



OWNER'S MANUAL OLED TV

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

- Adopted OLED display with color reproduction rate closest to the natural color and superb contrast ratio based on organic light emitting material without any hazardous substance to the human body, and has lower power consumption rate compared to LCD, optimal for video with the 1,000 times faster response speed
- With the water resistance function that can tolerate a slight sprinkel of water, the product can be watched anywhere in the home including the bathroom and kitchen.

OLED (Organic Light Emitting Diodes) : As the 'Light Emitting Organic Material' that generates light by itself using the electric field illumination phenomenon that generates light when the current flows, this can be operates in low voltage and can be structured into a thin layer type. OLED does not have any residual image on the screen due to the fast response speed compared to TFT and has minimal current consumption and heating from self illumination while the expression and viewing angle are excellent.



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

CONTENTS


PREPARATION

OLED TV Model : 15EL9***	A-1
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EXTERNAL EQUIPMENT SETUP

Power Connection	1
Antenna Connection	2
Connecting with a RF Cable	3
Connecting with an HDMI cable	4
Usb setup	4

WATCHING TV / PROGRAMME CONTROL

Turning on the TV	5
Initializing setup	5
Programme Selection	5
Volume Adjustment	5
Quick Menu	6
On-Screen Menus Selection and Adjustment.....	7
Auto Programme Tuning.....	8
Manual Programme Tuning (In Digital Mode) ...	11
Manual Programme Tuning (In Analogue Mode) ..	13
Programme Edit.....	15
Software Update	17
Booster.....	18
Diagnostics	18
Selecting the Programme List.....	19
Favourite Programme Setup	20
Input List	21
Data Service.....	21
Input Label.....	22
Simple manual	23
	24
AV Mode	27
Initializing (Reset to original factory settings) ..	28

TO USE A USB DEVICE

When connecting a USB device	29
Photo List.....	30
Music List	34
Movie List.....	37
DivX Registration Code	41
Deactivation	42

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

Switch on/off EPG	43
Select a Programme	43
Button Function in NOW/NEXT Guide Mode .	43
Button Function in 8 Day Guide Mode.....	44
Button Function in Date Change Mode.....	44
Button Function in Extended Description Box ..	45
Button Function in Record/Remind Setting Mode	45
Button Function in Schedule List Mode.....	45

PICTURE CONTROL

Picture Size (Aspect Ratio) Control	46
Picture Wizard	48
Energy Saving	49
Preset Picture Settings	
- Picture Mode-Preset	50
Manual Picture Adjustment	
- Picture Mode-User option	51
Picture Improvement Technology	52
Expert Picture Control.....	53
Picture Reset	56
Demo Mode	57
Mode Setting.....	58

CONTENTS

SOUND & LANGUAGE CONTROL

Auto Volume Leveler	59
Clear Voice II	60
Preset Sound Settings - Sound Mode	61
Sound Setting Adjustment -User Mode	62
Infinite Sound	62
Balance	63
Audio Reset	64
Audio Description (In Digital Mode only)	65
I/II	
- Stereo/Dual Reception (In Analogue Mode Only)	66
- NICAM Reception (In Analogue Mode Only)	67
- Speaker Sound Output Selection	67
On-Screen Menu Language/Country Selection ..	68
Language Selection (In Digital Mode only)	69

TIME SETTING

Clock Setup	70
Auto On/ Off Time Setting	71
Sleep Timer Setting	72

PARENTAL CONTROL / RATINGS

Set Password & Lock System	73
Block Programme	74
Parental Control (In Digital Mode only)	75
External Input Blocking	76
Key Lock	77

TELETEXT

Switch on/off	78
SIMPLE Text	78
TOP Text	78
FASTEXT	79
Special Teletext Functions	79

DIGITAL TELETEXT

Teletext within Digital Service	80
Teletext in Digital Service	80

APPENDIX

Troubleshooting	81
Maintenance	83
Product Specifications	84

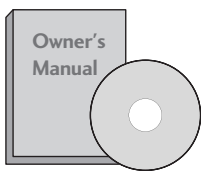
PREPARATION

OLED TV Model : 15EL9***

ACCESSORIES

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

■ Image shown may differ from your TV.



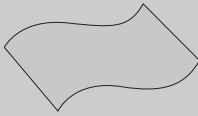
Owner's Manual



Batteries
3 V (CR2032)



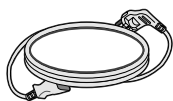
Remote Control



Polishing Cloth
Polishing cloth for use on the screen.
(Covered by screen of product)

*** Lightly wipe any stains or fingerprints on the surface of the TV with the polishing cloth.**

Do not use excessive force. This may cause scratching or discolouration.



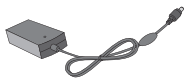
Power Cord



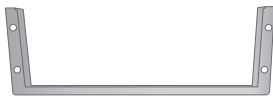
RF/DC cable



Mini HDMI-HDMI cable



AC-DC adapter



Wall mount support



Wall mount support screw
(For concrete/wood) – 4 units respectively

PREPARATION

FRONT PANEL CONTROLS

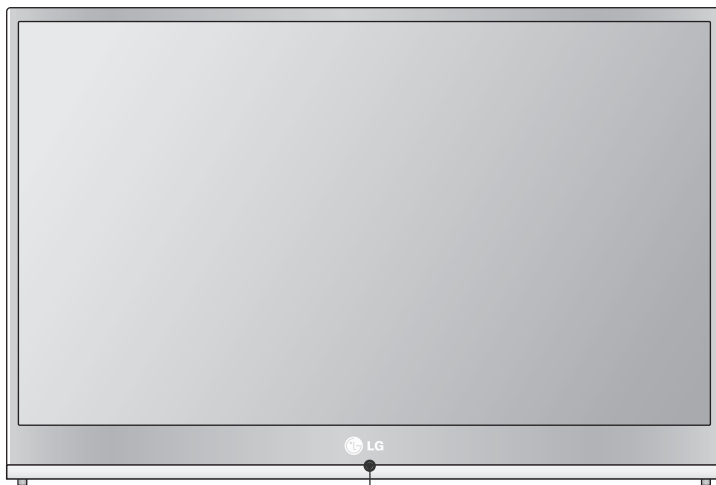
! NOTE

- ▶ The energy consumed during use can be significantly reduced if the level of brightness of the picture is reduced, and this will reduce the overall running cost.

! CAUTION

- ▶ Do not step on the glass stand or subject it to any impact.
It may break, causing possible injury from fragments of glass, or the TV may fall.
- ▶ Do not drag the TV. The floor or the product may be damaged.

- Image shown may differ from your TV.



Remote Control Sensor

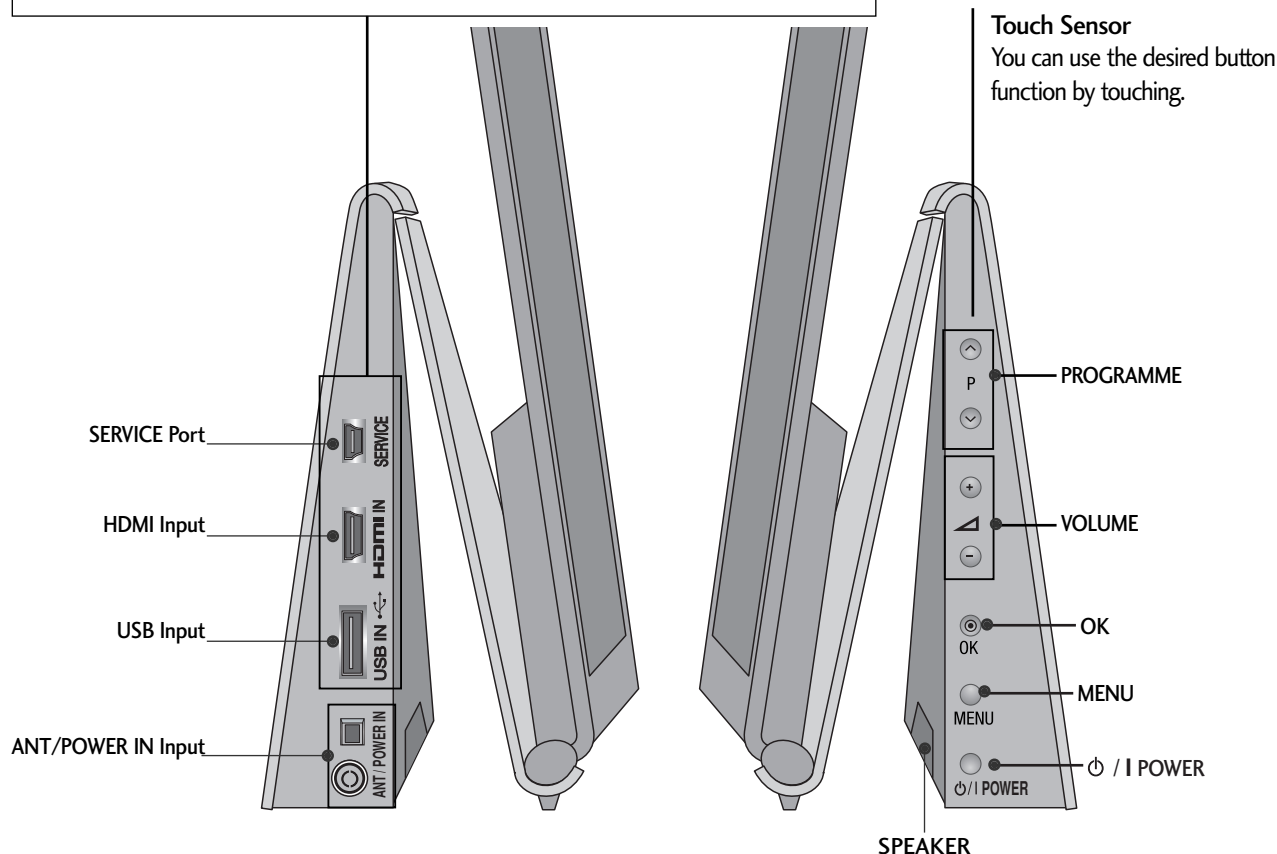
Operating lamp

The lamp is turned on while TV power on from standby mode and off when TV is power on and during standby mode.

SIDE PANEL INFORMATION

■ Image shown may differ from your TV.

- Open the water resistant cover only when connecting an external device.
- If you use the product with the water resistant cover open in a humid environment, the water resistant function can deteriorate.



⚠ CAUTION

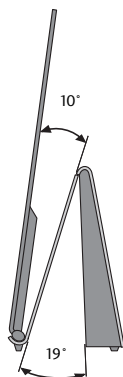
- ▶ When using the product in a wet location, be careful not to expose the water continuously to water nor to drop it in the water.
- ▶ If you do not connect the provided cable to the antenna/power input terminal or use the product with the water resistant cover on the terminal open, it may reduce the water resistant function.
In humid locations, always keep the water resistant cover closed and connect the provided antenna/power cable.
- ▶ If you keep the TV on for a long period of time, the AC-DC adapter will be heated. Therefore be careful not to touch the adapter.

PREPARATION

POSITIONING YOUR DISPLAY

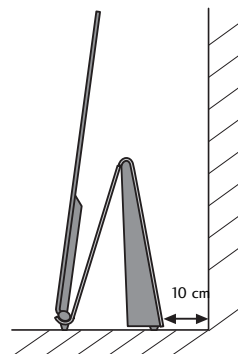
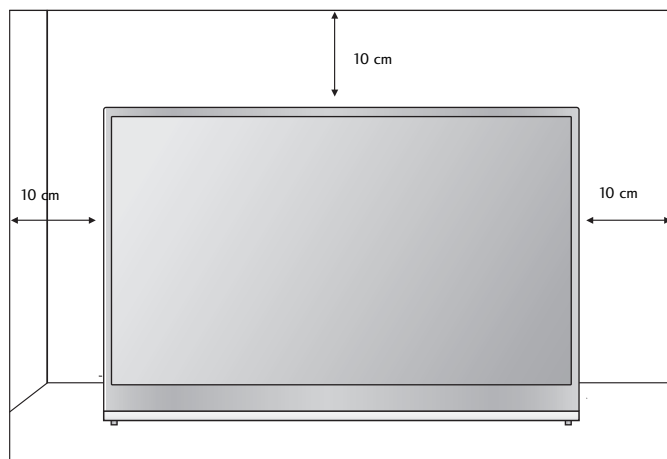
- Image shown may differ from your TV.
- Adjust the position of the panel in various ways for maximum comfort.

- Tilt range



DESKTOP PEDESTAL INSTALLATION

For adequate ventilation allow a clearance of 10 cm all around the TV.

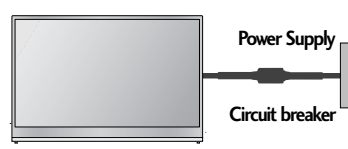


- The TV can be installed in various ways such as on a wall, or on a desktop etc.
- The TV is designed to be mounted horizontally.

EARTHING

Ensure that you connect the earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

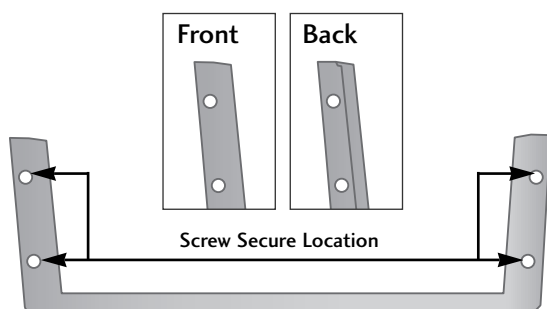
Do not try to earth the TV by connecting it to telephone wires, lightning rods or gas pipes.



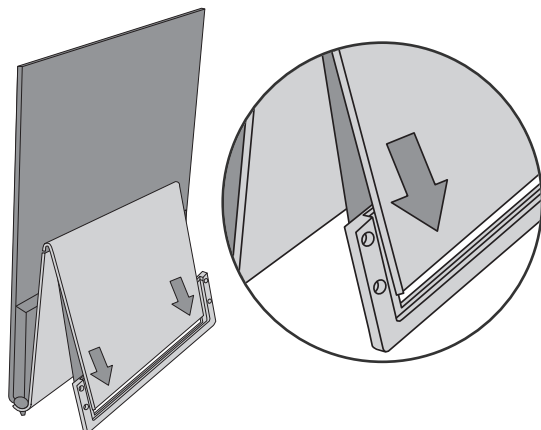
WALL MOUNT: HORIZONTAL INSTALLATION

Installation method

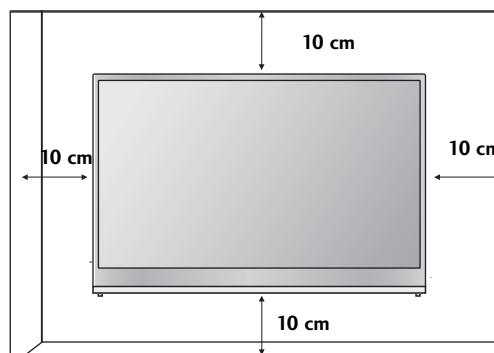
- 1 After checking the wall material, fixate the wall mount bracket with the screw provided for correct purpose at the location you want. At this time, check the front and rear side of the bracket and fixate the unit so that the front side is visible.



- 2 After hanging the TV support to the bracket for wall mount as shown in the picture, press it in the arrow direction.



For adequate ventilation allow a clearance of 10 cm all around the TV.



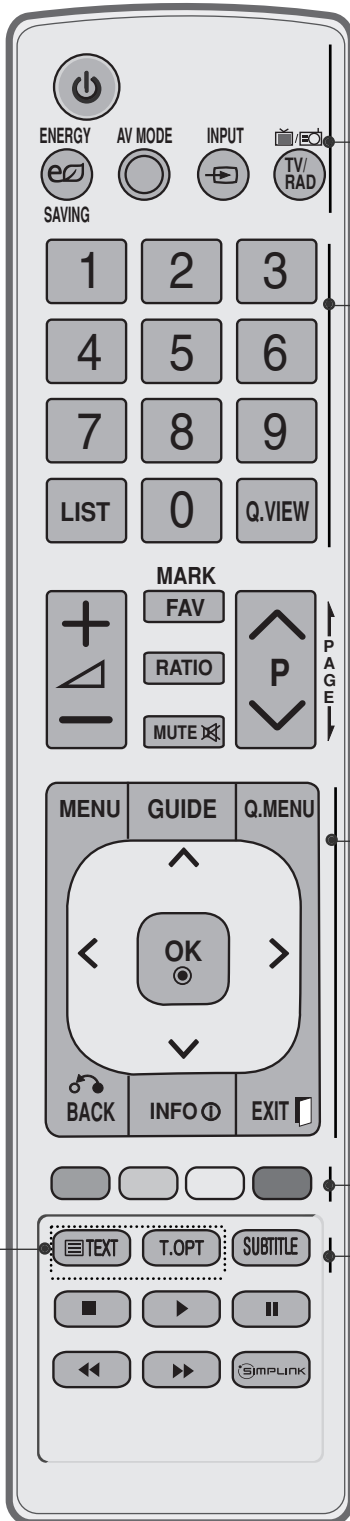
! NOTE

- ▶ Do not store the product in high temperature (60 °C or above) or in low temperature (-20 °C or below). This can deteriorate the water resistant function.
- ▶ Do not put the product in the water or directly pour water on the product. It can cause problem or deformation to the product.
- ▶ Should Install wall mount on a solid wall perpendicular to the floor.
- ▶ Should use a special wall mount, if you want to install it to ceiling or slanted wall.
- ▶ The surface that wall mount is to be mounted on should be of sufficient strength to support the weight of TV set; e.g. concrete, natural rock, brick and hollow block.
- ▶ LG is not liable for any accidents or damage to property or TV due to incorrect installation:
 - Incorrect fastening of screws to surface which may cause TV to fall and cause personal injury.
 - Not following the recommended Installation method.

PREPARATION

REMOTE CONTROL KEY FUNCTIONS

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



⏻(POWER) Switches the TV on from standby or off to standby.

ENERGY SAVING Adjust the Energy Saving mode of the TV.(▶ p.49)

AV MODE It helps you select and set images and sounds when connecting AV devices.(▶ p.27)

INPUT External input mode rotate in regular sequence.(▶ p.21)

TV/RAD Selects Radio, TV and DTV channel.

0 to 9 number button Selects a programme.
Selects numbered items in a menu.

LIST Displays the programme table. (▶ p.19)

Q.VIEW Returns to the previously viewed programme.

MENU Selects a menu.
Clears all on-screen displays and returns to TV viewing from any menu.(▶ p.7)

GUIDE Shows programme schedule.(▶ p.43)

Q. MENU Select the desired quick menu source. (Aspect Ratio, Clear Voice II , Picture Mode, Sound Mode, Audio, Sleep Timer, Favourite, USB Device).(▶ p.6)

BACK Allows the user to move return one step in an interactive application, EPG or other user interaction function.

INFO ⓘ Shows the present screen information.

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

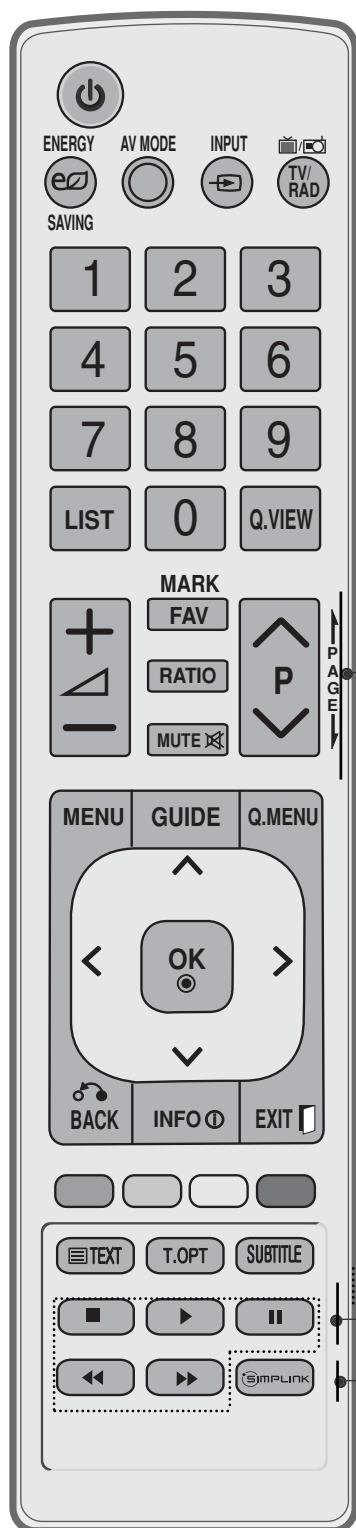
THUMBSTICK Allows you to navigate the on-screen menus and adjust the system settings to your preference.
(Up/Down/Left/Right)

OK Accepts your selection or displays the current mode.

Coloured buttons These buttons are used for teletext (on **TELETEXT** models only) , **Programme edit**.

1 **TELETEXT BUTTONS** These buttons are used for teletext.
For further details, see the 'Teletext' section.(▶ p.78)

SUBTITLE Recalls your preferred subtitle in digital mode.



VOLUME UP /DOWN Adjusts the volume.

FAV Displays the selected favourite programme.

MARK Select the input to apply the Picture Wizard settings. Check and un-check programmes in the USB menu.

RATIO Selects your desired Aspect Ratio of picture.(► p.46)

MUTE Switches the sound on or off.

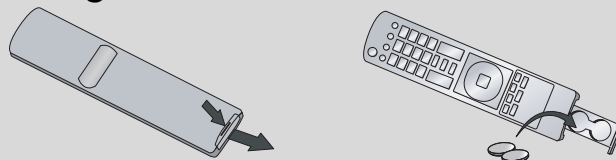
Programme UP/DOWN Selects a programme.

PAGE UP/DOWN Move from one full set of screen information to the next one.

SIMPLINK / USB Menu control buttons Controls SIMPLINK or USB menu(Photo List and Music List or Movie List

SIMPLINK See a list of AV devices connected to TV. When you toggle this button, the Simplink menu appears at the screen.(► p.24)

Installing Batteries

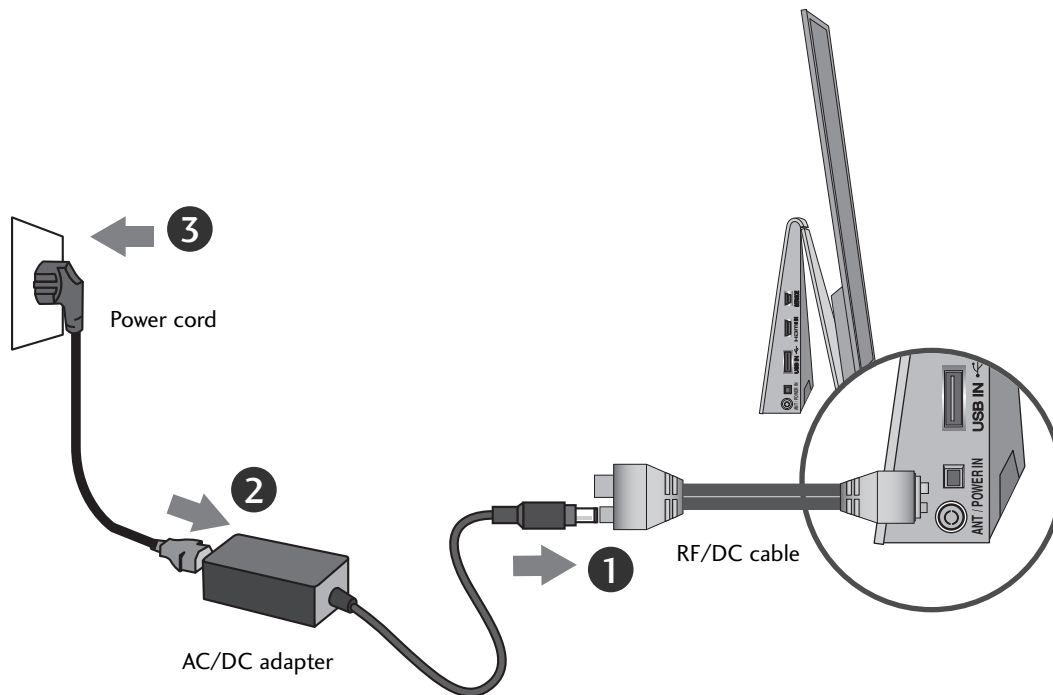


- Open the battery compartment cover on the back and install the batteries matching correct polarity (+with +,-with -).
- Install two 3 V batteries. Do not mix old or used batteries with new ones.
- Close cover.
- To remove the batteries, perform the installation actions in reverse.

EXTERNAL EQUIPMENT SETUP

POWER CONNECTION

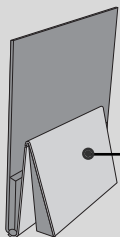
- Image shown may differ from your TV.
- Connect the power as shown in the following figure to use the TV.



To connect the power, connect the following in order :

Connect the RF/DC cable to the **ANT/POWER IN** socket on the side of the TV - AC/DC adapter – Power cord – Power outlet.

⚠ CAUTION



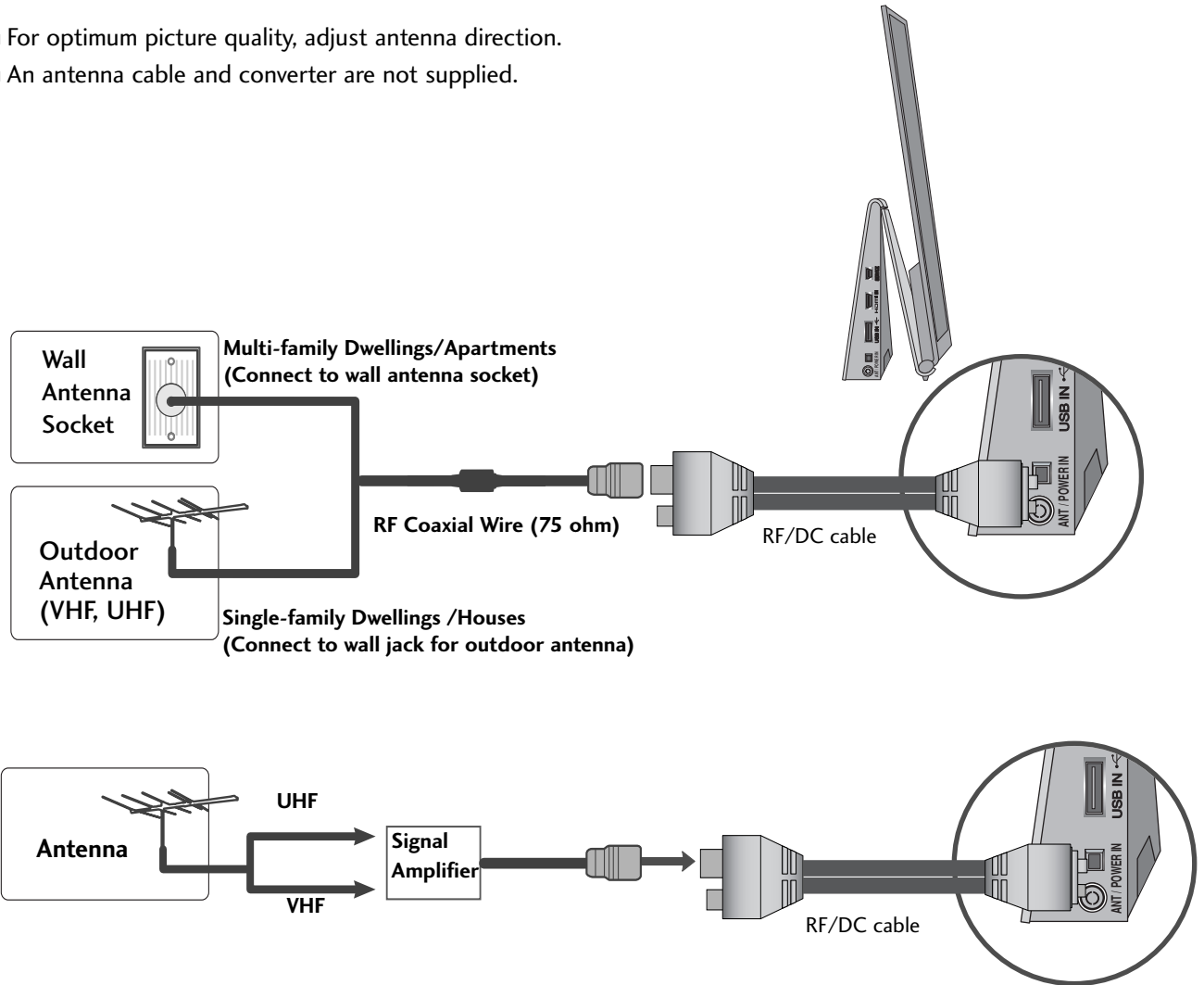
If you keep the TV on for a long period of time, the back panel will be heated. Therefore be careful not to touch the back panel.

EXTERNAL EQUIPMENT SETUP

- To prevent damage do not connect to the mains outlet until all connections are made between the devices.

ANTENNA CONNECTION

- For optimum picture quality, adjust antenna direction.
- An antenna cable and converter are not supplied.

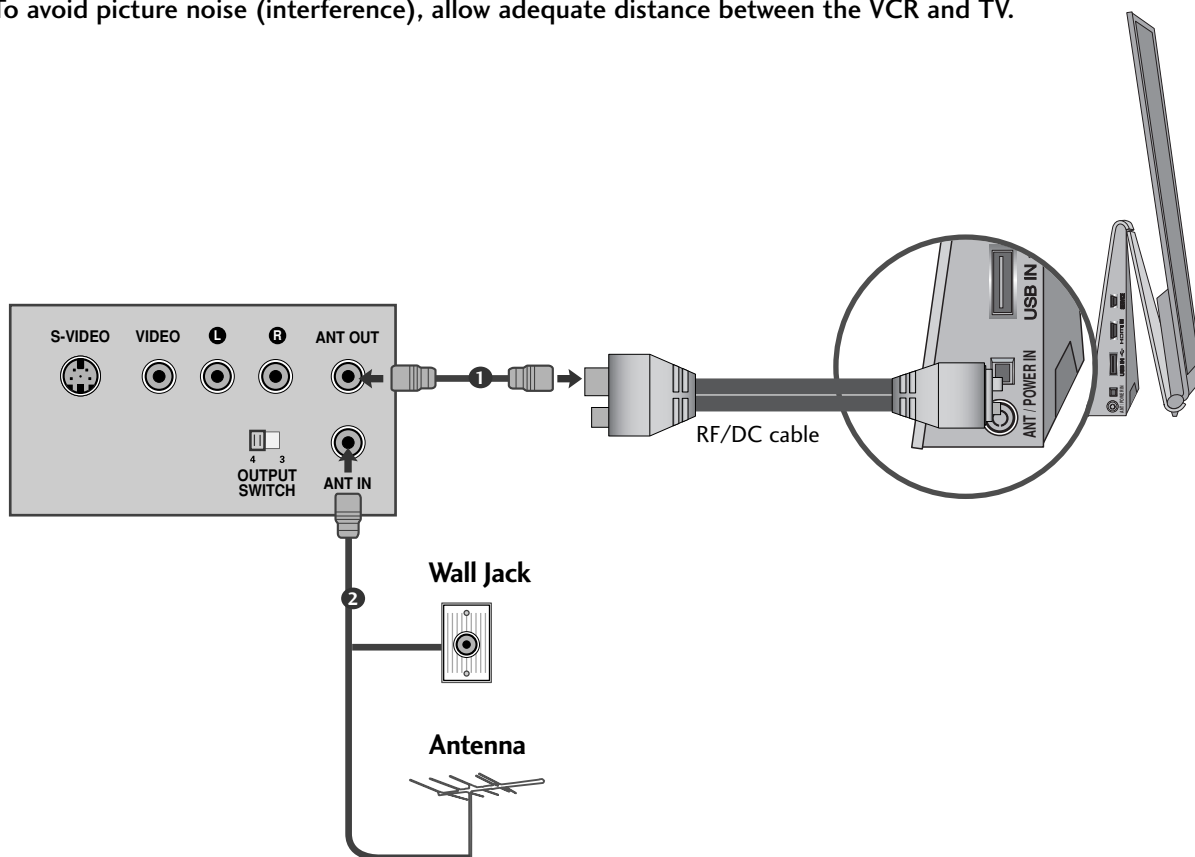


- In poor signal areas, to achieve better picture quality it may be necessary to install a signal amplifier to the antenna as shown above.
- If signal needs to be split for two TVs, use an antenna signal splitter for connection.

- To avoid damaging any equipment, never plug in any power cord until you have finished connecting all equipment.
- Image shown may differ from your TV.

CONNECTING WITH A RF CABLE

- To avoid picture noise (interference), allow adequate distance between the VCR and TV.



- 1 Connect the **ANT OUT** socket of the VCR to the **ANT/POWER IN** socket on the TV.
- 2 Connect the antenna cable to the **ANT IN** socket of the VCR.
- 3 Press the **PLAY** button on the VCR and match the appropriate channel between the TV and VCR for viewing.

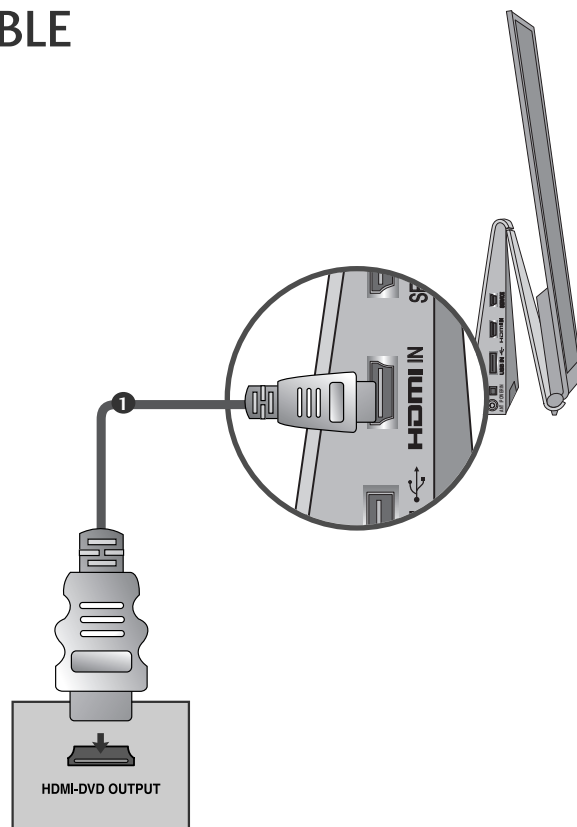
EXTERNAL EQUIPMENT SETUP

CONNECTING WITH AN HDMI CABLE

- 1 Connect the HDMI output of the external equipment (digital set-top box, DVD, etc.) to **HDMI IN** jack on the TV.
- 2 Turn on the external equipment.
(Refer to the external equipment's manual for operating instructions.)
- 3 Select **HDMI** input source using the **INPUT** button on the remote control.

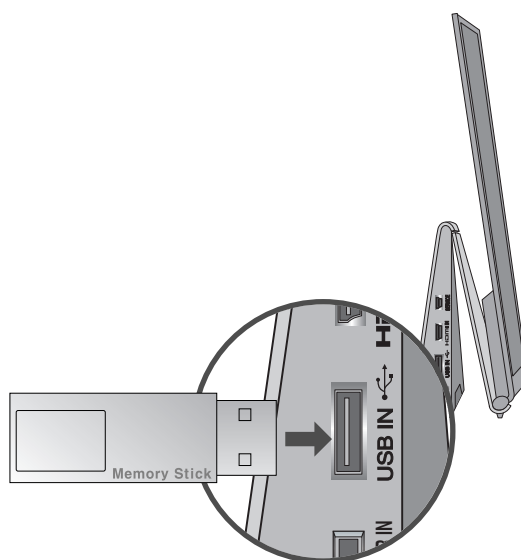
! NOTE

- ▶ The TV can receive video and audio signals simultaneously when using an HDMI cable.
- ▶ If the DVD does not support Auto HDMI, you must set the output resolution appropriately.
- ▶ Check that your HDMI cable is version 1.3 or higher.
If the HDMI cables don't support HDMI version 1.3, flickering or no screen display can result. Please use the latest cables that support at least HDMI version 1.3.



USB SETUP

- 1 Connect the USB device to the **USB IN** jack on the TV.
- 2 After connecting the **USB IN** jack, you use the **USB** function. (▶ p.29)



WATCHING TV / PROGRAMME CONTROL

TURNING ON THE TV

- When your TV is turned on, you will be able to use its features.

- 1 Firstly, connect the power cord correctly.
At this stage, the TV switches to standby mode.
- 2 In standby mode to turn TV on, press the \odot / **I**, **INPUT** or **P** \wedge \vee button on the TV or press the **POWER**, **INPUT**, **P** \wedge \vee or **NUMBER** button on the remote control and the TV will switch on.

INITIALIZING SETUP

- 1 If the OSD (On Screen Display) is displayed on the screen after turning on the TV, you can adjust the **Language**, **Mode Setting**, **Country**, **Auto Tuning**.

Note:

- a. If you close without completing the initial setting, the Initial Setting menu can be displayed again.
- b. Press the **BACK** button to change the current OSD to the previous OSD.
- c. For those countries without confirmed DTV broadcasting standards, some DTV features might not work, depending on the DTV broadcasting environment.
- d. "Home Use" mode is the optimal setting for home environments, and is the TV's default mode.
- e. "Store Demo" mode is the optimal setting for store environments. If a user modifies image quality data, "Store Demo" mode initializes the product to the image quality set by us after a certain period of time.
- f. The mode (Home Use, Store Demo) can be changed by executing Mode Setting in the **OPTION** menu.

PROGRAMME SELECTION

- 1 Press the **P** \wedge \vee or **NUMBER** buttons to select a programme number.

VOLUME ADJUSTMENT

- 1 Press the \blacktriangle + or - button to adjust the volume.

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









You can cancel this function by pressing the **MUTE**, \blacktriangle + , - or **AV Mode** button.

WATCHING TV / PROGRAMME CONTROL





QUICK MENU

Your TV's OSD (On Screen Display) may differ slightly from that 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.
For Zoom Setting, select 14:9, Zoom and Cinema Zoom in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.
-  **Clear Voice II**: By differentiating the human sound range from others, it helps users listen to human voices better.
-  **Picture Mode**: Selects your desired Picture Mode.
-  **Sound Mode**: It is a feature to automatically set the sound combination which it deems the best for the images being watched. Selects your desired Sound Mode.
-  **Audio**: Selects the sound output.
-  **Sleep Timer**: Sets the sleep timer.
-  **Favourite**: Selects the favourite programme.
-  **USB Device**: Selects "Eject" in order to eject USB device.

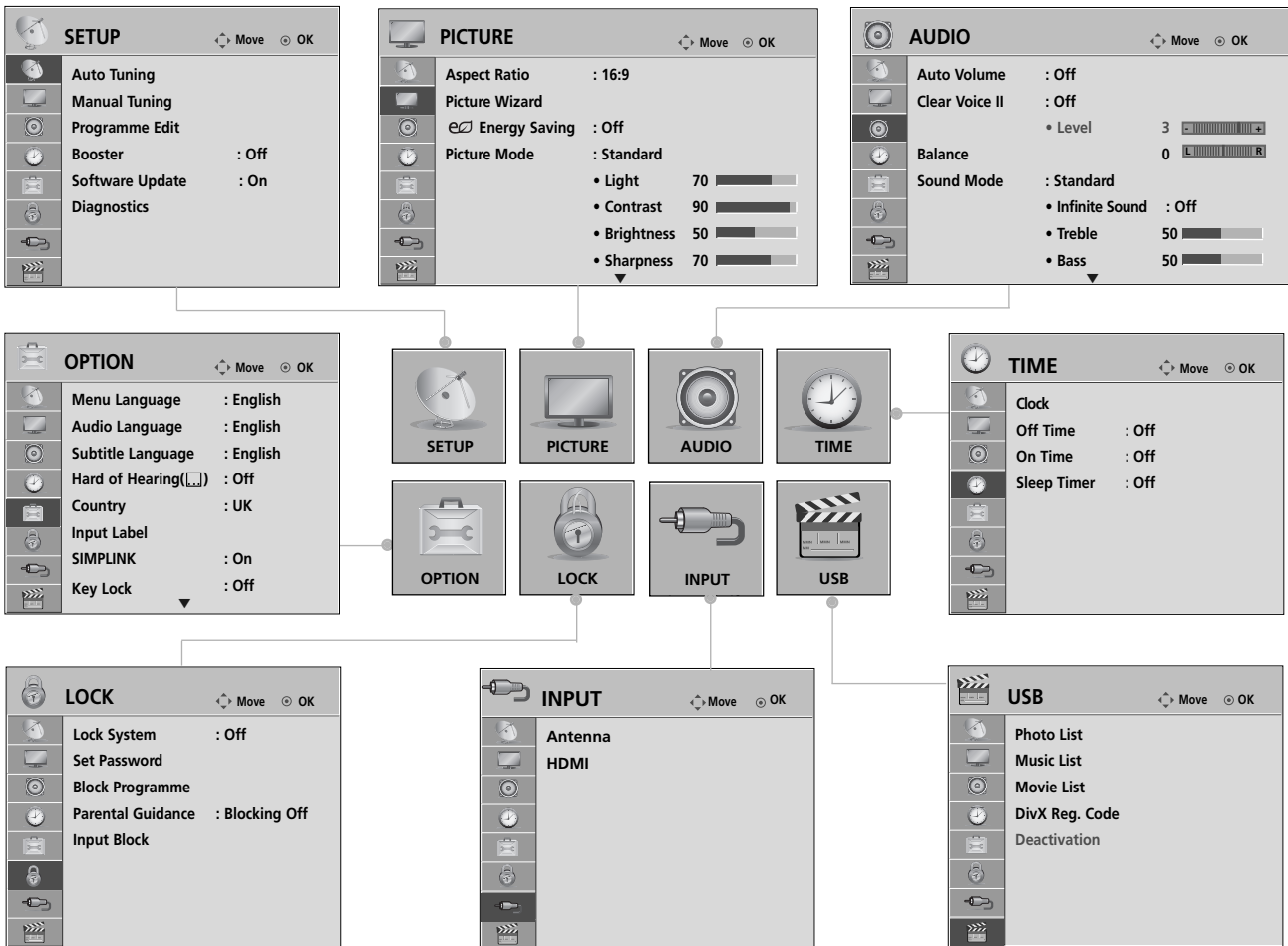


- 1   Display each menu.
- 2  Select your desired Source.
- 3 

- Press the **Q.MENU** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

ON SCREEN MENUS SELECTION AND ADJUSTMENT

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 Move to the pop up menu.

- Press the **INFO** button, you can check the **Simple Manual** Menu.
- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

! NOTE

- ▶ **Set ID:** This function is used for Service.
- ▶ It is not possible to use **Booster** in Analogue mode.

WATCHING TV / PROGRAMME CONTROL

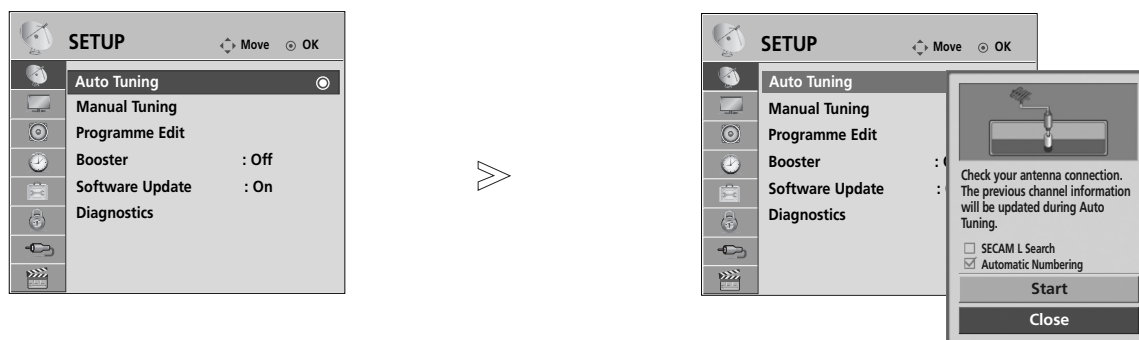
AUTO PROGRAMME TUNING

(For countries other than Finland and Sweden)

Use this to automatically find and store all available programmes.

When you start auto programming, all previously stored service information will be deleted.

The maximum number of programmes that can be stored is 500. But the number may differ slightly depending on broadcasting signals.



1. Select **SETUP**.
2. Select **Auto Tuning**.
3. Select **Start**.
4. Run **Auto tuning**.

- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- If you wish to keep on auto tuning select **Start** using the **^** **∨** button. Then, press the **OK** button. Otherwise select **Close**.
- **Automatic Numbering**: Decide whether to use the programme numbers as sent by broadcasting stations for tuning.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

AUTO PROGRAMME TUNING

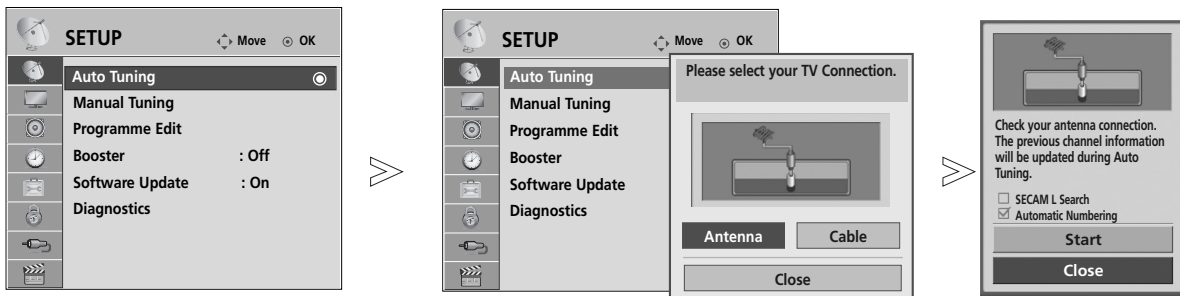
(Only for Finland and Sweden)










DVB-C Auto Tuning is a menu for users in countries that support DVB cable.

Use this to automatically find and store all available programmes.

When you start auto programming, all previously stored service information will be deleted.

If you want to select the **Antenna**,



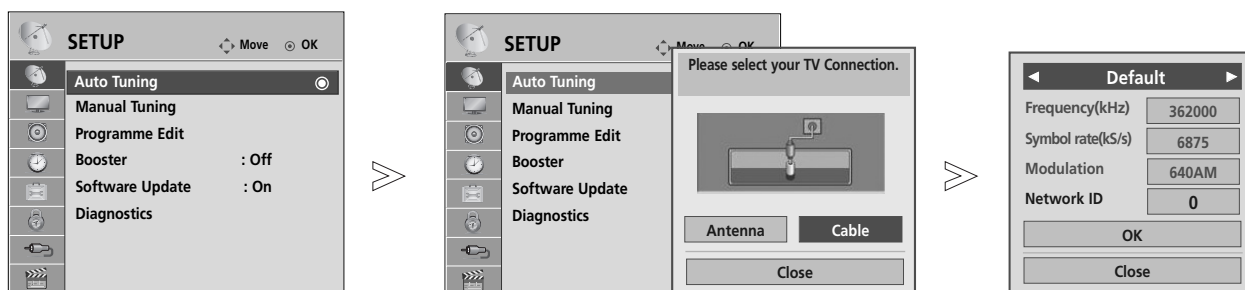
- 1   Select **SETUP**.
- 2   Select **Auto Tuning**.
- 3   Select **Antenna**.
- 4   Select **Start**.
- 5  Run **Auto tuning**.

- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- If you wish to keep on auto tuning, select **Start** using the **^ v** button. Then, press the **OK** button. Otherwise select **Close**.
- **Automatic Numbering:** Decide whether to use the programme numbers as sent by broadcasting stations for tuning.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

WATCHING TV / PROGRAMME CONTROL

If you want to select the **Cable**,



- 1 Select **SETUP**.
- 2 Select **Auto Tuning**.
- 3 Select **Cable**.
- 4 Make appropriate adjustments.
- 5 Select **OK**.
- 6 Run **Auto tuning**.

- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- If you wish to keep on auto tuning, select **OK** using the **^ v** button. Then, press the **OK** button. Otherwise select **Close**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

The following values are needed in order to search all available programmes quickly and correctly. The commonly used values are provided as "default".

However, for correct settings, please inquire of the cable service provider.

When running Auto Tuning in DVB cable mode, selecting Full will search through all frequencies between 110 MHz and 862 MHz to find available channels.

In the case when the programme is not searched by selecting the Default, perform the searching by selecting the Full. However, in the case when the programme is searched by selecting the Full, the Auto Tuning time can be taken too much.

- **Frequency** : Enter a user-defined frequency range.
- **Symbol rate** : Enter a user-defined symbol rate (Symbol rate: Speed at which a device such as modem sends symbols to a channel).
- **Modulation** : Enter a user-defined modulation. (Modulation: Loading of audio or video signals onto carrier).
- **Network ID**(Sweden only) : Unique identifier allocated for each user.

Note

- ▶ If you select **Cable** after checking either Finland or Sweden, you can see **Channel Auto Update** menu of which the default value is **On**.
- ▶ If you keep it **On**, the channel information will be automatically updated whenever the network information changes.
- ▶ When **Channel Auto Update** is **Off**, the channel information will not be updated.

AUTO PROGRAMME TUNING

If you select the "--" of Country Setting, (Except for Finland and Sweden)

To watch DVB-C in the countries excluding Finland and Sweden, select "--" as the **Country** in **OPTION**.

You can select **User** mode or **Full** mode in **Auto Tuning**.

The corresponding home frequency information may need to be changed when tuning the **User** mode, and the corresponding information depends on the Cable Service Operator (SO) in service.

During **Full** mode tuning, some channel may be restricted for some Cable Service Operator (SO), and it may take a long time for tuning.

Note

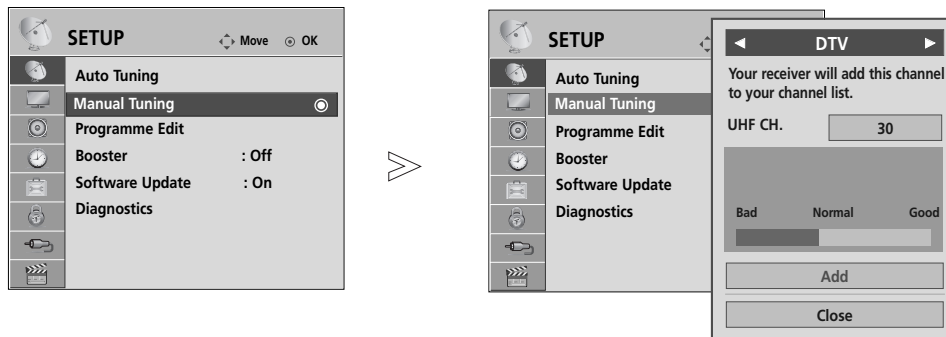
- ▶ Your cable provider may charge for their services, or require you to agree to its items and conditions of business.
- ▶ DVB-C Cable may not operate correctly with some cable providers.
- ▶ Compatibility with DVB-C digital cable broadcasts is not guaranteed.

MANUAL PROGRAMME TUNING (IN DIGITAL MODE)

Manual Tuning lets you manually add a programme to your programme list.

(For countries other than Finland and Sweden



& When selecting Antenna if Finland, Sweden or "--" country is chosen)



1   Select **SETUP**.

2   Select **Manual Tuning**.

3   Select **DTV**.

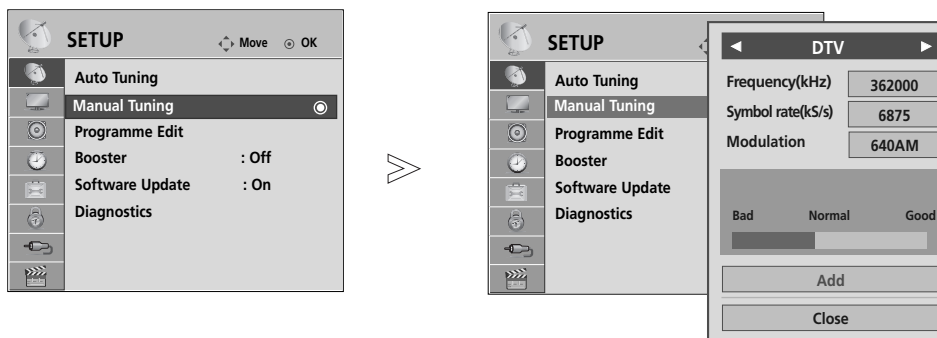
4   Select the desired channel number.

• Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

WATCHING TV / PROGRAMME CONTROL

(When selecting Cable (DVB cable mode) if Finland, Sweden or “--” country is chosen)



1 Select **SETUP**.

2 Select **Manual Tuning**.

3 Select **DTV**.

4 Make appropriate adjustments.

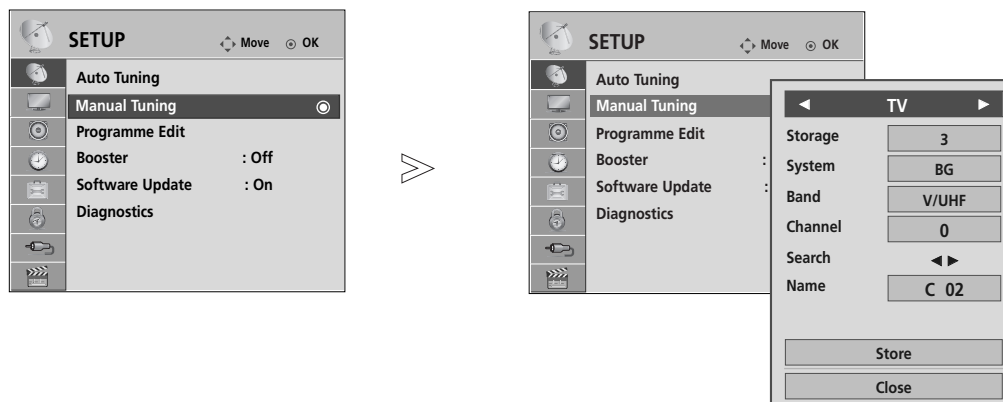
• Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

Frequency, Symbol rate, and Modulation mode are needed in order to add a programme correctly in DVB cable mode. Please inquire of the cable service provider about the correct values.

MANUAL PROGRAMME TUNING (IN ANALOGUE MODE)

Manual Tuning lets you manually tune and arrange the stations in whatever order you desire.



1 Select **SETUP**.

2 Select **Manual Tuning**.

3 Select **TV**.

4 or Select the desired programme number on.

5 Select a TV system.

6 Select **V/UHF** or **Cable**.

7 or Select the desired channel number.

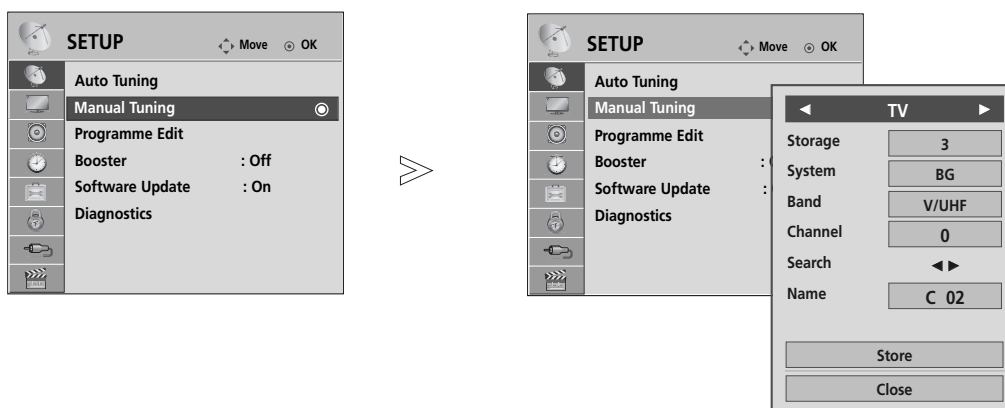
8 Commence searching.

9 Select **Store**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

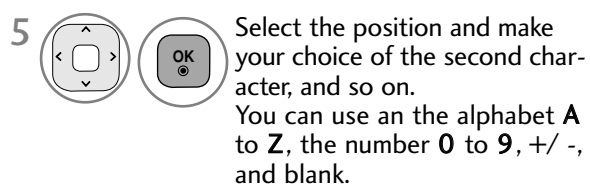
- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- **L** : SECAM L/L' (France)
- **BG** : PAL B/G, SECAM B/G (Europe / East Europe / Asia / New Zealand / M.East / Africa)
- **I** : PAL I (U.K. / Ireland / Hong Kong / South Africa)
- **DK** : PAL D/K, SECAM D/K (East Europe / China / Africa / CIS)
- To store another channel, repeat steps 4 to 9.

WATCHING TV / PROGRAMME CONTROL



■ Assigning a station name

You can assign a station name with five characters to each programme number.



- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

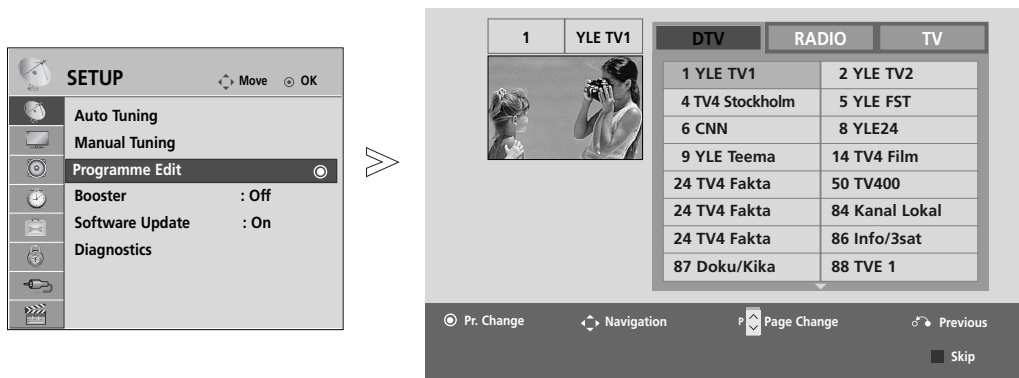
PROGRAMME EDIT







When a programme number is skipped, it means that you will be unable to select it using **P** \wedge \vee button during TV viewing.

If you wish to select the skipped programme, directly enter the programme number with the **NUMBER** buttons or select it in the Programme edit menu.

This function enables you to skip the stored programmes.

You can change the programme number using “Move”function, if “Automatic Numbering” is unchecked when you start Auto Tuning.



- 1   Select **SETUP**.
- 2   Select **Programme Edit**.
- 3  Enter the **Programme Edit**.
- 4  Select a programme to be stored or skipped.




- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.



- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

WATCHING TV / PROGRAMME CONTROL

IN DTV/RADIO MODE

■ Skipping a programme number





- 1  Select a programme number to be skipped.
- 2  Turn the programme number to blue.
- 3  Release.

- When programmes are to be skipped, the skipped programme shows in blue and these programmes will not be selected by the **P**   buttons during TV viewing.
- If you wish to select a skipped programme, directly enter the programme number with the NUMBER buttons or select it in the programme edit or EPG.

IN TV MODE





This function enables you to delete or skip the stored programmes.
You can also move some channels and use other programme numbers.

■ Deleting a programme

- 1  Select a programme number to be deleted.
- 2  Turn the programme number to red.
- 3  Delete.  Release.

- The selected programme is deleted, all the following programmes are shifted up one

■ Moving a programme




- 1  Select a programme number to be moved.
- 2   Turn the programme number to green.
- 3  Release.



■ Auto Sort

- 1  Start Auto Sort.

- After activating Auto Sort once, you can no longer edit programmes.

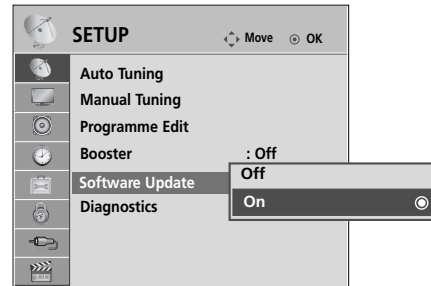
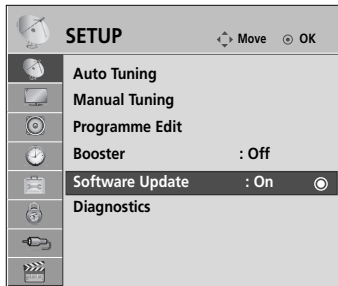
■ Skipping a programme number

- 1  Select a programme number to be skipped.
- 2  Turn the programme number to blue.
- 3  Release.

- When a programme number is skipped it means that you will be unable to select it using the **P**   button during normal TV viewing.
- If you wish to select a skipped programme, directly enter the programme number with the NUMBER buttons or select it in the programme edit or EPG.

SOFTWARE UPDATE

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

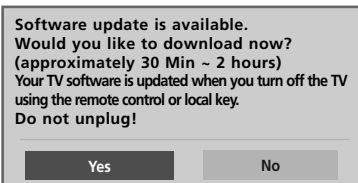


- 1 Select **SETUP**.
- 2 Select **Software Update**.

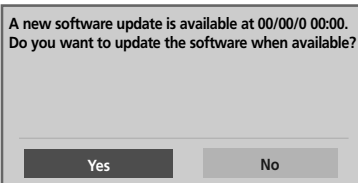
- 3 Select **On** or **Off**.
• If you select **On**, a user confirm message box will be displayed to notify that new software is found.
- 4 Save.

* When setting "Software Update"

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



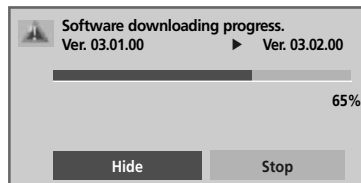
Simple Update :for current update stream



Schedule Update : for scheduled update stream

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

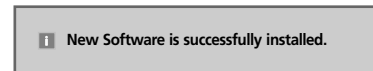
Select the **Yes** using the < > button and you will see the following picture.



When the power is turned off, downloading starts.

When the power is turned on while updating, the progress status is displayed.

After the Software Update is complete, the System restarts.



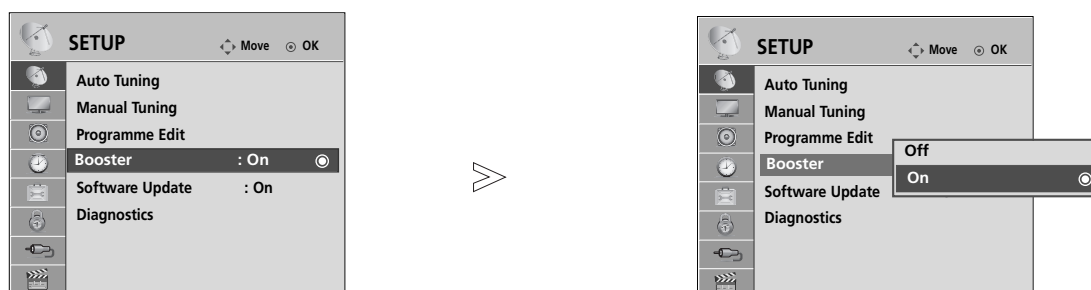
- During Progress of a Software Update, please note the following:

- Power to the TV must not be interrupted.
- The TV must not be switched off.
- The antenna must not be disconnected.
- After Software Update, you can confirm the updated software version in Diagnostics menu.
- It may take hours to download the software, so make sure that the power stays on during the download.

WATCHING TV / PROGRAMME CONTROL

BOOSTER (IN DIGITAL MODE)

If reception is poor select Booster to On.
When the signal is strong, select "Off".



1 Select **SETUP**.

2 Select **Booster**.

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

4 Save.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

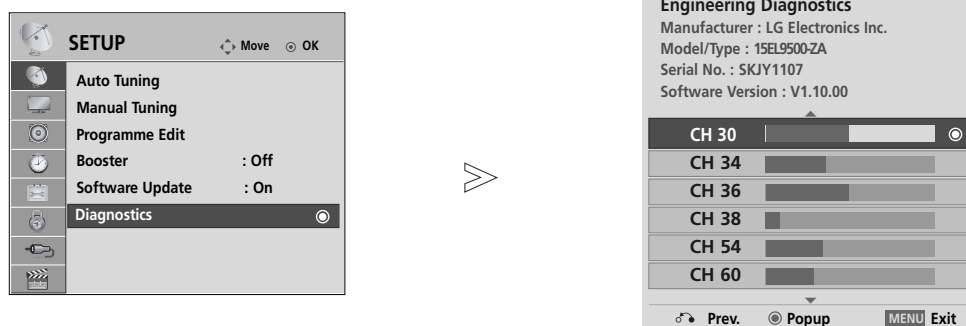
DIAGNOSTICS

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

This displays the information and signal strength of the tuned *MUX.

This displays the signal information and service name of the selected MUX.

(*MUX: A higher directory of channels in digital broadcasting (a single MUX contains multiple channels.))



1 Select **SETUP**.

2 Select **Diagnostics**.

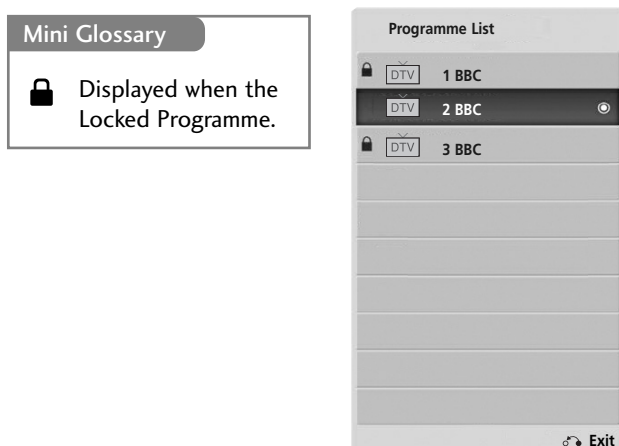
3 Display Manufacturer, Model/Type, Serial Number and Software Version.

4 Display the information of Channel.


- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

SELECTING THE PROGRAMME LIST

You can check which programmes are stored in the memory by displaying the programme list.






■ Displaying programme LIST

- 1  Display the Programme List.


- You may find some blue programmes. These have been set up to be skipped by auto programming or in the programme edit mode.
- Some programmes with the channel number shown in the programme LIST indicate there is no station name assigned.

■ Selecting a programme in the programme list

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

-  The mode will be switched between TV, DTV, and Radio from the program you are currently watching.

■ Paging through a programme list

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

WATCHING TV / PROGRAMME CONTROL



FAVOURITE PROGRAMME SETUP

■ Selecting favourite programme



Favorite programmes is a convenient feature that lets you quickly scan up to programmes of your choice without having to wait for the TV to scan through all the in-between programmes.




- 1

 or 


Select your desired programme.
- 2

Select **Favourite**.
- 3



Select **Favourite**.
- 4




Return to TV viewing.

- This will automatically include the selected programme into your favourite programme list.

■ Displaying the favourite programme list



- 1



Display the Favourite Programme List.

INPUT LIST

HDMI can be recognized by a detect pin and thus enabled only when an external device approves voltage.

By using **TV/RAD** button, you can move from External Input to RF Input and to the last watched programme in DTV/RADIO/TV mode.

Antenna > HDMI

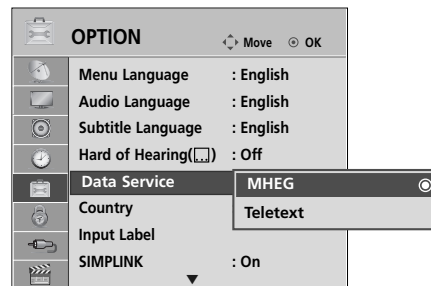


- **Antenna** or **Cable** : Select it when watching the DTV/TV. (Digital cable input is available only at Finland, Sweden and "--" country)
- **HDMI** : Select it when using DVD or Digital set-top box depend on connector.

DATA SERVICE

(This menu is enabled only in Ireland.)

This function allow users to choose between **MHEG(Digital Teletext)** and **Teletext** if both exist at the same time. If only one of them exists, either **MHEG** or **Teletext** is enabled regardless of which option you selected.

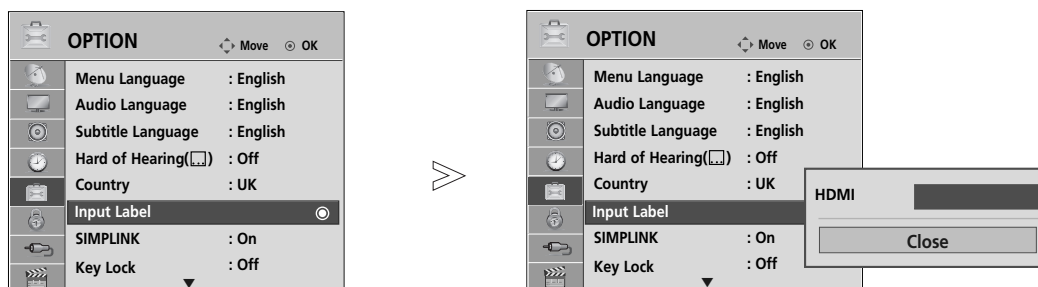



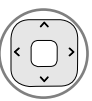

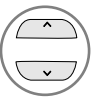


- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

WATCHING TV / PROGRAMME CONTROL

INPUT LABEL

Selects a label for each input source.

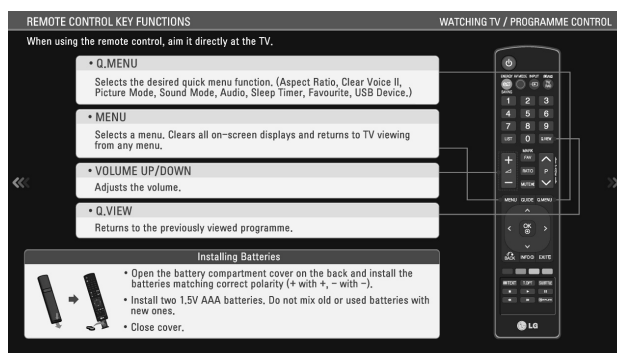


1.   Select **OPTION**.
2.   Select **Input Label**.
3.   Select the label.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

SIMPLE MANUAL

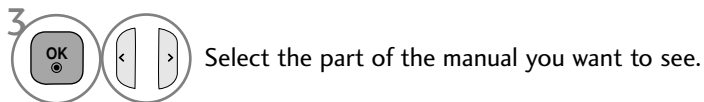
You can easily and effectively access the TV information by viewing a simple manual on the TV.
During the Simple Manual operation, audio will be muted.



Select **OPTION**.



Select **Simple Manual**.



Select the part of the manual you want to see.

- Press the **BACK** button to return to normal TV viewing.

WATCHING TV / PROGRAMME CONTROL



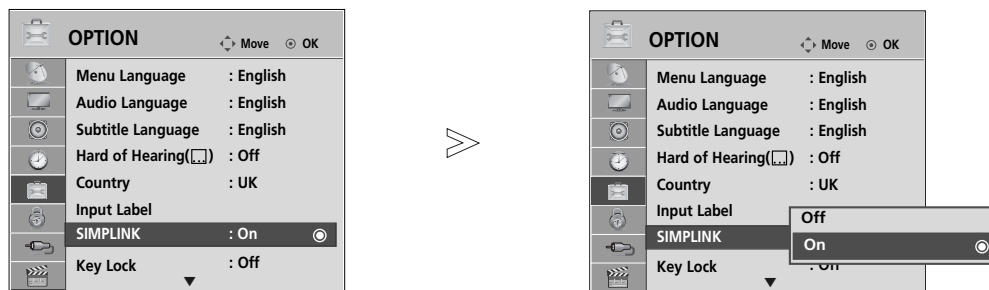
This function operates only with devices with the SIMPLINK logo.








Please check the SIMPLINK logo.

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

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

If you do not want SIMPLINK menu, select "Off".

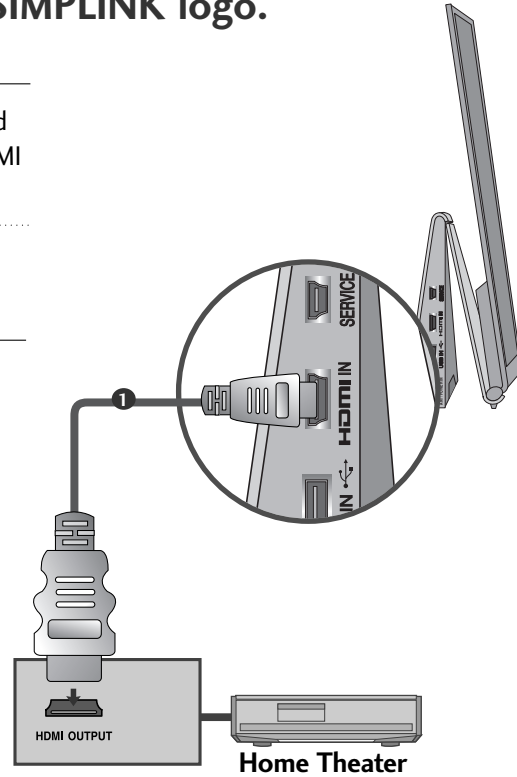


- 1   Select **OPTION**.
- 2   Select **SIMPLINK**.
- 3   Select **On** or **Off**.
- 4  Save.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

Connecting to Home Theater with the SIMPLINK logo.

- 1 Connect the **HDMI IN** terminal on the side of the TV and the HDMI output terminal of the Home Theater using HDMI cables.
- 2 Select Home Theater in the Speaker menu by pushing the **SIMPLINK** button.



- When you select or operate a media device with home theater function, the speaker automatically switches to home theater speaker (HT speaker).

! NOTE

- Connect the HDMI IN terminal of the TV to the terminal (HDMI terminal) of the SIMPLINK device with the HDMI cable.
- When you switch the Input source using the INPUT button on the remote control, you can stop the operation of a device controlled by SIMPLINK.

WATCHING TV / PROGRAMME CONTROL

SIMPLINK Functions

Disc playback

Control connected AV devices by pressing the \wedge \vee $<$ $>$, OK, \blacktriangleright , \blacksquare , II , \blacktriangleleft and \blacktriangleright buttons.

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 and operate it.

Power off all devices

When you switch 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 change automatically to turn on mode.

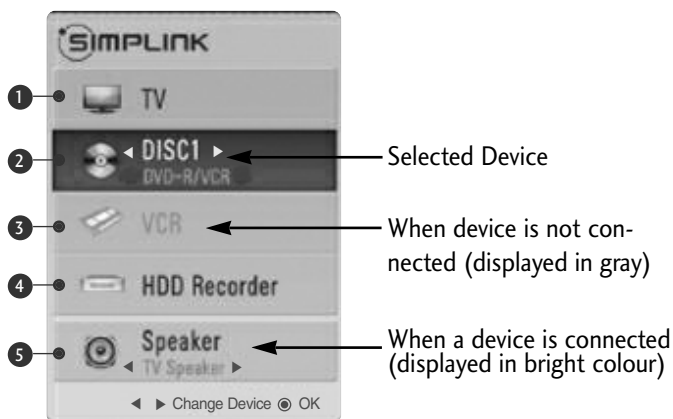
* A device, which is connected to the TV through an HDMI cable but does not support SIMPLINK, does not provide this function.

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

SIMPLINK Menu

Press the \wedge \vee $<$ $>$ button and then OK button to select the desired SIMPLINK source.

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

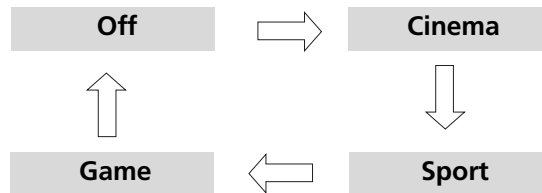


- Home theater: Only one supported at a time
- DVD, Recorder: Up to four supported at a time.
- VCR: Only one supported at a time

AV MODE

You can select the optimal images and sounds when connecting AV devices to external input.

Off	Disables the AV MODE.
Cinema	Optimizes video and audio for watching movies.
Sport	Optimizes video and audio for watching sports events.
Game	Optimizes video and audio for playing games.



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



- If you select **Cinema** in AV mode, **Cinema** will be selected both for **Picture Mode** and **Sound Mode** in **PICTURE** menu and **AUDIO** menu respectively.
- If you select “**Off**” in AV mode, the picture and image which you initially set will be selected.

WATCHING TV / PROGRAMME CONTROL

INITIALIZING (RESET TO ORIGINAL FACTORY SETTINGS)

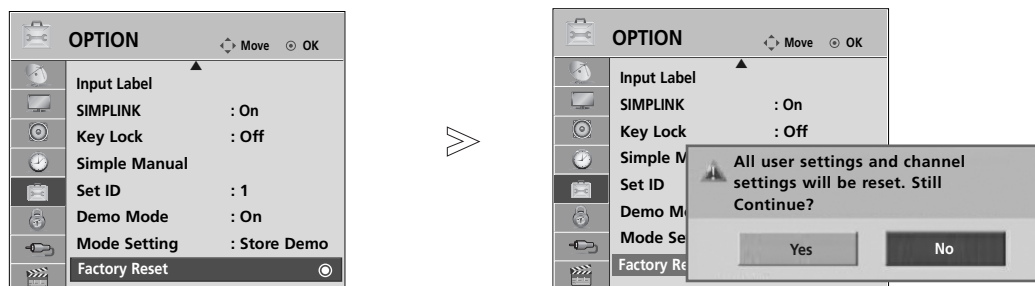
This function initializes all settings.

But the settings of **Day** and **Night** of the **Picture Mode** cannot be initialized.

It is useful to initialize the product or when you move to other city or country.

When the Factory Reset is completed, you must restart the Initializing setup.

When the **Lock System** menu is "On", the message to enter the password appears.



- 1 Select **OPTION**.
- 2 Select **Factory Reset**.
- 3 Select **Yes**.
- 4 Start Factory Reset.

- In **Lock System "On"**, if you forget your password, press '0', '3', '2', '5' on the remote control handset.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

TO USE A USB DEVICE

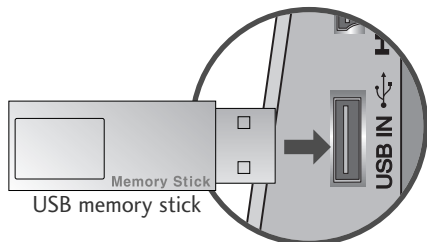
When connecting a USB device

When you connect a USB device, this pop up menu is displayed, automatically.

“POP UP MENU” will not be displayed while the OSD including Menu, EPG or Schedule list is activated. When the Pop Up menu does not appear, you can select Music List, Photo List or Movie List in the USB menu.

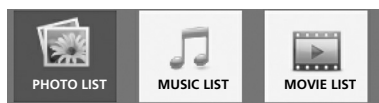
In USB device, you can not add a new folder or delete the existing folder.

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



- Only photo(JPEG), music (MP3) and movie(DAT, MPG, MPEG, VOB, AVI, DIVX, MP4, MKV, TS, TRP, TP) are supported.

- 2 Select **PHOTO LIST**, **MUSIC LIST** or **MOVIE LIST**.



- 3

When removing the USB device

Select the USB Device menu before removing the USB device.

- 1 Select **USB Device**.

- 2 Select **Eject**.

Precautions when using the USB device

- ▶ Only a USB storage device is recognizable.
- ▶ If the USB storage device is connected through a USB hub, the device is not recognizable.
- ▶ A USB storage device using an automatic recognition programme may not be recognized.
- ▶ A USB storage device which uses its own driver may not be recognized.
- ▶ The recognition speed of a USB storage device may depend on each device.
- ▶ Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- ▶ Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files, image files or movie files.
- ▶ Please use only a USB storage device which was formatted as a FAT32 file system, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.
- ▶ Please connect power to a USB storage device(over 0.5 A) which requires an external power supply. If not, the device may not be recognized.
- ▶ Please connect a USB storage device with the cable offered by the device maker.
- ▶ Some USB storage devices may not be supported or operated smoothly.
- ▶ File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.
- ▶ Be sure to back up important files since data stored in a USB memory device may be damaged. We will not be responsible for any data loss.
- ▶ If the USB HDD does not have an external power source, the USB device may not be detected. So be sure to connect the external power source.
 - Please use a power adaptor for an external power source. We do not guarantee an USB cable for an external power source.
- ▶ Data in a USB storage device cannot be deleted in the NTFS file system.
- ▶ 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.
- ▶ Only the FAT32 file system supports the delete function.
- ▶ If a USB memory device is connected to a USB multi-card reader, its volume data may not be detected.
- ▶ If the USB memory device does not work properly, disconnect and reconnect it.
- ▶ How fast a USB memory device is detected differs from device to device.
- ▶ If the USB is connected in Standby Mode, specific hard disk will automatically be loaded when the TV is turned on.
- ▶ The recommended capacity is 1 TB or less for a USB external hard disk and 32 GB or less for USB memory.
- ▶ Any device with more than the recommended capacity may not work properly.
- ▶ If a USB external hard disk with a "Energy Saving" function does not work, turn the hard disk off and on again to make it work properly.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.

TO USE A USB DEVICE

PHOTO LIST

You can view photo files on USB storage device.
 The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.
 When you are watching the photo by the Photo List function, you can not change the picture mode.

PHOTO(*.JPEG) supporting file

Baseline : 64 x 64 to 15360 x 8640

Progressive : 64 x 64 to 1920 x 1440

- You can play JPEG files only.
- Non-supported files are displayed in the form of predefined icon.

Screen Components

1

Select **USB**.

2

Select **Photo List**.

1

Moves to upper level folder

2

Current page/Total pages

3

Total number of marked photos

4

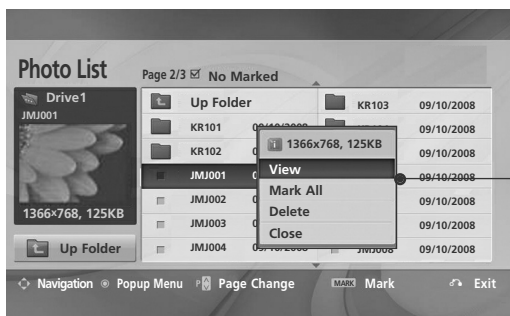
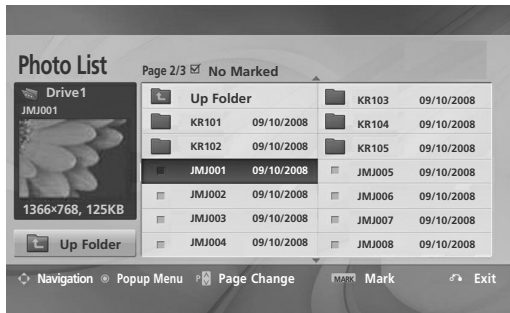
Corresponding buttons on the remote control

Folder/File Name	Date
Up Folder	
KY101	09/10/2008
KY102	09/10/2008
JMJ001	09/10/2008
JMJ002	09/10/2008
JMJ003	09/10/2008
JMJ004	09/10/2008
KY103	09/10/2008
KY104	09/10/2008
KY105	09/10/2008
JMJ005	09/10/2008
JMJ006	09/10/2008
JMJ007	09/10/2008
JMJ008	09/10/2008

TO USE A USB DEVICE

30

Photo Selection and PopUp Menu



- ▶ **View** : Display the selected item.
- ▶ **Mark All** : Mark all photos on the screen.
- ▶ **Unmark All** : Deselect all marked photos.
- ▶ **Delete or Delete Marked**(FAT32 file system only)
: Delete the selected photo item.
- ▶ **Close** : Close the pop-up menu.

- 1 Select the target folder or drive.
- 2 Select the desired photos.
- 3 Show the PopUp menu.
- 4 Select the desired PopUp menu.

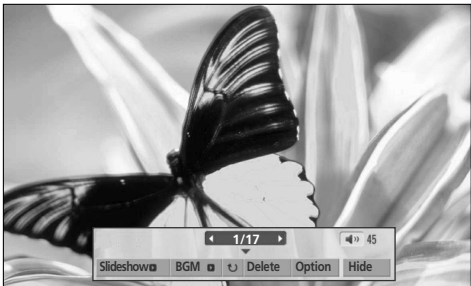
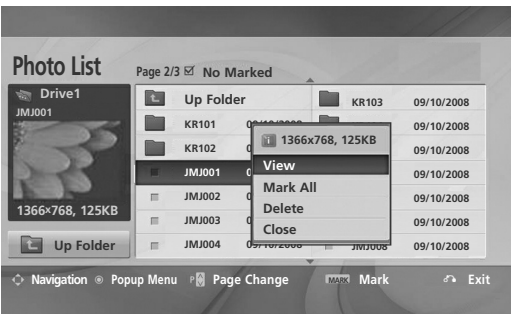
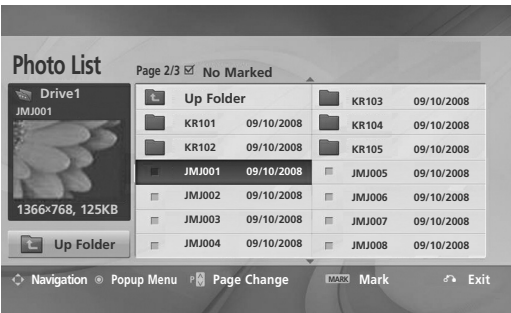
- Use the **P** button to navigation in the photo page.
- Use the **MARK** button to mark or unmark a photo. When one or more photos are marked, you can view each marked photo or a slide show of the marked photos. If no photos are marked, you can view every individual photo in the folder or a slide show of all photos in the folder.

- Press the **BACK** button to return to normal TV viewing.

TO USE A USB DEVICE







How to view photo



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

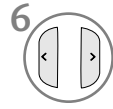



The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.

Press the **BACK** button to move to the previous menu screen.

- 1  Select the target folder or drive.
- 2   Select the desired photos.
- 3  Show the PopUp menu.
- 4  Select **View**.
- 5  The selected photo is displayed in full size.

- Use the **P**   button to navigation in the photo page.



6 Select the **Slideshow**, **BGM**,  (**Rotate**), **Delete**, **Option** or **Hide**.


- Use < > button to select the previous or next photo.
- Use < > button to select and control the menu on the full-sized screen.

► **Slideshow** : When no picture is selected, all photos in the current folder are displayed during slide show. If some photos are selected, those photos are displayed in a slide show.

- Set the time interval of the slide show in **Option**.

► **BGM** (Background Music) : Listen to music while viewing photos in full size.


- Set the Music Folder for BGM in Options before using this function.

►  (**Rotate**) : Rotate photos.

- Rotates the photo 90°, 180°, 270°, 360° clockwise.
- It can not be rotate when the width of a picture is bigger than supported height.

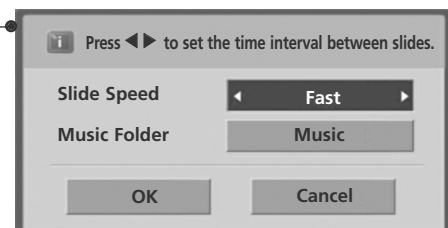
► **Delete(FAT32 file system only)** : Delete photos.

► **Option** : Set values for **Slide Speed** and **Music Folder** for **BGM**.

- Use ^ v < > button and **OK** button to set values. Then go to  and press **OK** to save the settings.
- You cannot change **Music Folder** while BGM is playing.

► **Hide** : Hide the menu on the full-sized screen.

- To see the menu again on the full-sized screen, press **OK** button to display.



TO USE A USB DEVICE

MUSIC LIST

You can play music files on USB storage device.

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

Music file on your USB device can be played by this unit.

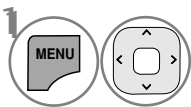
The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.

MUSIC (*.MP3) supporting file

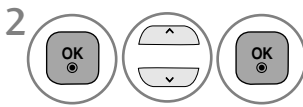
Bit rate 32 to 320

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

Screen Components

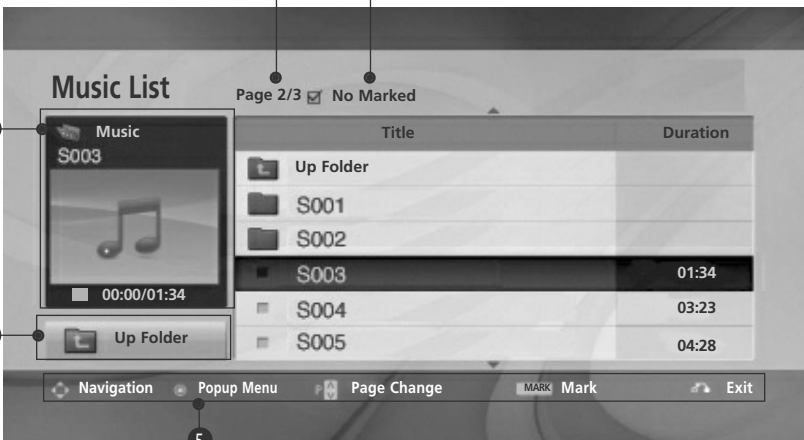


Select **USB**.



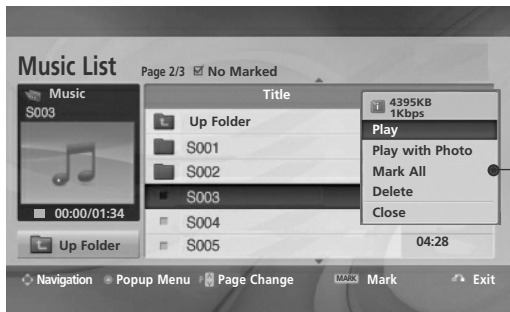
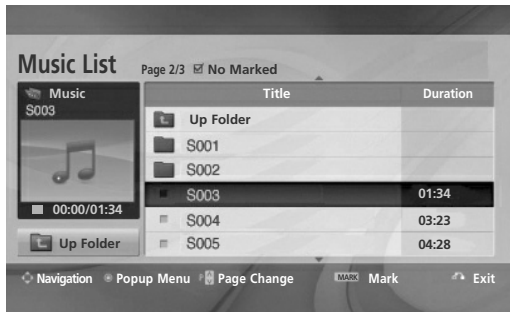
Select **Music List**.

- 1 Preview: If any album jacket for the file(Album Art Image) exists, this jacket is displayed.
- 2 Moves to upper level folder
- 3 Current page/Total pages
- 4 Total number of marked music title
- 5 Corresponding buttons on the remote control



Music Selection and PopUp Menu

As shown, up to 6 music titles are listed per page.



► **Play** (During stop) : Play the selected music titles.

One playback of a piece of music finishes, the next selected one will be played. When there are no selected music titles to play, the next one in the current folder will be played. If you go to a different folder and press the **OK** button, the current music in playback will stop.

► **Play Marked** : Play the selected music titles. Once a music finishes playing, the next selected one will be played automatically.

► **Stop Play** (During playback) : Stop the playing music titles.

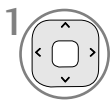
► **Play with Photo** : Start playing the selected music titles and then move to the Photo List.

► **Mark All** : Mark all music titles in the folder.

► **Unmark All** : Deselect all marked music titles.

► **Delete** or **Delete Marked**(FAT32 file system only) : Delete the selected music titles.

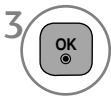
► **Close** : Close the pop-up menu.



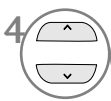
1 Select the target folder or drive.



2 Select the desired music title



3 Show the PopUp menu.



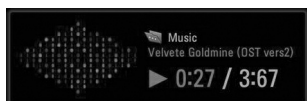
4 Select the desired PopUp menu.

- Use the **P** ^ v button to navigate up/down in the music page.
- Use **MARK** button to mark or unmark a music. When one or more music files are marked, the marked music title will be played in sequence. For example, if you want to listen to only one music repeatedly, just mark the music only and play it. If no music is marked, all the music in the folder will be played in sequence.




• Press the **BACK** button to return to normal TV viewing.

TO USE A USB DEVICE

- If you don't press any button for a while during the playing, the play information box (as shown in the below) will float as a screen saver.
- The 'Screen Saver'?
Screen saver is to prevent screen pixel damage due to an fixed image remaining on the screen for a extended period of time.



! NOTE

- ▶ When a music file is played,  is displayed behind the title.
- ▶ A damaged or corrupted music does not play but displays 00:00 in playtime.
- ▶ A music downloaded from a paid service with copyright protection does not start but displays inappropriate information in playtime.
- ▶ If you press **OK**,  buttons, screen saver is stopped.
- ▶ The **PLAY(▶)**, **Pause(II)**, , **▶▶**, **◀◀** buttons on the remote control are also available in this mode.
- ▶ You can use the **▶▶** button to select the next music and the **◀◀** button to select the previous music.

MOVIE LIST

You can play movie files on a USB storage device.

The movie list is activated once USB is detected. It is used when playing movie files on TV.

Displays the movies in the USB folder and supports Play.

Allows playback of all movies in the folder and user desired files.

It is a movie list that displays folder information and movie file.

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

Movie(*.dat/*.mpg/*.mpeg/*.ts/*.trp/*.tp/*.vob/*.mp4/*.mkv/*.avi/*.divx) supporting file
 Video format :DivX3.11, DivX4.12, DivX5.x, DivX6, Xvid1.00, Xvid1.01, Xvid1.02, Xvid1.03, Xvid 1.10-beta-1/beta-2, Mpeg-1, Mpeg-2, Mpeg-4, H.264/
 AVC Audio format : Dolby Digital, Mpeg, MP3, LPCM
 Bit rate : within 32 kbps to 320 kbps(MP3)
 Subtitle format : *.smi/*.srt/*.sub(MicroDVD, ubViewer1.0/2.0)/*.ass/*.ssa/*.txt(TMPlayer)/*.psb(PowerDivX)



- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Subtitles in languages other than the supported languages are not available.
- Time information in an external subtitle file should be arranged in ascending order to be played.
- The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- A damaged movie file may not be played correctly, or some player functions may not be usable.
- Movie files produced with some encoders may not be played correctly.
- If the video and audio structure of recorded file is not interleaved, either video or audio is outputted.
- HD videos with a maximum of 1920x1080@25/30P or 1280x720@50/60P are supported, depending on the frame.
- Videos with resolutions higher than 1920x1080@25/30P or 1280x720@50/60P may not work properly depending on the frame.
- Movie files other than the specified types and formats may not work properly.
- **Max bitrate of playable movie file is 20 Mbps.**
- 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 movie file more than 30 GB in file size is not supported for playback.
- A DivX movie file and its subtitle file must be located in the same folder.
- A video file name and its subtitle file name must be identical for it to be displayed.
- Playing a video via a USB connection that doesn't support high speed may not work properly.
- Files encoded with GMC(Global Motion Compensation) may not be played.
- When you are watching the movie by Movie List function, you can adjust an image by **Energy Saving** and **AV Mode** key on the remote control. User setup for each image mode does not operate.

File Extension name	Video Decoder	Audio Codec	Max Resolution
mpg, mpeg, vob	MPEG1, MPEG2	Dolby Digital,MPEG,MP3,LPCM	1920x1080@30p
dat	MPEG1	Dolby Digital,MPEG,MP3,LPCM	
ts,trp,tp	MPEG2, H.264/AVC	Dolby Digital,MPEG	
mp4	MPEG4 SP, MPEG4 ASP, DivX 3.11, Divx 4.12, Divx 5.x Divx 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03 Xvid 1.10-beta 1, Xvid 1.10-beta 2, H.264/AVC	Dolby Digital, MPEG,MP3,LPCM	
avi	MPEG 2, MPEG 4 SP, MPEG4 ASP, DivX 3.11, DivX 4, DivX 5, DivX 6 Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta 1 Xvid 1.10-beta 2, H.264/AVC	Dolby Digital,MPEG, MP3,LPCM	
mkv	H.264/AVC, MPEG 1, MPEG 2, MPEG 4 SP, MPEG4 ASP	Dolby Digital,MPEG,MP3,LPCM	
divx	MPEG 2, MPEG 4 SP, MPEG4 ASP, DivX 3.11, DivX 4, DivX 5, DivX 6 Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta 1 Xvid 1.10-beta 2, H.264/AVC	Dolby Digital,MPEG, MP3,LPCM	

TO USE A USB DEVICE




Screen Components

1



Select **USB**.

2



Select **Movie List**

① Moves to upper level folder

② Current page/Total pages

③ Total number of marked movie title


④ Corresponding buttons on the remote control

Movie List

Page 2/3 ☒ No Marked

movie

M002



640x480, 720KB

Up Folder

Title	Duration
Up Folder	
Favorite Music	
M001	
M002	01:34:45
M003	01:15:30
M004	01:30:20

Navigation

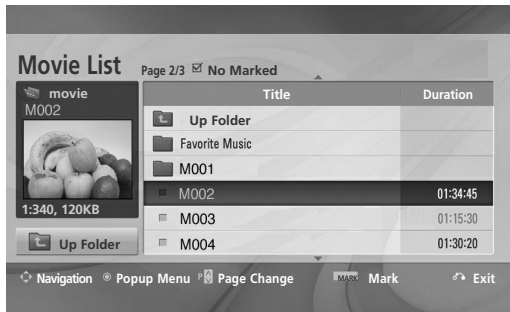
Popup Menu

Page Change







MARK Mark

Exit

Movie Selection and PopUp Menu



- ▶ **Play** : Play the selected movie.
Divx Play is executed while screen changes.
- ▶ **Mark All** : Mark all Movie in the folder.
- ▶ **Unmark All** : Deselect all marked movies.
- ▶ **Delete** or **Delete Marked**(FAT32 file system only)
: Delete the selected Movie item.
- ▶ **Close** : Close the pop-up menu.

- 1  Select the target folder or drive.
- 2   Select the desired movie title
- 3  Show the PopUp menu.
- 4   Select the desired PopUp menu.

- Use the **P** ^ v button to navigation in the movie page.
- Use **MARK** button to mark or unmark a movie.
When one or more movie files are marked, the marked movies will be played in sequence.

- Press the **BACK** button to return to normal TV viewing.

! NOTE

- ▶ In the case of files not supported, a message regarding non-supported file is displayed.

TO USE A USB DEVICE

Using the Movie List function, play



Picture Size	◀ Full ▶
Audio Language	1
Subtitle Language	Latin 1
· Sync	0
· Position	0
Close	

- ▶ **Picture Size** : Selects your desired picture format during movie play.
- ▶ **Audio Language & Subtitle Language** : Changes the Language Group of the audio/subtitle during movie play.
- ▶ **Sync** : Adjusts the time synchronisation of the subtitle from -10 secs to +10 secs by steps of 0.5 secs during movie play.
- ▶ **Position** : Changes the position of the subtitle either up or down during movie play.

! NOTE

- ▶ Only the files saved in ASCII CODE is supported for the external subtitles of the movie.
- ▶ Only 500 alphabets and 500 numbers are supported for each line of the subtitle.
- ▶ Only 10,000 of sync blocks can be supported within the subtitle file.

Subtitle Language	Support Language
Latin1	English, Spanish, French, German, Italian, Swedish, Finnish, Dutch, Portuguese, Danish, Romanian, Norwegian, Albanian, Gaelic, Welsh, Irish, Catalan, Valencian
Latin2	Bosnian, Polish, Croatian, Czech, Slovak, Slovenian, Serbian, Hungarian
Latin4	Estonian, Latvian, Lithuanian
Cyrillic	Bulgarian, Macedonian, Russian, Ukrainian, Kazakh
Greek	Greek
Turkish	Turkish

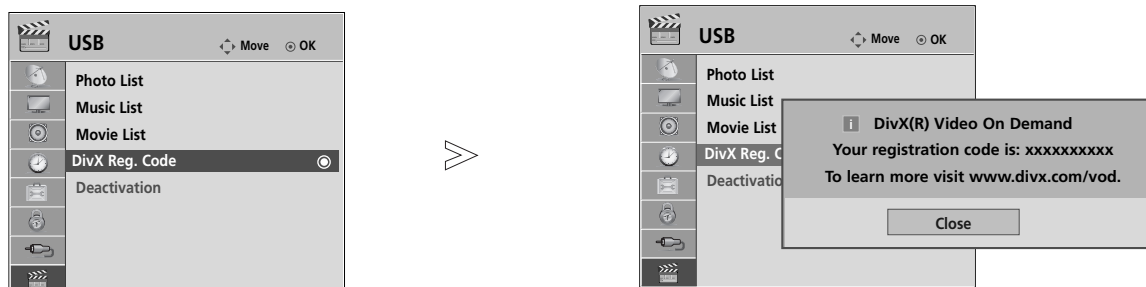
Using the remote control


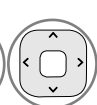

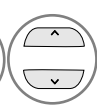

◀◀ / ▶▶	<p>When playing,</p> <p>repeatedly, press the REW(◀◀) button to speed up ◀◀(x2) -> ◀◀◀◀(x4) -> ◀◀◀◀◀◀(x8) -> ◀◀◀◀◀◀◀◀(x16) -> ◀◀◀◀◀◀◀◀◀◀◀◀(x32) .</p> <p>repeatedly, press the FF(▶▶) button to speed up ▶▶(x2)-> ▶▶▶▶(x4) -> ▶▶▶▶▶▶(x8) -> ▶▶▶▶▶▶▶▶(x16) -> ▶▶▶▶▶▶▶▶▶▶(x32).</p> <ul style="list-style-type: none"> ■ Pressing these buttons repeatedly increases the fast forward/reverse speed.
	<p>During playback, press the Pause() button.</p> <ul style="list-style-type: none"> ■ Still screen is displayed. ■ If no buttons are pressed on the remote control for 10 minutes after pausing, the TV returns to the playback state. ■ Press the Pause() button and then use the FF(▶▶) button for slow motion.
< >	<ul style="list-style-type: none"> ■ When using the < or > button during playback a cursor indicating the position can be viewed on the screen.
PLAY(▶)	<p>Press the PLAY(▶) button to return to normal playback.</p>
ENERGY SAVING	<p>Press the ENERGY SAVING button repeatedly to increase the brightness of your screen.(Refer to p. 49)</p>
AV MODE	<p>Press the AV MODE button repeatedly to select the desired source.(Refer to p. 27)</p>

DIVX REGISTRATION CODE

Confirm the DivX registration code number of the TV. Using the registration number, movies can be rented or purchased at www.divx.com/vod.

With a DivX registration code from other TV, playback of rented or purchased DivX file is not allowed. (Only DivX files matched with the registration code of the purchased TV are playable.)



- 1   Select **USB**.
- 2   Select **DivX Reg. Code**.
- 3  Display **DivX Reg. Code**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.



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

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

“DivX Certified to play DivX video up to HD 1080p, including premium content”
“Pat. 7,295,673; 7,460,688; 7,519,274”

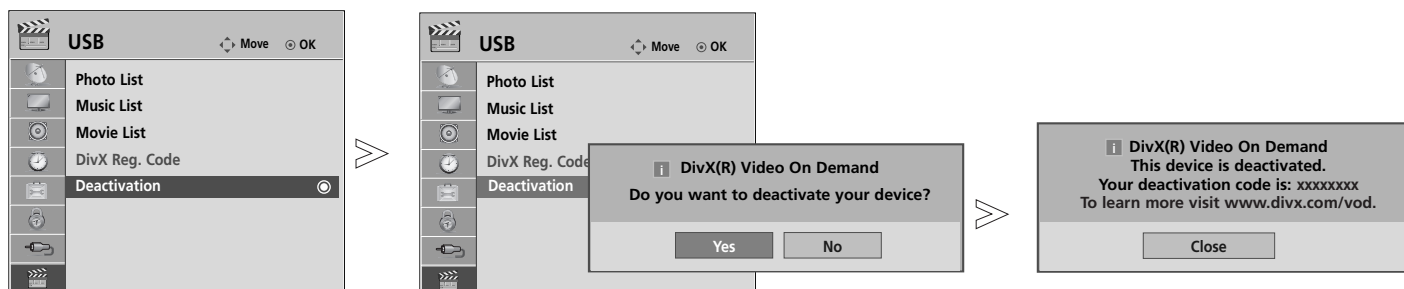
! NOTE

- ▶ Movie files are supported as follows
 - Resolution : under 1920x1080 WxH pixels
 - Frame rate : under 30 frames/sec(1920x1080), under 60 frames/sec(under 1280x720)
- ▶ Video Codec : MPEG 1, MPEG 2, MPEG 4, H.264/AVC, DivX 3.11, DivX 4.12, DivX 5.x, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1, Xvid 1.10-beta2








TO USE A USB DEVICE

DEACTIVATION

The purpose of deactivation is to allow deactivation of devices for users who have activated all the available devices through the web_server and are blocked from activating more devices. DivX VOD allowed the consumer to activate up to 6 devices under one account, but to replace or deactivate any of those devices, the consumer had to contact DivX Support and request deletion. Now with this added feature, consumers will be able to deactivate the device themselves and hence better manage their DivX VOD devices.



TO USE A USB DEVICE

-   Select **USB**.
-   Select **Deactivation**.
-   Select **Yes**.
-  Display **Deactivation**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.













EPG (ELECTRONIC PROGRAMME GUIDE)(IN DIGITAL MODE)

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


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

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

The EPG displays the programme details for next 8 days.


 Shows the present screen information.	 Displayed with a Teletext Programme.
 Displayed with a DTV Programme.	 Displayed with a Subtitle Programme.
 Displayed with a Radio Programme.	 Displayed with a Scramble Programme.
 Displayed with a MHEG Programme.	 Displayed with a Dolby Programme.
 Displayed with a AAC Programme.	 Displayed with a Dolby Digital PLUS Programme.
 Aspect ratio of broadcasting programme.	576i/p, 720p, 1080i/p : Resolution of broadcasting programme
 Aspect ratio of broadcasting programme.	

Switch on/off EPG

1  Switch on or off EPG.


Select a programme

1  or  Select desired programme.

2  The EPG will disappear after moving to a selected program.


Button Function in NOW/NEXT Guide Mode


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


 Change EPG mode.

 Enter Timer Record/Remind setting mode.

 Enter Timer Record/Remind list mode.

 The EPG will disappear after moving to a selected program.




 Select NOW or NEXT Programme.


 Select the Broadcast Programme.


 Page Up/Down.

Programme Guide		
1 YLE TV1		6 Apr. 2007 15:09
ALL	NOW	NEXT
1 YLE TV1	That '70s show	Keno
2 YLE TV2	Your World Today	World Business
4 TV...	Legenen om Den...	Fantomen
5 YLE FST	Naturtimmen	Kritiskt
6 CNN	Lyssna	ABC
8 YLE24	Glamour	Tänään otsikoissa

FAV Favourite INFO Information Pr. Change TV/RAD RADIO
Mode Schedule Schedule List

 or  or  Switch off EPG.

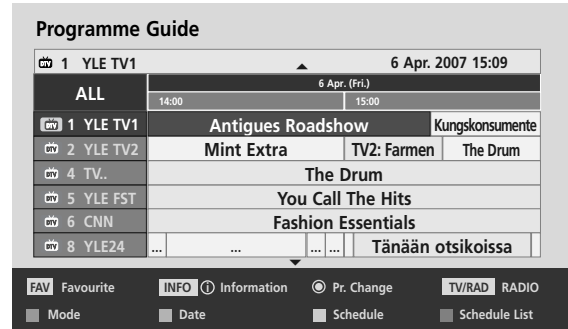
 Select TV or RADIO Programme.

 Detail information on or off

EPG (ELECTRONIC PROGRAMME GUIDE)

Button Function in 8 Day Guide Mode

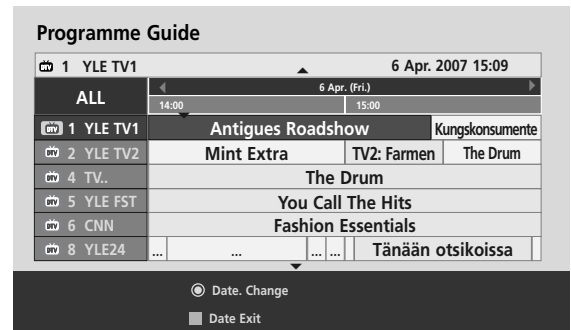
- RED** Change EPG mode.
- GREEN** Enter Date setting mode.
- YELLOW** Enter Timer Record/Remind setting mode.
- BLUE** Enter Timer Record/Remind list mode.
- OK** The EPG will disappear after moving to a selected program.
- < >** Select Programme.
- ▲ ▼** Select the Broadcast Programme.



- ↑ ↓** Page Up/Down.
- GUIDE** or **BACK** or **EXIT** Switch off EPG.
- TV/RAD** Select TV or RADIO Programme.
- INFO** Detail information on or off

Button Function in Date Change Mode

- GREEN** Switch off Date setting mode.
- OK** Change to the selected date.
- < >** Select a date.
- ▲ ▼** Switch off Date setting mode.
- GUIDE** or **BACK** or **EXIT** Switch off EPG.



Button Function in Extended Description Box



Text Up/Down.



Enter Timer Record/Remind setting mode.



or



The detail information on or off.



Switch off EPG.



Button Function in Record/Remind Setting Mode

Sets a start or end time for recording, and sets only a start time for the reminder with the end time grayed out.



Change to Guide or Schedule mode.



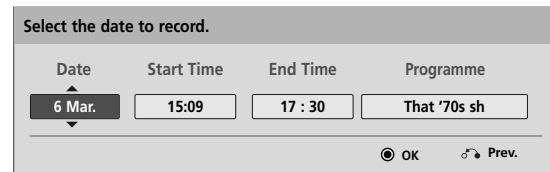
Select Record or Remind.
Function setting.



Select Date, Start/End time or Programme.



Save Timer Record/Remind.



Button Function in Schedule List Mode

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

Only the Up/Down/OK/Back keys will work when a popup window is open.



Add new Manual Recording setting mode.



Add new Timer Watching setting mode.



or



Change to Guide mode.



or



Switch off EPG.



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



Select **Schedule List**.



Page Up/Down.

PICTURE CONTROL

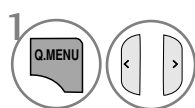
PICTURE SIZE (ASPECT RATIO) CONTROL

You can watch the screen in various picture formats; 16:9, Just Scan, Original, Full Wide, 4:3, 14:9, Zoom and Cinema Zoom.

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

You can adjust the enlarge proportion using $\wedge \vee$ button.

This function works in the following signal.



Select **Aspect Ratio**.



Select the desired picture format.

- You can also adjust **Aspect Ratio** in the **PICTURE** menu.
- For Zoom Setting, select **14:9**, **Zoom** and **Cinema Zoom** in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.

• 16:9

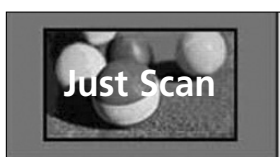
The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen (useful for viewing 4:3 formatted DVDs).



• Just Scan

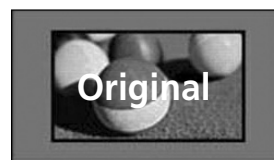
Following Selection will lead to you view the picture of best quality without loss of original picture in high resolution image.

Note : If there is noise in original Picture, You can see the noise at the edge.



• Original

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



• Full Wide

When TV receives the wide screen signal, it will lead you to adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully.



- **4:3**

The following selection will allow you to view a picture with an original 4:3 aspect ratio, gray bars will appear on both the left and right of the screen.



- **14:9**

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



- **Zoom**

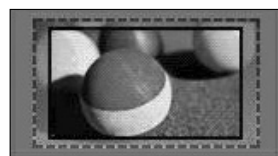
The following selection will allow you to view the picture without any alteration, while filling the entire screen. However, the top and bottom of the picture will be cropped.



- **Cinema Zoom**

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

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



◀ or ▶ button: Adjust enlarge proportion of Cinema Zoom. The adjustment range is 1 to 16.

▼ or ▲ button: Move the screen.

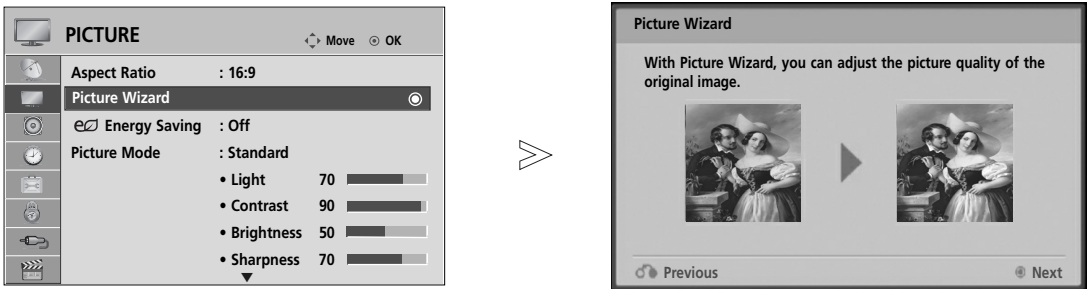
! NOTE

- ▶ You can only select **4:3**, **Original**, **16:9 (Wide)**, **14:9**, **Zoom/Cinema Zoom** in HDMI mode.
- ▶ In DTV/HDMI mode, **Just Scan** is available.
- ▶ In Analogue mode, **Full Wide** is available.

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. General users can calibrate the screen quality by easily following each stage.
When you adjust the image to Low, Recommended or High, you can see the changed result as an example.



1. Select **PICTURE**.
2. Select **Picture Wizard**.
3. Adjust **Black level, White level, Colour, Tint, Horizontal Sharpness, Vertical Sharpness, Colour Temperature, Dynamic Contrast, Colour Gain, Light**.
4. Select input source to apply the settings.
- 5.

- If you stop the setting before the final stage, the changes will not be applied
- The adjustment value is saved to Expert1.
- Once the Picture Wizard sets the image quality, the Energy Saving is changed into Off.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

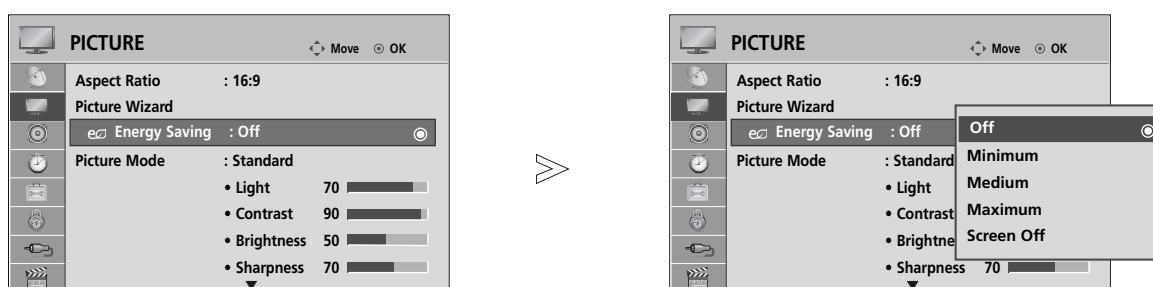
e ENERGY SAVING







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 setting the **Picture Mode**.

When adjusting Energy Saving in MHEG mode, the Energy Saving setting is applied after MHEG is finished. Selecting '**Screen Off**' while tuned to a radio station channel will reduce power consumption.



- 1   Select **PICTURE**.
- 2   Select **e ENERGY SAVING**.
- 3   Select **Off, Minimum, Medium, Maximum** or **Screen Off**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

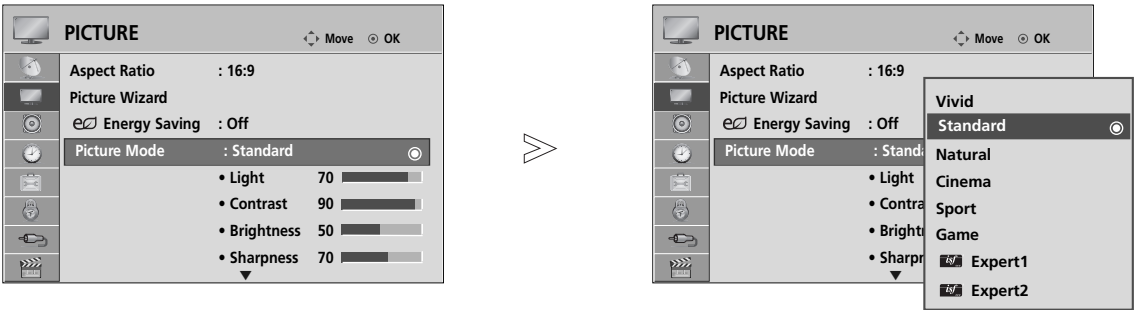
- When selecting Screen off, TV turned off after 3 seconds.
- If you adjust "**Energy Saving- Minimum, Medium, Maximum**", **Light** feature will not work.
- You can also adjust this feature by selecting **Energy Saving** button on the remote control.


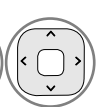

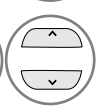
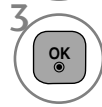
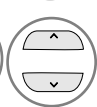
PICTURE CONTROL

PRESET PICTURE SETTINGS

Picture Mode-Preset

Vivid	Strengthen the contrast, brightness, colour and sharpness for vivid picture.
Standard	The most general screen display status.
Natural	The most natural screen display status.
Cinema	Optimizes video for watching movies.
Sport	Optimizes video for watching sports events.
Game	Optimizes video for playing games.



-   Select **PICTURE**.
-   Select **Picture Mode**.
-   Select **Vivid, Standard, Natural, Cinema, Sport or Game**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

- **Picture Mode** adjusts the TV for the best picture appearance. Select the preset value in the **Picture Mode** menu based on the programme category.
- You can also adjust **Picture Mode** in the **Q. Menu**.

MANUAL PICTURE ADJUSTMENT

Picture Mode-User option

Light

This is the function to adjust the brightness of the screen by adjusting the Light of the Menu. Adjusting the light when setting the brightness of the set is recommended.

Contrast

Adjusts the signal level between black and white in the picture. You may use Contrast when the bright part of the picture is saturated.

Brightness

Adjusts the base level of the signal in the picture.

Sharpness

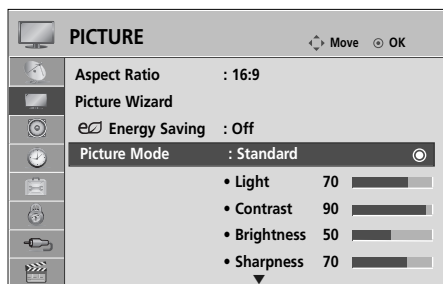
Adjusts the level of crispness in the edges between the light and dark areas of the picture. The lower the level, the softer the image.

Colour

Adjusts intensity of all colours.

Tint

Adjusts the balance between red and green levels.



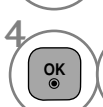
Select **PICTURE**.



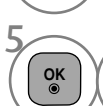
Select **Picture Mode**.



Select **Vivid, Standard, Natural, Cinema, Sport or Game**.



Select **Light, Contrast, Brightness, Sharpness, Colour or Tint**.



Make appropriate adjustments.

• Benefits of using Light

- The electricity consumption is reduced by up to 60%.
- The black brightness is reduced. (As the black has greater depth, you can enjoy a better quality definition.)
- You can adjust brightness with maintaining original signal resolution.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

! NOTE

- ▶ When the **Expert 1/2** is selected, you can select **Light, Contrast, Brightness, H Sharpness, V Sharpness, Colour or Tint**.

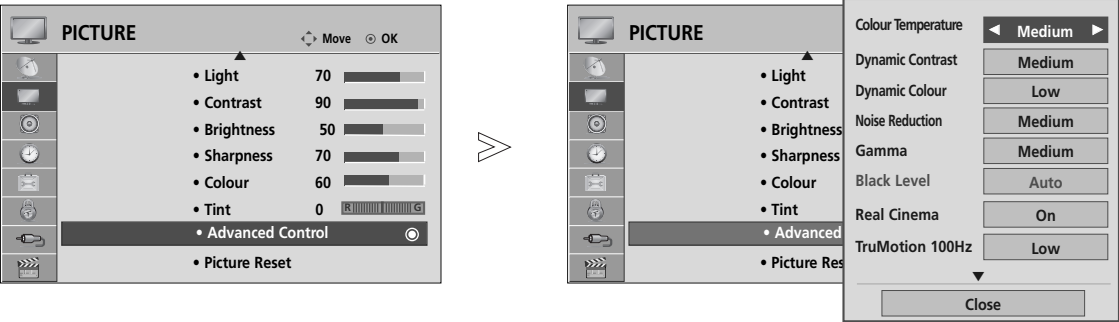
PICTURE CONTROL


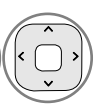

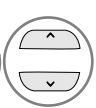



PICTURE IMPROVEMENT TECHNOLOGY

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

To reset to the factory default screen after making adjustments to each video mode, execute the “Picture Reset” function for each Picture Mode.

Image shown may differ from your TV.



-   Select **PICTURE**.
-   Select **Advanced Control**.
-   Select your desired Source.:
Colour Temperature, Dynamic Contrast, Dynamic Colour, Noise Reduction, Gamma, Black Level, Real Cinema, TruMotion 100Hz, Colour Gamut, Edge Enhancer or xvYCC. (Refer to p. 54 to 55)
-  Make appropriate adjustments.

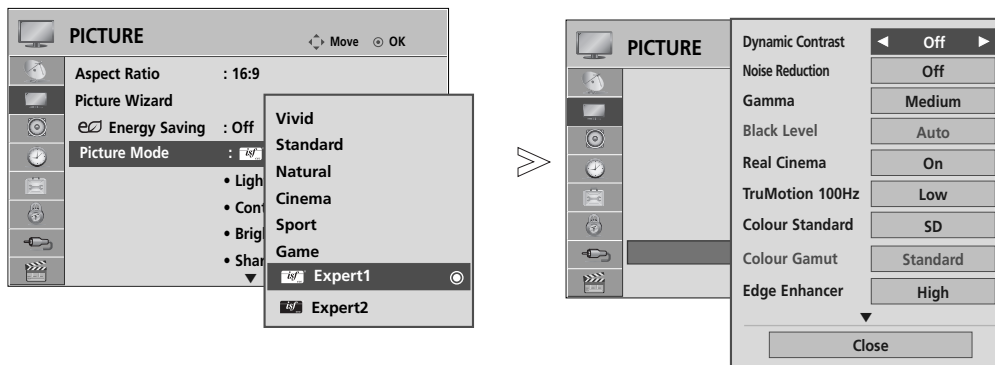
- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

EXPERT PICTURE CONTROL

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

This may also be used to help a professional optimize the TV performance using specific videos.

Image shown may differ from your TV.



1. Select **PICTURE**.
2. Select **Picture Mode**.
3. Select **Expert1** or **Expert2**.
4. Select **Expert Control**.
5. Select your desired Source.
6. Make appropriate adjustments.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

PICTURE CONTROL

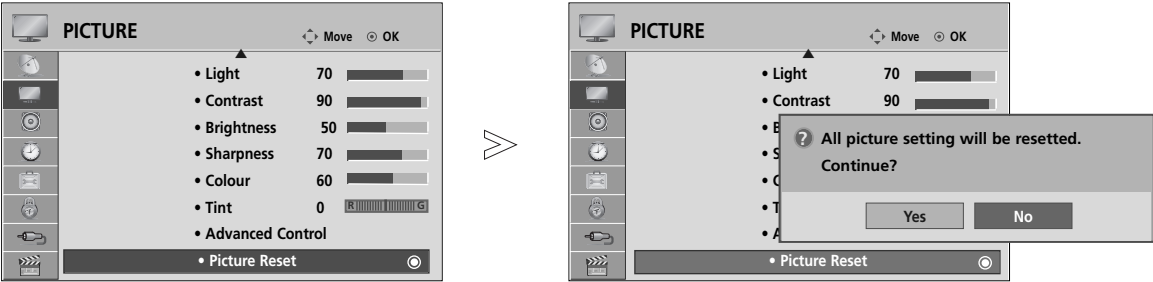
Colour Temperature [Advanced Control] (Warm/Medium/Cool)	<ul style="list-style-type: none"> ■ Choose one of three automatic colour adjustments. Set to warm to enhance hotter colours such as red, or set to cool to make picture bluish.
Dynamic Contrast (Off/Low/Medium/High)	<ul style="list-style-type: 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 Colour (Off/Low/High)	<ul style="list-style-type: none"> ■ Adjusts screen colours so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.
Noise Reduction (Off/Low/Medium/High)	<ul style="list-style-type: none"> ■ Reduces screen noise without compromising video quality.
Gamma (Low/Medium/High)	<ul style="list-style-type: none"> ■ You can adjust brightness of dark area and middle gray level area of the picture. <ul style="list-style-type: none"> • Low : Make dark and middle gray level area of the picture brighter. • Medium: Express original picture levels. • High: Make dark and middle gray level area of the picture darker.
Black Level (Low/High/Auto)	<ul style="list-style-type: none"> • Low : The picture of the screen gets darker. • High : The picture of the screen gets brighter. • Auto : Realizing the black level of the screen and set it to High or Low automatically. ■ Set black level of the screen to proper level. ■ This function enables to select 'Low' or 'High' in the following mode: HDMI. Otherwise, 'Black level' is set to 'Auto'.
Real Cinema (On/Off)	<ul style="list-style-type: none"> ■ You can watch a cinema-like video by eliminating judder effect. ■ Use this function when you watch movies. ■ This function can work when TruMotion is off.
TruMotion 100Hz (Off/Low/High)	<ul style="list-style-type: none"> • High : Provides smoother picture movement. • Low : Provides smooth picture movement. Use this setting for standard use. • Off : Use this setting when "High" and "Low" setting result in noise. ■ TruMotion 100Hz can reduce perception of blur on fast moving scenes by displaying one hundred images per second. ■ It is used for the best picture quality without any motion blur or judder when you enter a quick image or Film Source. ■ If you enable "TruMotion 100Hz" , noise may appear on the screen. If this occurs, set "TruMotion 100Hz" to "Off".


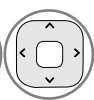

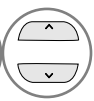

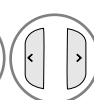
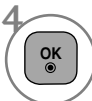
Colour Gamut (Wide/Standard)	<ul style="list-style-type: none"> • Standard : Mode to reproduce original colour according to the standard of input signal independent of the display characteristics. • Wide: Mode to use and set the rich colour area of the display. <ul style="list-style-type: none"> ■ Maximize the utilization for colour area that can be expressed.
Edge Enhancer (Off/Low/High)	<ul style="list-style-type: none"> ■ Shows clearer and distinctive yet natural corners of the video. ■ This function is enabled in "Picture Mode-Cinema, Expert."
xvYCC (Auto/off/on)	<ul style="list-style-type: none"> ■ This is the function to express richer colour. ■ This function is enabled in "Picture mode - Cinema, Expert" when xvYCC signal is inputted through HDMI
Colour Standard (SD/HD)	<ul style="list-style-type: none"> ■ Converts the colour of a different video to HD colour. This function is set for SD video (BT-601) and HD video (BT-709) colour format.
Expert Pattern (Off/Expert1/Expert2)	<ul style="list-style-type: none"> ■ This is the pattern necessary for expert adjustment. ■ This function is enabled in "Picture Mode - Expert" when you watch DTV.
Colour Filter (Off/Red/Green/Blue)	<ul style="list-style-type: none"> ■ This is the function to filter the specific colours of the video. You can use the RGB filter to set colour saturation and hue accurately.
Colour Temperature [Expert Control] (Medium/Warm/Cool)	<ul style="list-style-type: none"> ■ This is the function to adjust the overall colour of the screen to the feeling you want. <ol style="list-style-type: none"> • 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 to +50. • Method : 10 point IRE <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 to 100. You can adjust Red, Green or Blue according to each setting. • Luminance: This function displays calculated luminance value for 2.2 gamma. You can input luminance value you want at 100 IRE, than the target luminance value for 2.2 gamma is displayed at every 10 steps from 10 IRE to 90 IRE. • Red/Green/Blue: The adjustment range is -50 to +50.
Colour Management System	<ul style="list-style-type: none"> ■ As the tool used by the experts to make adjustments by using the test patterns, this does not affect other colours but can be used to selectively adjust the 6 colour areas (Red/Green/Blue/Cyan/Magenta/Yellow). Colour 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 Colour : The adjustment range is -30 to +30. • Red/Green/Blue/Yellow/Cyan/Magenta Tint : The adjustment range is -30 to +30.

PICTURE CONTROL

PICTURE RESET

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



1.   Select **PICTURE**.
2.   Select **Picture Reset**.
3.   Select **Yes** or **No**.
4.  Initialize the adjusted value.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

DEMO MODE

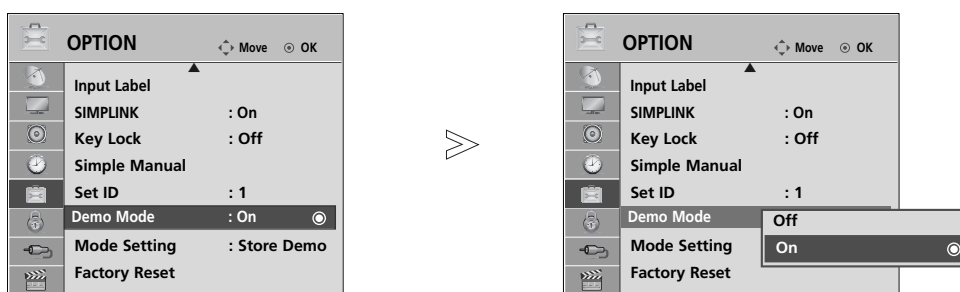
Display the slide show to explain the various logo of this TV.


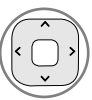

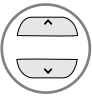

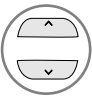


It is not possible to use **Demo Mode** in **Home Use** mode.

In **Store Demo**, **Demo Mode** is automatically set to **On**.

Once **Demo Mode** is set to **Off** in **Store Demo**, **Demo Mode** does not run and only the screen is reset.

The screen is reset automatically after 5 minutes in **Demo Mode**.



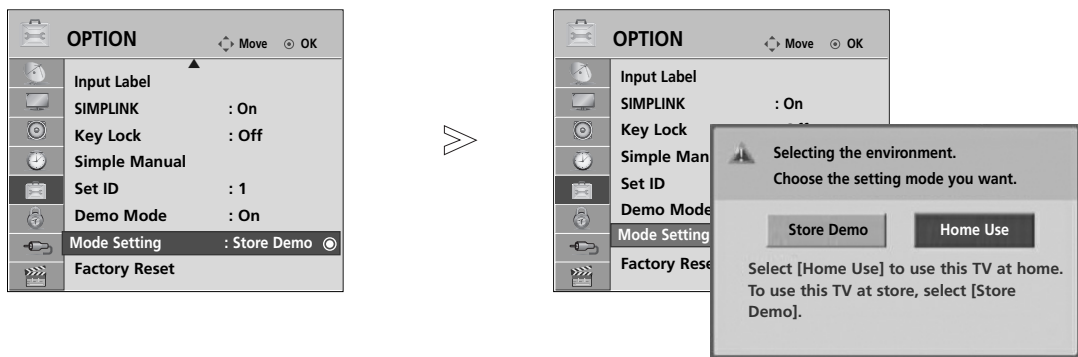
- 1   Select **OPTION**.
- 2   Select **Demo Mode**.
- 3   Select **On** to show the various logo of TV.
- 4  Return to TV viewing.
If you want to stop the demo, press any button. (except for MUTE,  + , - button)


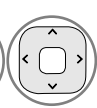



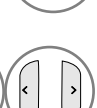

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

PICTURE CONTROL

MODE SETTING

We recommend setting the TV to “**Home Use**” mode for the best picture in your home environment.
“**Store Demo**” mode is an optimal setting for displaying at stores..



- 1   Select **OPTION**.
- 2   Select **Mode Setting**.
- 3   Select **Store Demo** or **Home Use**.
- 4  Save.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

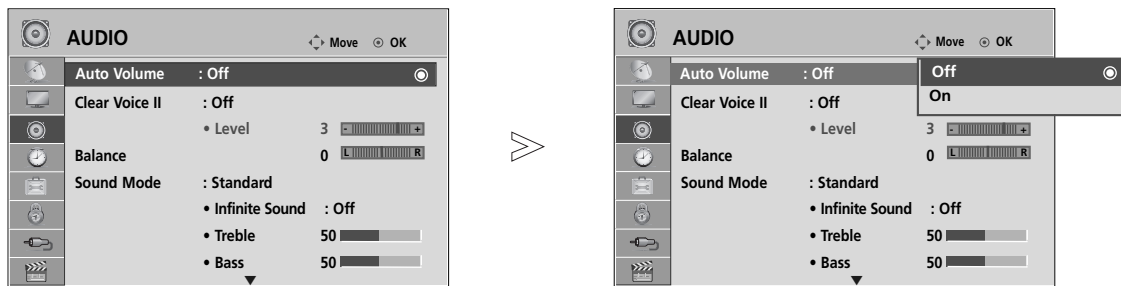
SOUND & LANGUAGE CONTROL

AUTO VOLUME LEVELER

AVL automatically remains on the same level of volume if you change programmes.

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.

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.



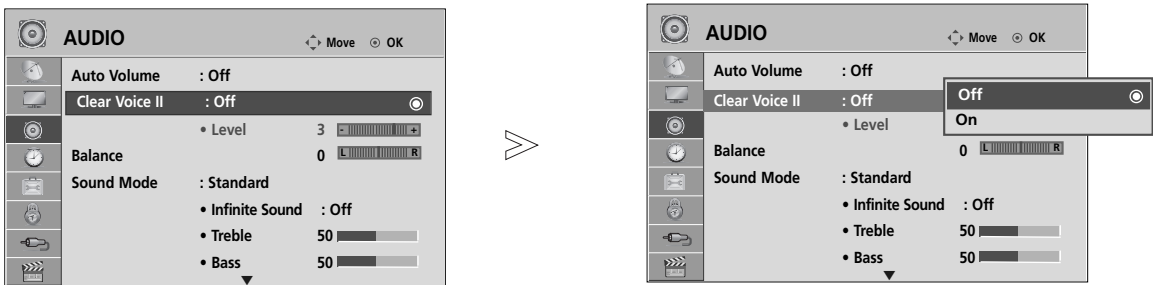
1. Select **AUDIO**.
2. Select **Auto Volume**.
3. Select **On** or **Off**.


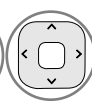

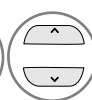

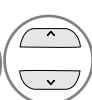
- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

SOUND & LANGUAGE CONTROL

CLEAR VOICE II


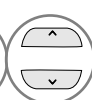

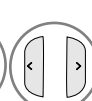
By differentiating the human sound range from others, it helps users listen to human voices better.



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

- If you select “On” for **Clear Voice II**, **Infinite Sound** feature will not work.
- Select levels from ‘-6’ to ‘+6’.

Adjustment for Clear Voice Level With selecting On

- 3   Select **Level**.
- 4   Make desired adjustment.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

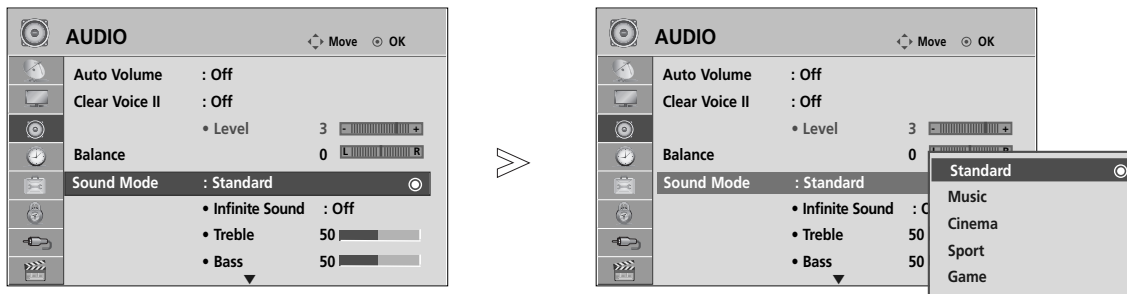
PRESET SOUND SETTINGS-SOUND MODE

You can select your preferred sound setting; Standard, Music, Cinema, Sport or Game and you can also adjust the Treble, Bass.

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

Standard, Music, Cinema, Sport and Game are preset for optimum sound quality at the factory.

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.



1 Select **AUDIO**.

2 Select **Sound Mode**.

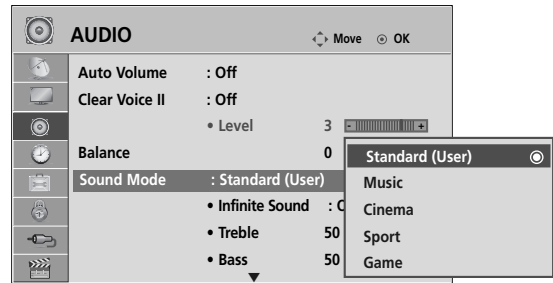
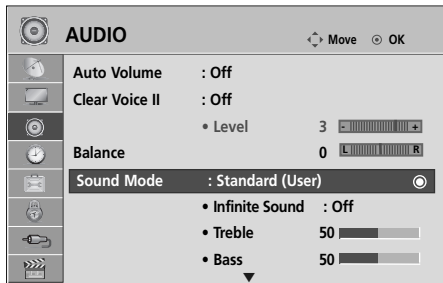
3 Select **Standard, Music, Cinema, Sport or Game**.










• You can also adjust **Sound Mode** in the **Q. Menu**.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

SOUND & LANGUAGE CONTROL

SOUND SETTING ADJUSTMENT -USER MODE









- 1   Select **AUDIO**.
- 2   Select **Sound Mode**.
- 3   Select **Standard, Music, Cinema, Sport or Game**.
- 4   Select **Treble or Bass**.
- 5   Set the desired sound level.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

INFINITE SOUND

Select this option to sound realistic.

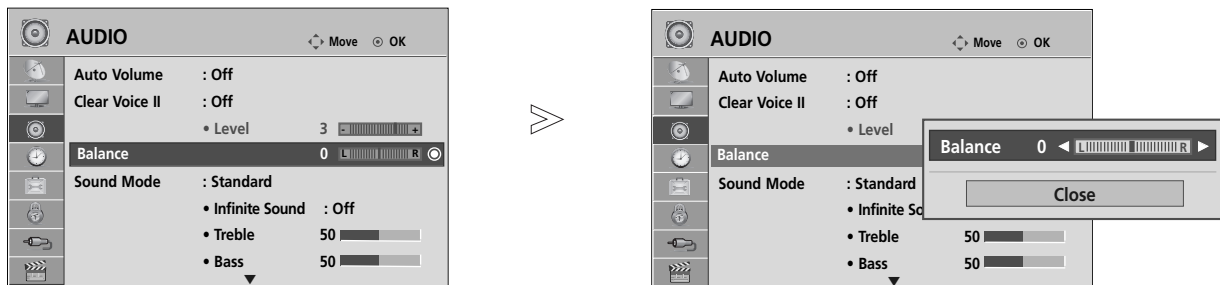
- 1   Select **AUDIO**.
- 2   Select **Infinite Sound**.
- 3   Select **On or Off**.







Infinite Sound : Infinite Sound is a patented LG proprietary sound processing technology that strives immersive 5.1 surround sound impression with front two loudspeakers.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

BALANCE

You can adjust the sound balance of the speakers to preferred levels.



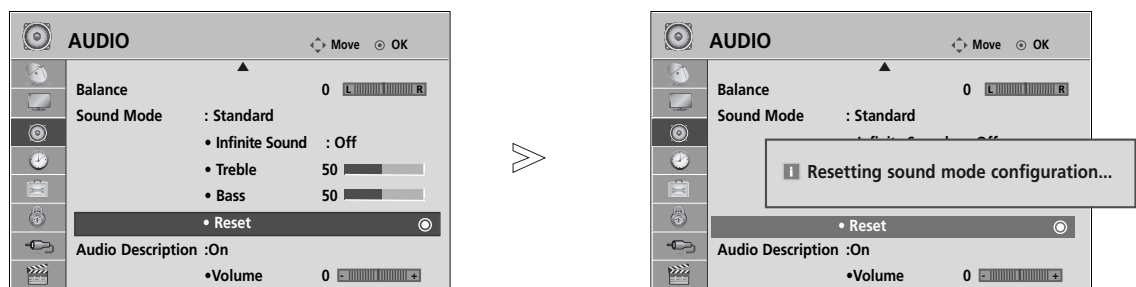
- 1   Select **AUDIO**.
- 2   Select **Balance**.
- 3   Make desired adjustment.






- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

SOUND & LANGUAGE CONTROL

AUDIO RESET

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



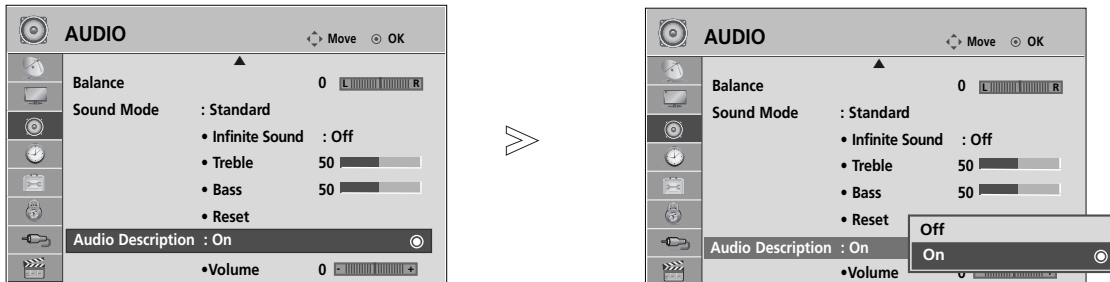
- 1   Select **AUDIO**.
- 2   Select **Reset**.
- 3  Initialize the adjusted value.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

AUDIO DESCRIPTION (IN DIGITAL MODE ONLY)

This function is for the blind, and provides explanatory audio describing the current situation in a TV programme in addition to the basic audio.

When Audio Description On is selected, basic audio and Audio Description are provided only for those programmes that have Audio Description included.



1 Select **AUDIO**.

2 Select **Audio Description**.

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

Adjustment for Audio Description Volume With selecting On

4 Select **Volume**.

5 Make desired adjustment.


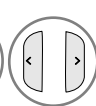


- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

SOUND & LANGUAGE CONTROL

I/II

Stereo/Dual Reception (In Analogue Mode Only)

When a programme is selected, the sound information for the station appears with the programme number and station name.

- 1   Select **Audio**.
- 2   Select the sound output.

Broadcast	On Screen Display
Mono	MONO
Stereo	STEREO
Dual	DUAL I, DUAL II, DUAL I+II

■ Mono sound selection

If the stereo signal is weak in stereo reception, you can switch to mono. In mono reception, the clarity of sound is improved.

■ Language selection for dual language broadcast

If a programme can be received in two languages (dual language), you can switch to DUAL I, DUAL II or DUAL I+II.

- DUAL I Sends the primary broadcast language to the loudspeakers.
DUAL II Sends the secondary broadcast language to the loudspeakers.
DUAL I+II Sends a separate language to each loudspeaker.

NICAM Reception (In Analogue Mode Only)

If the TV is equipped with a receiver for NICAM reception, high quality NICAM (Near Instantaneous Companding Audio Multiplex) digital sound can be received.

Sound output can be selected according to the type of broadcast received.

-
- 1 When **NICAM mono** is received, you can select **NICAM MONO** or **FM MONO**.
-
- 2 When **NICAM stereo** is received, you can select **NICAM STEREO** or **FM MONO**.
If the stereo signal is weak, switch to **FM MONO**.
-
- 3 When **NICAM dual** is received, you can select **NICAM DUAL I**, **NICAM DUAL II** or **NICAM DUAL I+II** or **FM MONO**.
-

Speaker Sound Output Selection

In HDMI mode, you can select output sound for the left and right loudspeakers.

Select the sound output.

L+R: Audio signal from audio L input is sent to the left loudspeaker and audio signal from audio R input is sent to the right loudspeaker.

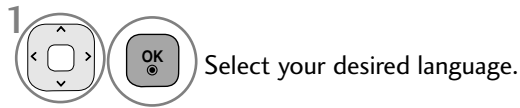
L+L: Audio signal from audio L input is sent to left and right loudspeakers.

R+R: Audio signal from audio R input is sent to left and right loudspeakers.

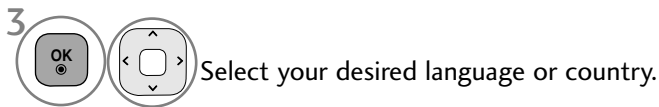
SOUND & LANGUAGE CONTROL

ON-SCREEN MENU LANGUAGE / COUNTRY SELECTION

The installation guide menu appears on the TV screen when it is switched on for the first time.



* If you want to change Language/ Country selection



- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

! NOTE

- ▶ If you do not finish the set-up **Installation Guide** by pressing **BACK** or if you time out on the OSD (On Screen Display) the installation menu will continuously appear until the set up is completed whenever the TV is switched on.
- ▶ If you select the wrong local country, teletext may not appear correctly on the screen and some problems may occur during teletext operation.
- ▶ DTV mode control buttons may not function based on country broadcasting circumstances.
- ▶ In country that Digital broadcasting regulation isn't fixed, some DTV function may not work depending on digital broadcasting circumstances.
- ▶ The Country Setting "UK" should only be activated in UK.
- ▶ If the country setting is set to "--", European terrestrial/cable digital standard broadcasting programmes are available, but some DTV functions may not work properly.

LANGUAGE SELECTION (IN DIGITAL MODE ONLY)









The Audio function allows selection of a preferred language.

If audio data in a selected language is not broadcast, the default language audio will be played.

Use the Subtitle function when two or more subtitle languages are broadcast. If subtitle data in a selected language is not broadcast, the default language subtitle will be displayed.

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




- 1   Select **OPTION**.
- 2   Select **Audio Language** or **Subtitle Language**.
- 3   Select your desired language.
- 4  Save.

- 1   Select **OPTION**.
- 2    Select **Hard of Hearing**().
- 3   Select **On** or **Off**.



- Press the **BACK** button to move to the previous menu screen.

< Audio Language Selection >

- ▶ When two or more audio languages are broadcast, you can select the audio language.







- 1   Select **Audio**
- 2  Select an audio language.



< Subtitle Language Selection >

- ▶ When two or more subtitle languages are broadcast, you can select the subtitle language with the **SUBTITLE** button on the remote control.
- ▶ Press the   button to select a subtitle language.



- The audio/subtitles can be displayed in a simpler form with 1 to 3 characters broadcast by the service provider.
- When you select supplementary Audio (Audio for "Visual/Hearing Impaired") the TV may output a part of the Main audio.

Audio Language OSD Information

Display	Status
N.A	Not Available
	MPEG Audio
	Dolby Digital Audio
	Audio for "Visual Impaired"
	Audio for "Hearing Impaired"
	Dolby Digital Plus Audio
	AAC Audio

- 3   Select **L+R**, **L+L** or **R+R**.

Subtitle Language OSD Information

Display	Status
N.A	Not Available
	Teletext Subtitle
	Subtitle for "Hard of Hearing"

TIME SETTING

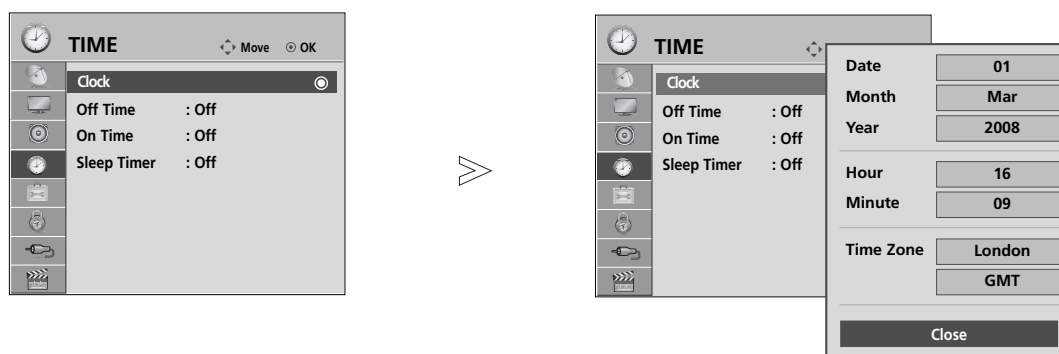
CLOCK SETUP

The clock is set automatically when receiving a digital signal. (You can set the clock manually only if the TV has no DTV signal.)

You must set the time correctly before using on/off timer function.

When you select a Time Zone city, the TV time is set by the time offset information based on Time Zone and GMT (Greenwich Mean Time) which is received with the broadcast signal and the time is set automatically by a digital signal.

Once Clock is set in DTV mode, you cannot change time, but if the city name in Time Zone is changed into off-set, you can change time by 1 hour.



1. Select **TIME**.
2. Select **Clock**.
3. Select either the year, month, date, time or Time Zone option.
4. Set the year, month, date, time or Time Zone option.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

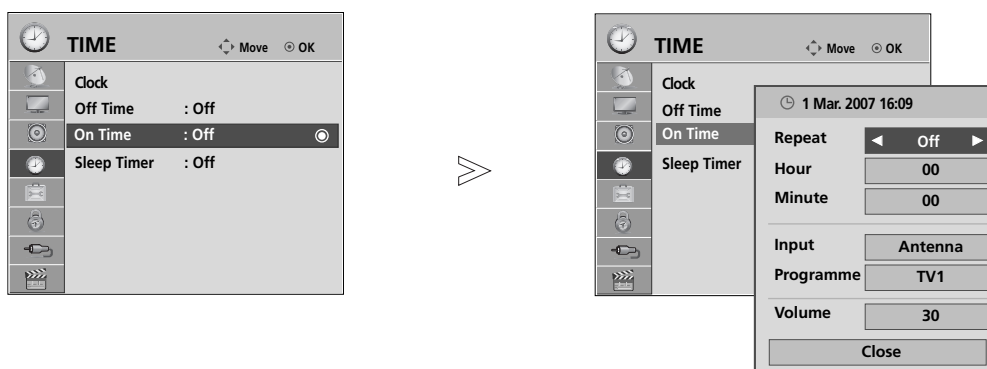
AUTO ON/OFF TIME SETTING

The Off time function automatically switches the TV to standby at a preset time.

Two hours after the TV is switched on by the on time function it will automatically switch back to standby mode unless a button has been pressed.

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

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



- 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 Set the hour.
- 6 Set the minutes.

- To cancel **On/Off Time** function, select **Off**.
- For **On Time** function only

- 1 Select **Input**.
- 2 Select the input source.
- 3 Set the programme.
- 4 Adjust volume level at switch-on.


- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

TIME SETTING

SLEEP TIMER SETTING

You do not have to remember to switch the TV off before you go to sleep.
The sleep timer automatically switches the TV to standby after the preset time has elapsed.

1   Select **Sleep Timer**.

2  Select **Off, 10, 20, 30, 60, 90, 120, 180 or 240 min..**

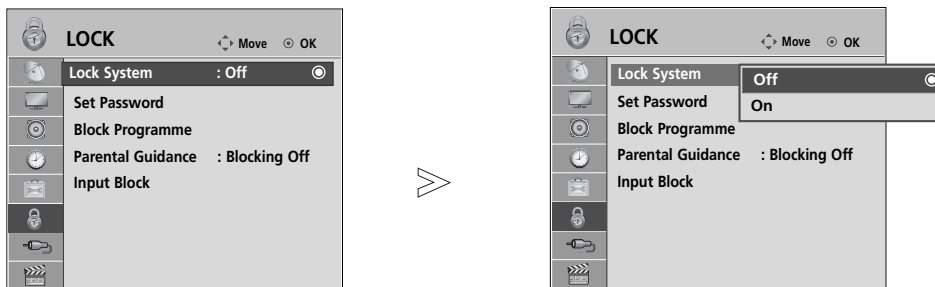
- When you switch the TV off, the preset sleep timer is cancelled.
- You can also adjust **Sleep Timer** in the **TIME** menu.











PARENTAL CONTROL / RATINGS

SET PASSWORD & LOCK SYSTEM

Enter the password, press '0', '0', '0', '0' on the remote control handset.

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



- 1   Select **LOCK**.
- 2   Select **Lock System**.
- 3   Select **On**.
- 4    Set the password.
- 5  Input a 4-digit password.
Be sure to remember this number!
Re-enter new password for confirm.

• If you forget your password, press '0', '3', '2', '5' on the remote control handset.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

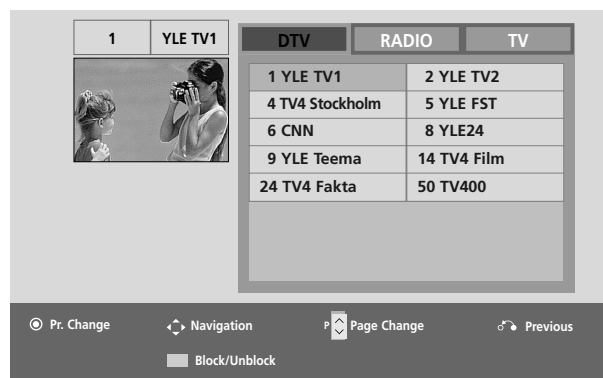
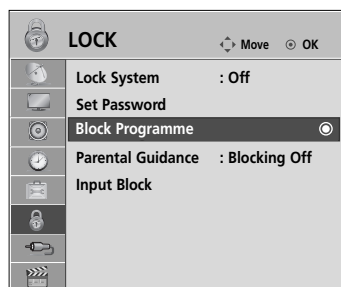
PARENTAL CONTROL / RATINGS


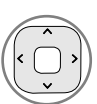

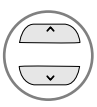

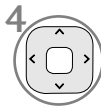

BLOCK PROGRAMME

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

It is available to use this function in **Lock System "On"**.

Enter a password to watch a blocked programme.



- 1   Select **LOCK**.
- 2   Select **Block Programme**.
- 3  Enter the **Block Programme**.
- 4   Select a programme to be locked.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

PARENTAL CONTROL (IN DIGITAL MODE ONLY)

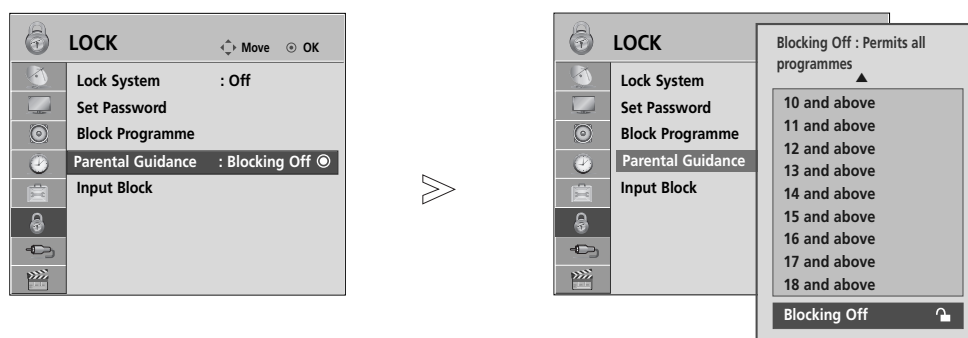
This function operates according to information from the broadcasting station. Therefore if the signal has incorrect information, this function does not operate.








A password is required to gain access to this menu.

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

Prevents children from watching certain adult's TV programmes, according to the ratings limit set.

Enter a password to watch a blocked programme.



- 1   Select **LOCK**.
- 2   Select **Parental Guidance**.
- 3   Make appropriate adjustments.
- 4  Save.

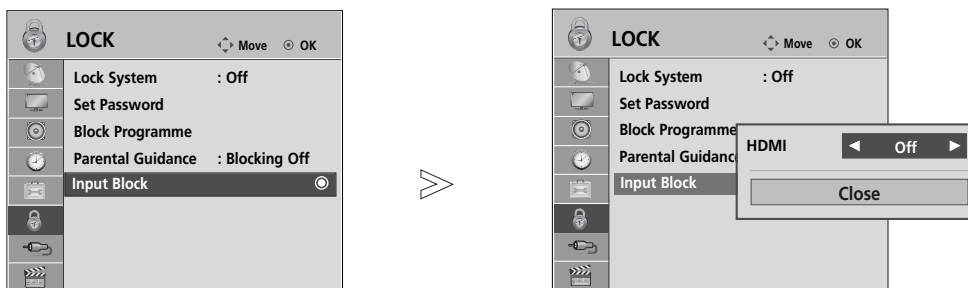
- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.








PARENTAL CONTROL / RATINGS

EXTERNAL INPUT BLOCKING

Enables you to block an input.

It is available to use this function in **Lock System "On"**.

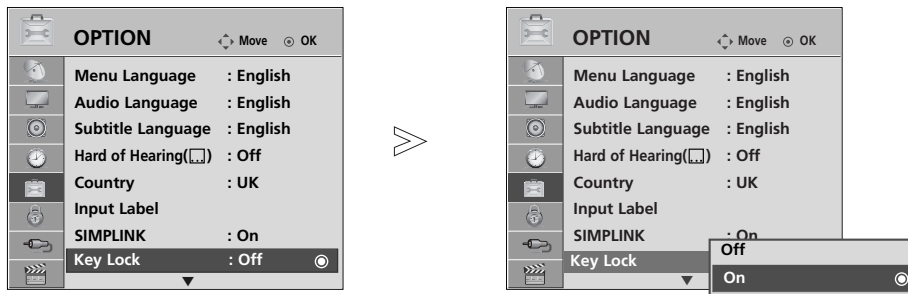









1.   Select **LOCK**.
2.   Select **Input Block**.
3.   Select **On** or **Off**.
4.  Save.


- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

KEY LOCK

The TV can be set so that the remote control is required to control it. This feature can be used to prevent unauthorized viewing.



- 1   Select **OPTION**.
- 2   Select **Key Lock**.
- 3   Select **On** or **Off**.
- 4  Save.

- In **Key Lock 'On'**, if the TV is turned off, press the ϕ / I, **INPUT**, **P** \wedge \vee button on the TV or **POWER INPUT**, **P** \wedge \vee or **NUMBER** buttons on the remote control then the set will be turned on.
- With the **Key Lock On**, the display ' **Key Lock On**' appears on the screen if any button on the front panel is pressed while viewing the TV.

- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

TELETEXT

This feature is not available in all countries.

Teletext is a free service broadcast by most TV stations which gives up-to-the-minute information on news, weather, television programmes, share prices and many other topics.

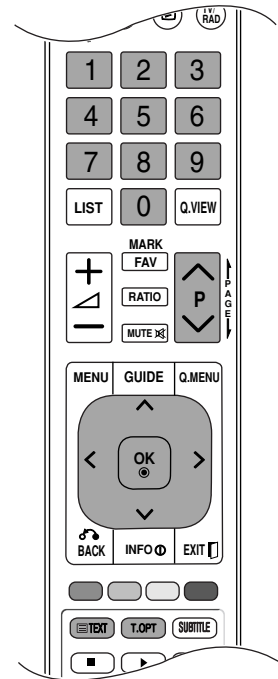
The teletext decoder of this TV can support the SIMPLE, TOP and FASTEXT systems. SIMPLE (standard teletext) consists of a number of pages which are selected by directly entering the corresponding page number. TOP and FASTEXT are more modern methods allowing quick and easy selection of teletext information.

SWITCH ON/OFF

Press the **TEXT** button to switch to teletext. The initial page or last page viewed appears on the screen.

Two page numbers, TV station name, date and time are displayed on the screen headline. The first page number indicates your selection, while the second shows the current page displayed.

Press the **TEXT** button to switch off teletext. The previous mode reappears.



SIMPLE TEXT

■ Page selection

- 1 Enter the desired page number as a three digit number with the **NUMBER** buttons. If during selection you press a wrong number, you must complete the three digit number and then re-enter the correct page number.
- 2 The **P** \wedge \vee button can be used to select the preceding or following page.

TOP TEXT

The user guide displays four fields-red, green, yellow and blue at the bottom of the screen. The yellow field denotes the next group and the blue field indicates the next block.

■ Block / group / page selection

- 1 With the blue button you can progress from block to block.
- 2 Use the yellow button to proceed to the next group with automatic overflow to the next block.
- 3 With the green button you can proceed to the next existing page with automatic overflow to the next group. Alternatively the **P** \wedge button can be used.
- 4 The red button returns to the previous selection. Alternatively the **P** \vee button can be used.


■ Direct page selection

As with SIMPLE teletext mode, you can select a page by entering it as a three digit number using the **NUMBER** buttons in TOP mode.

FASTEXT

The teletext pages are colour coded along the bottom of the screen and are selected by pressing the corresponding coloured button.

■ Page selection

- ① Press the **T.OPT** button and then use $\wedge \vee$ button to select  menu. Display the index page.
- ② You can select the pages which are colour coded along the bottom line with corresponding coloured buttons.
- ③ AS with SIMPLE teletext mode, you can select a page by entering its three digit page number with the **NUMBER** buttons in FASTEXT mode.
- ④ The **P** $\wedge \vee$ button can be used to select the preceding or following page.

SPECIAL TELETEXT FUNCTIONS

- Press the **T. OPT** button and then use $\wedge \vee$ button to select the **Text Option** menu.



■ Index

Select the each index page.



■ Time

When viewing a TV programme, select this menu to display the time at the top right hand corner of the screen.

In the teletext mode, press this button to select a sub page number. The sub page number is displayed at the bottom of the screen. To hold or change the sub page, press the **RED/GREEN**, **<** **>** or **NUMBER** buttons.



■ Hold

Stops the automatic page change which will occur if a teletext page consists of 2 or more sub pages. The number of sub pages and the sub page displayed is, usually, shown on the screen below the time. When this menu is selected the stop symbol is displayed at the top left-hand corner of the screen and the automatic page change is inactive.



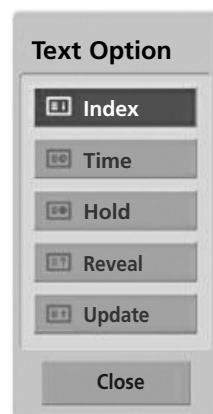
■ Reveal

Select this menu to display concealed information, such as solutions to riddles or puzzles.



■ Update

Displays the TV picture on the screen while waiting for a new teletext page. The display will appear at the top left hand corner of the screen. When the updated page is available then display will change to the page number. Select this menu again to view the updated teletext page.



DIGITAL TELETEXT

*This function works in UK, Ireland only.

The TV gives you access to digital teletext which is greatly improved in various aspects such as text, graphics etc. This digital teletext can access special digital teletext services and specific services which broadcast digital teletext.

You should select off in the subtitle language menu to display teletext by pressing the **SUBTITLE** button.

TELETEXT WITHIN DIGITAL SERVICE

- 1 Press the numeric or **P** ^ v button to select a digital service which broadcasts digital teletext.
- 2 Follow the indications on digital teletext and move onto the next step by pressing **TEXT**, **OK**, ^ v < > , **RED**, **GREEN**, **YELLOW**, **BLUE** or **NUMBER** buttons and etc..
- 3 To change digital teletext service, select a different service by the numeric or **P** ^ v button.



TELETEXT IN DIGITAL SERVICE

- 1 Press the numeric or **P** ^ v button to select a certain service which broadcasts digital teletext.
- 2 Press the **TEXT** or coloured button to switch on teletext.
- 3 Follow the indications on digital teletext and move onto the next step by pressing **OK**, ^ v < > , **RED**, **GREEN**, **YELLOW**, **BLUE** or **NUMBER** buttons and so on.
- 4 Press the **TEXT** or colour button to switch off digital teletext and return to TV viewing.

Some services may allow you to access text services by pressing the **RED** button.



APPENDIX

TROUBLESHOOTING

The TV does not operate properly.

The remote control does not work

- Check to see if there is any object between the TV and the remote control causing an obstruction. Ensure you are pointing the remote control directly at the TV.
- Ensure that the batteries are installed with correct polarity (+ to +, - to -).
- Install new batteries.

Power is suddenly turned off

- Is the sleep timer set?
- Check the power control settings. Has the Power supply been interrupted.
- If the TV is switched on and there is no input signal, it will switch off automatically after 15 minutes.

The video function does not work.

No picture & No sound

- Check whether the TV is switched on.
- Try another channel. The problem may be with the broadcast.
- Is the power cord inserted correctly into the mains?
- Check your antenna direction and/or location.
- Test the mains outlet by plugging another TV into the same outlet.

Picture appears slowly after switching on

- This is normal, the image is muted during the TV startup process. Please contact your service centre, if the picture has not appeared after five minutes.

No or poor colour or poor picture

- Adjust Colour in menu option.
- Allow a sufficient distance between the TV and the VCR.
- Try another channel. The problem may be with the broadcast.
- Are the video cables installed properly?
- Activate any function to restore the brightness of the picture.

Horizontal/vertical bars or picture shaking

- Check for local interference such as an electrical appliance or power tool.

Poor reception on some channels

- Station or cable channel experiencing problems, tune to another station.
- Station signal is weak, reposition the antenna to receive weaker stations.
- Check for sources of possible interference.

Lines or streaks in pictures

- Check antenna (Change the position of the antenna).


No picture when connecting HDMI

- Check that your HDMI cable is version 1.3 or higher.
If the HDMI cables don't support HDMI version 1.3, flickering or no screen display can result. Please use the latest cables that support at least HDMI version 1.3.

APPENDIX

The audio function does not work.

Picture OK & No sound

- Press the  + or - button.
- Sound muted? Press **MUTE** button.
- Try another channel. The problem may be with the broadcast.
- Are the audio cables installed properly?

No output from one of the speakers

- Adjust **Balance** in menu option.

Unusual sound from inside the TV

- A change in ambient humidity or temperature may result in an unusual noise when the TV is switched on or off and does not indicate a fault with the TV.

No sound when connecting HDMI or USB

- Check HDMI cable over version 1.3.
- Check USB cable over version 2.0.

There is a problem with PICTURE settings.

When the user changes the picture settings, the TV automatically converts back to the initial settings after a certain period of time.

- It means that the TV is currently set to **Store Demo** mode.
To switch to **Home use** mode you should do the followings:
From the TV Menu, choose **OPTION** -> Choose **Mode Setting** -> Choose **Home use**. Now, you have completed switching to the **Home use** mode.

MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can prolong the life of your new TV.

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

Cleaning the Screen

- 1 A good way to keep the dust off your screen for a while is to wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it is almost dry, and then use it to wipe the screen.
- 2 Ensure there is no excess water on the screen. Allow any water or dampness to evaporate before switching on.

Cleaning the Cabinet

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

Extended Absence

CAUTION

- If you expect to leave your TV dormant for prolonged periods (such as a holiday), unplug the power cord to protect against possible damage from lightning or power surges.

APPENDIX

PRODUCT SPECIFICATIONS

MODELS		15EL9***
		15EL9500-ZA / 15EL950N-ZA
Dimensions	Width	351 mm
	Height	235 mm
	Depth	Max 80 mm / Min 43 mm (Screen part Max 8.6 mm / Min 3.2 mm)
Weight		1.6 kg
Power requirement		15EL9*** : DC 24 V , 1.5 A AC-DC adaptor : 24 V --- , 3.42 A / AC 100-240 V~ 50 / 60 Hz
Environment condition	Operating Temperature	0 °C to 40 °C
	Operating Humidity	Less than 80 %
	Storage Temperature	-20 °C to 60 °C
	Storage Humidity	Less than 85 %
	Water resistance	IPX2, international water resistance level 2
Supported movie files		Refer to p.37

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

	Digital TV	Analogue TV
Television System	DVB-T DVB-C (Sweden, Finland only)	PAL/SECAM B/G/D/K, PAL I/II, SECAM L/L'
Program Coverage	VHF, UHF	VHF: E2 to E12, UHF: E21 to E69, CATV: S1 to S20, HYPER: S21 to S47
External Antenna Impedance	75 Ω	75 Ω

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GPL EXECUTABLES:

Linux kernel 2.6, busybox, lzo, u-boot

LGPL LIBRARIES:

uClibc

MPL LIBRARIES:

nanox

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APPENDIX

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