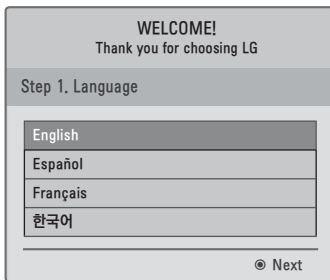


INITIAL SETTING

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:

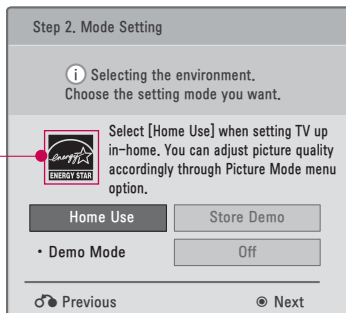
Step 1. Selecting Language



Select Menu Language.



Step 2. Mode setting



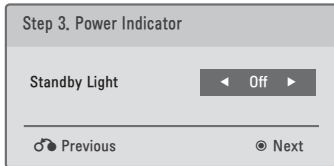
Select **Home Use**.



Except Plasma TV, 32LD550

WATCHING TV / CHANNEL CONTROL

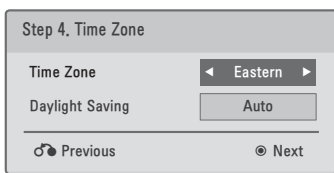
Step 3. Power Indicator (For LED LCD TV)







- 1  Select **On** or **Off**.
- 2 

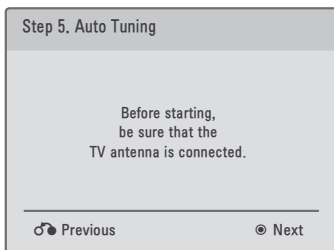
■ This function is disabled in "Step2. Mode Setting - Store Demo".


Step 4. Time Zone



- 1  Select **Time Zone** option.
- 2   Select **Daylight Saving** option.
- 3 





Step 5. Auto Tuning





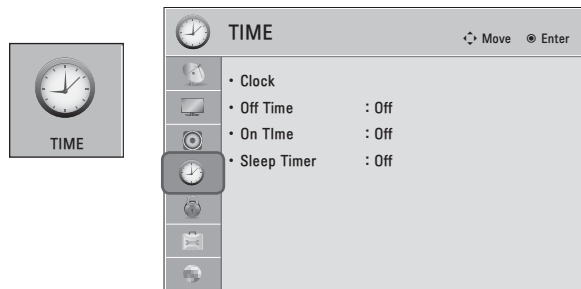
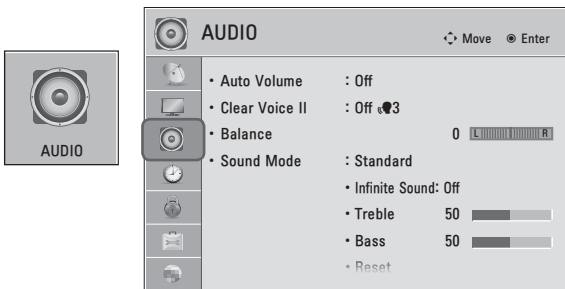
- 1  Check your antenna connection and start **Auto Tuning**.

ON-SCREEN MENUS SELECTION

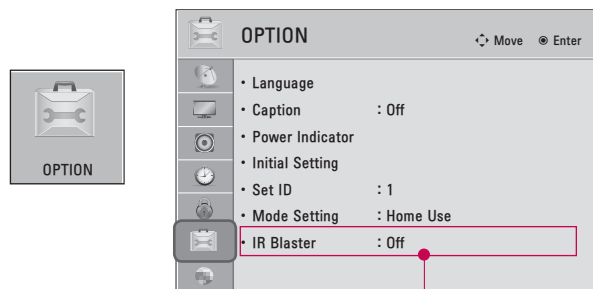
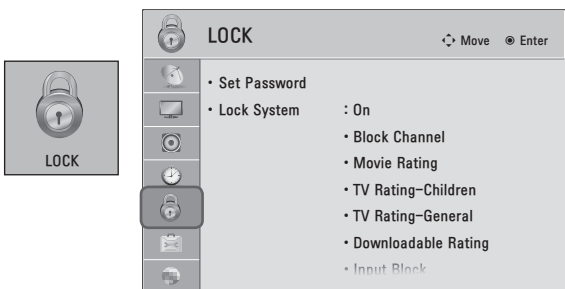
Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.

- 1**   Display each menu.
- 2**   Select a menu item.

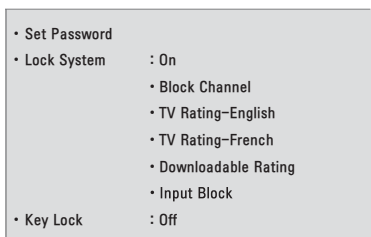
- 3**  Accept the current selection.
- 4**  Return to TV viewing.



For USA



For Canada



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

NOTE

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

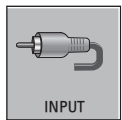
WATCHING TV / CHANNEL CONTROL

WATCHING TV / CHANNEL CONTROL



NETWORK ◀ Move ▶ Enter

- Network Setting : None
- Network Status : Not connected
- Legal Notice
- ESN



Input List ◀ Move ▶ Enter

TV	USB1	USB2	AV 1	AV 2	Component1
Component2	RGB-PC	HDMI1	HDMI2	HDMI3	HDMI4

Input Label



MY MEDIA

Movie List	Photo List	Music List
------------	------------	------------

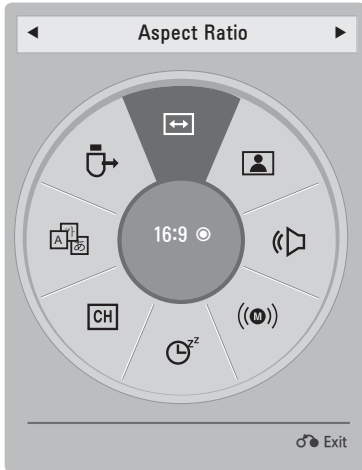











GAME

JUMP	HOLE IN ONE	WHACK A MOLE	SUDOKU	COOKING BURGER
SAVING CRYSTAL	INVADER	URGENT SURVIVAL		

QUICK MENU


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



-  **Aspect Ratio:** Selects your desired picture format.
-  **Picture Mode:** Selects the desired preset picture setting.
-  **Sound Mode:** Selects the desired preset sound setting.
-  **Multi Audio:** Changes the audio language (Digital signal).
-  **SAP:** Selects MTS sound (Analog signal).
-  **Sleep Timer:** Select the amount of time before your TV turns off automatically.
-  **Del/Add:** Select channel you want to add or delete.
-  **Caption:** Select on or off.
-  **USB Device:** Select "Eject" in order to eject a USB device.

1   Display each menu.

2   Make appropriate adjustments.

3  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

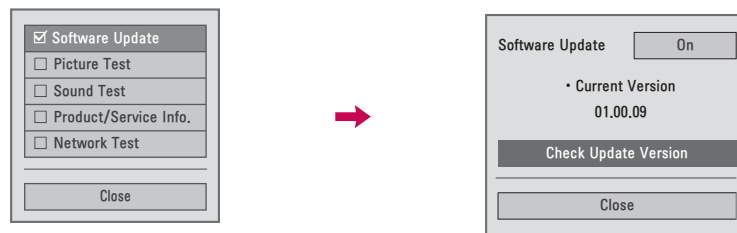
CUSTOMER SUPPORT





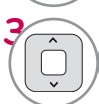

Software Update

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

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

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



- 1   Select **Customer Support**.
- 2   Select **Software Update**.
- 3   Select **Check Update Version** to check the newest version.

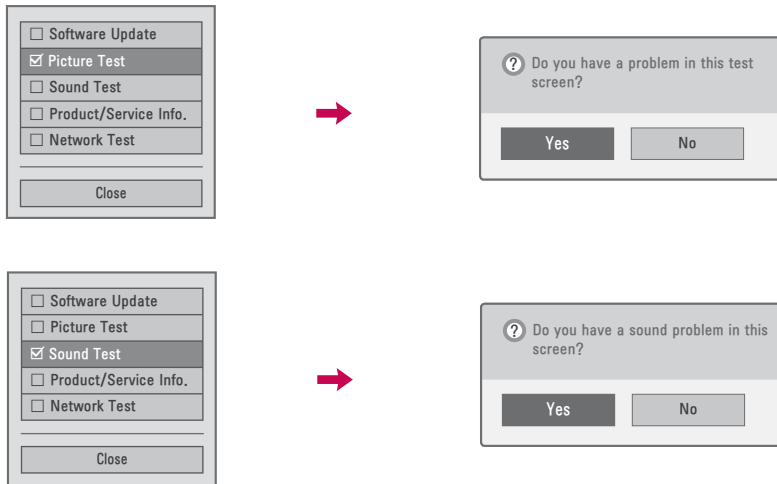
When selecting "**Software Update-On**"



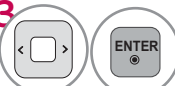


- If the TV is connected to the internet and it finds a software update on the LG server, the update popup menu will appear automatically.
- If the updated digital software information is transmitted, the update popup menu will appear automatically.

- The software downloading time will vary depending on the software size and network conditions.
- During the software update procedure, do not turn off the TV or disconnect AC power, or disconnect the LAN cable.
- After software update, you can confirm the update software version at software Update menu.
- When update is completed, the TV will restart automatically in 5 seconds.
- The TV functions may be improved or changed by software update.
- The available time or functionality of NetCast menu may be depends on your ISP network conditions.
- When an update is completed, some CHANNEL, PICTURE, and AUDIO menu settings may need resetting.
- This TV cannot be updated to previous software version.
- Use the "Check Update Version" button to update the latest software on the Network server manually.
- You cannot open NetCast while the software is being updated.

Picture Test/Sound Test

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

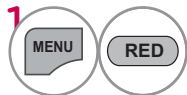
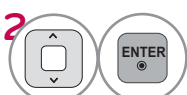




- 1  Select **Customer Support**.
- 2  Select **Picture Test** or **Sound Test**.
- 3  Select **Yes**.
- 4  Return to the previous menu.
-  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

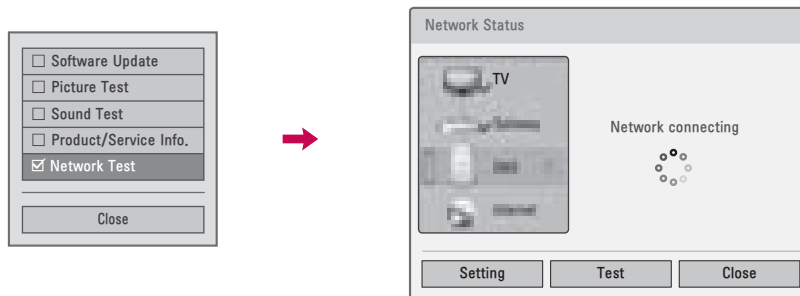
Product/Service Info.

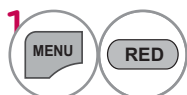
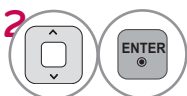

This function shows support and product information.
Customer Service Center can differ by country.

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

Network Test

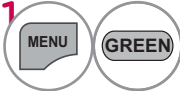




Check the network status.



-  Select **Customer Support**.
-  Select **Network Test**.
-  Check the network status.

SIMPLE MANUAL

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

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

WATCHING TV / CHANNEL CONTROL

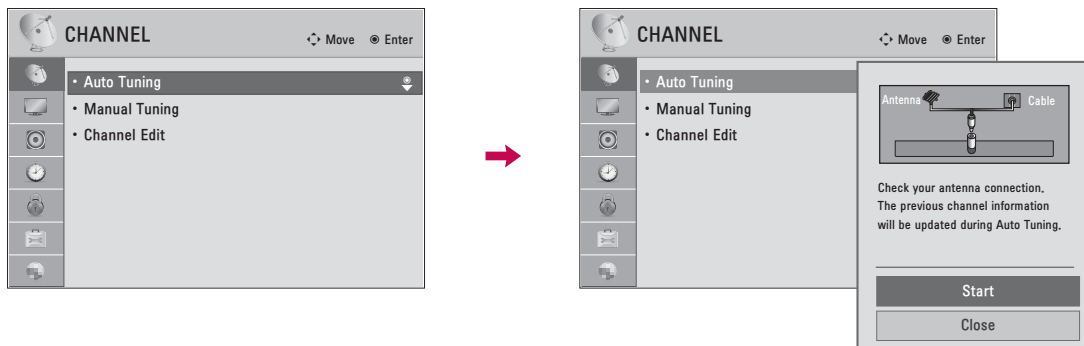
CHANNEL SETUP


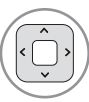

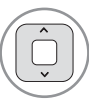

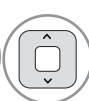



Auto Scan (Auto Tuning)

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

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

Auto Tuning memorizes only the channels available at the time.

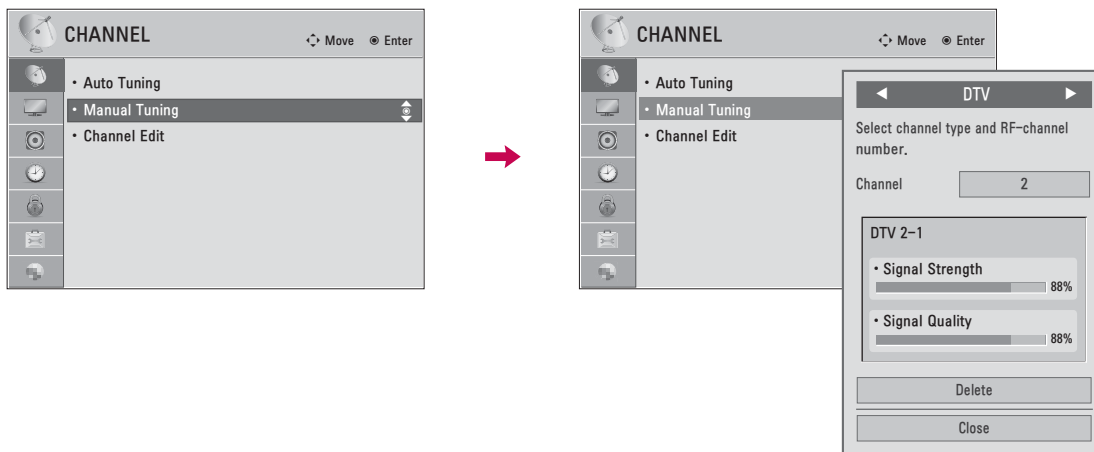














-   Select **CHANNEL**.
-   Select **Auto Tuning**.
-   Select **Start**.
-  Run **Auto tuning**.
-  Return to the previous menu.
-  Return to TV viewing.

- The TV will ask for a password if parental control has been activated (LOCK Menu). Use the password you set up in the LOCK Menu to allow a channel search.
- The maximum number of channels the TV can store is 1000.
- Found channels are grouped in the order of DTV, TV, Cable DTV and Cable TV.

Add/Delete Channel (Manual Tuning)

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



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

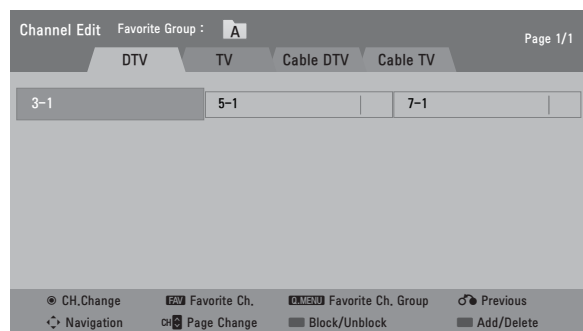
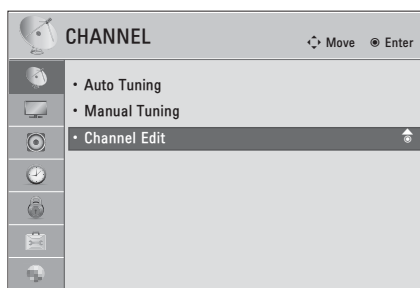
- The TV will ask for a password if parental control has been activated (LOCK Menu). Use the password you set up in the LOCK Menu to allow a channel search.
- The maximum number of channels the TV can store is 1000.

WATCHING TV / CHANNEL CONTROL

Channel Editing

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

When a channel number is deleted, it means that you will be unable to select it using CH^V button during TV viewing. If you wish to select the deleted channel, directly enter the channel number with the NUMBER buttons or select it in the Channel Edit menu.



1 Select **CHANNEL**.

2 Select **Channel Edit**.

3 Select a channel.

4 Add or delete a channel.

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

Switch to the chosen channel number.

Move the pages when the channel list is too long.

5 Return to the previous menu.




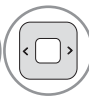



Return to TV viewing.

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

FAVORITE CHANNEL SETUP

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



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

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



FAVORITE CHANNEL LIST





Displaying the favorite channel list

- 1  Display the Favorite channel list.

Selecting a channel in the favorite channel list

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

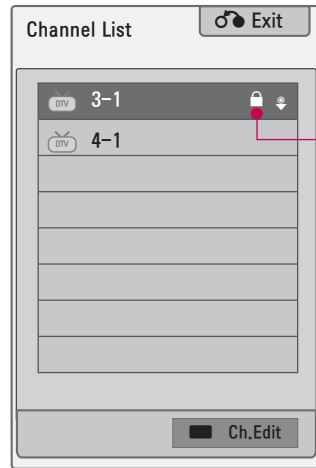
Paging through a favorite channel list

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

WATCHING TV / CHANNEL CONTROL

CHANNEL LIST



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



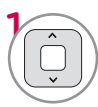

This padlock is displayed when the channel is locked with parental control.

WATCHING TV / CHANNEL CONTROL



Displaying Channel List

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

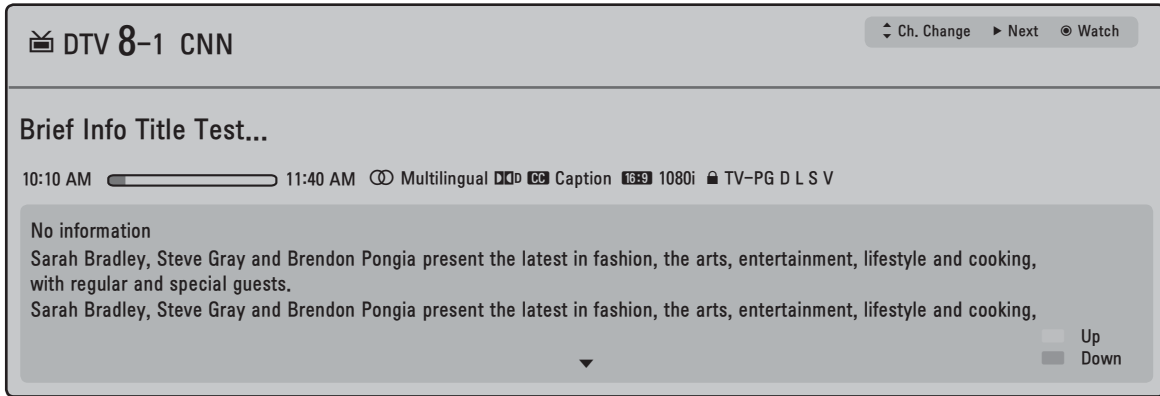
Selecting a channel in the channel list

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

Paging through a channel list

-  Turn the pages.
-  Return to TV viewing.

CHANNEL INFORMATION



Displaying Channel Information



Show the current channel program Information on the screen.



Show a previous or next channel's program information





Return to TV viewing.

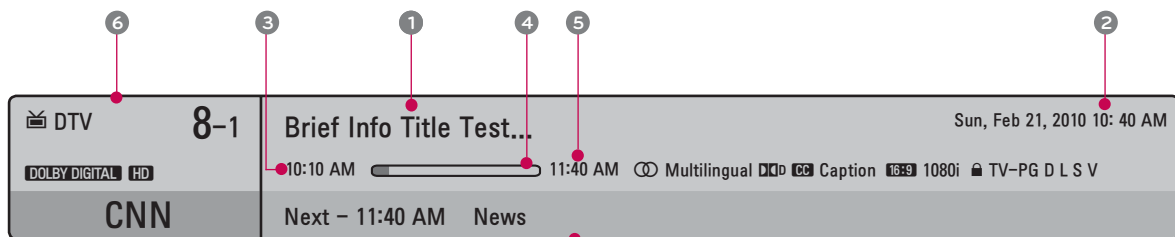
WATCHING TV / CHANNEL CONTROL












CHANNEL BRIEF INFORMATION

Brief Info shows the present screen information.

1  Shows the current channel's brief info screen.

2  Return to TV viewing.

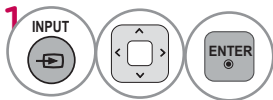
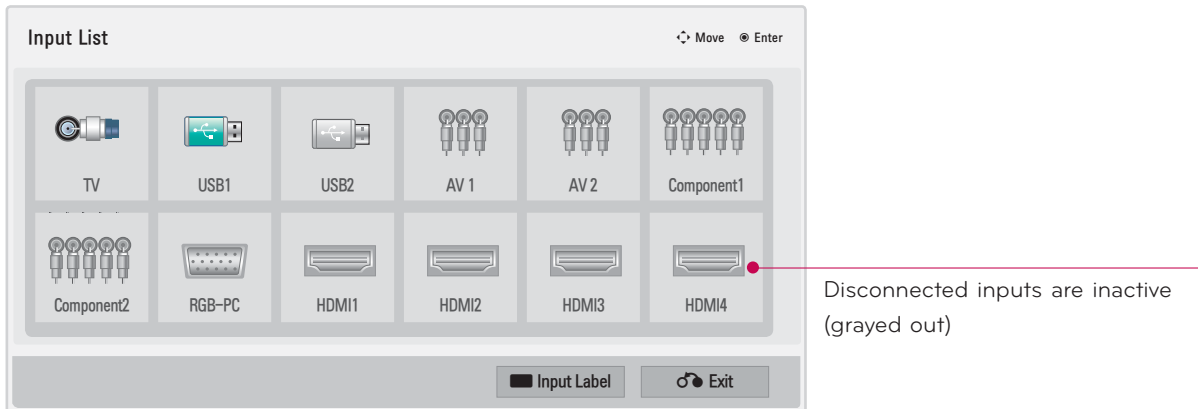


	Multilingual : The program contains two or more audio services. Use the Q.MENU menu to select wanted Audio.
	Caption : The program contains one or more caption services. Use the Q.MENU menu to select wanted Closed caption.
	Dolby Digital : The program contains a Dolby Digital audio signal in TV and HDMI input source.
	The original aspect ratio of the video is 4:3
	The original aspect ratio of the video is 16:9 (wide)
	The video resolution is 720x480i
	The video resolution is 720x480p
	The video resolution is 1280x720p
	The video resolution is 1920x1080i
	The video resolution is 1920x1080p
	V-Chip : The program contains V-Chip information. Refer to the LOCK menu: A (Age), D (Dialogue), L (Language), S (Sex), V (Violence), FV (Fantasy Violence)

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

INPUT LIST

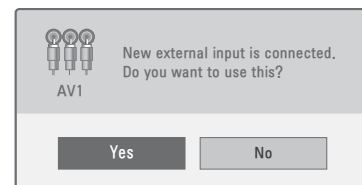
Only these input signals which are connected to a TV can be activated and selected.



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.

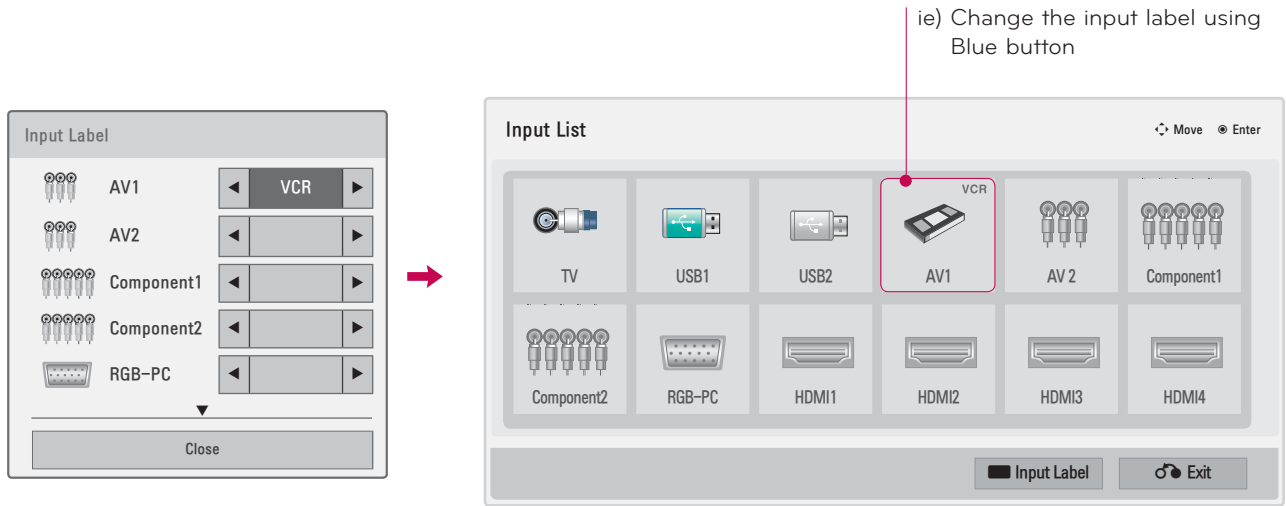








- **TV**: Select it to watch over-the-air, cable and digital cable broadcasts.
- **USB**: Select it to use movie, photo, or music files.
- **AV**: Select them to watch a VCR or other external equipment.
- **Component**: Select them to watch DVD or a Digital set-top box.
- **RGB-PC**: Select it to view PC input.
- **HDMI**: Select them to watch high definition devices.

WATCHING TV / CHANNEL CONTROL

INPUT LABEL

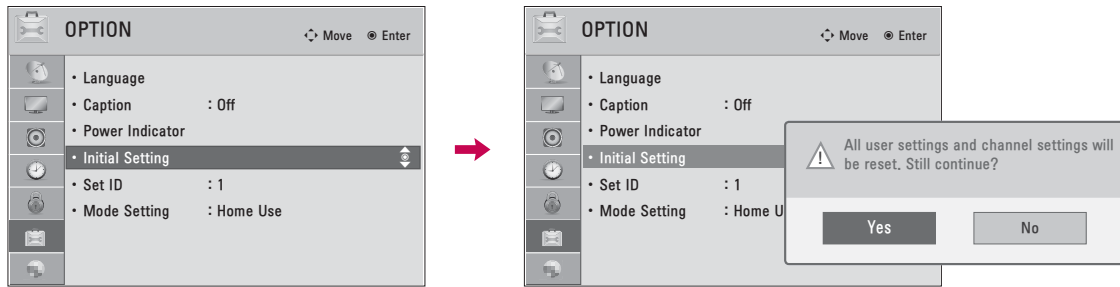
This indicates which device is connected to which input port.










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

RESET TO FACTORY DEFAULT (INITIAL SETTING)

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



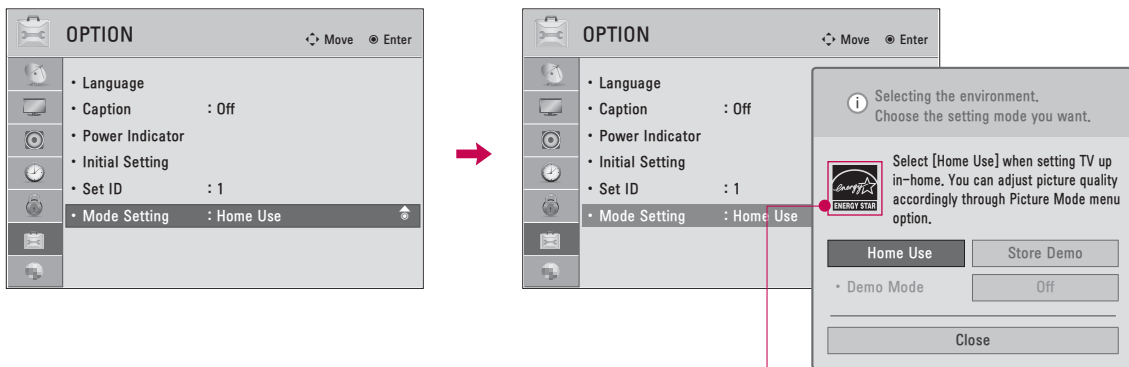
- 1   Select **OPTION**.
- 2   Select **Initial Setting**.
- 3   Select **Yes**.
- 4  TV turns off automatically and starts factory reset.

- 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.









WATCHING TV / CHANNEL CONTROL

MODE SETTING

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



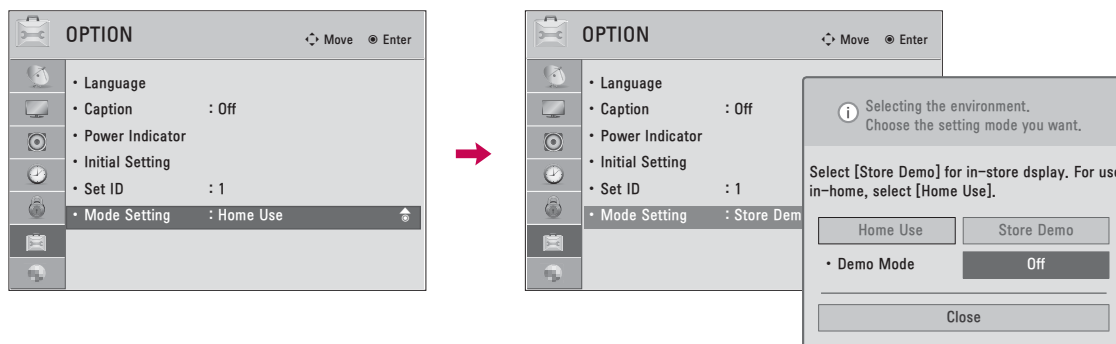
Except Plasma TV, 32LD550











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

- "Store Demo" Mode is only intended for use in retail environments. Customers can adjust the "Picture 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.



- 1   Select **OPTION**.
- 2   Select **Mode Setting**.
- 3   Select **Store Demo**.
- 4    Select **On**.
- 5  Return to TV viewing.
After a while, **Demo Mode** starts.

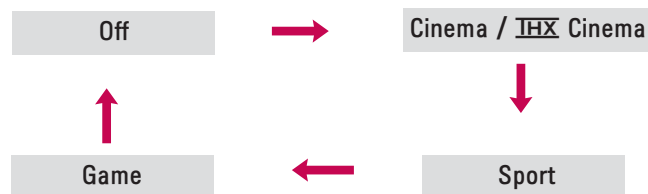
If you want to stop the demo, press any button (Except VOL +, - and MUTE button).

■ This feature is disabled in "Home Use".

WATCHING TV / CHANNEL CONTROL

AV MODE

AV Mode toggles through preset Video and Audio settings.



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



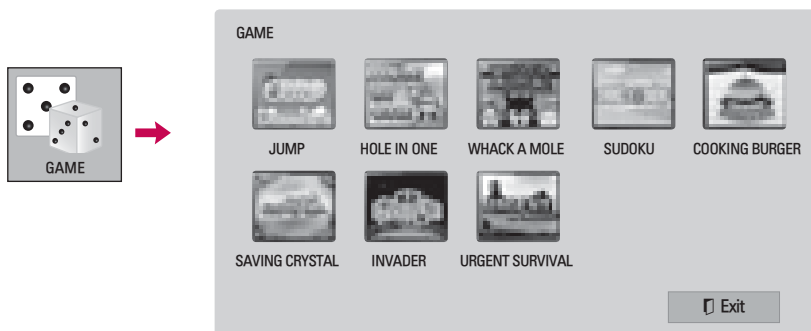
- If you select "**Cinema / THX Cinema**" in AV mode, **Cinema / THX Cinema** will be selected both for "PICTURE menu - Picture Mode" and "AUDIO menu - Sound Mode" respectively.
- If you select "**Off**" in AV mode, the "**Picture Mode**" and "**Sound Mode**" return to previous selected value.
- **Off**: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

GAME

Allows you to enjoy the games installed on the TV.



- 1   Select **GAME**.
- 2   Select the desired game.
- 3  Enter the selected game mode.
- 4  Return to TV viewing.

WATCHING TV / CHANNEL CONTROL

SIMPLINK

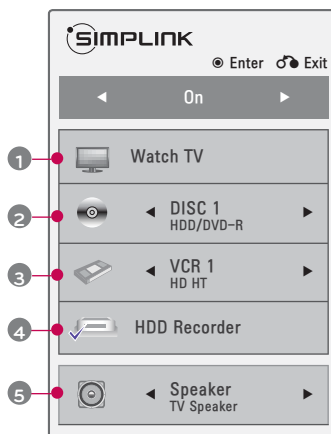
SIMPLINK allows you to control and play other AV devices connected with HDMI cable without additional cables and settings. This TV may work with devices with HDMI-CEC support, but only devices with the SIMPLINK logo are fully supported.

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



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

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



- ▶ When no device is connected (displayed in gray)
- ▶ Selected Device
- ▶ When a device is connected (displayed in bright color)

SIMPLINK Functions

- **Direct Play:** After connecting AV devices to the TV, you can directly control the devices and play media without additional settings.
- **Select AV device:** Enables you to select one of the AV devices connected to the TV.
- **Disc playback:** Control connected AV devices by pressing the **^ v < >**, **ENTER**, **▶**, **■**, **||**, **◀** and **▶▶** buttons.
- **Power off all devices:** When you power off the TV, all connected devices are turned off.
- **Switch audio-out:** Offers an easy way to switch audio-out.
- **Sync Power on:** When the equipment with Simplink function connected HDMI terminal starts to play, The TV will automatically turn on.

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

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

! NOTE

- ▶ Connect the HDMI/DVI IN or HDMI IN terminal of the TV to the rear terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable
- ▶ When you switch the Input source with the INPUT button on the remote control, the SIMPLINK device will stop.
- ▶ When you select a device with home theater functionality, the sound output automatically switches to the home theater speakers and the TV speakers are turned off.
- ▶ If a connected SIMPLINK home theater system doesn't play the audio from the TV, connect the DIGITAL AUDIO OUT terminal on the back of the TV to the DIGITAL AUDIO IN terminal on the back of the SIMPLINK device with an OPTICAL cable.

3D IMAGING

(FOR 42/47/55LX6500, 50/60PK5Z0, 50/60PZ550, 50/60PZ750)

3D TECHNOLOGY

This TV can display in 3D via 3D broadcasting or when the TV is connected to a compatible device, such as a Blu-ray 3D Player. You need such a device to watch the TV in 3D. The 3D TV displays two separate pictures formatted for each eye. The viewer needs to wear 3D glasses in order to see these images in 3D format.

Viewing 3D Imaging

⚠ WARNING

- ▶ When viewing 3D imaging, watch the TV from an effective viewing angle and within the appropriate distance. The appropriate angle and distance are provided on the next page of this manual. If you exceed this viewing angle or distance, you may not be able to view the 3D imaging. Furthermore, the 3D imaging may not display if it is viewed while you are lying down.
- ▶ If you watch the 3D imaging too closely or for a long period of time, it may harm your eyesight.
- ▶ Watching the TV or playing video games that incorporate 3D imaging with the 3D glasses for a long period of time can cause drowsiness, headaches or fatigue to you and/or your eyes. If you have a headache, or otherwise feel fatigued or drowsy, stop watching the TV and take a rest.
- ▶ Pregnant woman, seniors, persons with heart problems or persons who experience frequent drowsiness should refrain from watching 3D TV.
- ▶ Some 3D imaging may cause you to duck or dodge the image displayed in the video. Therefore, it is best if you do not watch 3D TV near fragile objects or near any objects that can be knocked over easily.
- ▶ Please prevent children under the age of 5 from watching 3D TV. It may affect their vision development.
- ▶ Warning for photosensitization seizure: Some viewers may experience a seizure or epilepsy when exposed to certain factors, including flashing lights or images in TV or video games. If you or anybody from your family has a history of epilepsy or seizure, please consult with your doctor before watching 3D TV.

Also certain symptoms can occur in unspecified conditions without any previous history. If you experience any of the following symptoms, immediately stop watching the 3D imaging and consult a doctor: dizziness or lightheadedness, visual transition or altered vision, visual or facial instability, such as eye or muscle twitching, unconscious action, convulsion, loss of conscience, confusion or disorientation, loss of directional sense, cramps, or nausea. Parents should monitor their children, including teenagers, for these symptoms as they may be more sensitive to the effects of watching 3D TV.

Risk of photosensitization seizure can be reduced with the following actions.

- Take frequent breaks from watching 3D TV.
- For those who have vision that is different in each eye, they should watch the TV after taking vision correction measures.
- Watch the TV so that your eyes are on the same level as the 3D screen and refrain from sitting too closely to the TV
- Do not watch the 3D imaging when tired or sick, and avoid watching the 3D imaging for a long period of time.
- Do not wear the 3D glasses for any other purpose than viewing 3D imaging on a 3D TV.
- Some viewers may feel disoriented after watching 3D TV. Therefore, after you watch 3D TV, take a moment to regain awareness of your situation before moving.

ⓘ NOTE

- ▶ To watch the TV in 3D, you must put on your 3D glasses. For best results, you should wear LG Brand 3D glasses. The 3D imaging may not display properly when using another brand of 3D glasses. Please see the 3D glasses manual for instructions on how to use the 3D glasses.
- ▶ After powering on the TV, a few seconds may be needed for your TV to calibrate.
- ▶ It may take a moment for you to see the 3D imaging if you look away from the TV and then revert your eyes back to the 3D program.
- ▶ The TV may flicker slightly if the 3D imaging is displayed under 3 wavelength fluorescent light (50 Hz - 60 Hz) or around windows displaying natural light. In such instances, it is recommended to turn the lights low and/or block the sun light with a curtain.
- ▶ If there is an obstacle between the TV and the 3D glasses, the 3D imaging may not display properly.
- ▶ Do not use the TV in close proximity to other electronic equipments and IR equipments.
- ▶ In Analog TV, 3D Imaging does not work.

When using 3D Glasses

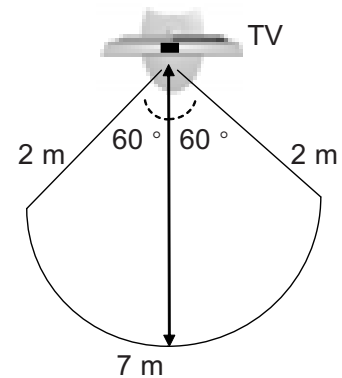
! CAUTION

- ▶ 3D glasses are sold separately. Refer to the 3D glasses manual for operating instructions.
- ▶ Do not use the 3D glasses to replace your corrective glasses, sunglasses or protective goggles.
- ▶ Do not store the 3D glasses in hot or cold locations.
- ▶ Do not drop objects onto the 3D glasses. Do not drop or bend the glasses.
- ▶ Since the lenses of the 3D glasses are easily scratched, make sure to clean only with a soft cloth. Shake off any dust before using the cloth since the glasses are easily scratched.

3D Imaging viewing range

TV size, viewing angle & other circumstances may change the viewing distance and the angle of view.

Viewing Distance	2 m - 7 m (6.5 ft - 22.9 ft)
Viewing Angle	120° (When the viewing distance is 2 m (6.5 ft))






3D IMAGING

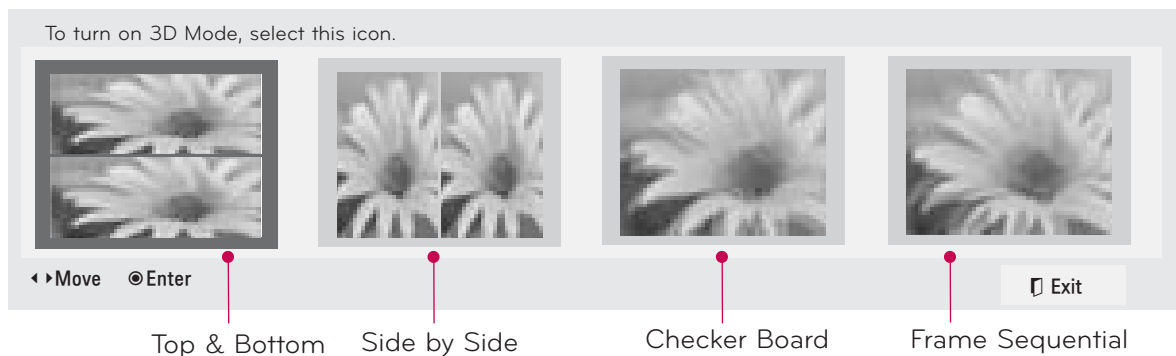
WATCHING 3D IMAGING

- 1 Play the video produced in 3D.
Refer to the following for the supported imaging.

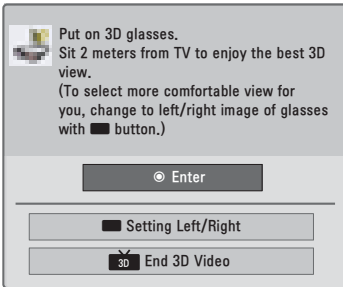
	Signal	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Playable 3D video format
HDMI Input	720p	1280x720	45.00	60	Top & Bottom, Side by Side HDMI (V. 1.4 with HDMI 3D) Frame Packing
	1080i	1920X1080	33.75		Top & Bottom, Side by Side
	1080p		67.50	Top & Bottom, Side by Side, Checker Board Single Frame Sequential	
			27.00	24	Top & Bottom, Side by Side, Checker Board HDMI (V. 1.4 with HDMI 3D) Frame Packing
		33.75	30	Top & Bottom, Side by Side Checker Board	
USB Input	1080p	1920X1080	33.75	30	Top & Bottom, Side by Side Checker Board, MPO (Photo)
Signal					Playable 3D video format
DTV	720p, 1080i				Top & Bottom, Side by Side



Media contents and a player need to support HDMI (V. 1.4 with HDMI 3D) Frame Packing to play in 3D. Video, which is input as HDMI (V. 1.4 with HDMI 3D) Frame Packing format, is switched into the 3D screen automatically.

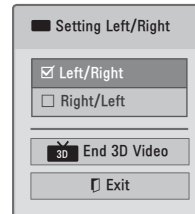
- 2    After selecting the shape as shown in the screen on TV, wear the 3D glasses.




3   or  Select **Setting Left/Right**.



4   Select **Left/Right** or **Right/Left**.
Select the screen with 3D video with better visibility.



5  The 3D imaging mode is changed to the 2D imaging mode.

NOTE

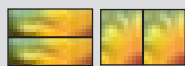
- ▶ If you select 3D mode, "Power indicator" is turned off automatically.
- ▶ While watching 3D imaging, you cannot adjust video/audio settings using the menu.
- ▶ Some menus may not work while watching the TV in 3D.
- ▶ You can only choose "Standard → Cinema → Game" with the **AV MODE** button on remote control. **AV Mode** is set as **Standard** while playing in 3D.
- ▶ The 3D imaging mode is disabled automatically when switching DTV channels.
- ▶ The screen may not be displayed properly if you view 2D DTV images in 3D imaging mode.
- ▶ 3D effect can be seen when 3D Mode is selected appropriately for the 3D input signal supplied to the TV.
- ▶ For *.mpo files (3D camera files), the 3D imaging mode is enabled automatically.
- ▶ Energy Saving is disabled while playing in 3D.

NOTES FOR VIEWING 3D IMAGE WITH 3D BROADCASTING (* In Analog TV, 3D Imaging does not work.)

When switching the 2D image display to the 3D image display with the **3D** button on the remote control, the overlapped image may be displayed.

- Disable the 3D imaging mode with the 3D button.
- The 3D imaging mode is disabled automatically if you change the channel.

If the screen is divided into left/right or top/bottom when you change the channel



- This channel supports the 3D imaging mode. Select the 3D imaging type displayed on the screen by pressing the 3D button on the remote control.

If your eyes are soaring or the screen looks blurry while viewing 3D images

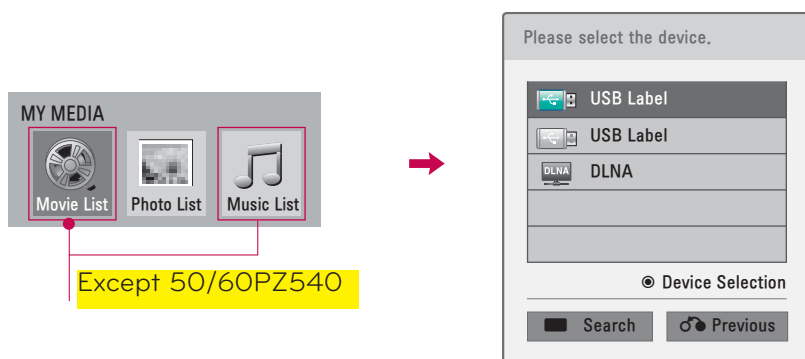
- Press the **L/R SELECT** button on the remote control and select L/R or R/L, which you find better for viewing 3D images.









MY MEDIA

ENTRY MODE

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

After choosing the desired type of media, choose a device to open files from. The options are: USB device, or DLNA.



-   Select **MY MEDIA**.
-   Select **Movie List, Photo List** or **Music List**.
-   Select the desired device.
-  Search other network device.
-  Return to the previous menu.

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

When removing the USB device

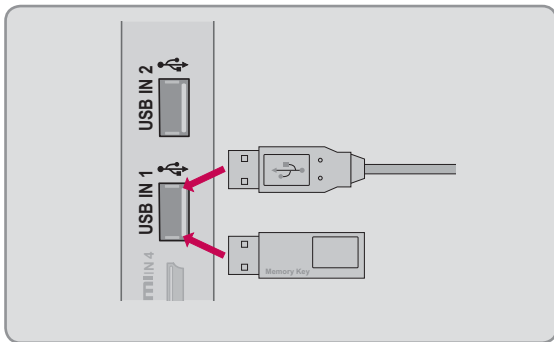
Select the **USB Device** menu before removing the USB device.

-   Select **USB Device**.
-  Select **Eject**.

CONNECTION METHOD

USB Connection

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



Precautions when using the USB device

- ▶ Only a USB storage device is recognizable.
- ▶ Connecting a USB storage device through a USB hub is not supported.
- ▶ A USB storage device which uses its own driver may not be recognized.
- ▶ The recognition speed of a USB storage device may depend on each device.
- ▶ Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- ▶ Only use a USB storage device which has normal music files, image files, or movie files.
- ▶ Please use only a USB storage device which was formatted as a FAT 32 or NTFS file system provided with the Windows operating system. Others may not be recognized.
- ▶ Some USB storage devices require a power adapter. The power adapter must be connected in order to be seen by the TV.
- ▶ If a device is not recognized by the TV, try a different cable. Excessively long cables are not supported.
- ▶ Some USB storage devices may not be supported or operate properly.
- ▶ Please backup important files because data on USB device could be damaged. Data management is consumer's responsibility and as a result, the manufacturer does not cover data damage.
- ▶ If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- ▶ File alignment method of USB storage device is similar to Window XP and file names can be up to 100 English characters.
- ▶ The recommended capacity is 1 TB or less for a USB external hard disk and 32 GB or less for USB memory.
- ▶ If a USB external hard disk with a "Energy Saving" function doesn't work, turn the hard disk off and on again to make it work properly. Refer to the user manual of the USB external hard disk.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- ▶ Maximum of 999 folders or files can be recognized under one folder.
- ▶ If there are too many folders and files in one folder, it may not operate properly.

MY MEDIA

DLNA

About DLNA

This TV can display and play many types of movie, photo and music files from your DLNA server and has been certified by DLNA for photos.

The **Digital Living Network Alliance (DLNA)** is a cross-industry organization of consumer electronics, computing industry and mobile device companies. Digital Living provides consumers with easy sharing of digital media through a wired or wireless network in the home.

The DLNA certification logo makes it easy to find products that comply with the DLNA Interoperability Guidelines. This unit complies with DLNA Interoperability Guidelines v1.5. When a PC running DLNA server software or other DLNA compatible device is connected to this TV, some setting changes of software or other devices may be required. Please refer to the operating instructions for the software or device for more information.

Please refer to pages 99 ~ 121 for additional information on supported file types and other instructions.

NOTE

- ▶ The supplied Nero MediaHome 4 Essentials CD-ROM is a customized software edition only for sharing files and folders to this TV.
- ▶ The supplied Nero MediaHome 4 Essentials software does not support following functions: Transcoding, Remote UI, TV control, Internet services and Apple iTunes
- ▶ This manual explains operations with the English version of Nero MediaHome 4 Essentials as examples. Follow the explanation referring to the actual operations of your language version.
- ▶ If there are too many folders and files in one folder, it may not operate properly.
- ▶ For the DLNA option, use the Nero MediaHome programme that is provided with the TV. However, we cannot guarantee that third party program will work perfectly.
- ▶ You can select a channel while viewing the small preview channel list on your TV screen.
- ▶ Check your network settings when the DLNA option does not work properly.
- ▶ If there is an abnormal operation or an error occurs in Nero Media Home, the DLNA option may not work properly. In this case, exit Nero Media Home and restart the programme. You can download the latest version of Nero Media Home by clicking the question mark at the bottom-left of the program.
- ▶ When the network is unstable, the device may be slower or may need to load during playback.
- ▶ When playing a video in DLNA mode, the Multi Audio and Closed Caption features are not supported.
- ▶ When selecting Full Screen in DLNA mode, the ratio of the outputted screen may differ from the original.
- ▶ When more than one TV is connected to a single server in DLNA mode, a file may not play properly, depending on the server performance.
- ▶ If the play time information is not provided by the server, it is displayed as "---:---:--."
- ▶ When using Movie List, DRM files in the DLNA server cannot be played.
- ▶ DLNA operation may not work properly according to the AP manufacturers.

Installing Nero MediaHome 4 Essentials

Nero MediaHome 4 Essentials is easy to use DLNA server software for Windows.

Requirement PC system before you install Nero MediaHome 4 Essentials

- Windows® XP (Service Pack 2 or higher), Windows Vista® (no Service Pack required), Windows® XP Media Center Edition 2005 (Service Pack 2 or higher), Windows Server® 2003
- Windows Vista® 64-bit edition (application runs in 32-bit mode)
- Hard drive space: 200 MB hard drive space for a typical installation of Nero MediaHome stand-alone
- 1.2 GHz Intel® Pentium® III or AMD Sempron™ 2200+ processors
- Memory: 256 MB RAM
- Graphics card with at least 32 MB video memory, minimum resolution of 800 x 600 pixels, and 16-bit color settings
- Windows® Internet Explorer® 6.0 or higher
- DirectX® 9.0c revision 30 (August 2006) or higher
- Network environment: 100 Mb Ethernet, WLAN (IEEE 802.11b/g/n)

- 1** Start up your computer, and insert the Nero MediaHome 4 Essentials CD-ROM into your computer's CD-ROM drive.
An installation wizard will walk you through the quick and uncomplicated installation process.
- 2** Close all Microsoft Windows programs and exit any anti-virus software that may be running.
- 3** Insert the Nero MediaHome 4 Essentials CD-ROM into your computer's CD-ROM drive.
- 4** Click **Nero MediaHome 4 Essentials**. The installation is prepared and the installation wizard appears.
- 5** Click the **Next** button to display the serial number input screen.
Click **Next** to go to the next step.
- 6** If you accept all conditions, click **I accept the License Conditions** check box and click **Next**.
Installation is not possible without this agreement.
- 7** Click **Typical** and click **Next**. The installation process is started.
- 8** If you want to take part in the anonymous collection of data, select the check box and click the **Next** button.
- 9** Click the **Exit** button to complete the installation.

MY MEDIA

Sharing files and folders

After installing Nero MediaHome, you must add folders you wish to share.

- 1 Double-click the **Nero MediaHome 4 Essentials** icon on the desktop.
- 2 Click **Network** icon on the left and define your network name in the **Network name** field. The Network name you enter will be recognized by your TV.
- 3 Click **Shares** icon on the left.
- 4 Click **Local Folders** tab on the **Shared** screen.
- 5 Click **Add** icon to open the **Browse Folder** window.
- 6 Select the folder containing the files you want to share. The selected folder is added to the list of shared folders.
- 7 Click **Start Server** icon to start the server.

NOTE

- ▶ If the shared folders or files are not displayed on the TV, click the folder on the **Local Folders** tab and click **Rescan Folder** at the **More** button.
- ▶ Visit www.nero.com for more information and software tools.



Playing back shared contents

You can display and play movie, photo and music content stored on your computer or other DLNA media servers.

1 Start the server on your computer or other device that connected on your home network.

2   Select **MY MEDIA**.

3   Select **Movie List**, **Photo List** or **Music List**.

4   Select the DLNA.
Depending on the media server, this TV may need to get the permission from the server.
If you want to re-scan available media server, press blue color button.

NOTE

- ▶ To play the file on the media server, the TV and the media server must be connected to the same access point.
- ▶ Because the compatibility and available playback functions on the **MY MEDIA** menu are tested on the bundle DLNA server (Nero MediaHome 4 Essentials) environment, file requirements and playback functions on the **MY MEDIA** may differ depending on media servers.
- ▶ The file requirements on this page are not always compatible. There may have some restrictions by file features and media server's ability.
- ▶ Even the files that are not supported can be displayed in photo thumbnail or music thumbnail.
- ▶ Movie thumbnail is not supported in DLNA Movie.
- ▶ If there is an unplayable music file in the **MY MEDIA** menu, the TV will skip the file and play next file.
- ▶ The file information indicated on the screen may not always correct for music and movie files in **MY MEDIA** menu
- ▶ This TV only supports movie subtitle files supplied by Nero MediaHome 4.
- ▶ The subtitle file name and movie file name have to be the same and located at the same folder.
- ▶ If subtitle files have been added after a directory has been indexed already, the user has to remove and re-add the folder to the list of shares.
- ▶ The playback and operating quality of the **MY MEDIA** function may be affected by your home network condition.
- ▶ The files from removable media such as USB drive, DVD-drive etc. on your media server may not share properly.
- ▶ When playing the Media through DLNA connection, it does not support the DivX file play which is protected by DRM.
- ▶ Up to 200 folders in one folder and 999 including folders and files can be recognized.
- ▶ If there are too many folders and files in one folder, it may not operate properly.

MY MEDIA

MOVIE LIST (Except 50/60PZ540)

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.

Supported Video Formats

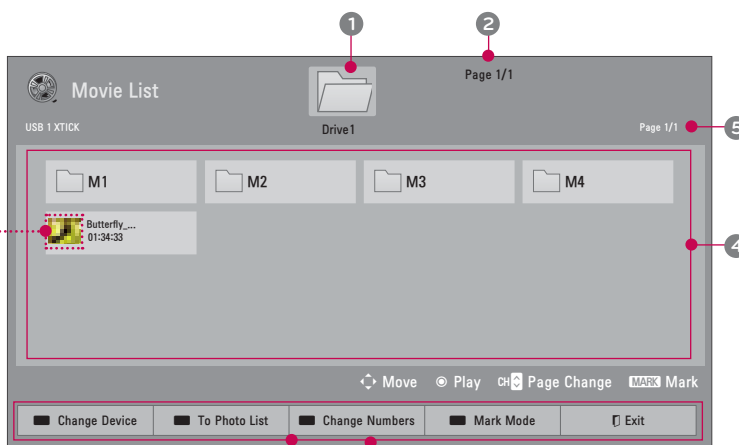
File Extensions	Audio/Video	Codec	Profile/Level Support	Explanation
.asf .wmv	Video	VC-1 Advanced Profile	Advanced Profile@Level 3 (e.g. 720p60, 1080i60, 1080p30)	Only streams compliant to SMPTE 421M VC-1 standard are supported.
		VC-1 Simple and Main Profiles	Simple Profile@Medium Level (e.g. CIF, QVGA) Main Profile@High Level (e.g. 1080p30)	
	Audio	WMA Standard		
		WMA 9 Professional		
.divx .avi	Video	DivX3.11	Advanced Simple Profile (e.g. 720p/1080i)	Global motion compensation or quarterpel motion estimation does not supported. Streams using this syntax are not supported.
		DivX4 DivX5 DivX6 XViD		
	Audio	H.264 / AVC	Main Profile@ Level 4.1 High Profile@ Level 4.1 (e.g. 720p60, 1080i60, 1080p30)	
		MPEG-1 Layer I, II MPEG-1 Layer III (MP3) Dolby Digital		
.mp4 .m4v	Video	H.264 / AVC	Main Profile@ Level 4.1 High Profile@ Level 4.1 (e.g. 720p60, 1080i60, 1080p30)	Global motion compensation or quarterpel motion estimation does not supported. Streams using this syntax are not supported.
		MPEG-4 Part 2	Advanced Simple Profile (e.g. 720p/1080i)	
	Audio	AAC	AAC-LC and HE-AAC	
		MPEG-1 Layer I, II MPEG-1 Layer III (MP3) Dolby Digital		
.mkv	Video	H.264 / AVC	Main Profile@ Level 4.1 High Profile@ Level 4.1 (e.g. 720p60, 1080i60, 1080p30)	Most of the MKV content available is encoded by the open source x264 codec.
		AAC	AAC-LC and HE-AAC	
	Audio	Dolby Digital		
		MPEG-1 Layer I, II MPEG-1 Layer III (MP3) Dolby Digital		
.ts .trp .tp	Video	H.264 / AVC	Main Profile@ Level 4.1 High Profile@ Level 4.1 (e.g. 720p60, 1080i60, 1080p30)	Only streams compliant to SMPTE 421M VC-1 standard are supported.
		MPEG-2	Main Profile@High Level(e.g. 720p60, 1080i60)	
	Audio	VC-1	Simple Profile@Medium Level (e.g. CIF, QVGA) Main Profile@High Level (e.g. 1080p30) Advanced Profile@Level3 (e.g. 720p60, 1080i60, 1080p30)	
		MPEG-1 Layer I, II MPEG-1 Layer III (MP3) Dolby Digital		
	Video	AAC	AAC-LC and HE-AAC	
		MPEG-1		
.vob	Audio	MPEG-2	Main Profile@High Level (e.g. 720p60, 1080i60)	
		Dolby Digital MPEG-1 Layer I, II DVD-LPCM		
.mpg	Video	MPEG-1	Main Profile@High Level (e.g. 720p60, 1080i60)	Only streams compliant configured properly for TS, PS or ES
		Audio	MPEG-1 Layer I, II	

MY MEDIA

Screen Components



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



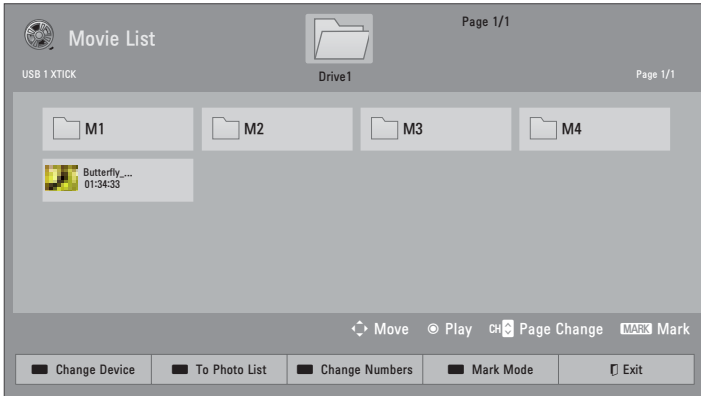
Abnormal files are displayed using this graphic.



Non-supported files are displayed using this graphic.

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

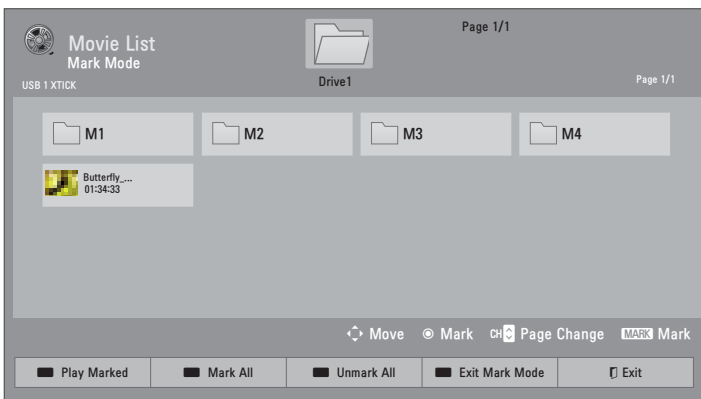
Movie Selection



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

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

Mark Mode



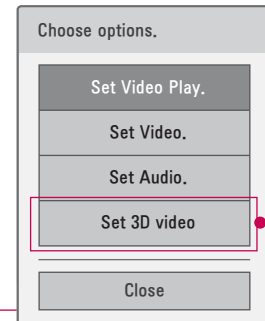
- 1 Select the target folder or drive.
- 2 Select the desired movie title.
- 3 Mark your desired movie file.
- 4 Play the marked movie file. It displays the current movie status progress bar on the bottom of the screen.

RED	Play Marked: Play the first 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 files.
BLUE	Enter or exit the Mark Mode.


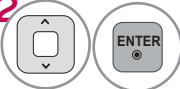
■ When one or more movie files are marked, the marked movies will be played in sequence.

MY MEDIA

Playing the Movie












For 42/47/55LX6500

- 1  Show the **Option** menu.
- 2  Select the desired menu option.

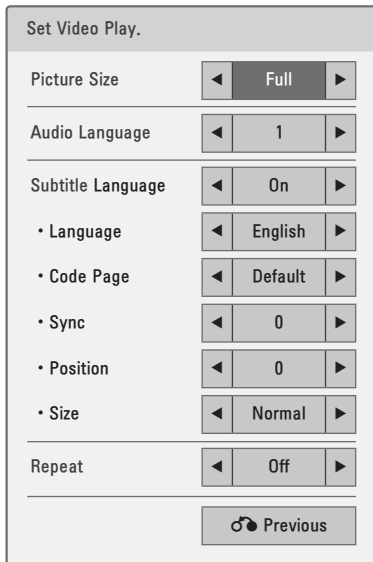
NOTE

- ▶ When replaying a video file after stopping, you can play from where it stopped automatically.
- ▶ If you select "Yes" when playing the same file after the video file has been stopped, it will restart where it stopped previously.
- ▶ If continuous series files exist within the folder, the next file will automatically be played. But, this excludes cases when the Repeat function of Movie List Option is turned "On" (Refer to page 107) or when set as Marked Play.

Using the remote control

	Return to the previous menu.
	Select the required speed: x2, x4, x8, x16, x32 (backward/forward).
	Pauses the media player. If no buttons are pressed on the remote control for 10 minutes after pausing, the TV returns to the playback state.
	Displays slow motion.
	Move to a specific frame forward or backward while playing a video. A cursor indicating the position can be viewed on the screen. It may not work properly for some movie files.
	Return to normal playback.
	Hide the menu on screen. To see the menu again, press ENTER button.
	Press the ENERGY SAVING button repeatedly to increase the brightness of your screen (Refer to p. 132).
	Press the AV MODE button repeatedly to select the desired source (Refer to p. 88).

Set Video Play Menu Options



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



2 Make appropriate adjustments.

Code Page

Subtitle Language Group	Supported Language
Latin1	English, Spanish, French
Korean	English, Korean

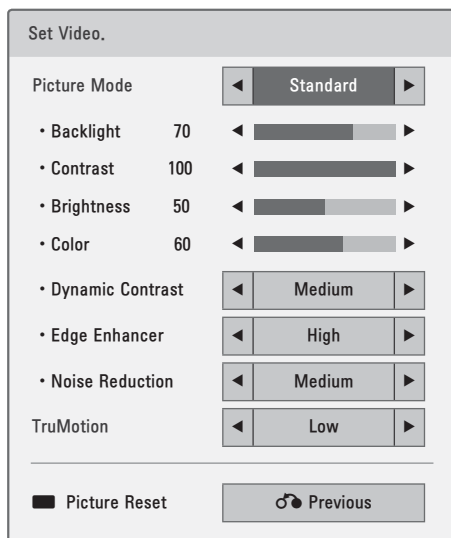
- **Picture Size:** Selects your desired picture format for videos.
 - Full Mode:** Files are played in full screen mode regardless of the aspect ratio of video.
 - Original Mode:** Files are played according to the aspect ratio of video.
- **Audio Language:** Changes the Language Group of the audio for video files. Files with a single audio track cannot be selected.
- **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, contents are displayed in the language set in "Option - Language - Menu Language."
- **Sync:** When the video is not synchronized with the captions, it can be adjusted by 0.5 second.
- **Position:** Move the location of the subtitles.
- **Size:** Changes the subtitle font size.
- **Repeat:** Turn on/off repeat function of movie playback. When turned on, the file within the folder will be played back repeatedly. When turned off, if the next file name is similar to the previous file, it can be played sequentially.

MY MEDIA

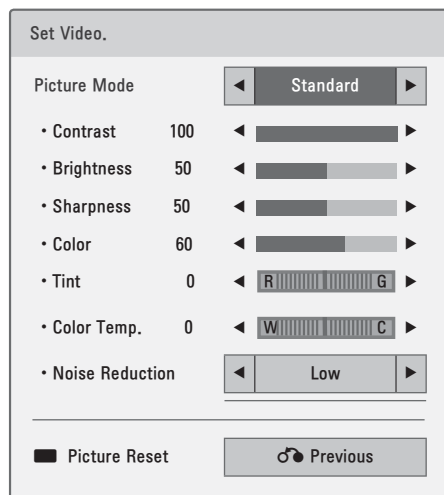
* Image shown may differ from your TV.

Set Video Menu Options

For LED LCD TV/LCD TV



For Plasma TV

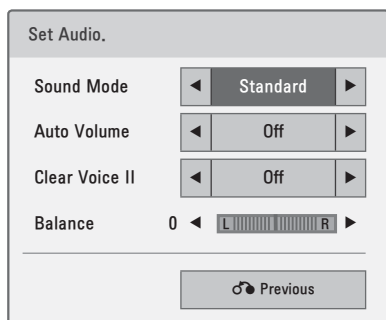


MY MEDIA

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

Reset picture settings to default.

Set Audio Menu Options



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

Set 3D video Menu Options (For 42/47/55LX6500)



For more information, see the 3D Imaging section in the Owner's Manual.

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.

For 42/47/55LX6500

	File Extensions	Item	Profile
2D	jpeg jpg jpe	supproted file format	SOF0: baseline SOF1: Extend Sequential SOF2: Progressive
		photo size	Min: 64 x 64 Max - Normal Type: 15360 (W) x 8640 (H) Progressive Type: 1920 (W) x 1440 (H)
3D	mpo	supproted file format	mpo
		photo size	4:3 size: 3648 x 2736 2592 x 1944 2048 x 1536 3:2 size: 3648 x 2432

Screen Components

1 Select **MY MEDIA**.

2 Select **Photo List**.

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

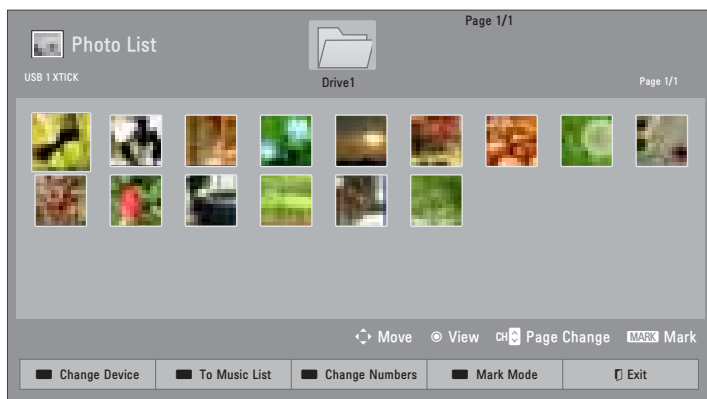
Abnormal files are displayed using this graphic.


Non-supported files are displayed using this graphic.

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

MY MEDIA

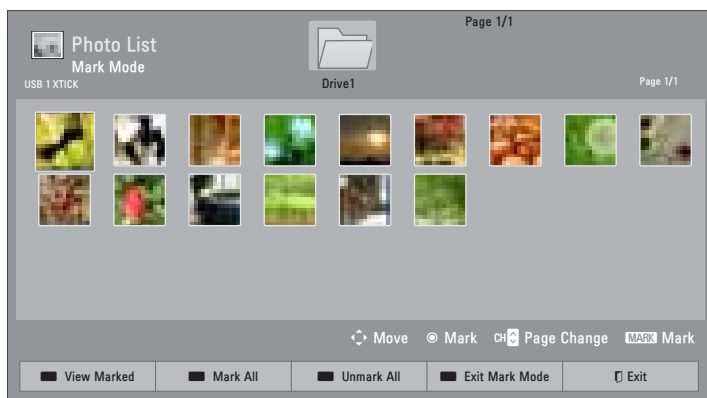
Photo Selection












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

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

Mark Mode



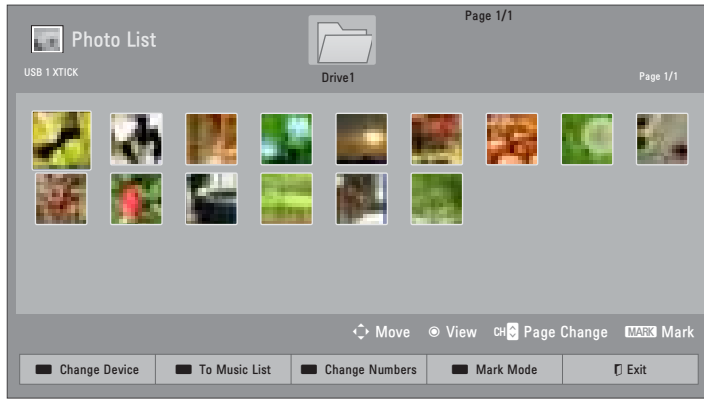
- 1  Select the target folder or drive.
- 2   Select the desired photo files.
- 3  Mark your desired photo files.
- 4  View the marked photo files.

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





■ When one or more photos are marked, you can view individual photos or a slide show of the marked photos. If no photos are marked, you can view all photos individually or all photos in the folder in a slide show.

Full Screen Menu

More operations are available in full screen mode.

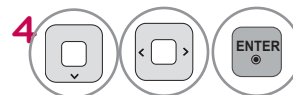


The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.

- 1  Select the target folder or drive.
- 2   Select the desired photos.
- 3  The selected photo is displayed in full size.

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

MY MEDIA

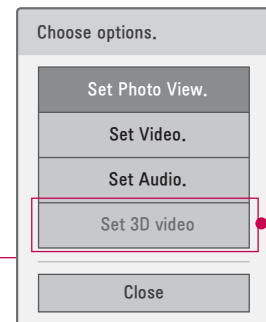


4 Select the **Slideshow**, **BGM**, **⤵ (Rotate)**, **🖼️ / 📐 (Energy Saving)**, **Option**, or **Hide**.

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

- ▶ **Slideshow:** Selected photos are displayed during the slide show. If no photo is selected, all photos in the current folder are displayed during slide show.
 - Set the time interval of the slide show in **Option-Set Photo View** menu (Refer to p. 113).
 - 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 **Option-Set Photo View** menu (Refer to p. 113).
 - You can adjust **Option** by using the **Q.MENU** button on the remote control.
- ▶ **⤵ (Rotate):** Rotate photos.
 - Rotates the photo 90 °, 180 °, 270 °, 360 ° clockwise.
 - Photos cannot be rotated if its width is greater than the available supported resolution height.
- ▶ **🖼️ / 📐 :** View the photo in full mode or original mode.
- ▶ **🔋 (Energy Saving):** Increase the brightness of your screen by using ENERGY SAVING button.
- ▶ **Option:** Set values for **Slide Speed** and **BGM** (Refer to p.113).
 - You cannot change **BGM** while BGM is playing.
 - You can only select the MP3 folder saved on the device that currently displays the photo.
- ▶ **Hide:** Hide the menu on the full-sized screen.
 - To see the menu again on the full-sized screen, press **ENTER** button to display.
- ▶ **Exit:** Move to the previous menu screen.

Using the Photo List Function



For 42/47/55LX6500



1 Show the **Option** menu.



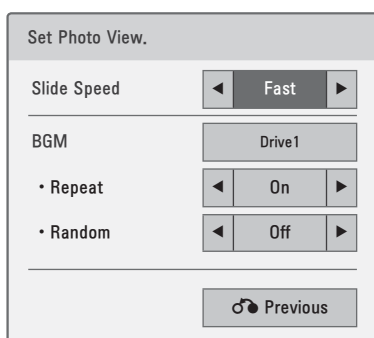
2 Select the desired menu option.

NOTE

For 42/47/55LX6500

- ▶ You cannot select the **Option** in 3D imaging mode.
- ▶ If you want to listen to BGM (background music) while viewing *mpo image files, play a *jpg file and set the BGM folder in "**Option - Set Photo View.**" Then, you can select and listen to BGM when viewing *mpo files.

Set Photo View Menu Options



1 Select **Slide Speed** or **BGM**.



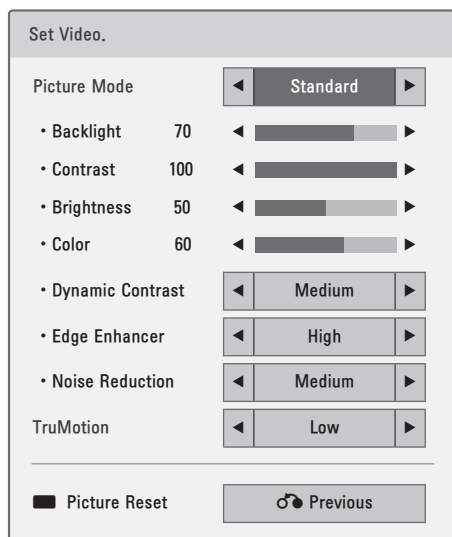
2 Make appropriate adjustments.

MY MEDIA

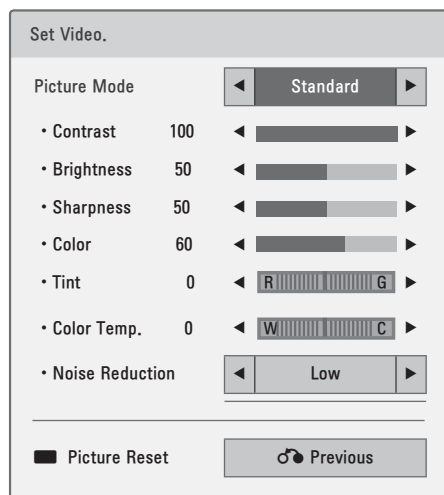
* Image shown may differ from your TV.

Set Video Menu Options

For LED LCD TV/LCD TV



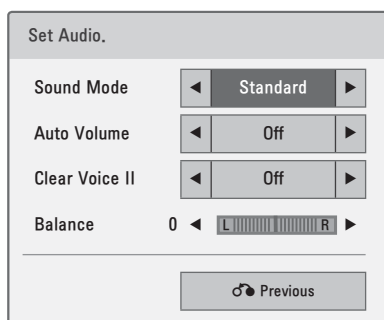
For Plasma TV



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

Reset picture settings to default.

Set Audio Menu Options



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

Set 3D video Menu Options (For 42/47/55LX6500)



For more information, see the 3D Imaging section in the Owner's Manual.

MUSIC LIST (Except 50/60PZ540)

This TV cannot play back copy-protected files.
 The On-Screen Display on your model may be slightly different.

Supported Music File: *.MP3
 Bit rate range: 32 Kbps - 320 Kbps

- Sampling rate MPEG1 Layer3: 32 kHz, 44.1 kHz, 48 kHz
- Sampling rate MPEG2 Layer3: 16 kHz, 22.05 kHz, 24 kHz

Screen Components

1 Select **MY MEDIA**.

2 Select **Music List**.

1 Preview: If any album jacket for the file (Album Art Image) exists, this picture is displayed.

2 Moves to upper level folder

3 Current page/Total pages

4 Corresponding buttons on the remote control

5 Contents under the folder focused on **2**

6 Current page/total pages of contents

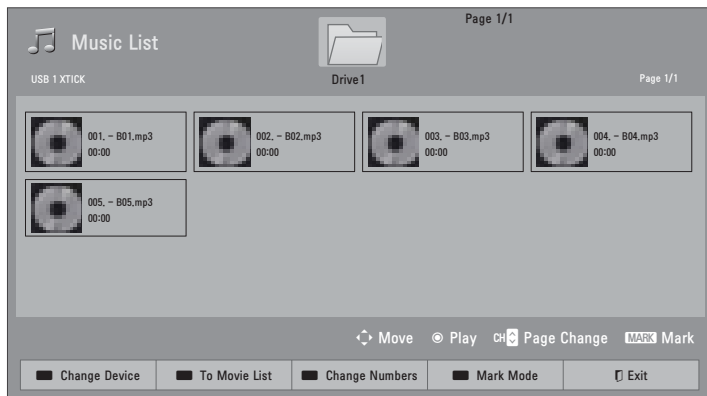
Abnormal files are displayed using this graphic.

Non-supported files are displayed using this graphic.

	Change to a different input.
	Move to Movie List or Photo List .
	Change Numbers: Changes the number or thumbnails displayed at a time.
	Allows you to mark certain files.
	Return to TV viewing.
	Press the ENERGY SAVING button repeatedly to increase the brightness of your screen (Refer to p. 132). (For LED LCD TV / LCD TV: It's available "ENERGY SAVING - Off, Screen Off" only.)

MY MEDIA

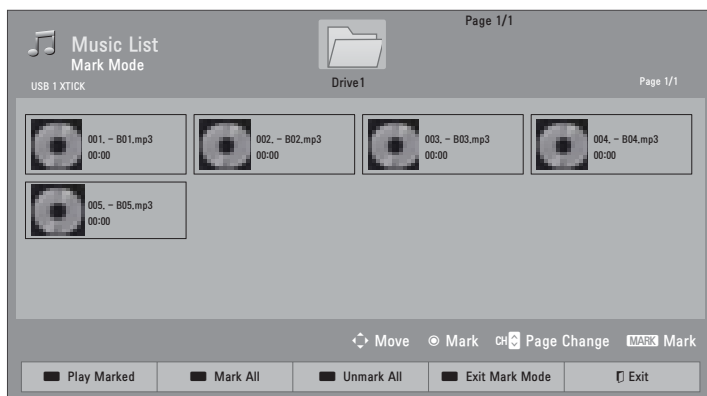
Music Selection



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

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

Mark Mode

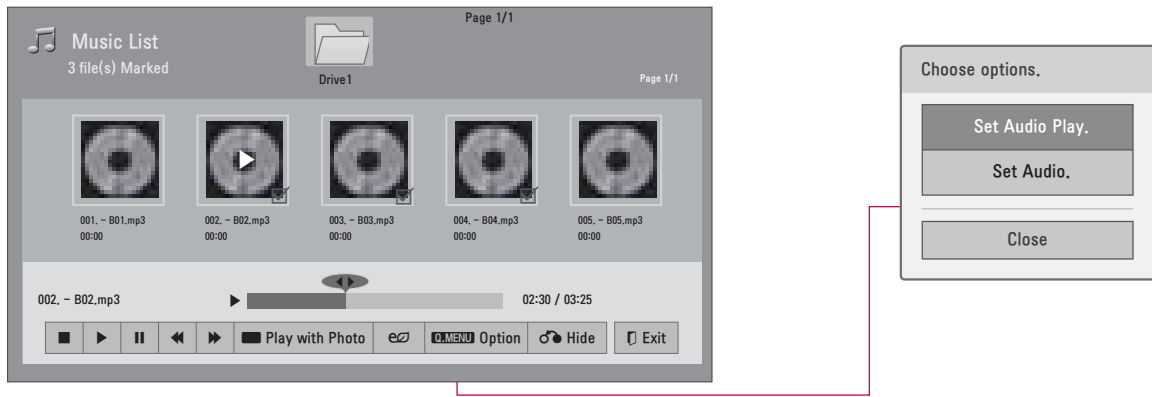


- 1 Select the target folder or drive.
- 2 Select the desired music file.
- 3 Mark your desired music file.
- 4 Play the marked music file.

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

	Play Marked: Play the selected songs. Once a song finishes playing, the next selected one will be played automatically.
	Mark All: Mark all songs in the folder.
	Unmark All: Deselect all marked song.
	Enter or exit the Mark Mode.

Using the Music List Function



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

NOTE

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

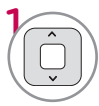

Using the remote control

	Stop playback.
	Return to normal playback.
	Paused playback.
	Select the previous or next song.
	Play with Photo: Start playing the selected songs and then move to the Photo List.
	Press the ENERGY SAVING button repeatedly to increase the brightness of your screen (Refer to p. 132). (For LED LCD TV/LCD TV: It's available " ENERGY SAVING - Off, Screen Off " only.)
	A cursor indicating the position can be played.
	Move to the previous menu screen.

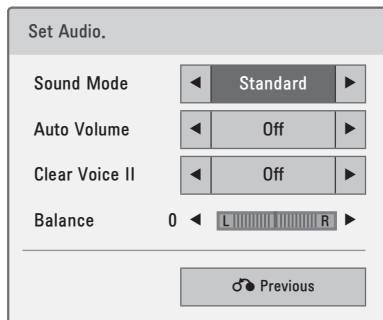
MY MEDIA

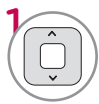

Set Audio Play Menu Options



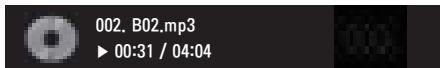
-  Select **Repeat** or **Random**.
-  Make appropriate adjustments.

Set Audio Menu Options



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

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



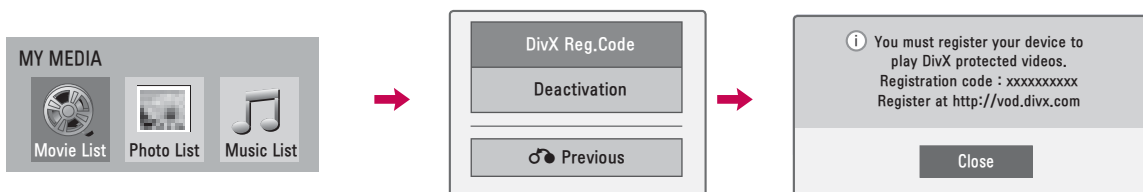
! NOTE

- ▶ 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

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

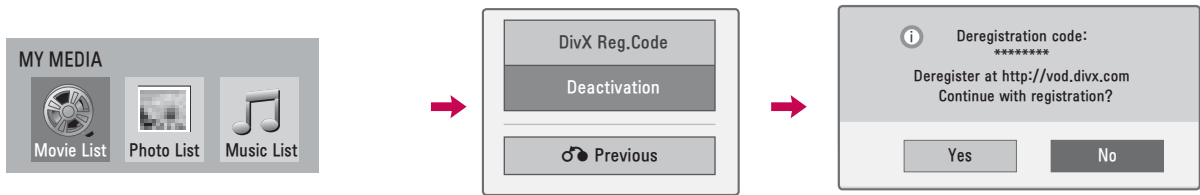
NOTE









- ▶ When loading, some buttons may not work.
- ▶ If you use the DivX registration code of another device, the rented or purchased DivX file cannot be played. Therefore always use the DivX registration code assigned to this product.
- ▶ The video or audio of a file converted based on a standard other than the DivX codec standard may be corrupted or unable to be played.
- ▶ The DRM/*.tp/*.trp file in DLNA server is not played when Movie List is in operation.

DEACTIVATION

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

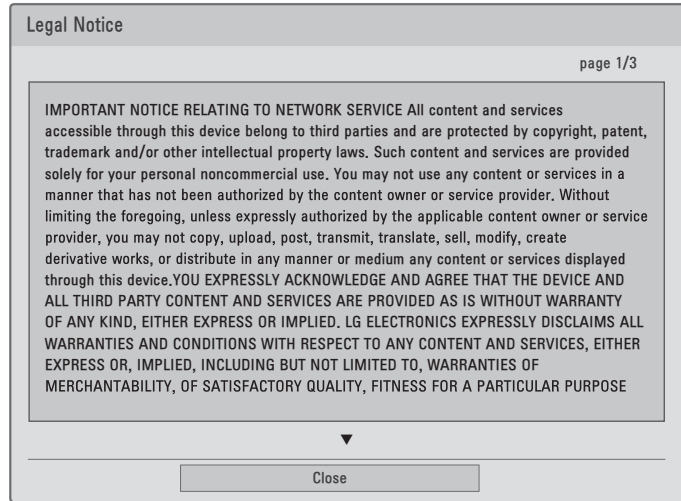
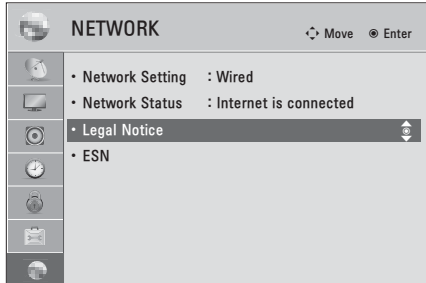
Delete the existing authentication information to receive a new DivX user authentication for TV. Once this function is executed, a DivX user authentication is required again to see DivX DRM files.



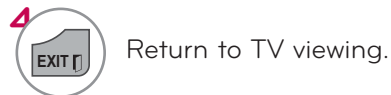
-   Select **MY MEDIA**.
-   Select DivX Option.
-  Select **Deactivation**.
-   Select **Yes**.
-  Display **Deactivation**.

NETWORK

LEGAL NOTICE



NETWORK



IMPORTANT NOTICE RELATING TO NETWORK SERVICE

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NETCAST

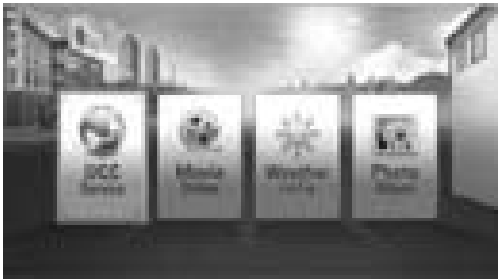
NETCAST MENU

These services are provided by separate Content Provider.

NETCAST menu source can differ by country.

What is a NETCAST?

Stream movies, TV shows and video, or get up to the minute news, stock information or weather updates directly to your TV.



- To view the owner's manual that provided by the Content Provider, visit our website at <http://www.lg.com>.
- To see the activation method of Yahoo!, Netflix, or Vudu, click the **Yahoo!**, **Netflix**, **Vudu** in the CD manual (For USA).



■ Yahoo! (For USA)

Yahoo! TV Widgets give you the best of the Internet in perfect harmony with the simplicity and reliability of your TV. TV Widgets deliver a Cinematic internet™ experience by converting your favorite web services for viewing on the TV.

■ Netflix (For USA)

You can instantly watch movies (quite a few new releases) & TV episodes from Netflix streamed over the internet to your TV.

To become a Netflix member visit: www.netflix.com/LG

Note that this service is provided by the Content Provider, Netflix. It is dependent on Netflix to provide the data.

■ Vudu (For USA)

In order to make rental/purchase transactions on the Vudu service, a user must create an account on vudu.com.

That account is linked to a specific device, via a process called "activation". It is possible to have multiple devices associated with a single Vudu account.

Note that this service is provided by the Content Provider, Vudu. It is dependent on Vudu to provide the data.

■ YouTube

YouTube is a video sharing website where users can upload, view, and share video clips.



■ Picasa

Picasa is an application from Google that appreciates digital image files.

! NOTE

- ▶ The videos list searched from the TV may differ with the list searched from a web browser on PC.
- ▶ The settings of this TV do not affect the YouTube's playback quality.
- ▶ The playback of videos may be paused, stopped or buffering occurring often depending on your broadband speed.
- ▶ For service that requires log in, join the applicable service on the website using the PC and log in through the TV to enjoy various additional functionalities.
- ▶ When you set the city you want with Setup by pressing the red button, the background of NetCast will be set to the weather of the selected city.
- ▶ For Plasma TV: If there is no user action 2 minutes following freezing image or video on screen, the screensaver will activate itself preventing fixed image remaining on screen.

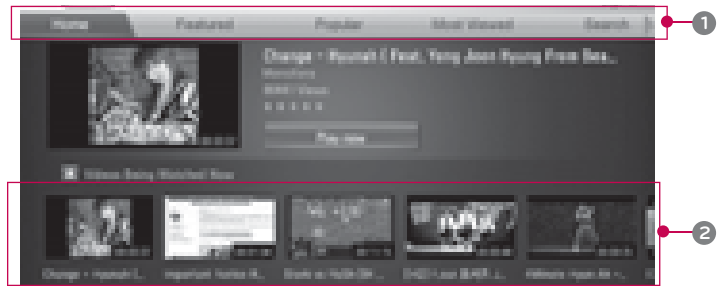
NETCAST




YOUTUBE

YouTube is a video sharing website where users can upload, view, and share video clips.

Screen Components

- 1 YouTube menu
- 2 Videos list



	Set the option menu.
	Return to Netcast menu.
	Return to TV viewing.

NOTE

- ▶ When you press the Q.menu button while the Youtube video is playing in full mode, you can set the video options.

YouTube menu

Home: You can watch the popular video in real time.

Featured: The featured videos list will be displayed.

Popular: The best rated videos list from YouTube server will be displayed.

Most Viewed: The most viewed videos list will be displayed.








Search: The keypad/keyboard menu will be displayed.

History: The videos list that you previously played will be displayed. Maximum of 20 videos can be stored.

Favorites: In sign-in status, this menu will be displayed the videos list that is arranged in the YouTube server with your account (Some videos may not appear on the **Favorites** list, even if the videos are arranged in the server).

Sign in (Sign Out): Displays the keypad/keyboard menu to sign in or returns to the sign-out status.

Using the remote control

	Stops the video and displays related videos list.
	Pause the video while it is playing.
	Play the selected video.
	Skip the playback forward or backward.
	Set the option menu.
	Return to Netcast menu.
	Return to TV viewing.

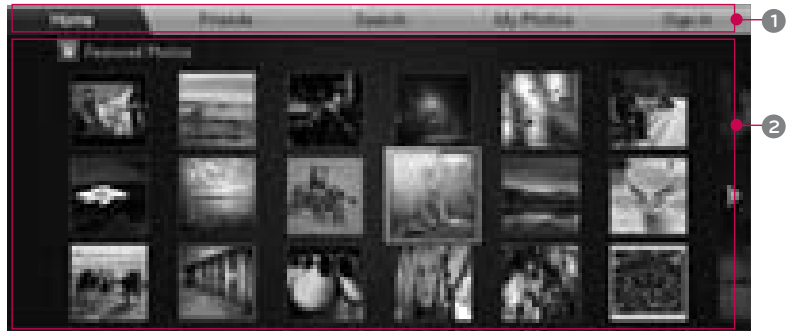
NETCAST





PICASA

Picasa is a photo organizing or sharing website where users can upload, view, and share photos.

Screen Components

- ① Picasa menu
- ② Photo list

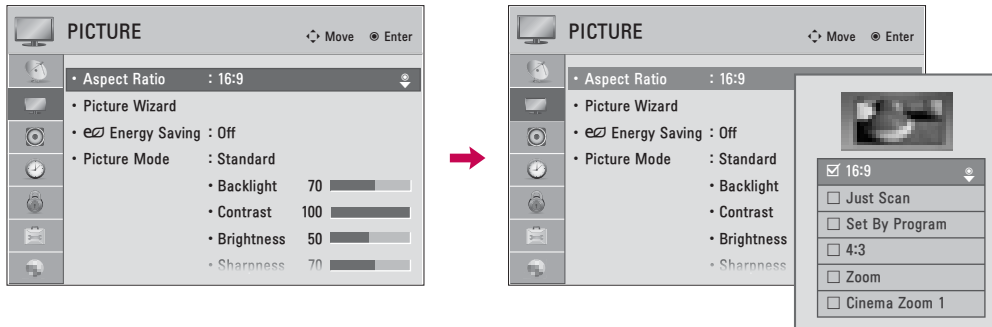


	Navigate the desired photos.
	The selected photo file is displayed.
	Return to Netcast menu.
	Return to TV viewing.

PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV. You can select a different aspect ratio depending on input source (analog broadcasting, digital broadcasting, aux).

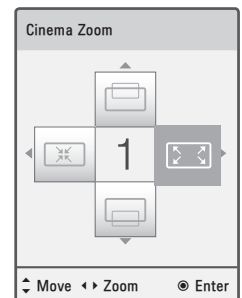
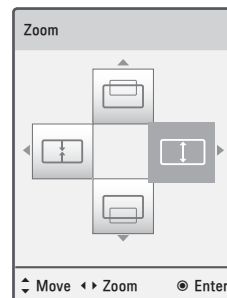


- 1 Select **PICTURE**.
- 2 Select **Aspect Ratio**.
- 3 Select the desired picture format.
- 4 Return to the previous menu.
- Return to TV viewing.

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

When adjusting Zoom or Cinema Zoom in Q.MENU

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



16:9

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



Just Scan

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

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

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



Set By Program

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

(4:3 → 4:3)



(16:9 → 16:9)



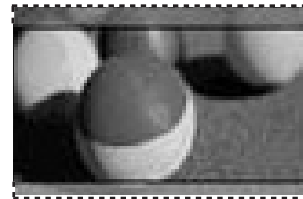
4:3

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



Zoom

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



Cinema Zoom

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

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

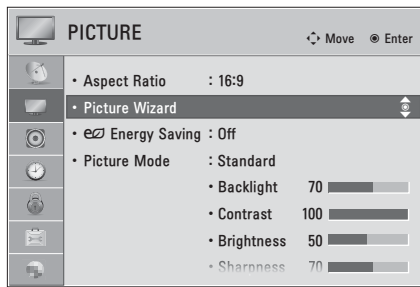
Note: When enlarging or reducing the picture, the image may become distorted.



PICTURE CONTROL

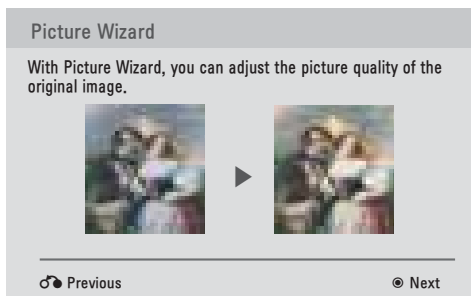
PICTURE WIZARD

This feature lets you adjust the picture quality of the original image. Use this to calibrate the screen quality by adjusting the Black and White Level etc. You can calibrate the screen quality by easily following each step. When you adjust the image to **Low**, **Recommended** or **High**, you can see the example of the changes you made.

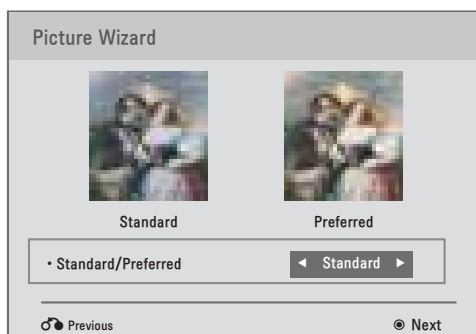


1 Select **PICTURE**.

2 Select **Picture Wizard**.

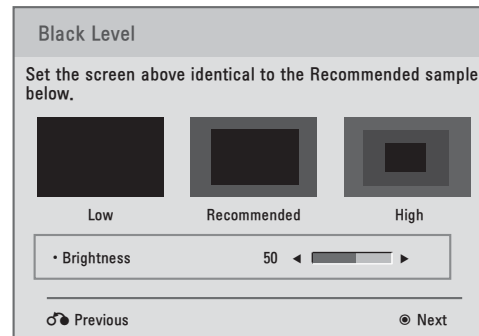


3 Adjust **Picture Wizard**.

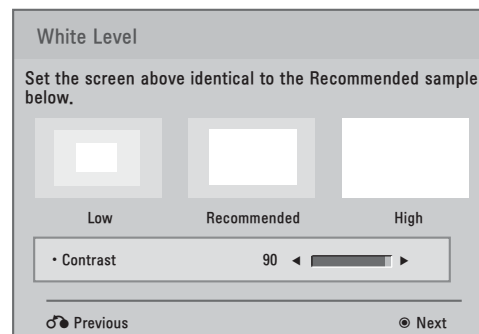


4 Adjust **Standard/Preferred**.

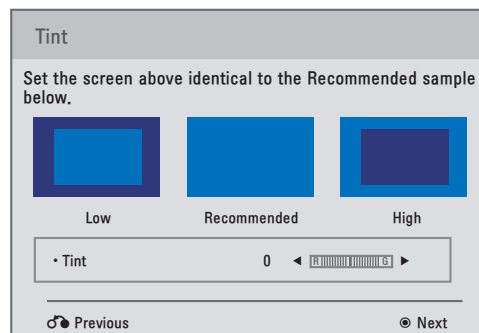
■ If you select **Preferred**, OSD (On Screen Display) differ from that shown in this manual.



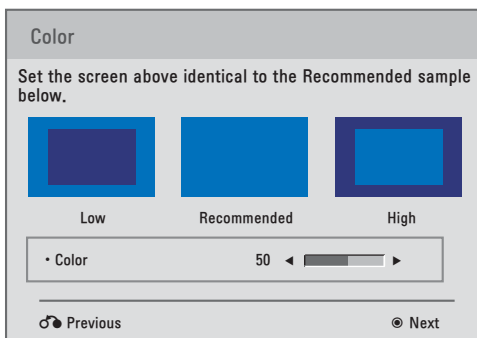
5 Adjust **Black Level**.



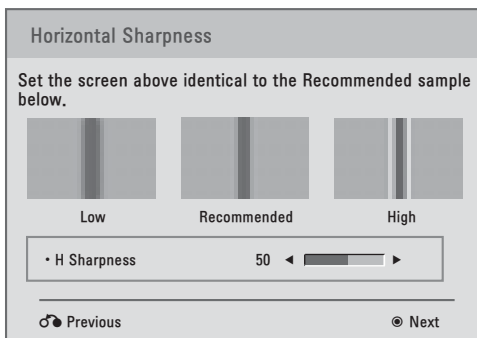
6 Adjust **White Level**.



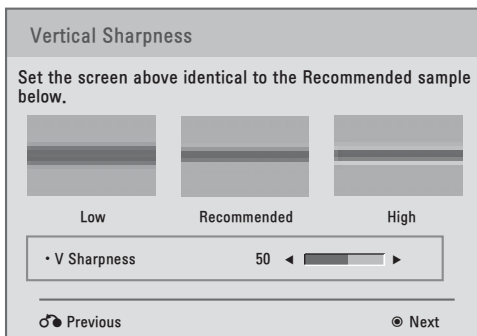
7 Adjust **Tint**.



8   Adjust **Color**.

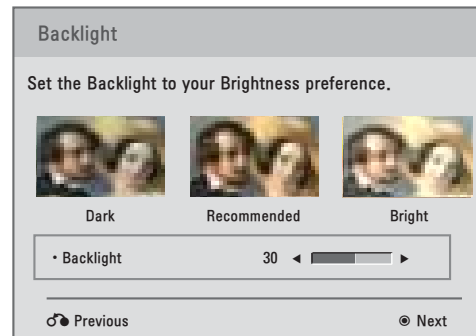


9   Adjust **Horizontal Sharpness**.



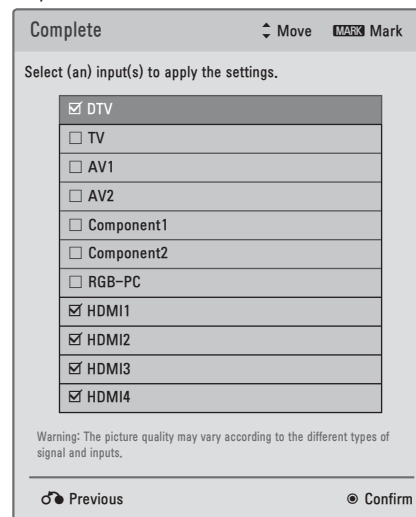
10   Adjust **Vertical Sharpness**.



For LED LCD TV/LCD TV



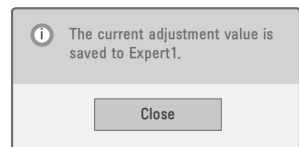
11   Adjust **Backlight**.


i.e)



12   Select input source to apply the settings.

13  Save.



14  Finish the Picture Wizard.

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

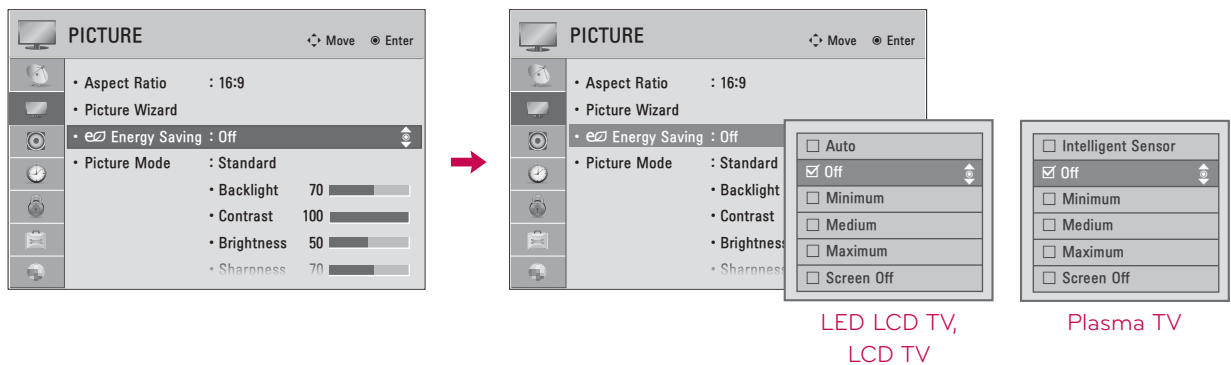
PICTURE CONTROL

e ENERGY SAVING

It reduces the TV's power consumption.

The default factory setting is adjusted to the comfortable level to be viewed at home.

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

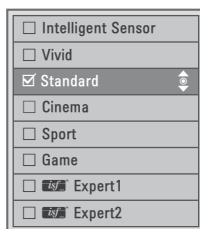
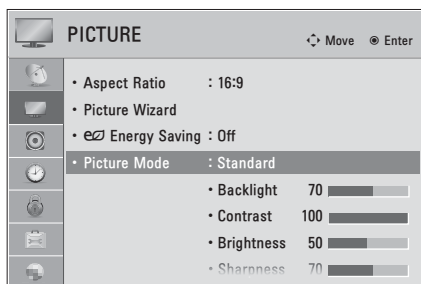


- 1 Select **PICTURE**.
- 2 Select **e Energy Saving**.
- 3 Select your desired menu option.
- 4 Return to the previous menu.
- Return to TV viewing.

- 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 (For LED LCD TV/LCD TV).
- When selecting "**Energy Saving - Off, Minimum, or Medium**", you can adjust **Backlight** feature (For LED LCD TV/LCD TV).
- If you adjust "Energy Saving-Intelligent Sensor", Sharpness, Color, Color Temperature feature will not work (For Plasma TV).
- When selecting **Auto**, **Backlight** is automatically adjusted through **Intelligent Sensor** according to the surrounding conditions. (For LED LCD TV/LCD TV)
- When selecting **Off**, **Energy Saving** is not used.
- Press the **ENERGY SAVING** button repeatedly to select the appropriate Energy Saving.
- **Intelligent Sensor**: The most suitable picture is automatically adjusted according to the surrounding conditions (For Plasma TV).

PRESET PICTURE SETTINGS (PICTURE MODE)

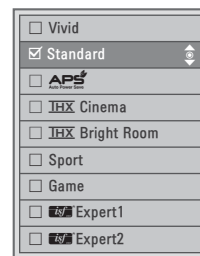
There are factory presets for picture settings available in the user menus. You can use a preset, change each setting manually, or use the Intelligent Sensor.



Other models



47/55LE8500



Plasma TV

- 1 Select **PICTURE**.
- 2 Select **Picture Mode**.
- 3 Select your desired menu option.

- 4 Return to the previous menu.
- Return to TV viewing.











- **Vivid, Standard, Cinema, Sport, and Game** Settings are preset for the optimum picture quality at the factory.
- **Vivid:** This is the mode to maximize the effect of the video in the retail store. Strengthen the contrast, brightness, color and sharpness for vivid picture.
- **Standard:** This is the mode to realize optimum viewing condition for the general user.
- **APS (Auto Power Saving):** This is the mode to maximize reducing the power consumption without hurting the picture quality. This feature is available only on Plasma TV.
- **Cinema:** This mode optimizes video for watching movies.
- **THX Cinema:** This is cinema quality mode to provide you the experience of watching a movie at home. The user will be able to enjoy the best level of satisfactory screen quality in any movie without any separate adjustments. **THX Cinema** expresses the optimal screen quality when it is darkest. When selecting **THX Cinema**, Aspect ratio changes to Just scan.
- **THX Bright Room:** This is the specification to optimize TV viewing in Bright Room. When selecting **THX Bright Room**, Aspect ratio changes to Just scan.
- **Sport:** This is the video mode to emphasize dynamic video and primary color (e.g. white, uniform, grass, sky blue etc.) by realizing the optimal screen for sports.
- **Game:** This is the mode to realize fast response speed in a fast gaming screen.
- **Expert:** This is the mode to adjust the video in detail for video quality expert and general user.
- You can also adjust **Picture Mode** in the **Q.MENU**.
- When selecting **Intelligent Sensor**, **Energy Saving** is changed to **Auto** automatically (For LED LCD TV/LCD TV).
- When selecting **Intelligent Sensor**, it changes Backlight, contrast, brightness, sharpness, color and tint automatically (For LED LCD TV/LCD TV).
- **Intelligent Sensor:** The most suitable picture is automatically adjusted according to the surrounding conditions.

PICTURE CONTROL

MANUAL PICTURE ADJUSTMENT - USER MODE

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

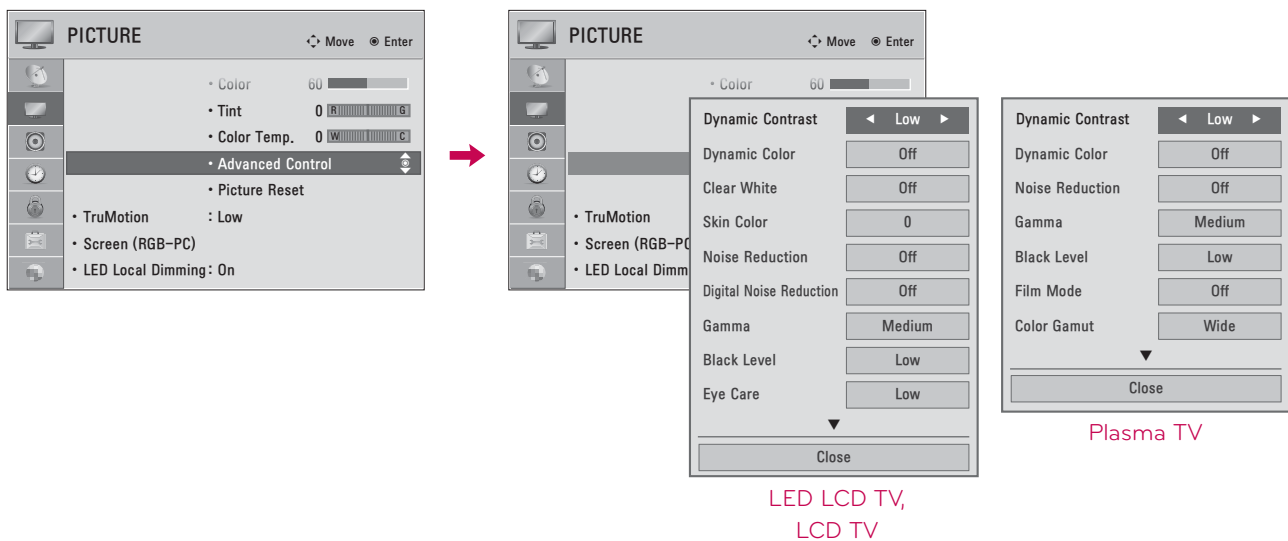



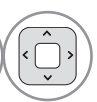

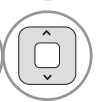

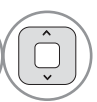



-   Select **PICTURE**.
-   Select **Picture Mode**.
-   Select your desired menu option.
-   Select **Backlight** (For LED LCD TV/LCD TV), **Contrast**, **Brightness**, **Sharpness**, **Color**, **Tint**, **Color Temp.**, or **Advanced Control**.
-   Make appropriate adjustments.
-  Return to the previous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

- **Backlight** (For LED LCD TV/LCD TV): This function adjusts the brightness of the backlight behind the LCD screen. Adjusting the backlight is recommended when setting the brightness of the TV. When decreasing the backlight, the brightness of the black becomes darker without any loss in video signal and the power consumption is reduced.
- **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)

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

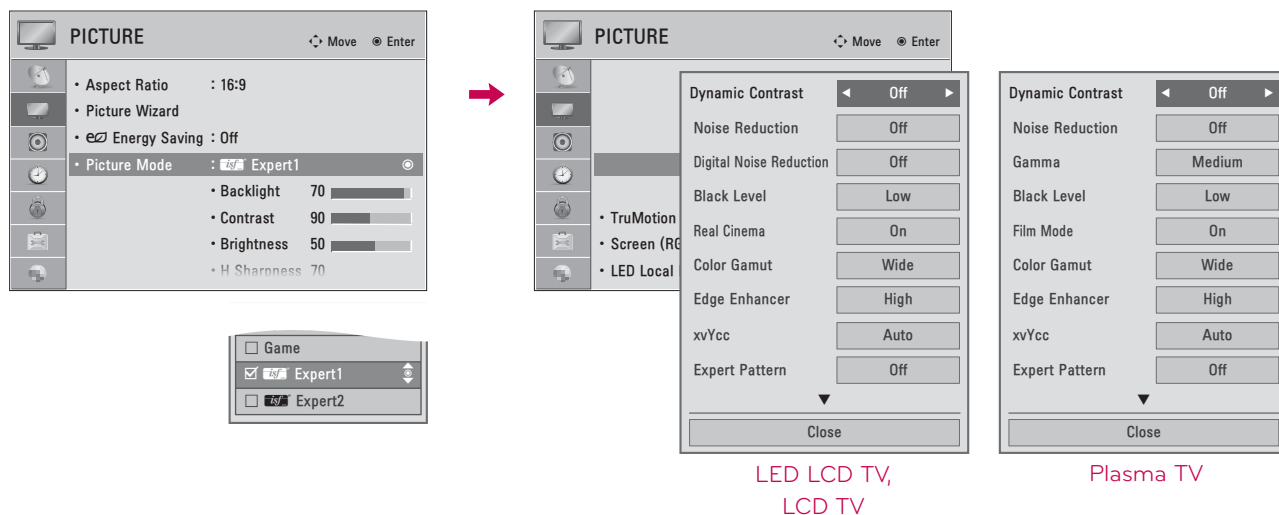


- 1   Select **PICTURE**.
- 2   Select **Advanced Control**.
- 3   Select your desired menu option.
- 4  Make appropriate adjustments.
- 5  Return to the previous menu.
-  Return to TV viewing.

PICTURE CONTROL

EXPERT PICTURE CONTROL

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



LED LCD TV,
LCD TV



Plasma TV

- 1 Select **PICTURE**.
- 2 Select **Picture Mode**.
- 3 Select **Expert1** or **Expert2**.
- 4 Select **Expert Control**.
- 5 Select your desired menu option.
- 6 Make appropriate adjustments.
- 7 Return to the previous menu.
- Return to TV viewing.

*This feature is not available for all models.

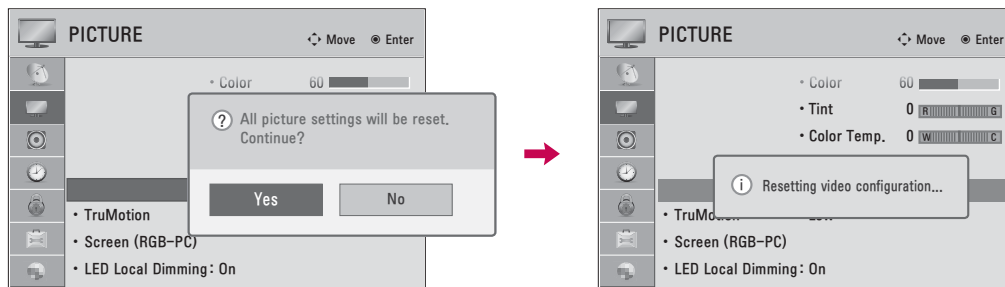
Dynamic Contrast	<ul style="list-style-type: none"> Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.
Dynamic Color	<ul style="list-style-type: none"> Adjusts screen colors so that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









PICTURE CONTROL

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

PICTURE RESET

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

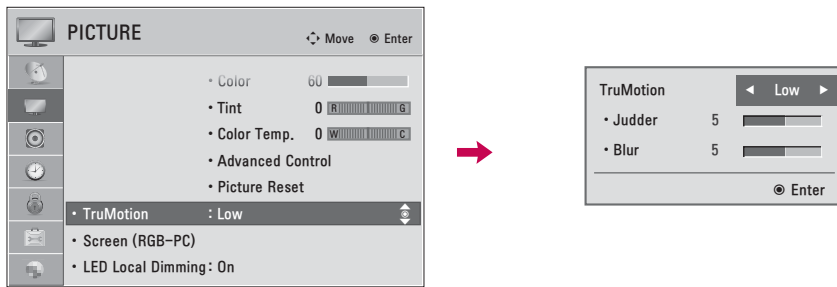


- 1   Select **PICTURE**.
- 2   Select **Picture Reset**.
- 3   Select **Yes**.
- 4  Initialize the adjusted value.
-  Return to TV viewing.

PICTURE CONTROL

TRUMOTION - For LED LCD TV, LCD TV

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



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

Adjustment for TruMotion (Judder and Blur) with selecting User

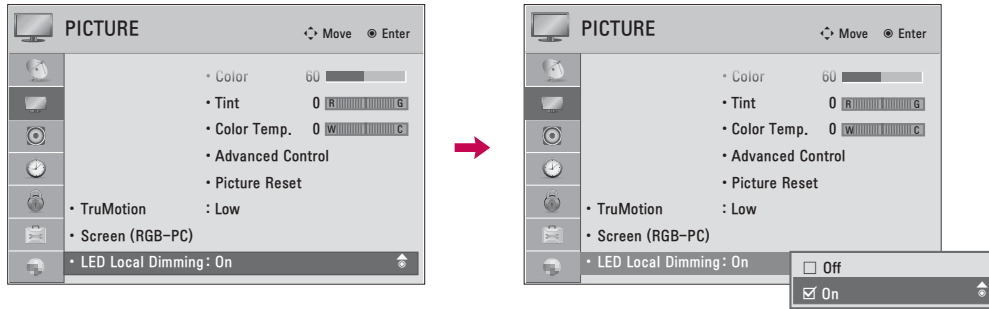
- 4 Select **Judder** or **Blur**.
- 5 Make appropriate adjustments.
- 6 Return to the previous menu.
- Return to TV viewing.









- **Off**: Turn off **TruMotion** operation.
- **Low**: Provides smooth picture movement. Use this setting for standard use.
- **High**: Provides smoother picture movement.
- **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**".

LED LOCAL DIMMING

- For 42/47/55LE5500, 42/47/55LE7500, 47/55LE8500, 42/47/55LX6500

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".

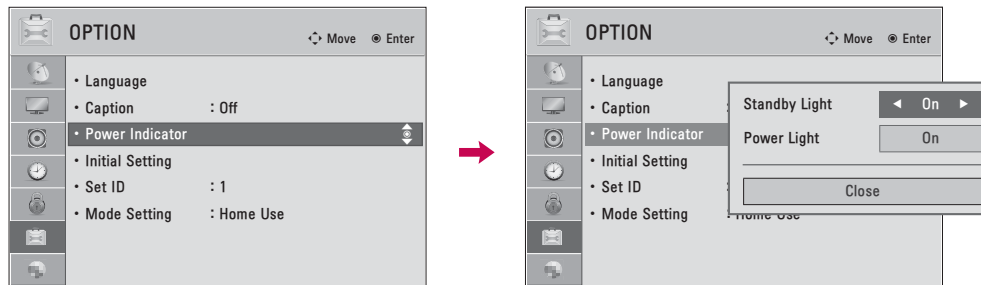











- 1   Select **PICTURE**.
- 2   Select **LED Local Dimming**.
- 3   Select **On** or **Off**.
- 4  Return to the previous menu.
-  Return to TV viewing.

PICTURE CONTROL

POWER INDICATOR - For LED LCD TV, LCD TV

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

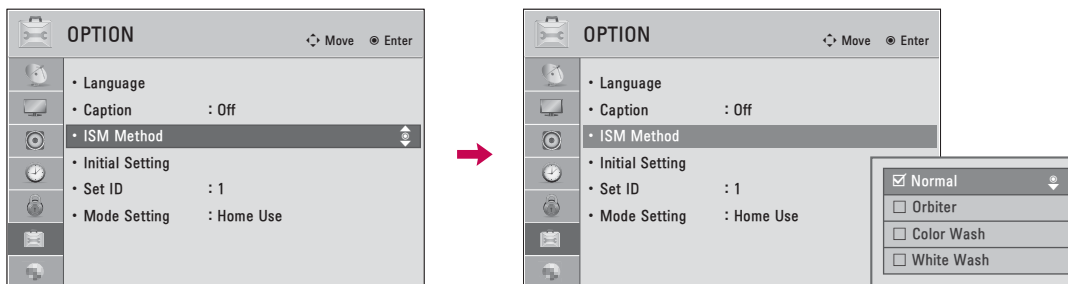









-   Select **OPTION**.
-   Select **Power Indicator**.
-   Select **Standby Light** or **Power Light**.
-  Select your desired options.
-  Return to the previous menu.
-  Return to TV viewing.

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

IMAGE STICKING MINIMIZATION (ISM) METHOD - For Plasma TV

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



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

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

NOTE

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


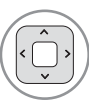

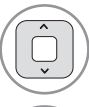

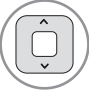


SOUND & LANGUAGE CONTROL

AUTO VOLUME

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

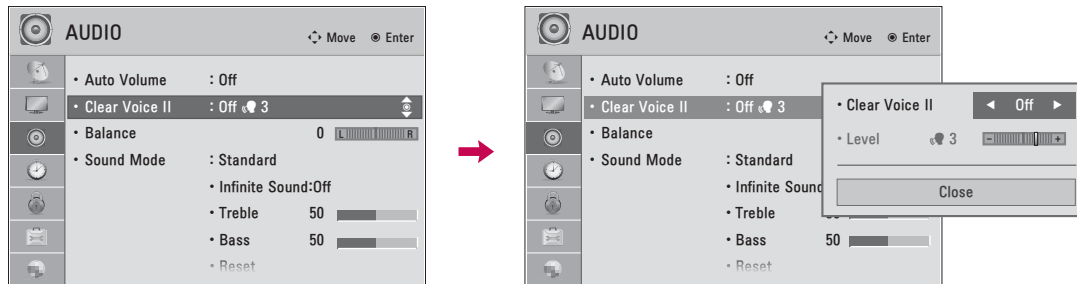
Because each broadcasting station has its own signal conditions, volume adjustment may be needed every time the channel is changed. This feature allows users to enjoy stable volume levels by making automatic adjustments for each program.



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

CLEAR VOICE II

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




1   Select **AUDIO**.


2   Select **Clear Voice II**.


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

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

4  Select **Level**.

5  Make appropriate adjustments.

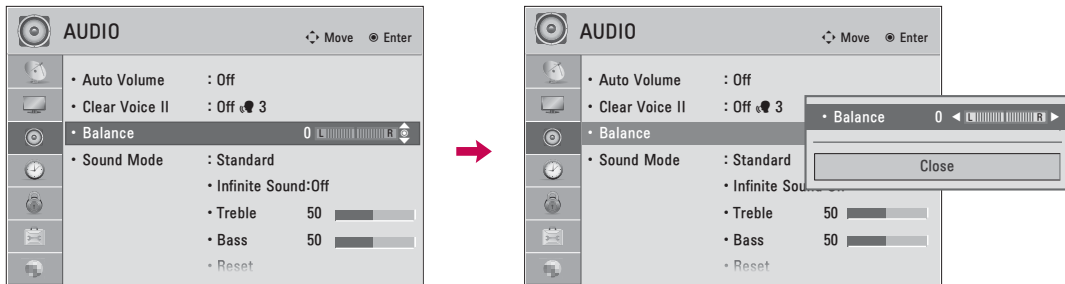
6  Return to the previous menu.


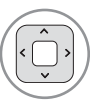
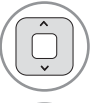


 Return to TV viewing.

SOUND & LANGUAGE CONTROL

BALANCE

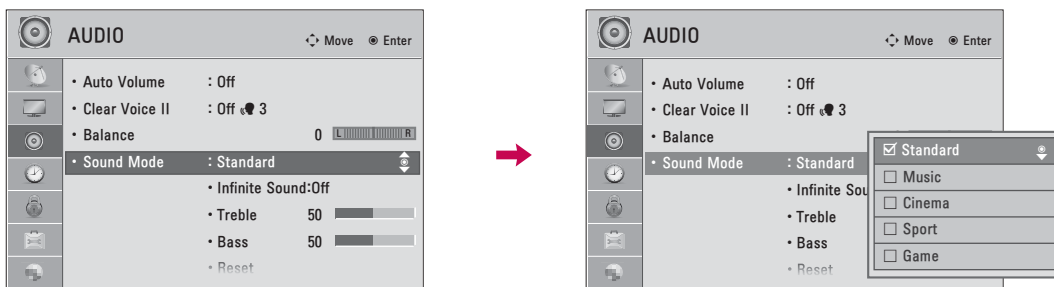
Adjust the left/right sound of speaker to suit your taste and room situations.











-   Select **AUDIO**.
-   Select **Balance**.
-   Make appropriate adjustments.
-  Return to the previous menu.
-  Return to TV viewing.

PRESET SOUND SETTINGS (SOUND MODE)

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



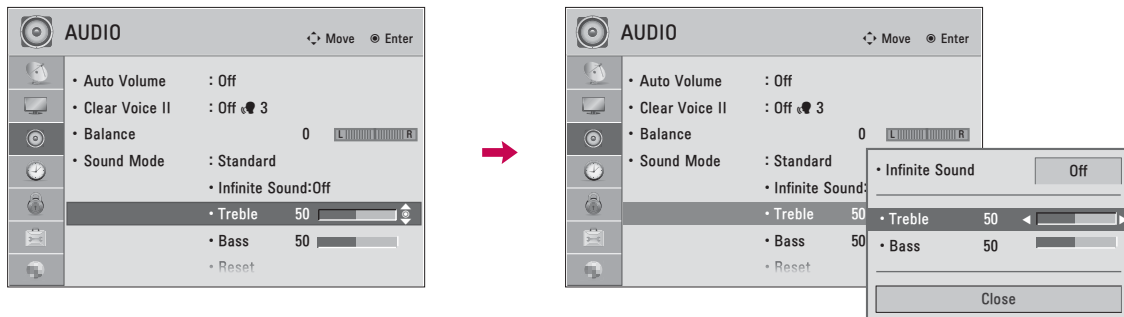
- 1   Select **AUDIO**.
- 2   Select **Sound Mode**.
- 3   Select **Standard, Music, Cinema, Sport, or Game**.
- 4  Return to the previous menu.
-  Return to TV viewing.













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

SOUND & LANGUAGE CONTROL

SOUND SETTING ADJUSTMENT - USER MODE

Adjust the sound to suit your taste and room situations.

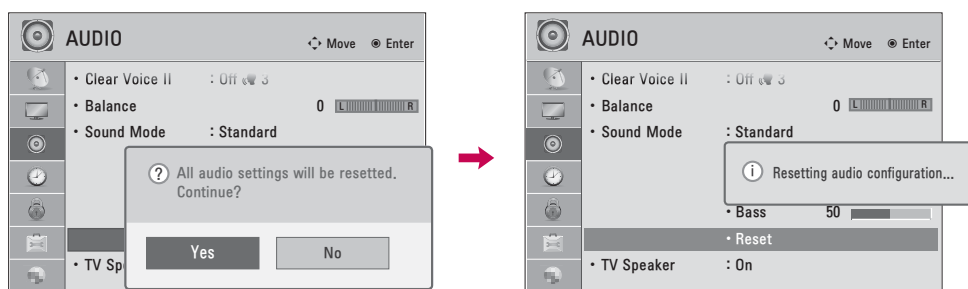










- 1   Select **AUDIO**.
- 2   Select **Sound Mode**.
- 3   Select **Standard, Music, Cinema, Sport, or Game**.
- 4   Select **Infinite Sound, Treble, or Bass**.
- 5   Make appropriate adjustments.
- 6  Return to the previous menu.
-  Return to TV viewing.

- If sound quality or volume is not at the level you want, it is recommended to use a separate home theater system or amp to cope with different user environments.
- If you select "**Clear Voice II-On**", the **Infinite Sound** feature will not operate.
- **Infinite Sound**: Infinite Sound is a patented LG proprietary sound processing technology that strives immersive 5.1 surround sound with just two front speakers.

AUDIO RESET

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

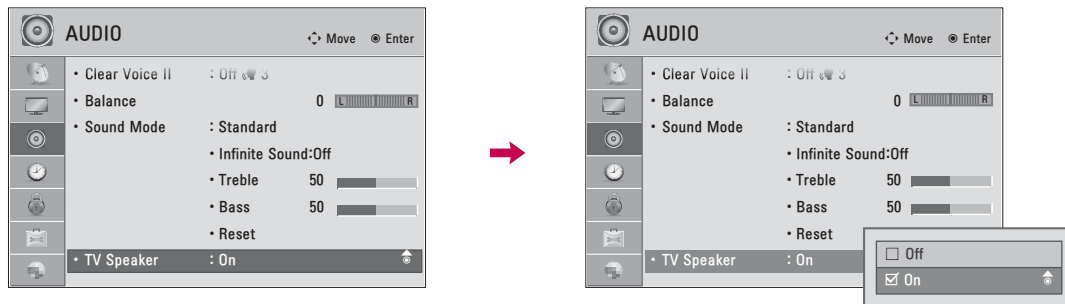



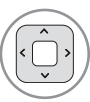

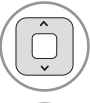

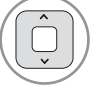


- 1   Select **AUDIO**.
- 2   Select **Reset**.
- 3   Select **Yes**.
- 4  Initialize the adjusted value.
-  Return to TV viewing.

SOUND & LANGUAGE CONTROL

TV SPEAKERS ON/OFF SETUP

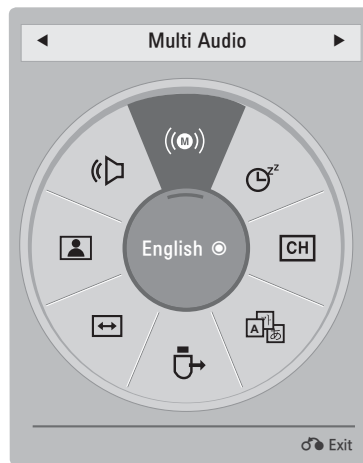
If you wish to use an external Hi-Fi system, turn off the TV's internal speakers.



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

STEREO/SAP BROADCAST SETUP

On analog signals, this TV can receive MTS stereo programs and any SAP (Secondary Audio Program) that accompanies the stereo program if the station transmits an additional sound signal. Mono sound is automatically used if the broadcast is only in Mono.



Analog TV

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

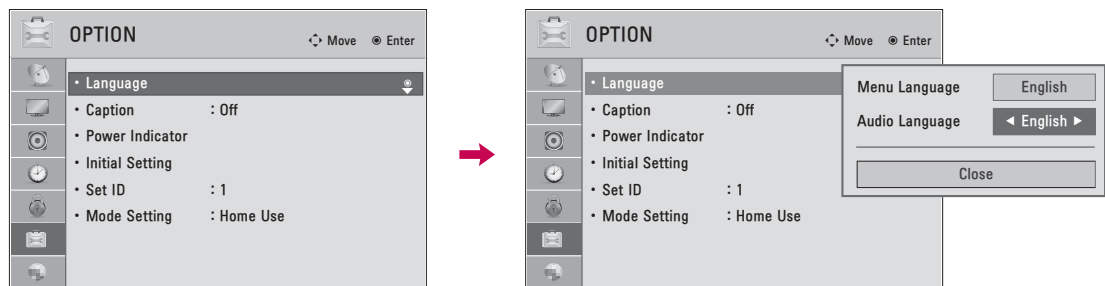
Digital TV










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

SOUND & LANGUAGE CONTROL

AUDIO LANGUAGE

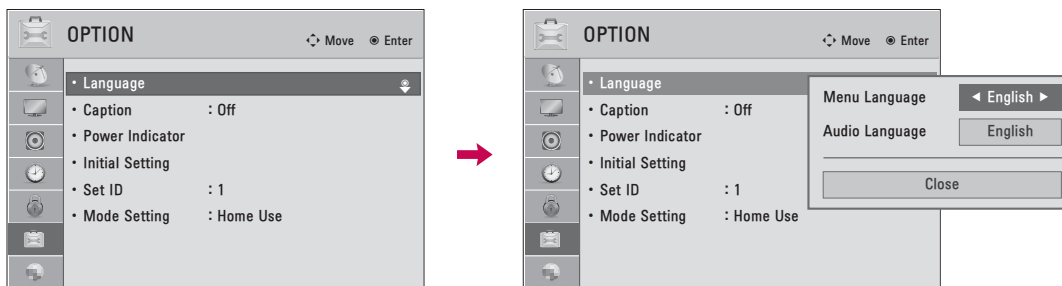
This feature operates only in DTV/Cable DTV mode.












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

ON-SCREEN MENUS LANGUAGE SELECTION

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



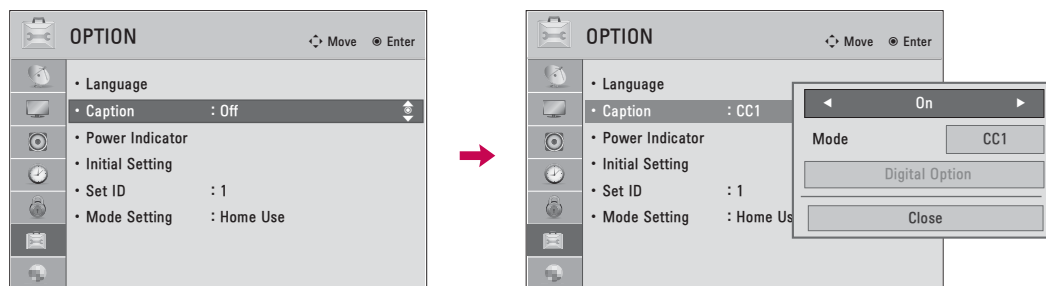
- 1   Select **OPTION**.
- 2   Select **Language**.
- 3   Select **Menu Language**.
- 4  Select your desired language.
From this point on, the on-screen menus will be shown in the selected language.
- 5  Return to the previous menu.
-  Return to TV viewing.


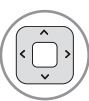








SOUND & LANGUAGE CONTROL

CAPTION MODE

Analog Broadcasting System Captions

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



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

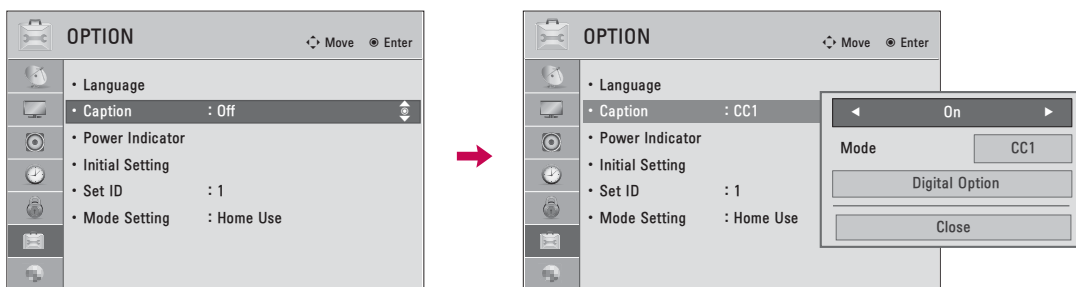
- When selecting **Off**, Sub-menus for Analog, DTV, and Digital Option become disabled.
- **Caption**
The term for the words that scroll across the bottom of the TV screen; usually the audio portion of the program provided for the hearing impaired.
- **Text**
The term for the words that appear in a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











Digital Broadcasting System Captions

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

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

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

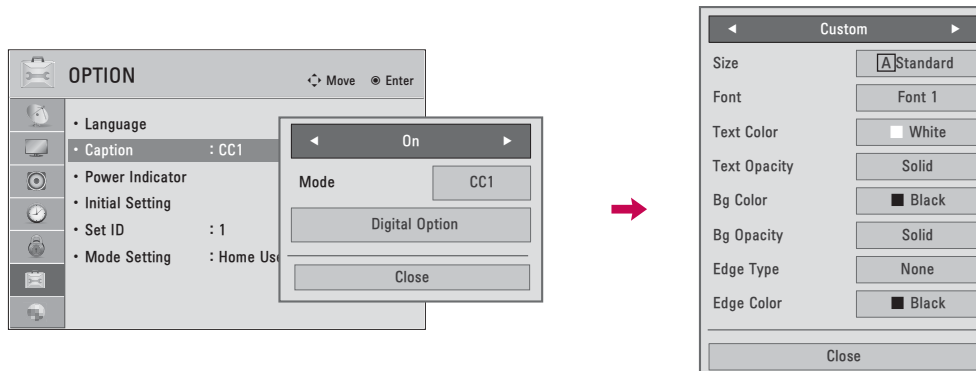


- 1   Select **OPTION**.
- 2   Select **Caption**.
- 3   Select **On**.
- 4   Select **CC1-4, Text1-4, or Service1 - 6**.
- 5  Return to the previous menu.
-  Return to TV viewing.

SOUND & LANGUAGE CONTROL

Caption Option

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



1 Select **OPTION**.

2 Select **Caption**.

3 Select **On**.

4 Select **Digital Option**.

5 Select **Custom**.

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

7 Return to the previous menu.

Return to TV viewing.

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

TIME SETTING

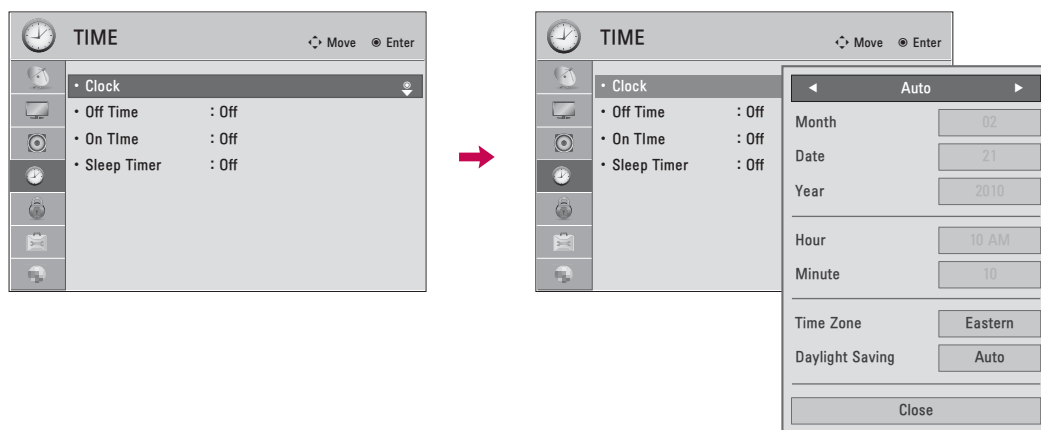
CLOCK SETTING













Auto Clock Setup

The time is set automatically from a digital channel signal.

The digital channel signal includes information for the current time provided by the broadcasting station.

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

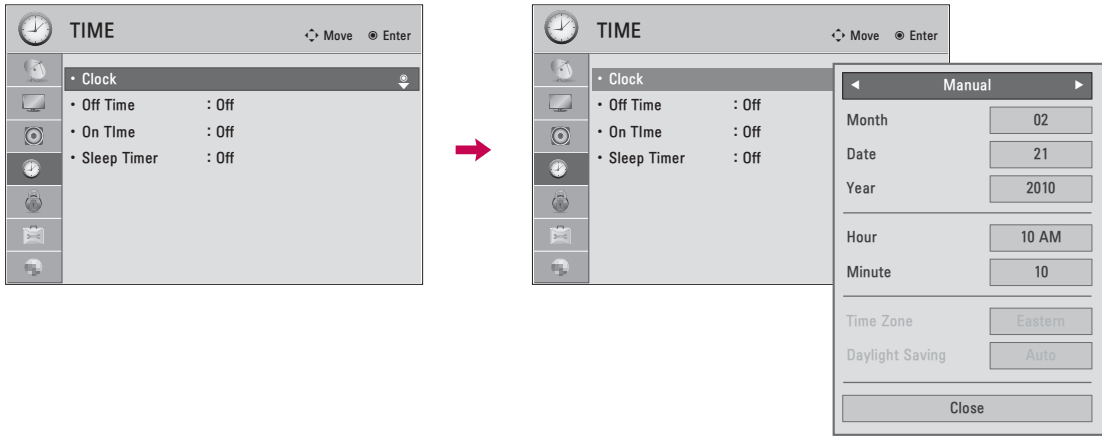












-   Select **TIME**.
-   Select **Clock**.
-   Select **Auto**.
-   Select your viewing area time zone.
USA: Eastern, Central, Mountain, Pacific, Alaska, or Hawaii.
Canada: Eastern, Central, Mountain, Pacific, New Foundland, or Atlantic.
-   Select **Auto**, **Off**, or **On** (depending on whether or not your viewing area observes Daylight Saving time).
-  Return to the previous menu.
-  Return to TV viewing.

TIME SETTING

Manual Clock Setup

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



-   Select **TIME**.
-   Select **Clock**.
-   Select **Manual**.
-  Select the Year, Month, Date, Hour, or Minute option.
-  Set the Year, Month, Date, Hour, or Minute option.
-  Return to the previous menu.
-  Return to TV viewing.

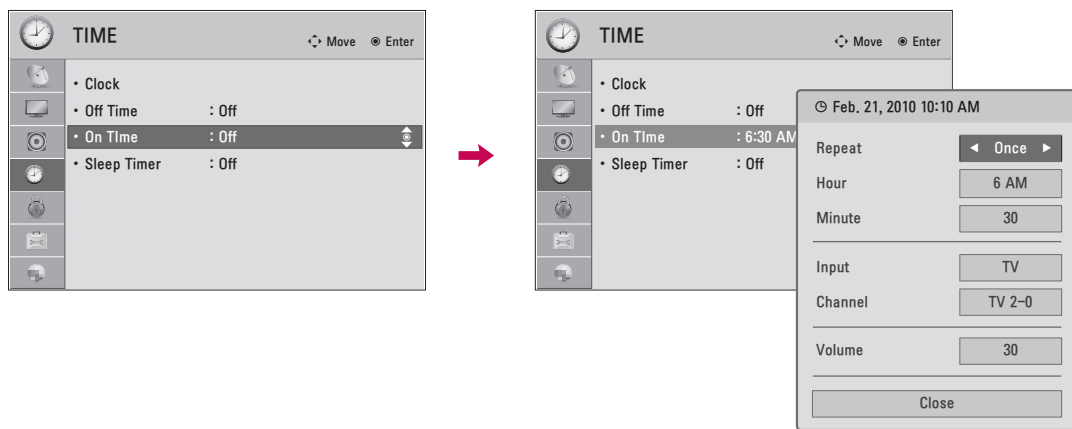
AUTO ON/OFF TIME SETTING

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

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

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

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



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

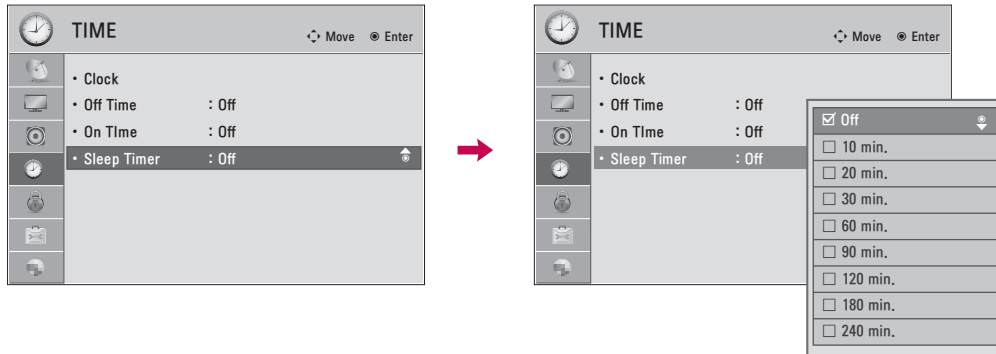
- To cancel **On/Off Time** function, select **Off**.
 - Only for **On Time** function
- 1 Select **Input**.
 - 2 Select the desired input source.
 - 3 When Selecting **TV**: set the channel at turn-on.
 - 4 Adjust to sound level at turn-on.






TIME SETTING

SLEEP TIMER SETTING

The Sleep Timer turns the TV off at the preset time.

Note that this setting is cleared when the TV is turned off.



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

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

PARENTAL CONTROL / RATINGS

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

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

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

V-Chip rating and categories

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

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

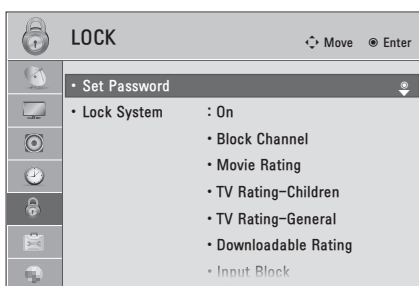
- TV-G (General audience)
- TV-PG (Parental guidance suggested)
- TV-14 (Parents strongly cautioned)
- TV-MA (Mature audience only)
- TV-Y (All children)
- TV-Y7 (Children 7 years older)

SET PASSWORD & LOCK SYSTEM

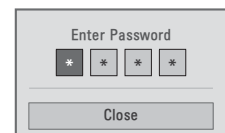
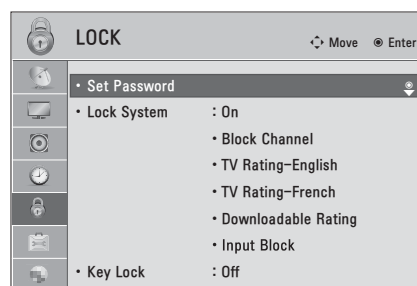
Setting up Your Password





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

For USA



For Canada



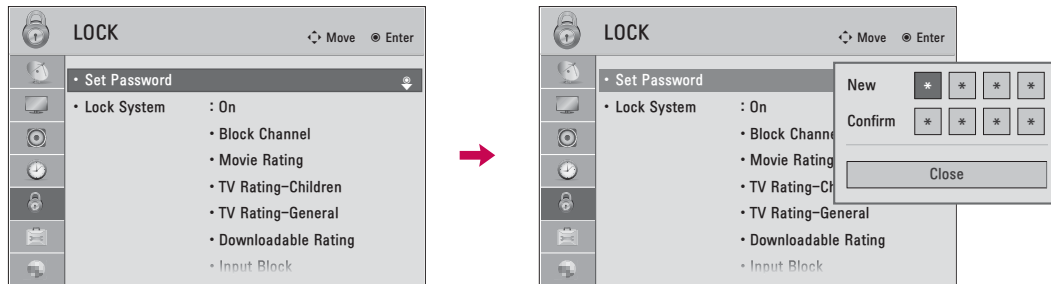
1.    Select **LOCK**.
2.  Input the password.


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


PARENTAL CONTROL / RATINGS

Set Password



Change the password by inputting a new password twice.





1    Select **LOCK**.

2  Input the password.

3  Select **Set Password**.

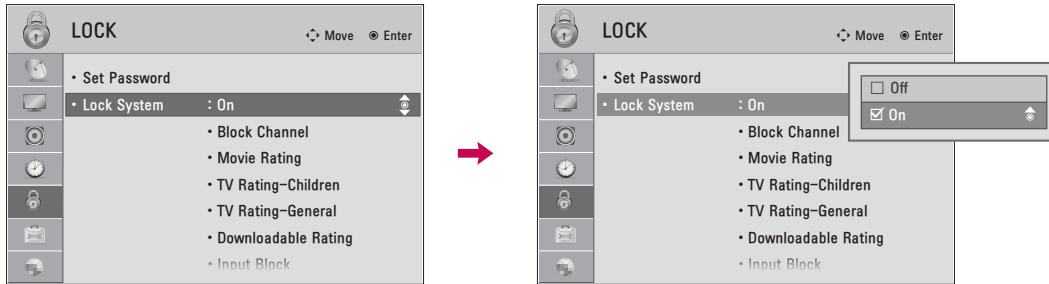
4   Choose any 4 digits for your new password.
As soon as the 4 digits are entered, re-enter the same 4 digits on the **Confirm**.


5  Return to the previous menu.


 Return to TV viewing.

Lock System

Enables or disables the blocking scheme you set up previously.





1    Select **LOCK**.

2  Input the password.

3  Select **Lock System**.

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

5  Return to the previous menu.

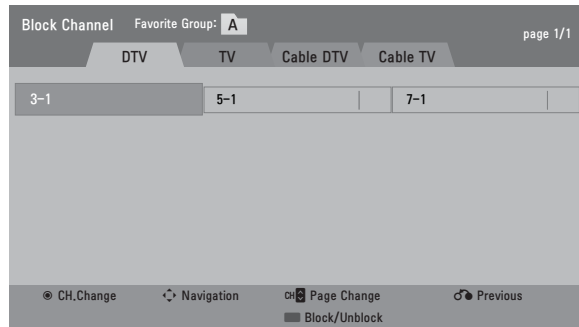
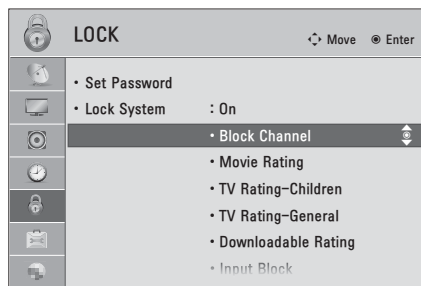
 Return to TV viewing.





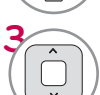





■ When you select **On**, the Lock System is enable.

PARENTAL CONTROL / RATINGS

CHANNEL BLOCKING

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



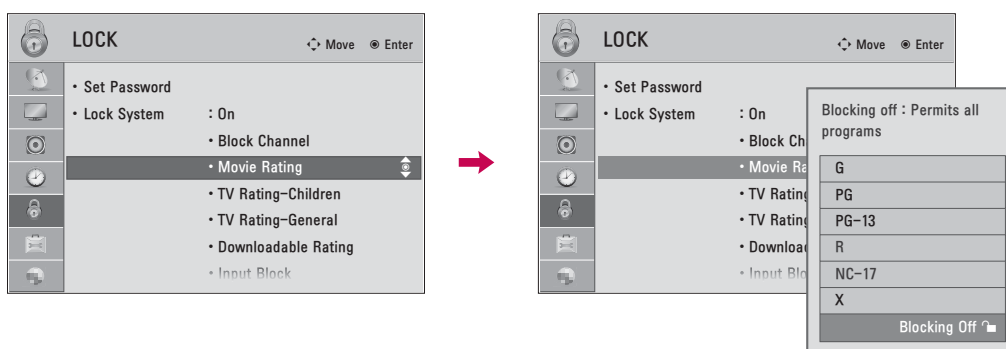
-    Select **LOCK**.
-  Input the password.
-  Select **Block Channel**.
-   Select a channel to block or unblock.
-  Block or unblock a channel.
-  Return to the previous menu.
-  Return to TV viewing.

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

MOVIE & TV RATING

Movie Rating (MPAA)- For USA

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



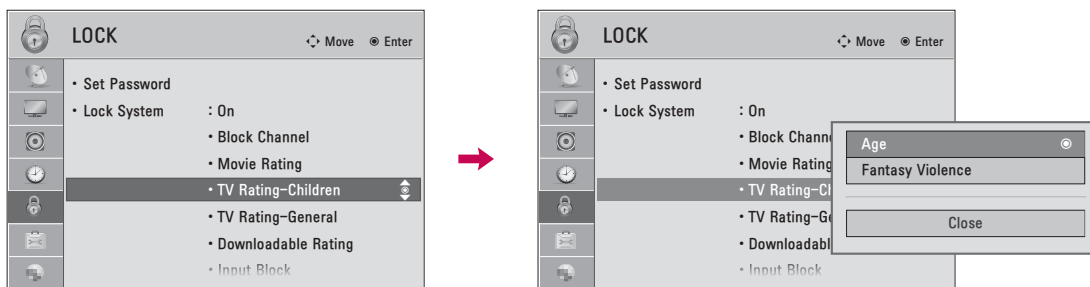
- 1 Select **LOCK**.
- 2 Input the password.
- 3 Select **Movie Rating**.
- 4 Select **G, PG, PG-13, R, NC-17, X, or Blocking Off**.
- 5 Return to the previous menu.
- Return to TV viewing.

- If **Movie Rating, TV Rating-Children** or **TV Rating-General** is locked, enter the password to unlock it temporarily.
- **G** (General audience)
- **PG** (Parental guidance suggested)
- **PG-13** (Parents strongly cautioned)
- **R** (Restricted)
- **NC-17** (No one 17 and under admitted)
- **X** (Adult only)
- **Blocking Off** (Permits all programs)
- If you set PG-13: G and PG movies will be available, PG-13, R, NC-17 and X will be blocked.

PARENTAL CONTROL / RATINGS

TV Rating Children - For USA

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



1 Select **LOCK**.

2 Input the password.

3 Select **TV Rating-Children**.

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

5 Select block options.

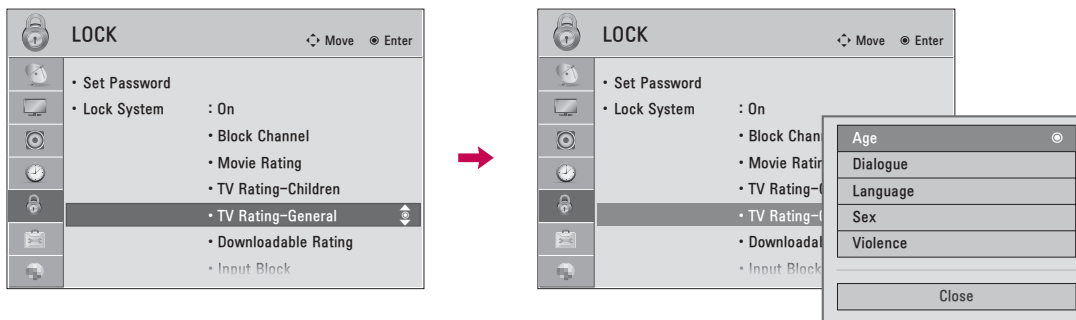
6 Return to the previous menu.












Return to TV viewing.

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

TV Rating General - For USA

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



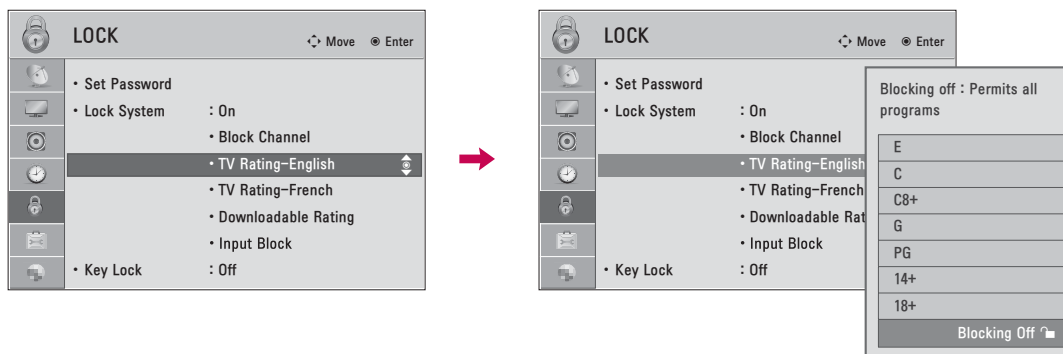
- 1    Select **LOCK**.
- 2  Input the password.
- 3  Select **TV Rating-General**.
- 4   Select **Age, Dialogue, Language, Sex** or **Violence**.
- 5   Select block options.
- 6  Return to the previous menu.
-  Return to TV viewing.

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

PARENTAL CONTROL / RATINGS

TV Rating English - For CANADA

Selecting Canadian English rating system.

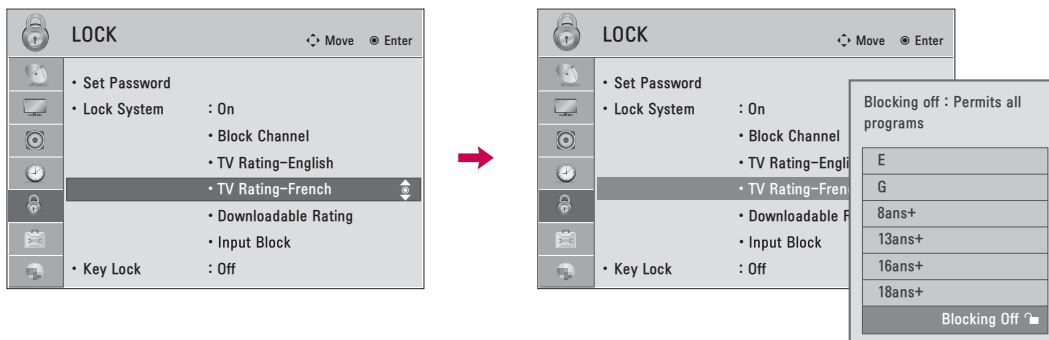


- 1 Select **LOCK**.
- 2 Input the password.
- 3 Select **TV Rating-English**.
- 4 Select **E, C, C8+, G, PG, 14+, 18+, or Blocking Off**.
- 5 Return to the previous menu.
- Return to TV viewing.

- If TV Rating-English or TV Rating-French is locked, enter the password to unlock it temporarily.
- **E** (Exempt)
- **C** (Children)
- **C8+** (Children eight years and older)
- **G** (General programming, suitable for all audiences)
- **PG** (Parental Guidance)
- **14+** (Viewers 14 years and older)
- **18+** (Adult programming)
- **Blocking Off** (Permits all programs)

TV Rating French - For CANADA

Selecting Canadian French rating system.



1 Select **LOCK**.

2 Input the password.

3 Select **TV Rating-French**.

4 Select **E, G, 8ans+, 13ans+, 16ans+, 18ans+, or Blocking Off**.

5 Return to the previous menu.

Return to TV viewing.

- **E** (Exempt)
- **G** (General)
- **8ans+** (General-Not convenient for little children)
- **13ans+** (Not convenient for children of 13 years and younger)
- **16ans+** (Not convenient for children of 16 years and younger)
- **18ans+** (This programs is only for adults)
- **Blocking Off** (Permits all programs)

PARENTAL CONTROL / RATINGS












DOWNLOADABLE RATING

This function is available only for digital channels.

This function operates only when TV has received Region5 Rating data.



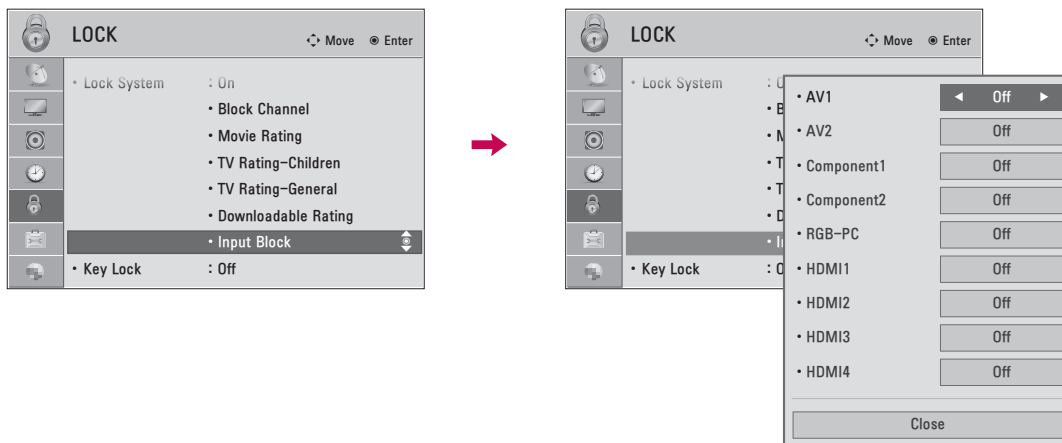
■ Based on rating table, your TV's OSD (On Screen Display) may differ slightly from what is shown in this manual.


- 1    Select **LOCK**.
- 2  Input the password.
- 3  Select **Downloadable Rating**.
- 4   Select desired **Downloadable Rating** option.
- 5   Select desired option and block it.
- 6  Return to the previous menu.
-  Return to TV viewing.


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

EXTERNAL INPUT BLOCKING

Enables you to block an input.




1    Select **LOCK**.


2  Input the password.

3  Select **Input Block**.

4   Select input source.

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

6  Return to the previous menu.

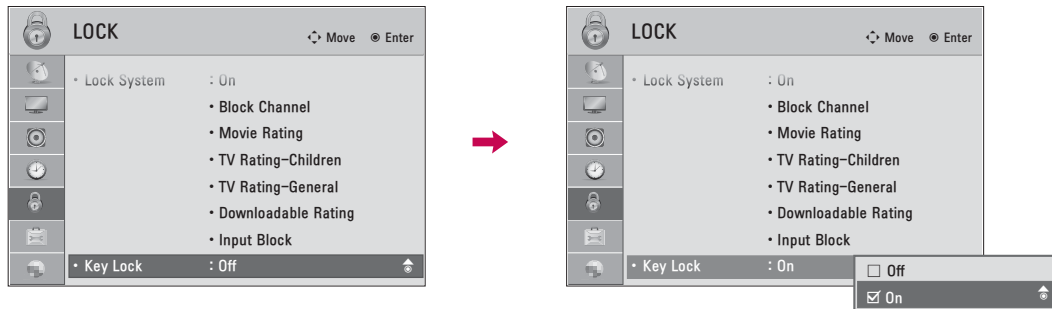
 Return to TV viewing.

PARENTAL CONTROL / RATINGS


KEY LOCK

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

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





1    Select **LOCK**.









2  Input the password.

3  Select **Key Lock**.

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

5  Return to the previous menu.

 Return to TV viewing.

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

APPENDIX

TROUBLESHOOTING

Abnormal Operation	
The remote control doesn't work	<ul style="list-style-type: none"> Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the TV. Ensure that the batteries are installed with correct polarity (+ to +, - to -). Ensure that the correct remote operating mode is set: TV, VCR etc. Install new batteries. <small>*This feature is not available for all models.</small>
TV turns off suddenly	<ul style="list-style-type: none"> Is the sleep timer set? Check the power control settings. Power interrupted. If there is no signal, the TV turns off automatically in 15 minutes.

Video Problems	
No picture & No sound	<ul style="list-style-type: none"> Check whether the product is turned on. Try another channel. The problem may be with the broadcast. Is the power cord inserted into wall power outlet? Check your antenna direction and/or location. Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.
Picture appears slowly after switching on	<ul style="list-style-type: none"> This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes.
No or poor color or poor picture	<ul style="list-style-type: none"> Adjust Color in menu option. Keep a sufficient distance between the product and the VCR. Try another channel. The problem may be with the broadcast. Are the video cables installed properly? Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	<ul style="list-style-type: none"> Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	<ul style="list-style-type: none"> Station or cable product experiencing problems, tune to another station. Station signal is weak, reorient antenna to receive weaker station. Check for sources of possible interference.
Lines or streaks in pictures	<ul style="list-style-type: none"> Check antenna (Change the direction of the antenna).
No picture when connecting HDMI	<ul style="list-style-type: none"> If an HDMI cable doesn't support High Speed HDMI, it can cause flickers or no screen display. In this case use the latest cables that support High Speed HDMI.

APPENDIX

Audio Problems	
No output from one of the speakers	<ul style="list-style-type: none"> Adjust Balance in menu option.
Unusual sound from inside the product	<ul style="list-style-type: none"> A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product.
No sound when connecting HDMI/USB	<ul style="list-style-type: none"> Check High Speed HDMI cable. Check USB cable over version 2.0. Use normal MP3 file. <small>*This feature is not available for all models.</small>

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

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

APPENDIX

MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you can enjoy your new TV.

Caution: Be sure to turn the power off and unplug the power cord before you begin any cleaning.

Cleaning the Screen

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

Cleaning the Cabinet

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

Extended Absence

CAUTION

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

PRODUCT SPECIFICATIONS

MODELS		32LD550 (32LD550-UB)	42LD550 (42LD550-UB)
Dimensions (Width x Height x Depth)	With stand	800.0 mm x 563.0 mm x 207.0 mm (31.5 inch x 22.1 inch x 8.1 inch)	1024.0 mm x 695.0 mm x 261.0 mm (40.3 inch x 27.3 inch x 10.2 inch)
	Without stand	800.0 mm x 503.0 mm x 74.7 mm (31.5 inch x 19.8 inch x 2.9 inch)	1024.0 mm x 632.0 mm x 78.7 mm (40.3 inch x 24.8 inch x 3.0 inch)
Weight	With stand	10.2 kg (22.4 lbs)	15.4 kg (33.9 lbs)
	Without stand	9.2 kg (20.2 lbs)	13.8 kg (30.4 lbs)

MODELS		46LD550 (46LD550-UB)	52LD550 (52LD550-UB)
Dimensions (Width x Height x Depth)	With stand	1115.0 mm x 752.0 mm x 270.0 mm (43.8 inch x 29.6 inch x 10.6 inch)	1266.0 mm x 851.0 mm x 330.0 mm (49.8 inch x 33.5 inch x 12.9 inch)
	Without stand	1115.0 mm x 680.0 mm x 77.0 mm (43.8 inch x 26.7 inch x 3.0 inch)	1266.0 mm x 775.0 mm x 96.4 mm (49.8 inch x 30.5 inch x 3.7 inch)
Weight	With stand	18.6 kg (41.0 lbs)	26.9 kg (59.3 lbs)
	Without stand	16.6 kg (36.5 lbs)	23.6 kg (52.0 lbs)

MODELS		60LD550 (60LD550-UB)
Dimensions (Width x Height x Depth)	With stand	1441.0 mm x 963.0 mm x 345.0 mm (56.7 inch x 37.9 inch x 13.5 inch)
	Without stand	1441.0 mm x 877.0 mm x 109.0 mm (56.7 inch x 34.5 inch x 4.2 inch)
Weight	With stand	40.0 kg (88.1 lbs)
	Without stand	35.7 kg (78.7 lbs)

Power requirement	AC 100-240 V ~ 50 / 60 Hz	
Television System	NTSC-M, ATSC, 64 & 256 QAM	
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 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		47LD650 (47LD650-UA)	55LD650 (55LD650-UA)
Dimensions (Width x Height x Depth)	With stand	1137.0 mm x 758.0 x 270.0 mm (44.7 inch x 29.8 inch x 10.6 inch)	1329.0 mm x 872.0 mm x 330.0 mm (52.3 inch x 34.3 inch x 12.9 inch)
	Without stand	1137.0 mm x 685.0 mm x 76.8 mm (44.7 inch x 26.9 inch x 3.0 inch)	1329.0 mm x 796.0 mm x 96.5 mm (52.3 inch x 31.3 inch x 3.7 inch)
Weight	With stand	20.3 kg (44.7 lbs)	33.0 kg (72.7 lbs)
	Without stand	18.3 kg (40.3 lbs)	28.8 kg (63.4 lbs)

Power requirement	AC 100-240 V ~ 50 / 60 Hz	
Television System	NTSC-M, ATSC, 64 & 256 QAM	
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 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		50PK750 (50PK750-UA, 50PK750-UF)	60PK750 (60PK750-UA, 60PK750-UF)
Dimensions (Width x Height x Depth)	With stand	1184.0 mm X 801.0 mm X 309.7 mm (46.6 inch x 31.5 inch x 12.1 inch)	1402.8 mm X 935.3 mm X 383.9mm (55.2 inch x 36.8 inch x 15.1 inch)
	Without stand	1184.0 mm X 738.5 mm X 52.4 mm (46.6 inch x 29.0 inch x 2.0 inch)	1402.8 mm X 866.8 mm X 52.4mm (55.2 inch x 34.1 inch x 2.0 inch)
Weight	With stand	32.3 kg (71.2 lbs)	47.2 kg (104.0 lbs)
	Without stand	29.9 kg (65.9 lbs)	42.7 kg (94.1 lbs)

MODELS		50PZ540 (50PZ540-UB) 50PZ550 (50PZ550-UA)	60PZ540 (60PZ540-UB) 60PZ550 (60PZ550-UA)
Dimensions (Width x Height x Depth)	With stand	1170.5 mm X 767.7 mm X 289.7 mm	1390.4 mm X 905.2 mm X 334.7 mm
	Without stand	1170.5 mm X 711.6 mm X 52.5 mm	1390.4 mm X 835.5 mm X 52.5 mm
Weight	With stand	29.6 kg	42.6 kg
	Without stand	27.3 kg	38.5 kg

MODELS		50PZ750 (50PZ750-UA)	60PZ750 (60PZ750-UA)
Dimensions (Width x Height x Depth)	With stand		1404.0 mm X 911.4 mm X 346.5 mm
	Without stand		1404.0 mm X 837.8 mm X 49.6 mm
Weight	With stand		45.3 kg
	Without stand		39.3 kg

Power requirement		AC 100-240 V ~ 50 / 60 Hz
Television System		NTSC-M, ATSC, 64 & 256 QAM
Program Coverage		VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 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		32LE5400 (32LE5400-UC)	42LE5350 (42LE5350-UB) 42LE5400 (42LE5400-UC) 42LE5500 (42LE5500-UA) 42LX6500 (42LX6500-UB)
Dimensions (Width x Height x Depth)	With stand	784.6 mm x 558.1 mm x 221.0 mm (30.8 inch x 21.9 inch x 8.7 inch)	1016.0 mm x 692.0 mm x 270.0 mm (40.0 inch x 27.2 inch x 10.6 inch)
	Without stand	784.6 mm x 499.5 mm x 39.9 mm (30.8 inch x 19.6 inch x 1.5 inch)	1016.0 mm x 630.0 mm x 29.3 mm (40.0 inch x 24.8 inch x 1.1 inch)
Weight	With stand	12.6 kg (27.7 lbs)	19.5 kg (42.9 lbs)
	Without stand	10.5 kg (23.1 lbs)	16.7 kg (36.8 lbs)

MODELS		47LE5350 (47LE5350-UB) 47LE5400 (47LE5400-UC) 47LE5500 (47LE5500-UA) 47LX6500 (47LX6500-UB)	55LE5400 (55LE5400-UC) 55LE5500 (55LE5500-UA) 55LX6500 (55LX6500-UB)
Dimensions (Width x Height x Depth)	With stand	1126.6 mm x 757.9 mm x 284.4 mm (44.3 inch x 29.8 inch x 11.1 inch)	1306.0 mm x 867.0 mm x 328.0 mm (51.4 inch x 34.1 inch x 12.9 inch)
	Without stand	1126.6 mm x 692.0 mm x 29.3 mm (44.3 inch x 27.2 inch x 1.1 inch)	1306.0 mm x 797.0 mm x 29.3 mm (51.4 inch x 31.3 inch x 1.1 inch)
Weight	With stand	22.9 kg (50.4 lbs)	34.5 kg (76.0 lbs)
	Without stand	19.6 kg (43.2 lbs)	28.8 kg (63.4 lbs)

Power requirement	AC 120 V ~ 50 / 60 Hz		
Television System	NTSC-M, ATSC, 64 & 256 QAM		
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 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		42LE7500 (42LE7500-UC)	47LE7500 (47LE7500-UC)
Dimensions (Width x Height x Depth)	With stand	1018.2 mm x 693.5 mm x 269.8 mm (40.0 inch x 27.3 inch x 10.6 inch)	1128.6 mm x 758.9 mm x 284.4 mm (44.4 inch x 29.8 inch x 11.1 inch)
	Without stand	1018.2 mm x 630.7 mm x 29.3 mm (40.0 inch x 24.8 inch x 1.1 inch)	1128.6 mm x 693.3 mm x 29.8 mm (44.4 inch x 27.2 inch x 1.1 inch)
Weight	With stand	21.9 kg (48.2 lbs)	26.2 kg (57.7 lbs)
	Without stand	19.1 kg (42.1 lbs)	23.0 kg (50.7 lbs)

MODELS		55LE7500 (55LE7500-UC)
Dimensions (Width x Height x Depth)	With stand	1306.0 mm x 869.0 mm x 328.0 mm (51.4 inch x 34.2 inch x 12.9 inch)
	Without stand	1306.0 mm x 797.4 mm x 31.2 mm (51.4 inch x 31.3 inch x 1.2 inch)
Weight	With stand	39.1 kg (86.2 lbs)
	Without stand	33.5 kg (73.8 lbs)

MODELS		47LE8500 (47LE8500-UA)	55LE8500 (55LE8500-UA)
Dimensions (Width x Height x Depth)	With stand	1122.6 mm x 769.3 mm x 275.0 mm (44.1 inch x 30.2 inch x 10.8 inch)	1292.6 mm x 875.4 mm x 311.9 mm (50.8 inch x 34.4 inch x 12.2 inch)
	Without stand	1122.6 mm x 707.3 mm x 34.5 mm (44.1 inch x 27.8 inch x 1.3 inch)	1292.6 mm x 802.9 mm x 34.5 mm (50.8 inch x 31.6 inch x 1.3 inch)
Weight	With stand	31.6 kg (69.6 lbs)	43.8 kg (96.5 lbs)
	Without stand	26.9 kg (59.3 lbs)	35.8 kg (78.9 lbs)

Power requirement	AC 120 V ~ 50 / 60 Hz	
Television System	NTSC-M, ATSC, 64 & 256 QAM	
Program Coverage	VHF 2-13, UHF 14-69, CATV 1-135, DTV 2-69, CADTV 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

IR CODES

*This feature is not available for all models.

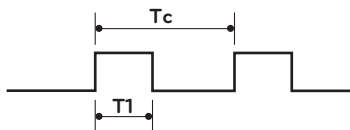
1. How to Connect

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

2. Remote Control IR Codes

■ Output waveform

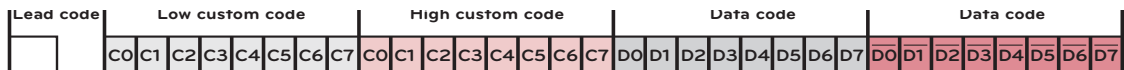
Single pulse, modulated with 37.917 kHz signal at 455 kHz



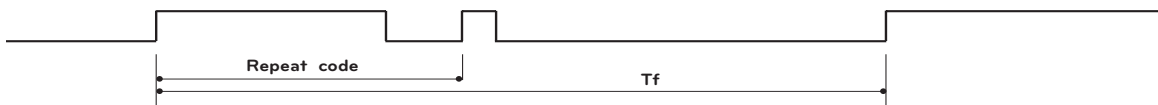
Carrier frequency
 $FCAR = 1/TC = fOSC/12$
 Duty ratio = $T1/TC = 1/3$

■ Configuration of frame

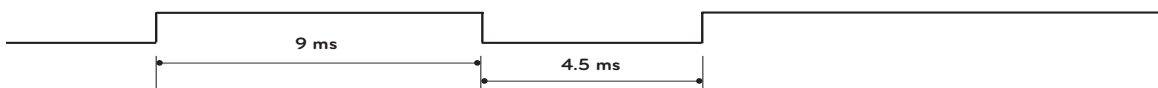
1st frame



Repeat frame



■ Lead code

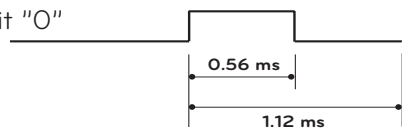


■ Repeat code

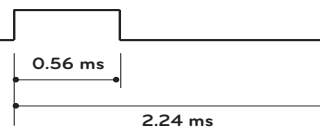


■ Bit description: Tf

Bit "0"

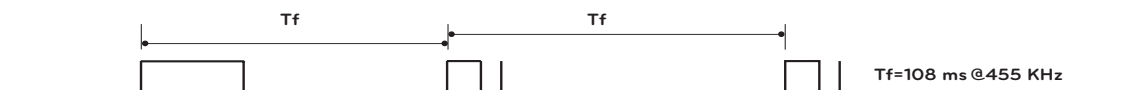


Bit "1"



■ Frame interval: Tf

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



Code (Hexa)	Function	Note	Code (Hexa)	Function	Note
00	CH ^	Remote Control Button	B0	▶	Remote Control Button
01	CH v	Remote Control Button	B1	■	Remote Control Button
02	VOL +	Remote Control Button	BA		Remote Control Button
03	VOL -	Remote Control Button	D6	TV	Discrete IR Code (TV Input Selection)
06	➤	Remote Control Button	C4	POWER ON	Discrete IR Code (Only Power On)
07	◀	Remote Control Button		POWER OFF	Discrete IR Code (Only Power Off)
08	⏻	Remote Control Button (Power On/Off)	C5		
09	MUTE/DELETE	Remote Control Button	5A	AV1	Discrete IR Code (AV1 Input Selection)
0B	INPUT	Remote Control Button		AV2	Discrete IR Code (AV2 Input Selection)
0F	TV	Remote Control Button	D0		
10-19	Number 0-9	Remote Control Button	BF	COMPONENT1	Discrete IR Code (Component1 Input Selection)
1A	FLASHBK	Remote Control Button		COMPONENT2	Discrete IR Code (Component2 Input Selection)
1E	FAV/MARK	Remote Control Button	D5	RGB-PC	Discrete IR Code (RGB-PC Input Selection)
28	BACK	Remote Control Button	CE	HDMI1	Discrete IR Code (HDMI1 Input Selection)
30	AV MODE	Remote Control Button	CC	HDMI2	Discrete IR Code (HDMI2 Input Selection)
40	^	Remote Control Button	E9	HDMI3	Discrete IR Code (HDMI3 Input Selection)
41	v	Remote Control Button	DA	HDMI4	Discrete IR Code (HDMI4 Input Selection)
43	MENU	Remote Control Button	76	Ratio 4:3	Discrete IR Code (Only 4:3 Mode)
44	ENTER	Remote Control Button		Ratio 16:9	Discrete IR Code (Only 16:9 Mode)
45	Q.MENU	Remote Control Button	77		
4C	- (Dash)/LIST	Remote Control Button		Ratio Zoom	Discrete IR Code (Only Zoom Mode)
5B	EXIT	Remote Control Button	AF		
58	WIDGETS	Remote Control Button	DC	3D	Remote Control Button
59	NETCAST	Remote Control Button			
61	BLUE, L/R SELECT	Remote Control Button			
63	YELLOW	Remote Control Button			
71	GREEN	Remote Control Button			
72	RED	Remote Control Button			
79	RATIO	Remote Control Button			
7E	SIMPLINK	Remote Control Button			
8E	▶▶	Remote Control Button			
8F	◀◀	Remote Control Button			
95	ENERGY SAVING	Remote Control Button			
AA	INFO	Remote Control Button			

■ Use this feature depending on your models.

APPENDIX

EXTERNAL CONTROL THROUGH RS-232C

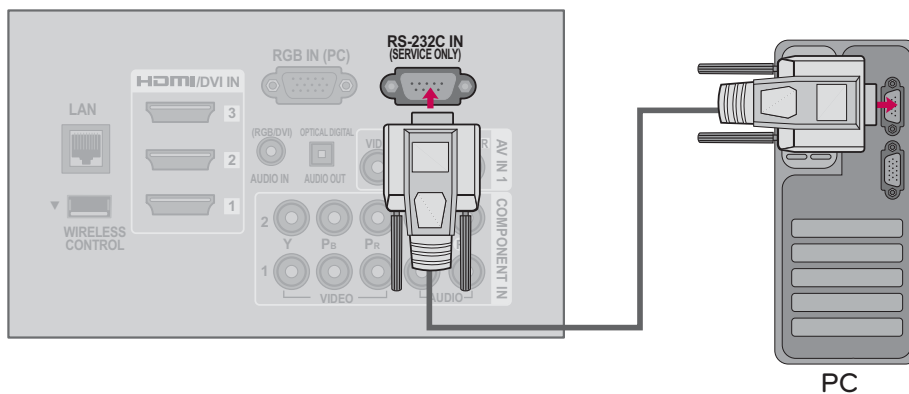
The RS-232C port allows you connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) to control the TV's functions externally.

- 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)



Type of Connector; D-Sub 9-Pin Male

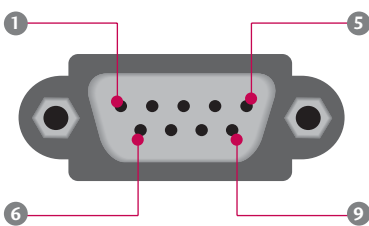
Communication Parameters

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

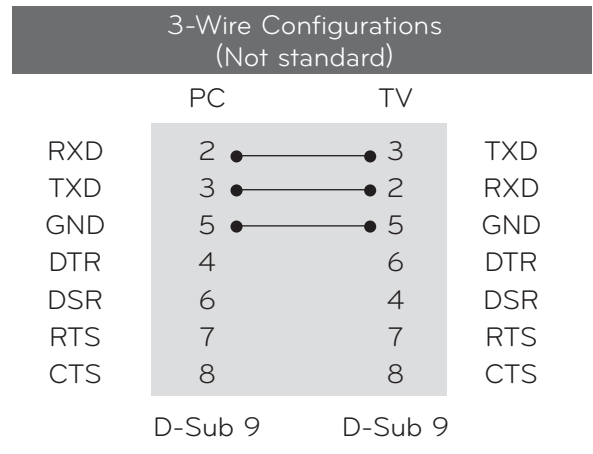
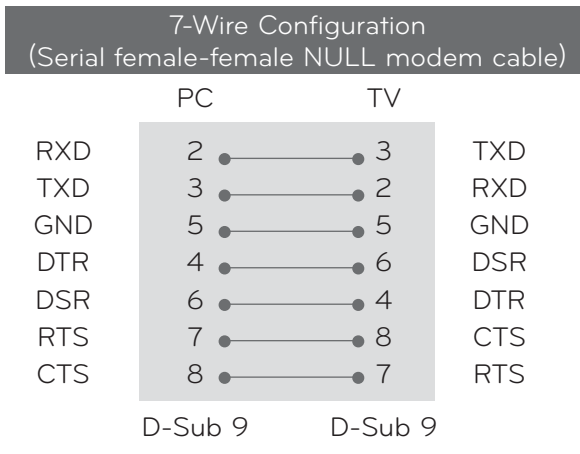
- Baud rate : 9600 bps (UART)
- Data length : 8 bits
- Parity : None
- Stop bit : 1 bit
- Communication code : ASCII code
- Use a crossed (reverse) cable.

! NOTE

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

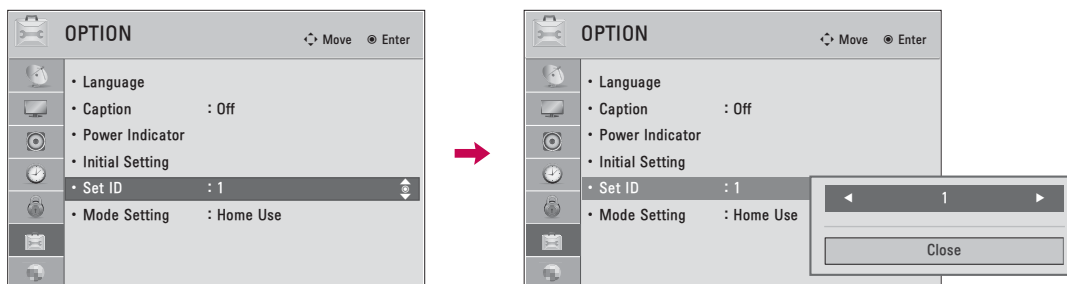


RS-232C Configurations



Set ID

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



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

■ Real data mapping	
0	Step 0
⋮	
A	Step 10 (Set ID 10)
⋮	
F	Step 15 (Set ID 15)
10	Step 16 (Set ID 16)
⋮	
63	Step 99 (Set ID 99)
64	Step 100

APPENDIX

Command Reference List

	COMMAND1	COMMAND2	DATA (Hexadecimal)
01. Power	k	a	00 - 01
02. Input Select	x	b	▶ P.187
03. Aspect Ratio	k	c	▶ P.187
04. Screen Mute	k	d	00 - 01
05. Volume Mute	k	e	00 - 01
06. Volume Control	k	f	00 - 64
07. Contrast	k	g	00 - 64
08. Brightness	k	h	00 - 64
09. Color	k	i	00 - 64
10. Tint	k	j	00 - 64
11. Sharpness	k	k	00 - 64
12. OSD Select	k	l	00 - 01
13. Remote Control Lock Mode	k	m	00 - 01
14. Treble	k	r	00 - 64
15. Bass	k	s	00 - 64
16. Balance	k	t	00 - 64
17. Color Temperature	x	u	00 - 64
18. ISM Method	j	p	▶ P.188
19. Energy Saving	j	q	▶ P.188
20. Auto Configuration	j	u	▶ P.188
22. Channel Add/Del	m	b	00 - 01
23. Key	m	c	▶ P.189
24. Backlight	m	g	00 - 64

For LED LCD TV/LCD TV

For Plasma TV

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

Transmission / Receiving Protocol

Transmission

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

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

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

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

[DATA] : To transmit the command data.

Transmit the 'FF' data to read status of command.

[Cr] : Carriage Return

ASCII code '0x0D'

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

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

OK Acknowledgement

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

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

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

* Data Format

[Command 2] : Use as command.

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

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

[OK] : Use the large character.

Error Acknowledgement

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

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

Data1: Illegal Code

Data2: Not supported function

Data3: Wait more time

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

* Data Format

[Command 2] : Use as command.

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

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

[NG] : Use the large character

01. Power (Command: k a)

To control Power On/Off of the TV.

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

Data 00: Power Off Data 01: Power On

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

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

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

There might be a time delay between command and acknowledge.

02. Input Select (Command: x b)

To select input source for TV.

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

Data 00: DTV (Antenna) Data 01: DTV (Cable)

Data 10: Analog (Antenna) Data 11: Analog (Cable)

Data 20: AV1 Data 21: AV 2

Data 40: Component1 Data 41: Component 2

Data 42: Component 3 Data 60: RGB-PC

Data 90: HDMI1 Data 91: HDMI2

Data 92: HDMI3 Data 93: HDMI4

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

* Use the feature depending on your model.

03. Aspect Ratio (Command: k c)

To adjust the screen format.

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

Data 01: 4:3 Data 09: Just scan

Data 02: 16:9 Data 10: Cinema Zoom1

Data 04: Zoom :

Data 06: Set by program Data 1F: Cinema Zoom16

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

04. Screen Mute (Command: k d)

To select screen mute on/off.

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

Data 00: Screen mute off (Picture on), Video-out Mute off

Data 01: Screen mute on (Picture off)

Data 10: Video-out Mute on

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

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

05. Volume Mute (Command: k e)

To control volume mute on/off.

You can also adjust mute using the MUTE button on remote control.

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

Data 00: Volume mute on (Volume off)

Data 01: Volume mute off (Volume on)

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

06. Volume Control (Command: k f)

To adjust volume.

You can also adjust volume with the volume buttons on remote control.

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

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

*Refer to 'Real data mapping'.

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

07. Contrast (Command: k g)

To adjust screen contrast.

You can also adjust contrast in the PICTURE menu.

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

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

*Refer to 'Real data mapping'.

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

08. Brightness (Command: k h)

To adjust screen brightness.

You can also adjust brightness in the PICTURE menu.

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

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

*Refer to 'Real data mapping'.

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

09. Color (Command: k i)

To adjust screen color.

You can also adjust color in the PICTURE menu.

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

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

*Refer to 'Real data mapping'.

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

10. Tint (Command: k j)

To adjust screen tint.

You can also adjust tint in the PICTURE menu.

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

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

*Refer to 'Real data mapping'.

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

APPENDIX

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 Warm: 00 - Cool: 64 (*transmit by Hexadecimal code)
*Refer to 'Real data mapping'.
Acknowledgement [u][][Set ID][][OK/NG][Data][x]

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

To avoid having a fixed image remain on screen.
Transmission [j][p][][Set ID][][Data][Cr]
Data 02: Orbiter 04: White Wash
Data 08: Normal 20: Color Wash
Acknowledgement [p][][Set ID][][OK/NG][Data][x]

19. Energy Saving (Command: j q)

To control the energy saving function.
Transmission [j][q][][Set ID][][Data][Cr]
Data 00: Off Data 01: Minimum
Data 02: Medium Data 03: Maximum
Data 04: Auto/Intelligent Sensor (depending on model)
Data 05: Screen off
Acknowledgement [q][][Set ID][][OK/NG][Data][x]

20. Auto Configuration (Command: j u)

To adjust picture position and minimize image shaking automatically. Auto configuration only works in RGB-PC mode.
Transmission [j][u][][Set ID][][Data][Cr]
Data 01: To set
Acknowledgement [u][][Set ID][][OK/NG][Data][x]

21. Channel Tuning (Command: m a)

To tune channel to following physical/major/minor number.
Transmission [m][a][][Set ID][][Data00][][Data01][][Data02][][Data03][][Data04][][Data05][Cr]
Digital channels have a Physical, Major, and Minor channel number. The Physical number is the actual digital channel number, the Major is the number that the channel should be mapped to, and the Minor is the sub-channel. Since the ATSC tuner automatically maps the channel to the Major number, the Physical number is not required when sending a command.
Data 00: Physical Channel Number
NTSC air: 02 - 45, NTSC cable: 01, 0E - 7D
ATSC air: 01 - 45, ATSC cable: 01 - 87
Data 01 & 02: Major Channel Number
Data 01: High byte Data 02: Low byte
Two bytes are available for the Major and Minor, normally only the second byte is used.
Data 03 & 04: Minor Channel Number
Not needed for NTSC.

Data5:	7 Main/Sub Picture	6 Two/One Part Channel	5 Using Physical Channel	4 Reserved	3	2	1	0	Step
	0 Main	0 Two	0 Use	x	0	0	0	0	NTSC Air
	1 Sub	1 One	1 No Use	x	0	0	0	1	NTSC Cable
				x	0	0	1	0	ATSC Air
				x	0	0	1	1	ATSC Cable_std
				x	0	1	0	0	ATSC Cable_hrc
				x	0	1	0	1	ATSC Cable_irc
				x	0	1	1	0	ATSC cable_auto
				x	0	1	1	1	Reserved
				x	x	x	x	x	...
				x	1	1	1	1	Reserved

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

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

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

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

* 4th bit: Set to 0.

* 3-0 bits: Choose signal type.

*Tune Command Examples:

1. Tune to the analog (NTSC) cable channel 35.

Data 00 = Physical of 35 = 23
 Data 01 & 02 = No Major = 00 00
 Data 03 & 04 = No Minor = 00 00
 Data 05 = 0000 0001 in binary = 01
 Total = ma 00 23 00 00 00 00 01

2. Tune to the digital local channel 30-3.

Data 00 = Don't know Physical = 00
 Data 01 & 02 = Major is 30 = 00 1E
 Data 03 & 04 = Minor is 3 = 00 03
 Data 05 = 0010 0010 in binary = 22
 Total = ma 00 00 00 1E 00 03 22

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

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

To add and delete the channels.

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

Data 00: Channel Delete Data 01: Channel Add

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

23. Key (Command: m c)

To send IR remote control code.

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

See page 183.

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

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

To adjust screen backlight.

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

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

*Refer to 'Real data mapping'.

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

APPENDIX

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This option is useful when you wish to copy part of the code of the library into a program that is not a library.

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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.

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Version 1.1

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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.