.2 inch x 25.3 inch x 3.0 inch)	1136.0 mm x 706.0 mm x 76.5 mm (44.7 inch x 27.7 inch x 3.0 inch)
Weight	With stand	15.4 kg (33.9 lbs)	19.6 kg (43.2 lbs)
	Without stand	13.7 kg (30.2 lbs)	17.6 kg (38.8 lbs)
Current Value		1.9 A	2.6 A

Power requirement	AC100-240V ~ 50/60Hz	
Television System	NTSC, PAL-M/N, SBTVD	
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135	
External Antenna Impedance	75 Ω	
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)
	Operating Humidity	Less than 80%
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)
	Storage Humidity	Less than 85%

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

MODELS		22LE5300 (22LE5300-SA)	26LE5300 (26LE5300-SA)
Dimensions (Width x Height x Depth)	With stand	542.9 mm x 407.1 mm x 155.4 mm (21.4 inch x 16.0 inch x 6.1 inch)	652.0 mm x 480.8 mm x 191.4 mm (25.7 inch x 18.9 inch x 7.5 inch)
	Without stand	542.9 mm x 357.6 mm x 34.4 mm (21.4 inch x 14.1 inch x 1.4 inch)	652.0 mm x 420.3 mm x 34.4 mm (25.7 inch x 16.5 inch x 1.4 inch)
Weight	With stand	4.2 kg (9.3 lbs)	6.1 kg (13.4 lbs)
	Without stand	3.9 kg (8.6 lbs)	5.1 kg (11.2 lbs)

MODELS		22LE6500 (22LE6500-SA)	26LE6500 (26LE6500-SA)
Dimensions (Width x Height x Depth)	With stand	533.0 mm x 400.0 mm x 187.0 mm (20.9 inch x 15.7 inch x 7.3 inch)	650.0 mm x 469.0 mm x 187.0 mm (25.5 inch x 18.4 inch x 7.3 inch)
	Without stand	533.0 mm x 349.0 mm x 39.9 mm (20.9 inch x 13.7 inch x 1.5 inch)	650.0 mm x 418.0 mm x 39.9 mm (25.5 inch x 16.4 inch x 1.5 inch)
Weight	With stand	3.4 kg (7.4 lbs)	4.9 kg (10.8 lbs)
	Without stand	3.1 kg (6.8 lbs)	4.6 kg (10.1 lbs)

Power Requirement		22LE5300: 24V $\overline{\text{---}}$, 1.7 A 22LE6500: 24V $\overline{\text{---}}$, 1.7 A 26LE5300: 24V $\overline{\text{---}}$, 1.8 A 26LE6500: 24V $\overline{\text{---}}$, 2.1 A
Adapter (DC Power)		In: AC100-240 V ~ 50/60 Hz Out: DC 24 V, 3.42 A
Television System		NTSC, PAL-M/N, SBTVD
Program Coverage		VHF 2-13, UHF 14-69, CATV 1-135
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)
	Operating Humidity	Less than 80%
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)
	Storage Humidity	Less than 85 %

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

APPENDIX

MODELS		32LE5300 (32LE5300-SA)	37LE5300 (37LE5300-SA)
Dimensions (Width x Height x Depth)	With stand	784.6 mm x 558.1 mm x 221.0 mm (30.8 inch x 21.9 inch x 8.7 inch)	905.0 mm x 630.0 mm x 270.0 mm (35.6 inch x 24.8 inch x 10.6 inch)
	Without stand	784.6 mm x 499.5 mm x 39.9 mm (30.8 inch x 19.6 inch x 1.5 inch)	905.0 mm x 568.0 mm x 39.9 mm (35.6 inch x 22.3 inch x 1.5 inch)
Weight	With stand	12.4 kg (27.3 lbs)	15.3 kg (33.7 lbs)
	Without stand	10.5 kg (23.1 lbs)	12.8 kg (28.2 lbs)
Current Value		1.3 A	1.4 A

MODELS		42LE5300 (42LE5300-SA)	47LE5300 (47LE5300-SA)
Dimensions (Width x Height x Depth)	With stand	1016.0 mm x 692.0 mm x 270.0 mm (40.0 inch x 27.2 inch x 10.6 inch)	1126.6 mm x 757.9 mm x 284.4 mm (44.3 inch x 29.8 inch x 11.1 inch)
	Without stand	1016.0 mm x 630.0 mm x 29.3 mm (40.0 inch x 24.8 inch x 1.1 inch)	1126.6 mm x 692.0 mm x 29.3 mm (44.3 inch x 27.2 inch x 1.1 inch)
Weight	With stand	19.2 kg (42.3 lbs)	22.6 kg (49.8 lbs)
	Without stand	16.7 kg (36.8 lbs)	19.6 kg (43.2 lbs)
Current Value		1.5 A	1.7 A

MODELS		55LE5300 (55LE5300-SA)
Dimensions (Width x Height x Depth)	With stand	1306.0 mm x 867.0 mm x 345.0 mm (51.4 inch x 34.1 inch x 13.5 inch)
	Without stand	1306.0 mm x 797.0 mm x 30.7 mm (51.4 inch x 31.3inch x 1.2 inch)
Weight	With stand	34.0 kg (74.9 lbs)
	Without stand	28.8 kg (63.4 lbs)
Current Value		2.0 A

Power requirement	AC100-240V ~ 50/60Hz	
Television System	NTSC, PAL-M/N, SBTVD	
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135	
External Antenna Impedance	75 Ω	
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)
	Operating Humidity	Less than 80%
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)
	Storage Humidity	Less than 85%

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

MODELS		32LD420 (32LD420-SA) 32LD420C (32LD420C-SA)	42LD420 (42LD420-SA) 42LD420C (42LD420C-SA)
Dimensions (Width x Height x Depth)	With stand	805.0 mm x 583.0 mm x 224.0 mm (31.6 inch x 22.9 inch x 8.8 inch)	1028.0 mm x 715.4 mm x 297.0 mm (40.4 inch x 28.1 inch x 11.6 inch)
	Without stand	805.0 mm x 531.0 mm x 79.9 mm (31.6 inch x 20.9 inch x 3.1 inch)	1028.0 mm x 658.6 mm x 87.8 mm (40.4 inch x 25.9 inch x 3.4 inch)
Weight	With stand	10.8 kg (23.8 lbs)	17.3 kg (38.1 lbs)
	Without stand	9.7 kg (21.3 lbs)	15.5 kg (34.1 lbs)
Current Value		1.4 A	1.9 A

MODELS		32LE4600 (32LE4600-SA)	42LE4600 (42LE4600-SA)
Dimensions (Width x Height x Depth)	With stand	786.0 mm x 562.0 mm x 272.0 mm (30.9 inch x 22.1 inch x 10.7 inch)	1018.0 mm x 696.0 mm x 318.0 mm (40.0 inch x 27.4 inch x 12.5 inch)
	Without stand	786.0 mm x 500.0 mm x 39.9 mm (30.9 inch x 19.6 inch x 1.5 inch)	1018.0 mm x 627.0 mm x 29.8 mm (40.0 inch x 24.6 inch x 1.1 inch)
Weight	With stand	14.5 kg (31.9 lbs)	21.9 kg (48.2 lbs)
	Without stand	10.6 kg (23.3 lbs)	17.2 kg (37.9 lbs)
Current Value		1.3 A	1.5 A

MODELS		47LE4600 (47LE4600-SA)	55LE4600 (55LE4600-SA)
Dimensions (Width x Height x Depth)	With stand	1128.0 mm x 759.0 mm x 318.0 mm (44.4 inch x 29.8 inch x 12.5 inch)	1311.0 mm x 866.0 mm x 330.0 mm (51.6 inch x 34.0 inch x 12.9 inch)
	Without stand	1128.0 mm x 693.0 mm x 29.8 mm (44.4 inch x 27.2 inch x 1.1 inch)	1311.0 mm x 798.0 mm x 31.4 mm (51.6 inch x 31.4 inch x 1.2 inch)
Weight	With stand	24.9 kg (54.8 lbs)	36.6 kg (80.6 lbs)
	Without stand	20.3 kg (44.7 lbs)	30.3 kg (66.7 lbs)
Current Value		1.7 A	2.0 A

Power requirement		AC100-240V ~ 50/60Hz
Television System		NTSC, PAL-M/N, SBTVD
Program Coverage		VHF 2-13, UHF 14-69, CATV 1-135
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)
	Operating Humidity	Less than 80%
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)
	Storage Humidity	Less than 85%

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

APPENDIX

IR CODES

Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
08		Remote control Button (Power On/Off)	D6	TV	Discrete IR Code (TV Input Selection)
45	Q.MENU	Remote control Button	C4	POWER ON	Discrete IR Code (Only Power On)
43	MENU	Remote control Button			
0B	INPUT	Remote control Button	C5	POWER OFF	Discrete IR Code (Only Power Off)
10-19	Number Key 0-9	Remote control Button			
4C	- (Dash)/LIST	Remote control Button	5A	AV1	Discrete IR Code (AV1 Input Selection)
1A	Q.VIEW	Remote control Button			
09	MUTE	Remote control Button	D0	AV2	Discrete IR Code (AV2 Input Selection)
02	VOL +	Remote control Button			
03	VOL -	Remote control Button	BF	COMPONENT1	Discrete IR Code (Component1 Input Selection)
00	CH	Remote control Button			
01	CH	Remote control Button	D4	COMPONENT2	Discrete IR Code (Component2 Input Selection)
1E	FAV/MARK	Remote control Button			
40		Remote control Button	D5	RGB-PC	Discrete IR Code (RGB-PC Input Selection)
41		Remote control Button			
07		Remote control Button	CE	HDMI1	Discrete IR Code (HDMI1 Input Selection)
06		Remote control Button			
44	ENTER	Remote control Button	CC	HDMI2	Discrete IR Code (HDMI2 Input Selection)
28	BACK	Remote control Button			
79	RATIO	Remote control Button	E9	HDMI3	Discrete IR Code (HDMI3 Input Selection)
A9	GUIDE	Remote control Button			
95	ENERGY SAVING	Remote control Button	DA	HDMI4	Discrete IR Code (HDMI4 Input Selection)
7E	SIMPLINK	Remote control Button			
AA	INFO	Remote control Button	76	Ratio 4:3	Discrete IR Code (Only 4:3 Mode)
30	AV MODE	Remote control Button			
0F	TV	Remote control Button	77	Ratio 16:9	Discrete IR Code (Only 16:9 Mode)
5B	EXIT	Remote control Button			
72	RED	Remote control Button	AF	Ratio Zoom	Discrete IR Code (Only Zoom Mode)
71	GREEN	Remote control Button			
63	YELLOW	Remote control Button	B1		Remote control Button
61	BLUE	Remote control Button	BO		Remote control Button
			BA		Remote control Button
			8F		Remote control Button
			8E		Remote control Button

EXTERNAL CONTROL THROUGH RS-232C

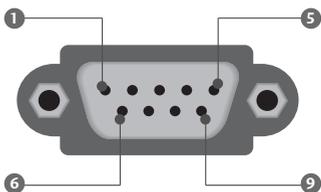
The RS-232C port allows you connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) to control the TV's functions externally.

- 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.

Type of Connector; D-Sub 9-Pin Male Communication Parameters

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



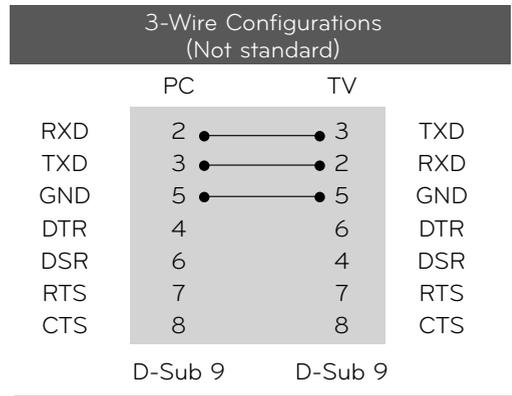
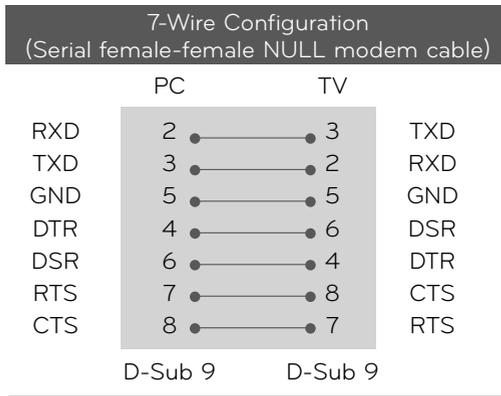
- Baud rate : 9600 bps (UART)
- Data length : 8 bits
- Parity : None
- Stop bit : 1 bit
- Communication code : ASCII code
- Use a crossed (reverse) cable.

! NOTE

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

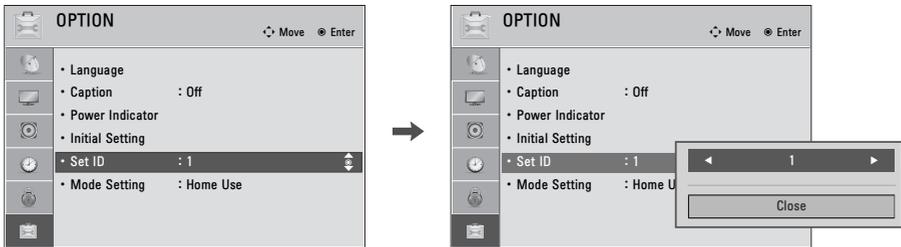
APPENDIX

RS-232C Configurations



Set ID

Use this function to specify a TV ID number.
Refer to 'Real Data Mapping'.



- 1 Select **OPTION**.
- 2 Select **Set ID**.
- 3 Choose the desired TV ID number.
The adjustment range of Set ID is 1~99.
- 4 Return to the previous menu.
- Return to TV viewing.

■ 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

Command Reference List

	COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 - 01
02. Input Select	x	b	▶ P:162
03. Aspect Ratio	k	c	▶ P:162
04. Screen Mute	k	d	00 - 01
05. Volume Mute	k	e	00 - 01
06. Volume Control	k	f	00 - 64
07. Contrast	k	g	00 - 64
08. Brightness	k	h	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
14. Treble	k	r	00 - 64
15. Bass	k	s	00 - 64
16. Balance	k	t	00 - 64
17. Color Temperature	x	u	00 - 64
18. ISM Method	j	p	▶ P:163
19. Energy Saving	j	q	▶ P:163
20. Auto Configuration	j	u	▶ P:163
22. Channel Add/Del	m	b	00 - 01
23. Key	m	c	▶ P:164
24. Backlight	m	g	00 - 64

For LCD TV

For Plasma TV

	COMMAND1	COMMAND2	DATA00 (Hexadecimal)	DATA01 (Hexadecimal)
21. Channel Tuning	m	a	physical program high	major program low
			DATA02 (Hexadecimal)	DATA03 (Hexadecimal)
	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 10: Analog (Antenna) Data 11: Analog (Cable)

Data 20: AV1 Data 21: AV 2

Data 40: Component1 Data 41: Component 2

Data 60: RGB-PC Data 90: HDMI1

Data 91: HDMI2 Data 92: HDMI3

Data 93: HDMI4

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

* Use the feature depending on your model.

03. Aspect Ratio (Command: k c)

To adjust the screen format.

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

Data 01: 4:3 Data 09: Just scan

Data 02: 16:9 Data 10: Cinema Zoom1

Data 04: Zoom :

Data 05: Zoom2 Data 1F: Cinema Zoom16

Data 06: Set by program

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), Video-out Mute off

Data 01: Screen mute on (Picture off)

Data 10: Video-out Mute on

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

* In case of Video-out Mute on only, TV will display On Screen Display (OSD). But, in case of screen mute on, TV will not display On Screen Display (OSD).

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'.

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'.

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'.

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

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'.

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'.

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'.

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.

If Key Lock is on in the standby mode, TV will not turn on by POWER button of remote control and on the TV.

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'.

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'.

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'.

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

17. Color Temperature (Command: x u)

To adjust color temperature.

You can also adjust color temperature in the Picture menu.

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

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

*Refer to 'Real data mapping'.

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

18. ISM Method (Command: j p) (For Plasma TV)

To avoid having a fixed image remain on screen.

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

Data 02: Orbiter 04: White Wash

Data 08: Normal 20: Color Wash

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

19. Energy Saving (Command: j q)

To control the energy saving function.

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

Data 00: Off Data 01: Minimum

Data 02: Medium Data 03: Maximum

Data 04: Auto (depending on model)

Data 05: Screen off

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

20. 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 01: To set

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

21. 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 tuner automatically maps the channel to the Major number, the Physical number is not required when sending a command.

Data 00: Physical Channel Number

Analog air: 01~69, Analog cable: 01~135

DTV air: 01~69

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.

APPENDIX

Data5:	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 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]

22. 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]

23. Key (Command: m c)

To send IR remote control code.

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

See page 158.

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

When TV is in the standby mode, TV will turn on by POWER button of remote control only.

24. Backlight (Command: m g) (For LCD TV)

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'

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

OPEN SOURCE SOFTWARE NOTICE

The following GPL executables and LGPL, MPL libraries used in this product are subject to the GPL2.0/LGPL2.1/MPL1.1 License Agreements:

GPL EXECUTABLES:

Linux kernel 2.6, busybox, e2fsprogs, gdbserver, jfsutils, mtd-utils, procps, u-boot, udhpcp

LGPL LIBRARIES:

directFB, glibc, gconv

MPL LIBRARIES:

Nanox

LG Electronics offers to provide source code to you on CD-ROM for a charge covering the cost of performing such distribution, such as the cost of media, shipping and handling upon e-mail request to LG Electronics at: opensource@lge.com

This offer is valid for a period of three (3) years from the date of the distribution of this product by LG Electronics.

You can obtain a copy of the GPL, LGPL, MPL licenses on the CD-ROM provided with this product.

Also you can obtain the translation of GPL, LGPL licenses from

<http://www.gnu.org/licenses/old-licenses/gpl-2.0-translations.html>,

<http://www.gnu.org/licenses/old-licenses/lgpl-2.1-translations.html>.

This product includes other open source software

▶ expat:

- copyright © 1998, 1999, 2000 Thai Open Source Software Center Ltd and Clark Cooper
- copyright © 2001, 2002, 2003, 2004, 2005, 2006 Expat maintainers.

▶ freetype: copyright © 2003 The FreeType Project (www.freetype.org).

▶ ICU: copyright © 1995-2008 International Business Machines Corporation and others.

▶ libcurl: copyright © 1996 - 2008, Daniel Stenberg.

▶ libjpeg: This software is based in part on the work of the Independent JPEG Group copyright © 1991 - 1998, Thomas G. Lane.

▶ libmng: copyright © 2000-2007 Gerard Juyn, Glenn Randers-Pehrson

▶ libpng: copyright © 1998-2008 Glenn Randers-Pehrson

▶ md5: copyright © 1991-2, RSA Data Security, Inc

▶ md5 checksum : copyright © 1999, 2000, 2002 Aladdin Enterprises

▶ ncurses: copyright © 1998 Free Software Foundation, Inc.

▶ openssl:

- cryptographic software written by Eric Young.
- software written by Tim Hudson.
- software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org>)

▶ strace :

- copyright © 1991, 1992 Paul Kranenburg.
- copyright © 1993 Branko Lankester.
- copyright © 1993 Ulrich Pegelow.
- copyright © 1995, 1996 Michael Elizabeth Chastain.
- copyright © 1993, 1994, 1995, 1996 Rick Sladkey.
- copyright © 1998-2003 Wichert Akkerman.
- copyright © 2002-2008 Roland McGrath.
- copyright © 2003-2008 Dmitry V. Levin.
- copyright © 2007-2008 Jan Kratochvil.

▶ tinyxml: copyright © 2000-2006 Lee Thomason

▶ xyssl: copyright © 2009 Paul Bakker

▶ zlib: copyright © 1995-2005 Jean-loup Gailly and Mark Adler

All rights reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.



The model and serial number of the TV is located on the back and one side of the TV. Record it below should you ever need service.

MODEL _____

SERIAL _____