LG

Life's Good

OWNER'S MANUAL
LED LCD TV / LCD 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	32LE4300
	42LE4300

LCD TV MODELS

32LD465	22LD350
37LD465	26LD350
42LD465	32LD350
47LD465	
32LD460	
37LD460	
42LD460	
47LD460	

www.lg.com

WARNING / CAUTION

WARNING / CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

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

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

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

WARNING/CAUTION

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

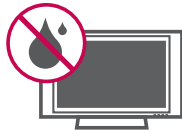# SAFETY INSTRUCTIONS

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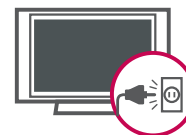
9 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate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

SAFETY INSTRUCTIONS

10 Never touch this apparatus or antenna during a thunder or lighting 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.

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.

Power Supply

Short-circuit Breaker
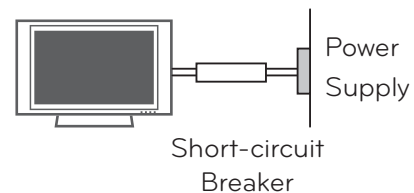
17 **DISCONNECTING DEVICE FROM MAINS**

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 an 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.
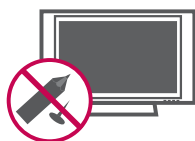
25 Keep the product away from direct sunlight.

26 For LCD TV

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

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

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

27 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.

28 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.

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

FEATURE OF THIS TV

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

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

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

DIVX HD 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."

"DivX®, DivX Certified® and associated logos are registered trademarks of DivX, Inc. and are used under license."

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 letter-boxed areas of your TV if you use the 4:3 aspect ratio setting for an extended period.
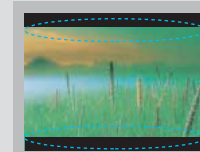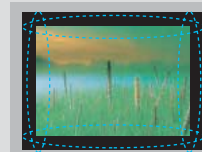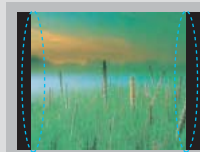
PREPARATION

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.

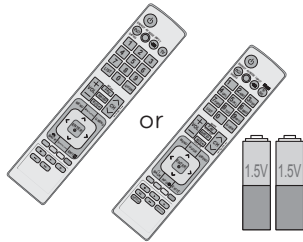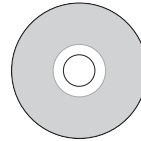| Owner's Manual	Remote Control, Batteries	CD Manual	RF Adapter (Some models)
	1.5V 1.5V		You must connect it to the antenna wire after fixing in Antenna Input. This adapter is only supplied in **Argentina**.

Not included with all models
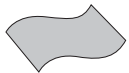
Polishing Cloth

* 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
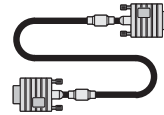
D-sub 15 pin Cable

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.

32/37/42/47LD460, 32/37/42/47LD465, 26/32LD350
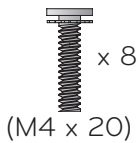
x 8 (M4 x 20)	(For 32/37/42LD460, 32/37/42LD465, 26/32LD350)		
Screws for stand assembly (Refer to P.19)	Screw for stand fixing (Refer to P.30)	Protection Cover (Refer to P.19)	Power Cord
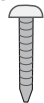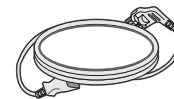
---

22/26LE5300
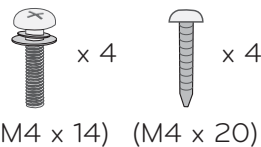
(For 26LE5300)			(For 26LE5300)		
x 4 (M4 x 14)	x 4 (M4 x 20)	Cable Holder (Refer to p.28)	x 4	AC/DC Adapter	Power Cord
Screws for stand assembly (Refer to P.22, 23)			Ring spacers (Refer to p.26)		
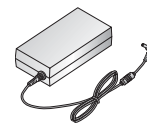
22/26LE6500
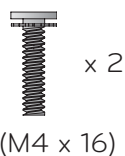
x 2 (M4 x 16)			
Screws for stand assembly (Refer to P.21)	Cable Tie (Refer to p.28)	AC/DC Adapter	Power Cord
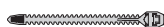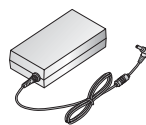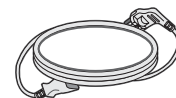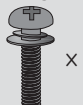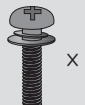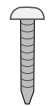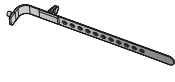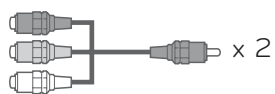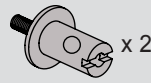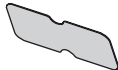
PREPARATION

32/37/42/47/55LE5300, 32/42/47/55LE4600, 32/42LE4300

(For 32LE5300, 32/42/47/55LE4600, 32LE4300)

x 4   x 4

(M4 x 22) (M4 x 16)

(For 37/42LE5300, 42LE4300)

x 4   x 4

(M4 x 24) (M4 x 16)

(For 47/55LE5300)

x 4   x 4

(M4 x 26) (M4 x 16)

Screws for stand assembly
(Refer to P.23)

(For 32LE5300, 32/42/47/55LE4600, 32/42LE4300)

Screw for stand fixing
(Refer to P.30)

Cable Holder
(Refer to p.28)

x 2

Component gender cable,
AV gender cable

(For 32/42/47/55LE4600)

x 2

Woofer Pemnut

x 2

Woofer Fixing
Screw

22LD350

Cable Holder

Protection Cover

OPTIONAL EXTRAS (For 32/37/42/47/55LE5300, 32/42LE4300)

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 or LCD TV.
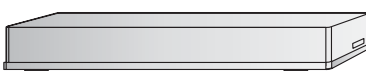
Wireless Media Box
(AN-WL100W)

FRONT PANEL INFORMATION

■ Image shown may differ from your TV.

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

SPEAKER

Remote Control Sensor

Power/Standby Indicator
(Can be adjusted using the **Power Indicator** in the OPTION menu.▶**p.110**)

CHANNEL
(∧,∨) Buttons

VOLUME (+, -)
Buttons

ENTER Button

MENU Button

INPUT Button

POWER Button

CH

+ VOL

ENTER⊙

MENU

INPUT

⏻/|

22/26LE6500

Power/Standby Indicator
(Can be adjusted using the **Power Indicator** in the OPTION menu.▶**p.110**)

SPEAKER

Remote Control Sensor
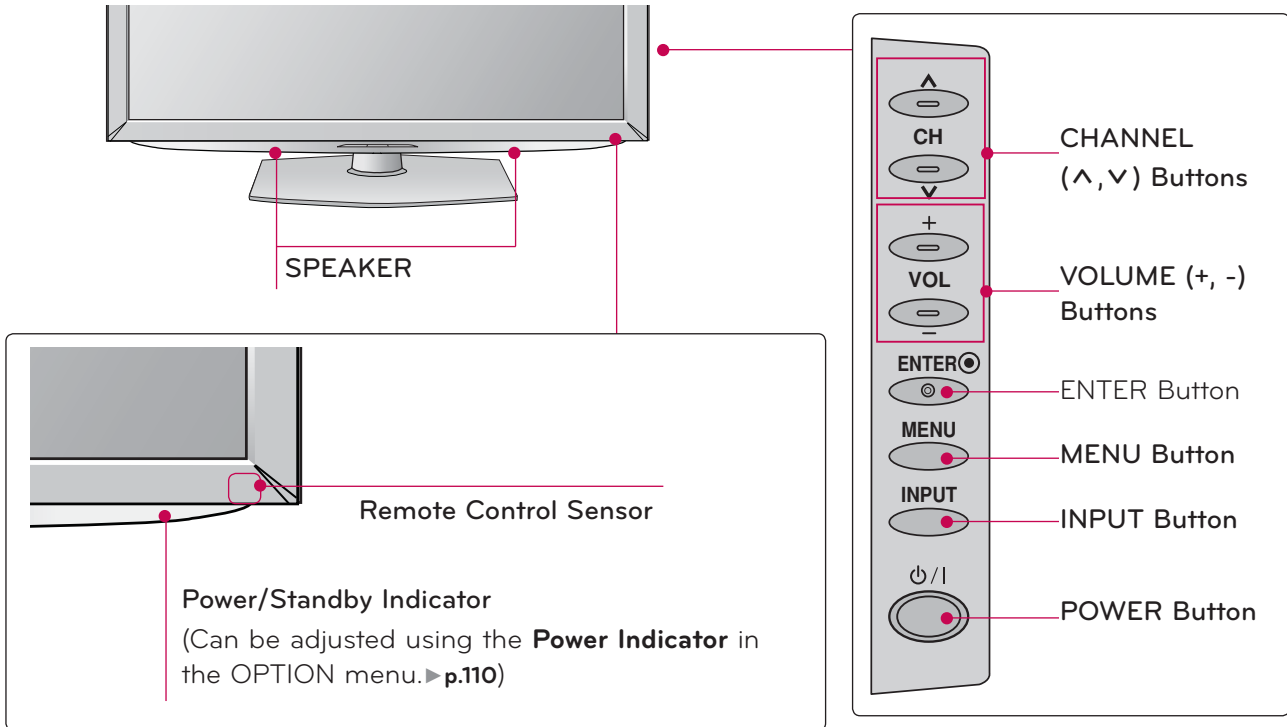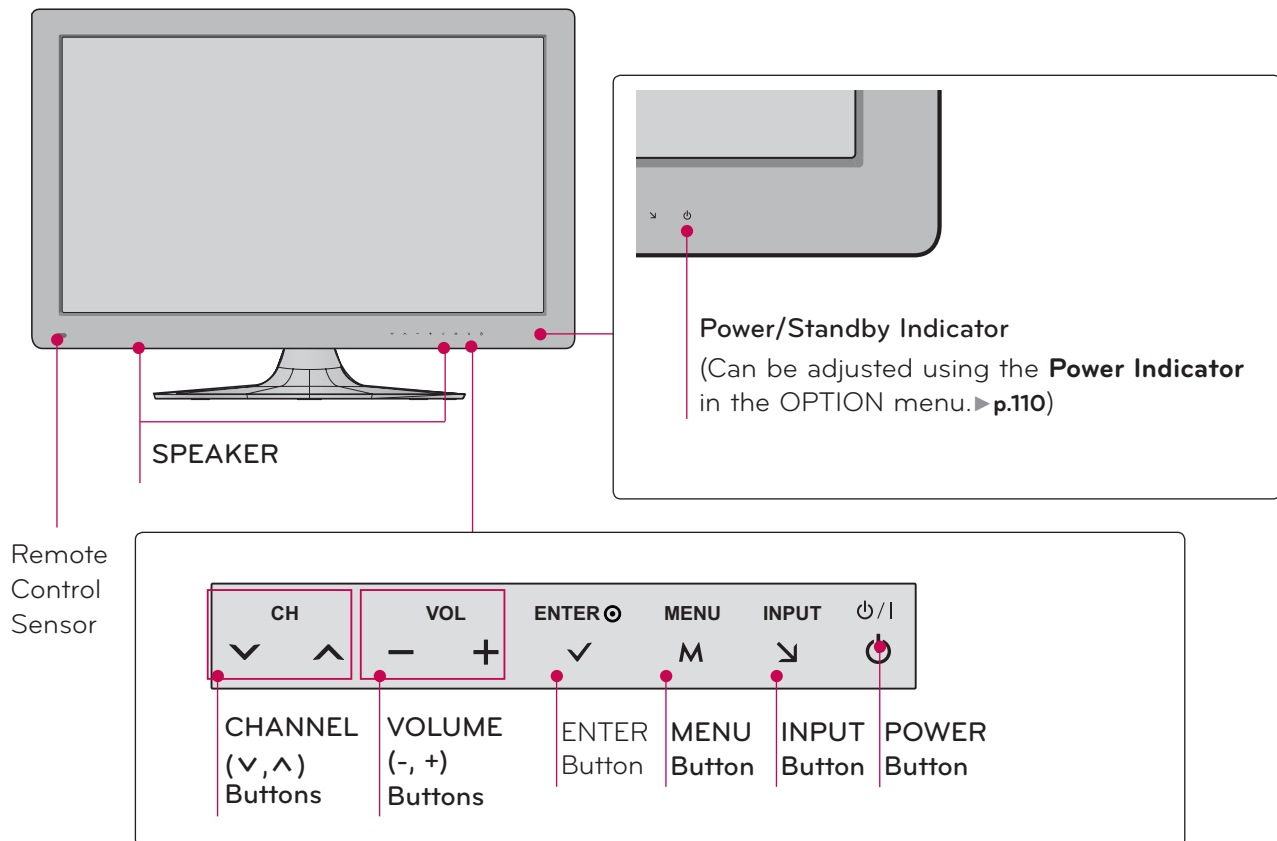
CH	VOL	ENTER⊙	MENU	INPUT	⏻/|
∨ ∧	− +	✓	M	↘	⏻
CHANNEL (∨,∧) Buttons	VOLUME (-, +) Buttons	ENTER Button	MENU Button	INPUT Button	POWER Button

PREPARATION

22/26/32/37/42/47/55LE5300, 22/26LE6500

SPEAKER
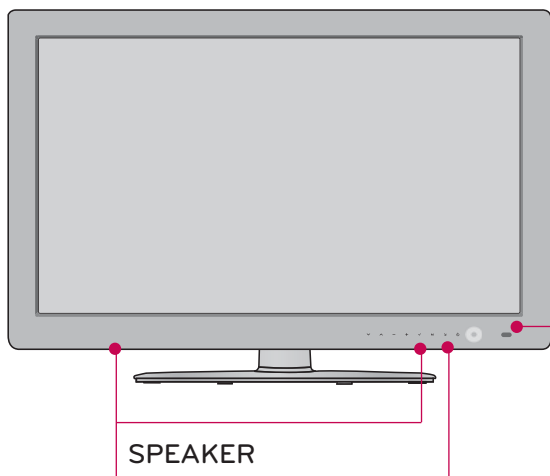
22/26LE5300

Remote Control Sensor

Power/Standby Indicator
(Can be adjusted using the **Power Indicator** in the OPTION menu.▶**p.110**)

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.110**)

22/26LE5300

CH	VOL	ENTER ⊙	MENU	INPUT	
⌄ ⌃	— +	✓	M	↘	⏻
CHANNEL (⌄,⌃) Buttons	VOLUME (-, +) Buttons	ENTER Button	MENU Button	INPUT Button	POWER Button

32/37/42/47/55LE5300, 22/26LE6500

CH	VOL	ENTER ⊙	MENU	INPUT	⏻/Ι
⌄ ⌃	— +	✓	M	↘	⏻
CHANNEL (⌄,⌃) Buttons	VOLUME (-, +) Buttons	ENTER Button	MENU Button	INPUT Button	POWER Button

12

22/26/32LD350

■ Image shown may differ from your TV.

For 22LD350

POWER Button | INPUT Button | MENU Button | ENTER Button | VOLUME (+, -) Buttons | CHANNEL (ᐱ,ᐯ) Buttons

CHANNEL (ᐱ,ᐯ) Buttons

CH

VOLUME (+, -) Buttons

VOL

ENTER Button

ENTER

MENU Button

MENU

INPUT Button

INPUT

POWER Button

SPEAKER

Remote Control Sensor

Power/Standby Indicator
(Can be adjusted using the **Power Indicator** in the OPTION menu. ▶**p.110**)

32/42/47/55LE4600, 32/42LE4300

Power/Standby Indicator
(Can be adjusted using the **Power Indicator** in the OPTION menu.)

Woofer
(Except
32/42LE4300)

SPEAKER

Intelligent Sensor
Adjusts picture according to the surrounding conditions

Remote Control Sensor

CH

VOL

ENTER

MENU

INPUT

CHANNEL (ᐱ,ᐯ) Buttons

VOLUME (+, -) Buttons

ENTER Button

MENU Button

INPUT Button

POWER Button

BACK PANEL INFORMATION

■ Image shown may differ from your TV.
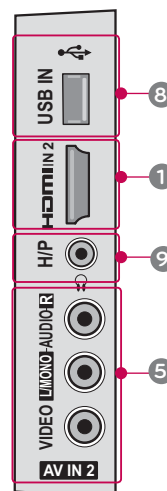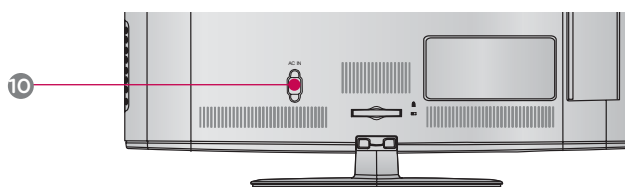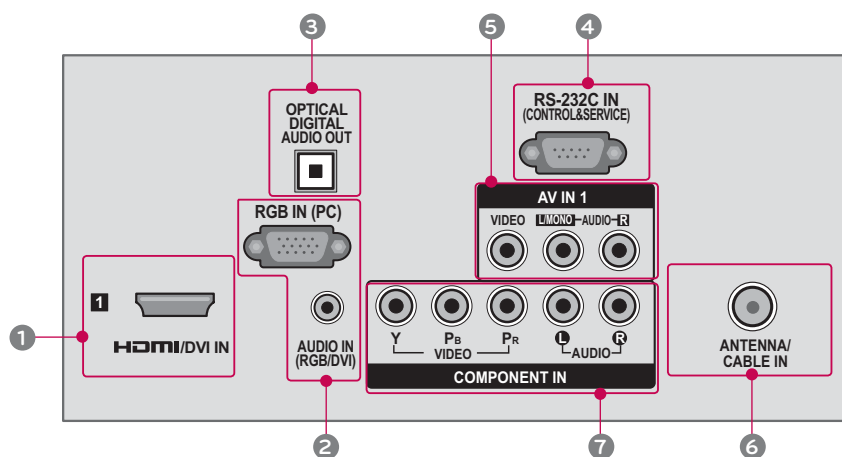
32/37/42/47LD460

32/37/42/47LD465

22/26LE5300, 22/26LE6500

22LE5300

26LE5300

22/26LE6500

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑪

DC-IN

HDMI/DVI IN
1 (DVI)
2

AUDIO IN RGB/DVI

RGB IN (PC)

OPTICAL DIGITAL AUDIO OUT

RS-232C IN (CONTROL&SERVICE)

AV IN
VIDEO ─L(MONO)─AUDIO─R

Y P_B P_R L R
─ VIDEO ─ ─AUDIO─
COMPONENT IN

ANTENNA/ CABLE IN

USB IN
H/P

USB IN
HDMI IN 3
H/P

USB IN
HDMI IN 3
H/P
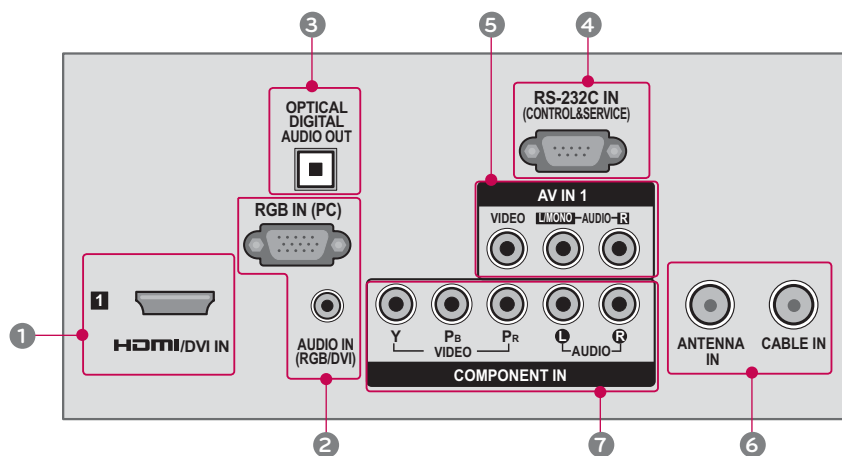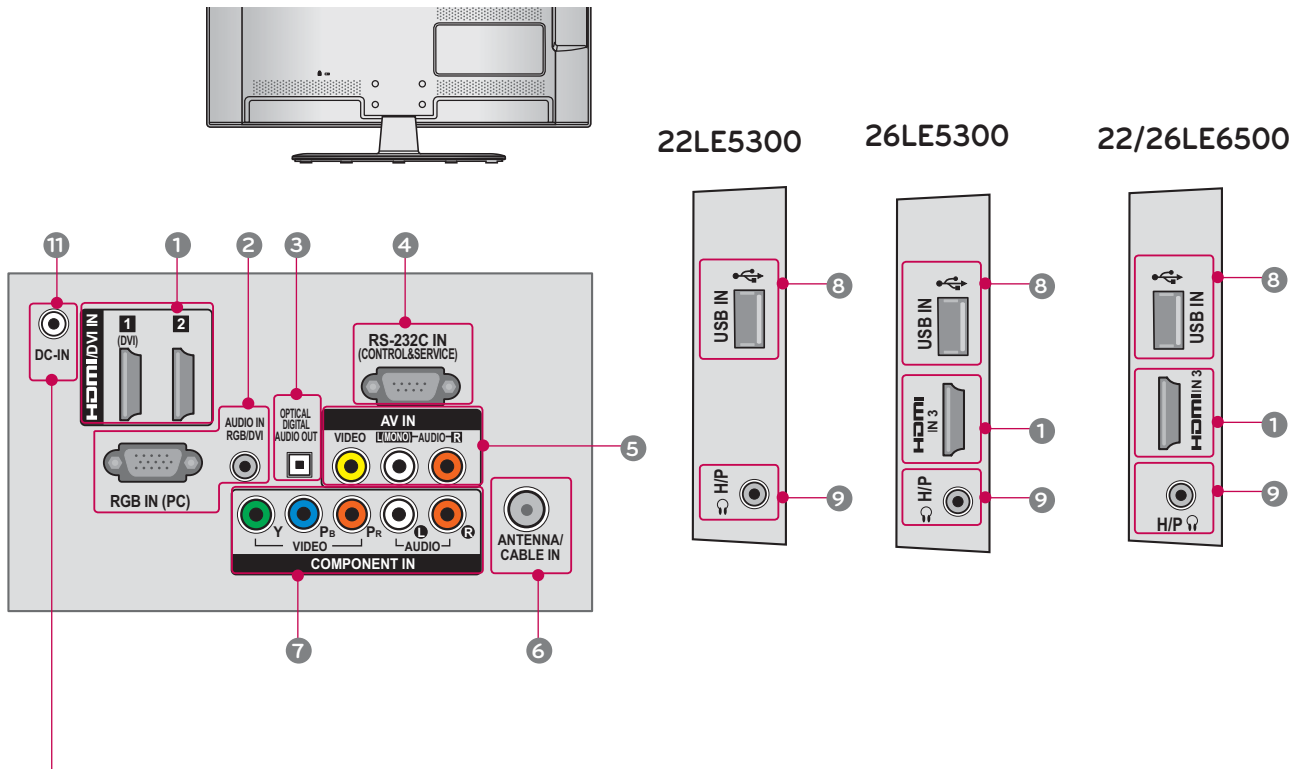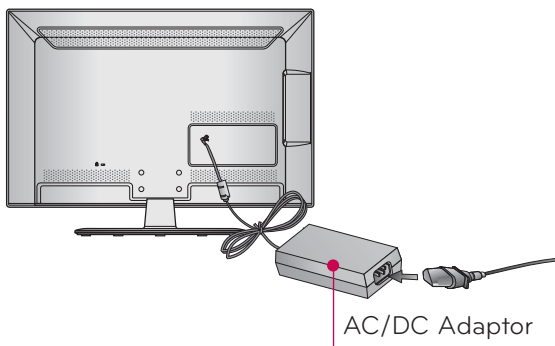
Power Connection

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.

AC/DC Adaptor

⚠ 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.
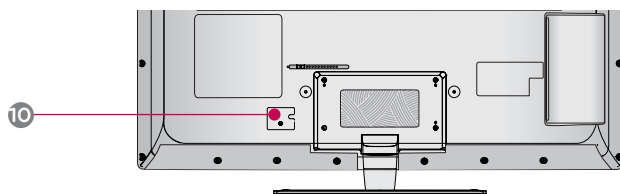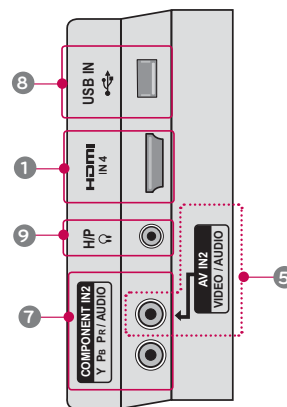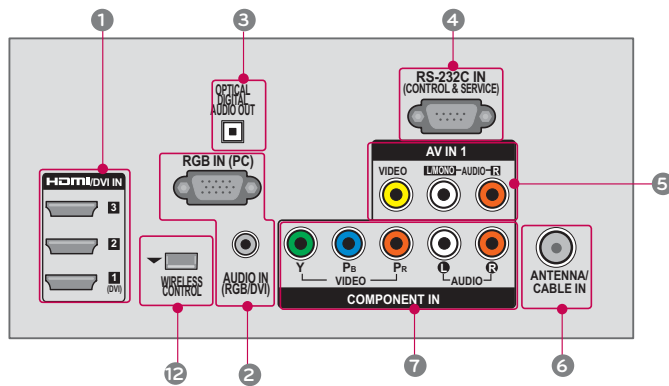
32/37/42/47/55LE5300

32LE5300-DA
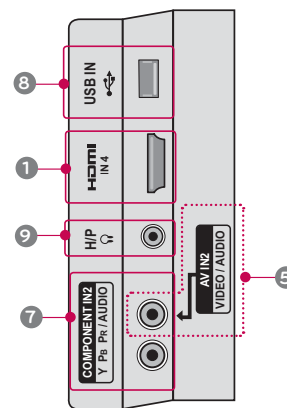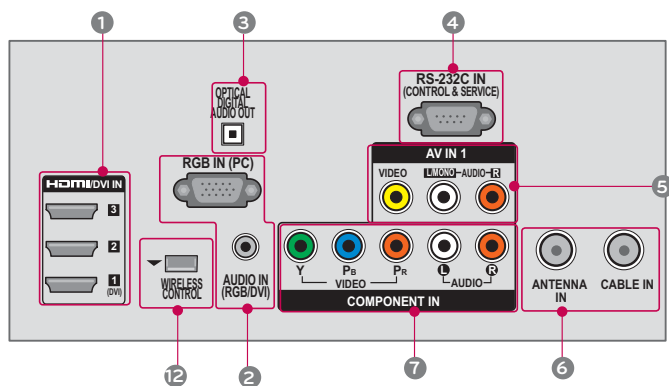
32/42/47/55LE4600, 32/42LE4300
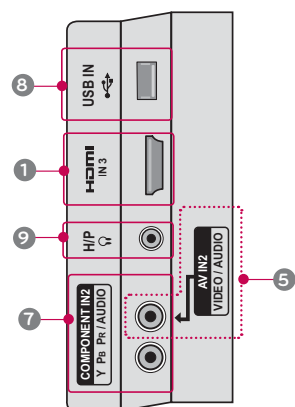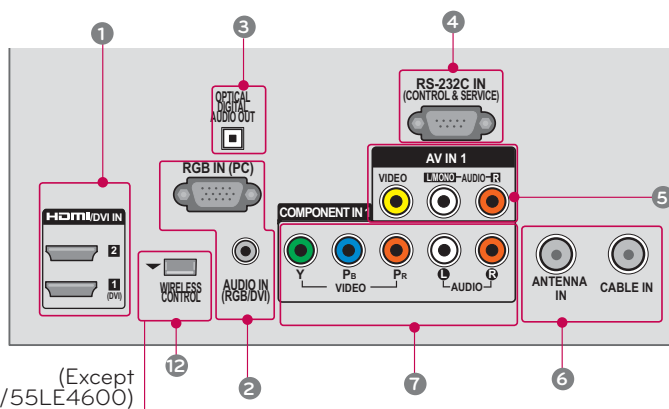
(Except 32/42/47/55LE4600)

⚠ CAUTION

For HDMI IN 3 or 4 and USB IN

► For an optimal connection, HDMI cables and USB devices should have bezels less than 0.39 inches (10 mm) thick.
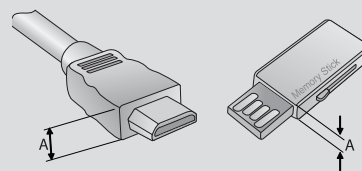
*A ≦ 0.39 inches (10 mm)
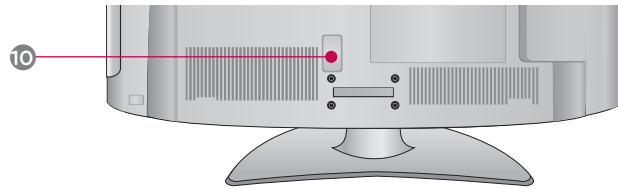
22LD350
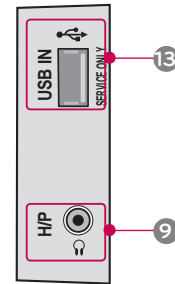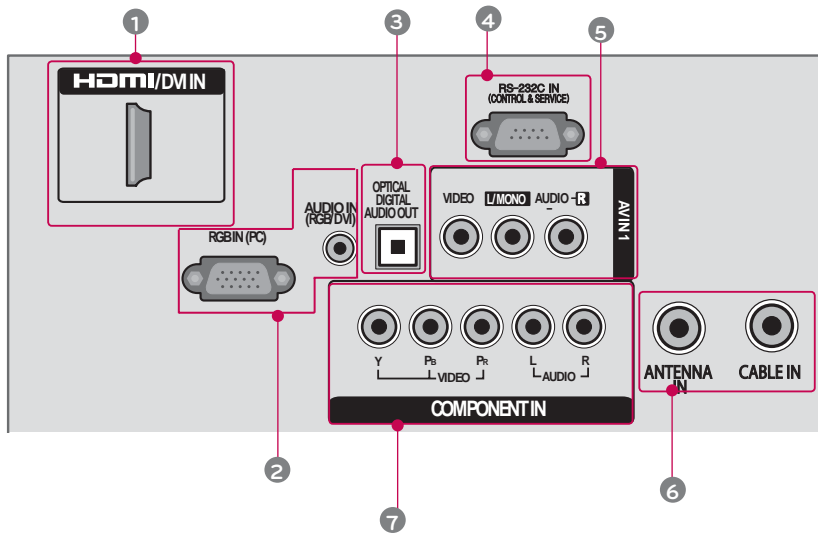
26/32LD350
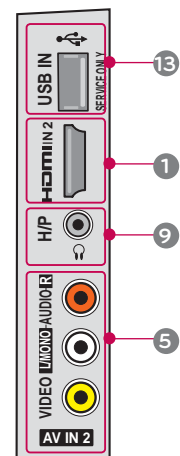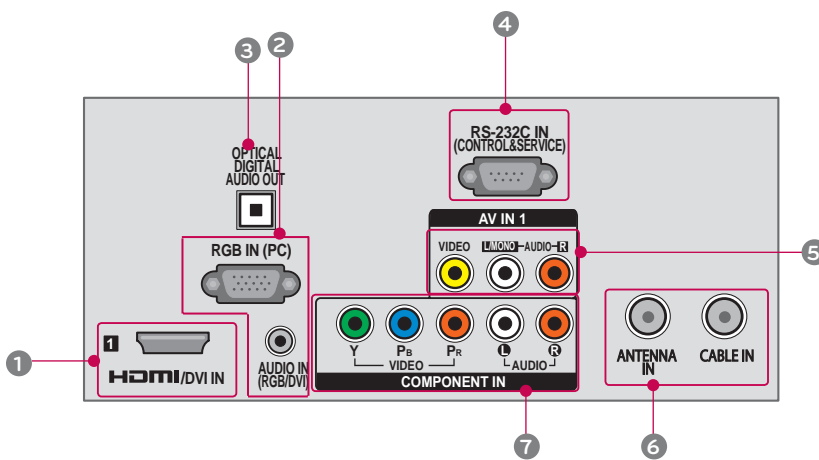
PREPARATION

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 **RGB IN (PC)**

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

AUDIO IN (RGB/DVI)

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

3 **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.

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

Used by third party devices.

This port is used for service or Hotel mode.

5 **AV (Audio/Video) IN**

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

6 **ANTENNA/CABLE IN**

Connect over-the-air or cable signals to this jack.

7 **COMPONENT IN**

Analog Connection.

Supports HD.

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

8 **USB INPUT**

Used for viewing videos, photos and listening to MP3s.

9 **HEADPHONE**

0.32 cm (1/8 inch) headphone jack

Impedance 16 Ω , Maximum audio out 15 mW

10 **Power Cord Socket**

For operation with AC power.

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

11 **DC-IN**

12 **WIRELESS CONTROL**

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

13 **USB IN SERVICE ONLY**

(For 22/26/32LD350)

Used for software updates.

STAND INSTRUCTIONS (For 26/32LD350, 32/37/42/47LD460, 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.

STAND BODY

M4 x 20
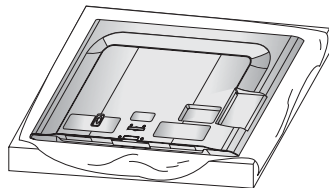
STAND BASE
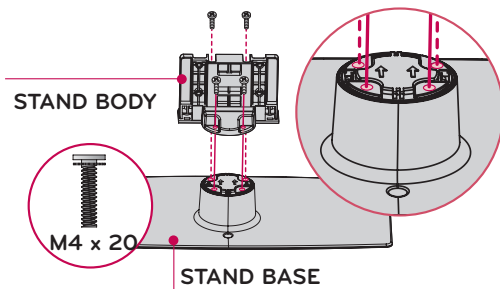
3 Assemble the TV as shown.

4 Install the 4 screws into the holes shown.
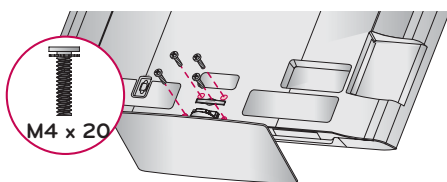
M4 x 20

❗ 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.
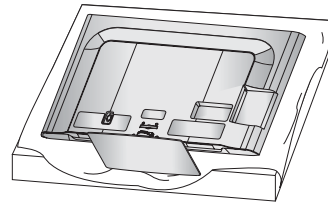
2 Remove the screws from the TV.
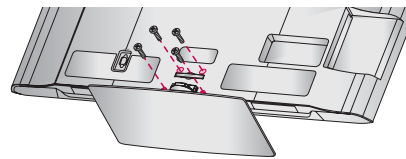
3 Detach the stand from TV.

PROTECTION COVER

After removing the stand, install the included **PROTECTION COVER** over the hole for the stand.

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

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

PREPARATION

STAND INSTRUCTIONS (For 22LD350)

■ 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.
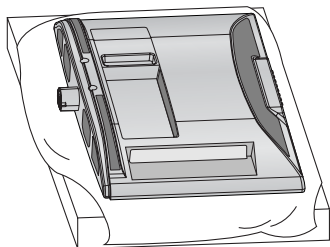
2 Assemble the TV as shown.
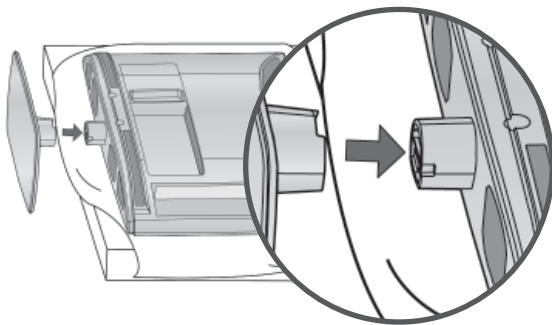
DETACHMENT

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.
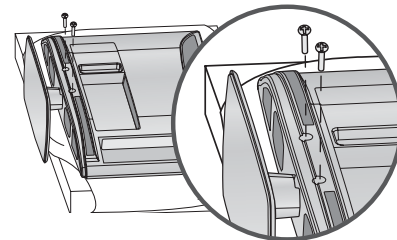
3 Detach the stand from TV.
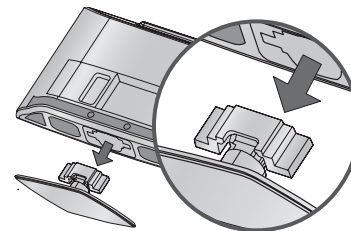
PROTECTION COVER

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**.

Protection Cover
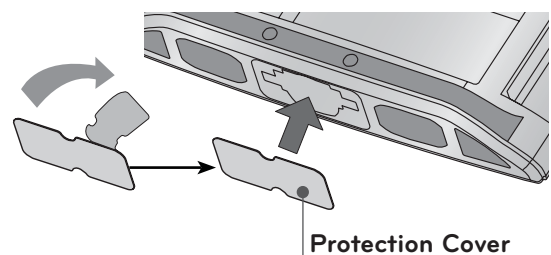
STAND INSTRUCTIONS (For 22/26LE6500)

▪ 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.
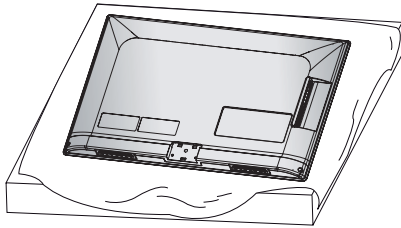
3 Assemble the TV as shown.
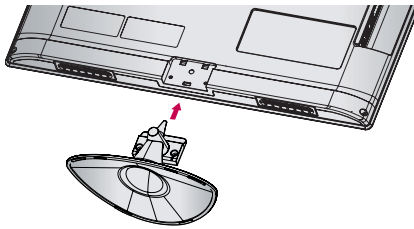
4 Fix the 2 screws securely using the holes in the back of the TV.
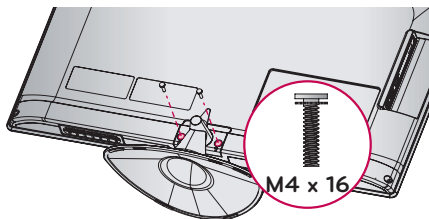
M4 x 16

ⓘ 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.
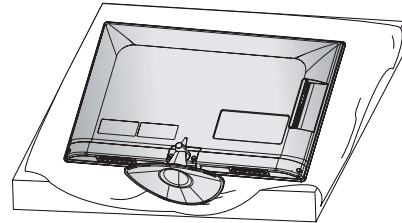
2 Remove the screws from the TV.
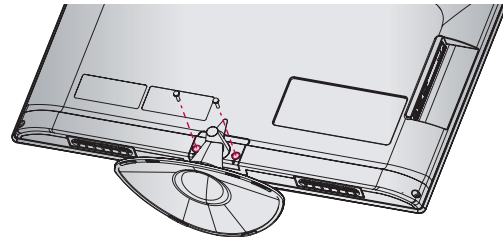
3 Detach the stand from TV.
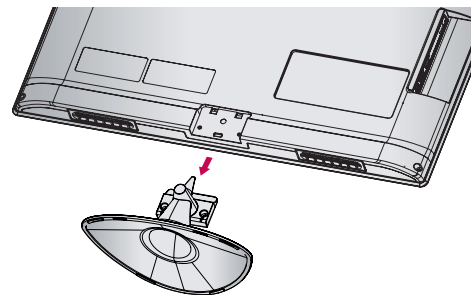
PREPARATION

STAND INSTRUCTIONS (For 22LE5300)

▪ 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.
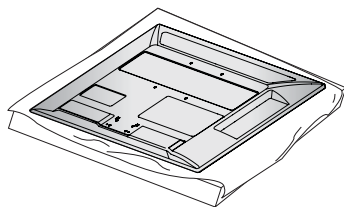
STAND BODY

STAND BASE
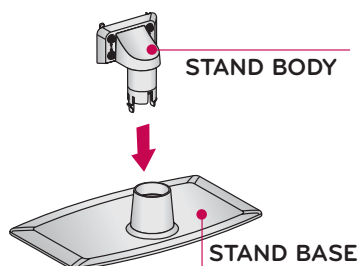
3 Assemble the TV as shown.
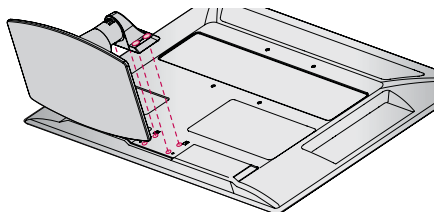
4 Fix the 4 screws securely using the holes in the back of the TV.
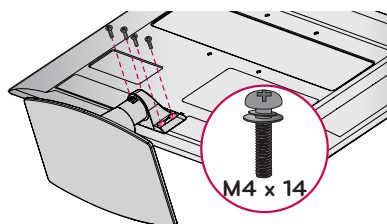
M4 x 14

ⓘ 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.
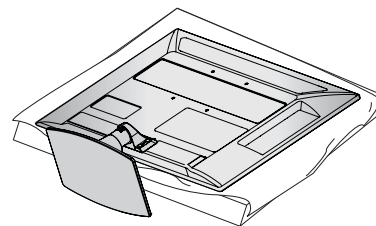
2 Remove the screws from the TV.
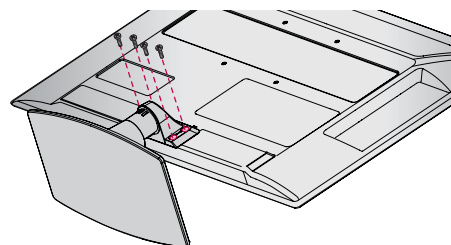
3 Detach the stand from TV.
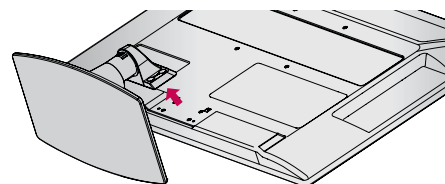
STAND INSTRUCTIONS (For 26/32/37/42/47/55LE5300, 32/42/47/55LE4600, 32/42LE4300)

■ Image shown may differ from your TV.
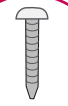
INSTALLATION

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.

> M4 X 22(For 32LE5300, 32/42/47/55LE4600 , 32LE4300)
> M4 X 24(For 37/42LE5300 , 42LE4300)
> M4 X 26 (For 47/55LE5300)

STAND BODY

M4 x 20
For 26LE5300

STAND BASE
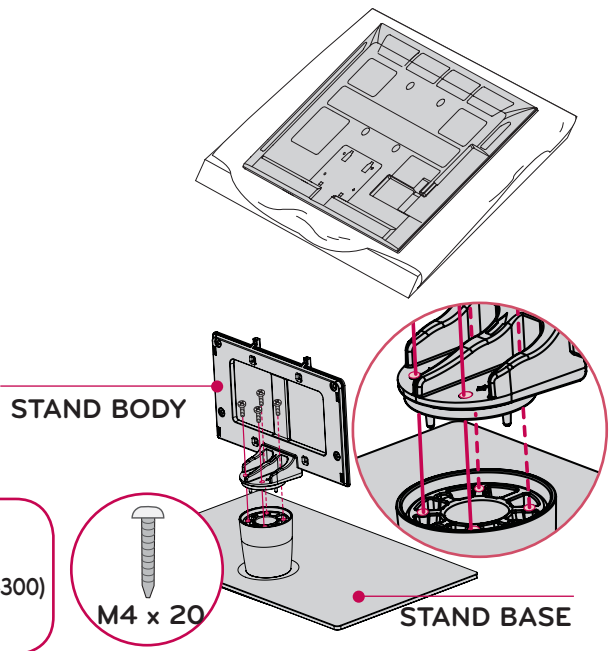
3 Assemble the TV as shown.
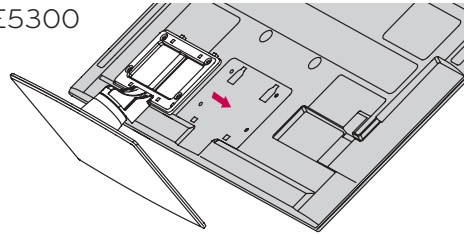
4 Assemble the part of the **STAND REAR COVER** with the TV.

STAND REAR COVER
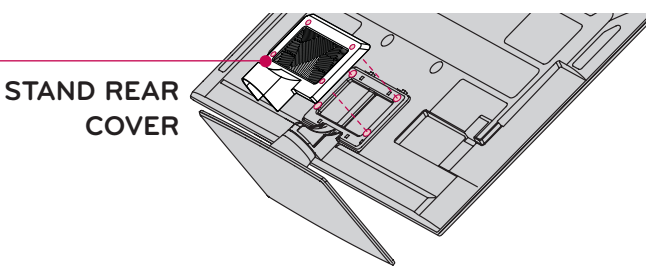
5 Install the 4 screws into the holes shown.

M4 x 14
For 26LE5300

M4 x 16
Other models
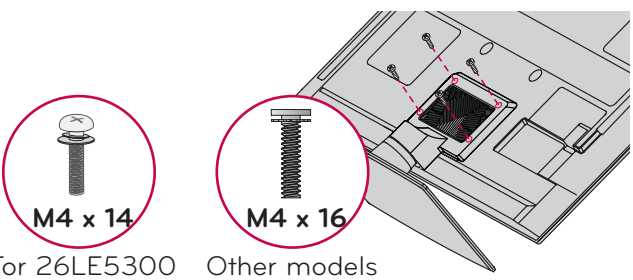
ⓘ NOTE

► 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.

PREPARATION

DETACHMENT

1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.
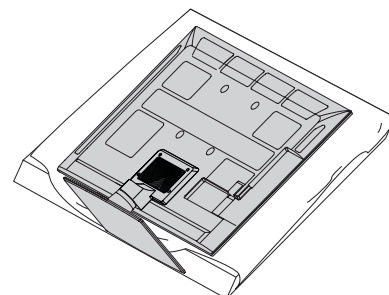
2 Remove the screws from the TV.
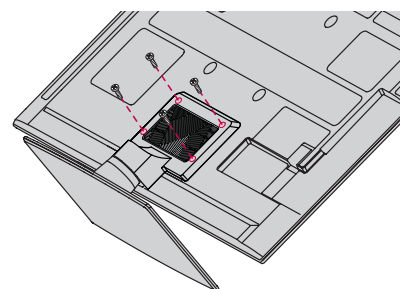
3 Detach the **STAND REAR COVER** from TV.
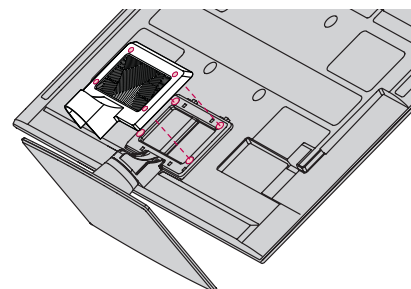
4 Detach the stand from TV.
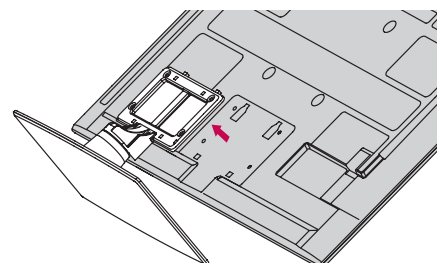
WOOFER INSTALLATION: WHEN USING THE WALL MOUNT

(For 32/42/47/55LE4600)

1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.
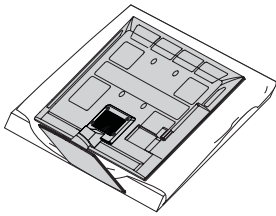
2 Remove the screws from the TV.
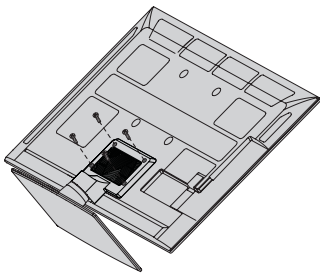
3 Detach the **Stand Rear Cover** from TV.
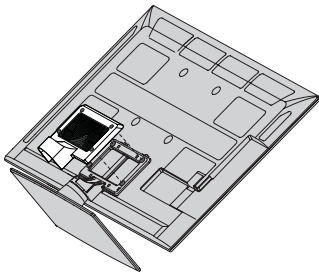
4 Detach the stand from TV.
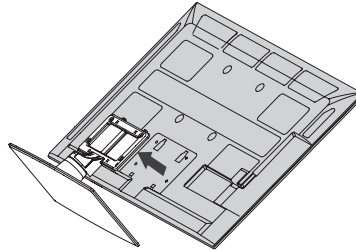
5 Detach the **Woofer** from the stand.
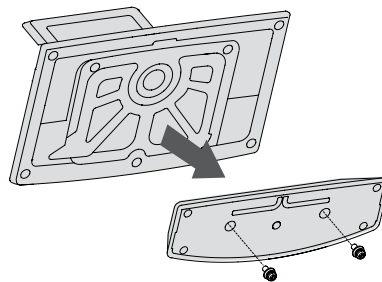
6 Assemble the **Woofer** with the TV.
Turn the Woofer Pemnut by using a coin.
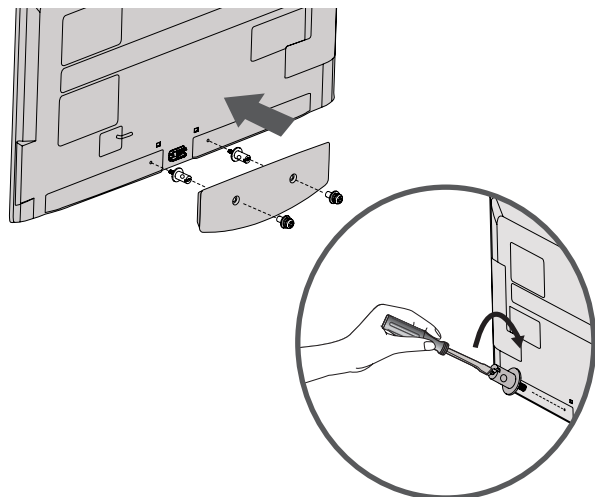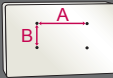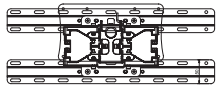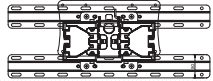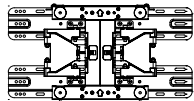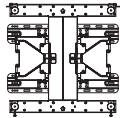
VESA WALL MOUNTING

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)
22LD350, 26LD350, 22LE5300, 26LE5300, 22LE6500, 26LE6500	100 * 100	M4	4	LSW100B, LSW100BG
32LD350, 32LD460, 32LD465, 32LE5300, 32LE4600, 32LE4300	200 * 100	M4	4	LSW100B, LSW100BG
37LD460, 37LD465, 42LD460, 42LD465, 47LD460, 47LD465, 37LE5300, 42LE5300, 47LE5300, 42LE4600, 47LE4600, 42LE4300	200 * 200	M6	4	LSW200B, LSW200BG
55LE5300, 55LE4600	400 * 400	M6	4	LSW400B, LSW400BG, DSW400BG

🌓 NOTE

► Screw length needed depends on the wall mount used. For further information, refer to the instructions included with the mount.
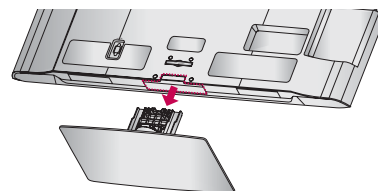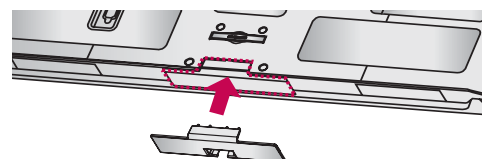► Standard dimensions for wall mount kits are shown in the table.
► When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
► Do not use screws longer then the standard dimension, as they may cause damage to the inside to the TV.
► For wall mounts that do not comply with the VESA standard screw specifications, the length

of the screws may differ depending on their specifications.
► Do not use screws that do not comply with the VESA standard screw specifications.
Do not use fasten the screws too strongly, this may damage the TV or cause the TV to a fall, leading to personal injury. LG is not liable for these kinds of accidents.
► LG is not liable for TV damage or personal injury when a non-VESA or non specified wall mount is used or the consumer fails to follow the TV installation instructions.

⚠ CAUTION

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

For 26LE5300
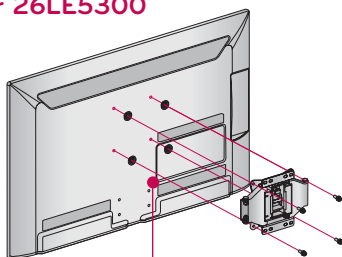
Place the ring spacers on the set before installing the wall mounting bracket so that the inclination of the backside of the set can be adjusted perpendicularly.

4-RING SPACERS

CABLE MANAGEMENT

▪ Image shown may differ from your TV.

26/32LD350, 32/37/42/47LD460, 32/37/42/47LD465

1 Connect the cables as necessary.
To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.
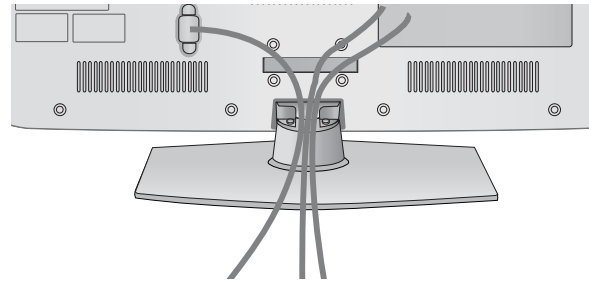
2 Open the **CABLE MANAGEMENT CLIP** as shown.

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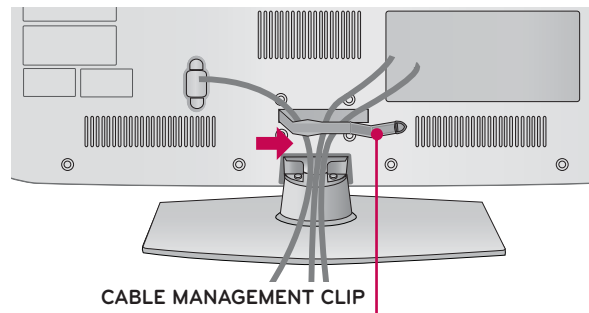
3 Put the cables inside the **CABLE MANAGEMENT CLIP** and snap it closed.
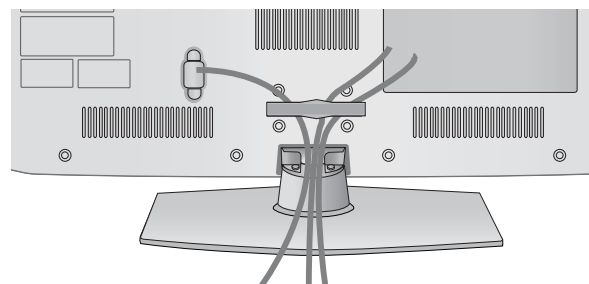
PREPARATION

22LD350

After connecting the cables as necessary, install **Cable Holder** as shown and bundle the cables.
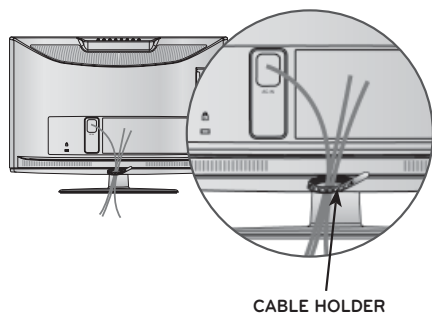
CABLE HOLDER

22/26LE5300

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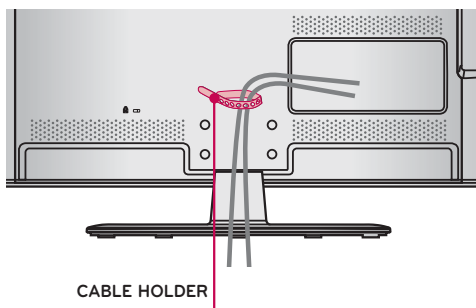
CABLE HOLDER

22/26LE6500

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

CABLE TIE
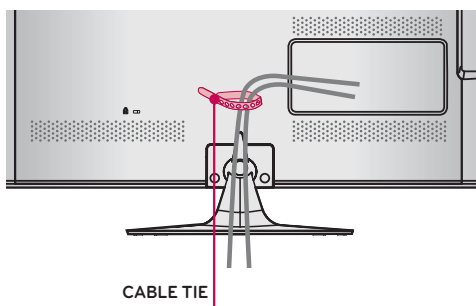
32/37/42/47/55LE5300, 32/42/47/55LE4600, 32/42LE4300

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.
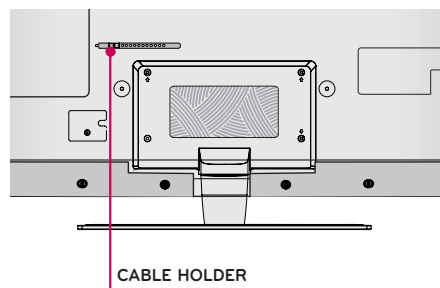
CABLE HOLDER

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

CABLE HOLDER

28
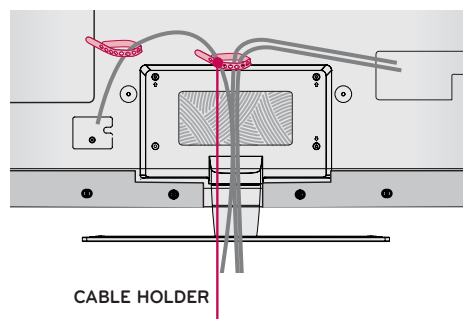
DESKTOP PEDESTAL INSTALLATION

■ Image shown may differ from your TV.

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

4 inches

4 inches

4 inches

4 inches
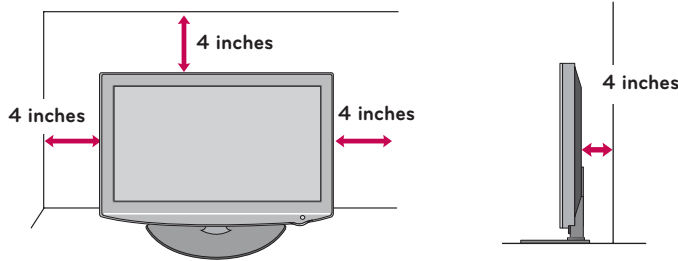
⚠ **CAUTION**

► Ensure adequate ventilation by following the clearance recommendations.

► Do not mount near or above any type of heat source.

SWIVEL STAND (Except 22LD350, 22LE5300, 22/26LE6500)

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.
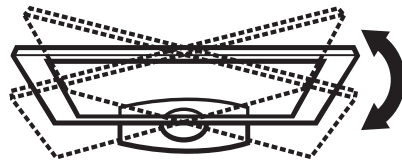
POSITIONING YOUR DISPLAY (For 22LD350)

• Tilt range

■ Image shown may differ from your TV.
■ Adjust the position of the panel in various ways for maximum comfort.

12° 0°

0° 3
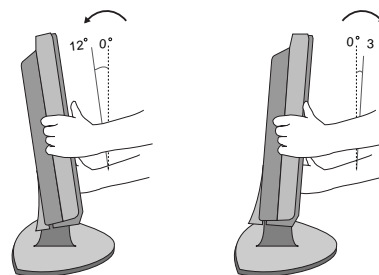
PREPARATION

ATTACHING THE TV TO A DESK (For 26/32LD350, 32/37/42LD460, 32/37/42LD465, 32LE5300, 32/42/47/55LE4600, 32/42LE4300)

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

1-Screw
 (provided as parts of the product)

Stand

Desk
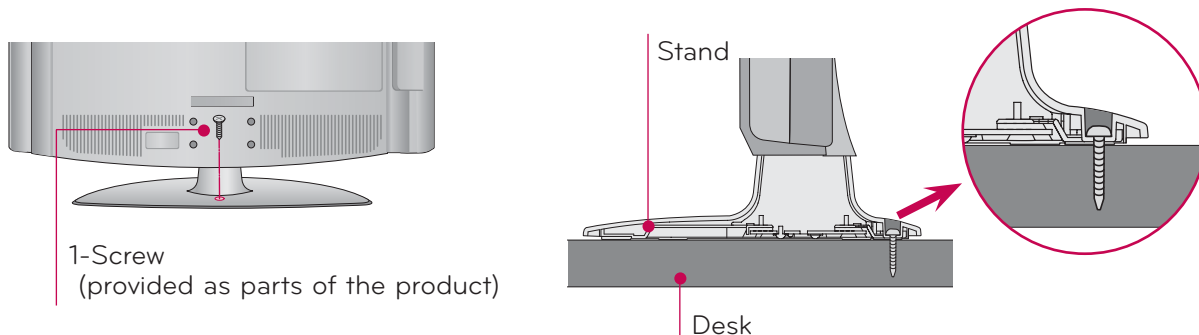
⚠ WARNING

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

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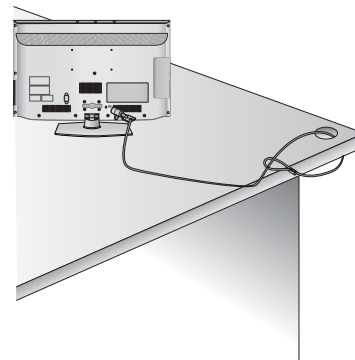
SECURING THE TV TO THE WALL TO PREVENT FALLING WHEN THE TV IS USED ON A STAND

■ 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.
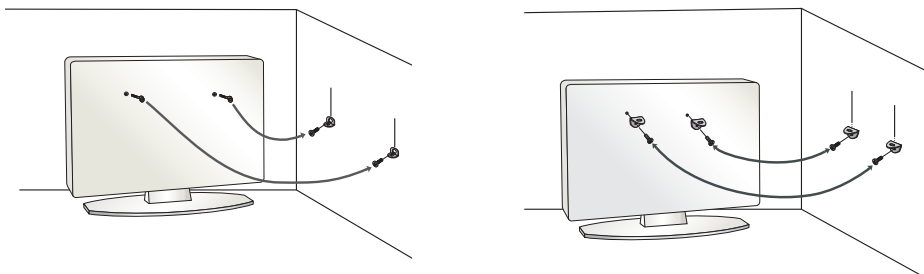
■ Insert the eye-bolts (or TV brackets and bolts) to tighten the product to the wall as shown in the picture.

* 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.
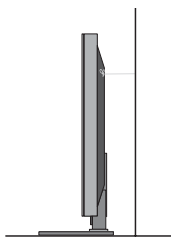
■ Use a sturdy rope (sold separately) to tie the product. It is safer to tie the rope so it becomes horizontal between the wall and the product.

🛈 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)

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

For optimum picture quality, adjust antenna direction if needed.

Wall Antenna Socket

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

Outdoor Antenna (VHF, UHF)

RF Coaxial Wire (75 ohm)

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

ANTENNA/ CABLE IN   or   ANTENNA IN

Copper Wire

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

2. Cable

ANTENNA/ CABLE IN   or   CABLE IN

Cable TV Wall Jack

RF Coaxial Wire (75 ohm)

▪ To improve the picture quality in a poor signal area, please purchase a signal amplifier and install properly.

▪ If the antenna needs to be split for two TV's, install a 2-Way Signal Splitter.

▪ If the antenna is not installed properly, contact your dealer for assistance.

EXTERNAL EQUIPMENT SETUP

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

▪ Image shown may differ from your TV.

HD RECEIVER SETUP

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, P$_B$, P$_R$) of the digital set-top box to the **COMPONENT IN VIDEO** jacks on the TV. Match the jack colors (Y = green, P$_B$ = blue, and P$_R$ = red).

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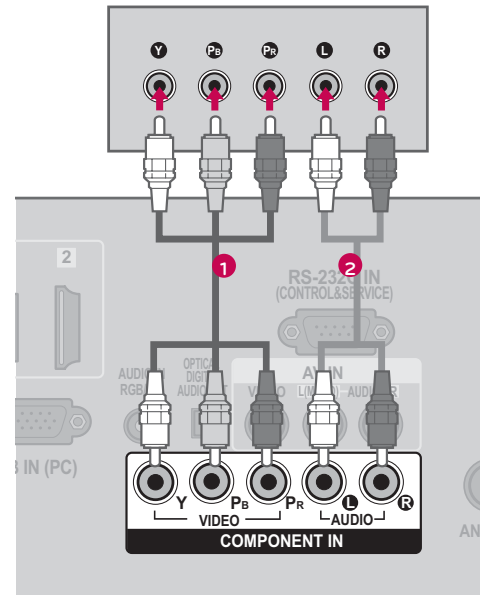
2. How to use

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

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

Y, C$_B$/P$_B$, C$_R$/P$_R$

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x480i	15.63	59.94
	15.73	60.00
720x480p	31.47	59.94
	31.50	60.00
720x576i	15.625	50.00
720x576p	31.25	50.00
1280x720p	37.50	50.00
	44.96	59.94
	45.00	60.00
1920x1080i	28.125	50.00
	33.75	60.00
	33.72	59.94
1920x1080p	56.250	50
	67.43	59.94
	67.5	60

HDMI Connection

1. How to connect

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

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

2. How to use

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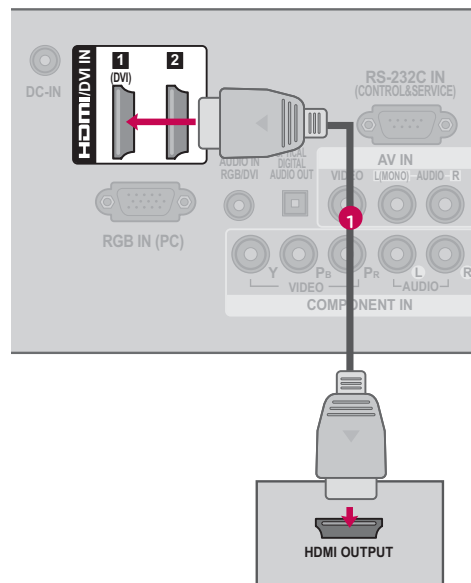
HDMI-DTV

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x480p	31.469	59.94
	31.5	60
720x576p	31.25	50
1280x720p	37.500	50
	44.96	59.94
	45	60
1920x1080i	33.72	59.94
	33.75	60
	28.125	50.00
1920x1080p	26.97	23.97
	27.00	24.00
	33.716	29.976
	33.75	30.00
	56.250	50
	67.43	59.94
	67.5	60

! 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: AC3 (32kHz, 44.1kHz, 48kHz), Linear PCM (32kHz, 44.1kHz, 48kHz, 96kHz, 192kHz)

DVI to HDMI Connection

1. How to connect

1 Connect the DVI output of the digital set-top box to the **HDMI/DVI IN 1** 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 **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.

DC-IN · HDMI/DVI IN · 1 (DVI) · 2 · RS-232C IN (CONTROL&SERVICE) · AV IN · AUDIO IN RGB/DVI · OPTICAL DIGITAL AUDIO OUT · VIDEO L(MONO) AUDIO R · RGB IN (PC) · VIDEO P₈ P₈ L AUDIO · COMPONENT IN

L R · AUDIO · DVI OUTPUT
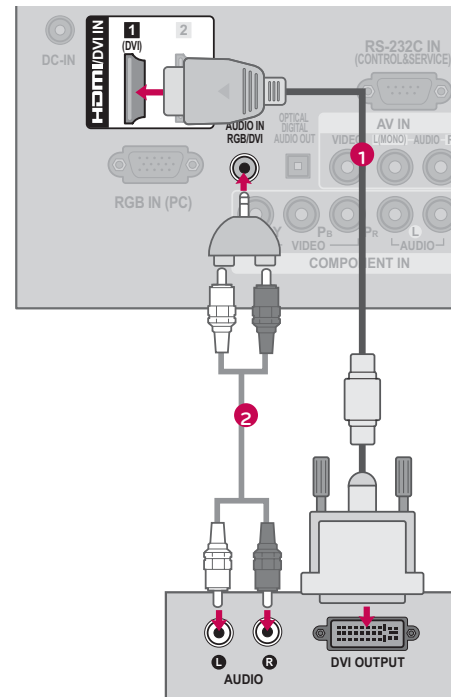
EXTERNAL EQUIPMENT SETUP

DVD SETUP

Component Connection

1. How to connect

① Connect the video outputs (Y, P$_B$, P$_R$) of the DVD to the **COMPONENT IN VIDEO 1** or **2** jacks on the TV.
Match the jack colors (Y = green, P$_B$ = blue, and P$_R$ = 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 **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.
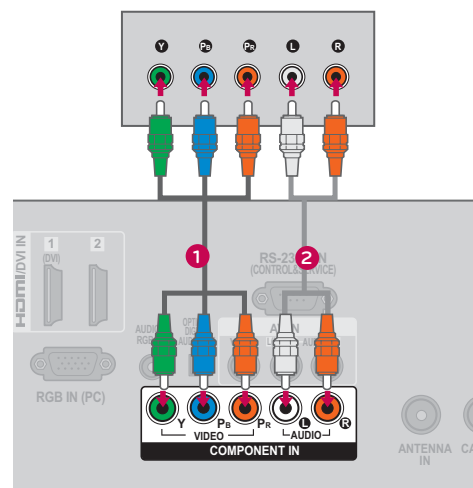
Component Input ports
To get better picture quality, connect a DVD player to the component input ports as shown below.

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	Cb	Cr
	Y	Pb	Pr

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 **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.
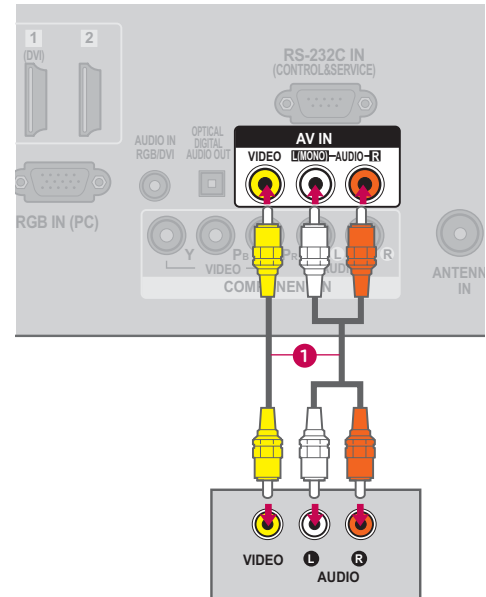
HDMI Connection

1. How to connect

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

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

2. How to use

- ■ Select the **HDMI1**, **HDMI2**, **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.
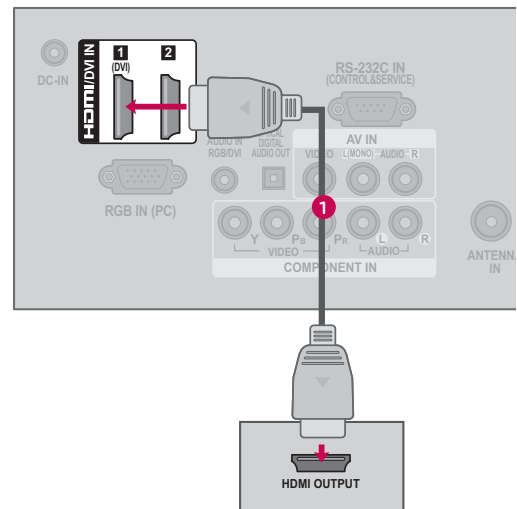
🛈 NOTE

▶ 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: AC3 (32kHz, 44.1kHz, 48kHz), Linear PCM (32kHz, 44.1kHz, 48kHz, 96kHz, 192kHz)

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.
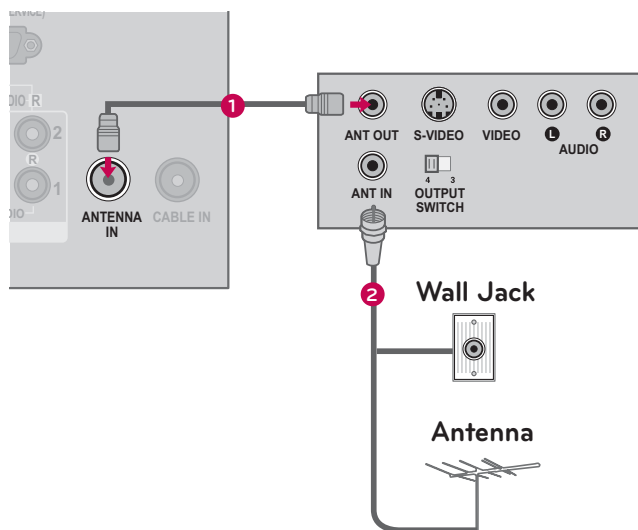
2. How to use

- 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 **AV1** input source on the TV using the **INPUT** button on the remote control.
- If connected to **AV IN 2**, select **AV2** input source on the TV.
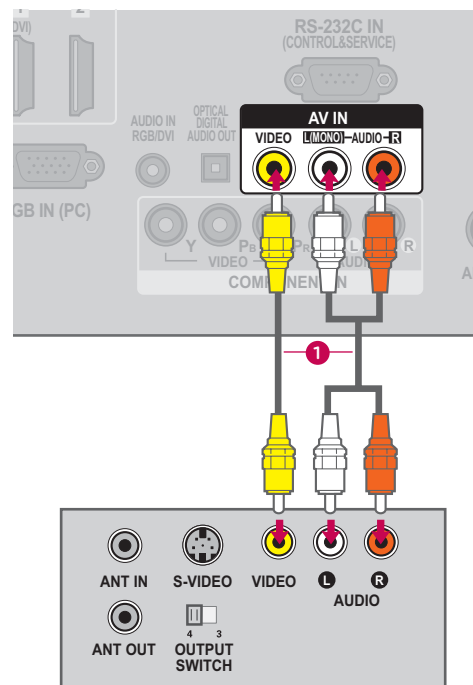
> **!NOTE**
>
> ► If you have a mono VCR, connect the audio cable from the VCR to the **AUDIO L/MONO** jack of the TV.

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** or **AV1/2** input source on the TV using the **INPUT** button on the remote control.
- Operate the corresponding external equipment.

Camcorder

Video Game Set
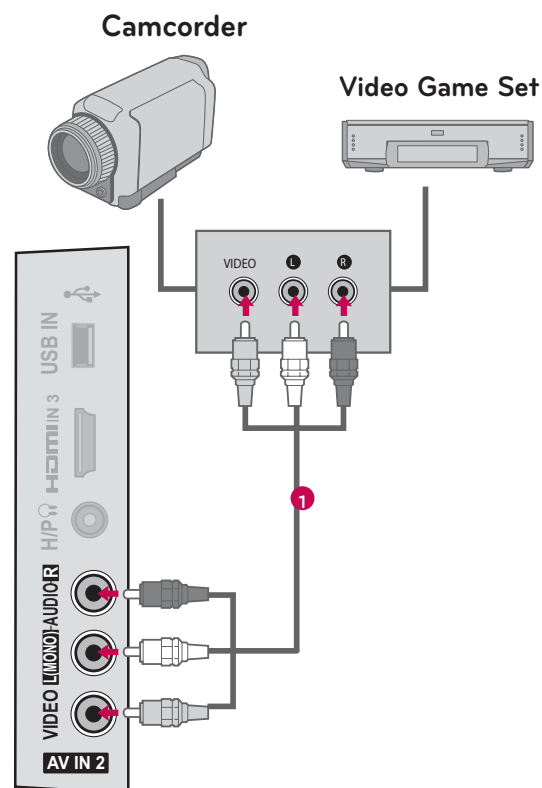
USB CONNECTION (Except 22/26/32LD350)

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.

or **1**
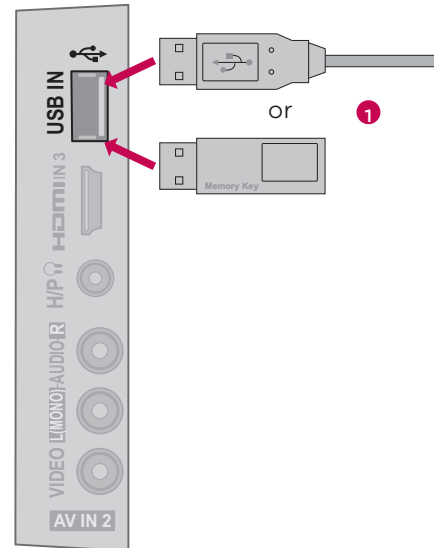
HEADPHONE SETUP

You can listen to the sound through the headphone.

1. How to connect

1 Plug the headphone into the head-phone 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 head-phone.
- ► 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.

EXTERNAL EQUIPMENT SETUP
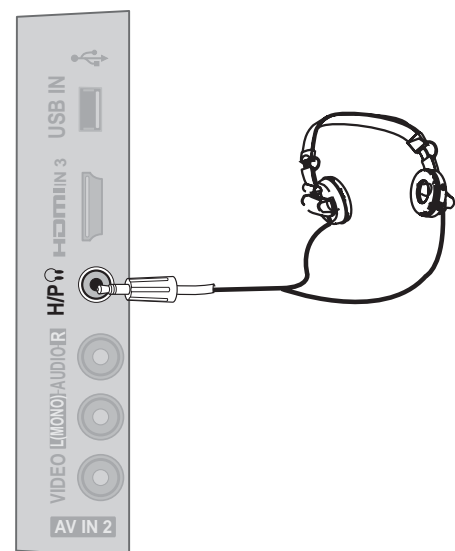
AUDIO OUT CONNECTION

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

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.116**). 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.116**)

⚠ 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.
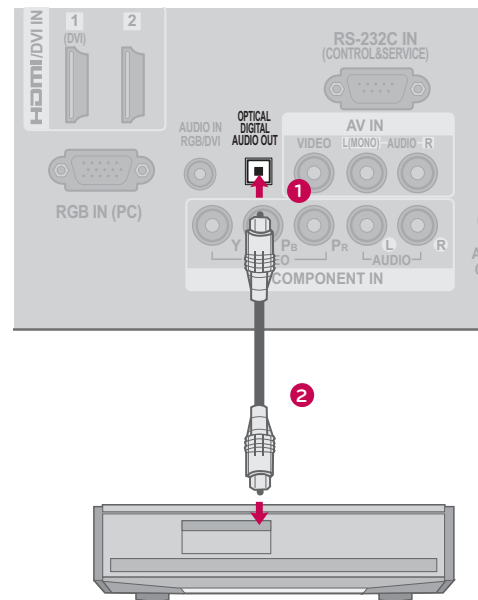
EXTERNAL EQUIPMENT WIRELESS CONNECTION

(For 32/37/42/47/55LE5300, 32/42LE4300)

You can connect between TV and external equipment wirelessly.

You can connect the Wireless Dongle to the TV to control the external input devices connected to Media Box wirelessly.

You can control the remote control of external device (VCR, DVD player etc.) connected to the Media box from the TV using the infrared controller called IR-Blaster.

For further information, refer to the optional "LG **Wireless Media Box** (Sold separately)" manual for operating instructions.
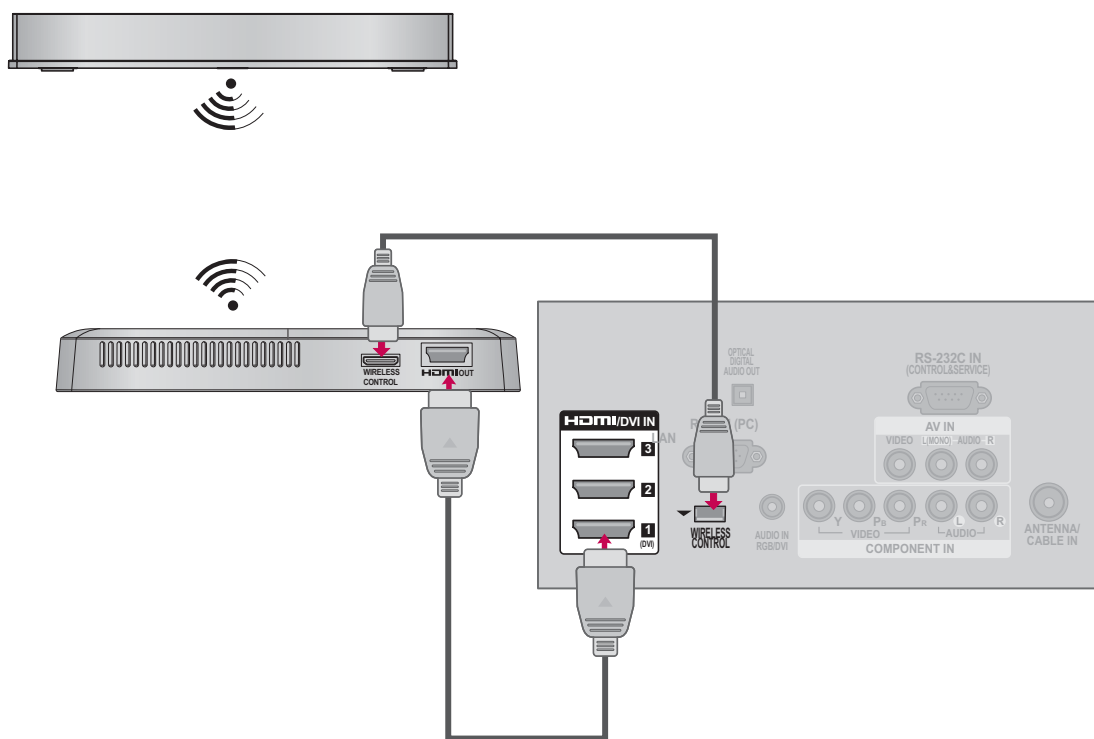
1. How to connect

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.

ⓘ NOTE

► When using the external device connected to the Wireless Media Box, some functions of the TV menu many not work.

PC SETUP

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

VGA (D-Sub 15 Pin) Connection

1. How to connect

1 Connect the VGA output of the PC to the **RGB 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.
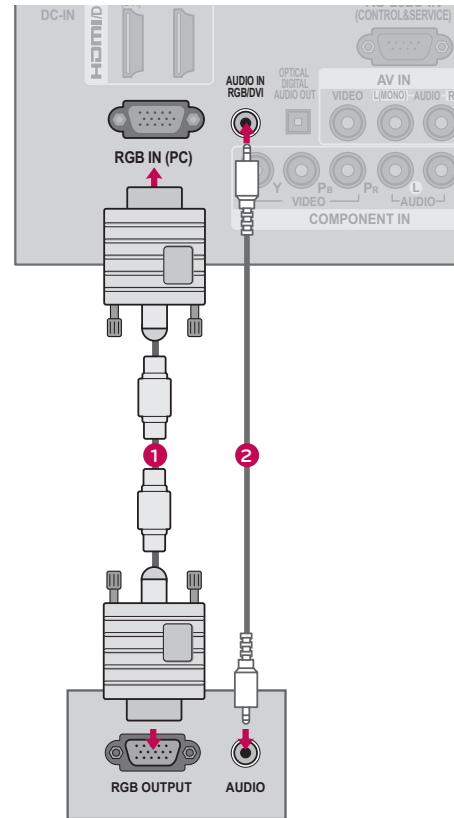
EXTERNAL EQUIPMENT SETUP

DVI to HDMI Connection

1. How to connect

1 Connect the DVI output of the PC to the **HDMI/DVI IN 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 **HDMI1** input source on the TV using the **INPUT** button on the remote control.

44
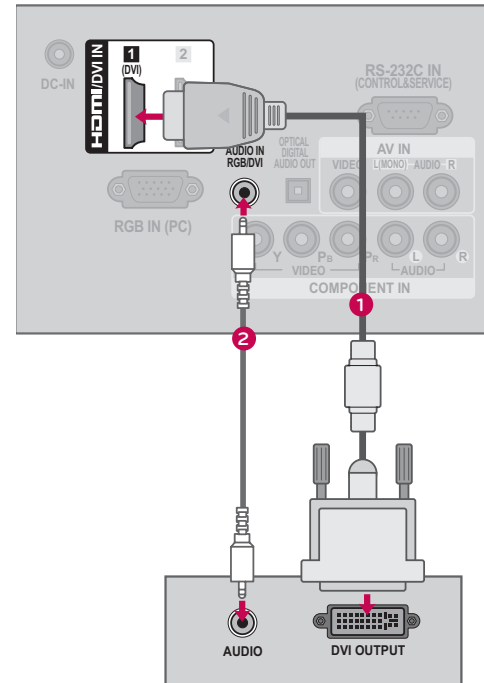
🛈 NOTE

► To get the best picture quality, adjust the PC graphics card to **1360x768**(for 22/26LE5300, 22/26LD350, 32LE5300-DA), **1920x1080**(Other models).

► 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.

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

► When selecting HDMI-PC, set the "Input Label - PC" in the INPUT menu.

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

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.468	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x768	47.78	59.87
1360x768	47.72	59.8
1280x1024	63.595	60.0
1920x1080 (RGB-PC)	66.587	59.93
1920x1080 (HDMI-PC)	67.5	60

Except 22/26LE5300, 22/26LD350, 32LE5300-DA

EXTERNAL EQUIPMENT SETUP

Screen Setup for PC mode
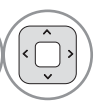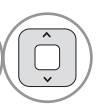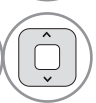
Selecting Resolution

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.
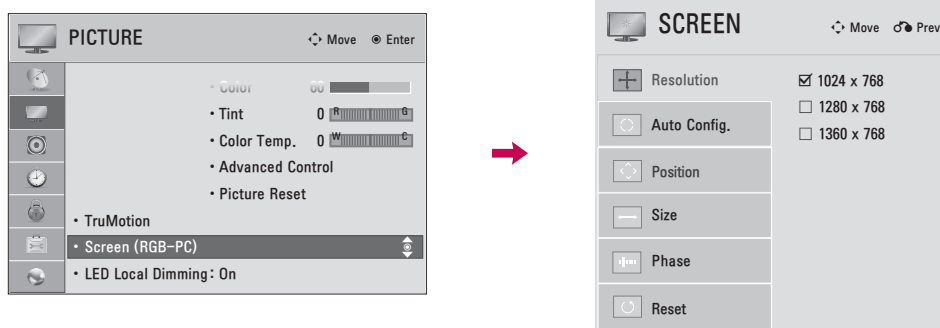
```
PICTURE            ◄► Move  ● Enter
          · Color        60
          • Tint         0
          • Color Temp.  0
          • Advanced Control
          • Picture Reset
  • TruMotion
  • Screen (RGB-PC)
  • LED Local Dimming : On
```

```
SCREEN            ◄► Move  ↶ Prev.
  Resolution      ☑ 1024 x 768
  Auto Config.    ☐ 1280 x 768
                  ☐ 1360 x 768
  Position
  Size
  Phase
  Reset
```

1 MENU — Select **PICTURE**.

2 ENTER — Select **Screen (RGB-PC)**.
(32/37/42/47LD465,
22/26/32LD350,
32/42/47/55LE4600,
32LE5300-DA,
32/42LE4300 : Select
Screen.)

3 ENTER — Select **Resolution**.

4 ENTER — Select the desired resolution.

5 ENTER

46

Auto Configure

Automatically adjusts picture position and minimizes image instability. After adjustment, if the image is still not correct, try using the manual settings or a different resolution or refresh rate on the PC.
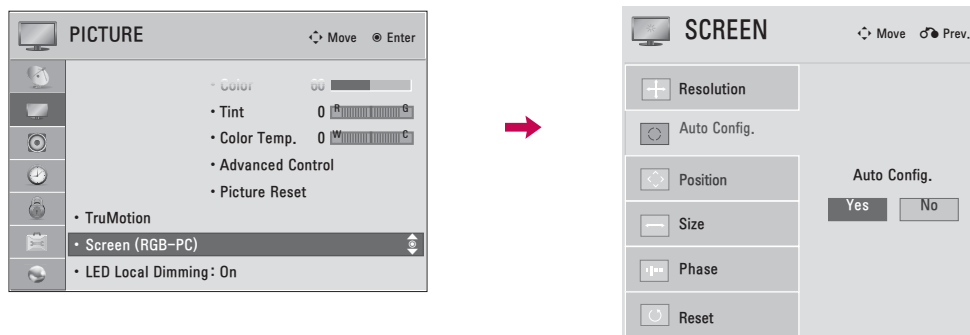
PICTURE	⟐ Move ◉ Enter
• Color	60
• Tint	0
• Color Temp.	0
• Advanced Control	
• Picture Reset	
• TruMotion	
• Screen (RGB–PC)	
• LED Local Dimming : On	

➡

SCREEN	⟐ Move ↶ Prev.
Resolution	
Auto Config.	
Position	Auto Config.
Size	Yes No
Phase	
Reset	

---

1 **MENU** / ⌃⌄ Select **PICTURE**.

2 **ENTER** / ⌃⌄ Select **Screen (RGB-PC)**. (32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300 : Select **Screen.)**

3 **ENTER** / ⌃⌄ Select **Auto Config.**.

4 **ENTER** / ‹ › Select **Yes**.

5 **ENTER** Start Auto Configuration.

■ If the position of the image is still not correct, try Auto adjustment again.

■ If picture needs to be adjusted again after Auto adjustment in RGB-PC, you can adjust the **Position**, **Size** or **Phase**.

Adjustment for screen Position, Size, and Phase

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

This feature operates only in RGB-PC mode.
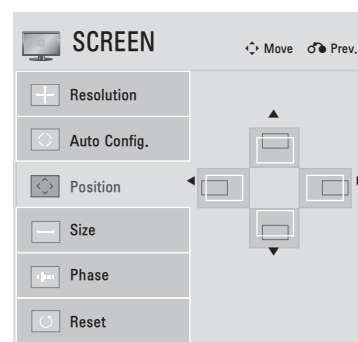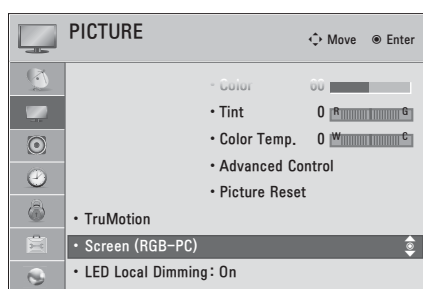
PICTURE	◇ Move ◉ Enter
• Color	60
• Tint	0 R G
• Color Temp.	0 W C
• Advanced Control	
• Picture Reset	
• TruMotion	
• Screen (RGB-PC)	
• LED Local Dimming: On	

SCREEN	◇ Move ♻ Prev.
Resolution	
Auto Config.	
Position	
Size	
Phase	
Reset	

---

1 MENU

Select **PICTURE**.

2 ENTER

Select **Screen (RGB-PC)**.
(32/37/42/47LD465,
22/26/32LD350,
32/42/47/55LE4600 ,
32LE5300-DA , 32/42LE4300
: Select **Screen.)**

3 ENTER

Select **Position**, **Size**, or **Phase**.

4 ENTER

Make appropriate adjustments.

5 ENTER

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

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

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

Screen Reset (Reset to original initial values)

Returns **Position**, **Size**, and **Phase** to the default initial settings.
This feature operates only in RGB-PC mode.
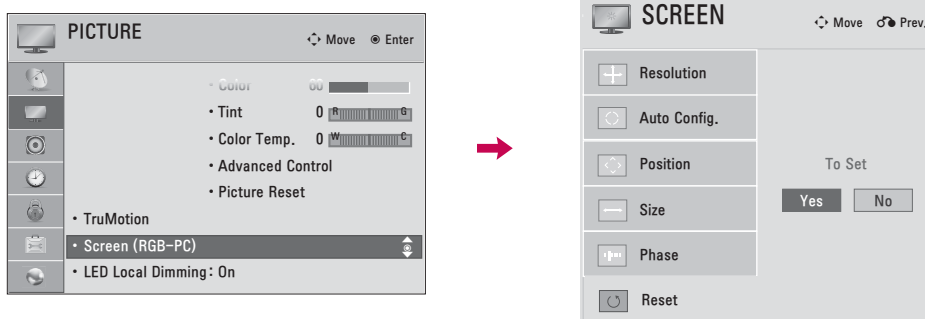
PICTURE	◇ Move ⊙ Enter
• Color	00
• Tint	0
• Color Temp.	0
• Advanced Control	
• Picture Reset	
• TruMotion	
• Screen (RGB–PC)	
• LED Local Dimming : On	

➡

SCREEN	◇ Move ⊙ Prev.
Resolution	
Auto Config.	
Position	To Set
Size	Yes No
Phase	
Reset	

1 MENU ⌃⌄ Select **PICTURE**.

2 ENTER ⌃⌄ Select **Screen (RGB-PC)**.
(32/37/42/47LD465,
22/26/32LD350,
32/42/47/55LE4600 ,
32LE5300-DA , 32/42LE4300
: Select **Screen.)**

3 ENTER ⌃⌄ Select **Reset**.

4 ENTER ‹› Select **Yes**.

5 ENTER Start **Reset**.

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.100**
AV MODE	Toggles through preset Video and Audio modes. ▶**p.68**
INPUT	Rotates through inputs. Also switches the TV on from standby. ▶**p.65**
TV	Returns to the last TV channel.
TV/RAD	Selects Radio, TV, CATV and DTV channel.

NUMBER button	
LIST	Displays the channel table. ▶**p.64**
Q.VIEW	Tunes to the last channel viewed.

VOLUME UP/DOWN	Adjusts the volume.
FAV	Set up desired favorite channels list ▶**p.63**
MARK	Select the input to apply the Picture Wizard settings. Use to mark or unmark a photo/music/movie. ▶**p.84, 90, 79**
RATIO	Changes the aspect ratio.
MUTE	Switches the sound on or off. ▶**p.52**
CHANNEL UP/DOWN	Changes the channel.
PAGE UP/DOWN	Moves from one full set of screen information to the next one.

ENERGY AV MODE INPUT

SAVING

TV/ RAD

ENERGY AV MODE INPUT

SAVING

TV

1 2 3
4 5 6
7 8 9
LIST 0 Q.VIEW

MARK
FAV
VOL RATIO CH
MUTE

PAGE

MENU XSTUDIO Q.MENU

ENTER

BACK SIMPLINK EXIT

MENU	Displays the main menu or clears all on-screen displays and return to TV viewing.
X.STUDIO	Select the Photo/Music/Movie list.
Q.MENU	Opens the list of Quick Menu options. ▶**p.56**
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.
EXIT	Clears all on-screen displays and return to TV viewing.
SIMPLINK	See a list of AV devices connected to TV. When you toggle this button, the SIMPLINK menu appears at the screen. ▶**p.69**
GUIDE	Show Channel schedule.
INFO	Displays programe information at the bottom of the screen.

COLOR BUTTON	Access special functions in some menus.
USB, SMPLINK Control buttons	• Controls MY MEDIA menu (Photo List, Music List, Movie List) • Controls the SIMPLINK compatible devices.
SUBTITLE	Recalls your preferred subtitle in digital mode.

Installing Batteries
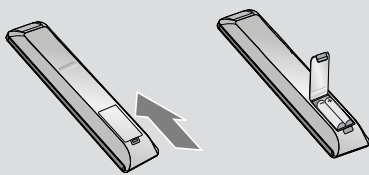
■ Open the battery compartment cover on the back side and install the batteries matching correct polarity.

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

■ Close cover.

51
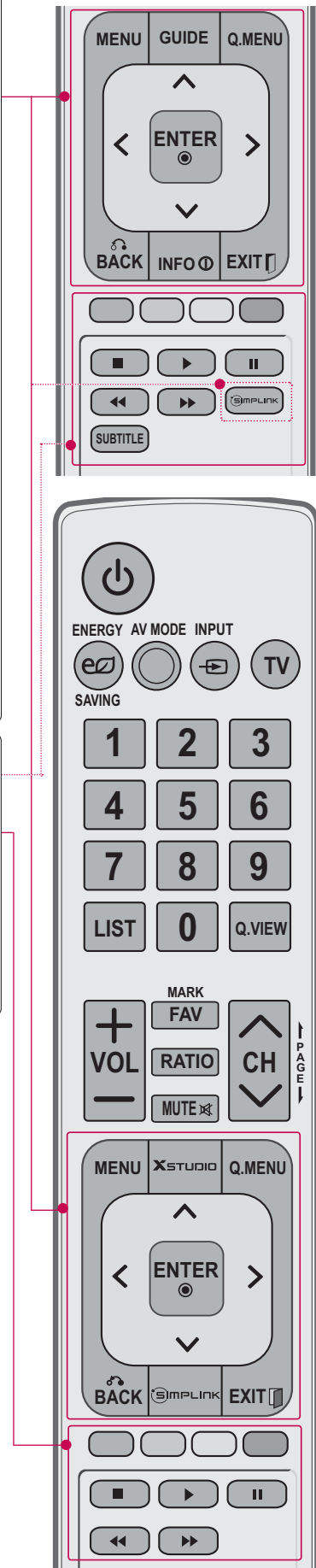
TURNING ON THE TV

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 ⏻, **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

WELCOME! Thank you for choosing LG
Step 1. Language
Português
English
Español
◉ Next

WELCOME! Thank you for choosing LG
Step 1. Language
English
Español
◉ Next
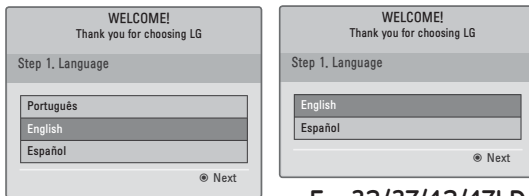
For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300

1 Select Menu Language.

2 ENTER ◉

Step2. Mode setting

Step 2. Mode Setting
ⓘ Selecting the environment. Choose the setting mode you want.
Select [Home Use] to use this TV at home. To use this TV at store, select [Store Demo].
Home Use	Store Demo
• Demo Mode	Off
♂ Previous	◉ Next

1 ‹□› Select **Home Use**.

2 ENTER ◉

Step3. Power Indicator (For LED LCD TV)

Step 3. Power Indicator
Standby Light	◄ Off ►
♂ Previous	◉ Next

1 ‹□› Select **On** or **Off**.

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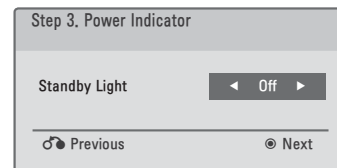
■ This function is disable in "Step2. Mode Setting - Store Demo".

Step4. Auto Tuning

Step4. Auto Tuning
Before starting, be sure that the TV antenna is connected.
♂ Previous	◉ Next
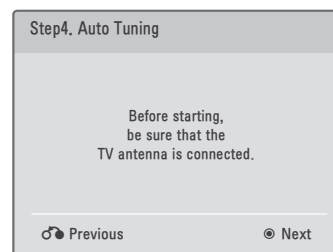
1 ENTER ◉ Check your antenna connection and start **Auto Tuning**.

ON-SCREEN MENUS SELECTION

Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
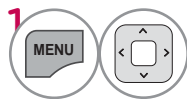
1 MENU ∧ ‹ □ › ∨   Display each menu.
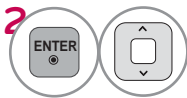
2 ENTER ∧ □ ∨   Select a menu item.

3 ENTER   Accept the current selection.

4 EXIT   Return to TV viewing.

CHANNEL
◆ Move ◉ Enter

CHANNEL
- Auto Tuning
- Manual Tuning
- Channel Edit
- System Color

AUDIO
◆ Move ◉ Enter

AUDIO
- Auto Volume : Off
- Clear Voice II : Off ◖3
- Balance   0 [L ▮▮▮▮▮▮▮▮▮▮ R]
- Sound Mode : Standard
  - Infinite Sound: Off
  - Treble   50 ▮▮▮▮
  - Bass   50 ▮▮▮▮
  - Reset

LOCK
◆ Move ◉ Enter

LOCK
- Set Password
- Lock System : On
  - Block Channel
  - Input Block
- Key Lock : Off

PICTURE
◆ Move ◉ Enter

PICTURE
- Aspect Ratio : 16:9
- Picture Wizard
- Energy Saving : Off
- Picture Mode : Standard
  - Backlight 70 ▮▮▮▮
  - Contrast 100 ▮▮▮▮▮
  - Brightness 50 ▮▮▮
  - Sharpness 70 ▮▮▮▮

TIME
◆ Move ◉ Enter

TIME
- Clock
- Off Time : Off
- On TIme : Off
- Sleep Timer : Off

OPTION
◆ Move ◉ Enter

OPTION
- Language
- Caption : Off
- Power Indicator
- Initial Setting
- Set ID : 1
- Mode Setting : Home Use
- IR Blaster : Off

■ For further information, refer to the optional **"Wireless Media Box"** manual for operating instructions. (For 32/37/42/47/55LE5300)

i.e)

Input List   ◆ Move ◉ Enter

| TV | USB | Component | AV 1 | AV 2 | RGB-PC |

| HDMI1 | HDMI2 | HDMI3 |

■ Input Label   ↺ Exit

INPUT

MY MEDIA

MY MEDIA

Movie List | Photo List | Music List

32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300

SETUP   Move   Enter
- Auto Tuning
- Manual Tuning
- Channel Edit

PICTURE   Move   Enter
- Aspect Ratio   : 16:9
- Picture Wizard
- Energy Saving : Off
- Picture Mode   : Standard
  - Backlight   70
  - Contrast   100
  - Brightness   50
  - Sharpness   70

AUDIO   Move   Enter
- Auto Volume   : Off
- Clear Voice II   : Off   3
- Balance   0   L   R
- Sound Mode   : Standard
  - Infinite Sound: Off
  - Treble   50
  - Bass   50
  - Reset

TIME   Move   Enter
- Clock
- Off Time   : Off
- On TIme   : Off
- Sleep Timer   : Off

LOCK   Move   Enter
- Set Password
- Lock System   : On
  - Block Channel
  - Input Block
- Key Lock   : Off

OPTION   Move   Enter
- Language(Language)
- Caption   : Off
- Hard of Hearing ( ): Off
- Power Indicator
- Factory Reset
- Set ID   : 1
- Mode Setting   : Home Use
- IR Blaster   : Off

> ■ For further information, refer to the optional **"Wireless Media Box"** manual for operating instructions. (For 32LE5300-DA)

i.e)

Input List   Move   Enter

| Antenna | Cable | USB | AV 1 | AV 2 | Component |
| RGB | HDMI1 | HDMI2 | | | |

Input Label   Exit

Except 22/26/32LD350

MY MEDIA

MY MEDIA
Movie List | Photo List | Music List
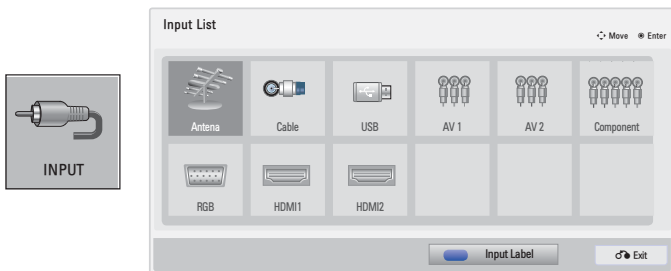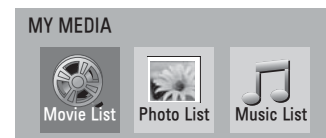
WATCHING TV / CHANNEL CONTROL

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.
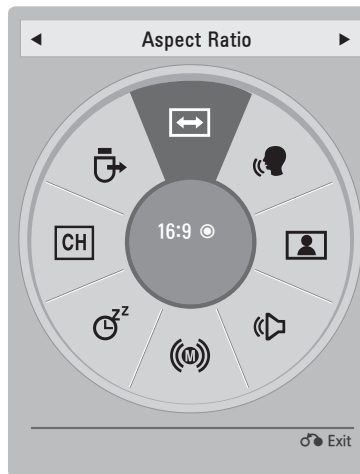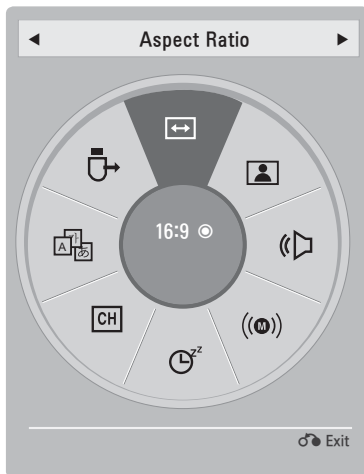
**For 32/37/42/47LD465,
32/42/47/55LE4600 ,
32LE5300-DA , 32/42LE4300**

For 22/26/32LD350

⬌ **Aspect Ratio**: Selects your desired picture format.

◖●) **Clear Voice II:** By differentiating the human sound range from others, it helps users listen to human voices better.

▣ **Picture Mode**: Selects the desired preset picture setting.

◖▷ **Sound Mode**: Selects the desired preset sound setting.

((◉)) **SAP**: Selects MTS sound.

((◉)) **Audio Language**: Selects Audio Language.(In DTV Mode)

◔ᶻ **Sleep Timer**: Select the amount of time before your TV turns off automatically.

[CH] **Del/Add**: Select channel you want to add or delete.

▣ᵇ **Caption**: Select on or off.

◻→ **USB Device**: Select "Eject" in order to eject a USB device.

e⊘ **Energy Saving**: Selects the Energy saving mode. (For 22/26/32LD350)

1
[Q.MENU] [‹◻›]   Display each menu.

2
[ENTER ◉] [◻ ⌄]   Make appropriate adjustments.

3
[EXIT ⎚]   Return to TV viewing.

CUSTOMER SUPPORT

Software Update (For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300)

Software Update means software can be downloaded through the digital terrestrial broadcasting system.

☑ Software Update
☐ Picture Test
☐ Sound Test
☐ Signal Test
☐ Product/Service Info.
Close

➡

Software Update ◄ On ►
● Current Version 00.00.01
Close
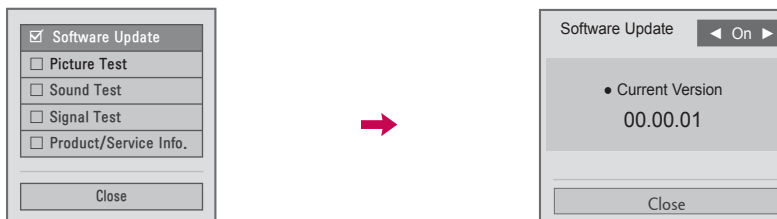
1 MENU RED Select **Customer Support** menu.

2 ENTER Select **Software Update**.

Select **On** or **Off**.
3 ENTER • If you select **On**, a user confirm message box will be displayed to notify that new software is found.

4 ENTER Return to the previous menu.

■ **When setting "Software Update"**

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

? Software update is available. Would you like to download now?
Yes
No
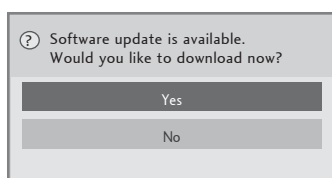
Simple Update : for current update stream

Download progress status can be checked from Software Update menu.

Software Update ◄ On ►
⟳ Software downloading progress. Ver. 00.00.00 ► Ver.00.00.01
▬▬▬▬▬▬   4%
Close
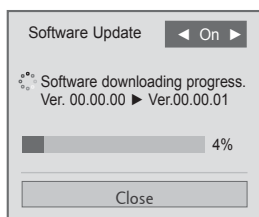
A window as display below appears when download completes.
TV is restarted when download is completed.

ⓘ New software version is ready. If you want to install now, TV will be turned off and restart. Continue?
Yes   No
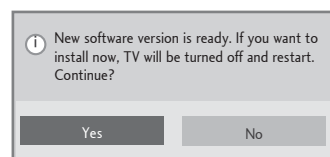
- During Progress of a Software Update, please note the following:
• Power to the TV must not be interrupted.
• The antenna must not be disconnected.
• After Software Update, you can confirm the updated software version in Software Update menu.
• It may take hours to download the software, so make sure that the power stays on during the download.
• The software is downloaded only in Standby mode or in MUX with Software Update Service, and stops when the power cord is unplugged or when viewing MUX without Software Update Service.
• When you return to Standby mode or MUX with Software Update Service, the software download will resume from where it stopped.

WATCHING TV / CHANNEL CONTROL

Picture Test/Sound Test

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

☐ Software Update
☑ **Picture Test**
☐ Sound Test
☐ Signal Test
☐ Product/Service Info.
Close

➡

❓ Do you have a problem in this test screen?
Yes	No

☐ Software Update
☐ Picture Test
☑ **Sound Test**
☐ Signal Test
☐ Product/Service Info.
Close

➡

❓ Do you have a sound problem in this screen?
Yes	No
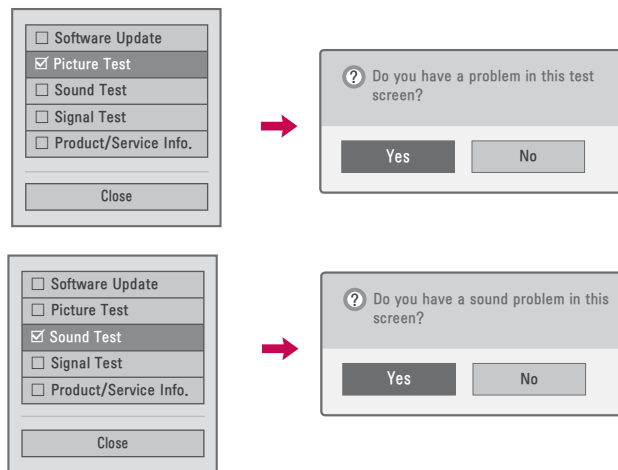
1 MENU RED Select **Customer Support**.

2 ⌄ ENTER Select **Picture Test** or **Sound Test**.

3 ‹□› ENTER Select **Yes**.

4 BACK Return to the previous menu.

EXIT Return to TV viewing.

Diagnostics (For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300)

This function enables you to view information on the Manufacturer, Model/Type, Serial Number and Software Version.

☐ Software Update
☐ Picture Test
☐ Sound Test
☑ **Signal Test**
☐ **Product/Service Info.**
Close
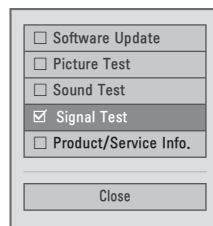
1 MENU RED Select **Customer Support** menu.

2 ⌄ Select **Signal Test.**

3 ENTER Display Manufacturer, Model/Type, Serial Number and Software Version.

4 ENTER Return to the previous menu.

WATCHING TV / CHANNEL CONTROL

Product/Service Info.

This function is a customer support function that can see product/service information and customer service information.

☐	Software Update
☐	Picture Test
☐	Sound Test
☐	Signal Test
☑	Product/Service Info.
	Close

1
MENU **RED** Select **Customer Support**.
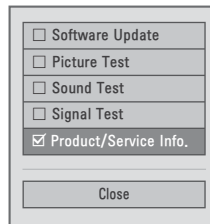
2
^ ◡ ⌄ **ENTER ◉** Select **Product/Service Info.**.
You can check the various product/Service infomation based on your model.

3
BACK Return to the previous menu.

EXIT Return to TV viewing.

SIMPLE MANUAL

■ This feature is not available on all models.

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.

1
MENU **GREEN** Select **Simple Manual**.

2
‹ ▢ › Select the part of the manual you want to see.

RED Go to the **Index** page.

BLUE Play the **Simple Manual** automatically or manually.

3
EXIT Return to TV viewing.

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.

CHANNEL	◆ Move ● Enter
• Auto Tuning	
• Manual Tuning	
• Channel Edit	
• System Color	

➡

CHANNEL	◆ Move ● Enter
• Auto Tuning	

Antenna | Cable

Check your antenna connection.
The previous channel information
will be updated during Auto Tuning.

Start
Close

Antenna | Cable

Antenna Cable

Check your TV signal connection.
The previous channel information
will be updated during Auto Tuning.

Start
Close

For 32/37/42/47LD465,
22/26/32LD350,
32/42/47/55LE4600 ,
32LE5300-DA ,
32/42LE4300

1 MENU ⟨∧∨⟩ Select **CHANNEL**.
(32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300 : Select **SETUP**.)

2 ENTER ∧∨ Select **Auto Tuning**.

3 ENTER ∧∨ Select **Start**.

4 ENTER Run **Auto tuning**.

5 BACK Return to the previous menu.

EXIT 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.

Add/Delete Channel (Manual Tuning)

**For 32/37/42/47LD465,
22/26/32LD350,
32/42/47/55LE4600 ,
32LE5300-DA , 32/42LE4300**
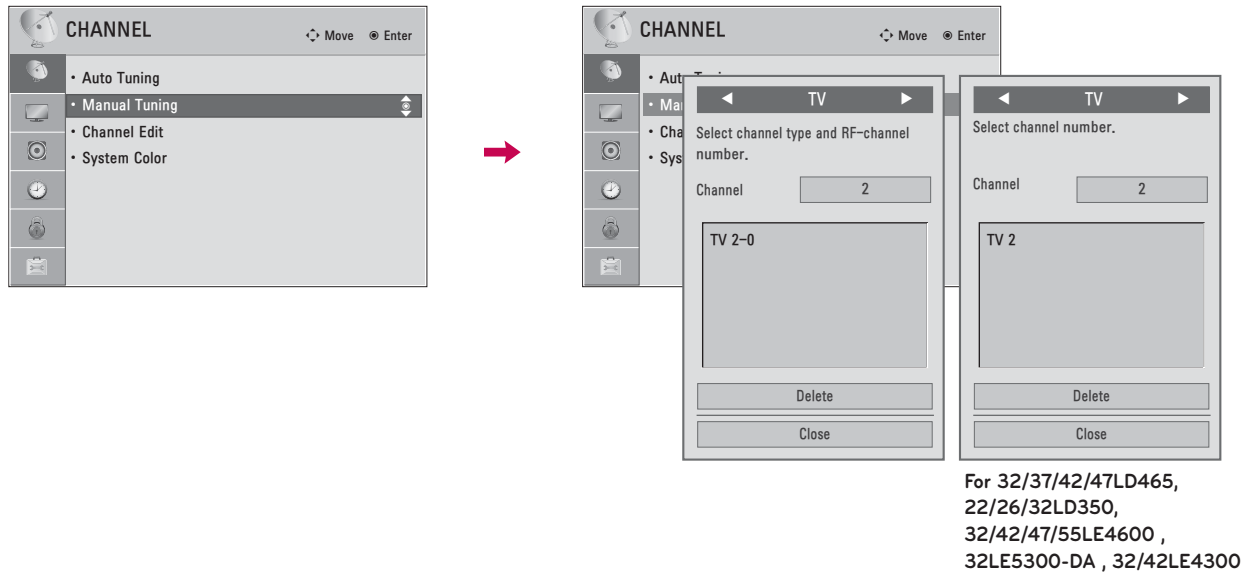
1 Select **CHANNEL**.
(32/37/42/47LD465,
22/26/32LD350,
32/42/47/55LE4600 , 32LE5300-
DA , 32/42LE4300 : Select
SETUP.)

2 Select **Manual Tuning**.

3 Select **TV**, or **Cable TV**. **(DTV :**
Select **DTV**, **TV**, or **Cable TV**.**)**

4 Select channel you want to add or
delete.

5 Select **Add** or **Delete**. **(DTV :** Select
Add, Update or **Cancel.)**

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.
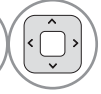
Channel Editing

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 ∧ ∨** 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.

```
CHANNEL                        ◀‣▶ Move    ◉ Enter
  • Auto Tuning
  • Manual Tuning
  • Channel Edit                              ⬍
  • System Color
```

```
Channel Edit    Favorite Group: A                      Page 1/1
                        TV        Cable TV
  3-0                  5-0                  7-0

  ◉ CH.Change      FAV Favorite Ch.   Q.MENU Favorite Ch. Group   ↺ Previous
  ◀‣▶ Navigation   CH Page Change      ■ Block/Unblock          ■ Add/Delete
```

```
Channel Edit    Favorite Group: A                      Page 1/1
              DTV        RADIO        TV        Cable TV
  3                    5                  7

  ◉ CH.Change      FAV Favorite Ch.   Q.MENU Favorite Ch. Group   ↺ Previous
  CH Page Change    ■ Move            ■ Block/Unblock          ■ Add/Delete
```

For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300

1 MENU

Select **CHANNEL**. (32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300 : Select **SETUP**.)

2 ENTER

Select **Channel Edit**.

3 ENTER

Select a channel.

■ Keep pressing the ∧ button and use the ◀ or ▶ buttons to move between TV and Cable TV.

4 BLUE

Add or delete a channel.

YELLOW

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

ENTER

Switch to the chosen channel number.

CH

Move the pages when the channel list is too long.

5 BACK

Return to the previous menu.

EXIT
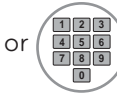
Return to TV viewing.

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.

```
┌─────────────────────────────────┐
│ Favorite List        ⟳ Exit      │
│               ◄►Favorite Ch. Group│
│  ┌───────────────────────────┐   │
│  │ ◄      Group  A         ►  │   │
│  ├───────────────────────────┤   │
│  │ 📺 3-0                  ⬇  │   │
│  │ 📺 4-0                     │   │
│  │                           │   │
│  │                           │   │
│  │                           │   │
│  │                           │   │
│  └───────────────────────────┘   │
│   ■ Ch.Reg.      ■ Ch.Edit       │
└─────────────────────────────────┘
```
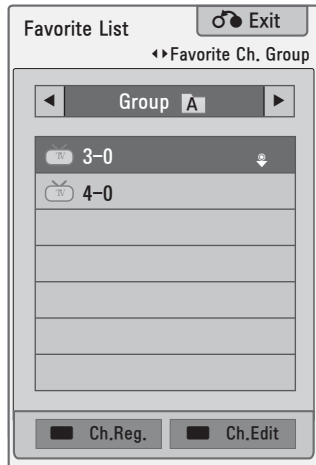
1 CH ∧∨ or [1 2 3 / 4 5 6 / 7 8 9 / 0] Select your desired channel.

2 MARK FAV / ⟨ ⬚ ⟩ Select your desired favorite channel group from A to D.

3 YELLOW Register or cancel the current channel in favorite channel list.

BLUE Go to the "**CHANNEL** menu **- Channel Edit**".(32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300: Go to the "**SETUP** menu **- Channel Edit**".)

4 EXIT Return to TV viewing.

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

FAVORITE CHANNEL LIST

```
┌─────────────────────────────────┐
│ Favorite List        ⟳ Exit      │
│               ◄►Favorite Ch. Group│
│  ┌───────────────────────────┐   │
│  │ ◄      Group  A         ►  │   │
│  ├───────────────────────────┤   │
│  │ 📺 3-0                  ⬇  │   │
│  │ 📺 4-0                     │   │
│  │                           │   │
│  │                           │   │
│  │                           │   │
│  │                           │   │
│  └───────────────────────────┘   │
│   ■ Ch.Reg.      ■ Ch.Edit       │
└─────────────────────────────────┘
```

Displaying the favorite channel list

1 MARK FAV Display the Favorite channel list.

Selecting a channel in the favorite channel list

1 ∧∨ Select a channel.

2 ENTER Switch to the chosen channel number.

Paging through a favorite channel list

1 CH ∧∨ Turn the pages.

2 BACK Return to TV viewing.

CHANNEL LIST

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

```
┌─────────────────────────────────────┐
│  Channel List          ♂● Exit       │
│                                       │
│   ┌────────────────────────────────┐ │
│   │  🔲 3-0                    ⬇   │ │
│   │  🔲 4-0                         │ │
│   │                                │ │
│   │                                │ │
│   │                                │ │
│   │                                │ │
│   │                                │ │
│   └────────────────────────────────┘ │
│                        ■ Ch.Edit      │
└─────────────────────────────────────┘
```

Displaying Channel List

1
LIST   Display the **Channel List**.

BLUE   Tune to the "**CHANNEL** menu **- Channel Edit**".(32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300: Tune to the "**SETUP** menu **- Channel Edit**".)

Selecting a channel in the channel list

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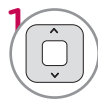
2
ENTER   Switch to the chosen channel number.

Paging through a channel list

1
CH   Turn the pages.
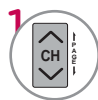
2
EXIT   Return to TV viewing.

INPUT LIST

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

i.e)

Input List					⟨⟩ Move ⦿ Enter
TV	USB1	USB2	AV	Component1	Component2
RGB-PC	HDMI1	HDMI2	HDMI3	HDMI4	
				■ Input Label	⚙ Exit
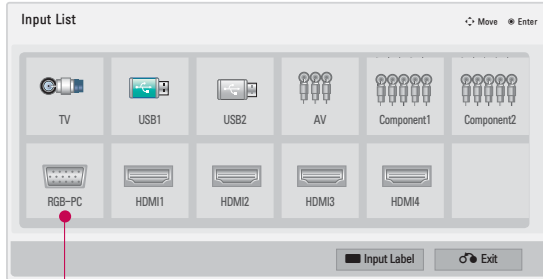
Disconnected inputs are inactive
(grayed out)

---

1 INPUT ⊡   ˄ ‹ ▢ › ˅   ENTER ⦿
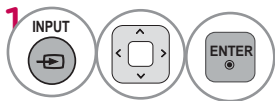
Select the desired input source.
- You can also select the desired input source in the **INPUT** menu.

- When new external device is connected, this popup menu is displayed automatically.

  If selecting **Yes**, you can select input source that you want to appreciate.
- But, when selecting "**SIMPLINK** - **On**", popup menu for HDMI input will not be displayed.

	New external input is connected. Do you want to use this?
AV	
Yes	No
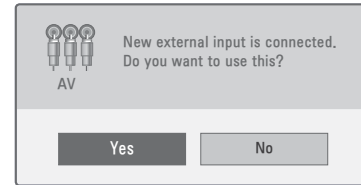
- **DTV**: Select it watch air digital.
- **TV**: Select it to watch air analog and cable analog.
- **AV**: Select them to watch a VCR or other external equipment.
- **Component**: Select them to watch DVD or a Digital set-top box.
- **RGB-PC**: Select it to view PC input.
- **HDMI**: Select them to 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.
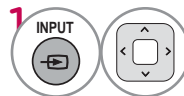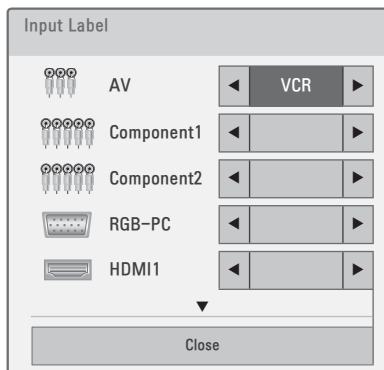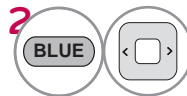
Input Label			
AV	◄	VCR	►
Component1	◄		►
Component2	◄		►
RGB-PC	◄		►
HDMI1	◄		►
▼			
Close			

1 INPUT ⊡   ˄ ‹ ▢ › ˅
Select the desired input source.

2 BLUE   ‹ ▢ ›
Select the label.

3 BACK
Return to the previous menu.

EXIT
Return to TV viewing.

MODE SETTING

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

```
       OPTION                    ◊ Move   ◉ Enter            OPTION                    ◊ Move   ◉ Enter
                                                                                              ⓘ Selecting the environment.
         • Language                                           • Language                        Choose the setting mode you want.
         • Caption         : Off                              • Caption         : Off
         • Power Indicator                                    • Power Indicator              Select [Home Use]  to use this TV at home. To use
                                                                                             this TV at store, select [Store Demo].
         • Initial Setting                                    • Initial Setting
         • Set ID          : 1                                • Set ID          : 1            Home Use          Store Demo
         • Mode Setting    : Home Use          ⬍              • Mode Setting    : Home U
                                                                                             • Demo Mode           Off

                                                                                                    Close
```

---
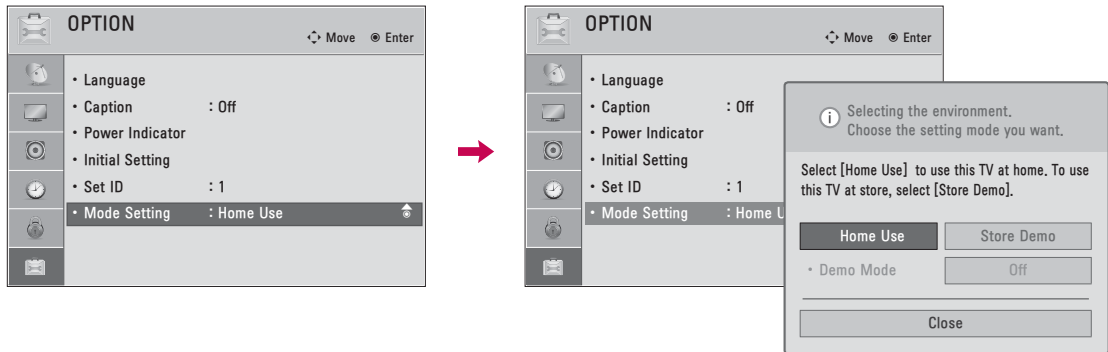
1 **MENU** ⌃⌄‹›   Select **OPTION**.

2 **ENTER** ◉ ⌃⌄   Select **Mode Setting**.

3 **ENTER** ◉ ‹☐›   Select **Home Use**.

4 **BACK**   Return to the previous menu.

EXIT   Return to TV viewing.

■ "**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.

DEMO MODE

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

```
       OPTION                    ◊ Move   ◉ Enter            OPTION
                                                                                              ⓘ Selecting the environment.
         • Language                                           • Language                        Choose the setting mode you want.
         • Caption         : Off                              • Caption         : Off
         • Power Indicator                                    • Power Indicator              Select [Store Demo] to use this TV in store. To
                                                                                             use this TV at home, select [Home Use].
         • Initial Setting                                    • Initial Setting
         • Set ID          : 1                                • Set ID          : 1            Home Use          Store Demo
         • Mode Setting    : Home Use          ⬍              • Mode Setting    : Store
                                                                                             • Demo Mode           Off

                                                                                                    Close
```

---
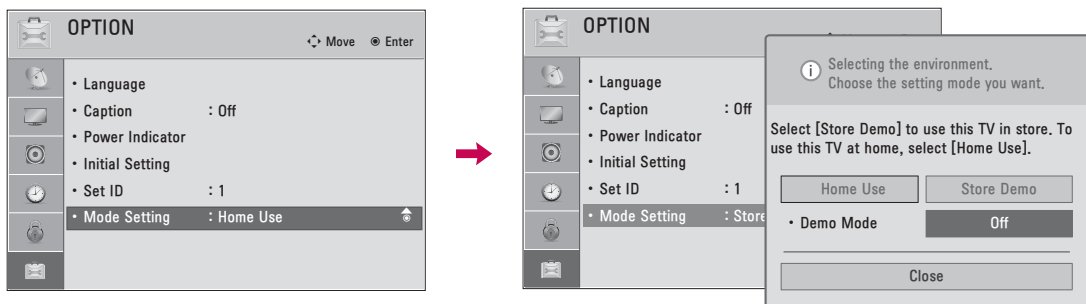
1 **MENU** ⌃⌄‹›   Select **OPTION**.

2 **ENTER** ◉ ⌃⌄   Select **Mode Setting**.

3 **ENTER** ◉ ‹☐›   Select **Store Demo**.

4 ⌄ ‹☐› **ENTER** ◉   Select **On**.

5 **EXIT**   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).

INITIAL SETTING (RESET TO FACTORY DEFAULT)

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

OPTION	⬍ Move ◉ Enter
• Language	
• Caption	: Off
• Power Indicator	
• Initial Setting	
• Set ID	: 1
• Mode Setting	: Home Use

➡

OPTION	⬍ Move ◉ Enter
• Language	
• Caption	: Off
• Power Indicator	
• Initial Setting	
• Set ID	: 1
• Mode Setting	: Home U

⚠ All user settings and channel settings will be reset. Still continue?

Yes   No
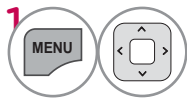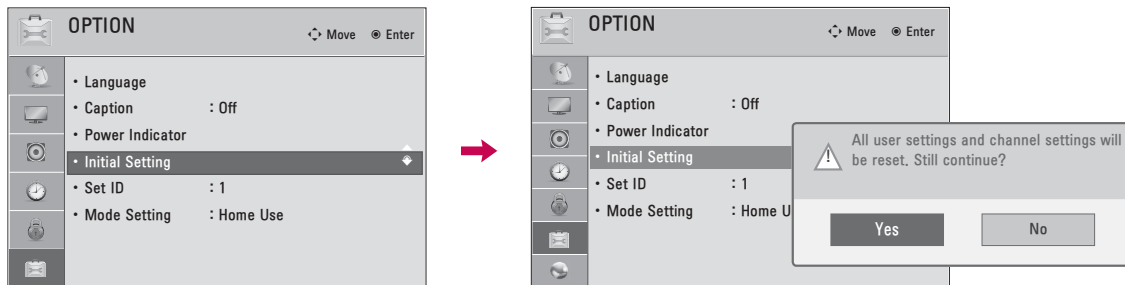
1 MENU / ◀▢▶ Select **OPTION**.
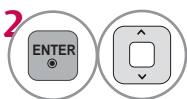
2 ENTER / ▢
Select **Initial Setting**. (32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300 : Select **Factory Reset**.)

3 ENTER / ◀▢▶ Select **Yes**.

4 ENTER
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.

SYSTEM COLOR (Except 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA , 32/42LE4300)

This function set color suited the each signal.

CHANNEL	⬍ Move ◉ Enter
• Auto Tuning	
• Manual Tuning	
• Channel Edit	
• System Color	

➡

CHANNEL	⬍ Move ◉ Enter
• Auto Tuning	
• Manual Tuning	
• Channel Edit	
• System Color	☐ Multi
	☐ PAL-M
	☐ PAL-N
	☑ NTSC
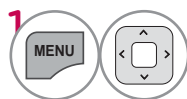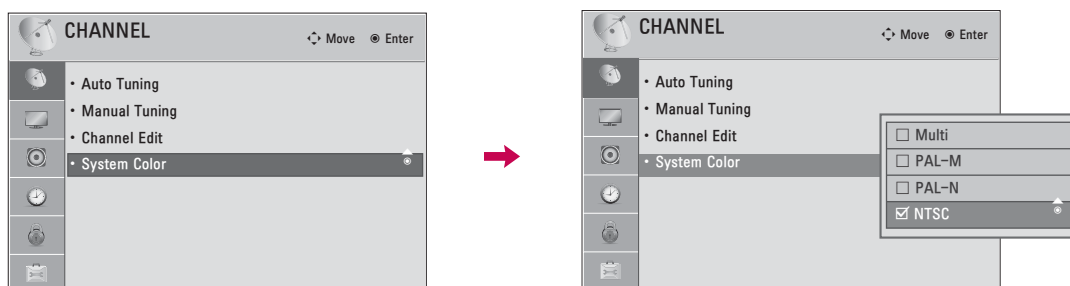
1 MENU / ◀▢▶ Select **CHANNEL**.
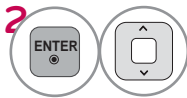
2 ENTER / ▢ Select **System Color**.
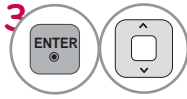
3 ENTER / ▢ Select **Multi**, **PAL-M**, **PAL-N**, or **NTSC**.

4 BACK Return to the previous menu.

EXIT Return to TV viewing.

AV MODE

AV Mode toggles through preset Video and Audio settings.

Off	→	Cinema
↑		↓
Game	←	Sport

1 AV MODE

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

2 ENTER
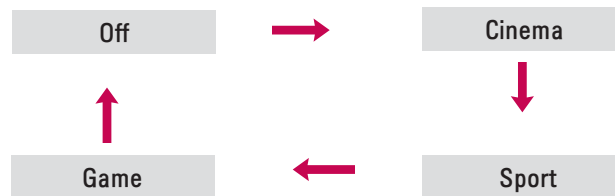
- ■ If you select "**Cinema**" in AV mode, **Cinema** will be selected both for "PICTURE menu - Picture Mode" and "AUDIO menu - Sound Mode" respectively.
- ■ If you select "**Off**" in AV mode, the "**Picture Mode**" and "**Sound Mode**" return to previous selected value.
- ■ **Off**: Disables the AV 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.

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 ⓢimplink 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 device type of discs 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 conected (display checked)

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 ∧ ∨ ‹ ›, **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 High Speed HDMI cable *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.

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE) (For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600, 32LE5300-DA , 32/42LE4300)

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

The EPG supplies information such as programme listings, start and end times for all available services. In addition, detailed information about the programme is often available in the EPG (the availability and amount of these programme 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 programme details for next 8 days.

```
Programme Guide
                                                    ▲

That '70s show                                          25 Nov. 2008 10:05

🔊 DTV 1  YLE TV1 25 Nov. 2008 09:45~10:15
                    ◄              Tue. 25 Nov.              ►
          ALL       14:00                    15:00

DTV  1  YLE TV1           Antigues Roadshow          Kungskonsumente
DTV  2  YLE TV2        Mint Extra      TV2: Farmen      The Drum
DTV  4  TV..                      The Drum
DTV  5  YLE FST                You Call The Hits
DTV  6  CNN                   Fashion Essentials
DTV  8  YLE24       ..     ...      ..  ..     Tänään otsikoissa
                                    ▼

FAV Favourite         INFO ⓘ Information      ⦿ Watch/Schedule    TV/RAD  RADIO
    Mode              ▢ Date              ▢ Manual Timer      ▢ Schedule List
```

GUIDE Display the **Programme Guide**.

Select the desired programme.

NOW/NEXT Guide Mode

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

RED Change EPG mode.

YELLOW Enter Manual Timer mode.

BLUE Enter Schedule List mode.

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

Select NOW or NEXT Programme.

Select the Broadcast Programme.

CH Page Up/Down.

Programme Guide

That '70s show   25 Nov. 2008 10:05
🔒 DTV 1 YLE TV1 25 Nov. 2008 09:45 10:15

ALL	NOW	NEXT
DTV 1 YLE TV1	That '70s show	Keno
DTV 2 YLE TV2	Your World Today	World Business
DTV 4 TV..	Legenen om Den....	Fantomen
DTV 5 YLE FST	Naturtimmen	Kritiskt
DTV 6 CNN	Lyssna	ABC
DTV 8 YLE24	Glamour	Tänään otsikoissa

FAV Favourite   INFO ⓘ Information   ⦿ Watch/Schedule   TV/RAD RADIO
■ Mode   ■ Manual Timer   ■ Schedule List

8 Day Guide Mode

RED   Change EPG mode.

GREEN   Enter Date setting mode.

YELLOW   Enter Manual Timer mode.

BLUE   Enter Schedule List mode.

ENTER   When 'Currently broadcasting pro-gramme' is selected, it is moved to selected programme and EPG disap-pears When 'Future broadcasting pro-gramme' is selected, a reservation pop-up window appears.

   Select Programme.

   Select the Broadcast Programme.

Date Change Mode

GREEN   Switch off Date setting mode.

ENTER   Change to the selected date.

   Select a date.

GUIDE or **EXIT**   Switch off EPG.

Detailed Information Box

INFO ⓘ   Detail information on or off.

   Text Up/Down.

   Select Watch TV or Close.

GUIDE or **EXIT**   Switch off EPG.

WATCHING TV / CHANNEL CONTROL
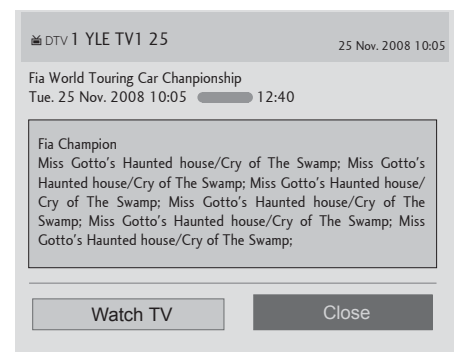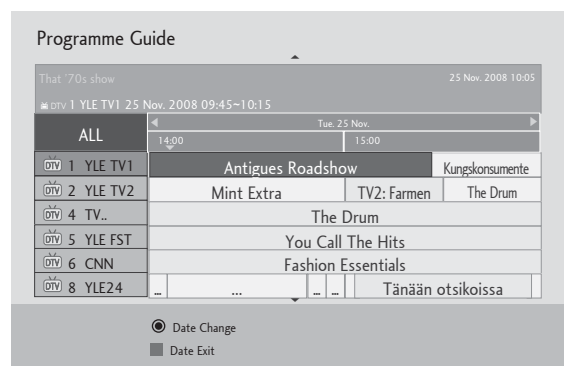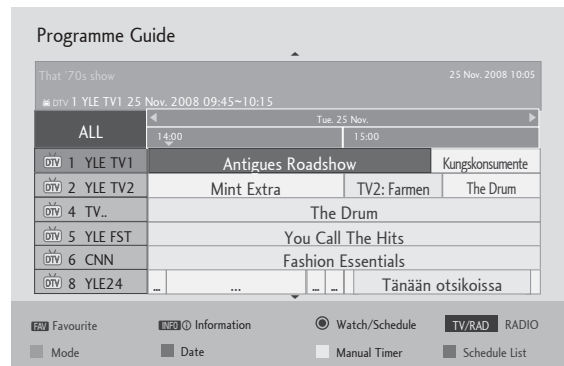
Remind Setting Mode

sets a start time on the channel for the reminder.

(YELLOW) Change to Manual Timer mode.

(ENTER) Select your desired Option (Once/Daily/Weekly/Mon.~Fri.).

(▲▼) Select Remind function setting.

(◄►) Select Start Time or Channel.

(ENTER) Save Timer Remind.

(BACK) Switch off **EPG**.

Manual Timer

Select time to remind.   Wed. 12 Aug. 2009 13:46

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.

09   Select time to remind

16   Start Time   Channel

23   15 : 09   DTV 801 ANTV D..   Close

30   ⊙ Enter ↩ Prev.

↔ Move   ⊙ Enter   ↩ Exit
☐ Programme Guide   ☐ Schedule List
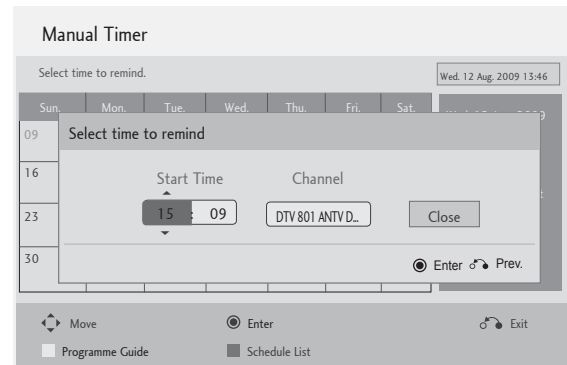
Schedule List Mode

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

(BLUE) Change to Schedule List mode.

(ENTER) Select your desired Option (Modify/Delete/Delete All).

(▲▼) Select **Schedule List**.

(CH) Page Up/Down.

(BACK) Switch off **EPG**.

Schedule List

Page1/1   Fri. 6 Apr. 2007 15:09

Start Date	Start Time	Title	Repeat

2007 04   ⊙ 6 May 16:00   Friend1   ⓘ Friend2
                ⊙ 6 May 18:00   Friend2   16:00

                                          Modify
⊙ Remind   Delete
DTV 19 Dave   Delete All
(Fri.)06/05/2007   Close
16:00

↔ Move   ⊙ Modify/Delete   ◄► Page Change   ↩ Exit
☐ Manual Timer   ☐ Channel Guide
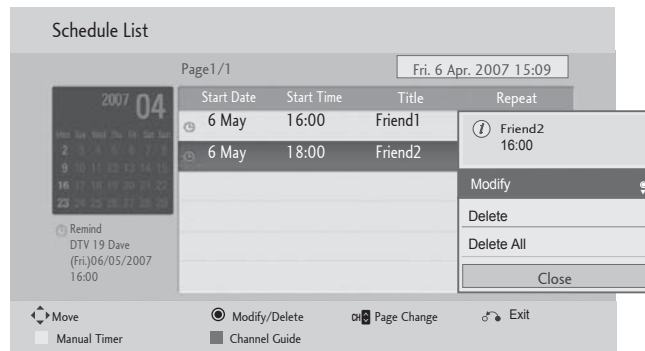
MY MEDIA

ENTRY MODE

When the Pop Up menu does not appear, you can select Movie List, Photo List or Music List in the USB menu.
On USB device, you can not add a new folder or delete the existing folder.

MY MEDIA		
Movie List	Photo List	Music List
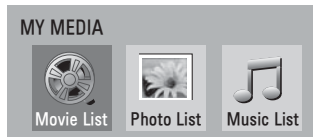
1 MENU   Select **MY MEDIA**.

2 ENTER   Select **Movie List**, **Photo List** or **Music List**.

3 BACK   Return to the previous menu.

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

When removing the USB device

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

1 Q.MENU   Select **USB Device**.

2 ENTER   Select **Eject**.

Precautions when using the USB device

▶ Only a USB storage device is recognizable.

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

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

▶ 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.

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

▶ Please use only a USB storage device which was formatted as a FAT32 file system, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.

▶ Please connect power to a USB storage device(over 0.5 A) which requires an external power supply. If not, the device may not be recognized.

▶ Please connect a USB storage device with the cable offered by the device maker.

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

▶ File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.

▶ Be sure to back up important files since data stored in a USB memory device may be damaged. We will not be responsible for any data loss.

▶ If the USB HDD does not have an external power source, the USB device may not be detected. So be sure to connect the external power source. - Please use a power adaptor for an external power source. We do not guarantee an USB cable for an external power source.

▶ 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.

▶ If a USB memory device is connected to a USB multi-card reader, its volume data may not be detected.

▶ If the USB memory device does not work properly, disconnect and reconnect it.

▶ How fast a USB memory device is detected differs from device to device.

▶ If the USB is connected in Standby Mode, specific hard disk will automatically be loaded when the TV is turned on.

▶ The recommended capacity is 1 TB or less for a USB external hard disk and 32 GB or less for USB memory.

▶ Any device with more than the recommended capacity may not work properly.

▶ If a USB external hard disk with a "Energy Saving" function does not work, turn the hard disk off and on again to make it work properly.

▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.

▶ Maximum Files/Folder: Less than 1000 (total number of files and folders)

MY MEDIA

MY MEDIA

MOVIE LIST

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 video file: 20 Mbps (Mega bit per second)
- ■ Bit rate of audio format: within 32 kbps to 320 kbps (MP3)
- ■ Supported external subtitle format: *.smi/*.srt/*.sub (MicroDVD,Subviewer1.0/2.0)/*.ass/*.ssa/*.txt (TMPlayer)/*.psb (PowerDivX)
- ■ Supported Internal subtitle format: only XSUB (It is the subtitle format used in DivX6 files)

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.
►Changing font and color in subtitles is not supported.
►Subtitles in languages other than one specified are not supported.
►Video files with subtitle files of 1 MB or larger may not be played properly.
►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.
►Video files other than the specified types and formats may not work properly.
►The movie file encoded by the GMC (Global Motion Compensation) and Qpel (Quarterpel Motion Estimation) is not supported.
►Only 10000 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/AVC.
►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.
►Trick Mode does not support other functions than (>>) if video files do not have index information.
►When playing video file using network, the Trick mode is limited to 2-times speed.
►Video file names that contain special characters may not be playable.

File Extension name	Video Decoder	Audio Codec	Max Resolution
mpg, mpeg	MPEG1, MPEG2	MP2,MP3,AC3,LPCM	1920x1080@30p (only , Motion JPEG 640x480@30p)
dat	MPEG1	MP2	
ts,trp,tp	MPEG2, H.264, AVS, VC1	MP2,MP3,AC3,AAC,HEAAC	
vob	MPEG1, 2	MP2,MP3,AC3,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,HEAAC,MP3	
mkv	H.264, MPEG-1,2,4	MP2,MP3,AC3,AAC HEAAC,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,AC3,LPCM,ADPCM, AAC,HEAAC	
Motion JPEG (avi, mp4, mkv)	JPEG	LPCM, ADPCM	
asf, wmv	VC1	WMA	
flv	Sorenson H.263, H264	MP3, AAC	

MY MEDIA

Screen Components

1

MENU | ⌃⟨□⟩⌄ | Select **MY MEDIA**.

2

ENTER | ⟨□⟩ | **ENTER** | Select **Movie List.**

❶ Moves to upper level folder
❷ Current page/Total pages
❸ Corresponding buttons on the remote control
❹ Contents under the folder focused on **❶**
❺ Current page/ total pages of contents

Abnormal files are displayed using this graphic.

Non-supported files are displayed using this graphic.

Movie List
USB 1 XTICK   Drive1   Page 1/1 **❺**

📁 M001   📁 M002   📁 M003   📁 M004

🎞 H006.avi

◇ Move ● Play CH◧ Page Change MARK Mark

| ■ To Photo List | ■ Change Numbers | ■ Mark Mode | 🔲 Exit |

Page 1/1 **❷**

❶

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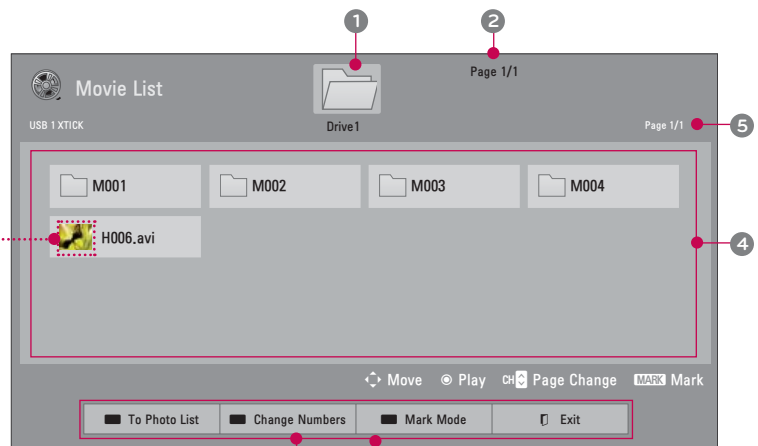
GREEN	Move to **Photo List** or **Music List**.
YELLOW	**Change Numbers**: Changes the number or thumbnails displayed at a time.
BLUE	Allows you to mark certain files.
EXIT	Return to TV viewing.

Movie Selection

Movie List			Page 1/1
USB 1 XTICK	Drive1		Page 1/1
📁 S_1	📁 S_2	📁 S_3	📁 S_4
📁 S_5	🎞 S003.avi		

⬧ Move ◉ Play CH◎ Page Change MARK Mark

■ To Photo List	■ Change Numbers	■ Mark Mode	🗋 Exit
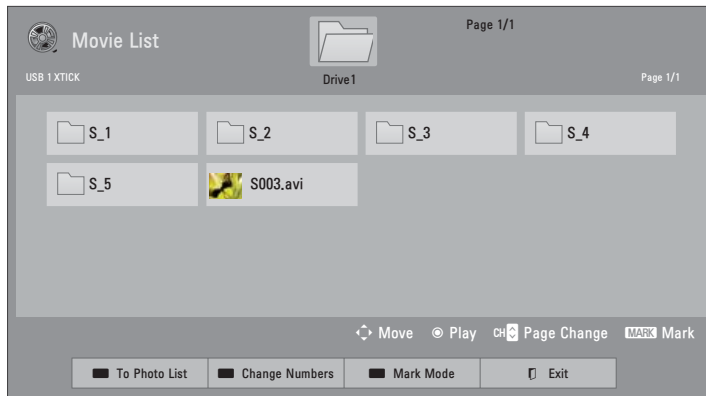
1 ⌃⌄ Select the target folder or drive.

2 ENTER ⌃⌄ Select the desired movie title.

3 ENTER Play the movie file.

- Use the CH (⌃ ⌄) button to navigation in the movie page.
- When one or more movie files are marked, the marked movies will be played in sequence.

Mark Mode

Movie List Mark Mode			Page 1/1
USB 1 XTICK	Drive1		Page 1/1
📁 S_1	📁 S_2	📁 S_3	📁 S_4
📁 S_5	🎞 S003.avi		

⬧ Move ◉ Mark CH◎ Page Change MARK Mark

■ Play Marked	■ Mark All	■ Unmark All	■ Exit Mark Mode	🗋 Exit

1 ⌃⌄ Select the target folder or drive.
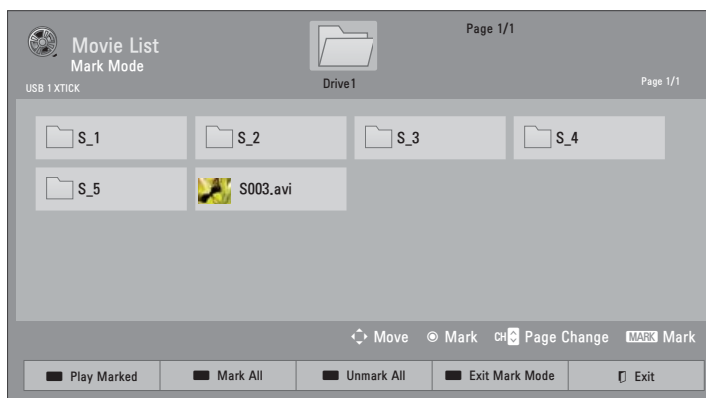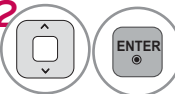
2 ENTER ⌃⌄ Select the desired movie title.

3 MARK FAV CHAR/NUM Mark your desired movie file.

4 RED Play the marked movie file.
It displays the current movie status progress bar in the bottom of the screen.

RED	**Play Marked**: Play the selected file. Once a movie finishes playing, the next selected one will be played automatically.
GREEN	**Mark All**: Mark all files in the folder.
YELLOW	**Unmark All**: Deselect all marked movies.
BLUE	Enter or exit the Mark Mode.

MY MEDIA

79

MY MEDIA

Using the Movie List Function

Choose options.

Set Video Play.

Set Video.

Set Audio.

Close

01:02:30 / 02:30:25

Q.MENU Option   Hide   Exit
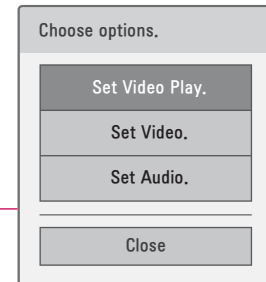
1 Q.MENU   Show the **Option** menu.

2 ENTER   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" or when set as Marked Play.

Using the remote control

EXIT	Return to TV viewing.
◄◄ ►►	Select the required speed: x2, x4, x8, x16, x32 (backward/forward).
II	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.
II ►►	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.
BACK	Hide the menu on screen. To see the menu again, press **ENTER** button to display.
ENERGY SAVING	Press the **ENERGY SAVING** button repeatedly to increase the brightness of your screen (Refer to p. 100).
AV MODE	Press the **AV MODE** button repeatedly to select the desired source (Refer to p. 68).

Set Video Play menu option

Set Video Play.	
Picture Size	◀ Full ▶
Audio Language	◀ 1 ▶
Subtitle Language	◀ On ▶
• Language	◀ Unknow ▶
• Code Page	◀ Default ▶
• Sync	◀ 0 ▶
• Position	◀ 0 ▶
• Size	◀ Normal ▶
Repeat	◀ Off ▶
	ᕮ Previous
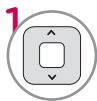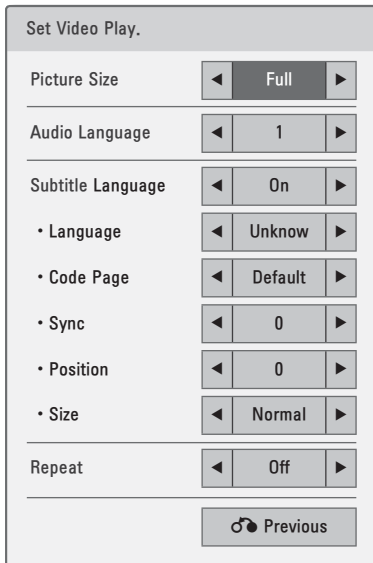
1 Select **Picture Size**, **Audio Language**, **Subtitle Language**, or **Repeat.**

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.

■ **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 synchro-nized 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.

MY MEDIA

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

Set Video menu option

Set Video.

Picture Mode	◄ Standard ►
• Backlight	70 ◄ ▬▬▬▬ ►
• Contrast	100 ◄ ▬▬▬▬▬ ►
• Brightness	50 ◄ ▬▬▬ ►
• Color	60 ◄ ▬▬▬ ►
• Dynamic Contrast	◄ Medium ►
• Edge Enhancer	◄ High ►
• Noise Reduction	◄ Medium ►
TruMotion	◄ Low ►
▀ Picture Reset	↻ Previous

('TruMotion' dependent on model)

1

ENTER

Make appropriate adjustments.
Then, select **Previous**.

BLUE

Reset picture settings to default.

Set Audio menu option

Set Audio.

Sound Mode	◄ Standard ►
Auto Volume	◄ Off ►
Clear Voice II	◄ Off ►
Balance	0 ◄ L▐▐▐▐▐▐▐▐▐▐R ►
	↻ Previous

1

ENTER
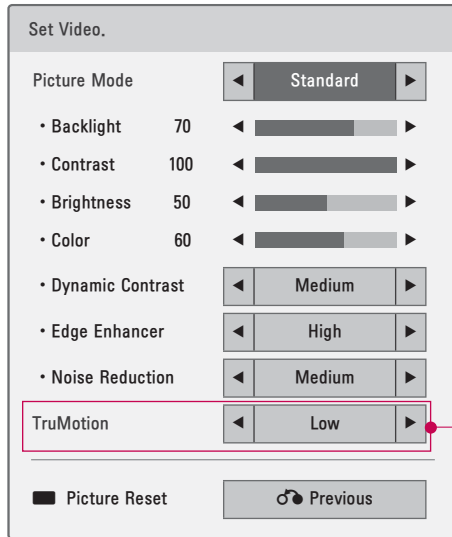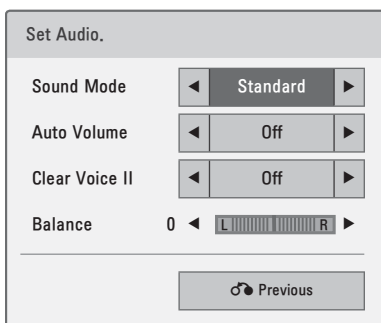
Make appropriate adjustments.
Then, select **Previous**.

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.

An error message occurs for corrupted files or file formats that cannot be played.

Corrupted image files may not be displayed properly.

It may take some time to view high-resolution images in full screen.

Screen Components
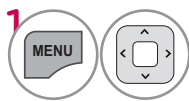
1 MENU | ⟨▢⟩ Select **MY MEDIA**.
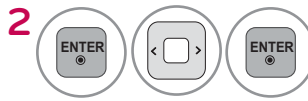
2 ENTER | ⟨▢⟩ | ENTER Select **Photo List.**

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 ❶

5 Current page/total pages of contents

Photo List
USB 1 XTICK   Drive1   Page 1/1

P001 P002 P003 P004 P005 P006 P007 P008 P009

◇ Move   ◉ View   CH◢ Page Change   MARK Mark

■ To Music List   ■ Change Numbers   ■ Mark Mode   ▯ Exit
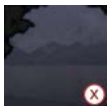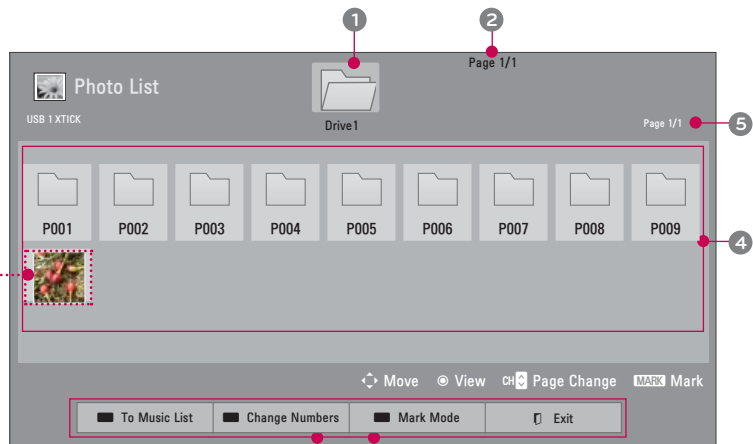
Abnormal files are displayed using this graphic.
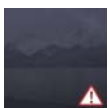
Non-supported files are displayed using this graphic.

(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.

Photo Selection

1 Select the target folder or drive.

2 ENTER ◉ | Select the desired photos.

3 ENTER ◉ | Photo files are displayed.

- Use the CH (∧ ∨) button to navigation in the photo page.
- 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.

Mark Mode

1 Select the target folder or drive.

2 ENTER ◉ | Select the desired photo files.

3 MARK FAV CHAR/NUM | Mark your desired photo file.

4 RED | View the marked photo file.

RED	**View Marked**: Display the selected photo.
GREEN	**Mark All**: Mark all photos on the screen.
YELLOW	**Unmark All**: Deselect all marked photos.
BLUE	Enter or exit the Mark Mode.

How to view photo

Detailed operations are available on full-sized photo view screen.
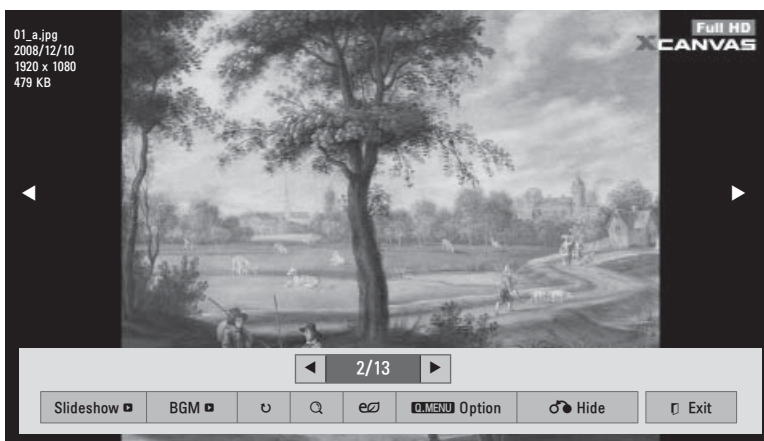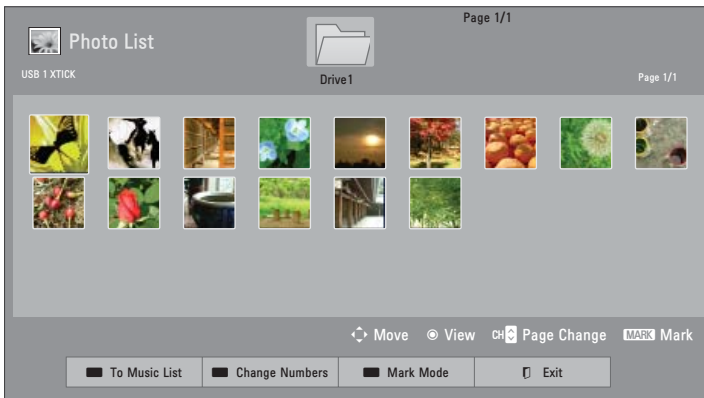
The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.

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 navigation in the photo page.

MY MEDIA

01_a.jpg
2008/12/10
1920 x 1080
479 KB

Full HD
X.CANVAS

◀   ▶

◀   2/13   ▶

| Slideshow ◼ | BGM ◼ | ↻ | ⌕ | e⌀ | **Q.MENU** Option | ♂ Hide | ⎆ Exit |
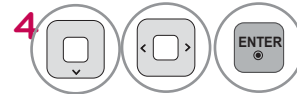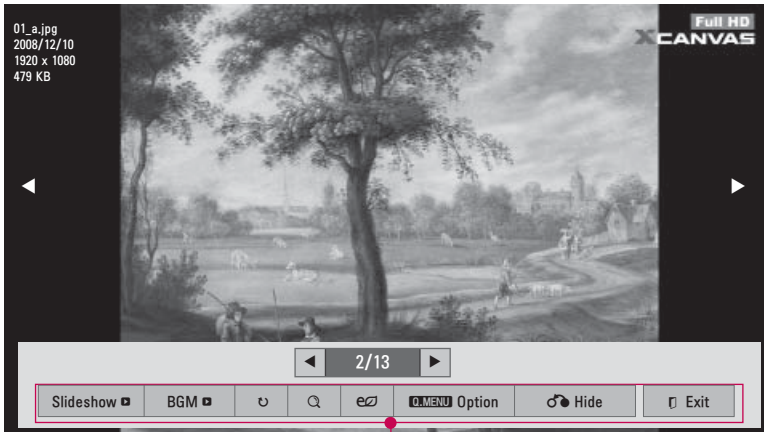
4

Select the **Slideshow**, **BGM**, ↻ **(Rotate)**, ⌕ **(Zoom In)**, e⌀ **(Energy Saving)**, **Option**, or **Hide**.

■ Use ‹ › button to select the previ-ous 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.
   ■ 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.
   ■ 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.
   ■ Photo cannot be rotated if its width is greater than the available supported resolution height.

▶ ⌕ **(Zoom In)**: View the photo by zoom in 2, 4 times by using Blue button.

▶ e⌀ **(Energy Saving)**: Increase the brightness of your screen by using ENERGY SAVING button.

▶ **Option** : Set values for **Slide Speed** and **BGM**.
   ■ You cannot change **BGM** while BGM is playing.

▶ **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


```
01_a.jpg
2008/12/10
1920 x 1080
479 KB
```

Full HD
XCANVAS

◄ ► 2/13 ►

| Slideshow ◘ | BGM ◘ | ↻ | 🔍 | 🔄 | Q.MENU Option | 👓 Hide | ◻ Exit |

Choose options.

| Set Photo View. |
| Set Video. |
| Set Audio. |

| Close |

1
Q.MENU
Show the **Option** menu.
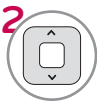
2
ENTER
Select **Set Photo View., Set Video** or **Set Audio.**

🛈 NOTE

▶ Option values changed in Photo List does not affect Movie 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.

Set Photo View menu option

Set Photo View.			
Slide Speed	◄	Fast	►
BGM		Drive1	
• Repeat	◄	On	►
• Random	◄	Off	►
		👓 Previous	
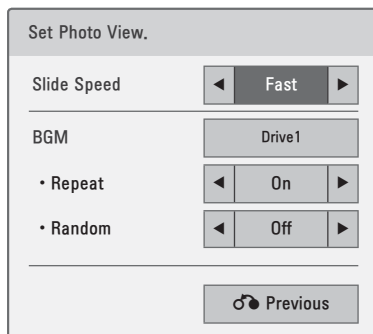
1
Select **Slide Speed** or **BGM**.

2
Make appropriate adjustments.

MY MEDIA

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

Set Video menu options

Set Video.		
Picture Mode	◀ Standard ▶	
• Backlight	70	◀ ▶
• Contrast	100	◀ ▶
• Brightness	50	◀ ▶
• Color	60	◀ ▶
• Dynamic Contrast	◀ Medium ▶	
• Edge Enhancer	◀ High ▶	
• Noise Reduction	◀ Medium ▶	
TruMotion	◀ Low ▶	
■ Picture Reset	⟲ Previous	

('TruMotion' dependent on model)

1 ENTER Make appropriate adjustments.
Then, select **Previous**.
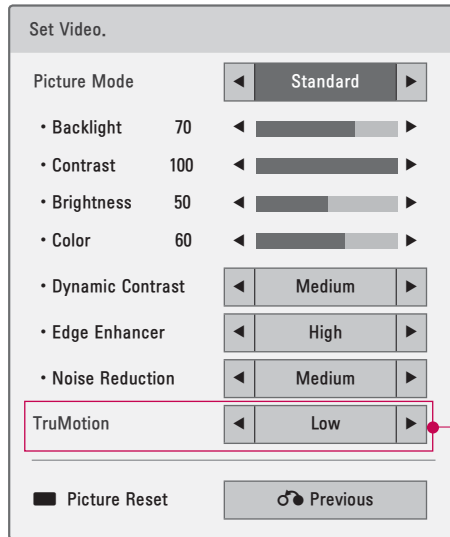
BLUE Reset picture settings to default.

Set Audio menu option

Set Audio.		
Sound Mode	◀ Standard ▶	
Auto Volume	◀ Off ▶	
Clear Voice II	◀ Off ▶	
Balance	0 ◀ L ▐▐▐▐▐▐▐▐▐▐▐▐ R ▶	
	⟲ Previous	
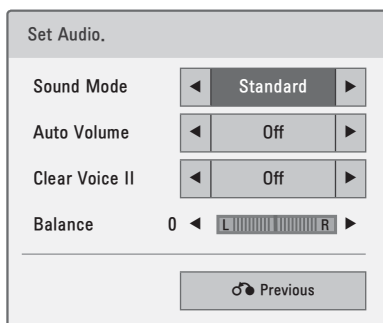
1 ENTER Make appropriate adjustments.
Then, select **Previous**.

MY MEDIA

MUSIC LIST

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

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

> MUSIC (*.MP3) supporting file
> Bit rate 32 ~ 320
> • 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 MENU ◇ Select **MY MEDIA**.

2 ENTER ◇ ENTER Select **Music List.**

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 ❶
5 Current page/total pages of contents

Music List

USB 1 XTICK   Drive1   Page 1/1

| 001.mp3 00:00 | 002.mp3 00:00 | 003.mp3 00:00 | 004.mp3 00:00 |
| 005.mp3 00:00 | | | |

◇ Move ◉ Play CH◇ Page Change MARK Mark

■ To Movie List ■ Change Numbers ■ Mark Mode 🔲 Exit

Abnormal files are displayed using this graphic.

Non-supported files are displayed using this graphic.

(GREEN)	Move to **Movie List** or **Photo 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.
ENERGY SAVING	Press the **ENERGY SAVING** button repeatedly to increase the brightness of your screen (Refer to p. 100).

MY MEDIA

Music Selection
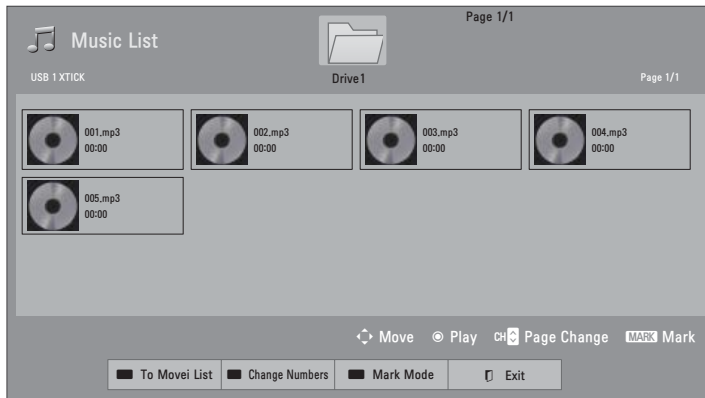
1 Select the target folder or drive.

2 ENTER — Select the desired music title.

3 ENTER Music files are played.

> ■ Use the CH (∧ ∨) button to navigation in the movie page.
> ■ When one or more movie files are marked, the marked movies will be played in sequence.

Mark Mode

1 Select the target folder or drive.
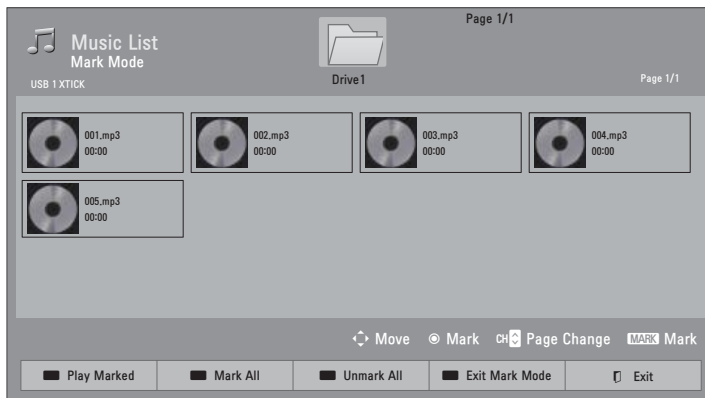
2 ENTER — Select the desired movie title.

3 MARK FAV CHAR/NUM — Mark your desired music file.

4 RED — 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	Enter or exit the Mark Mode.

MY MEDIA

Using the Music List Function
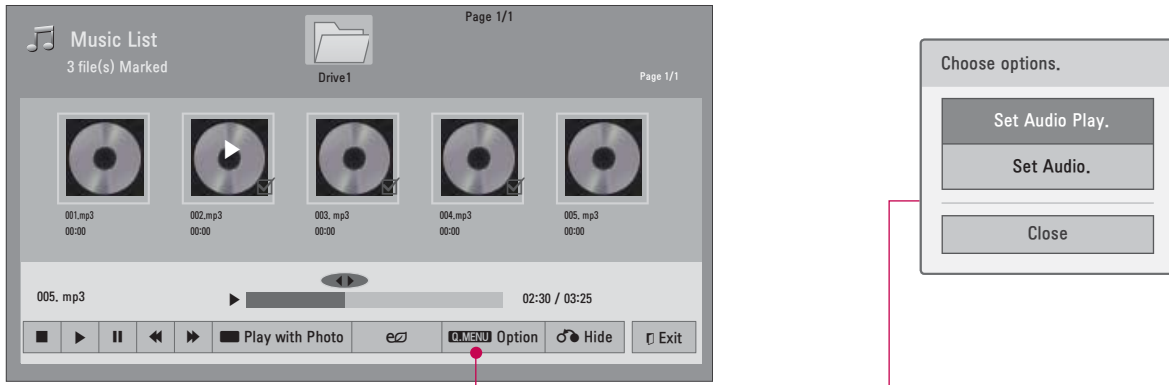
1 **Q.MENU**   Show the **Option** menu.

2 〈ENTER〉   Select **Set Audio Play** or **Set Audio.**

🛈 NOTE

▶ You can listen to the music only within the device currently played.
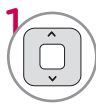
Using the remote control

■	Stop the song.
▶	Return to normal playback.
❚❚	Paused the song.
◀◀ ▶▶	Select the previous or next song.
GREEN	**Play with Photo**: Start playing the selected songs and then move to the Photo List.
ENERGY eø SAVING	Press the **ENERGY SAVING** button repeatedly to increase the brightness of your screen.
‹▢›	A cursor indicating the position can be played on the screen.
EXIT	Move to the previous menu screen.

Set Audio Play menu option

Set Audio Play.		
Repeat	◄ On ►	
Random	◄ Off ►	
	ꙮ Previous	

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

2 Make appropriate adjustments.

Set Audio menu option

Set Audio.		
Sound Mode	◄ Standard ►	
Auto Volume	◄ Off ►	
Clear Voice II	◄ Off ►	
Balance	0 ◄ L ▐▐▐▐▐▐▐▐▐▐▐ R ►	
	ꙮ Previous	
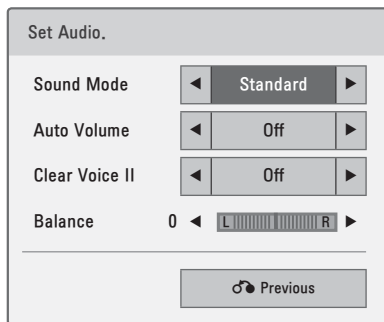
1 Select **Sound Mode, Auto Volume, Clear Voice II** or **Balance.**

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 a extended period of time.
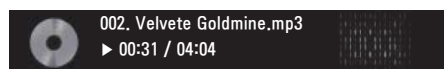
ⓘ NOTE

▶ A damaged or corrupted music does not play but displays 00:00 in playtime.

▶ Music files with copy-protection will not play.

▶ Press ENTER or ■ 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		
Movie List	Photo List	Music List

➡

DivX Reg.Code
Deactivation
♻ Previous

➡

ⓘ You must register your device to
play DivX protected videos.
Registration code : xxxxxxxxx
Register at http://vod.divx.com

Close
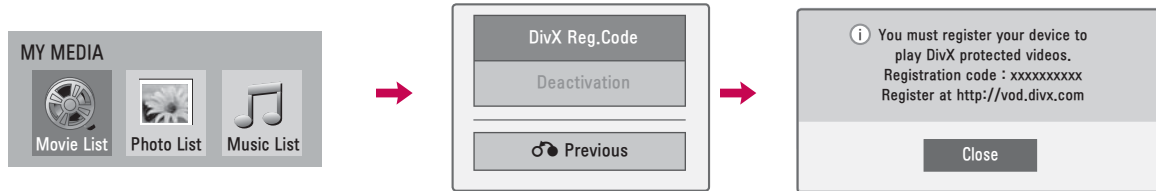
1 MENU Select **MY MEDIA**.

2 ENTER BLUE Select DivX Option.

3 Select **DivX Reg. Code**.

4 ENTER 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 allowed the consumer to activate up to 6 devices under one account, but to replace or deactivate any of those devices, the consumer had to contact DivX Support and request deletion. Now with this added feature, consumers will be able to deactivate the device themselves and hence better manage their DivX VOD devices.

MY MEDIA

Movie List   Photo List   Music List

➡

DivX Reg.Code

Deactivation

♻ Previous

➡

ⓘ   Deregistration code:
****

Deregister at http:// vod.divx.com
Continue with registration?

Yes   No

MY MEDIA

1
MENU   ⌄⌃⟨⟩   Select **MY MEDIA**.
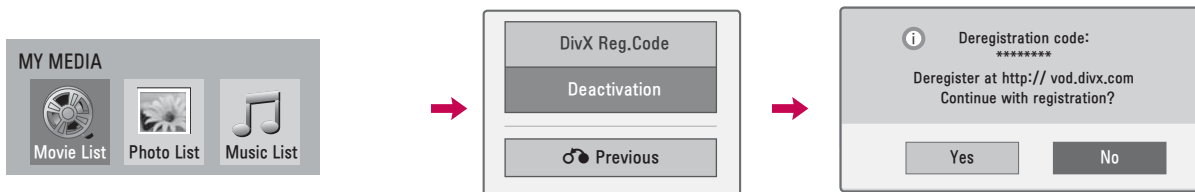
2
ENTER   BLUE   Select DivX Option.

3
⌃⌄   Select **Deactivation**.

4
ENTER   ⟨□⟩   Select **Yes**.

5
ENTER   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.

HDMI/RGB-PC input only support 4:3 or 16:9 aspect ratio. But you can select all aspect ratios in HDMI-PC 1920X1080 input.

You can select a different aspect ratio depending on input source (analog broadcasting, aux).
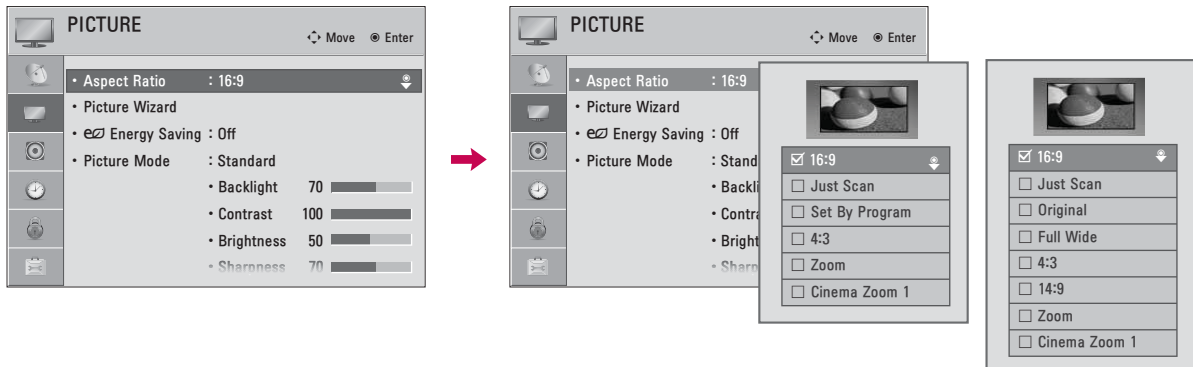
PICTURE		✦ Move ◉ Enter
• Aspect Ratio	: 16:9	
• Picture Wizard		
• ⅇ⃠ Energy Saving	: Off	
• Picture Mode	: Standard	
	• Backlight	70
	• Contrast	100
	• Brightness	50
	• Sharpness	70

PICTURE		✦ Move ◉ Enter
• Aspect Ratio	: 16:9	
• Picture Wizard		
• ⅇ⃠ Energy Saving	: Off	
• Picture Mode	: Stand	
	• Backli	
	• Contra	
	• Bright	
	• Sharp	

☑ 16:9
☐ Just Scan
☐ Set By Program
☐ 4:3
☐ Zoom
☐ Cinema Zoom 1

☑ 16:9
☐ Just Scan
☐ Original
☐ Full Wide
☐ 4:3
☐ 14:9
☐ Zoom
☐ Cinema Zoom 1

For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300

1 MENU / Select **PICTURE**.

2 ENTER / Select **Aspect Ratio**.

3 ENTER / Select the desired picture format.

4 BACK / Return to the previous menu.

EXIT / 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.
- ■ In DTV mode, Full Wide is available.

When adjusting **Zoom** or **Cinema Zoom** in Q.MENU

1 Q.MENU / Select **Aspect Ratio**.

2 ENTER / Select **Zoom** or **Cinema Zoom** .

3 ENTER / Adjust proportion of Zoom or Cinema Zoom. The Cinema Zoom adjustment range is 1-16.

4 ENTER / Move the image on the screen.

Zoom
⬍ Move ⬌ Zoom   ◉ Enter

Cinema Zoom
1
⬍ Move ⬌ Zoom   ◉ Enter

PICTURE CONTROL
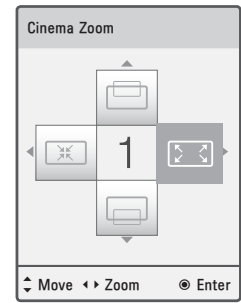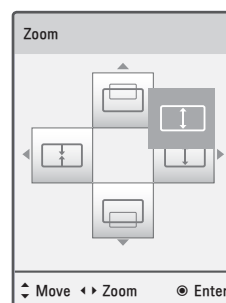
16:9

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.
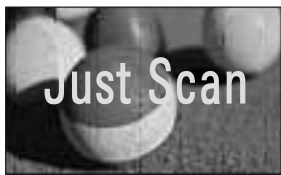
Original

When your TV receives a wide screen signal it will automatically change to the picture format broadcast.

Full Wide

When TV receives the wide screen signal,it will lead you to adjust the picture horizontally or vertically, in a linear proportion,to fill the entire screen fully.
4:3 and 14:9 video is supported in full screen without any video distortion through DTV input.(For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300)

Set By Program

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

(4:3 ➞ 4:3)   (16:9 ➞ 16:9)

14:9

You can view a picture format of 14:9 or a general TV programme in the 14:9 mode. The 14:9 screen is viewed in the same way as in 4:3, but is moved to the up and down.
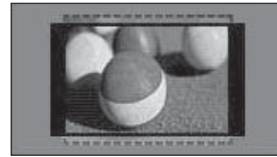
4:3

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.
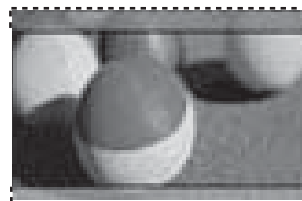
Cinema Zoom

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 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.

PICTURE · Move ◉ Enter
- Aspect Ratio : 16:9
- Picture Wizard
- Energy Saving : Off
- Picture Mode : Standard
  - Backlight 70
  - Contrast 100
  - Brightness 50
  - Sharpness 70

1 MENU / Select **PICTURE**.

2 ENTER / ENTER / Select **Picture Wizard**.

Picture Wizard
With Picture Wizard, you can adjust the picture quality of the original image.

↩ Previous ◉ Next

3 ENTER / Adjust **Picture Wizard**.

Picture Wizard

Standard   Preferred
- Standard/Preferred   ◄ Standard ►

↩ Previous ◉ Next
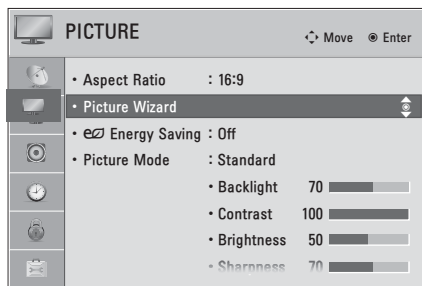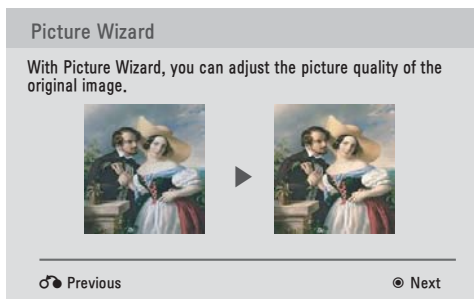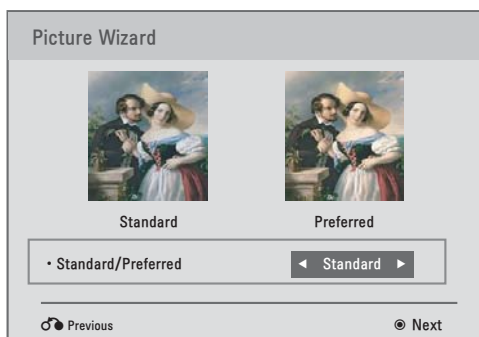
4 ENTER / Adjust **Standard/ Preferred**.

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

Black Level
Set the screen above identical to the Recommended sample below.

Low   Recommended   High
- Brightness   50 ◄ ███ ►

↩ Previous ◉ Next

5 ENTER / Adjust **Black Level**.

White Level
Set the screen above identical to the Recommended sample below.

Low   Recommended   High
- Contrast   90 ◄ ███ ►

↩ Previous ◉ Next

6 ENTER / Adjust **White Level**.

Tint
Set the screen above identical to the Recommended sample below.

Low   Recommended   High
- Tint   0 ◄ R███████G ►

↩ Previous ◉ Next

7 ENTER / Adjust **Tint**.

Color

Set the screen above identical to the Recommended sample below.

Low	Recommended	High

• Color	50	◄ ▬▬▬▬ ►

⟳ Previous   ◉ Next

8 ⟨□⟩ **ENTER** ◉   Adjust **Color**.

Horizontal Sharpness

Set the screen above identical to the Recommended sample below.

Low	Recommended	High

• H Sharpness	50	◄ ▬▬▬▬ ►

⟳ Previous   ◉ Next

9 ⟨□⟩ **ENTER** ◉   Adjust **Horizontal Sharpness**.

Vertical Sharpness

Set the screen above identical to the Recommended sample below.

Low	Recommended	High

• V Sharpness	50	◄ ▬▬▬▬ ►

⟳ Previous   ◉ Next
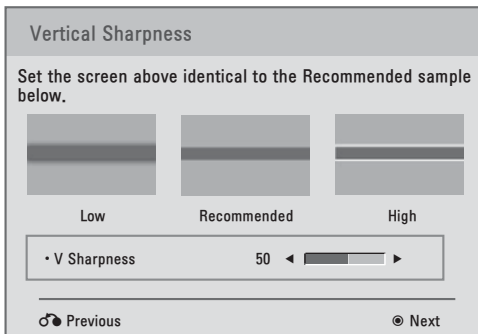
10 ⟨□⟩ **ENTER** ◉   Adjust **Vertical Sharpness**.

Backlight

Set the Backlight to your Brightness preference.

Dark	Recommended	Bright

• Backlight	30	◄ ▬▬▬▬ ►

⟳ Previous   ◉ Next

11 ⟨□⟩ **ENTER** ◉   Adjust **Backlight**.

i.e)

Complete   ⇕ Move   MARK Mark

Select (an) input(s) to apply the settings.

☑ TV
☐ AV1
☐ AV2
☐ Component1
☐ Component2
☐ RGB–PC
☑ HDMI1
☑ HDMI2
☑ HDMI3
☑ HDMI4

Warning: The picture quality may vary according to the different types of signal and inputs.

⟳ Previous   ◉ Confirm
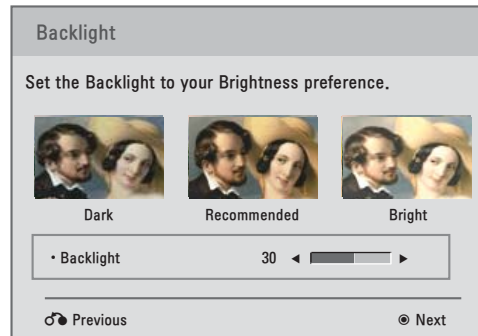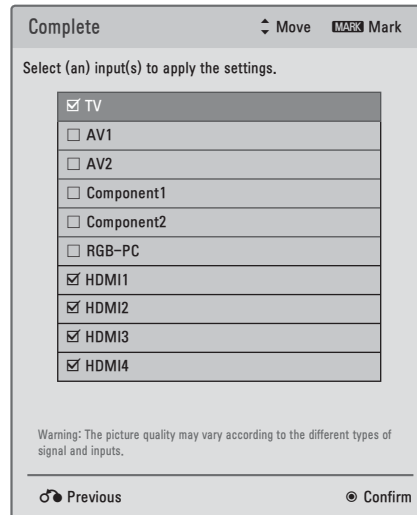
12 ⌃⌄ **MARK / FAV / CHAR/NUM**   Select input source to apply the settings.

13 **ENTER** ◉   Save.   ⓘ The current adjustment value is saved to Expert1.   [Close]
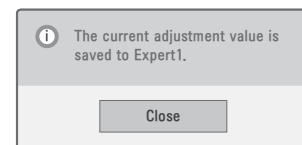
14 **ENTER** ◉   Finish the Picture Wizard.

- 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.
- 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	◇ Move ◉ Enter
• Aspect Ratio	: 16:9
• Picture Wizard	
• e⌀ Energy Saving	: Off ◈
• Picture Mode	: Standard
• Backlight	70
• Contrast	100
• Brightness	50
• Sharpness	70

➡

PICTURE	◇ Move ◉ Enter
• Aspect Ratio	: 16:9
• Picture Wizard	
• e⌀ Energy Saving	: Off
• Picture Mode	: Standa
• Backli	
• Contra	
• Brightr	
• Sharp	

☐ Auto
☑ Off
☐ Minimum
☐ Medium
☐ Maximum
☐ Screen Off

For 32/37/42/47/55LE5300,
32/42/47/55LE4600,
32/42LE4300
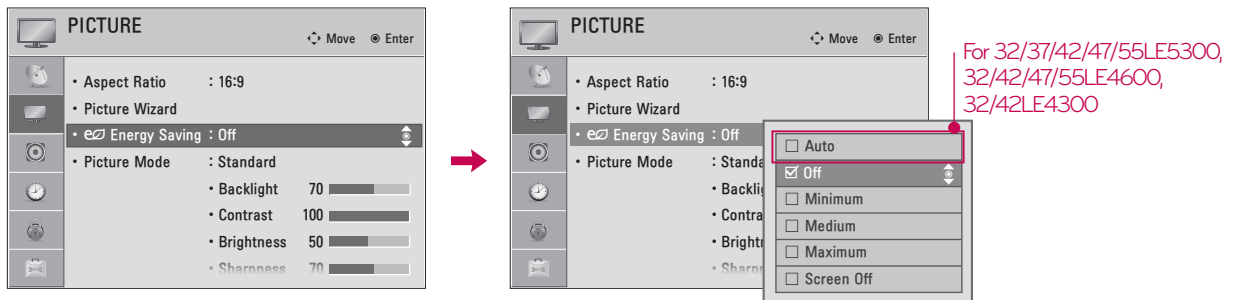
1 MENU ⟨⌄⟩ Select **PICTURE**.

2 ENTER ⌄ Select e⌀ **Energy Saving**.

3 ENTER ⌄ Select **Auto**, **Off**, **Minimum**, **Medium,** **Maximum,** or **Screen Off**.

4 BACK Return to the previous menu.

EXIT Return to TV viewing.

- ∎ When selecting **Screen off**, the screen will turn off after 3 seconds. Pressing any button of the remote controller will turn on the screen again.
- ∎ If you adjust "**Energy Saving-Auto**, **Maximum**", **Backlight** option will not work.
- ∎ When selecting "**Energy Saving - Off**, **Minimum**, or **Medium**, you can adjust **Backlight** feature
- ∎ When selecting **Auto**, **Backlight** is automatically adjusted through **Intelligent Sensor** according to the surrounding conditions.
- ∎ When selecting **Off**, **Energy Saving** is not used.
- ∎ Press the **ENERGY SAVING** button repeatedly to select the appropriate Energy Saving.

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.

PICTURE	⟡ Move ◉ Enter
• Aspect Ratio	: 16:9
• Picture Wizard	
• ℯ𝒪 Energy Saving	: Off
• Picture Mode	: Standard
• Backlight	70
• Contrast	100
• Brightness	50
• Sharpness	70

➡

PICTURE	⟡ Move ◉ Enter
• Aspect Ratio	: 16:9
• Picture Wizard	
• ℯ𝒪 Energy Saving	: Off
• Picture Mode	: Standard
• Backlight	
• Contrast	
• Brightness	
• Sharpness	

☐ Intelligent Sensor
☐ Vivid
☑ Standard
☐ Cinema
☐ Sport
☐ Game
☐ 🎬 Expert1
☐ 🎬 Expert2

For 32/37/42/47/55LE5300, 32/42/47/55LE4600, 32/42LE4300

1 MENU / ∧∨‹› Select **PICTURE**.

2 ENTER ◉ / ∧∨ Select **Picture Mode**.

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

4 BACK Return to the previous menu.

EXIT 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.
- ▪ **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**.

PICTURE CONTROL

MANUAL PICTURE ADJUSTMENT - USER MODE

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

PICTURE	◇ Move ◉ Enter
• Aspect Ratio	: 16:9
• Picture Wizard	
• e⃝ Energy Saving	: Off
• Picture Mode	: Standard
• Backlight	70
• Contrast	100
• Brightness	50
• Sharpness	70

➡

▲	
• Backlight	70 ◄ ▬▬ ►
▼	
	◉ Enter
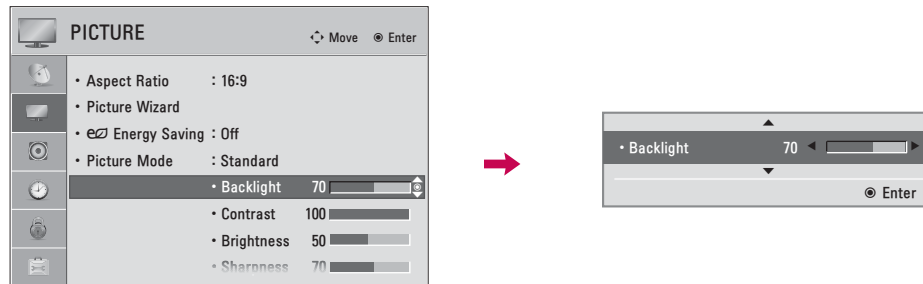
1 MENU — Select **PICTURE**.

2 ENTER — Select **Picture Mode**.

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

4 ENTER — Select **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Color**, **Tint**, **Color Temp.**, or **Advanced Control**.

5 ENTER — Make appropriate adjustments.

6 BACK — Return to the previous menu.

EXIT — Return to TV viewing.

■ **Backlight**: This function adjusts the brightness of LCD panel, to control the brightness of the screen. Adjusting the backlight is recommended when setting the brightness of the set. When decreasing the backlight, the brightness of the black becomes darker without any loss in video signal and the power consumption is reduced.

■ **Backlight** can only be adjusted in " **Energy Saving - Off**, **Minimum**, or **Medium**".

■ **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)

You can calibrate the screen for each Picture Mode or set the video value according to the special video screen.

You can set the video seeing differently for each input.

To reset to the factory default after making adjustments to each input source, execute the **Picture Reset** function for each Picture Mode.

PICTURE	◆ Move ◉ Enter
• Color	60
• Tint	0 R||||||||||| G
• Color Temp.	0 W||||||||||| C
• Advanced Control	⬍
• Picture Reset	
• TruMotion	: Low
• Screen (RGB-PC)	
• LED Local Dimming: On	

PICTURE	◆ Move ◉ Enter

Dynamic Contrast	◄ Low ►
Dynamic Color	Off
Clear White	Off
Skin Color	0
Noise Reduction	Off
Digital Noise Reduction	Off
Gamma	Medium
Black Level	Low
Eye Care	Low
▼	
Close	
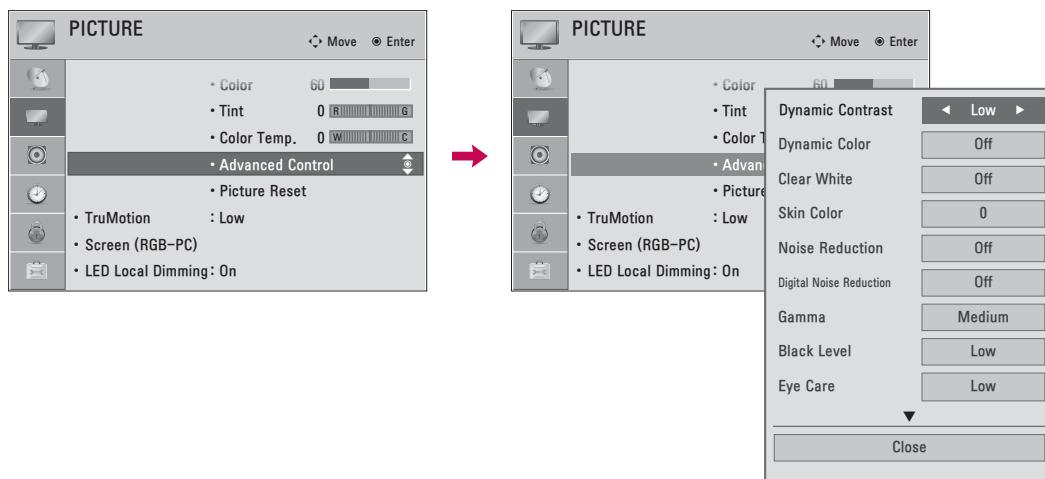
1 MENU / ⬍↔ Select **PICTURE**.

2 ENTER◉ / ⬍ Select **Advanced Control**.

3 ENTER◉ / ⬍ Select your desired options.

4 ‹◻› Make appropriate adjustments.

5 BACK Return to the previous menu.

EXIT Return to TV viewing.

EXPERT PICTURE CONTROL

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

This may also by used be a professional to help optimize the TV performance in the environment the TV is in.

PICTURE	◇ Move ◉ Enter
• Aspect Ratio : 16:9	
• Picture Wizard	
• eØ Energy Savin	□ Intelligent Sensor
• Picture Mode	□ Vivid
	□ Standard
	□ Cinema
	□ Sport
	□ Game
	☑ isf° Expert1
	□ isf° Expert2

PICTURE	◇ Move ◉ Enter
• V Sharpness 70	
• Color 70 R||||||||| G	
• Tint	Dynamic Contrast ◀ Off ▶
• Expert	Noise Reduction Off
• Picture	Digital Noise Reduction Off
• TruMotion	Black Level Low
• Screen (RGB-PC)	Real Cinema On
• LED Local Dimming: On	Color Gamut Wide
	Edge Enhancer High
	xvYcc Auto
	Expert Pattern Off
	▼
	Close

---

1 MENU / ⌃⌄ — Select **PICTURE**.

2 ENTER / ⌃⌄ — Select **Picture Mode**.

3 ENTER / ⌃⌄ — Select **isf° Expert1** or **isf° Expert2**.

4 ENTER / ⌃⌄ — Select **Expert Control**.

5 ENTER / ⌃⌄ — Select your desired menu option.

6 ‹□› — Make appropriate adjustments.

7 BACK — Return to the previous menu.

EXIT — Return to TV viewing.

*This feature is not available for all models.

Dynamic Contrast	▪ 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	▪ Adjusts screen colors so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.
Skin Color	▪ Expresses natural skin by detecting skin area of the video.
Noise Reduction	▪ Reduces screen noise without compromising video quality.
Digital Noise Reduction	▪ Removes noise regarding MPEG compressed video.
Gamma	▪ You can adjust brightness of dark area and middle gray level area of the picture. Low or 1.9 : Make brighter and middle gray level area of the picture brighter. Medium or 2.2 : Express original picture levels. High or 2.4: Make dark and middle gray level area of the picture darker.
Black Level	Low: The reflection of the screen gets darker. High: The reflection of the screen gets brighter. ▪ 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	▪ Make brighter and clear the white area of screen.
Eye Care	▪ 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	▪ 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.
Color Gamut	**Advanced Control** Standard: Displays standard set of colors. Wide: Increase number of colors used. ▪ Maximize the utilization of color to increase color quality. LED LCD TV/LCD TV: **Expert Control** ▪ Displays color domain of the signal. Standard: Displays standard set of colors. Wide: Increase number of colors used. EBU: Mode to display EBU standard color area. SMPTE: Mode to display SMPTE standard color area. BT709: Mode to display BT709 standard color area.

Edge Enhancer	■ Show clearer and distinctive yet natural edges in of the video. ■ This function is enabled in "**Picture Mode** - **Expert**".
xvYCC	■ This is 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	■ This is the function to filter the specific colors of the video. You can use the RGB filter to set color saturation and hue accurately. ■ This function is enabled in "**Picture Mode** - **Expert**".
Expert Pattern	■ This is the pattern necessary for expert adjustment. ■ This function is enabled in "**Picture mode** - **Expert**" when you watch DTV. (For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300)
Color Temperature	■ Adjusts the overall color of the screen by changing the color of white. a. Method : 2 Points - Pattern: Inner, Outer - Red/Green/Blue Contrast, Red/Green/Blue Brightness: The adjustment range is -50 - +50. b. Method : 10 Point IRE - 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, than 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.
Color Management System	■ As the 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. - 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 disable in RGB-PC and HDMI-PC mode.

PICTURE RESET

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

PICTURE	⟨⟩ Move ⊙ Enter
• Color	60 ▮▮▮▮
• Tint	0 ⟦R▯▯▯▯▯▯▯G⟧

⟨?⟩ All picture settings will be reset. Continue?

Yes　　No

• TruMotion
• Screen (RGB-P...
• LED Local Dimming: On

➡

PICTURE	⟨⟩ Move ⊙ Enter
• Color	60 ▮▮▮▮
• Tint	0 ⟦R▯▯▯▯▯▯▯G⟧
• Color Temp.	0 ⟦W▯▯▯▯▯▯▯C⟧
• Advanced Control	
• Pict	
• TruMotion	: Low
• Screen (RGB-PC)	
• LED Local Dimming	: On

⟨i⟩ Resetting video configuration...

1
MENU / ⌃⌄⟨⟩　Select **PICTURE**.
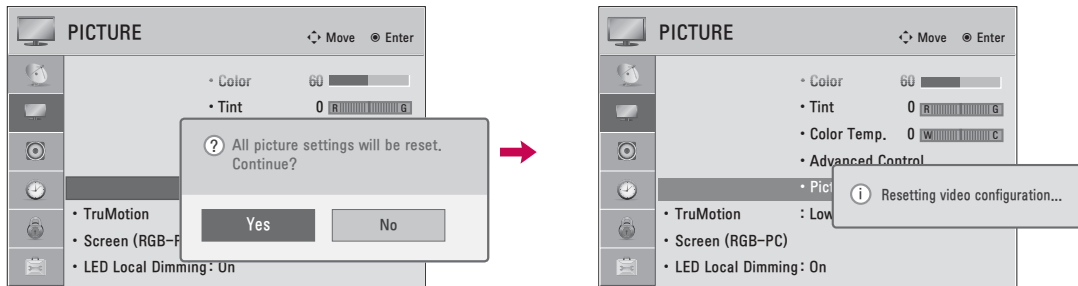
2
ENTER / ⌃⌄　Select **Picture Reset**.

3
ENTER / ⟨⟩　Select **Yes**.

4
ENTER　Initialize the adjusted value.

5
EXIT　Return to TV viewing.

TRUMOTION

*This feature is not available for all models.

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

PICTURE	⬧ Move ◉ Enter
• Color	60
• Tint	0 [R▓▓▓▓▓▓▓ G]
• Color Temp.	0 [W▓▓▓▓▓▓▓ C]
• Advanced Control	
• Picture Reset	
• TruMotion	: Low
• Screen (RGB-PC)	
• LED Local Dimming	: On

TruMotion	◄ Low ►
• Judder	3
• Blur	3
	◉ Enter

1
MENU / ⌃⌄‹› 　Select **PICTURE**.
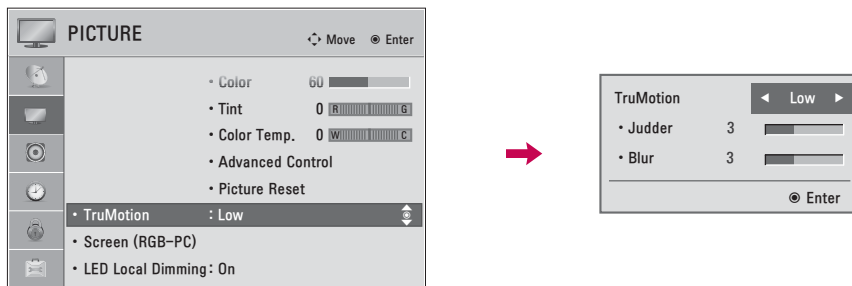
2
ENTER / ⌃⌄ 　Select **TruMotion**.

3
ENTER / ‹⬚› 　Select **Low**, **High**, **User**, or **Off**.

Adjustment for TruMotion (Judder and Blur) with selecting User
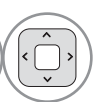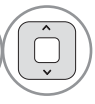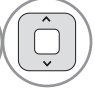
4
ENTER / ⌃⌄ 　Select **Judder** or **Blur**.

5
‹⬚› 　Make appropriate adjustments.

6
BACK 　Return to the previous menu.

EXIT 　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.
- ■ **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**".

PICTURE CONTROL

LED LOCAL DIMMING (For 42/47/55LE5300)

After analyzing the signal of the input video by areas of the screen, it adjusts the backlight to improve the contrast ratio. This feature is disabled in "Picture Mode-Game".

PICTURE	◆ Move ◉ Enter
• Color	60
• Tint	0 R ‖‖‖‖‖‖‖‖ G
• Color Temp.	0 W ‖‖‖‖‖‖‖‖ C
• Advanced Control	
• Picture Reset	
• TruMotion	: Low
• Screen (RGB-PC)	
• LED Local Dimming : On	

PICTURE	◆ Move ◉ Enter
• Color	60
• Tint	0 R ‖‖‖‖‖‖‖‖ G
• Color Temp.	0 W ‖‖‖‖‖‖‖‖ C
• Advanced Control	
• Picture Reset	
• TruMotion	: Low
• Screen (RGB-PC)	
• LED Local Dimming : On	☐ Off / ☑ On

1
MENU / Select **PICTURE**.
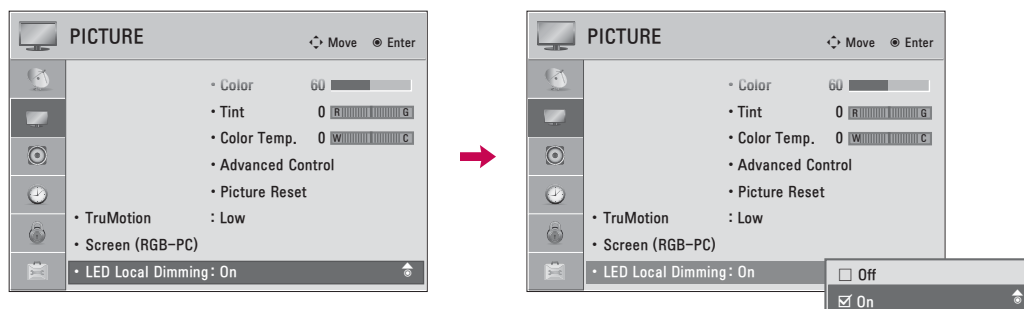
2
ENTER / Select **LED Local Dimming**.

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

4
BACK / Return to the previous menu.

EXIT / Return to TV viewing.

POWER INDICATOR

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

OPTION	⟷ Move ⦿ Enter
• Language	
• Caption	: Off
• Power Indicator	
• Initial Setting	
• Set ID	: 1
• Mode Setting	: Home Use

➡

OPTION	⟷ Move ⦿ Enter
• Language	
• Caption	: Off
• Power Indicator	Standby Light ◄ On ►
• Initial Setting	Power Light On
• Set ID	: 1
• Mode Setting	: Home Use
	Close
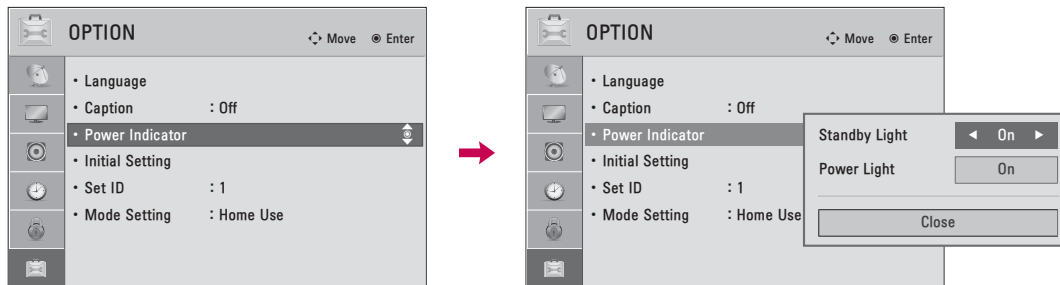
1 MENU ⟨▯⟩ Select **OPTION**.

2 ENTER ▯ Select **Power Indicator**.

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

4 ⟨▯⟩ Select your desired options.

5 BACK Return to the previous menu.

EXIT 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.

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.

AUDIO	◇ Move ◉ Enter
• Auto Volume	: Off
• Clear Voice II	: Off 🔊 3
• Balance	0 L｜｜｜｜｜｜｜｜｜｜R
• Sound Mode	: Standard
• Infinite Sound : Off
• Treble	50
• Bass	50
• Reset

➡

AUDIO	◇ Move ◉ Enter
• Auto Volume	: On
• Clear Voice II	: Off 🔊 3
• Balance	
• Sound Mode	: Standard
• Infinite Sound : Off
• Treble	50
• Bass	50
• Reset

☐ Off
☑ On

1
MENU / ⌃⌄‹› Select **AUDIO**.
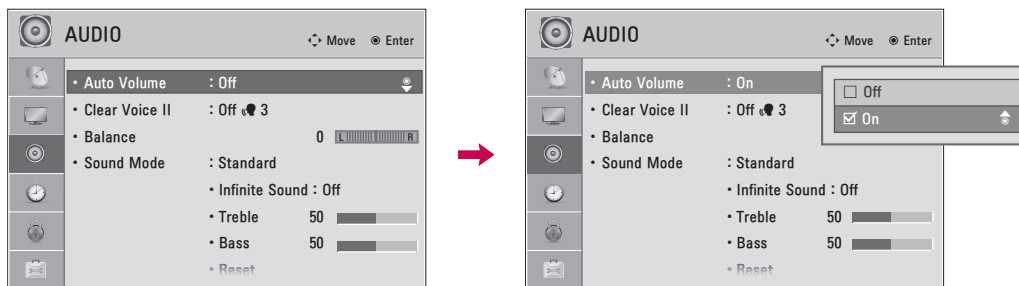
2
ENTER / ⌃⌄ Select **Auto Volume**.

3
ENTER / ⌃⌄ Select **On** or **Off**.

4
BACK Return to the previous menu.

EXIT Return to TV viewing.

111

CLEAR VOICE II

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

```
┌─────────────────────────────────────────┐   ┌─────────────────────────────────────────┐
│ ⊚  AUDIO           ◌ Move   ◉ Enter       │   │ ⊚  AUDIO           ◌ Move   ◉ Enter       │
├─────────────────────────────────────────┤   ├─────────────────────────────────────────┤
│ 🌐  • Auto Volume    : Off                │   │ 🌐  • Auto Volume    : Off                │
│ 🖥   • Clear Voice II  : Off ◖ 3        ↕ │   │ 🖥   • Clear Voice II  : Off ◖ 3    ┌──────────────────────┐
│ ◎   • Balance           0  [L▮▮▮▮▮▮R]     │   │ ◎   • Balance              • Clear Voice II  ◀  Off  ▶  │
│ 🕐  • Sound Mode     : Standard           │   │ 🕐  • Sound Mode     : Standard   • Level    ◖ 3  [−▮▮▮▮▮▮+]│
│     • Infinite Sound : Off                │   │     • Infinite Sound       ├──────────────────────┤
│ 🔔  • Treble         50  ▮▮▮▮             │   │ 🔔  • Treble               │       Close          │
│     • Bass           50  ▮▮▮▮             │   │     • Bass           50  ▮ └──────────────────────┘
│ 📺  • Reset                               │   │ 📺  • Reset                               │
└─────────────────────────────────────────┘   └─────────────────────────────────────────┘
```

1
MENU ⌃⌄⟨⟩   Select **AUDIO**.
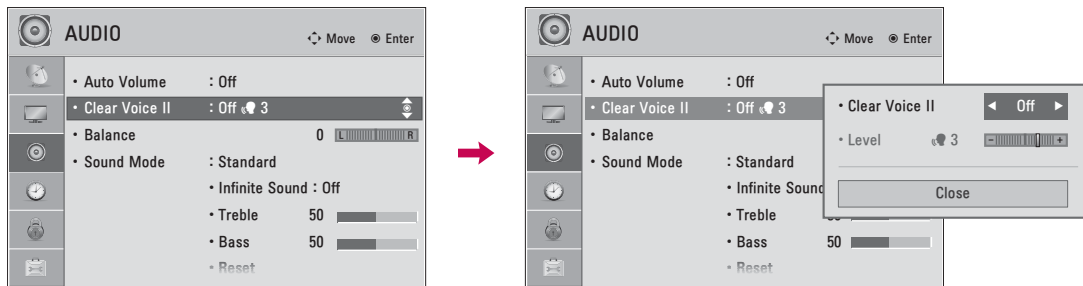
2
ENTER ⊙ ⌃⌄   Select **Clear Voice II**.

3
ENTER ⊙ ⟨⟩   Select **On** or **Off**.
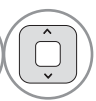
Adjustment for Clear Voice Level with selecting **On**

4
⌄   Select **Level**.

5
⟨⟩   Make appropriate adjustments.

6
BACK   Return to the previous menu.

EXIT   Return to TV viewing.

BALANCE

Adjust the left/right sound of speaker to suit your taste and room situations.
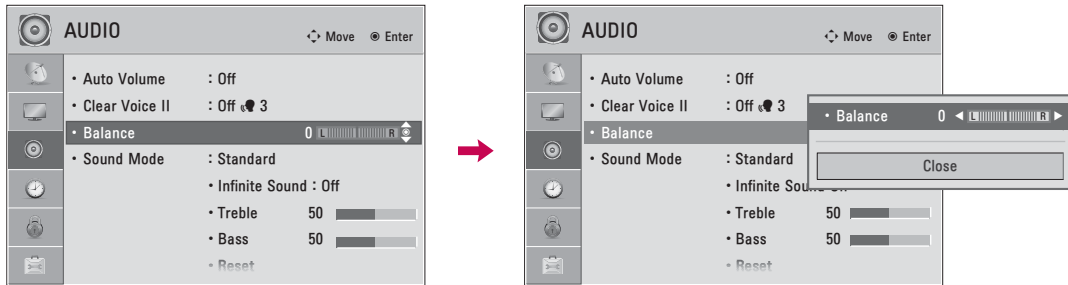
AUDIO	⟐ Move ⦿ Enter
• Auto Volume	: Off
• Clear Voice II	: Off 🔊 3
• Balance	0 [L||||||||||||||||R]
• Sound Mode	: Standard
• Infinite Sound	: Off
• Treble	50
• Bass	50
• Reset	

➡

AUDIO	⟐ Move ⦿ Enter
• Auto Volume	: Off
• Clear Voice II	: Off 🔊 3
• Balance	
• Sound Mode	: Standard
• Infinite Sound	

• Balance	0 ◄ [L||||||||||||||R] ►
Close	

1

MENU

Select **AUDIO**.

2

ENTER

Select **Balance**.

3

ENTER

Make appropriate adjustments.

4

BACK

Return to the previous menu.

EXIT

Return to TV viewing.

PRESET SOUND SETTINGS (SOUND MODE)

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

```
┌─────────────────────────────────────┐      ┌─────────────────────────────────────────────┐
│ ◎ AUDIO          ◄╬► Move  ◉ Enter  │      │ ◎ AUDIO          ◄╬► Move  ◉ Enter          │
│                                      │      │                                              │
│  • Auto Volume      : Off            │      │  • Auto Volume      : Off                    │
│  • Clear Voice II   : Off ◄● 3       │      │  • Clear Voice II   : Off ◄● 3    ☑ Standard ↕│
│  • Balance        0  L|||||||| R     │  ➡   │  • Balance                        □ Music    │
│  • Sound Mode     : Standard      ↕  │      │  • Sound Mode     : Standard      □ Cinema   │
│    • Infinite Sound : Off            │      │    • Infinite Sou                 □ Sport    │
│    • Treble       50  ▓▓▓▓           │      │    • Treble                       □ Game     │
│    • Bass         50  ▓▓▓            │      │    • Bass                                    │
│    • Reset                           │      │    • Reset                                   │
└─────────────────────────────────────┘      └─────────────────────────────────────────────┘
```
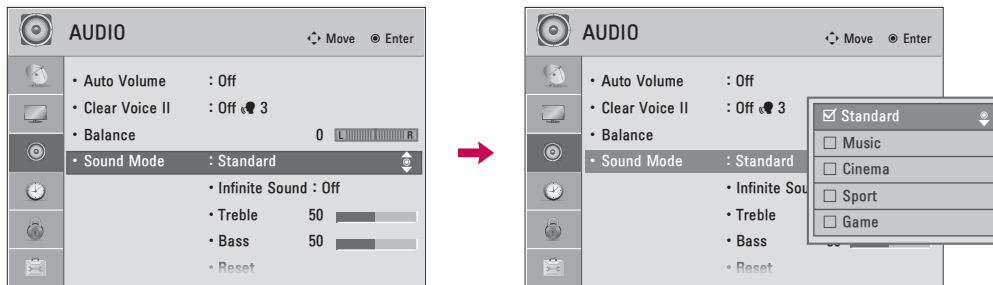
1 MENU / ◄◎► — Select **AUDIO**.

2 ENTER / ◎ — Select **Sound Mode**.

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

4 BACK — Return to the previous menu.

EXIT — 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.

⊙ AUDIO		◇ Move ◉ Enter
• Auto Volume	: Off	
• Clear Voice II	: Off 📢 3	
• Balance	0	L ⅢⅢⅢⅢⅢⅢ R
• Sound Mode	: Standard	
• Infinite Sound : Off		
• Treble	50	
• Bass	50	
• Reset		

➡

⊙ AUDIO		◇ Move ◉ Enter
• Auto Volume	: Off	
• Clear Voice II	: Off 📢 3	
• Balance	0	L ⅢⅢⅢⅢⅢ R
• Sound Mode	: Standard	
• Infinite Sound		
• Treble	50	
• Bass	50	
• Reset		

• Infinite Sound	Off
• Treble	50 ◄ ▬▬▬ ►
• Bass	50 ▬▬
Close	

1

🔲 MENU 〈◉〉 Select **AUDIO**.

2
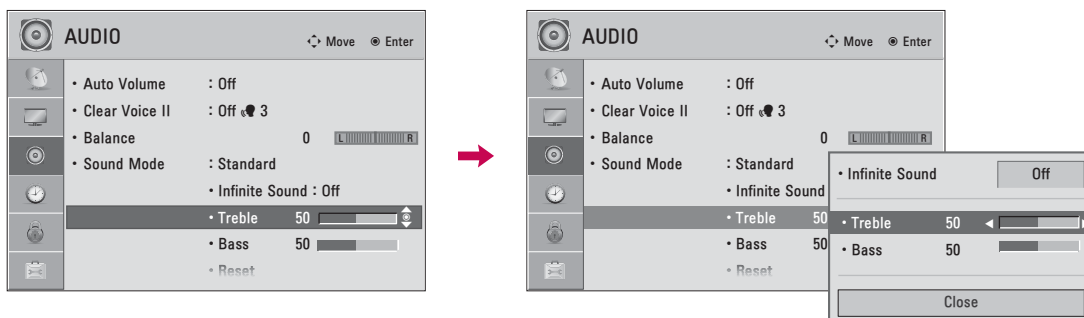
⊙ ENTER 〈◉〉 Select **Infinite Sound**, **Treble**, or **Bass**.

3

⊙ ENTER 〈◉〉 Make appropriate adjustments.

4

⤺ BACK Return to the previous menu.

EXIT 「 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.

SOUND & LANGUAGE CONTROL

115

AUDIO RESET

Settings of the selected Sound Mode return to the default factory settings.
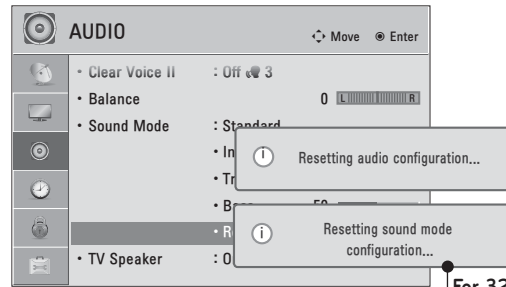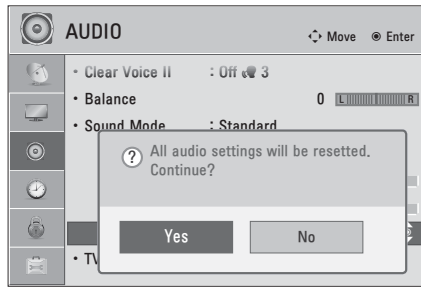
AUDIO　　　　　　　◇ Move　◉ Enter

• Clear Voice II　　: Off ●❷ 3
• Balance　　　　　　　　0　Ⅼ▥▥▥▥▥▥Ｒ
• Sound Mode　　: Standard

? All audio settings will be resetted. Continue?

Yes　　　　　　　No

• TV

AUDIO　　　　　　　◇ Move　◉ Enter

• Clear Voice II　　: Off ●❷ 3
• Balance　　　　　　　　0　Ⅼ▥▥▥▥▥▥Ｒ
• Sound Mode　　: Standard
• In
• Tr
• B
• R
• TV Speaker　　: O

! Resetting audio configuration...

ⓘ Resetting sound mode configuration...

For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300

1 MENU ⌄⌃⟨□⟩ Select **AUDIO**.

2 ENTER ⌃⌄ Select **Reset**.

3 ENTER ⟨□⟩ Select **Yes**.

4 ENTER Initialize the adjusted value.

5 EXIT Return to TV viewing.

TV SPEAKERS ON/OFF SETUP

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

AUDIO　　　　　　　◇ Move　◉ Enter

• Clear Voice II　　: Off ●❷ 3
• Balance　　　　　　　　0　Ⅼ▥▥▥▥▥▥Ｒ
• Sound Mode　　: Standard
• Infinite Sound : Off
• Treble　　　　50
• Bass　　　　　50
• Reset
• TV Speaker　　: On

AUDIO　　　　　　　◇ Move　◉ Enter

• Clear Voice II　　: Off ●❷ 3
• Balance　　　　　　　　0　Ⅼ▥▥▥▥▥▥Ｒ
• Sound Mode　　: Standard
• Infinite Sound : Off
• Treble　　　　50
• Bass　　　　　50
• Reset
• TV Speaker　　: On

☐ Off
☑ On
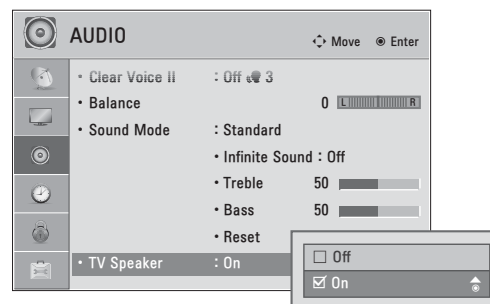
1 MENU ⟨□⟩ Select **AUDIO**.

2 ENTER ⌃⌄ Select **TV Speaker**.

3 ENTER ⌃⌄ Select **On** or **Off**.

4 BACK Return to the previous menu.

EXIT Return to TV viewing.

DIGITAL AUDIO OUT (For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300)

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 - Auto" when Dolby digital is not available, SPDIF output will be PCM (Pulsecode modulation).

AUDIO		◈ Move	◉ Enter
• Balance	U	L|||||||||||R	
• Sound Mode	: Standard		
• Infinite Sound	:Off		
• Treble	50	▬▬	
• Bass	50	▬▬	
• Reset			
• Digital Audio Out	: PCM	⬍	
• TV Speaker	: On		

AUDIO		◈ Move	◉ Enter
• Balance	U	L|||||||||||R	
• Sound Mode	: Standard		
• Infinite Sound	:Off		
• Treble	50	▬▬	
• Bass	50	▬▬	
• Reset			
• Digital Audio Out	: PCM		□ Auto
• TV Speaker	: On		☑ PCM ◉
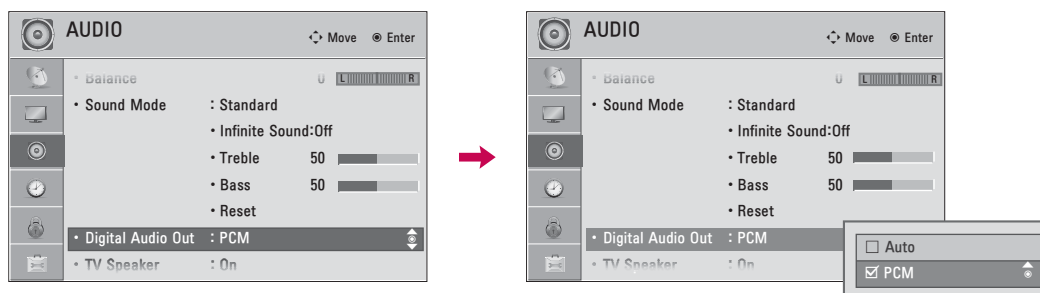
1 Select **AUDIO**.

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
	DD+	DD
	HE-AAC	PCM
Auto (Speaker Off)	MPEG	PCM
	DD	DD
	DD+	DD
	HE-AAC	DD
PCM	All	PCM

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

STEREO/SAP BROADCAST SETUP (IN ANALOG MODE)

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.

i.e)

◄   SAP   **►**

Stereo ◉

CH

Exit

1 Q.MENU   ⟨▢⟩   Select **SAP** or **Audio**.

2 ENTER ◉   ▢   Select **Mono**, **Stereo**, or **SAP**.

3 Q.MENU   Return to TV viewing.

DTV AUDIO SETTING (For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300)

When different audio types exist in an input signal, this function allows you to select the audio type you want.

```
AUDIO                          ⬧ Move   ◉ Enter
        Sound Mode      : Standard
                        • Infinite Sound : Off
                        • Treble        50
                        • Bass          50
                        • Reset
        • Digital Audio Out   : PCM
        • TV Speaker          : On
        • DTV Audio Setting  : Auto
```

```
AUDIO                          ⬧ Move   ◉ Enter
        Sound Mode      : Standard
                        • Infinite Sound : Off
                        • Treble        50
                        • Bass          50
                        • Reset
        • Digital Audio Out   : PCM
        • TV Speaker          : On          ■ Auto
        • DTV Audio Setting  : Auto         □ HE-AAC
                                            □ Dolby Digital+
                                            □ Dolby Digital
                                            □ MPEG
```
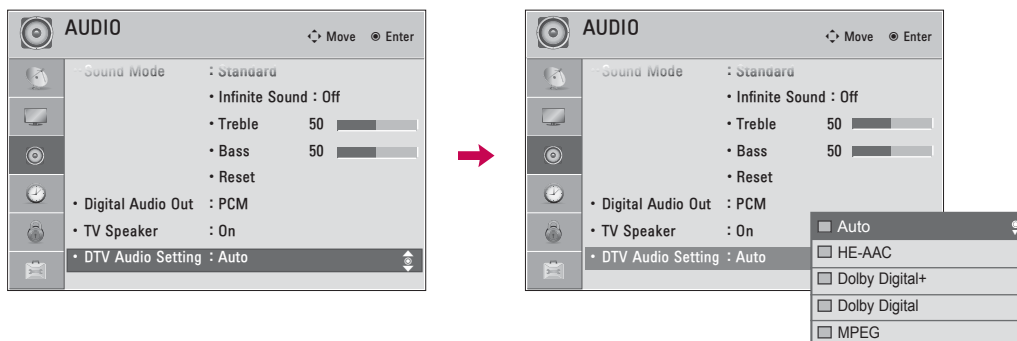
1 MENU   ⟨▢⟩   Select **AUDIO**.

2 ENTER ◉   ▢   Select **DTV Audio Setting**.

3 ENTER ◉   ▢   Select **Auto, HE-AAC, Dolby Digital +, Dolby Digital** or **MPEG**.

4 BACK   Return to the previous menu.

EXIT   Return to TV viewing.

■ **Auto**: Automatically outputs in the order **HE-AAC** > **Dolby Digital+** > **Dolby Digital** > **MPEG**.
■ **HE-AAC, Dolby Digital+, Dolby Digital, MPEG**: Allows users to select the audio type they want.
    ex) If **MPEG** is selected, **MPEG** is always outputted.
        If **MPEG** is not supported, **Dolby Digital** are selected in that order.

ON-SCREEN MENUS LANGUAGE SELECTION

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

```
OPTION                          ◆ Move  ⦿ Enter
  • Language                               ▼
  • Caption          : Off
  • Power Indicator
  • Initial Setting
  • Set ID           : 1
  • Mode Setting     : Home Use
```

```
OPTION                          ◆ Move  ⦿ Enter
  • Language          ┌─────────────────────────────┐
  • Caption           │  Menu Language   ◀ English ▶ │
  • Power Ind         │                              │
  • Initial Set       │         Close                │
  • Set ID     : 1    └─────────────────────────────┘
  • Mode Setting     : Home Use
```

```
  Menu Language      ◀ English ▶
  Audio Language        English
  Subtitle Language     English

         Close
```

For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300
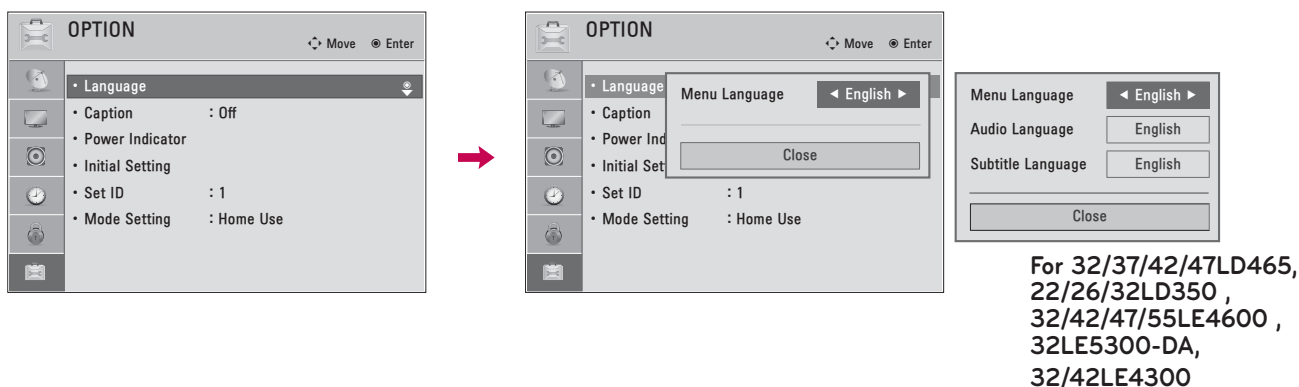
1 MENU / Select **OPTION**.

2 ENTER / Select **Language**.

3 ENTER / Select **Menu Language**.

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

5 BACK / Return to the previous menu.

EXIT / Return to TV viewing.

CAPTION MODE (IN ANALOG MODE)

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**.

```
OPTION                          ◆ Move  ⦿ Enter
  • Language
  • Caption          : Off                  ▼
  • Power Indicator
  • Initial Setting
  • Set ID           : 1
  • Mode Setting     : Home Use
```

```
OPTION                          ◆ Move  ⦿ Enter
  • Language         ┌──────────────────────────┐
  • Caption    : CC1 │      ◀   On    ▶         │
  • Power Indicator  │  Mode        CC 1        │
  • Initial Setting  │                          │
  • Set ID     : 1   │        Close             │
  • Mode Setting : Home Use └──────────────┘
```
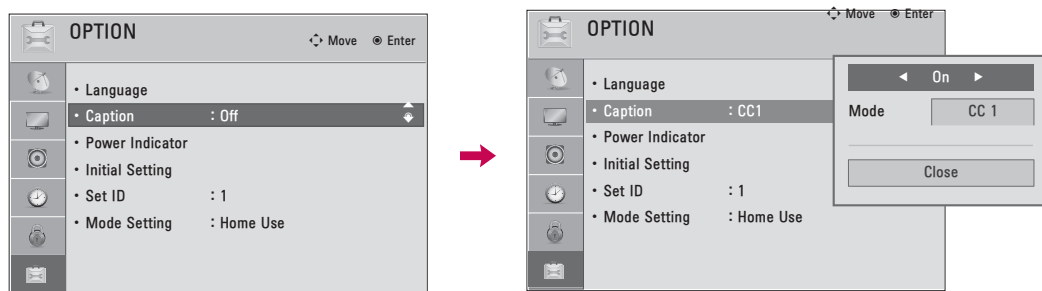
1 MENU / Select **OPTION**.

2 ENTER / Select **Caption** or **Subtitle**.

3 ENTER / Select **On**.

4 Select **Mode**.

5 Select **CC1-2** or **Text1-2**.

6 BACK / Return to the previous menu.

EXIT / Return to TV viewing.

SOUND & LANGUAGE CONTROL

LANGUAGE SELECTION (For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300)

The Audio function allows selection of a preferred language.
If audio data in a selected language is not broadcast, the default language audio will be played.
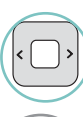
Use the Subtitle function when two or more subtitle languages are broadcast. If subtitle data in a selected language is not broadcast, the default language subtitle will be displayed.

When the languages you selected as the primary for Audio Language and Subtitle Language are not supported, you can select language in secondary category.

Audio Language Selection

When two or more audio languages are broad-cast, you can select the audio language.
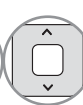
1 Q.MENU ⟨ ▢ ⟩   Select **Audio Language**.

2 ENTER ▢   Select other languages.

3 Q.MENU   Return to TV viewing.

Audio Language OSD Information	
N.A	Not Available
MPEG	MPEG Audio
D	Dolby Digital Audio
▶))	Audio for "Visual Impaired"
ABC	Audio for "Hearing Impaired"
D+	Dolby Digital Plus Audio
AAC	AAC Audio

Subtitle Language Selection

When two or more subtitle languages are broadcast, you can select the subtitle language.
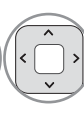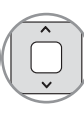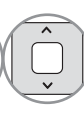
1 SUBTITLE ▢ ENTER   Select a desired subtitle language.

Subtitle Language OSD Information	
N.A	Not Available
ABC	Subtitle for "Hard of Hearing"

■ The audio/subtitles can be displayed in a simpler form with 1 to 3 characters broadcast by the service provider.

■ When you select supplementary Audio (Audio for "Visual/Hearing Impaired") the TV may output a part of the Main audio.

■ You can also adjust **Language** in the **OPTION MENU**.

Hard of Hearing

1 MENU ⟨ ▢ ⟩   Select **OPTION**.

2 ENTER ▢   Select Hard of Hearing(▢).

3 ENTER ▢   Select **On** or **Off**.

4 BACK   Return to the previous menu.

TIME SETTING

CLOCK SETTING

You must set the time correctly before using on/off timer function.
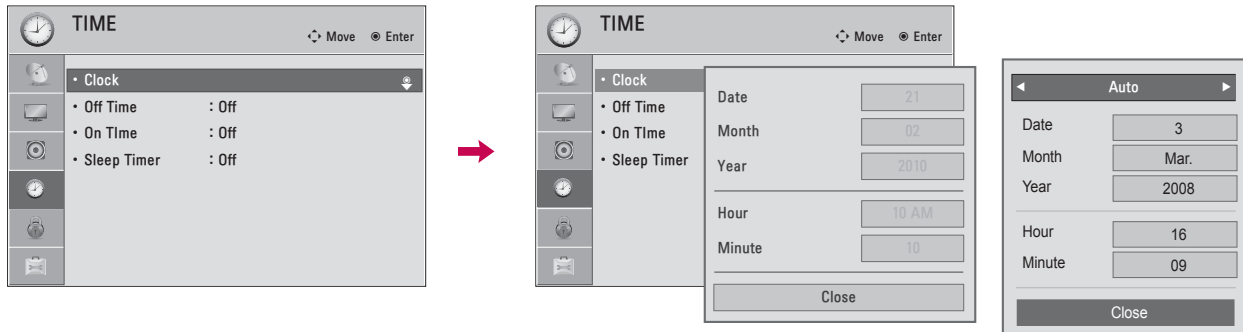
TIME		⟨⟩ Move ⦿ Enter
• Clock		⌄
• Off Time	: Off	
• On TIme	: Off	
• Sleep Timer	: Off	

TIME		⟨⟩ Move ⦿ Enter
• Clock	Date	21
• Off Time	Month	02
• On TIme	Year	2010
• Sleep Timer	Hour	10 AM
	Minute	10
	Close	

◄	Auto	►
Date		3
Month		Mar.
Year		2008
Hour		16
Minute		09
	Close	

For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300

1 **MENU** Select **TIME**.

2 **ENTER** Select **Clock**.

3 **ENTER** Select **Auto** or **Manual**. (**For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300)**

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

4 **BACK** Return to the previous menu.

EXIT Return to TV viewing.

ⓘ**NOTE (For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300)**

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

AUTO ON/OFF TIME SETTING

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

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

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

If you do not press any button within 2 hours after the TV turns on with the **On Time** function, the TV will automatically revert to standby mode.
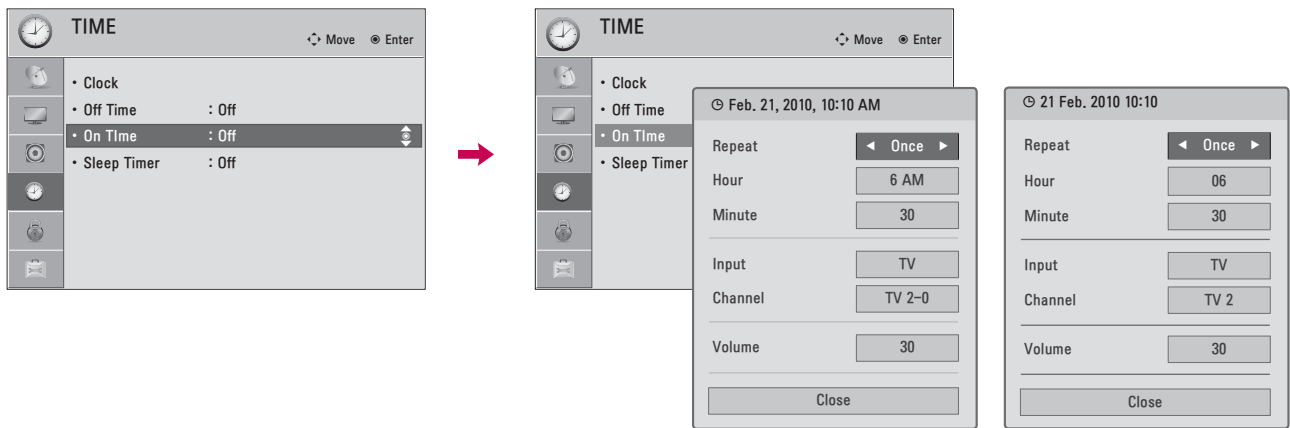
TIME	◈ Move ◉ Enter
• Clock	
• Off Time	: Off
• On TIme	: Off
• Sleep Timer	: Off

➡

TIME	◈ Move ◉ Enter
• Clock	
• Off Time	
• On TIme	
• Sleep Timer	

🕐 Feb. 21, 2010, 10:10 AM

Repeat	◀ Once ▶
Hour	6 AM
Minute	30
Input	TV
Channel	TV 2–0
Volume	30
Close	

🕐 21 Feb. 2010 10:10

Repeat	◀ Once ▶
Hour	06
Minute	30
Input	TV
Channel	TV 2
Volume	30
Close	

For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300
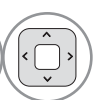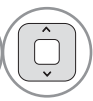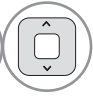
1 MENU 〈□〉 Select **TIME**.

2 ENTER 〈□〉 Select **Off Time** or **On Time**.

3 ENTER 〈□〉 Select **Repeat**.

4 〈□〉 Select **Off**, **Once**, **Daily**, **Mon.~Fri.**, **Mon.~Sat.**, **Sat.~ Sun.**, or **Sun.**.

5 〈□〉 〈□〉 Select and set Hour or Minute.

6 BACK Return to the previous menu.

EXIT Return to TV viewing.

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

■ Only for **On Time** function

1 ENTER 〈□〉 Select **Input.**

2 〈□〉 Select the desired input source.

3 〈□〉 〈□〉 When Selecting **TV**: set the channel at turn-on.

4 〈□〉 〈□〉 Adjust to sound level at turn-on.

SLEEP TIMER SETTING

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

TIME	◇ Move ◉ Enter
• Clock	
• Off Time	: Off
• On TIme	: Off
• Sleep Timer	: Off

➡

TIME	◇ Move ◉ Enter
• Clock	
• Off Time	: Off
• On TIme	: Off
• Sleep Timer	: Off

☑ Off
☐ 10 min.
☐ 20 min.
☐ 30 min.
☐ 60 min.
☐ 90 min.
☐ 120 min.
☐ 180 min.
☐ 240 min.
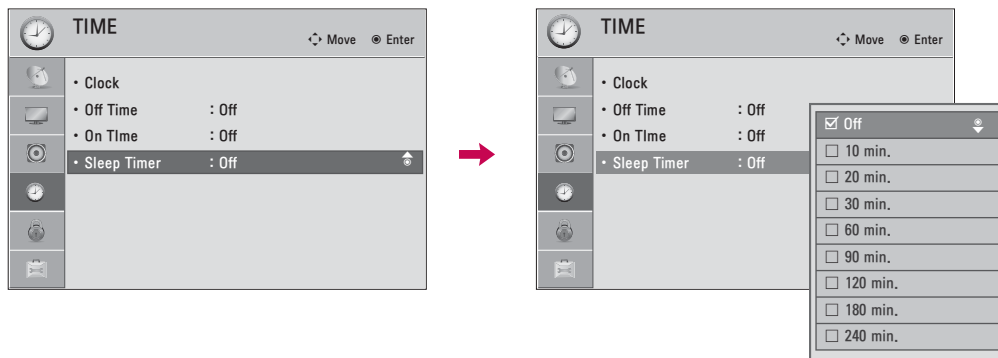
1 MENU / ⌄⌃ ‹◻› Select **TIME**.

2 ENTER ◉ / ⌃◻⌄ Select **Sleep Timer**.

3 ENTER ◉ / ⌃◻⌄ Make appropriate adjustments.

4 BACK Return to the previous menu.

EXIT Return to TV viewing.

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

PARENTAL CONTROL

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

SET PASSWORD & LOCK SYSTEM

Setting up Your Password

Set up blocking schemes to block specific channels and external viewing sources.
A password is required to gain access to this menu.

```
┌─────────────────────────────────────┐        ┌──────────────────────┐
│ 🔒  LOCK                             │        │   Enter Password     │
│                      ⟷ Move  ◉ Enter │        │                      │
│ ┌──────────────────────────────────┐│        │  [*] [*] [*] [*]     │
│ │ • Set Password                  ◉ ││  ➡     │                      │
│ │ • Lock System    : On            ││        │       Close          │
│ │                  • Block Channel ││        └──────────────────────┘
│ │                  • Input Block   ││
│ │ • Key Lock       : Off           ││
│ │                                  ││
│ └──────────────────────────────────┘│
└─────────────────────────────────────┘
```

---

1 MENU ⌃⌄⟨⟩ ENTER◉   Select **LOCK**.
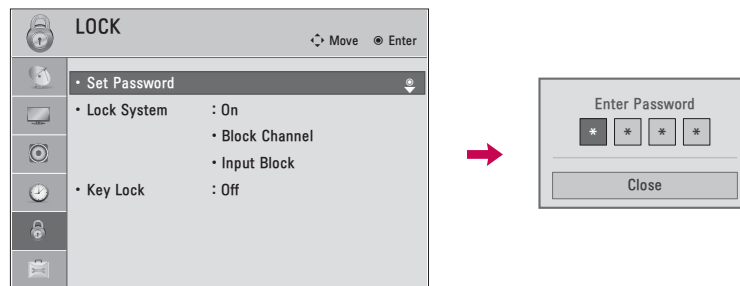
2 [keypad 1-9,0] Input the password.

- ■ 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.

	LOCK	◇ Move ◉ Enter
🔒		
	• **Set Password**	◉
💻	• Lock System	: On
◎		• Block Channel
🕐		• Input Block
🔒	• Key Lock	: Off
📺		

➡

	LOCK	◇ Move ◉ Enter		New	* * * *
🔒				Confirm	* * * *
	• **Set Password**				
💻	• Lock System	: On		Close	
◎		• Block Channel			
🕐		• Input Block			
🔒	• Key Lock	: Off			
📺					

1 [MENU] [navigation pad] [ENTER]   Select **LOCK**.

2 [number pad]   Input the password.
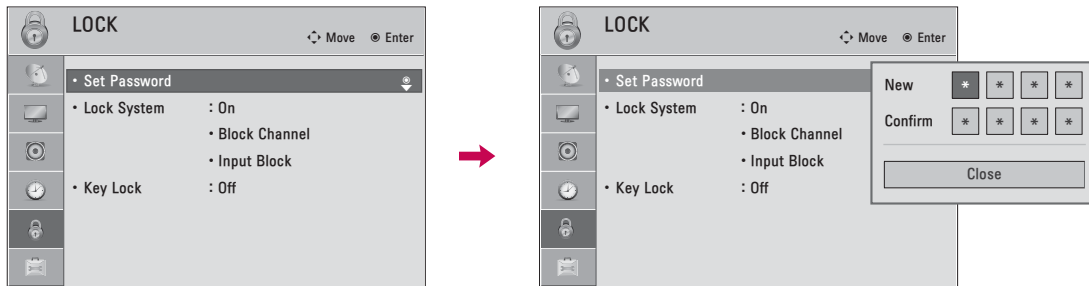
3 [up/down pad]   Select **Set Password**.

4 [ENTER] [number pad]   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 [BACK]   Return to the previous menu.
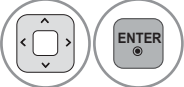
[EXIT]   Return to TV viewing.

PARENTAL CONTROL

125

PARENTAL CONTROL

Lock System

Enables or disables the blocking scheme you set up previously.
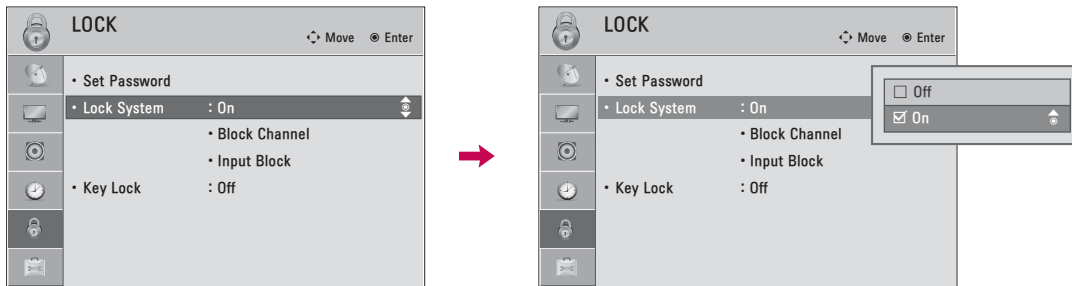
1	MENU, ◁▷, ENTER	Select **LOCK**.
2	[keypad]	Input the password.
3	[up/down]	Select **Lock System**.
4	ENTER, [up/down]	Select **On** or **Off**.
5	BACK	Return to the previous menu.
	EXIT	Return to TV viewing.

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

CHANNEL BLOCKING

Blocks any channels that you do not want to watch or that you do not want your children to watch.
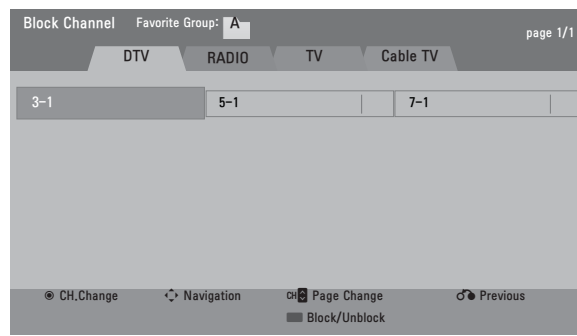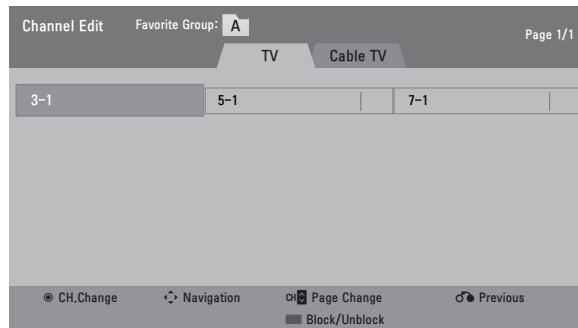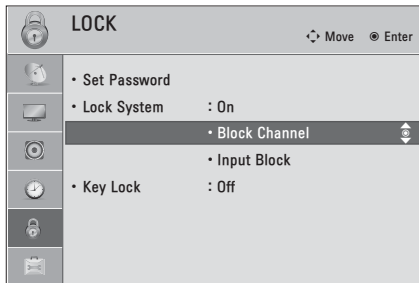
```
        LOCK                          ◄► Move   ◉ Enter
        • Set Password
        • Lock System        : On
                             • Block Channel     ⬍
                             • Input Block
        • Key Lock           : Off
```

```
Channel Edit    Favorite Group: A                          Page 1/1
                        TV        Cable TV
        3-1                 5-1             7-1

        ◉ CH.Change    ◄► Navigation    CH🔲 Page Change    🔁 Previous
                                          ■ Block/Unblock
```

```
Block Channel    Favorite Group: A                         page 1/1
                DTV      RADIO      TV        Cable TV
        3-1                 5-1             7-1

        ◉ CH.Change    ◄► Navigation    CH🔲 Page Change    🔁 Previous
                                          ■ Block/Unblock
```

For 32/37/42/47LD465, 22/26/32LD350 , 32/42/47/55LE4600 , 32LE5300-DA, 32/42LE4300

1	**MENU** ∧⟨□⟩∨ **ENTER**	Select **LOCK**.
2	1 2 3 / 4 5 6 / 7 8 9 / 0	Input the password.
3	∧□∨	Select **Block Channel**.
4	**ENTER** ∧⟨□⟩∨	Select a channel to block or unblock.
5	**YELLOW**	Block or unblock a channel.
6	**BACK**	Return to the previous menu.
	EXIT	Return to TV viewing.

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

PARENTAL CONTROL

EXTERNAL INPUT BLOCKING

Enables you to block an input.

LOCK	◆ Move ◉ Enter
🔒	
⚙	• Set Password
📺	• Lock System : On
◉	• Block Channel
🕐	• Input Block
🔒	• Key Lock : Off
📼	

➡

LOCK	◆ Move ◉ Enter	i.e)
🔒		
⚙	• Set Password	
📺	• Lock System : On	
◉	• Block Chan	
🕐	• Input Block	
🔒	• Key Lock : Off	
📼		
🌐		

• AV1	◀ Off ▶
• AV2	Off
• Component	Off
• RGB-PC	Off
• HDMI1	Off
• HDMI2	Off
• HDMI3	Off
Close	

1 MENU / ⌄⌃ / ENTER — Select **LOCK**.
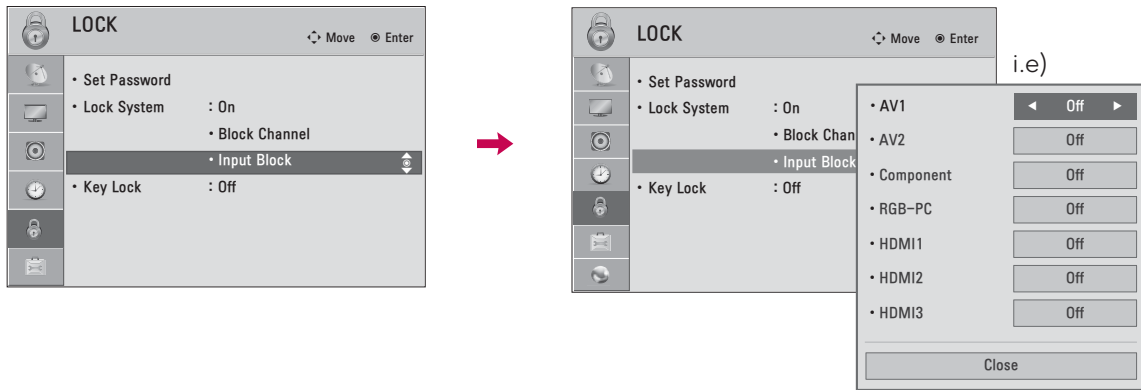
2 [1 2 3 / 4 5 6 / 7 8 9 / 0] — Input the password.

3 ⌄⌃ — Select **Input Block**.

4 ENTER / ⌄⌃ — Select input source.

5 ◀▶ — Select **On** or **Off**.

6 BACK — Return to the previous menu.

EXIT — Return to TV viewing.

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.
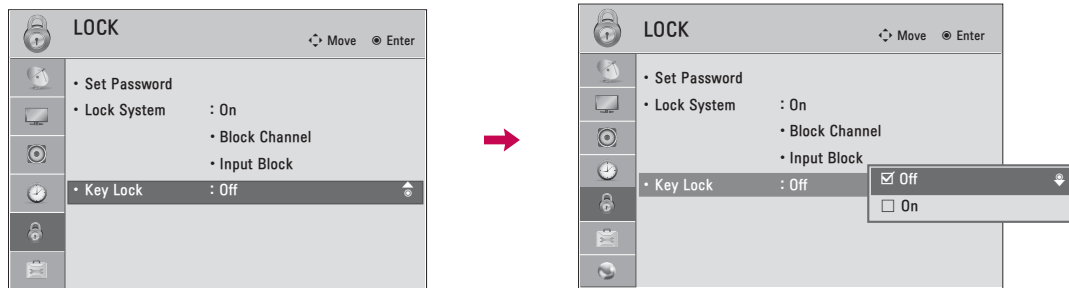
LOCK	◆ Move ◉ Enter
• Set Password	
• Lock System	: On
• Block Channel	
• Input Block	
• Key Lock	: Off

➡

LOCK	◆ Move ◉ Enter
• Set Password	
• Lock System	: On
• Block Channel	
• Input Block	
• Key Lock	: Off

☑ Off
☐ On

1
MENU   Select **LOCK**.

2
ENTER   Select **Key Lock**.

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

4
BACK   Return to the previous menu.

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

Audio Problems	
Picture OK & No sound	■ 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.
No output from one of the speakers	■ Adjust Balance in menu option.
Unusual sound from inside the product	■ A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.
No sound when connecting HDMI/USB	■ Check High Speed HDMI cable. ■ Check USB cable over version 2.0. ■ Use normal MP3 file. *This feature is not available for all models.

PC Mode Problems	
The signal is out of range	■ Adjust resolution, horizontal frequency, or vertical frequency on the PC. ■ Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	■ Activate the Auto configure feature or adjust size, phase, or H/V position. (Option)
Screen color is unstable or single color	■ Check the signal cable. ■ Reinstall the PC video card.
When connecting the HDMI cable to the PC, there is no audio.	■ Check the manual for the video card in the PC to see if it supports HDMI audio and how to set it up properly.

APPENDIX

Movie List Problems	
The file does not appear on the Movie List.	■ 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.	■ 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.	■ 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.	■ 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.)

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.

APPENDIX

PRODUCT SPECIFICATIONS

MODELS		32LD460 (32LD460-MA)	37LD460 (37LD460-MA)
Dimensions (Width x Height x Depth)	With stand	799.0 mm x 555.0 mm x 207.0 mm (31.4 inches x 21.8 inches x 8.1 inches)	916.0 mm x 625.0 mm x 261.0 mm (36.0 inches x 24.6 inches x 10.2 inches)
	Without stand	799.0 mm x 516.0 mm x 73.5 mm (31.4 inches x 20.3 inches x 2.8 inches)	916.0 mm x 584.0 mm x 77.4 mm (36.0 inches x 22.9 inches x 3.0 inches)
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)
Power Consumption		1.2 A	1.6 A

MODELS		42LD460 (42LD460-MA)	47LD460 (47LD460-MA)
Dimensions (Width x Height x Depth)	With stand	1023.0 mm x 685.0 mm x 261.0 mm (40.2 inches x 26.9 inches x 10.2 inches)	1136.0 mm x 757.0 mm x 270.0 mm (44.7 inches x 29.8 inches x 10.6 inches)
	Without stand	1023.0 mm x 644.0 mm x 76.6 mm (40.2 inches x 25.3 inches x 3.0 inches)	1136.0 mm x 706.0 mm x 76.5 mm (44.7 inches x 27.7 inches x 3.0 inches)
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)
Power Consumption		1.9 A	2.6 A

Power requirement		AC 100-240 V - 50/60 Hz
Television System		NTSC, PAL-M/N
Program Coverage		VHF 2-13, UHF 14-69, CATV 1-135
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	Less than 80%
	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
	Storage Humidity	Less than 85%

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

MODELS		22LE5300 (22LE5300-MA)	26LE5300 (26LE5300-MA)
Dimensions (Width x Height x Depth)	With stand	542.9 mm x 407.1 mm x 155.4 mm (21.4 inches x 16.0 inches x 6.1 inches)	652.0 mm x 480.8 mm x 191.4 mm (25.7 inches x 18.9 inches x 7.5 inches)
	Without stand	542.9 mm x 357.6 mm x 34.4 mm (21.4 inches x 14.1 inches x 1.4 inches)	652.0 mm x 420.3 mm x 34.4 mm (25.7 inches x 16.5 inches x 1.4 inches)
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-MA)	26LE6500 (26LE6500-MA)
Dimensions (Width x Height x Depth)	With stand	533.0 mm x 400.0 mm x 187.0 mm (20.9 inches x 15.7 inches x 7.3 inches)	650.0 mm x 469.0 mm x 187.0 mm (25.5 inches x 18.4 inches x 7.3 inches)
	Without stand	533.0 mm x 349.0 mm x 39.9 mm (20.9 inches x 13.7 inches x 1.5 inches)	650.0 mm x 418.0 mm x 39.9 mm (25.5 inches x 16.4 inches x 1.5 inches)
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: 24 V⎓ , 1.7 A 26LE5300: 24 V ⎓ , 1.8 A 22LE6500: 24 V⎓ , 1.7 A 26LE6500: 24 V⎓ , 2.1 A
Adapter (DC Power)	In: AC 100-240 V - 50/60 Hz Out: DC 24 V, 3.42 A
Television System	NTSC, PAL-M/N
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135
External Antenna Impedance	75 Ω
Environment condition — Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity	Less than 80%
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage Humidity	Less than 85%

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

APPENDIX

MODELS		32LD465 (32LD465-DA)	37LD465 (37LD465-DA)	42LD465 (42LD465-DA)
Dimensions (Width x Height x Depth)	With stand	799.0 mm x 555.0 mm x 207.0 mm (31.5 inches x 21.9 inches x 8.1 inches)	916.0 mm x 625.0 mm x 261.0 mm (36.1 inches x 24.6 inches x 10.3 inches)	1023.0 mm x 685.0 mm x 261.0 mm (40.3 inches x 27.0 inches x 10.3 inches)
	Without stand	799.0 mm x 506.0 mm x 73.5 mm (31.5 inches x 19.9 inches x 2.9 inches)	916.0 mm x 575.0 mm x 77.4 mm (36.1 inches x 22.6 inches x 3.0 inches)	1023.0 mm x 635.0 mm x 76.6 mm (40.3 inches x 25.0 inches x 3.0 inches)
Weight	With stand	9.1 kg (20.1 lbs)	12.5 kg (27.6 lbs)	15.1 kg (33.2 lbs)
	Without stand	8.1 kg (17.9 lbs)	10.8 kg (23.8 lbs)	13.5 kg (29.8 lbs)
Power Consumption		2.6 A	0.8 A	1.0 A

MODELS		47LD465 (47LD465-DA)	22LD350 (22LD350-DB)	26LD350 (26LD350-DB)
Dimensions (Width x Height x Depth)	With stand	1136.0 mm x 757.0 mm x 270.0 mm (44.7 inches x 29.8 inches x 10.6 inches)	526.0 mm x 377.0 mm x 164.9 mm (20.7 inches x 14.8inchesx 6.4 inches)	663.0 mm x 484.0 mm x 206.8 mm (26.1 inches x 19.0 inches x 8.1 inches)
	Without stand	1136.0 mm x 706.0 mm x 76.5 mm (44.7 inches x 27.7 inches x 3.0 inches)	526.0 mm x 331.0 mm x 65.0 mm (20.7 inches x 13.0 inches x 2.5 inches)	663.0 mm x 423.0 mm x 79.9 mm (26.1 inches x 16.6 inches x 3.1 inches)
Weight	With stand	19.6 kg (43.2 lbs)	4.3 kg (9.4 lbs)	7.3 kg (16.0 lbs)
	Without stand	17.6 kg (38.8 lbs)	4.0 kg (8.8 lbs)	6.2 kg (13.6 lbs)
Power Consumption		2.6 A	0.8 A	1.0 A

MODELS		32LD350 (32LD350-DB)	32LE5300 (32LE5300-DA)
Dimensions (Width x Height x Depth)	With stand	800.0 mm x 565.0 mm x 206.8 mm (31.4 inches x 22.2 inches x 8.1 inches)	784.6 mm x 558.1 mm x 221.0 mm (30.9 inches x 22.0 inches x 8.7 inches)
	Without stand	800.0 mm x 509.0 mm x 73.8 mm (31.4 inches x 20.0 inches x 2.9 inches)	784.6 mm x 499.5 mm x 39.9 mm (30.9 inches x 19.7 inches x 1.6 inches)
Weight	With stand	9.2 kg (20.2 lbs)	12.4 kg (27.3 lbs)
	Without stand	8.2 kg (18.0 lbs)	10.5 kg (23.1 lbs)
Power Consumption		1.2 A	1.3 A

Power requirement		AC 100-240 V - 50/60 Hz
Television System		Analog : NTSC-M, DTV : DVB-T
Program Coverage		VHF 2-13, UHF 14-69, CATV 1, 14-125, DTV 14-69
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	Less than 80%
	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
	Storage Humidity	Less than 85%

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

APPENDIX

MODELS		32LE4600 (32LE4600-DA)	42LE4600 (42LE4600-DA)
Dimensions (Width x Height x Depth)	With stand	786 mm x 562 mm x 272 mm (30.9 inches x 22.1 inches x 10.7 inches)	1018 mm x 696 mm x 318 mm (40.0 inches x 27.4 inches x 12.5 inches)
	Without stand	786 mm x 500 mm x 39.9 mm (30.9 inches x 19.6 inches x 1.5 inches)	1018 mm x 627 mm x 29.8 mm (40.0 inches x 24.6 inches x 1.1 inches)
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)
Power Consumption		1.3 A	1.5 A

MODELS		47LE4600 (47LE4600-DA)	55LE4600 (55LE4600-DA)
Dimensions (Width x Height x Depth)	With stand	1128 mm x 759 mm x 318 mm (44.4 inches x 29.8 inches x 12.5 inches)	1311 mm x 866 mm x 330 mm (51.6 inches x 34.0 inches x 12.9 inches)
	Without stand	1128 mm x 693 mm x 29.8 mm (44.4 inches x 27.2 inches x 1.1 inches)	1311 mm x 798 mm x 31.4 mm (51.6 inches x 31.4 inches x 1.2 inches)
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 (66.8 lbs)
Power Consumption		1.7 A	2.0 A

MODELS		32LE4300 (32LE4300-DA)	42LE4300 (42LE4300-DA)
Dimensions (Width x Height x Depth)	With stand	786.0 mm x 559.0 mm x 221.0 mm (30.9 inches x 22.0 inches x 8.7 inches)	1018.0 mm x 692.0 mm x 270.0 mm (40.0 inches x 27.2 inches x 10.6 inches)
	Without stand	786.0 mm x 500.0 mm x 39.9 mm (30.9 inches x 19.6 inches x 1.5 inches)	1018.0 mm x 627.0 mm x 29.8 mm (40.0 inches x 24.6 inches x 1.1 inches)
Weight	With stand	12.4 kg (27.3 lbs)	19.7 kg (43.4 lbs)
	Without stand	10.6 kg (23.3 lbs)	17.2 kg (37.9 lbs)
Power Consumption		1.3 A	1.5 A

Power requirement		AC 100-240 V - 50/60 Hz
Television System		Analog : NTSC-M, DTV : DVB-T
Program Coverage		VHF 2-13, UHF 14-69, CATV 1, 14-125, DTV 14-69
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	Less than 80%
	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
	Storage Humidity	Less than 85%

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

APPENDIX

MODELS		32LE5300 (32LE5300-MA)	37LE5300 (37LE5300-MA)
Dimensions (Width x Height x Depth)	With stand	784.6 mm x 558.1 mm x 221.0 mm (30.9 inches x 22.0 inches x 8.7 inches)	905.0 mm x 630.0 mm x 270.0 mm (35.6 inches x 24.8 inches x 10.6 inches)
	Without stand	784.6 mm x 499.5 mm x 39.9 mm (30.9 inches x 19.7 inches x 1.6 inches)	905.0 mm x 568.0 mm x 39.9 mm (35.6 inches x 22.3 inches x 1.6 inches)
Weight	With stand	12.7 kg (27.9 lbs)	15.6 kg (34.3 lbs)
	Without stand	10.5 kg (23.1 lbs)	12.8 kg (28.2 lbs)
Power Consumption		1.3 A	1.4 A

MODELS		42LE5300 (42LE5300-MA)	47LE5300 (47LE5300-MA)
Dimensions (Width x Height x Depth)	With stand	1016.0 mm x 692.0 mm x 270.0 mm (40.0 inches x 27.2 inches x 10.6 inches)	1126.6 mm x 757.9 mm x 284.4 mm (44.3 inches x 29.8 inches x 11.1 inches)
	Without stand	1016.0 mm x 630.0 mm x 29.3 mm (40.0 inches x 24.8 inches x 1.2 inches)	1126.6 mm x 692.0 mm x 29.3 mm (44.3 inches x 27.2 inches x 1.1 inches)
Weight	With stand	19.5 kg (42.9 lbs)	22.9 kg (50.4 lbs)
	Without stand	16.7 kg (36.8 lbs)	19.6 kg (43.2 lbs)
Power Consumption		1.5 A	1.7 A

MODELS		55LE5300 (55LE5300-MA)
Dimensions (Width x Height x Depth)	With stand	1306.0 mm x 867.0 mm x 328.0 mm (51.4 inches x 34.1 inches x 12.9 inches)
	Without stand	1306.0 mm x 797.0 mm x 34.4 mm (51.4 inches x 31.3 inches x 1.3 inches)
Weight	With stand	34.5 kg (76.0 lbs)
	Without stand	28.8 kg (63.4 lbs)
Power Consumption		2.0 A

Power requirement		AC 100-240 V - 50/60 Hz
Television System		NTSC, PAL-M/N
Program Coverage		VHF 2-13, UHF 14-69, CATV 1-135
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	Less than 80%
	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
	Storage Humidity	Less than 85%

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

IR CODES

Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
08	⏻	Remote control Button (Power On/Off)	95	ENERGY SAVING	Remote control Button
45	Q.MENU	Remote control Button	7E	SIMPLINK	Remote control Button
43	MENU	Remote control Button	7C	XSTUDIO	Remote control Button
0B	INPUT	Remote control Button	30	AV MODE	Remote control Button
10-19	Number Key 0-9	Remote control Button	0F	TV (TV/RAD)	Remote control Button
53	LIST	Remote control Button	5B	EXIT	Remote control Button
1A	Q.VIEW	Remote control Button	72	RED	Remote control Button
09	MUTE	Remote control Button	71	GREEN	Remote control Button
02	VOL +	Remote control Button	63	YELLOW	Remote control Button
03	VOL -	Remote control Button	61	BLUE	Remote control Button
00	CH ∧	Remote control Button	B1	■	Remote control Button
01	CH ∨	Remote control Button	B0	▶	Remote control Button
1E	FAV/MARK	Remote control Button	BA	❚❚	Remote control Button
40	∧	Remote control Button	8F	◀◀	Remote control Button
41	∨	Remote control Button	8E	▶▶	Remote control Button
07	‹	Remote control Button	AB	GUIDE	Remote control Button
06	›	Remote control Button	39	SUBTITLE	Remote control Button
44	ENTER	Remote c ontrol Button	AA	INFO	Remote control Button
28	BACK	Remote control Button			
79	RATIO	Remote control Button			

For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300

Except 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300

EXTERNAL CONTROL THROUGH RS-232C

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

▪ Note: RS-232C on this unit is intended to be used with third party RS-232C control hardware and software.

The instructions below are provided to help with programming software or to test functionality using telenet software.

RS-232C Setup

i.e)

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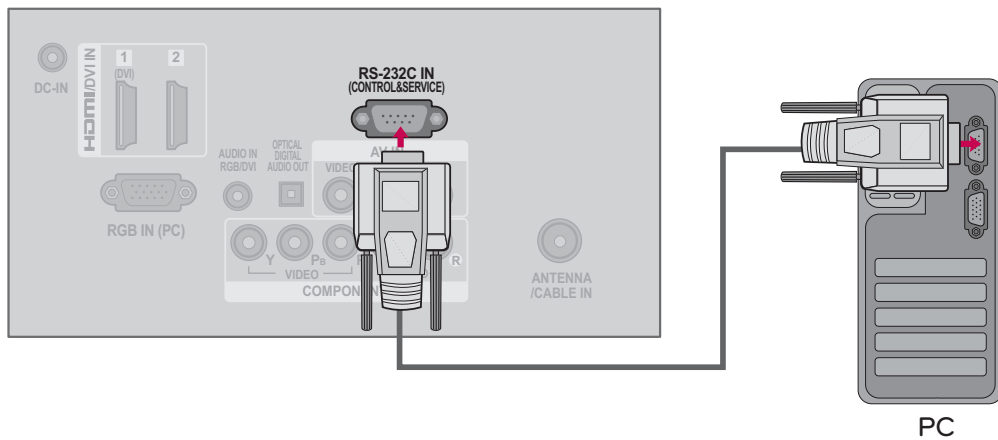
Type of Connector; D-Sub 9-Pin Male

No.	Pin Name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection

Communication Parameters

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

ⓘ NOTE

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

RS-232C Configurations

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

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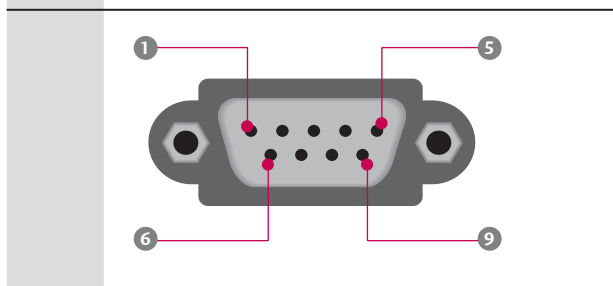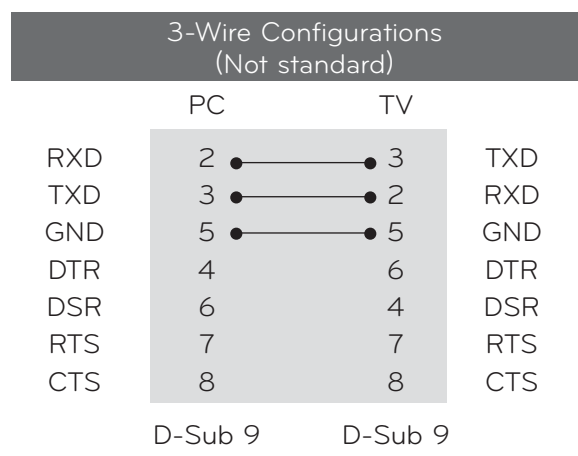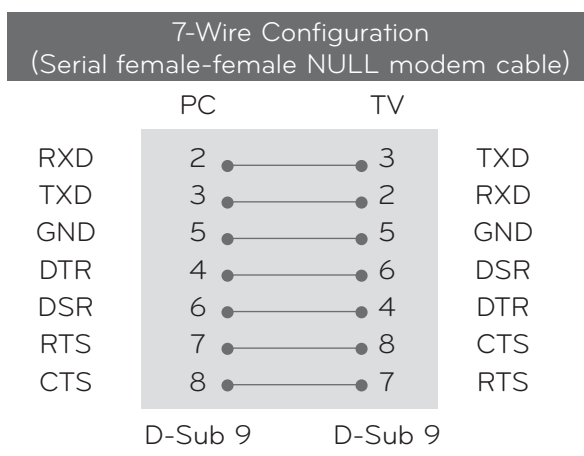
Set ID

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

OPTION ⬩Move ⦿Enter
• Language
• Caption : Off
• Power Indicator
• Initial Setting
• Set ID : 1
• Mode Setting : Home Use

➡

OPTION ⬩Move ⦿Enter
• Language
• Caption : Off
• Power Indicator
• Initial Setting
• Set ID : 1
• Mode Setting : Home U
◄ 1 ►
Close

1 MENU → Select **OPTION**.

2 ENTER → Select **Set ID**.
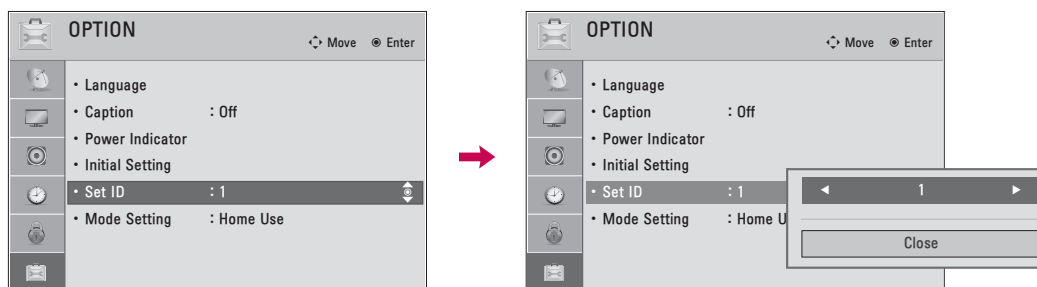
3 ENTER → Choose the desired TV ID number.
The adjustment range of Set ID is 1~99.

4 BACK → Return to the previous menu.

EXIT → 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

APPENDIX

Command Reference List

	COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 - 01
02. Input Select	x	b	▶ P.143
03. Aspect Ratio	k	c	▶ P.143
04. Screen Mute	k	d	▶ P.143
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. Energy Saving	j	q	▶ P.144
19. Auto Configuration	j	u	▶ P.144
21. Channel Add/ Del	m	b	00 - 01
22. Key	m	c	▶ P.145
23. Backlight	**m**	g	00 - 64

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

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 Structure

MSB							LSB
0	0	0	0	0	0	0	0

External Input — Input Number
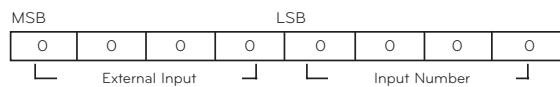
External Input				Data
0	0	0	0	DTV
0	0	0	1	Analog
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB
1	0	0	0	HDMI
0	1	1	1	
1	0	0	1	

Input Number				Data
0	0	0	0	Input1
0	0	0	1	Input2
0	0	1	0	Input3
0	0	1	1	Input4

* Detail : CATV(0001 0001)

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 07: 14:9 (for ***-DA)

Data 02: 16:9   Data 09: Just scan

Data 04: Zoom   Data 0B: Full Wide (for ***-DA)

Data 06: Original (for ***-DA)

Data 06: Set by program
Data 10 to 1F : Cinema Zom 1 to 16

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]

APPENDIX

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. 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]

19. 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]

20. 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]

Data 00: Physical Channel Number(Transmit by Hexadecimal code)
          NTSC air: 02~45, NTSC cable: 01, 0e~7d
Data 01 & 02: Major Channel Number(two part) or Channel Number(one part)
Data 01: High byte   Data 02: Low byte
     Two part channel number. Major number-Minor number One part channel number.
     In case of using one part channel number, minor channel does not need.
Data 03 & 04: Minor Channel Number
                    Not needed for NTSC.
Data 03 : High byte
Data 04 : Low byte

Data5:

7 Main/Sub Picture	6 Two/One Part Channel	5 Using Physical Channel	4 Reserved	3	2	1	0	Step
O Main	O Two	O Use	x	O	O	O	O	NTSC Air
1 Sub	1 One	1 No Use	x	O	O	O	1	**NTSC Cable**

* Two/One part Channel: 6th bit

This bit is used in a cable-ready system.

* Two/One part Channel: 5th bit

If the channel band is NTSC air or NTSC cable, channel tuning can be done by only physical channel. In this case, using physical channel bit must be low(0).

Examples)

1. Analog channel: NTSC cable, channel number(35), main picture

   Command: ma 00 23 xx xx xx xx 01

   attribute(0x01): main picture, tow part(it's not mandatory), using physical channel, NTSC cable xx' data: don't care major and minor channel number in case analog channel tuning

   Acknowledgement[a][ ][Set ID][ ][OK][Data00] [Data01] [Data02][Data03][Data04] [Data05] [x][a] [ ][Set ID][ ][NG][Data00][x]

For 32/37/42/47LD465, 22/26/32LD350, 32/42/47/55LE4600, 32LE5300-DA, 32/42LE4300

20. Channel Tuning (Command: m a)

To tune channel to following physical number.

Transmission [m][a][ ][Set ID][ ][Data0][ ][Data1][ ] [Data2][Cr]

Data00 : High channel data

Data01 : Low channel data

ex. No. 47 ->   00 2F (2FH)
No. 394 ->   01 8A (18AH),
DTV No. 0 -> Don't care

Data02   0x00 : Analog Main
0x10 : DTV Main
0x20 : Radio
0x80 : CATV Main

Channel data range

Analog air - Min: 02 ~ Max: 45 (2~69)

Analog cable - Min: 01 ~ Max: 7D(1~125)

Digital - Min: 01 ~ Max: 3E7(1~999)

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

Data Min: 00 ~ Max: 7DH

21. 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]

22. Key (Command: m c)

To send IR remote control code.

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

See page 139.

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.

23. Backlight (Command: m g)

To adjust screen backlight.

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

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

*Refer to 'Real data mapping'.

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

APPENDIX

OPEN SOURCE LICENSE

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software - to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other free software foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This license applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this license; they are outside its scope. The act of running the Program is not restricted, and the output from the program is covered only if its contents constitute a work based on the program (independent of having been made by running the program). Whether that is true depends on what the program does.

1. You may copy and distribute verbatim copies of the program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this license and to the absence of any warranty; and give any other recipients of the program a copy of this license along with the Program.

   You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of section 1 above, provided that you also meet all of these conditions:

   a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part there of, to be licensed as a whole at no charge to all third parties under the terms of this license.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this license. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole.   If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this license, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this license, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the program.

In addition, mere aggregation of another work not based on the program with the Program (or with a work based on the program) on a volume of a storage or distribution medium does not bring the other work under the scope of this license.

3. You may copy and distribute the program (or a work based on it, under section 2) in object code or executable form under the terms of sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this license. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this license. However, parties who have received copies, or rights, from you under this license will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this license, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this license. Therefore, by modifying or distributing the program (or any work based on the program), you indicate your acceptance of this license to do so, and all its terms and conditions for copying, distributing or modifying the program or works based on it.

6. Each time you redistribute the program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this license.

APPENDIX

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this license, they do not excuse you from the conditions of this license. If you cannot distribute so as to satisfy simultaneously your obligations under this license and any other pertinent obligations, then as a consequence you may not distribute the program at all. For example, if a patent license would not permit royalty-free redistribution of the program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this license would be to refrain entirely from distribution of the program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this license.

8. If the distribution and/or use of the program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the program under this license may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this license incorporates the limitation as if written in the body of this license.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the program specifies a version number of this license which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the program does not specify a version number of this license, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to apply these terms to your new programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the program's name and a brief idea of what it does.
Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the license, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type 'show w'. This is free software, and you are welcome to redistribute it under certain conditions; type 'show c' for details.

The hypothetical commands 'show w' and 'show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than 'show w' and 'show c'; they could even be mouse-clicks or menu items-whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program 'Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989
Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this license.

APPENDIX

APPENDIX

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts   as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software - to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages - typically libraries - of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

APPENDIX

150

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This license agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this license"). Each license is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the library or a portion of it, either verbatim or with modifications and/or translated straightfor-wardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this license; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the library does and what the program that uses the library does.

1. You may copy and distribute verbatim copies of the library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this license and to the absence of any warranty; and distribute a copy of this license along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of section 1 above, provided that you also meet all of these conditions:
a) The modified work must itself be a software library.
b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this license.
d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the library, and can be reasonably considered independent and separate works in themselves, then this license, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the library, the distribution of the whole must be on the terms of this license, whose permissions for other licenses extend to the entire whole, and thus to each and every part regardless of who wrote it.
Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the library.

In addition, mere aggregation of another work not based on the library with the library (or with a work based on the library) on a volume of a storage or distribution medium does not bring the other work under the scope of this license.

APPENDIX

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.
   Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.
   This option is useful when you wish to copy part of the code of the library into a program that is not a library.

4. You may copy and distribute the library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of sections 1 and 2 above on a medium customarily used for software interchange.
   If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this license.

   However, linking a "work that uses the library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the library), rather than a "work that uses the library". The executable is therefore covered by this license. Section 6 states terms for distribution of such executable.

   When a "work that uses the library" uses material from a header file that is part of the library, the object code for the work may be a derivative work of the library even though the source code is not.
   Whether this is true is especially significant if the work can be linked without the library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

   If such an object file uses only numerical parameters, data structure layouts and accessories, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executable containing this object code plus portions of the library will still fall under Section 6.)

   Otherwise, if the work is a derivative of the library, you may distribute the object code for the work under the terms of Section 6. Any executable containing that work also fall under Section 6, whether or not they are linked directly with the library itself.

6. As an exception to the sections above, you may also combine or link a "work that uses the library" with the library to produce a work containing portions of the library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

   You must give prominent notice with each copy of the work that the library is used in it and that the Library and its use are covered by this license. You must supply a copy of this license. If the work during execution displays copyright notices, you must include the copyright notice for the library among them, as well as a reference directing the user to the copy of this license. Also, you must do one of these things:

   a) Accompany the work with the complete corresponding machine-readable source code for the library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the library and then relink to produce a modified executable containing the modified library. (It is understood that the user who changes the contents of definitions files in the library will not necessarily be able to recompile the application to use the modified definitions.)
   b) Use a suitable shared library mechanism for linking with the library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
   c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6, above, for a charge no more than the cost of performing this distribution.
   d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
   e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the library together in an executable that you distribute.

7. You may place library facilities that are a work based on the library side-by-side in a single library together with other library facilities not covered by this license, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

   a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the sections above.
   b) Give prominent notice with the combined library of the fact that part of it is a work based on the library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the library except as expressly provided under this license. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the library is void, and will automatically terminate your rights under this license. However, parties who have received copies, or rights, from you under this license will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this license, since you have not signed it. However, nothing else grants you permission to modify or distribute the library or its derivative works. These actions are prohibited by law if you do not accept this license. Therefore, by modifying or distributing the library (or any work based on the library), you indicate your acceptance of this license to do so, and all its terms and conditions for copying, distributing or modifying the library or works based on it.

10. Each time you redistribute the library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein.

You are not responsible for enforcing compliance by third parties with this license.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this license, they do not excuse you from the conditions of this license. If you cannot distribute so as to satisfy simultaneously your obligations under this license and any other pertinent obligations, then as a consequence you may not distribute the library at all. For example, if a patent license would not permit royalty-free redistribution of the library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this license would be to refrain entirely from distribution of the library.
If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.
It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a license cannot impose that choice.
This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this license.

12. If the distribution and/or use of the library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the library under this license may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this license incorporates the limitation as if written in the body of this license.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.
Each version is given a distinguishing version number. If the library specifies a version number of this license which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation.

APPENDIX

If the library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to apply these terms to your new libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the library's name and a brief idea of what it does.
Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the license, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library 'Frob' (a library for tweaking knobs) written by James Random Hacker.

signature of Ty Coon, 1 April 1990
Ty Coon, President of Vice

MOZILLA PUBLIC LICENSE
Version 1.1

1.Definitions.

1.0.1. "Commercial use" means distribution or otherwise making the covered code available to a third party.

1.1. "Contributor" means each entity that creates or contributes to the creation of modifications.

1.2. "Contributor version" means the combination of the original code, prior modifications used by a contributor, and the modifications made by that particular contributor.

1.3. "Covered code" means the original code or modifications or the combination of the original code and modifications, in each case including portions thereof.

1.4. "Electronic distribution mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. "Executable" means covered code in any form other than source code.

1.6. "Initial developer" means the individual or entity identified as the initial Developer in the Source Code notice required by exhibit A.

1.7. "Larger work" means a work which combines covered code or portions thereof with code not governed by the terms of this License.

1.8. "License" means this document.

1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means any addition to or deletion from the substance or structure of either the original code or any previous modifications. When covered code is released as a series of files, a modification is:

A. Any addition to or deletion from the contents of a file containing original code or previous modifications.

B. Any new file that contains any part of the original code or previous modifications.

1.10. "Original code" means source code of computer software code which is described in the source code notice required by exhibit as original code, and which, at the time of its release under this license is not already covered code governed by this license.

1.10.1. "Patent claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent licensable by grantor.

1.11. "Source code" means the preferred form of the covered code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an executable, or source code differential comparisons against either the original code or another well known, available covered code of the contributor's choice. The source code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this license or a future version of this license issued under section 6.1.
For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. Source Code License.

2.1. The initial developer grant.
The initial developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

a) under intellectual property rights (other than patent or trademark) licensable by initial developer to use, reproduce, modify, display, perform, sublicense and distribute the original code (or portions thereof) with or without modifications, and/or as part of a larger work; and
(b) under patents claims infringed by the making, using or selling of original code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the original code (or portions there of).

(c) the licenses granted in this section 2.1(a) and (b) are effective on the date Initial developer first distributes original code under the terms of this license.

(d) Notwithstanding section 2.1(b) above, no patent license is granted: 1) for code that You delete from the original Code; 2) separate from the original code; or 3) for infringements caused by: i) the modification of the original code or ii) the combination of the original code with other software or devices.

2.2. Contributor Grant.
Subject to third party intellectual property claims, each contributor hereby grants You a world-wide, royalty-free, non-exclusive license

(a) under intellectual property rights (other than patent or trademark) licensable by contributor, to use, reproduce, modify, display, perform, sublicense and distribute the modifications created by such contributor (or portions thereof) either on an unmodified basis, with other modifications, as covered code and/or as part of a larger work; and

(b) under patent claims infringed by the making, using, or selling of modifications made by that contributor either alone and/or in combination with its contributor version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) modifications made by that contributor (or portions thereof); and 2) the combination of modifications made by that contributor with its contributor version (or portions of such combination).

(c) the licenses granted in sections 2.2(a) and 2.2(b) are effective on the date contributor first makes commercial use of the covered code.

(d) Notwithstanding section 2.2(b) above, no patent license is granted: 1) for any code that contributor has deleted from the contributor version; 2) separate from the contributor version; 3) for infringements caused by: i) third party modifications of contributor version or ii) the combination of modifications made by that contributor with other software (except as part of the contributor version) or other devices; or 4) under patent claims infringed by covered code in the absence of modifications made by that contributor.

3. Distribution Obligations.

3.1. Application of license.
The modifications which You create or to which you contribute are governed by the terms of this license, including without limitation section 2.2. The source code version of covered code may be distributed only under the terms of this license or a future version of this license released under section 6.1, and you must include a copy of this license with every copy of the source code you distribute. You may not offer or impose any terms on any source code version that alters or restricts the applicable version of this license or the recipients' rights hereunder. However, you may include an additional document offering the additional rights described in section 3.5.

3.2. Availability of source code.
Any modification which you create or to which you contribute must be made available in source code form under the terms of this license either on the same media as an executable version or via an accepted electronic distribution mechanism to anyone to whom you made an executable version available; and if made available via electronic distribution mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular modification has been made available to such recipients. You are responsible for ensuring that the source code version remains available even if the electronic distribution mechanism is maintained by a third party.

3.3. Description of modifications.
You must cause all covered code to which you contribute to contain a file documenting the changes You made to create that covered code and the date of any change. You must include a prominent statement that the modification is derived, directly or indirectly, from original code provided by the initial developer and including the name of the   initial developer in (a) the source code, and (b) in any notice in an executable version or related documentation in which you describe the origin or ownership of the covered code.

3.4. Intellectual property matters
(a) Third party claims.
If contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such contributor under sections 2.1 or 2.2, contributor must include a text file with the source code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If contributor obtains such knowledge after the modification is made available as described in section 3.2, contributor shall promptly modify the LEGAL file in all copies contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the covered code that new knowledge has been obtained.
(b) Contributor APIs.
If contributor's modifications include an application programming interface and contributor has knowledge of patent licenses which are reasonably necessary to implement that API, contributor must also include this information in the LEGAL file.

(c) Representations.
contributor represents that, except as disclosed pursuant to section 3.4(a) above, contributor believes that contributor's modifications are contributor's original creation(s) and/or contributor has sufficient rights to grant the rights conveyed by this license.

3.5.   Required notices.
You must duplicate the notice in exhibit A in each file of the source code. If it is not possible to put such notice in a particular source code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more modification(s), you may add your name as a contributor to the notice described in exhibit A. you must also duplicate this license in any documentation for the source code where You describe recipients' rights or ownership rights relating to covered code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of covered code. However, you may do so only on your own behalf, and not on behalf of the Initial developer or any contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by you alone, and You hereby agree to indemnify the Initial developer and every contributor for any liability incurred by the Initial developer or such contributor as a result of warranty, support, indemnity or liability terms you offer.

3.6.   Distribution of executable versions.
You may distribute covered code in executable form only if the requirements of section 3.1-3.5 have been met for that covered code, and if you include a notice stating that the source code version of the covered code is available under the terms of this license, including a description of how and where you have fulfilled the obligations of section 3.2. The notice must be conspicuously included in any notice in an executable version, related documentation or collateral in which you describe recipients' rights relating to the covered code. You may distribute the executable version of covered code or ownership rights under a license of your choice, which may contain terms different from this license, provided that you are in compliance with the terms of this license and that the license for the executable version does not attempt to limit or alter the recipient's rights in the source code version from the rights set forth in this license. If you distribute the executable version under a different license you must make it absolutely clear that any terms which differ from this license are offered by you alone, not by the Initial developer or any contributor. You hereby agree to indemnify the initial developer and every contributor for any liability incurred by the initial developer or such contributor as a result of any such terms You offer.

3.7.   Larger works.
You may create a larger work by combining covered code with other code not governed by the terms of this license and distribute the larger work as a single product. In such a case, you must make sure the requirements of this license are fulfilled for the covered code.

4. Inability to comply due to statute or regulation.
If it is impossible for you to comply with any of the terms of this license with respect to some or all of the covered code due to statute, judicial order, or regulation then you must: (a) comply with the terms of this license to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in section 3.4 and must be included with all distributions of the source code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this license.
This license applies to code to which the initial developer has attached the notice in exhibit A and to related covered code.

6. Versions of the license.

6.1.   New versions.
Netscape communications corporation ("Netscape") may publish revised and/or new versions of the license from time to time. Each version will be given a distinguishing version number.

6.2.   Effect of new versions.
Once covered code has been published under a particular version of the license, you may always continue to use it under the terms of that version. You may also choose to use such covered code under the terms of any subsequent version of the license published by netscape. No one other than netscape has the right to modify the terms applicable to covered code created under this license.

6.3.   Derivative works.
If You create or use a modified version of this license (which you may only do in order to apply it to code which is not already covered code governed by this license), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this license) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public license and netscape Public License. (Filling in the name of the initial developer, original code or contributor in the notice described in exhibit A shall not of themselves be deemed to be modifications of this license.)

APPENDIX

7. DISCLAIMER OF WARRANTY.
COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

8. TERMINATION.

8.1. This license and the rights granted hereunder will terminate automatically if you fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the covered code which are properly granted shall survive any termination of this license. Provisions which, by their nature, must remain in effect beyond the termination of this license shall survive.

8.2. If you initiate litigation by asserting a patent infringement claim (excluding declatory judgment actions) against initial developer or a contributor (the initial developer or contributor against whom you file such action is referred to as "Participant") alleging that:

(a) such participant's contributor version directly or indirectly infringes any patent, then any and all rights granted by such participant to you under sections 2.1 and/or 2.2 of this license shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice you either: (i) agree in writing to pay participant a mutually agreeable reasonable royalty for your past and future use of modifications made by such participant, or (ii) withdraw your litigation claim with respect to the contributor version against such participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by participant to you under sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.
(b) any software, hardware, or device, other than such participant's contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such participant under sections 2.1(b) and 2.2(b) are revoked effective as of the date you first made, used, sold, distributed, or had made, modifications made by that participant.

8.3. If you assert a patent infringement claim against participant alleging that such participant's contributor version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such participant under sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by you or any distributor hereunder prior to termination shall survive termination.

9. LIMITATION OF LIABILITY.
UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE,OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

10. U.S. GOVERNMENT END USERS.
The covered code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government end users acquire covered code with only those rights set forth herein.

11. MISCELLANEOUS.

This license represents the complete agreement concerning subject matter hereof. If any provision of this license is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the united states of america, any litigation relating to this License shall be subject to the jurisdiction of the federal courts of the northern district of california, with venue lying in santa clara county, california, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the united nations convention on contracts for the International sale of goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this license.

12. RESPONSIBILITY FOR CLAIMS.

As between initial developer and the contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this license and you agree to work with initial developer and contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

13. MULTIPLE-LICENSED CODE.

Initial developer may designate portions of the covered code as "Multiple-Licensed". "Multiple-Licensed" means that the initial developer permits you to utilize portions of the covered code under your choice of the NPL or the alternative licenses, if any, specified by the initial developer in the file described in exhibit A.

EXHIBIT A -Mozilla Public License.

The contents of this file are subject to the Mozilla Public License Version 1.1 (the "license"); you may not use this file except in compliance with the License. You may obtain a copy of the license at http://www.mozilla.org/MPL/

Software distributed under the license is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the license for the specific language governing rights and limitations under the License.

The Original Code is _____

.

The Initial Developer of the Original Code is_____.
Portions created by _____ are Copyright (C) _____. All Rights Reserved.

Contributor(s): _____.

Alternatively, the contents of this file may be used under the terms of the _____ license (the "[___] License"), in which case the provisions of [_____] license are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the [___] license and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the [___] license. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the [___] license."

NOTE: The text of this exhibit A may differ slightly from the text of the notices in the source code files of the original code. You should use the text of this exhibit A rather than the text found in the original code/source code for Your modifications.

! NOTE

ENG

Some video codecs listed in the manual may not be supported, depending on the region (country).

POR

Alguns codecs de vídeo listados no manual podem não ser suportados, dependendo da região (país).

POL

Niektóre kodeki wideo wymienione w instrukcji mogą nie być obsługiwane, w zależności od regionu (kraju).

SPA

Algunos códecs de vídeo que figuran en el manual pueden no ser compatibles, dependiendo de la región (país).

THA

ชนิดของไฟล์วิดีโอบางชนิดที่อยู่ในคู่มือเล่มนี้ อาจไม่รองรับการใช้งานในบางพื้นที่(ประเทศ)

LG
Life's Good

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 _____