



**LG**  
Life's Good

# PLASMA TV OWNER'S MANUAL

42PQ6\*\*\*  
50PQ6\*\*\*  
50PS3\*\*\*  
50PS8\*\*\*  
60PS8\*\*\*

Please read this manual carefully before operating your TV.  
Retain it for future reference.  
Record the model number and serial number of the TV.  
Refer to the label on the back cover and quote this information.  
To your dealer when requiring any service.



**DVB**  
Digital Video  
Broadcasting

Trade Mark of the DVB Digital Video  
Broadcasting Project (1991 to 1996)

**ID Number(s):** 6422: 42PQ60D-GA  
6493: 50PQ60D-GA  
6492: 50PS80FD-GA  
6767: 50PS30FD-GA  
6766: 60PS80FD-GA

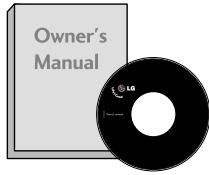


HDMI™, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing.

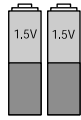
# ACCESSORIES

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



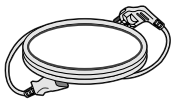
Batteries



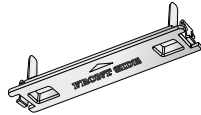
Remote Control



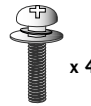
Cable management clip  
(Refer to p.9)  
(Only 50/60PS8\*\*\*)



Power Cord



Protection cover  
(Refer to p.13)

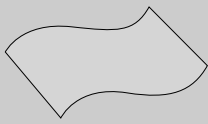


Bolts for stand assembly  
(Refer to p.8)  
(Except for 60PS8\*\*\*)



Cable Holder  
(Refer to p.9)

This item is not included for all models.

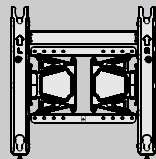


\* Lightly wipe any stains or fingerprints on the surface of the TV with the polishing cloth.

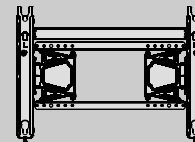
Polishing Cloth  
Polishing cloth for use on the screen.

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

Wall Mounting Bracket  
(Separate purchase)



AW-50PG60MS  
(Except for 60PS8\*\*\*)



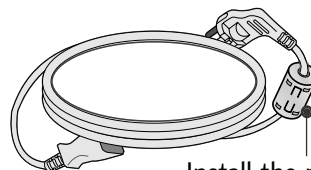
AW-60PG60MS  
(Only 60PS8\*\*\*)



Ferrite Core  
(This item is not included for all models.)

Use of ferrite core (This item is not included for all models.)

Ferrite core can be used to reduce the electromagnetic wave when connecting the power cord. The closer the location of the ferrite core to the power plug, the better it is.



Install the power plug closely.

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# PREPARATION

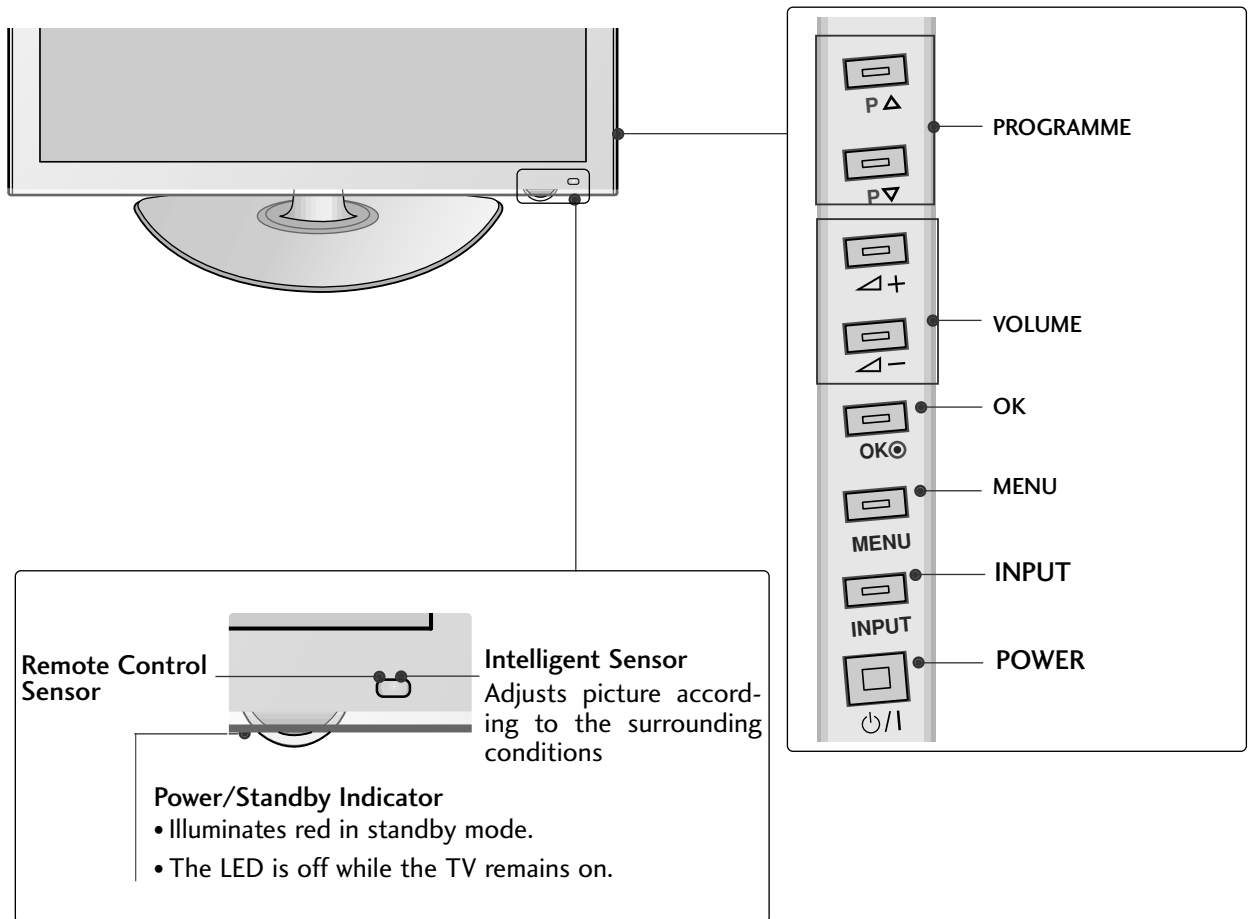
## FRONT PANEL CONTROLS

- Image shown may differ from your TV.

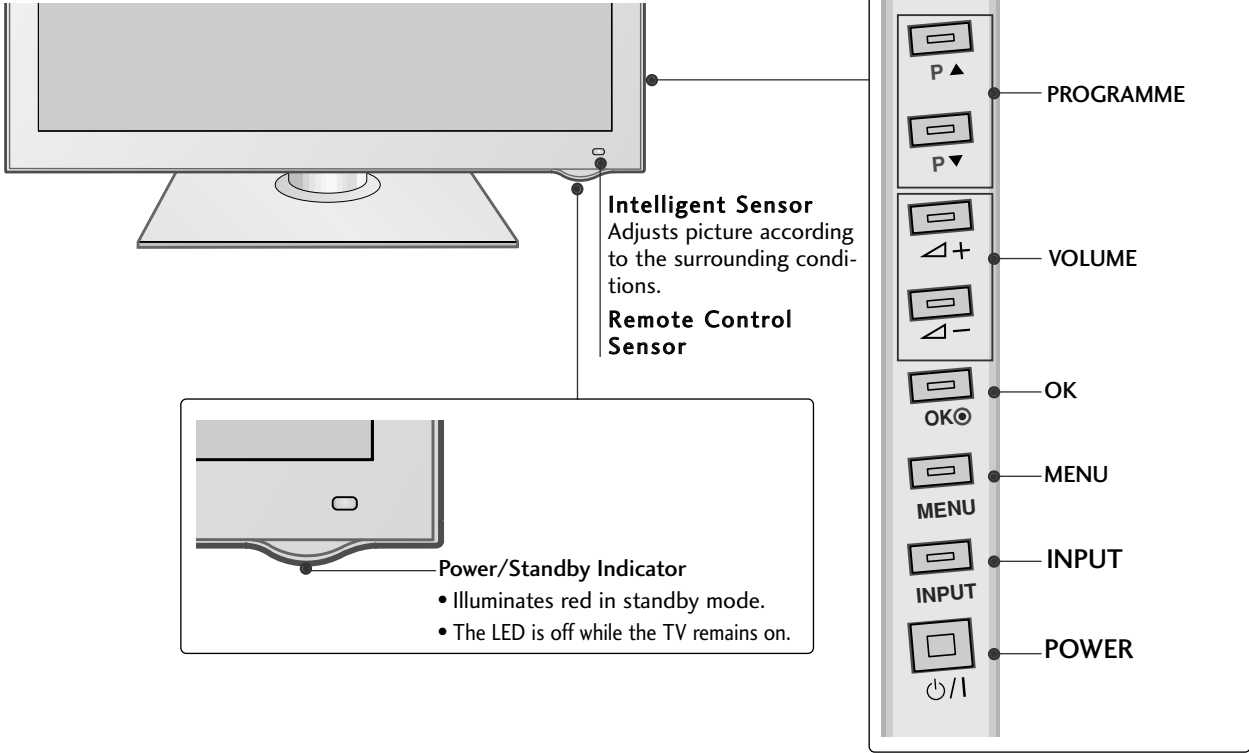
### ⚠ CAUTION

- ▶ When the TV cannot be turned on with the remote control, press the main power button on the TV. (When the power is turned off with the main power button on the TV, it will not be turned on with the remote control).
- ▶ 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.

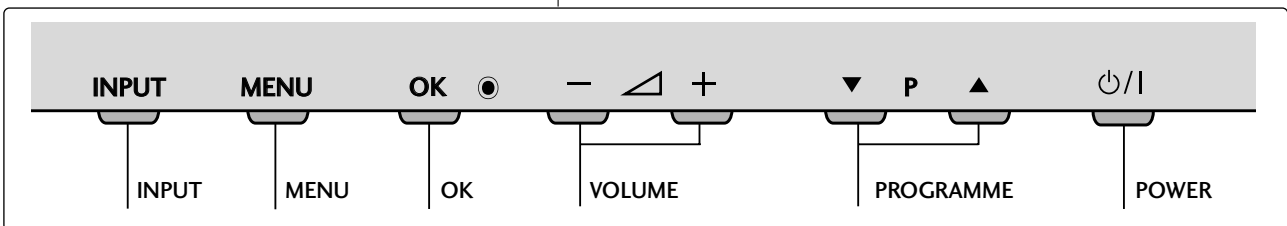
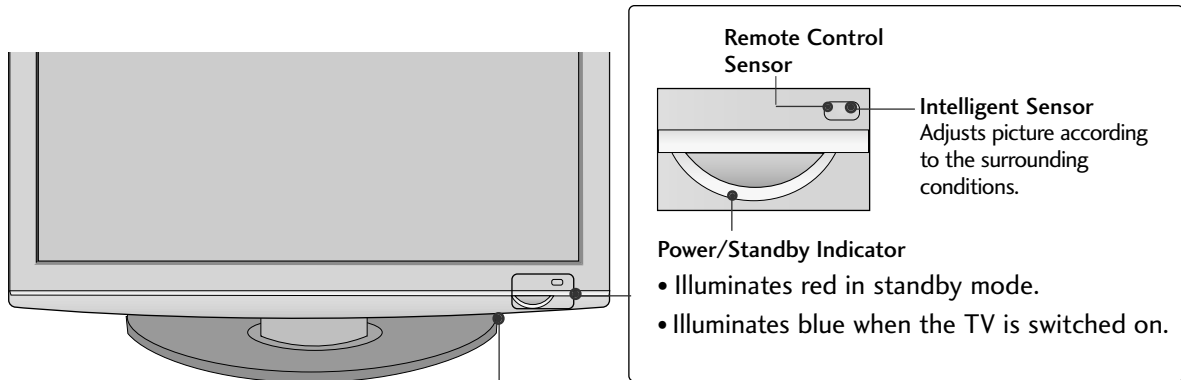
### 42/50PQ6\*\*\*



### 50/60PS8\*\*\*



### 50PS3\*\*\*

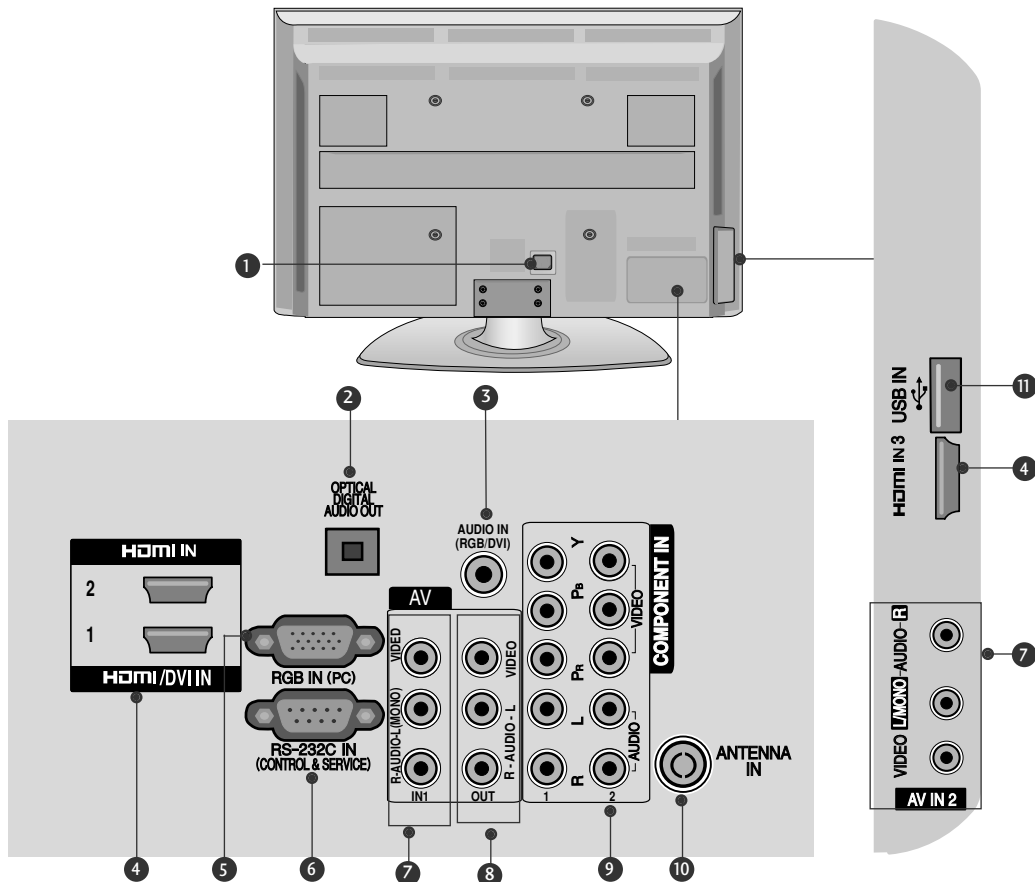


# PREPARATION

## BACK PANEL INFORMATION

- Image shown may differ from your TV.

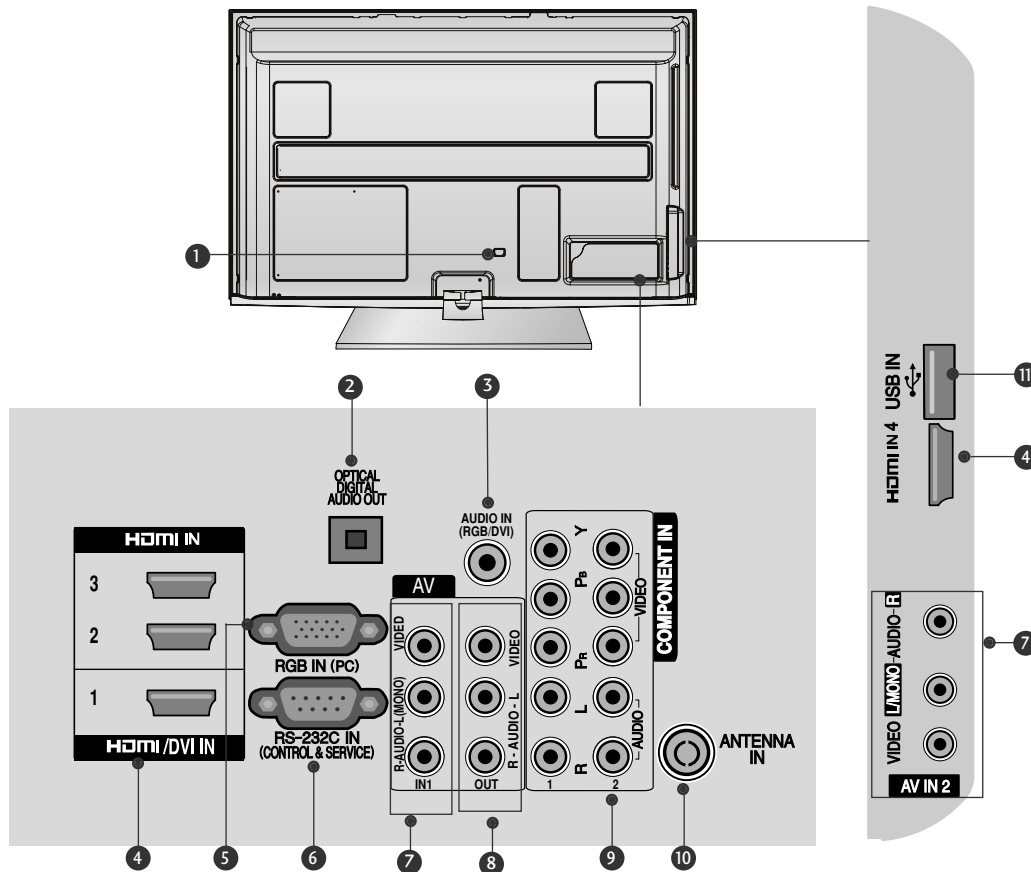
Only 42/50PQ6\*\*\*, 50PS3\*\*\*



- 1 Power Cord Socket**  
This TV operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the TV on DC power.
- 2 OPTICAL DIGITAL AUDIO OUT**  
Connect digital audio to various types of equipment. Use to connect to a Digital Audio Component. Use an Optical audio cable.
- 3 RGB/DVI Audio Input**  
Connect the audio from a PC or DTV.
- 4 HDMI Input**  
Connect a HDMI signal to HDMI IN or DVI (VIDEO) signal to HDMI/DVI port with DVI to HDMI cable.
- 5 RGB IN Input**  
Connect the output from a PC.
- 6 RS-232C IN (CONTROL & SERVICE) PORT**  
Connect to the RS-232C port on a PC. This port is used for Service or Hotel mode.
- 7 Audio/Video Input (AV IN1 / AV IN2)**  
Connect audio/video output from an external device to these jacks.
- 8 AV Output**  
Connect second TV or monitor to the AV OUT socket on the TV.
- 9 Component Input**  
Connect a component video/audio device to these jacks.
- 10 Antenna Input**  
Connect RF antenna to this jack.
- 11 USB Input**  
Connect USB storage device to this jack.



Only 50/60PS8\*\*\*



- 1 Power Cord Socket**  
This TV operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the TV on DC power.
- 2 OPTICAL DIGITAL AUDIO OUT**  
Connect digital audio to various types of equipment. Use to connect to a Digital Audio Component. Use an Optical audio cable.
- 3 RGB/DVI Audio Input**  
Connect the audio from a PC or DTV.
- 4 HDMI Input**  
Connect a HDMI signal to HDMI IN or DVI (VIDEO) signal to HDMI/DVI port with DVI to HDMI cable.
- 5 RGB IN Input**  
Connect the output from a PC.
- 6 RS-232C IN (CONTROL & SERVICE) PORT**  
Connect to the RS-232C port on a PC. This port is used for Service or Hotel mode.
- 7 Audio/Video Input (AV IN1 / AV IN2)**  
Connect audio/video output from an external device to these jacks.
- 8 AV Output**  
Connect second TV or monitor to the AV OUT socket on the TV.
- 9 Component Input**  
Connect a component video/audio device to these jacks.
- 10 Antenna Input**  
Connect RF antenna to this jack.
- 11 USB Input**  
Connect USB storage device to this jack.

# PREPARATION

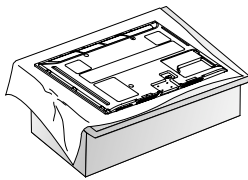
## STAND INSTALLATION (Except for 60PS8\*\*\*)

■ Image shown may differ from your TV

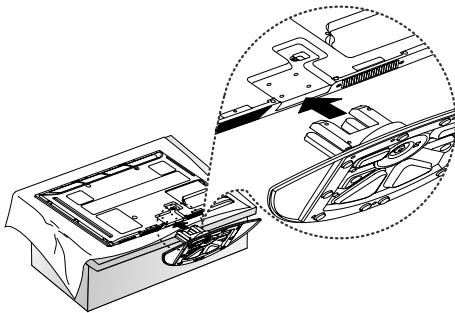
When assembling the desk type stand, check whether the bolt is fully tightened. (If not tightened fully, the product can tilt forward after the product installation.) If you tighten the bolt with excessive force, the bolt can deviate from abrasion of the tightening part of the bolt.

### Only 42/50PQ6\*\*\*, 50PS3\*\*\*

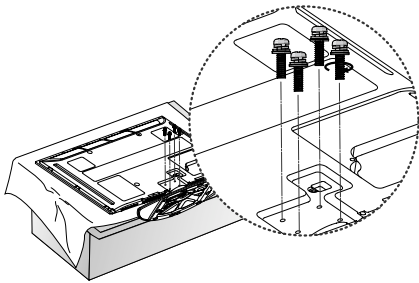
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



- 2 Assemble the TV as shown.

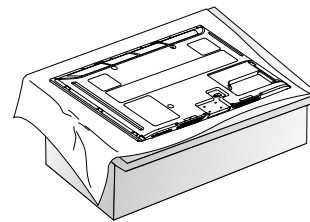


- 3 Fix the 4 bolts securely using the holes in the back of the TV.

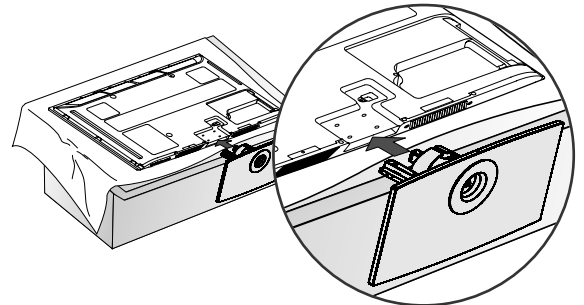


### Only 50PS8\*\*\*

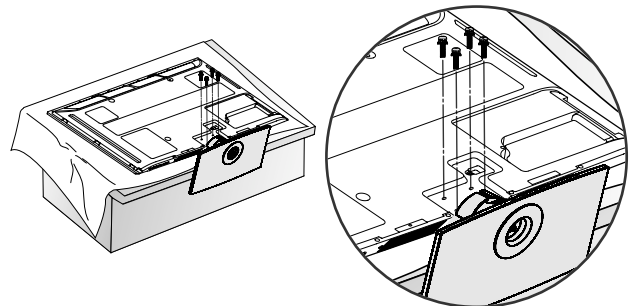
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



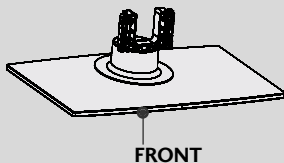
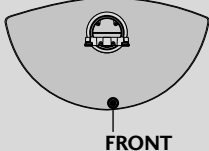
- 2 Assemble the TV as shown.



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



### NOTE

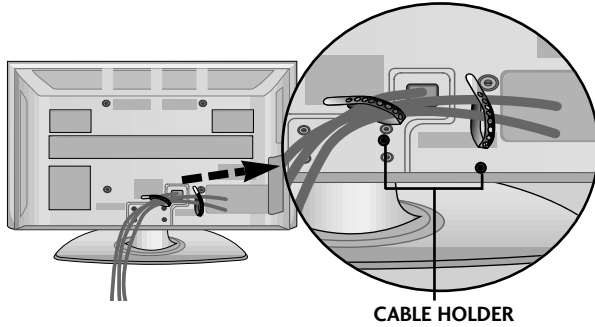


- ▶ When assembling the stand, make sure to distinguish and assemble the front and rear side of the stand correctly.

# BACK COVER FOR WIRE ARRANGEMENT

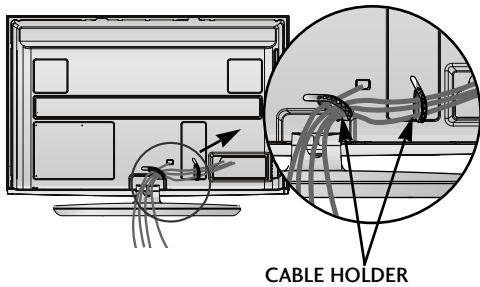
■ Image shown may differ from your TV.

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

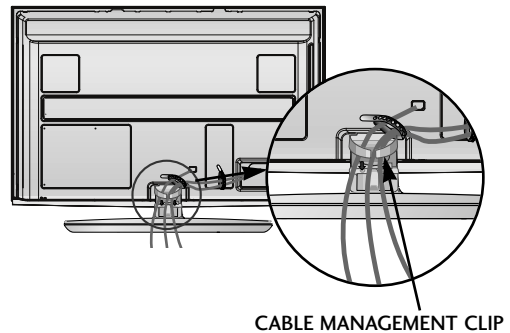


## Only 50/60PS8\*\*\*

**1** After Connecting the cables as necessary, install **CABLE HOLDER** as shown and bundle the cables. To connect additional equipment, see the **External equipment Setup** section.

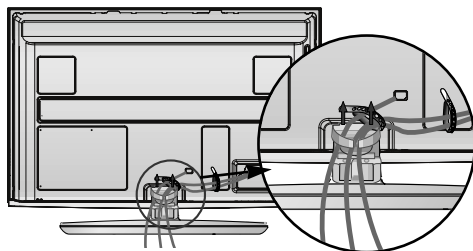


**2** Install the **CABLE MANAGEMENT CLIP** as shown.



## How to remove the cable management clip

Hold the **CABLE MANAGEMENT CLIP** with both hands and pull it upward.



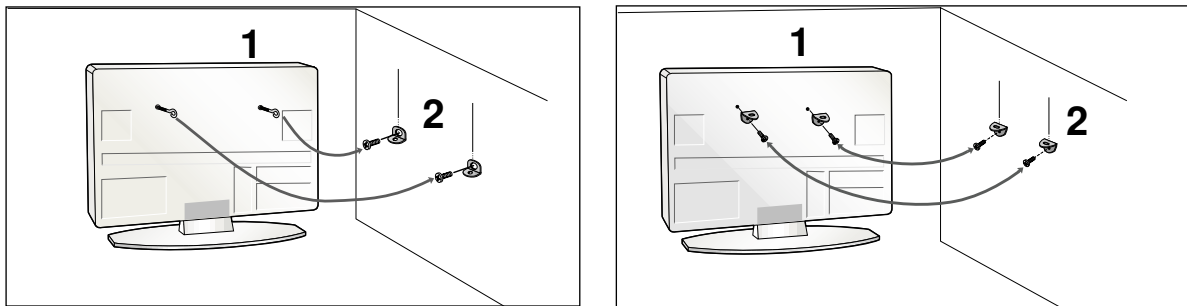
### NOTE

- ▶ Do not use the **CABLE MANAGEMENT CLIP** to lift the TV.
- If the TV is dropped, you may be injured or the TV may be damaged.

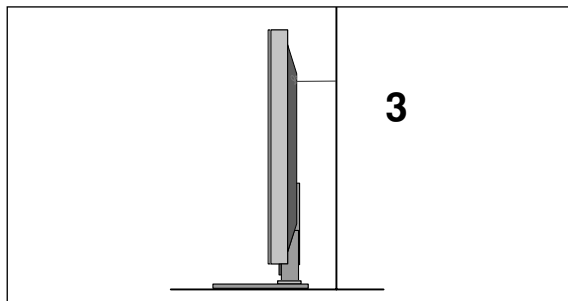
# PREPARATION

## CAREFUL INSTALLATION ADVICE

- You should purchase necessary components to fix the TV safely and secure to the wall from a hardware supplier.
- Position the TV close to the wall to avoid the possibility of it falling when pushed.
- The instructions shown below are a safer way to set up the TV, by fixing it to the wall, avoiding the possibility of it falling forwards if pulled. This will prevent the TV from falling forward and causing injury. This will also prevent the TV from damage. Ensure that children do not climb or hang from the TV.



- 1 Use the eye-bolts or TV brackets/bolts to fix the product to the wall as shown in the picture.  
(If your TV has bolts in the eye-bolts, loosen them first.)  
\* Insert the eye-bolts or TV brackets/bolts and tighten them securely in the upper holes.
- 2 Secure the wall brackets with the bolts on the wall. Match the height of the bracket that is mounted on the wall.



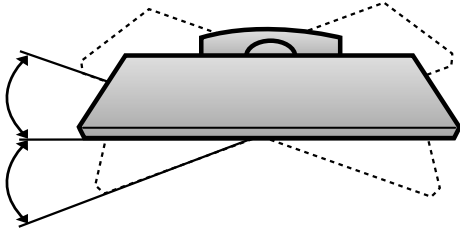
- 3 Use a sturdy rope or wire to tie the product for alignment. It is safer to tie the rope so it becomes horizontal between the wall and the product.

### ! NOTE

- ▶ When moving the TV undo the cords first.
- ▶ Use a platform or cabinet strong and large enough to support the size and weight of the TV.
- ▶ To use the TV safely make sure that the height of the bracket on the wall and on the TV is the same.

## SWIVEL STAND

After installing the TV, you can adjust the TV set manually to the left or right direction by 20 degrees to suit your viewing position.

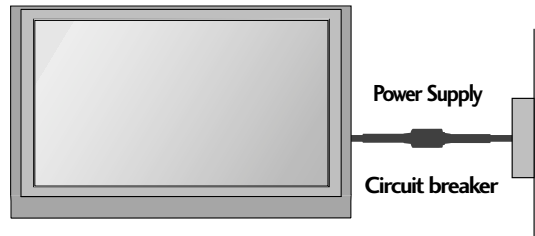


- The TV can be installed in various ways such as on a wall, or on a desktop etc.
- The TV is designed to be mounted horizontally.

### EARTHING

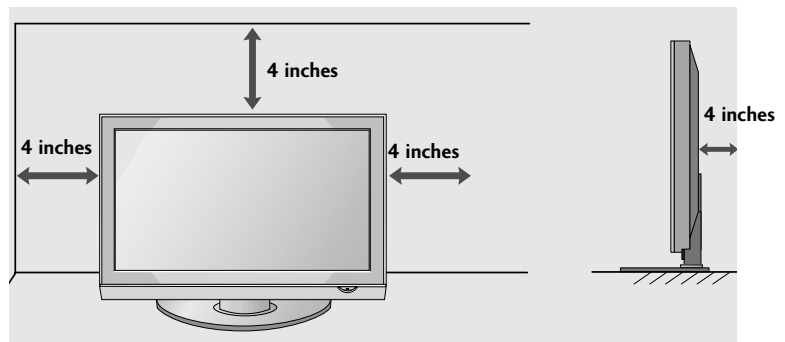
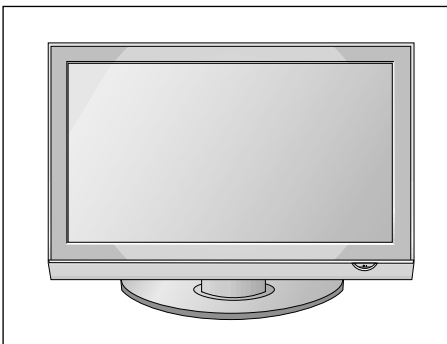
Ensure that you connect the earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

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



## DESKTOP PEDESTAL INSTALLATION

For adequate ventilation allow a clearance of 4" (10cm) all around the TV.

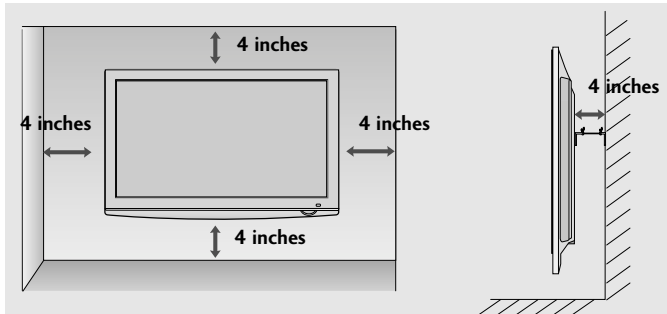


# PREPARATION

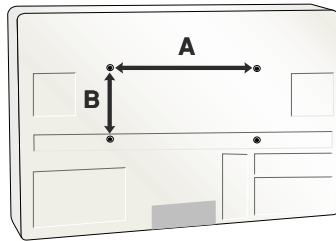
## WALL MOUNT: HORIZONTAL INSTALLATION

- We recommend the use of a LG Brand wall mounting bracket when mounting the TV to a wall.
- We recommend that you purchase a wall mounting bracket which supports VESA standard.
- LG recommends that wall mounting be performed by a qualified professional installer.

PREPARATION



Model	VESA (A * B)	Standard Screw	Quantity
42PQ6***	400 * 400	M6	4
50PQ6***	400 * 400	M6	4
50PS3***	400 * 400	M6	4
50PS8***	400 * 400	M6	4
60PS8***	600 * 400	M8	4



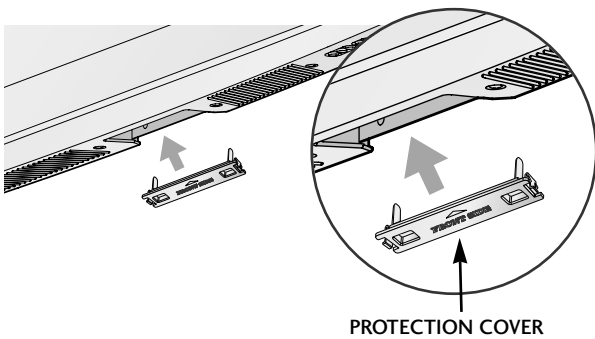
### ! NOTE

- ▶ 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.
- ▶ Installing screw type and length depends on the wall mount used. Further information, refer to the instructions included with the mount.
- ▶ LG is not liable for any accidents or damage to property or TV due to incorrect installation:
  - Where a non-compliant VESA wall mount is used.
  - Incorrect fastening of screws to surface which may cause TV to fall and cause personal injury.
  - Not following the recommended Installation method.

## NOT USING THE DESK-TYPE STAND

■ Image shown may differ from your TV.

When installing the wall-mounted unit, use the protection cover.



PROTECTION COVER

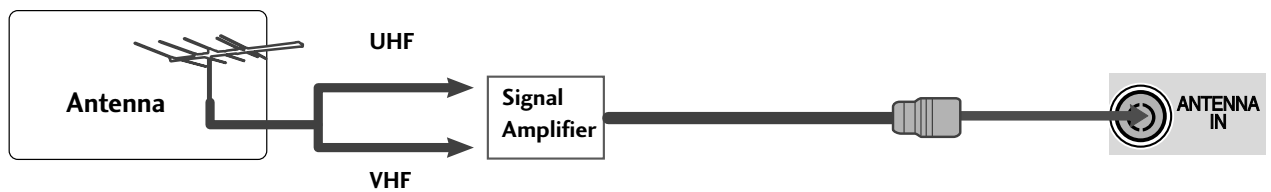
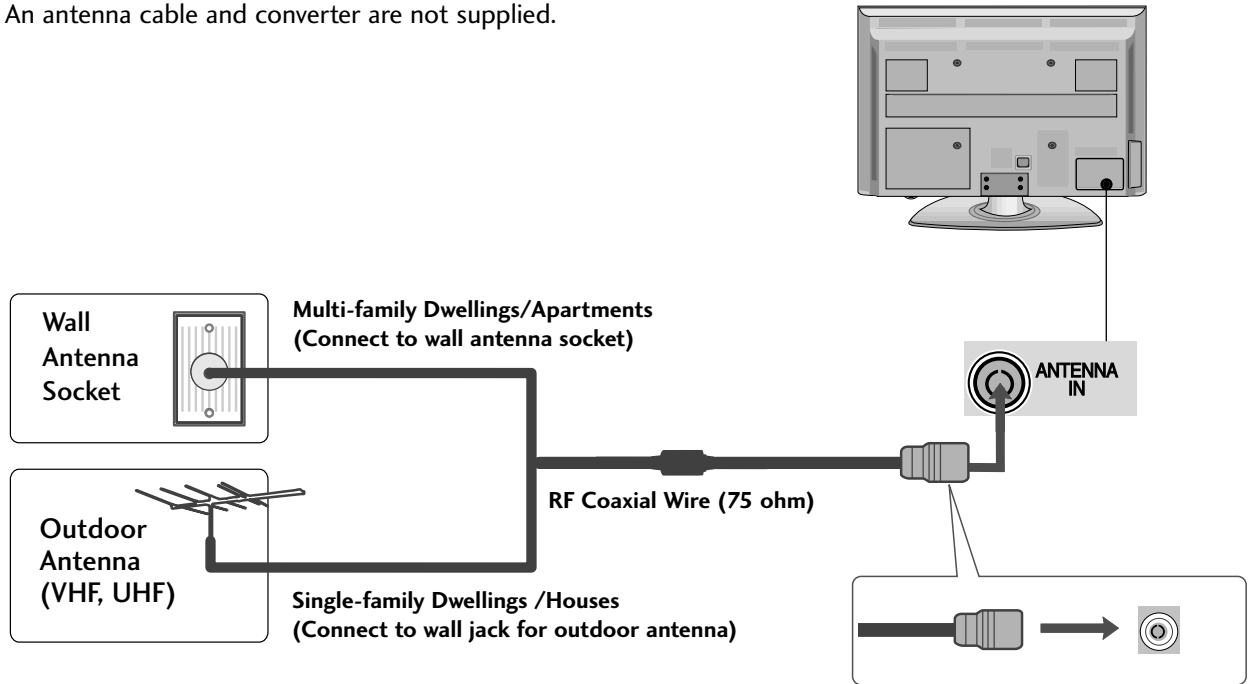
Insert the **PROTECTION COVER** into the TV until clicking sound.

# PREPARATION

- 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.



# EXTERNAL EQUIPMENT SETUP

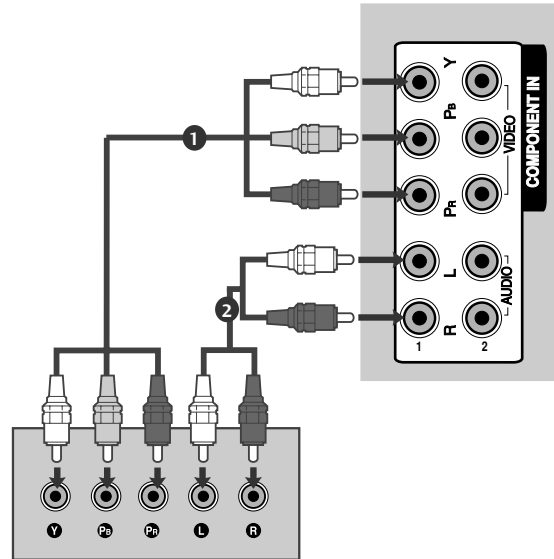
- To avoid damaging any equipment, never plug in any power cords until you have finished connecting all equipment.
- This section on EXTERNAL EQUIPMENT SETUP mainly uses diagrams for the 42/50PQ6\*\*\* models.
- Image shown may differ from your TV.

## HD RECEIVER SETUP

- This TV can receive Digital RF/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the diagram as shown below.

### Connecting with a component cables

- 1 Connect the video outputs (Y, Pb, Pr) of the digital set top box to the **COMPONENT IN VIDEO** jacks on the TV.
- 2 Connect the audio output of the digital set-top box to the **COMPONENT IN AUDIO** jacks on the TV.
- 3 Turn on the digital set-top box.  
(Refer to the owner's manual for the digital set-top box.)
- 4 Select **Component 1** input source using the **INPUT** button on the remote control.  
If connected to **COMPONENT IN 2** input, select **Component 2** input source.



Signal	Component	HDMI
480i/576i	○	X
480p/576p	○	○
720p/1080i	○	○
1080p	○ (50Hz/60Hz only)	○ (24Hz/30Hz/50Hz/60Hz)

# EXTERNAL EQUIPMENT SETUP

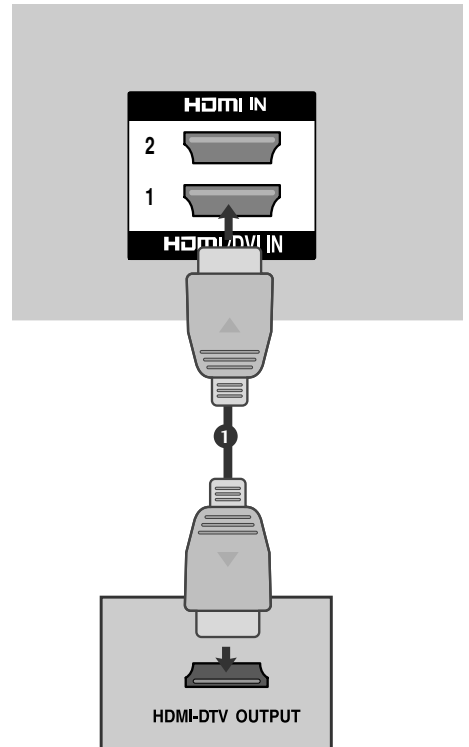
## Connecting a set-top box with an HDMI cable

- 1 Connect the digital set-top box to **HDMI/DVI IN 1**, **HDMI IN 2**, **HDMI IN 3** or **HDMI IN 4**(Only 50/60PS8<sup>\*\*\*</sup>) jack on the TV.
- 2 Turn on the digital set-top box.  
(Refer to the owner's manual for the digital set-top box.)
- 3 Select **HDMI1**, **HDMI2**, **HDMI** or **HDMI IN 4**(Only 50/60PS8<sup>\*\*\*</sup>) input source using the **INPUT** button on the remote control.

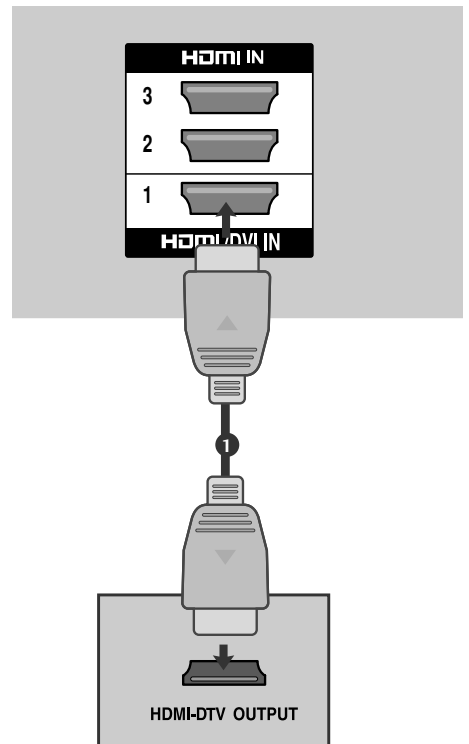
### ! NOTE

- ▶ 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.

42/50PQ6<sup>\*\*\*</sup>, 50PS3<sup>\*\*\*</sup>



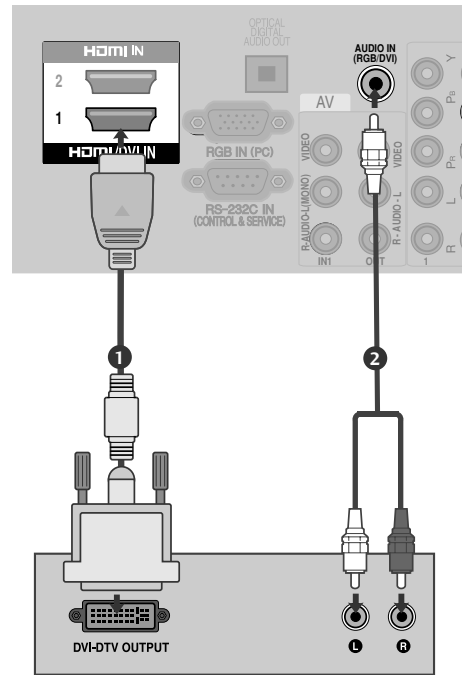
50/60PS8<sup>\*\*\*</sup>



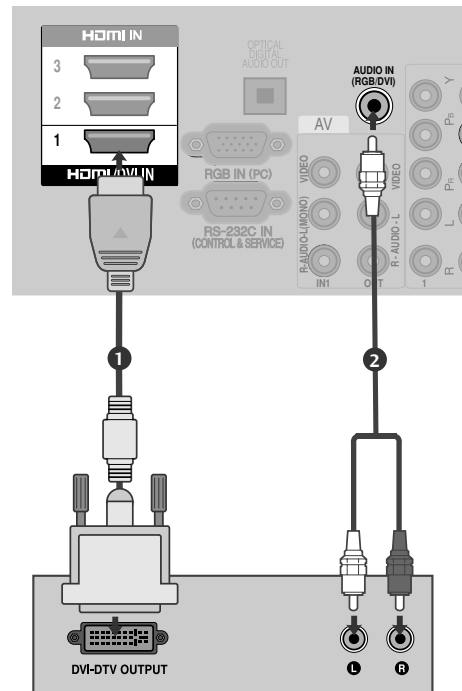
## Connecting with an HDMI to DVI cable

- 1 Connect the digital set-top box to **HDMI/DVI IN 1** jack on the TV.
- 2 Connect the audio output of the digital set-top box to the **AUDIO IN (RGB/DVI)** jack on the TV.
- 3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
- 4 Select **HDMI1** input source using the **INPUT** button on the remote control.

42/50PQ6\*\*\*, 50PS3\*\*\*



50/60PS8\*\*\*

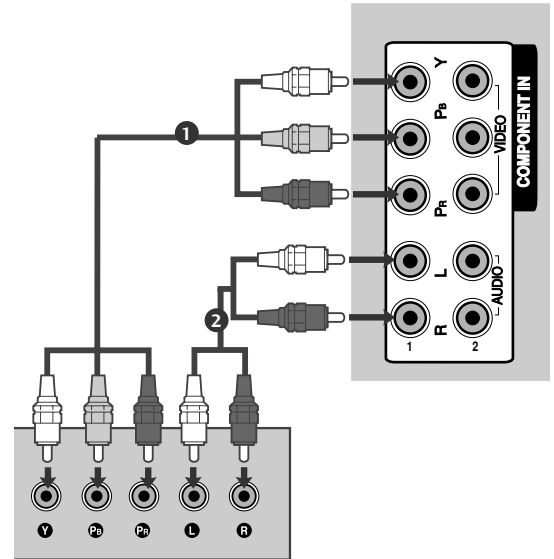


# EXTERNAL EQUIPMENT SETUP

## DVD SETUP

### Connecting with a component cables

- 1 Connect the video outputs (Y, Pb, Pr) of the DVD to the **COMPONENT IN VIDEO** jacks on the TV.
- 2 Connect the audio outputs of the DVD to the **COMPONENT IN AUDIO** jacks on the TV.
- 3 Turn on the DVD player, insert a DVD.
- 4 Select **Component 1** input source using the **INPUT** button on the remote control.  
If connected to **COMPONENT IN 2** input, select **Component 2** input source.
- 5 Refer to the DVD player's manual for operating instructions.



### Component Input ports

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

Component ports on the TV	Y	Pb	Pr
Video output ports on DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

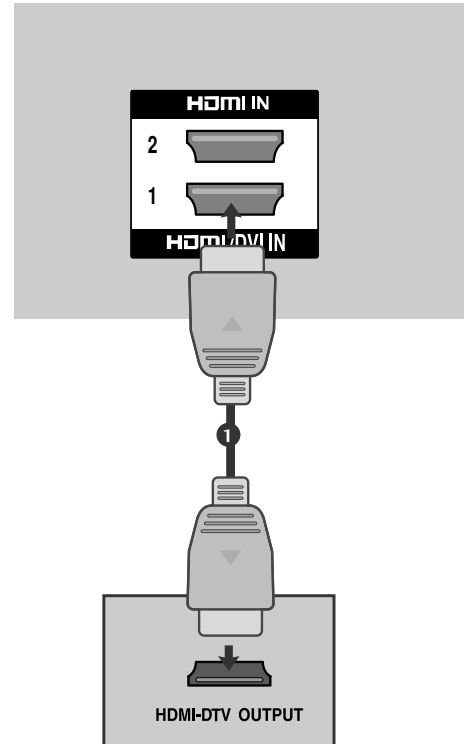
## Connecting the HDMI cable

- 1 Connect the HDMI output of the DVD to the **HDMI/DVI IN 1**, **HDMI IN 2**, **HDMI IN 3** or **HDMI IN 4**(Only 50/60PS8\*\*\*) jack on the TV.
- 2 Select **HDMI1**, **HDMI2**, **HDMI3** or **HDMI4**(Only 50/60PS8\*\*\*) input source using the **INPUT** button on the remote control.
- 3 Refer to the DVD player's manual for operating instructions.

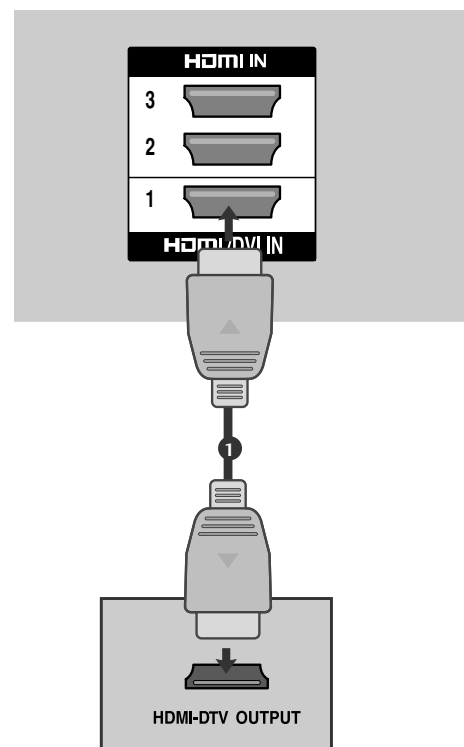
### ! NOTE

- ▶ The TV can receive video and audio signals simultaneously when using a 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.

42/50PQ6\*\*\*, 50PS3\*\*\*



50/60PS8\*\*\*

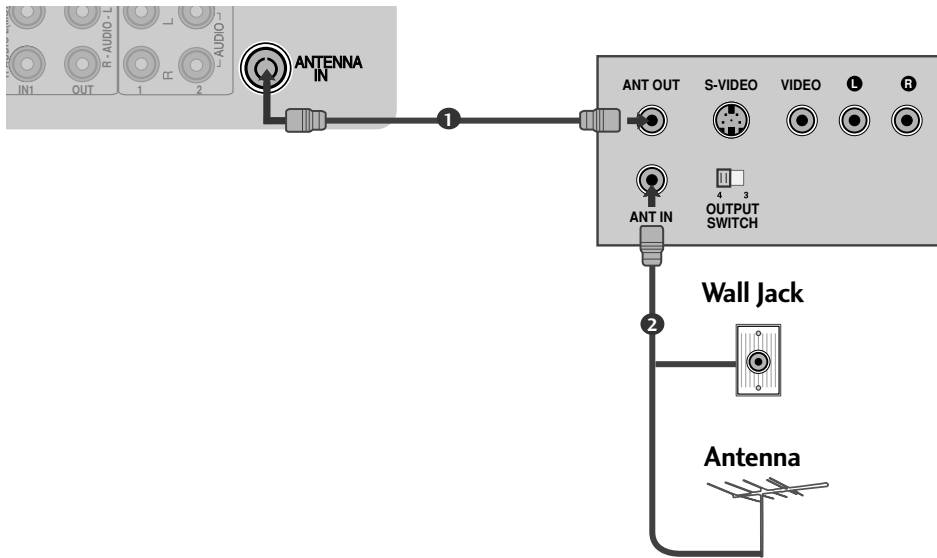


# EXTERNAL EQUIPMENT SETUP

## VCR SETUP

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

### Connecting with a RF Cable



- 1 Connect the **ANT OUT** socket of the VCR to the **ANTENNA 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

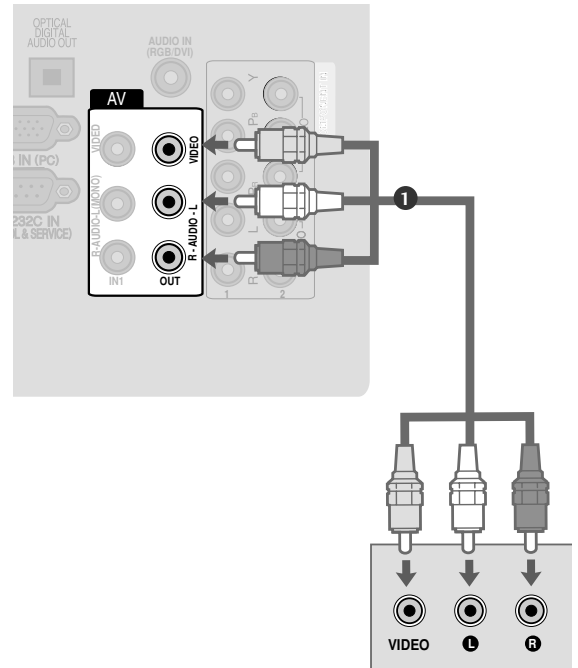
## AV OUTPUT SETUP

The TV has a special signal output capability which allows you to hook up the second TV or monitor.

- 1 Connect the second TV or monitor to the TV's **AV OUT** jacks.
- 2 See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

### ! NOTE

- ▶ Only Digital, Analogue, AV1, AV2 mode can be used for AV out. Component, RGB, HDMI input sources cannot be used for AV out.
- ▶ We recommend to use the AV OUT jacks for VCR recording.





## DIGITAL AUDIO OUT SETUP

Sending the TV's audio signal to external audio equipment via the Digital Audio Output (Optical) port. If you want to enjoy digital broadcasting through 5.1-channel speakers, connect the OPTICAL DIGITAL AUDIO OUT terminal on the back of TV to a DVD Home Theater (or amp).

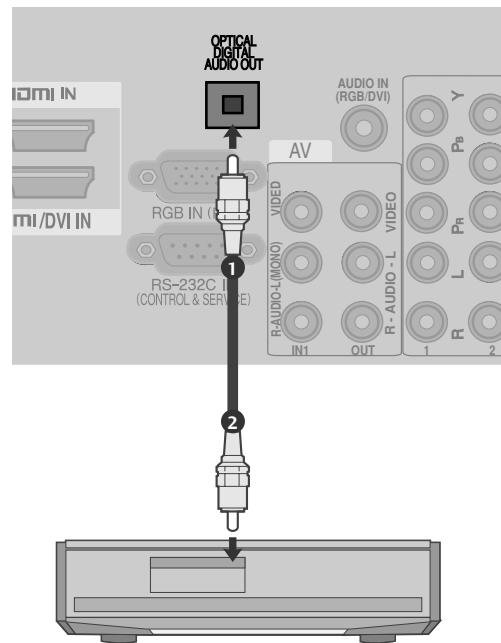
- 1 Connect one end of an optical cable to the TV Digital Audio (Optical) Output port.
- 2 Connect the other end of the optical cable to the digital audio (optical) input on the audio equipment.
- 3 Set the "TV Speaker option - Off" in the AUDIO menu. (▶p.95). Refer to the external audio equipment instruction manual for operation.

### ⚠ CAUTION

- ▶ Do not look into the optical output port. Looking at the laser beam may damage your vision.

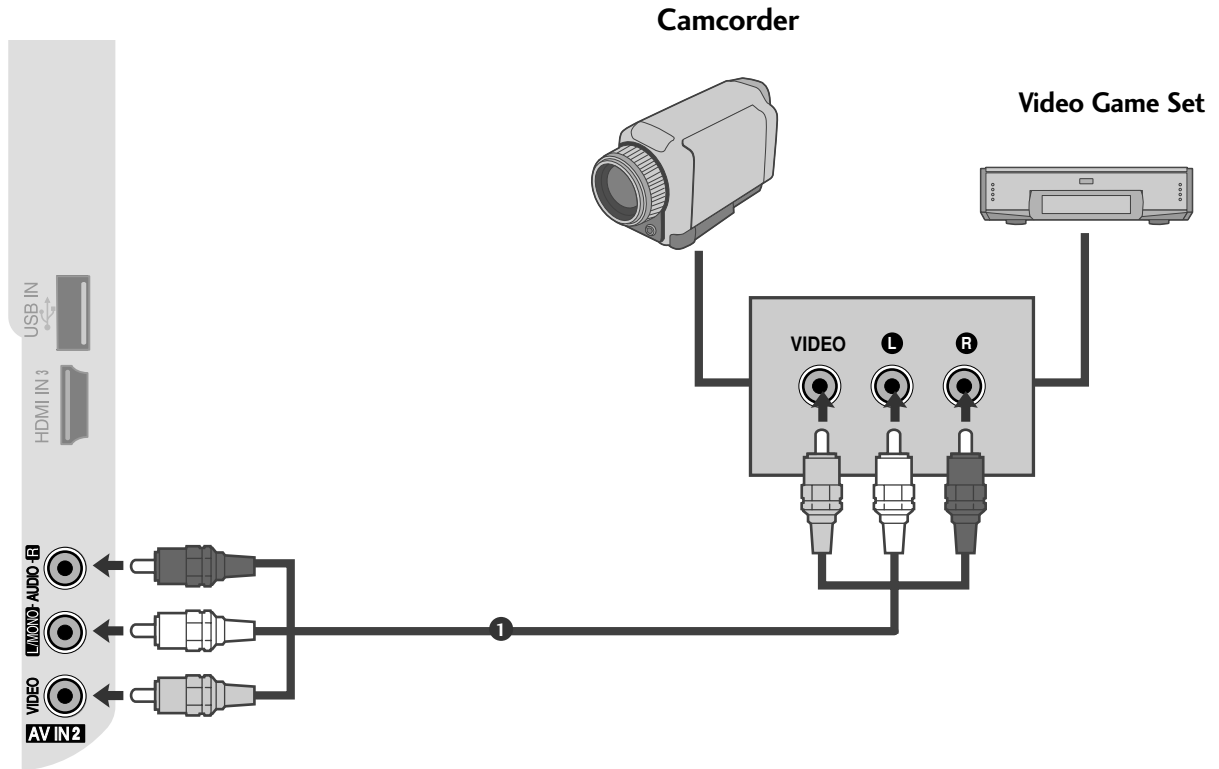
### ! NOTE

- ▶ When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off.



# EXTERNAL EQUIPMENT SETUP

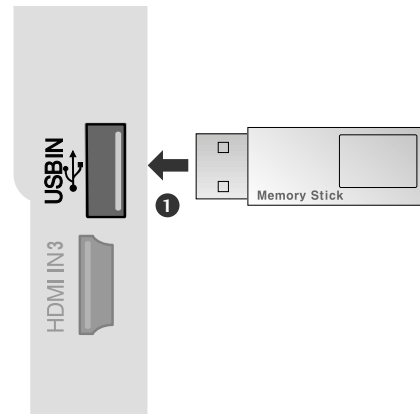
## OTHER A/V SOURCE SETUP



- 1** Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colours .  
(Video = yellow, Audio Left = white, and Audio Right = red)
- 2** Select **AV2** input source with using the **INPUT** button on the remote control.  
If connected to **AV IN 1** input, select **AV1** input source.
- 3** Operate the corresponding external equipment.  
Refer to external equipment operating guide.

# USB SETUP

- 
- 1 Connect the USB device to the **USB IN** jack on the TV.
  - 2 After connecting the **USB IN** jacks, you use the **USB** function. (▶ p.57)
- 



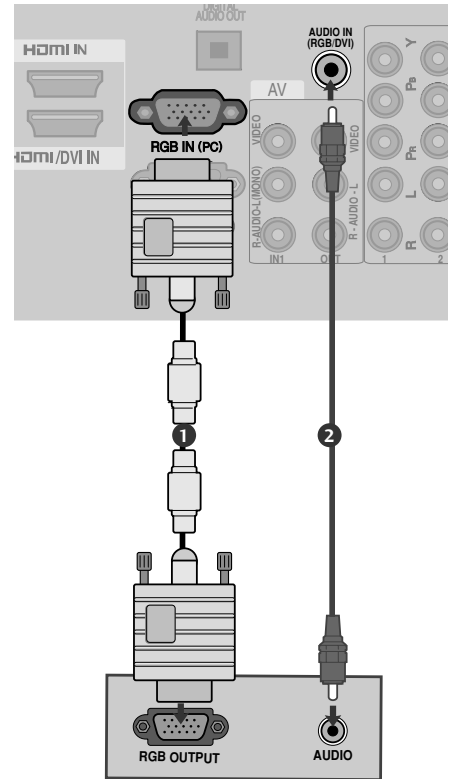
# EXTERNAL EQUIPMENT SETUP

## PC SETUP

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

### Connecting with a D-sub 15 pin cable

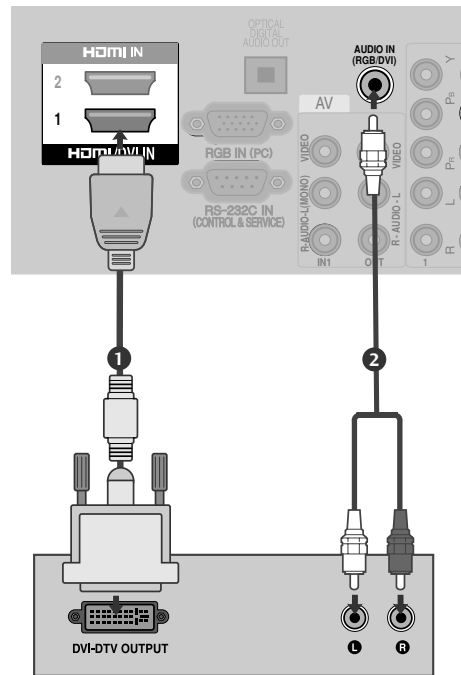
- 1 Connect the RGB output of the PC to the **RGB IN (PC)** jack on the TV.
- 2 Connect the PC audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.
- 3 Turn on the PC and the TV.
- 4 Select **RGB** input source using the INPUT button on the remote control.



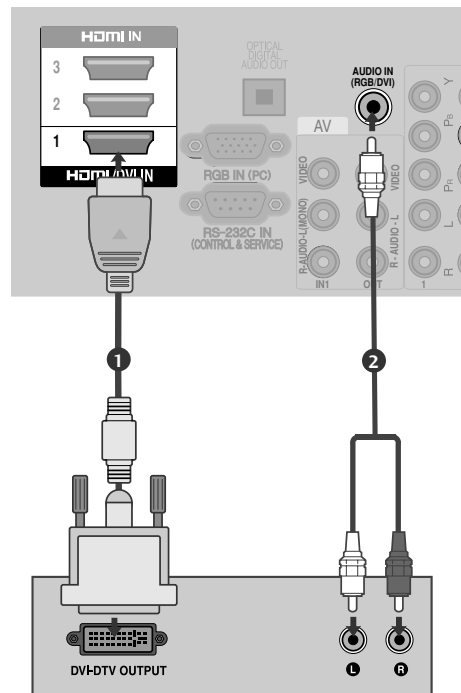
## Connecting with an HDMI to DVI cable

- 1 Connect the DVI output of the PC to the **HDMI/DVI IN1** jack on the TV.
- 2 Connect the PC audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.
- 3 Turn on the PC and the TV.
- 4 Select **HDMI1** input source using the **INPUT** button on the remote control.

42/50PQ6\*\*\*, 50PS3\*\*\*



50/60PS8\*\*\*



# EXTERNAL EQUIPMENT SETUP

## Supported Display Resolution

### RGB-PC, HDMI/DVI-PC mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.468	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x768	47.78	59.87
1360x768	47.72	59.80
1280x1024 (Except for 42/50PQ6***)	63.98	60.02
1400x1050 (Except for 42/50PQ6***)	65.317	59.979
1920x1080	66.587	59.934

### HDMI/DVI-DTV mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640x480	31.649	59.94
	31.469	60
720x480	31.47	59.94
	31.50	60
720x576	31.25	50.00
	37.50	50.00
1280x720	44.96	59.94
	45.00	60
	28.125	50.00
	33.72	59.94
1920x1080	33.75	60
	27.00	24.00
	33.750	30
	56.25	50.00
	67.433	59.94
	67.50	60

**! NOTE**

- ▶ Avoid keeping a fixed image on the set's screen for prolonged periods of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- ▶ There may be interference relating to resolution, vertical pattern, contrast or brightness in PC mode. Change the PC mode to another resolution or change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear.  
If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
- ▶ The synchronization input waveform for Horizontal and Vertical frequencies are separate.
- ▶ We recommend using 1024x768(42PQ6\*\*\*), 1360x768, 60Hz(50PQ6\*\*\*), 1920x1080, 60Hz(50PS3\*\*\*, 50/60PS8\*\*\*) for the PC mode, this should provide the best picture quality.
- ▶ Connect the signal cable from the monitor output port of the PC to the RGB (PC) port of the TV or the signal cable from the HDMI output port of the PC to the HDMI IN (or HDMI/DVI IN) port on the TV.
- ▶ Connect the audio cable from the PC to the Audio input on the TV. (Audio cables are not included with the TV).
- ▶ If using a sound card, adjust PC sound as required.
- ▶ If required, adjust the settings for Plug and Play functionality
- ▶ If the graphic card on the PC does not output analogue and digital RGB simultaneously, connect only one of either RGB or HDMI IN (or HDMI/DVI IN) to display the PC output on the TV.
- ▶ If the graphic card on the PC does output analogue and digital RGB simultaneously, set the TV to either RGB or HDMI; (the other mode is set to Plug and Play automatically by the TV.)
- ▶ DOS mode may not work depending on the video card if you use an HDMI to DVI cable.
- ▶ If you use too long an RGB-PC cable that is too long, there may be interference on the screen. We recommend using under 5m of cable. This provides the best picture quality.

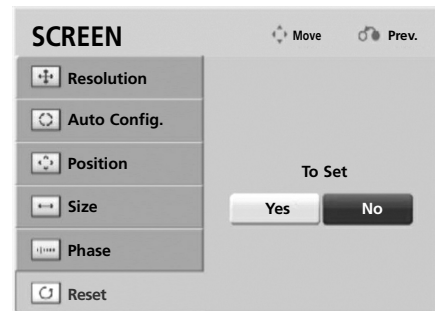
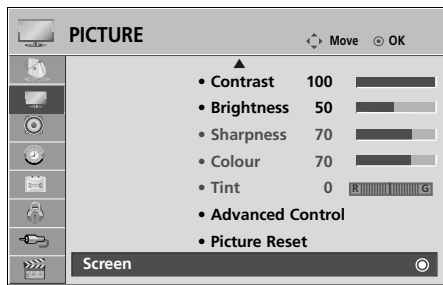
# EXTERNAL EQUIPMENT SETUP










## Screen Setup for PC mode

### Screen Reset

Returns Position, Size and Phase to the factory default settings.

This function works in the following mode : RGB[PC].



- 1   Select **PICTURE**.
- 2   Select **Screen**.
- 3   Select **Reset**.
- 4   Select **Yes**.
- 5  Run **Reset**.

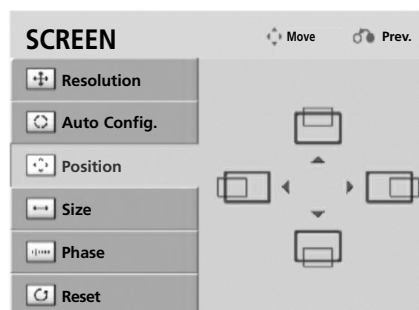
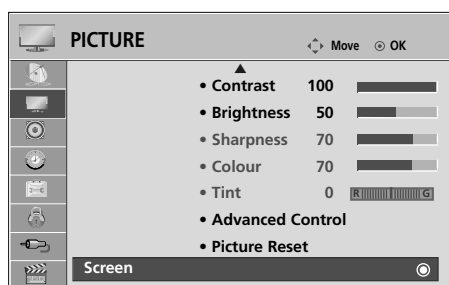
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.









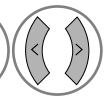
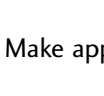



## Adjustment for screen Position, Size, Phase

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

This function works in the following mode : RGB[PC].



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

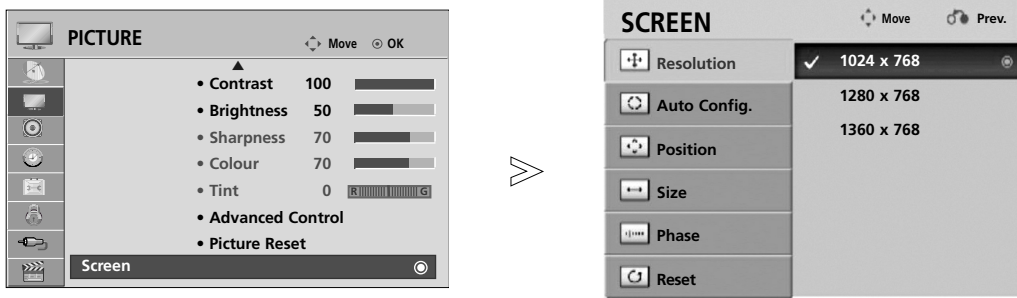
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

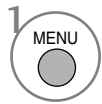


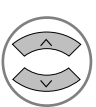
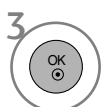
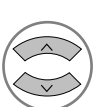


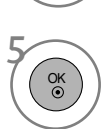
# EXTERNAL EQUIPMENT SETUP

## Selecting Resolution

To view a normal picture, match the resolution of RGB mode and selection of PC mode.

This function works in the following mode: RGB[PC]



- 1   Select **PICTURE**.
- 2   Select **Screen**.
- 3   Select **Resolution**.
- 4   Select the desired resolution.
- 5 

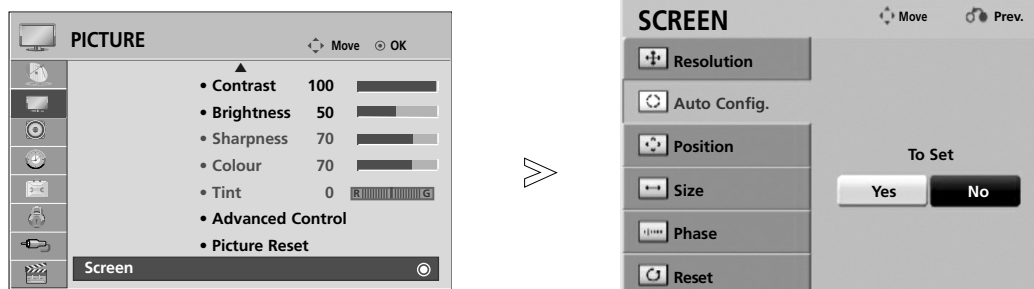
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

## Auto Configure (RGB [PC] mode only)

Automatically adjusts the picture position and minimizes image instability. After adjustment, if the image is still not correct, your TV is functioning properly but needs further adjustment.

### Auto configure

This function is for automatic adjustment of the screen position, size, and phase. The displayed image will be unstable for a few seconds while the auto configuration is in progress.



1   Select **PICTURE**.

2   Select **Screen**.

3   Select **Auto Config..**

4   Select **Yes**.

5  Run **Auto Config..**

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

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

# WATCHING TV / PROGRAMME CONTROL

## REMOTE CONTROL KEY FUNCTIONS

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



**ENERGY SAVING** Adjust the power saving mode of the TV.

**RATIO** Selects your desired picture format.

**POWER** Switches the TV on from standby or off to standby.

**INPUT** External input mode rotate in regular sequence.

**TV/RAD** Selects Radio, TV and DTV channel.

**Q. MENU** Select the desired quick menu source. (Aspect Ratio, Clear Voice II, Picture Mode, Sound Mode, Audio, Sleep Timer, Favourite, USB Device.) (▶ p.37)

**MENU** Selects a menu. Clears all on-screen displays and returns to TV viewing from any menu.

**GUIDE** Shows programme schedule. (▶ p.71)

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

**OK** Accepts your selection or displays the current mode.

**RETURN(EXIT)** Allows the user to move return one step in an interactive application, EPG or other user interaction function.

**INFO ⓘ** Shows the present screen information. Press the MENU button and then INFO button to enter the Simple Manual menu.

**AV MODE** It helps you select and set images and sounds when connecting AV devices. (▶ p.55)

**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.108)

**SUBTITLE** Recalls your preferred subtitle in digital mode.

**SIMPLINK** See a list of AV devices connected to TV. When you toggle this button, the Simplink menu appears at the screen. (▶ p.52)

**FREEZE** Pause the present picture at the screen. (It doesn't work at USB Mode.) The TV Returns to normal viewing automatically if no signal is received or no operation is performed for 5 minutes.



**VOLUME UP /DOWN** Adjusts the volume.

**MARK** Check and un-check programmes in the USB menu.

**FAV** Displays the selected favourite programme.

**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.

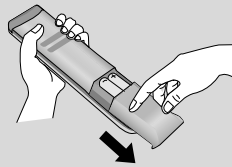
**0~9 number button** Selects a programme.  
Selects numbered items in a menu.

**LIST** Displays the programme table.

**Q.VIEW** Returns to the previously viewed programme.

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

### Installing Batteries



- Open the battery compartment cover on the back and install the batteries matching correct polarity (+with +,-with -).
- Install two 1.5V AAA batteries. Do not mix old or used batteries with new ones.
- Close cover.

# 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 and check the main power on the TV.  
At this stage, the TV switches to standby mode.
- 2 In standby mode to turn TV on, press the **INPUT** or **P ▲ ▼** button on the TV or press the **POWER, INPUT, P ▲ ▼** or **NUMBER** button on the remote control and the TV will switch on.

### Initializing setup

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

#### Note:

- a. If you close without completing the initial setting, the Initial Setting menu can be displayed again.
- b. Press the **RETURN** 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 ▲ ▼** or **NUMBER** buttons to select a programme number.

## VOLUME ADJUSTMENT

- 1 Press the **▲ +** 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, ▲ +, -** or **AV Mode** button.


# 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.

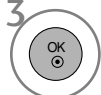
 **Favourite** : Selects the favourite programme.

 **USB Device** : Selects "Eject" in order to eject USB device.



1   Display each menu.

2  Select your desired Source.

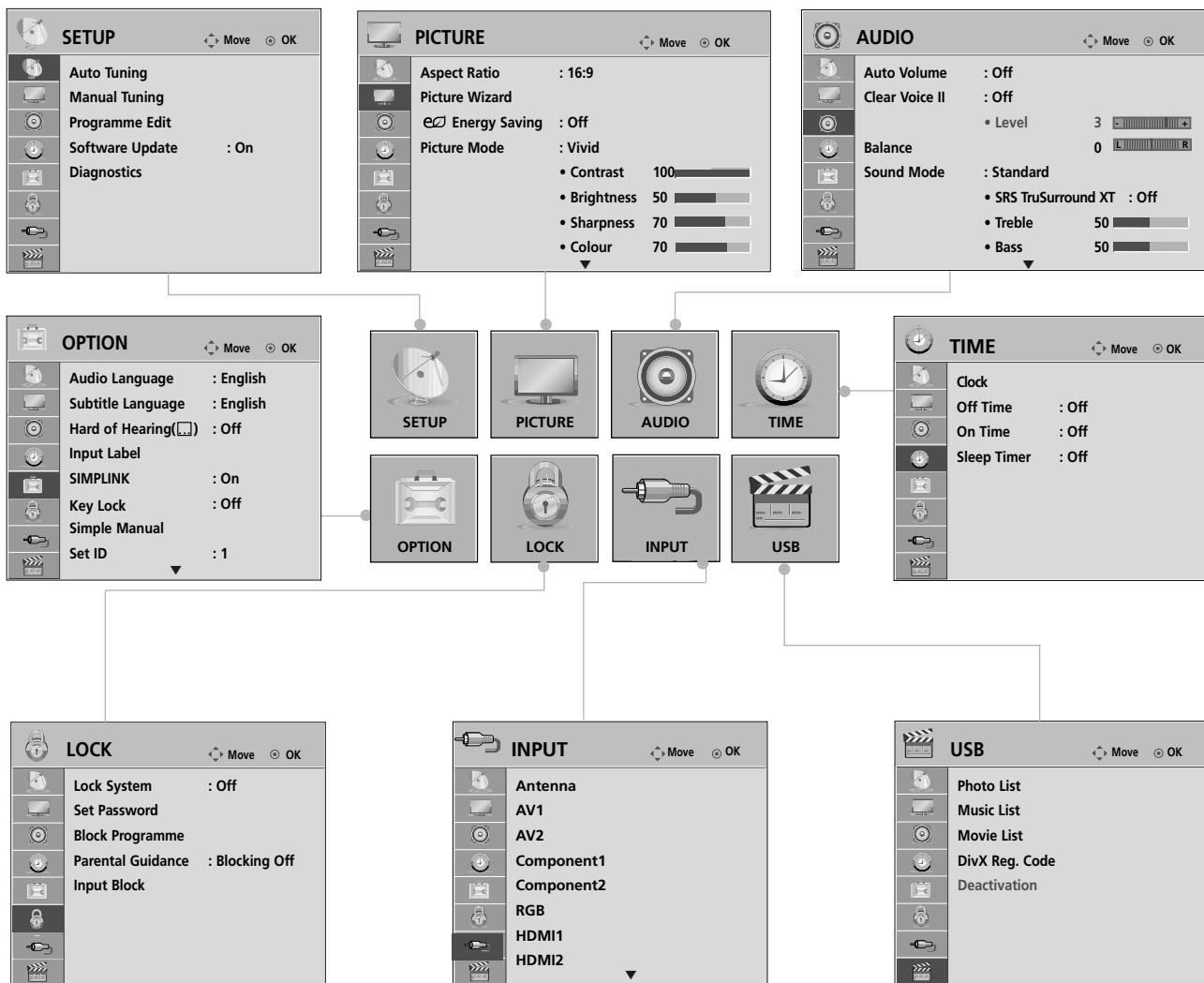
3 

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


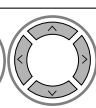

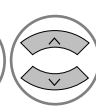

# WATCHING TV / PROGRAMME CONTROL

## ON SCREEN MENUS SELECTION AND ADJUSTMENT

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



WATCHING TV / PROGRAMME CONTROL

- 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

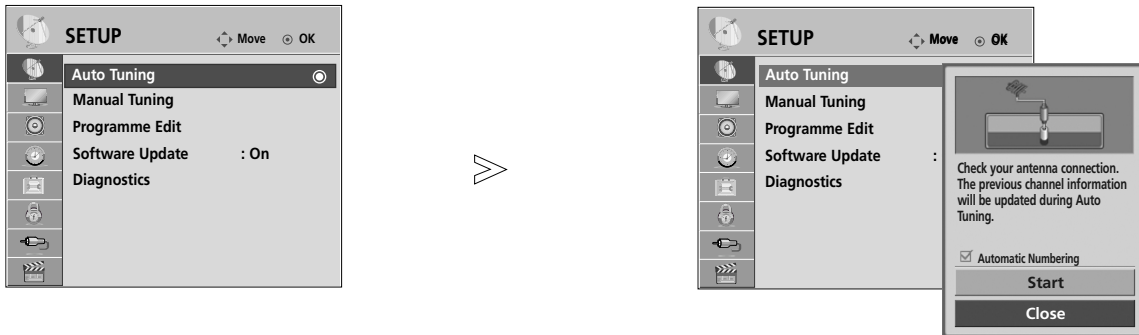









# AUTO PROGRAMME TUNING

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**.

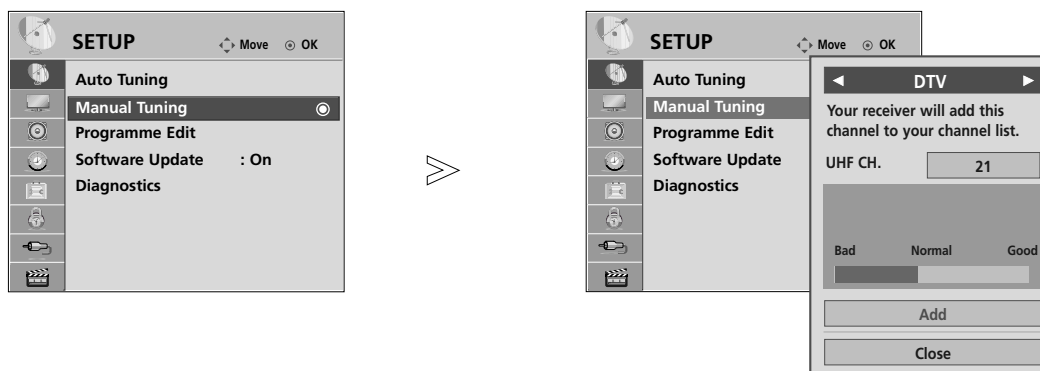
- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- If you wish to keep on auto tuning select **Start** using the  $\wedge \vee$  button. Then, press the **OK** button. Otherwise select **Close**.
- **Automatic Numbering**: Decide whether to use the programme numbers as sent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











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

# WATCHING TV / PROGRAMME CONTROL

## MANUAL PROGRAMME TUNING (IN DIGITAL MODE)

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



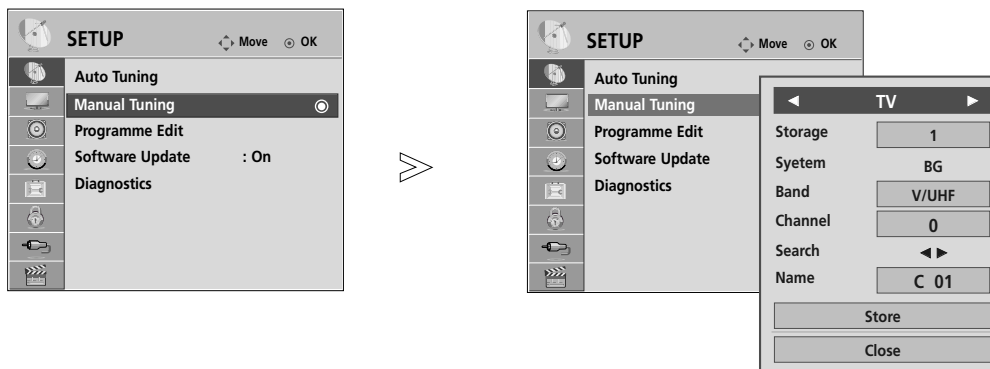
- 1   Select **SETUP**.
- 2   Select **Manual Tuning**.
- 3   Select **DTV**.
- 4   Select the desired channel number.
- 5   Select update or add if signal present.

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

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

# 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.

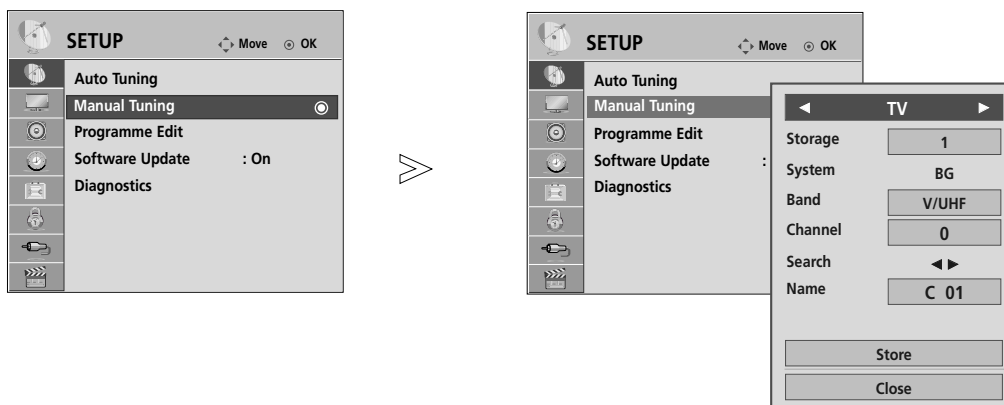
8 Commence searching.

9 Select **Store**.

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

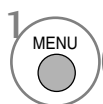


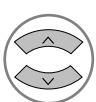
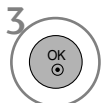
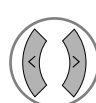

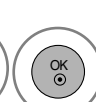
- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- **BG** : PAL B/G (Europe / East Europe / Asia / New Zealand / M.East / Africa / Singapore)
- **I** : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)
- **DK** : PAL D/K (East Europe / China / Africa / CIS)
- **B/B** :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



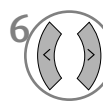
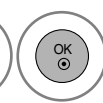

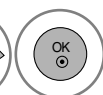
# WATCHING TV / PROGRAMME CONTROL



## ■ Assigning a station name

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

- 1   Select **SETUP**.
- 2   Select **Manual Tuning**.
- 3   Select **TV**.
- 4   Select **Name**.

- 5   Select the position and make your choice of the second character, and so on. You can use the alphabet **A** to **Z**, the number **0** to **9**, **+/-**, and blank.
- 6   Select **Close**.
- 7   Select **Store**.

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

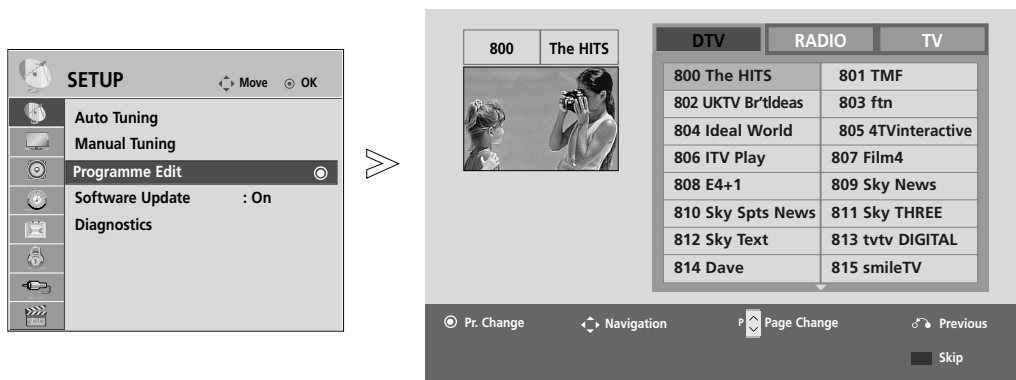
# PROGRAMME EDIT







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


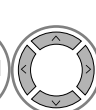
2  Turn the programme number to red.

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.

### ■ Skipping a programme number

1  Select a programme number to be skipped.

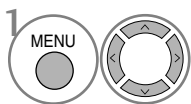
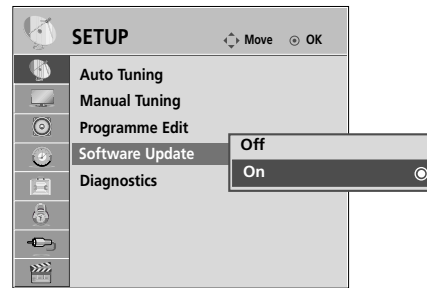
2  Turn the programme number to blue.

3  Release.

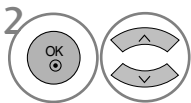
- When a programme number is skipped it means that you will be unable to select it using the P ^ ∨ button during normal TV viewing.
- If you wish to select a skipped programme, directly enter the programme number with the NUMBER buttons or select it in the programme edit or EPG.

# SOFTWARE UPDATE

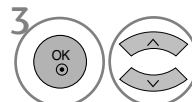
Software Update means software can be downloaded through the digital terrestrial broadcasting system.



1 Select **SETUP**.



2 Select **Software Update**.



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

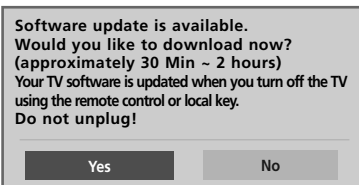
• If you select **On**, a user confirm message box will be displayed to notify that new software is found.



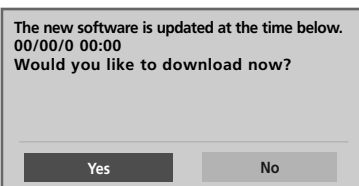
4 Save.

## \* When setting "Software Update"

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



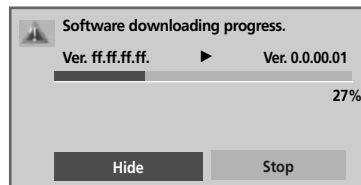
Simple Update :for current update stream



Schedule Update : for scheduled update stream

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

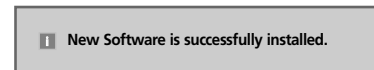
Select the **Yes** using the < > button and you will see the following picture.



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

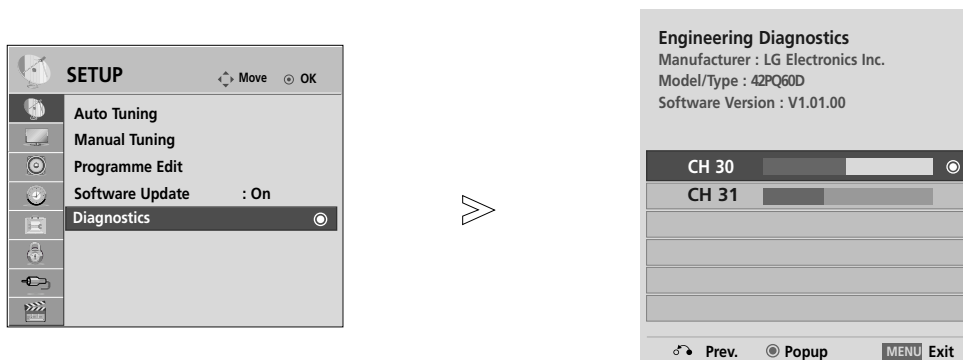
## DIAGNOSTICS


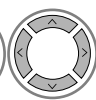

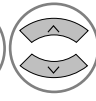



This function enables you to view information on the Manufacturer, Model/Type and Software Version.

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.))



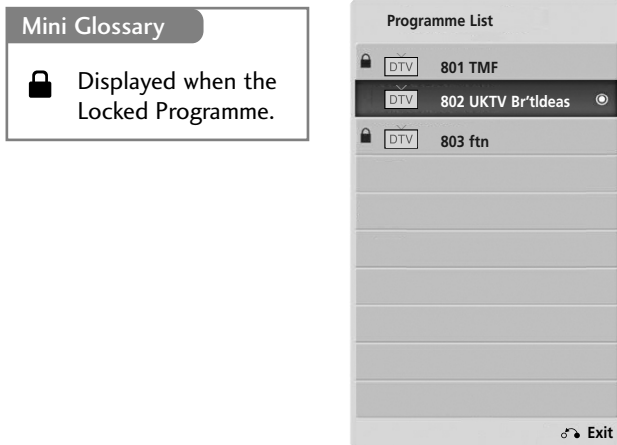
- 1   Select **SETUP**.
- 2   Select **Diagnostics**.
- 3  Display Manufacturer, Model/Type and Software Version.
- 4   Display the information of Channel.

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** 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.



## Mini Glossary

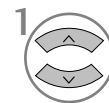

 Displayed when the Locked Programme.


## ■ 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.  
To tune to a favorite programme, press the **FAV**(Favorite)button repeatedly.



1  or  Select your desired programme.

3  Select **Favourite**.


2   Select **Favourite**.

4  Return to TV viewing.

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

### ■ Displaying the favourite programme list

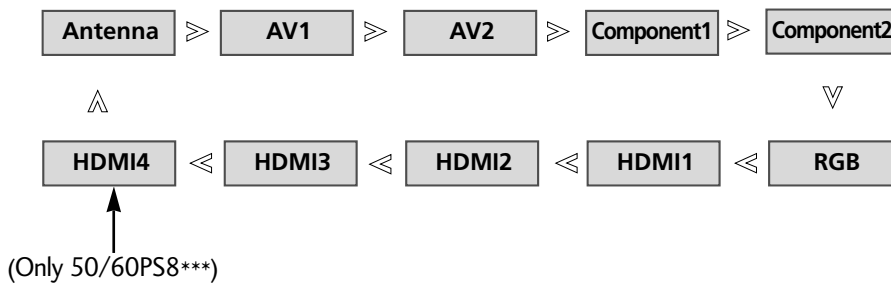


1  Display the Favourite Programme List.

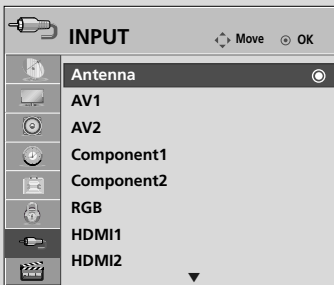
# INPUT LIST

HDMI and AV1, 2 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.



- You can also adjust **INPUT** menu.

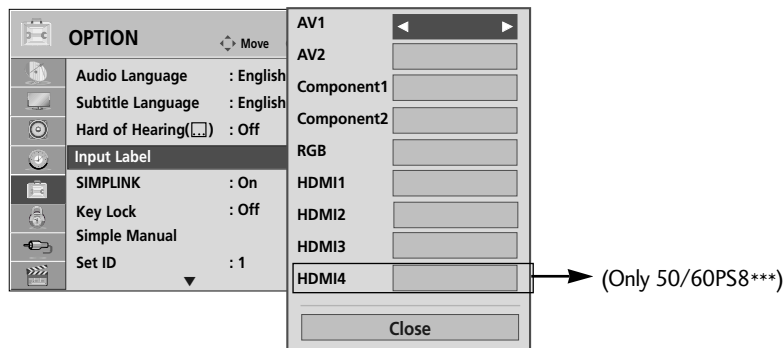









- **Antenna** : Select it when watching the DTV/TV.
- **AV** : Select it when watching the VCR or external equipment.
- **Component** : Select it when using the DVD or the Digital set-top box depends on connector.
- **RGB** : Select it when using PC depends on connector.
- **HDMI** : Select it when using DVD, PC or Digital set-top box depend on connector.

# WATCHING TV / PROGRAMME CONTROL

## INPUT LABEL

Selects a label for each input source.

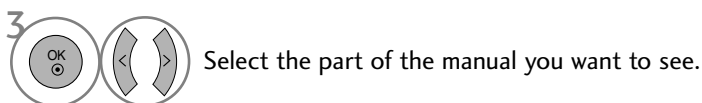
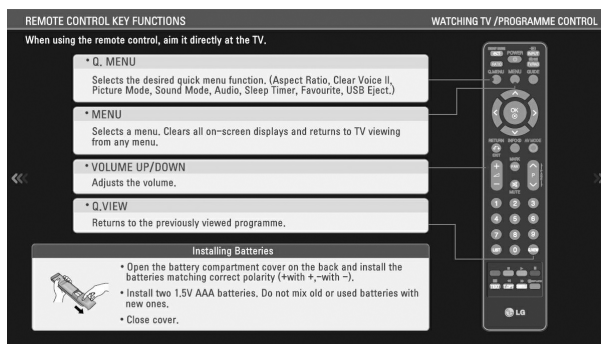


-   Select **OPTION**.
-   Select **Input Label**.
-   Select the source.
-  Select the label.

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** 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.



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

# WATCHING TV / PROGRAMME CONTROL



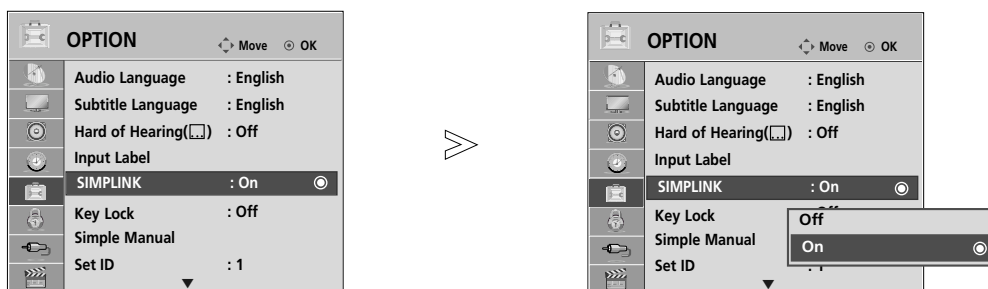
This function operates only with devices with the SIMPLINK logo.








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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

## Connecting to Home Theater with the SIMPLINK logo.

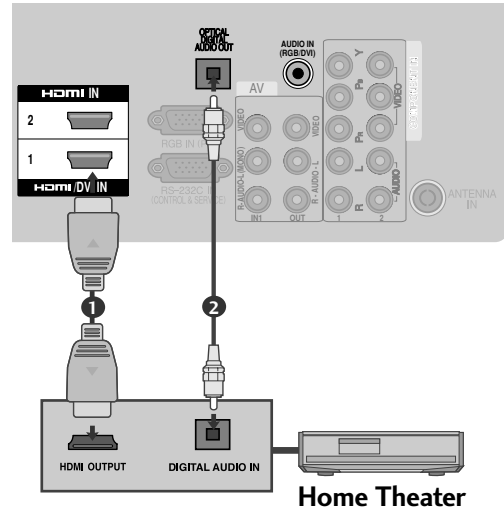
- 1 Connect the **HDMI/DVI IN 1**, **HDMI IN 2**, **HDMI IN 3** or **HDMI IN 4** (Only 50/60PS8\*\*\*) terminal on the back of the TV and the HDMI output terminal of the Home Theater using HDMI cables.
- 2 Connect the Digital Audio output terminal on the back of the TV and the Digital Audio input terminal of the Home Theater using optical cables.
- 3 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).

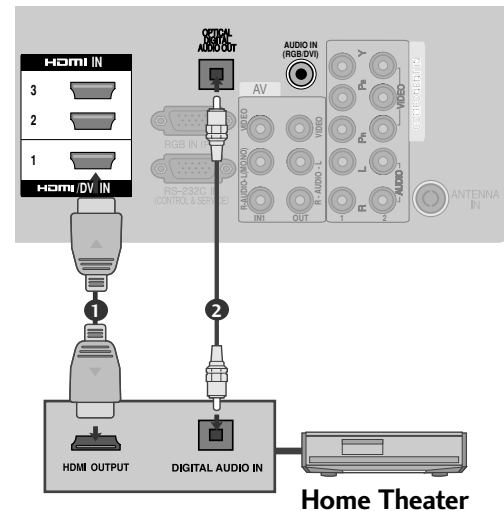
### ! NOTE

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

42/50PQ6\*\*\*, 50PS3\*\*\*



50/60PS8\*\*\*



# WATCHING TV / PROGRAMME CONTROL

## SIMPLINK Functions

### Disc playback

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

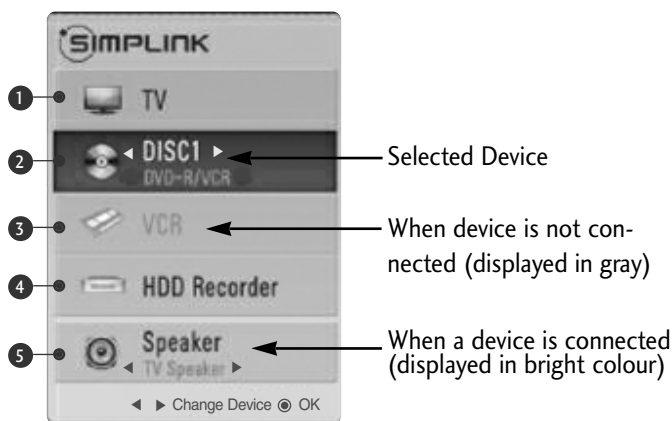
\* A device, which is connected to the TV through an HDMI cable but does not support SIMPLINK, does not provide this function.

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.



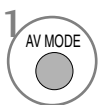
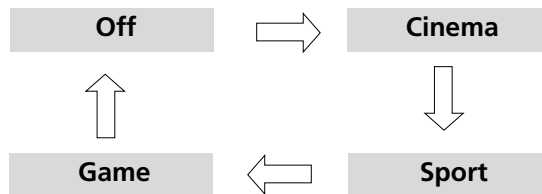
- Home theater: Only one supported at a time
- DVD, Recorder: Up to three supported at a time.
- VCR: Only one supported at a time



## AV MODE

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

<b>Off</b>	Disables the AV MODE.
<b>Cinema</b>	Optimizes video and audio for watching movies.
<b>Sport</b>	Optimizes video and audio for watching sports events.
<b>Game</b>	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)

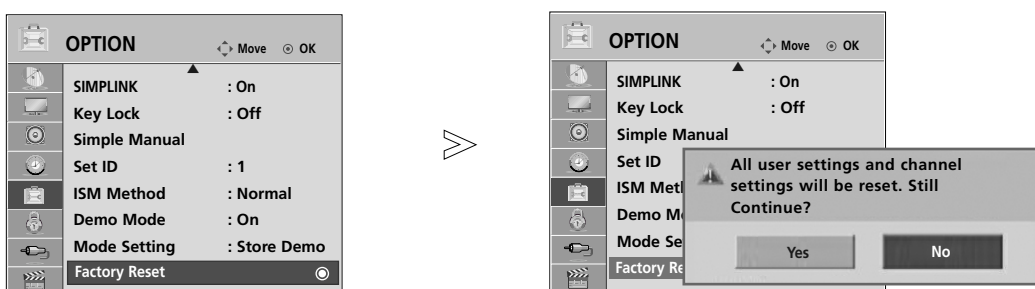
This function initializes all settings.

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

• In **Lock System "On"**, if you forget your password, press '7', '7', '7', '7' on the remote control handset.

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

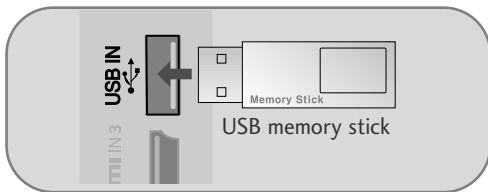
# TO USE A USB DEVICE

## 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.

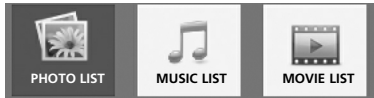
In USB device, you can not add a new folder or delete the existing folder.

- 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 Q. MENU Select **Eject**
- 2 OK

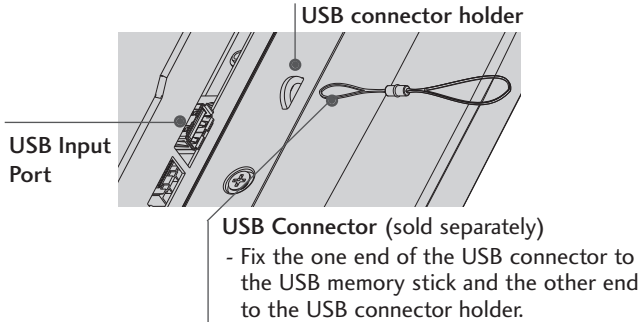
## Precautions when using the USB device

- ▶ 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 0.5A) 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. If you use a cable which is not offered by the device maker or an excessively long cable (max 5m), the device may not be recognized.
- ▶ 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 1TB or less for a USB external hard disk and 32GB 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

## ! NOTE

- Image shown may differ from your TV.
- In order to avoid losing the USB memory stick, use the USB connector(sold separately) to fix the USB memory stick to the USB connector holder of the TV.



## 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.

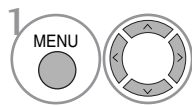
### PHOTO(\*.JPEG) supporting file

Baseline : 64 x 64 ~ 15360 x 8640

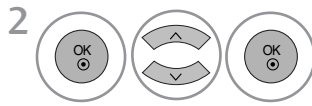
Progressive : 64 x 64 ~ 1920 x 1440

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

## Screen Components

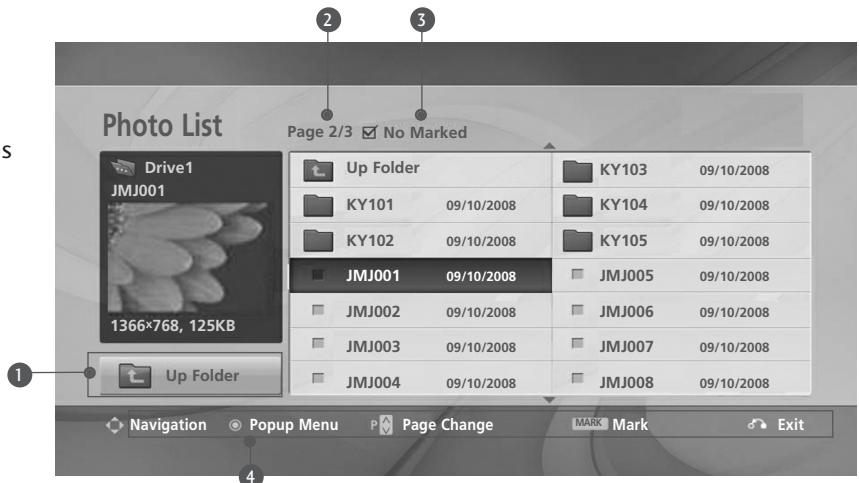


Select **USB**.

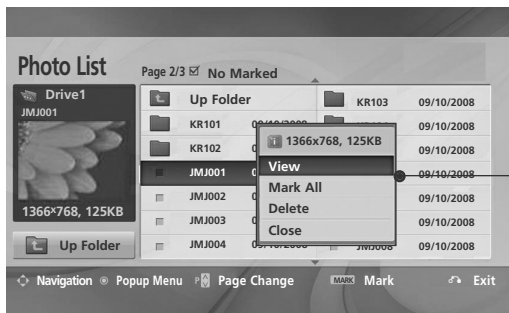
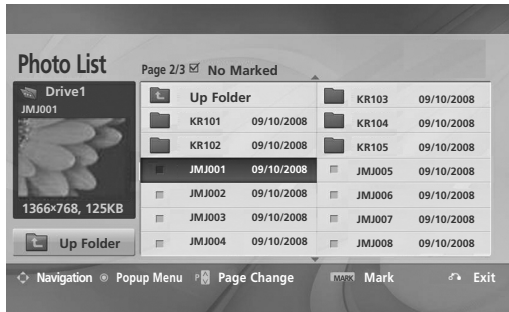


Select **Photo List**.







- Moves to upper level folder
- Current page/Total pages
- Total number of marked photos
- Corresponding buttons on the remote control



# 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.

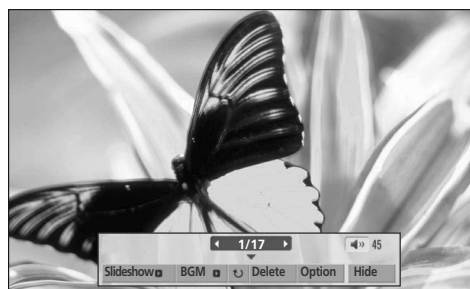
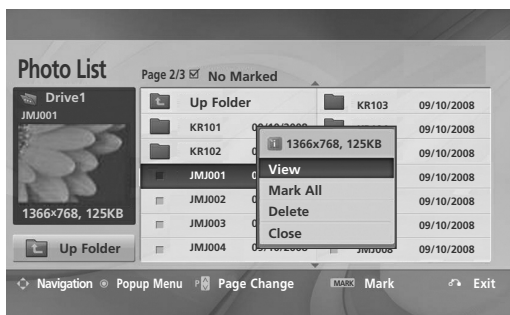
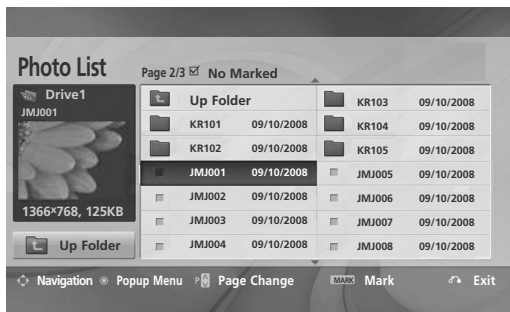
- Use the **P** ^ v button to navigation in the photo page.
- Use the **MARK** button to mark or unmark a photo. When one or more photos are marked, you can view each marked photo or a slide show of the marked photos. If no photos are marked, you can view every individual photo in the folder or a slide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

• Press the **RETURN** 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.

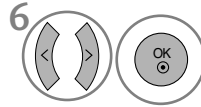


The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.

Press the **RETURN** 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.

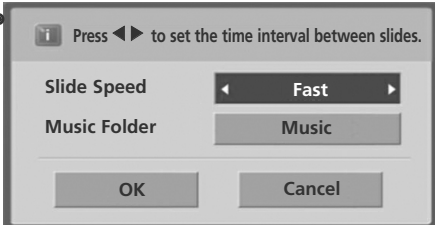
- Use the **P**   button to navigation in the photo page.



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 **OK** 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 ~ 320

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

## Screen Components

**1** MENU Select USB.

**2** OK 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

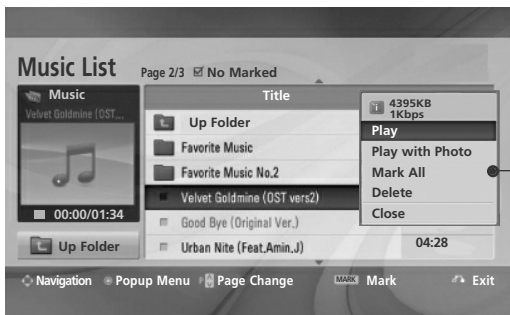
Music List	
Title	Duration
Up Folder	
Favorite Music	
Favorite Music No.2	
Velvet Goldmine (OST vers2)	01:34
Good Bye (Original Ver.)	03:23
Urban Nite (Feat.Amin.J)	04:28

Navigation Popup Menu Page Change MARK Mark Exit



# 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.

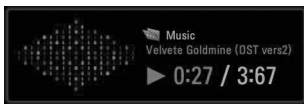
• Press the **RETURN** button to return to normal TV viewing.

# 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.

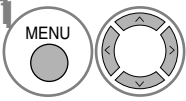
- Movie(\*.dat/\*.mpg/\*.mpeg/\*.ts/\*.trp/\*.tp/\*.vob/\*.mkv/\*.mp4/\*.avi/\*.divx) supporting file  
Video format :DivX3.11, DivX4.12, DivX5.x, DivX6, Xvid1.00, Xvid1.01, Xvid1.02, Xvid1.03, Xvid 1.10-beta-1/beta-2, Mpeg-1, Mpeg-2, Mpeg-4, H.264/AVC  
Audio format : AC3(Dolby Digital), AAC, Mpeg, MP3, LPCM, HEAAC  
Bit rate : within 32 ~ 320kbps(MP3)  
Subtitle format : \*.smi/\*.srt/\*.sub(MicroDVD, SubViewer1.0/2.0)/\*.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 20Mbps.**
  - We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264.
  - DTS Audio codec is not supported.
  - A movie file more than 30GB 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.
  - USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
  - Files encoded with GMC(Global Motion Compensation) may not be played.
  - 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.
  - 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.

# TO USE A USB DEVICE

File Extension name	Video Decoder	Audio Codec	Resolution
mpg, mpeg, vob	MPEG1, MPEG2	AC3, MPEG, MP3, LPCM	1920x1080@30p
dat	MPEG1	AC3, MPEG, MP3, LPCM	
ts, trp, tp	MPEG2, H.264/AVC	AC3, AAC, 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	AC3, HEAAC, AAC, 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	AC3, HEAAC, AAC, MPEG, MP3, LPCM	
mkv	MPEG 1, MPEG 2, MPEG 4 SP, MPEG4 ASP, H.264/AVC	AC3, HEAAC, AAC, 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	AC3, HEAAC, AAC, MPEG, MP3, LPCM	

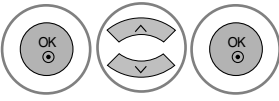
## Screen Components

**1**



Select **USB**.


**2**



Select **Movie List**

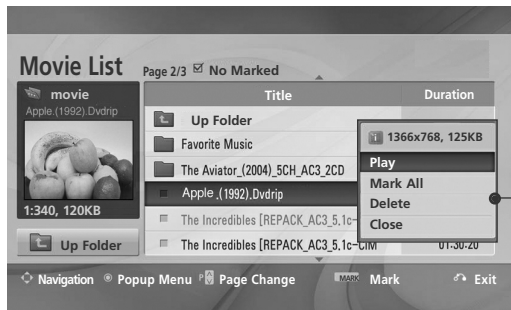
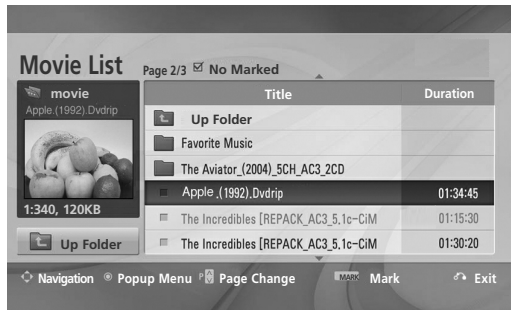
  

- 1** Moves to upper level folder
- 2** Current page/Total pages
- 3** Total number of marked movie title
- 4** Corresponding buttons on the remote control









The screenshot shows a 'Movie List' interface. At the top, it displays 'Page 2/3' and a checked box for 'No Marked'. Below this is a table with columns for 'Title' and 'Duration'. The first row is 'Up Folder'. The second row is 'Favorite Music'. The third row is 'The Aviator\_(2004)\_5CH\_AC3\_2CD'. The fourth row is 'Apple\_(1992).Dvdrip' with a duration of 01:34:45. The fifth row is 'The Incredibles [REPACK\_AC3\_5.1c-CiM]' with a duration of 01:15:30. The sixth row is 'The Incredibles [REPACK\_AC3\_5.1c-CiM]' with a duration of 01:30:20. At the bottom of the screen, there is a navigation bar with buttons for 'Navigation', 'Popup Menu', 'Page Change', 'MARK | Mark', and '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.

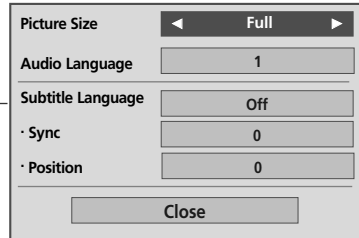
- Press the **RETURN** button to return to normal TV viewing.

### ! 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



### NOTE

- ▶ In Singapore and New Zealand, the only language supported for subtitles is English.

- ▶ **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 ~ +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.

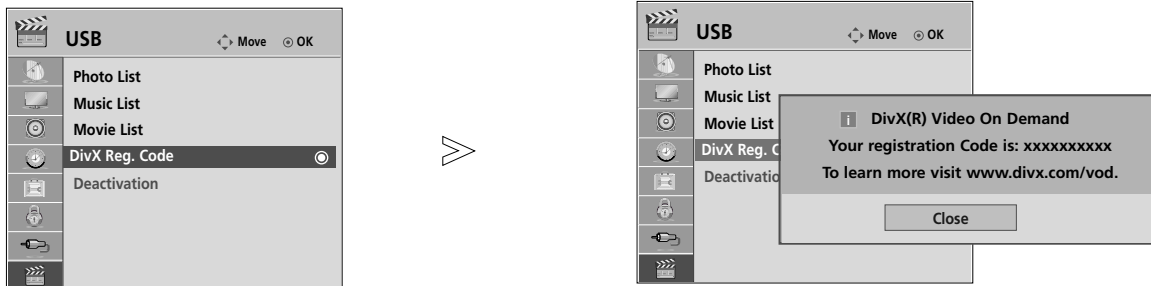
## Using the remote control






◀◀ / ▶▶	<p>When playing,</p> <p>repeatedly, press the <b>REW</b>(◀◀) button to speed up ◀◀(x2) -&gt; ◀◀◀◀(x4) -&gt; ◀◀◀◀◀◀(x8) -&gt; ◀◀◀◀◀◀◀◀(x16) -&gt; ◀◀◀◀◀◀◀◀◀◀◀(x32) .</p> <p>repeatedly, press the <b>FF</b>(▶▶) button to speed up ▶▶(x2)-&gt; ▶▶▶▶(x4) -&gt; ▶▶▶▶▶▶(x8) -&gt; ▶▶▶▶▶▶▶▶(x16) -&gt; ▶▶▶▶▶▶▶▶▶▶(x32).</p> <ul style="list-style-type: none"> <li>▪ Pressing these buttons repeatedly increases the fast forward/reverse speed.</li> </ul>
	<p>During playback, press the <b>Pause</b>(  ) button.</p> <ul style="list-style-type: none"> <li>▪ Still screen is displayed.</li> <li>▪ If no buttons are pressed on the remote control for 10 minutes after pausing, the TV returns to the playback state.</li> <li>▪ Press the <b>Pause</b>(  ) button and then use the <b>FF</b>(▶▶) button for slow motion.</li> </ul>
< >	<ul style="list-style-type: none"> <li>▪ When using the &lt; or &gt; button during playback a cursor indicating the position can be viewed on the screen.</li> </ul>
PLAY(▶)	<p>Press the <b>PLAY</b>(▶) button to return to normal playback.</p>
ENERGY SAVING 	<p>Press the <b>ENERGY SAVING</b> button repeatedly to increase the brightness of your screen.(Refer to p. 77)</p>
AV MODE 	<p>Press the <b>AV MODE</b> button repeatedly to select the desired source.(Refer to p. 55)</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](http://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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.



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

*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](http://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](http://vod.divx.com) with this code to complete the registration process and learn more about DivX VOD.*

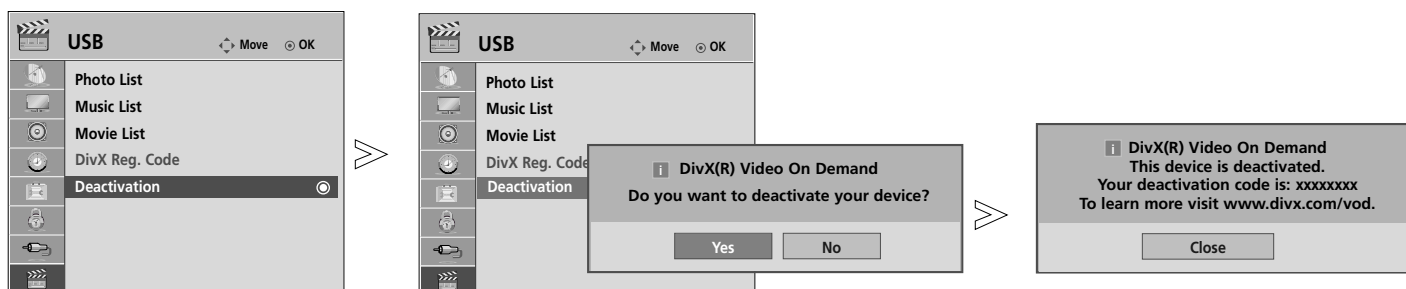
## NOTE

- ▶ 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, 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, H.264/AVC

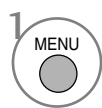
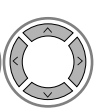

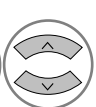

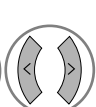
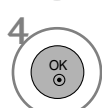
# TO USE A USB DEVICE

## 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.















# EPG (ELECTRONIC PROGRAMME GUIDE)(IN DIGITAL MODE) (Only Singapore)

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

 Switch on or off EPG.


## Select a programme


 or  Select desired programme.


 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 Remind setting mode.

 Enter Timer 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**


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  Switch off EPG.

 Select TV or RADIO Programme.






 Detail information on or off

# EPG (ELECTRONIC PROGRAMME GUIDE)(IN DIGITAL MODE)







## Button Function in 8 Day Guide Mode

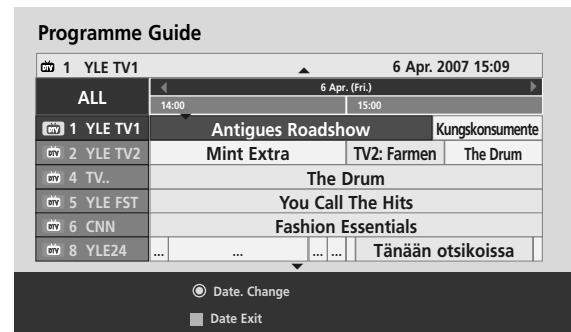
-  **RED** Change EPG mode.
-  **GREEN** Enter Date setting mode.
-  **YELLOW** Enter Timer Remind setting mode.
-  **BLUE** Enter Timer Remind list mode.
-  The EPG will disappear after moving to a selected program.
-  Select Programme.
-  Select the Broadcast Programme.








-  Page Up/Down.
-  or  Switch off EPG.
-  Select TV or RADIO Programme.
-  Detail information on or off

## Button Function in Date Change Mode

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







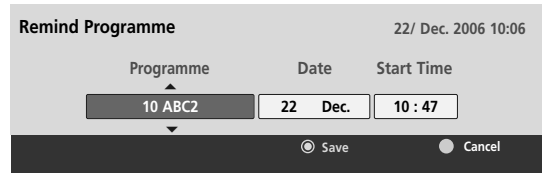
## Button Function in Extended Description Box

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










## Button Function in Remind Setting Mode

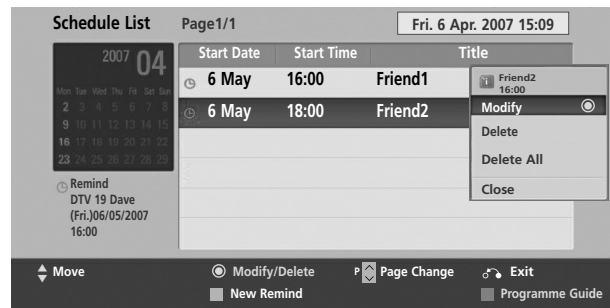
-  Change to Guide or Schedule mode.
-  Select Remind.  
Function setting.
-  Select Programme, Date or Start time.
-  Save Timer Remind.



## 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/Return keys will work when a popup window is open.

-  Add new Timer Watching setting mode.
-  or  Change to Guide mode.
-  Switch off EPG.
-  Select your desired Option (Modify/Delete/Delete All).
-  Select **Schedule List**.
-  Page Up/Down.














# MHEG (MULTIMEDIA AND HYPERMEDIA INFORMATION CODING EXPERT GROUP)(IN DIGITAL MODE) (Only New Zealand)

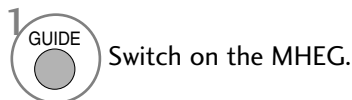
This feature is enabled only in New Zealand.

- In New Zealand, pressing the Guide key will display MHEG EPG provided by New Zealand on the screen.




This system has an MHEG(Multimedia and hypermedia information coding expert group) to help your navigation through all the possible viewing options.

	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.	576i, 720p, 1080i : Resolution of broadcasting programme	
	Aspect ratio of broadcasting programme.		
	Aspect ratio of broadcasting programme.		









## Switch on MHEG

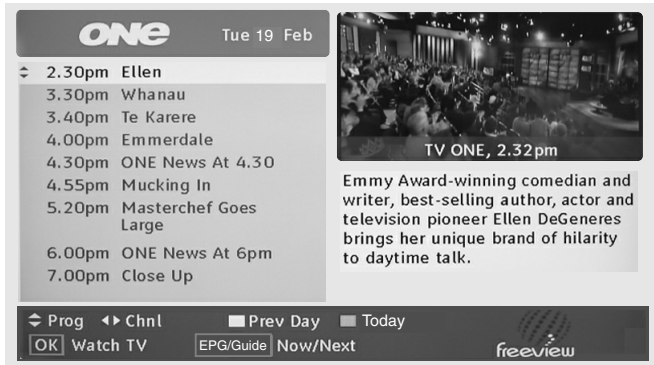


## Select a programme

- 1  Preview the Broadcast Programme Information.
- 2  change to desired channel.
- 3  The MHEG will disappear after moving to a selected channel.






## Button Function in NOW/NEXT Mode

-  Select the Broadcast Programme Information.
-  Select Channel.
-  Change to Next Week or Prev Day.
-  Change to Next Day or Today.
-  The MHEG will disappear after moving to a selected channel.
-  Change to Now/Next mode.
-  Switch off MHEG.
-  Detail information on or off.



## Button Function in Listing Mode

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

-  Select desired channel.
-  The MHEG will disappear after moving to a selected channel.
-  Change to Listing mode.
-  Switch off MHEG.
-  Detail information on or off.

What's on now/next.		2.33pm Tue 12 Feb	
1	TV ONE	Now 2.30pm Next 3.00pm	Neighbours Jojo's Circus
2	TV2	Now 2.30pm Next 3.00pm	Neighbours Jojo's Circus
3	TV3	Now 2.00pm Next 3.00pm	Oprah Rugrats
4	C4	Now 2.00pm Next 4.00pm	The Official NZ Top 40 Vodafone Select Live
5	Māori Television	Now 12.00am Next 3.00pm	News : Te Kaea Advice: Ask Your Auntie

Chnl  
OK Watch TV EPG Listings freeview

# PICTURE CONTROL

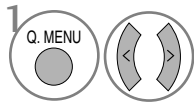
## PICTURE SIZE (ASPECT RATIO) CONTROL

You can watch the screen in various picture formats; 16:9, Just Scan, Original, 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

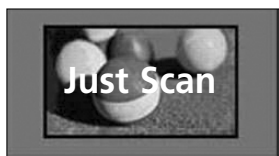
The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen (useful for viewing 4:3 formatted DVDs).



### • 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.



- **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**

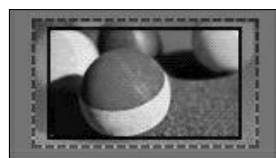
The following selection will allow you to view the picture without any alteration, while filling the entire screen. However, the top and bottom of the picture will be cropped.



- **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 1~16.  
▼ or ▲ button: Move the screen.

**! NOTE**

- ▶ You can only select **4:3**, **16:9 (Wide)**, **14:9**, **Zoom/Cinema Zoom** in Component mode.
- ▶ You can only select **4:3**, **Original**, **16:9 (Wide)**, **14:9**, **Zoom/Cinema Zoom** in HDMI mode.
- ▶ You can only select **4:3**, **16:9 (Wide)** in RGB mode only.
- ▶ In DTV/HDMI/Component (over 720p) mode, **Just Scan** is available.

# PICTURE CONTROL

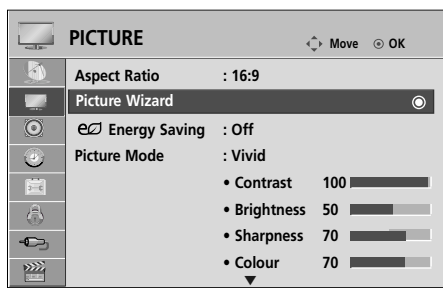
## PICTURE WIZARD












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.

In RGB-PC/HDMI-PC/DVI-PC mode, the changed Colour, Tint and H/V Sharpness values are not applied.



- 1   Select **PICTURE**.
- 2    Select **Picture Wizard**.
- 3   Adjust **Black level, White level, Colour, Tint, H Sharpness, V Sharpness**.
- 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 Expert 1.

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



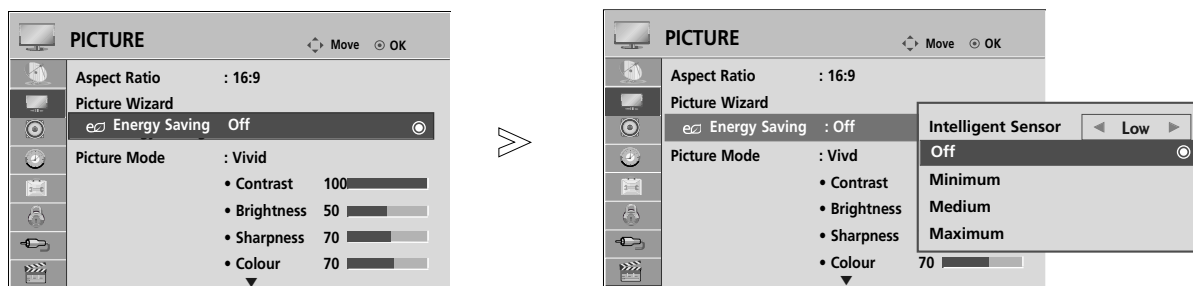
## ENERGY SAVING







It reduces the TV's power consumption.

The default factory setting complies with the **Energy Star** requirements and 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.



- 1   Select **PICTURE**.
- 2   Select **Energy Saving**.
- 3   Select **Intelligent Sensor**, **Off**, **Minimum**, **Medium** or **Maximum**.

### • Intelligent Sensor



Select **Low**, **Middle** or **High**.

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

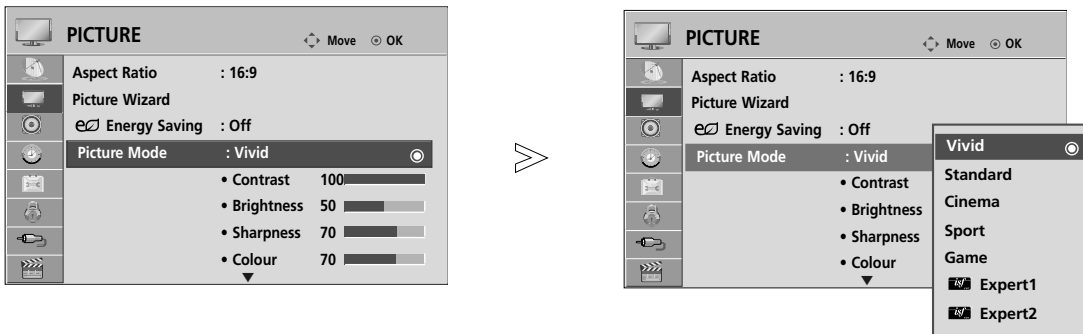
• You can also adjust this feature by selecting **Energy Saving** button on the remote control.


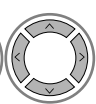
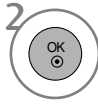
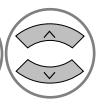

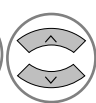
# PICTURE CONTROL

## PRESET PICTURE SETTINGS

### Picture Mode-Preset

- Vivid** Strengthen the contrast, brightness, colour and sharpness for vivid picture.
- Standard** The most general screen display status.
- 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, Cinema, Sport** or **Game**.

- **Picture Mode** adjusts the TV for the best picture appearance. Select the preset value in the **Picture Mode** menu based on the programme category.
- When the Intelligent sensor function is on, the most suitable picture is automatically adjusted according to the surrounding conditions.
- You can also adjust **Picture Mode** in the **Q. Menu**.

# MANUAL PICTURE ADJUSTMENT

## Picture Mode-User option

### 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.

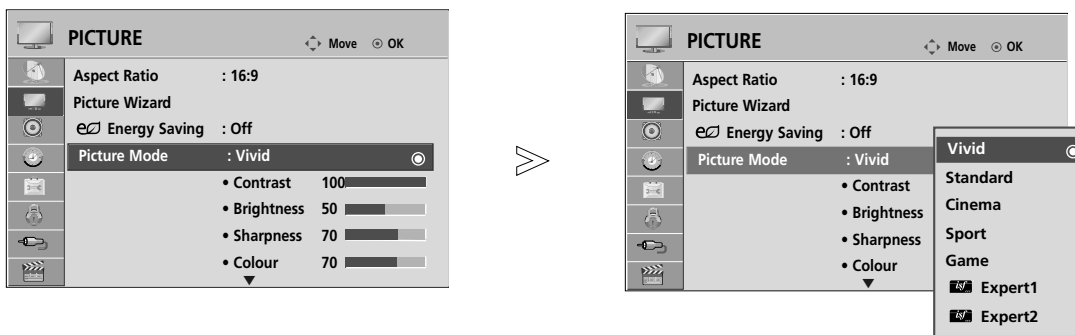
The lower the level, the softer the image.

### Colour

Adjusts intensity of all colours.

### Tint

Adjusts the balance between red and green levels.



1 Select **PICTURE**.

2 Select **Picture Mode**.

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

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

5 Make appropriate adjustments.

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

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

### NOTE

- ▶ You cannot adjust colour, sharpness and tint in the RGB-PC mode.
- ▶ When the **Expert 1/2** is selected, you can select **Contrast, Brightness, H Sharpness, V Sharpness, Colour** or **Tint**.

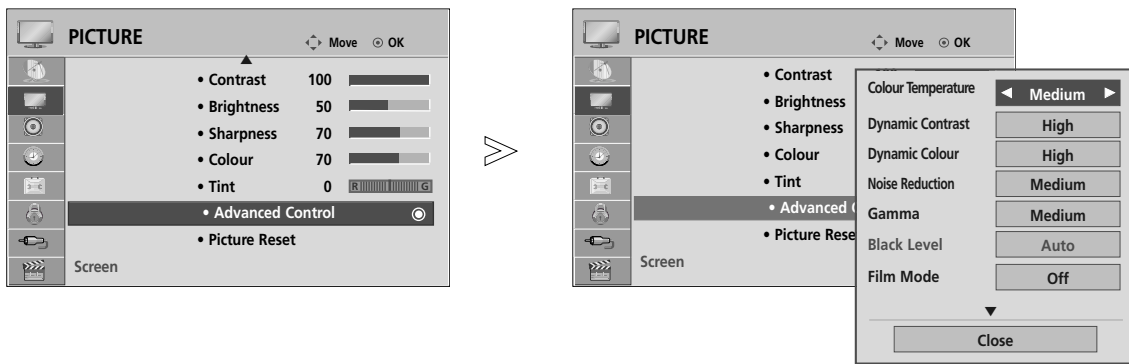
# PICTURE CONTROL


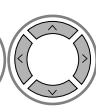

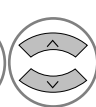

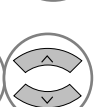

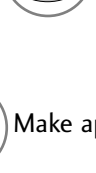
## PICTURE IMPROVEMENT TECHNOLOGY

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, Film Mode, Colour Gamut, Edge Enhancer or xvYCC.**(Refer to p. 84~85)
-   Make appropriate adjustments.

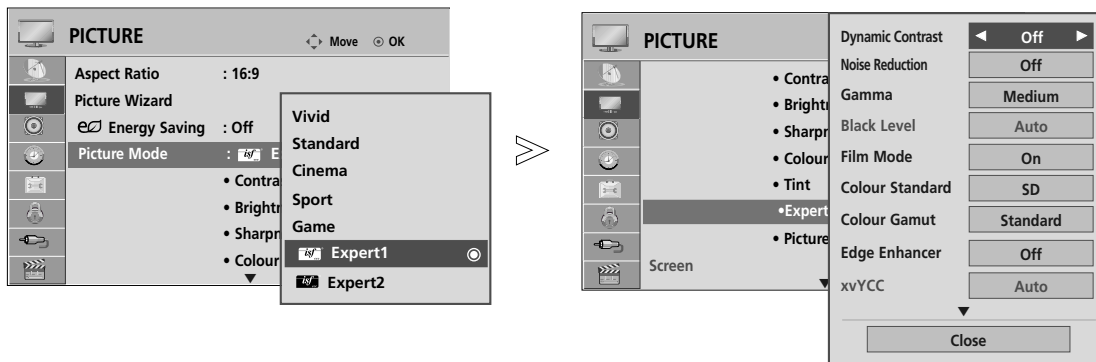
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.














# 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PICTURE CONTROL

\*This feature is not available for all models.

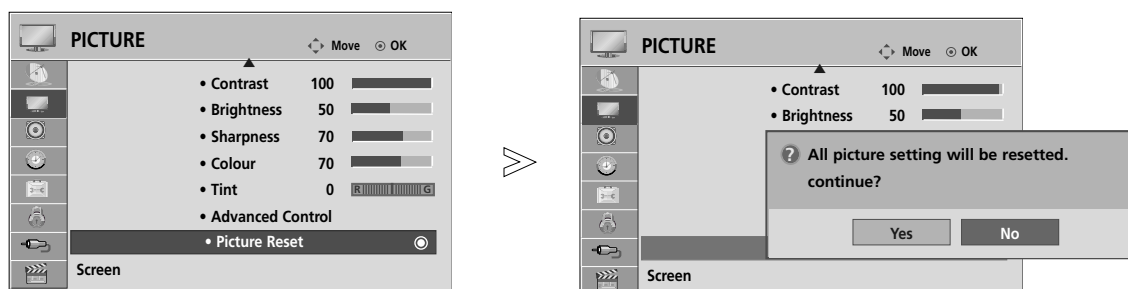
Colour Temperature (Warm/Medium/Cool)	<ul style="list-style-type: none"> <li>Choose one of three automatic colour adjustments. Set to warm to enhance hotter colours such as red, or set to cool to make picture bluish.</li> </ul>
Dynamic Contrast (Off/Low/High)	<ul style="list-style-type: none"> <li>Adjusts 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.</li> </ul>
Dynamic Colour (Off/Low/High )	<ul style="list-style-type: none"> <li>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.</li> </ul>
Noise Reduction (Off/Low/Medium/High)	<ul style="list-style-type: none"> <li>Reduces screen noise without compromising video quality.</li> </ul>
Gamma (Low/Medium/High)	<ul style="list-style-type: none"> <li>You can adjust brightness of dark area and middle gray level area of the picture.                             <ul style="list-style-type: none"> <li><b>Low</b> : Make dark and middle gray level area of the picture brighter.</li> <li><b>Medium</b>: Express original picture levels.</li> <li><b>High</b>: Make dark and middle gray level area of the picture darker.</li> </ul> </li> </ul>
Black Level (Low/High)	<ul style="list-style-type: none"> <li><b>Low</b> : The picture of the screen gets darker.</li> <li><b>High</b> : The picture of the screen gets brighter.</li> <li><b>Auto</b> : Realizing the black level of the screen and set it to High or Low automatically.                             <ul style="list-style-type: none"> <li>Set black level of the screen to proper level.</li> <li>This function enables to select 'Low' or 'High' in the following mode: AV(NTSC-M), HDMI or Component. Otherwise, 'Black level' is set to 'Auto'.</li> </ul> </li> </ul>
Film Mode (On/Off)	<ul style="list-style-type: none"> <li>You can watch a cinema-like video by eliminating judder effect.</li> <li>Use this function when you watch movies.</li> <li>This function can work when TruMotion is off.</li> </ul>
Colour Gamut (Wide/Standard )	<ul style="list-style-type: none"> <li><b>Standard</b> : Mode to reproduce original colour according to the standard of input signal independent of the display characteristics.</li> <li><b>Wide</b>: Mode to use and set the rich colour area of the display.                             <ul style="list-style-type: none"> <li>Maximize the utilization for colour area that can be expressed.</li> </ul> </li> </ul>
Edge Enhancer (On/Off)	<ul style="list-style-type: none"> <li>Shows clearer and distinctive yet natural corners of the video.</li> </ul>
xvYCC (Auto/off/on)	<ul style="list-style-type: none"> <li>This is the function to express richer colour.</li> <li>This function is enabled in "Picture mode - Cinema, Expert" when xvYCC signal is inputted through HDMI</li> </ul>








<p><b>Colour Standard (SD/HD)</b></p>	<ul style="list-style-type: none"> <li>■ 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.</li> </ul>
<p><b>White Balance (Medium/Warm/Cool)</b></p>	<ul style="list-style-type: none"> <li>■ This is the function to adjust the overall colour of the screen to the feeling you want.             <ul style="list-style-type: none"> <li>a. • Method : 2 Points                 <ul style="list-style-type: none"> <li>• Pattern: Inner, Outer</li> <li>• Red/Green/Blue Contrast, Red/Green/Blue Brightness: The adjustment range is -50 ~ +50.</li> </ul> </li> <li>b. • Method : 20 Point IRE                 <ul style="list-style-type: none"> <li>• Pattern: Inner / Outer</li> <li>• IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 5, 10, 15 - 100, You can adjust Red, Green or Blue according to each setting.</li> <li>• Red/Green/Blue: The adjustment range is -50 ~ +50.</li> </ul> </li> </ul> </li> </ul>
<p><b>Colour Management System</b></p>	<ul style="list-style-type: none"> <li>■ 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.             <ul style="list-style-type: none"> <li>■ Adjusts Red/Green/Blue/Yellow/Cyan/Magenta.</li> <li>• Red/Green/Blue/Yellow/Cyan, Magenta Colour : The adjustment range is -30 ~ +30.</li> <li>• Red/Green/Blue/Yellow/Cyan/Magenta Tint : The adjustment range is -30 ~ +30.</li> </ul> </li> <li>■ This feature is disable in RGB-PC and HDMI (PC) mode.</li> </ul>

# 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.



# IMAGE STICKING MINIMIZATION (ISM) METHOD

A frozen or still picture displayed on the screen for prolonged periods will result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the screen for prolonged periods.

## Normal

If image sticking is never a problem, ISM is not necessary - set to Normal.

## White Wash

White wash removes permanent images from the screen.

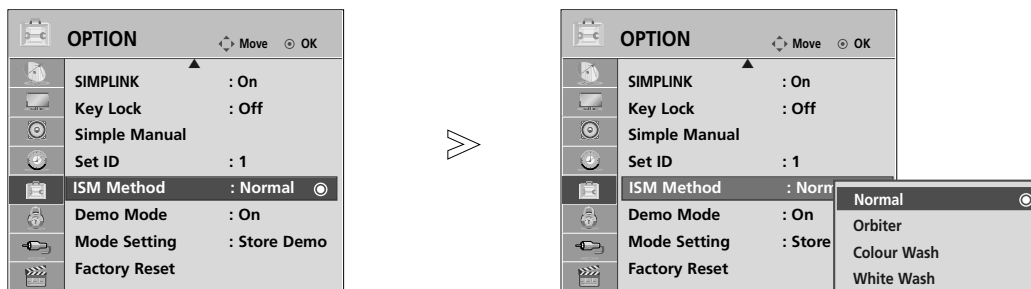
Note: An excessive permanent image may be impossible to clear entirely with White Wash.

## Orbiter

Orbiter may help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen. To avoid a permanent image on the screen, the screen will move every 2 minutes.

## Colour Wash

The colour block with the screen moved a little and the white pattern are alternately displayed. It is difficult to sense the afterimage occurred while the temporary afterimage is removed and the colour pattern is operating.



1 MENU Select **OPTION**.

2 OK Select **ISM Method**.

3 OK Select **Normal, Orbiter, Colour Wash or White Wash**.

4 OK Save.

• If you do not need this function, set **Normal**.

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

# PICTURE CONTROL

## DEMO MODE

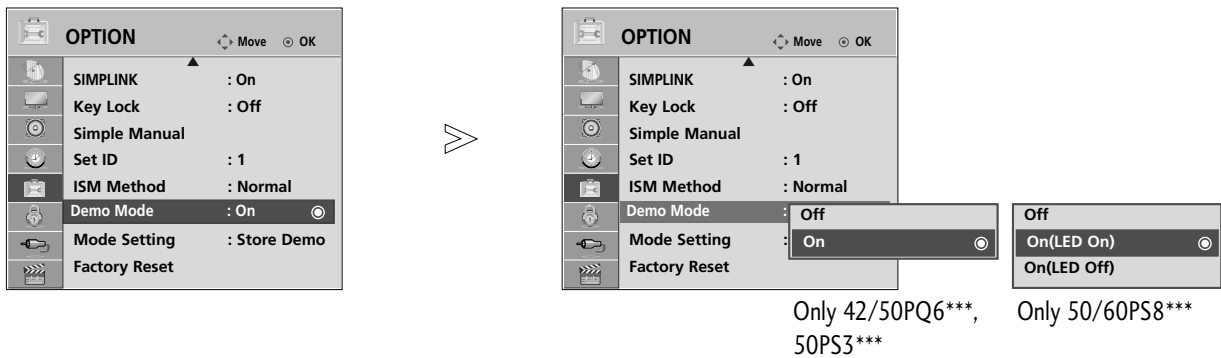
Display the slide show to explain the various logo of this TV.


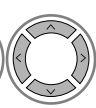
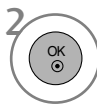
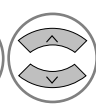

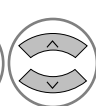
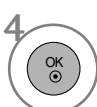

It is not possible to use **Demo Mode** in **Home Use** mode.

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**.

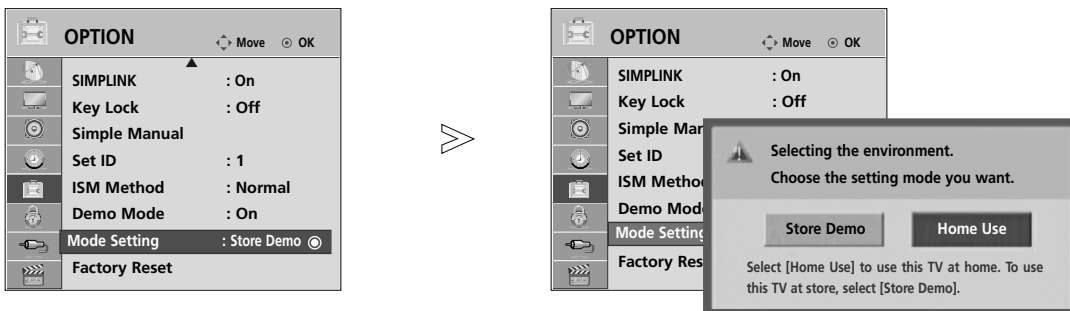









-   Select **OPTION**.
-   Select **Demo Mode**.
-   Select **On** to show the various logo of TV.
-  Return to TV viewing.  
If you want to stop the demo, press any button. (except for **MUTE**,  **+**, **-** button)

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

# 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

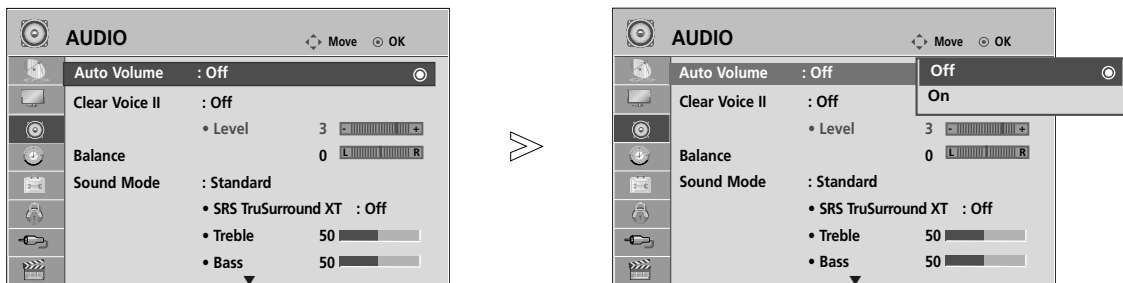
# SOUND & LANGUAGE CONTROL







## 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.

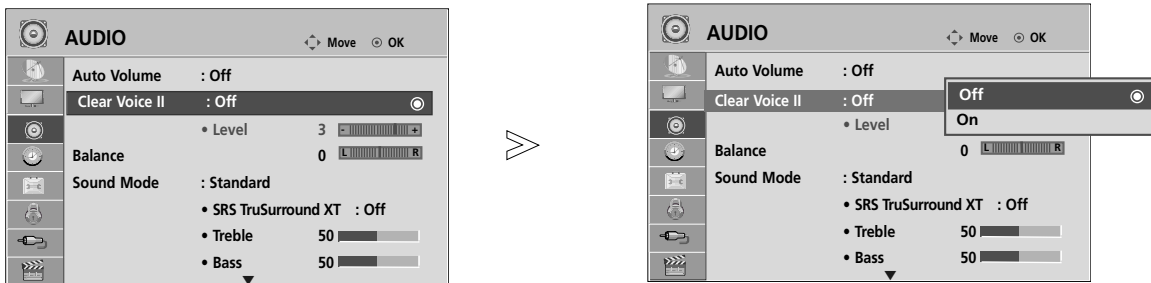


- 1 MENU   Select **AUDIO**.
- 2   Select **Auto Volume**.
- 3   Select **On** or **Off**.

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

# 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**, **SRS TruSurround XT** feature will not work.
- Select levels from ‘-6’ to ‘+6’.

## Adjustment for Clear Voice Level With selecting On

4 Select **Level**.

5 Make desired adjustment.

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

# SOUND & LANGUAGE CONTROL

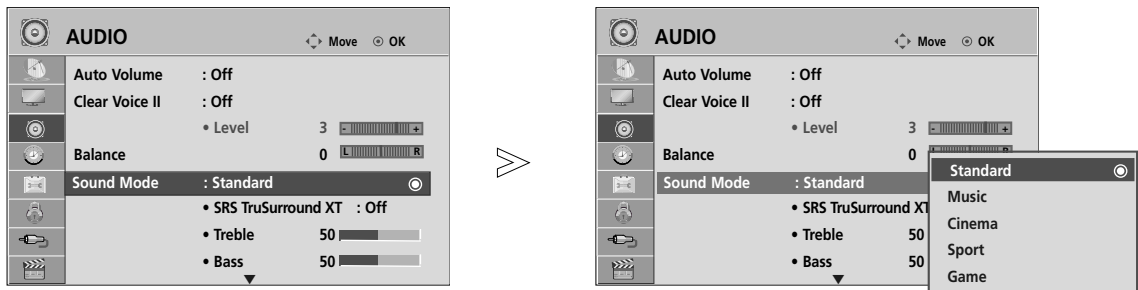
## PRESET SOUND SETTINGS-SOUND MODE

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.

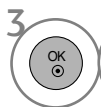

Standard, Music, Cinema, Sport and Game are preset for optimum sound quality at the factory.

- 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**.

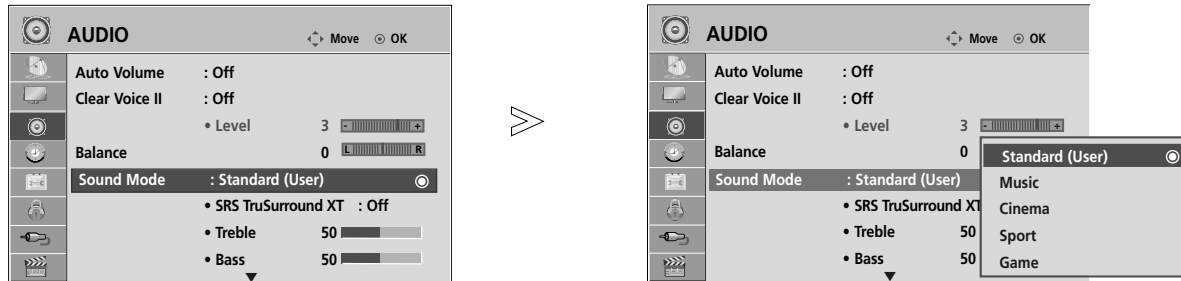
2   Select **Sound Mode**.

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

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

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

# 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

## SRS TRUSURROUND XT

Select this option to sound realistic.

1 Select **AUDIO**.

2 Select **SRS TruSurround XT**.

3 Select **On or Off**.

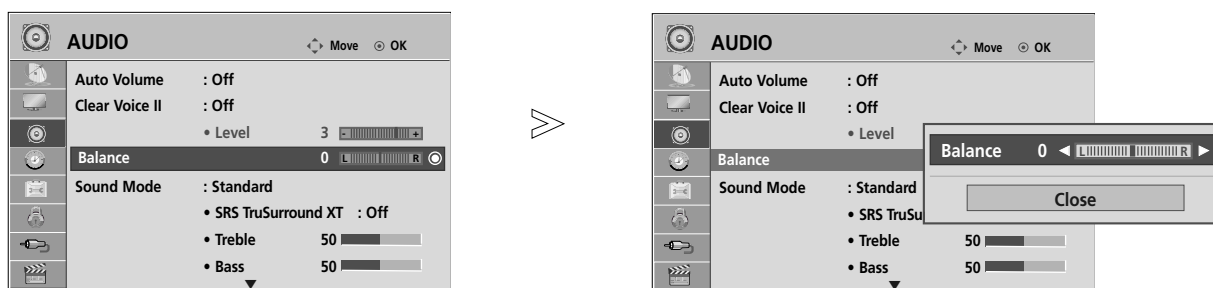
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

▶ is a trademark of SRS Labs, Inc.  
 ▶ TruSurround XT technology is incorporated under license from SRS Labs, Inc.

# SOUND & LANGUAGE CONTROL

## 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

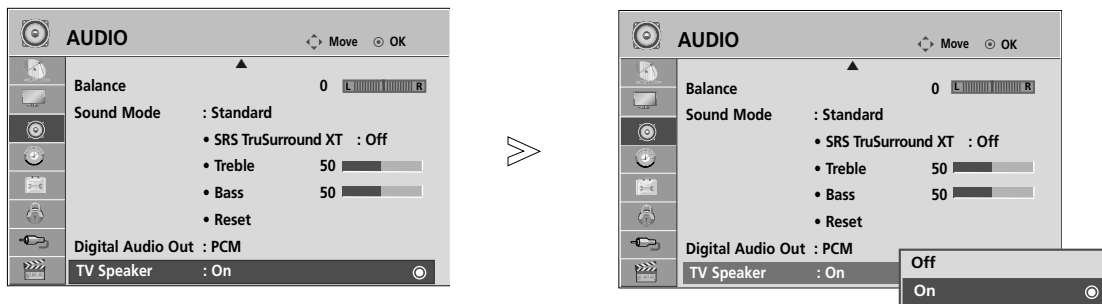








# TV SPEAKERS ON/ OFF SETUP

You can adjust the TV internal speaker status.

In **AV**, **COMPONENT**, **RGB** and **HDMI1** with HDMI to DVI cable, the TV speaker can be operational even when there is no video signal.

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



- 1   Select **AUDIO**.
- 2   Select **TV Speaker**.
- 3   Select **On** or **Off**.

## ! NOTE

- ▶ When the TV speaker is turned off while the Simplink home theater is operating, the sound output automatically switches to the Home theater speaker, but when the TV speaker is turned on, the sound output the TV speaker.

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

# SOUND & LANGUAGE CONTROL

## SELECTING DIGITAL AUDIO OUT

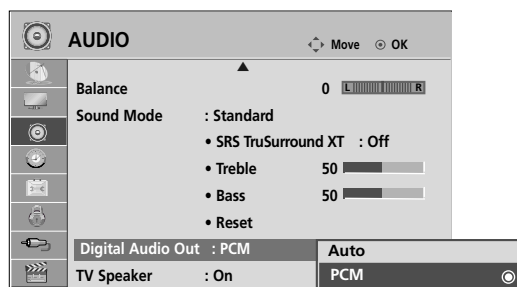
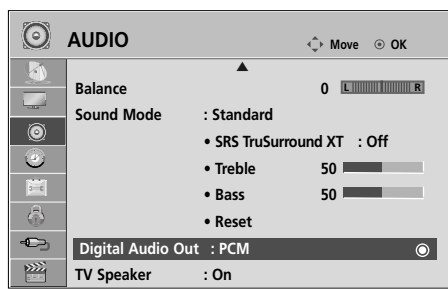
This function allows you to select your preferred Digital Audio Output.

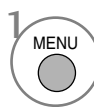
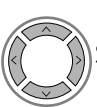
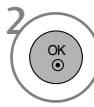
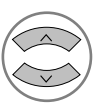


The TV can only output DOLBY Digital if a channel is broadcast with Dolby Digital audio.

When Dolby digital is available, selecting Auto in the Digital Audio Out menu will set SPDIF(Sony Philips Digital InterFace) output to Dolby Digital.

If Auto is selected in the digital audio out menu when dolby digital is not available, SPDIF output will be PCM(Pulse-code modulation).

Even if both Dolby Digital and Audio language have been set in a channel which broadcast Dolby Digital Audio, only Dolby Digital will be played.



- 1   Select **AUDIO**.
- 2   Select **Digital Audio Out**.
- 3   Select **Auto** or **PCM**.



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

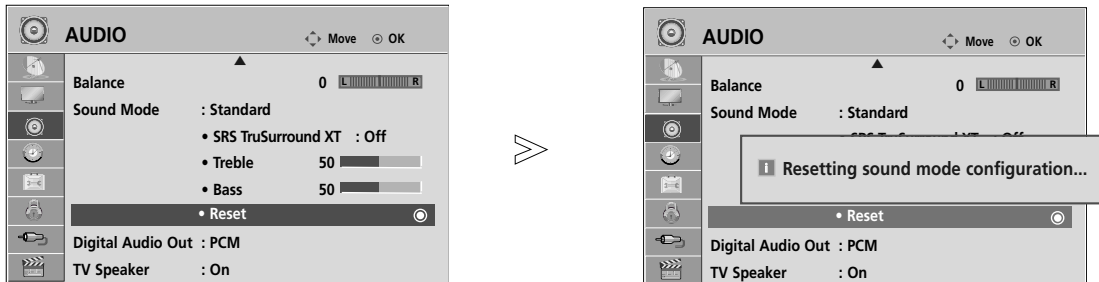
- There is a possibility that when HDMI mode, some DVD players do not make SPDIF sound. At that time, set the output of the digital audio of the DVD player to PCM. (In HDMI, Dolby Digital Plus is not supported).






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

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

# 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# SOUND & LANGUAGE CONTROL

## STEREO RECEPTION (IN ANALOGUE MODE ONLY)

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



Broadcast	On Screen Display
Mono	MONO
Stereo	STEREO
NICAM (Only Singapore & New Zealand)	NICAM (Only Singapore & New Zealand)

### ■ 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.

## SPEAKER SOUND OUTPUT SELECTION

In AV, Component, RGB and 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.

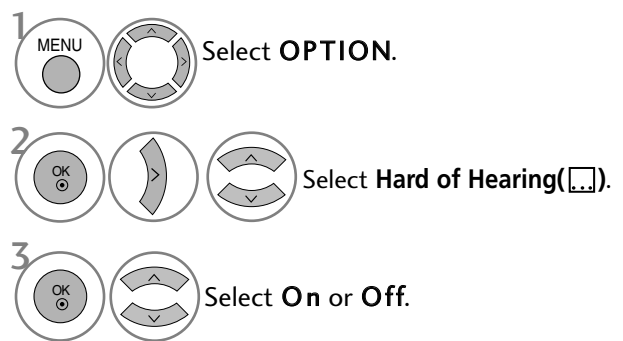
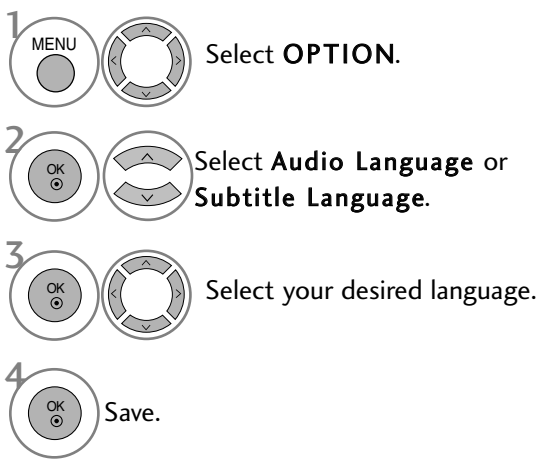
# LANGUAGE SELECTION (IN DIGITAL MODE ONLY)

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.

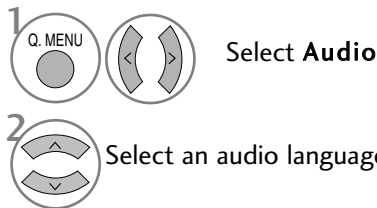
When the languages you selected as the primary for Audio Language and Subtitle Language are not supported, you can select language in secondary category.



• Press the **RETURN** 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.



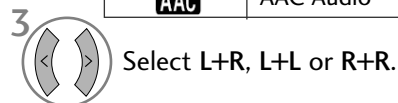
## < Subtitle Language Selection >

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



Subtitle Language OSD Information

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

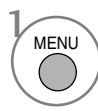
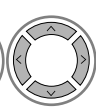

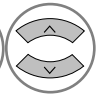
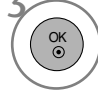
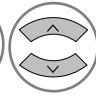


# TIME SETTING

## 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.



-   Select **TIME**.
-   Select **Clock**.
-   Select either the year, month, date or time option.
-   Set the year, month, date or time option.

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

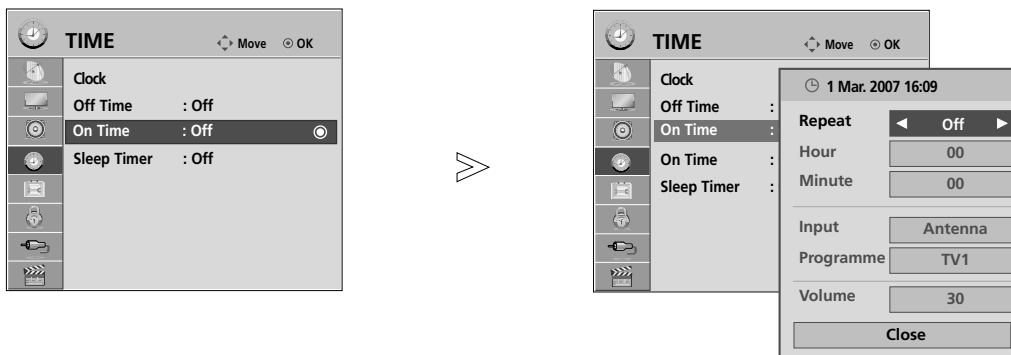
# AUTO ON/OFF TIME SETTING

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.

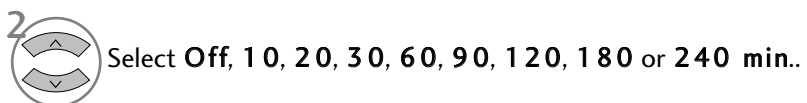
- To cancel **On/Off Time** function, select **Off**.
  - For **On Time** function only
- 1 Select **Input**.
  - 2 Select **Antenna, AV, Component, RGB** or **HDMI**.
  - 3 Set the programme.
  - 4 Adjust volume level at switch-on.

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** 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.



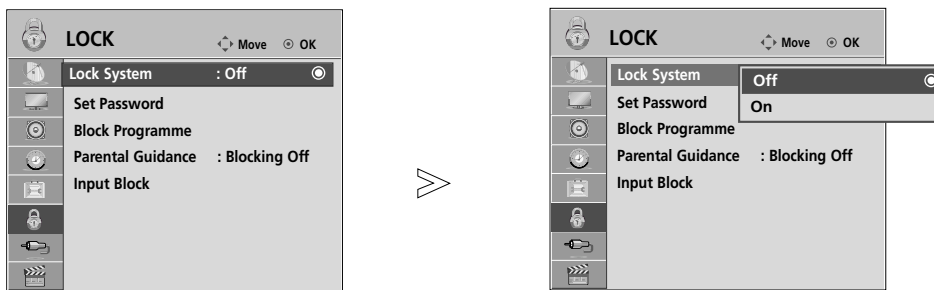
- When you switch the TV off, the preset sleep timer is cancelled.
- You can also adjust **Sleep Timer** in the **TIME** menu.



# 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 '7', '7', '7', '7' on the remote control handset.

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

• Press the **RETURN** button to move to the previous menu screen.

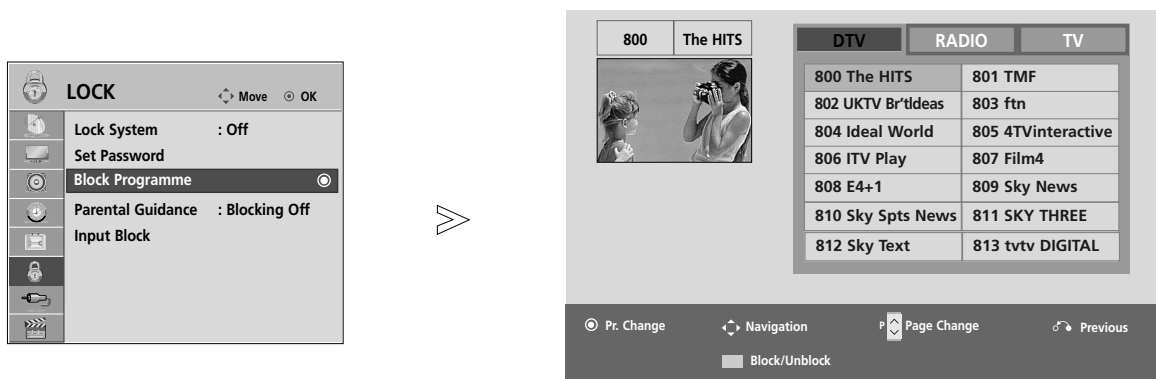
# PARENTAL CONTROL / RATINGS

## 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** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PARENTAL CONTROL (IN DIGITAL MODE ONLY)

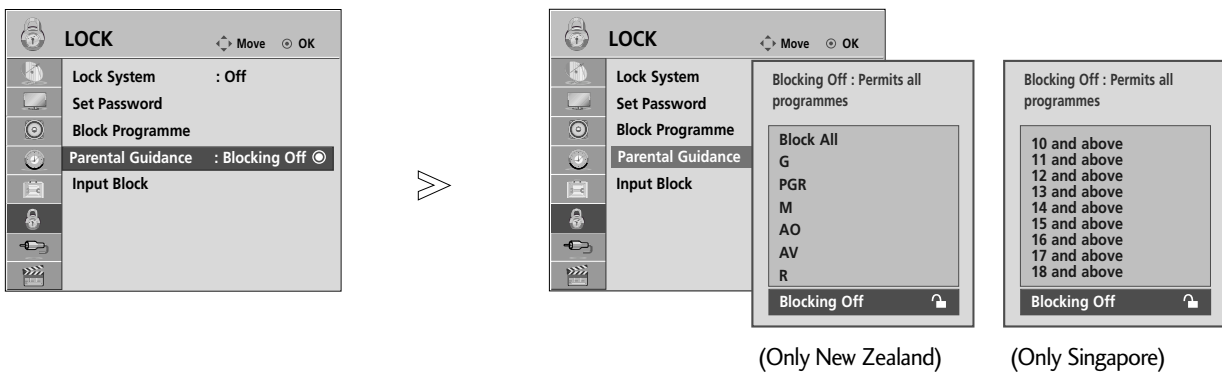
This function operates according to information from the broadcasting station. Therefore if the signal has incorrect information, this function does not operate.








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.



-   Select **LOCK**.
-   Select **Parental Guidance**.
-   Make appropriate adjustments.
-  Save.

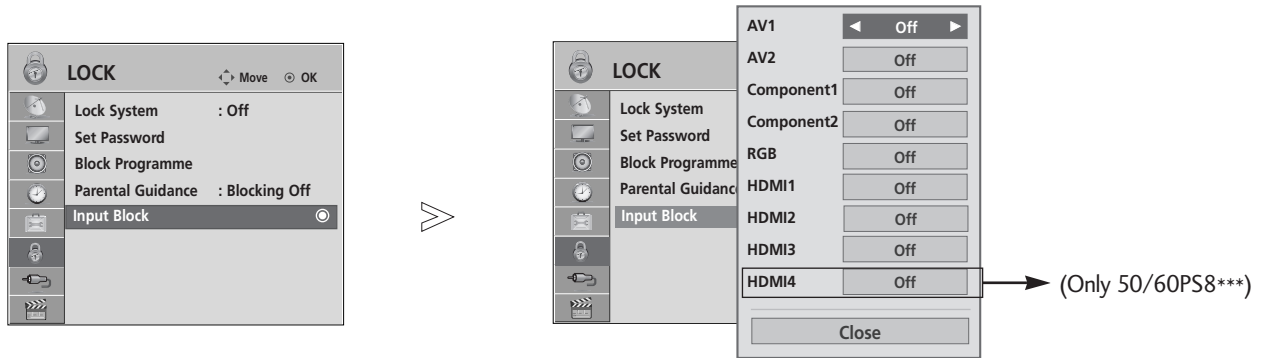
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PARENTAL CONTROL / RATINGS

## EXTERNAL INPUT BLOCKING

Enables you to block an input.

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

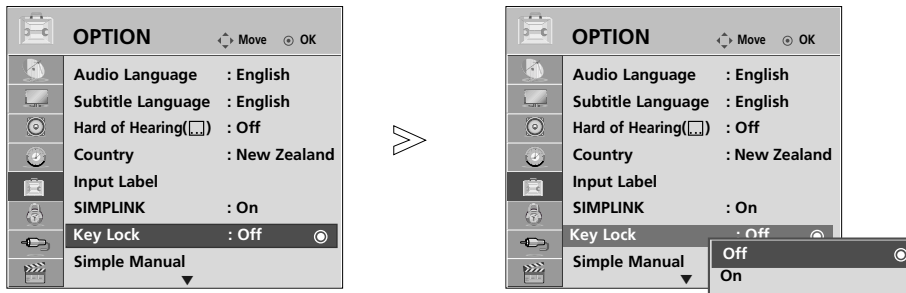









1. MENU Select **LOCK**.
2. OK Select **Input Block**.
3. OK Select input source.
4. OK Select **On** or **Off**.
5. OK Save.


- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** 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 **⏻ / I**, **INPUT**, **P ▲** or **▼** (or **P ^ v**) button on the TV or **POWER**, **INPUT**, **P ^ v** 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. (Except for **⏻ / I** button)

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** 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.

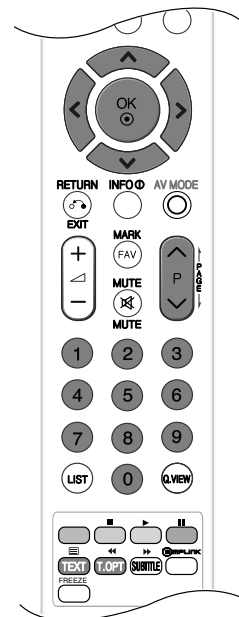
The teletext decoder of this TV can support the SIMPLE, TOP and FASTEXT systems. SIMPLE (standard teletext) consists of a number of pages which are selected by directly entering the corresponding page number. TOP and FASTEXT are more modern methods allowing quick and easy selection of teletext information.

## 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** ^ ∨ 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** ^ button can be used.
- 4 The red button returns to the previous selection. Alternatively the **P** ∨ 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,  $\lt \gt$  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.



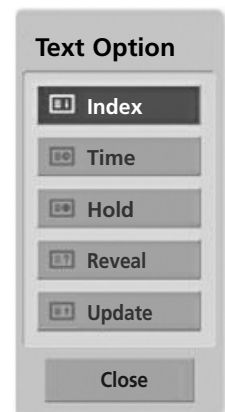
## ■ Reveal

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.



# 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.



### The audio function does not work.

Picture OK & No sound	<ul style="list-style-type: none"><li>■ Press the  + or - button.</li><li>■ Sound muted? Press <b>MUTE</b> button.</li><li>■ Try another channel. The problem may be with the broadcast.</li><li>■ Are the audio cables installed properly?</li></ul>
No output from one of the speakers	<ul style="list-style-type: none"><li>■ Adjust <b>Balance</b> in menu option.</li></ul>
Unusual sound from inside the TV	<ul style="list-style-type: none"><li>■ 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.</li></ul>
No sound when connecting HDMI or USB	<ul style="list-style-type: none"><li>■ Check HDMI cable over version 1.3.</li><li>■ Check USB cable over version 2.0.</li></ul>

\*This feature is not available for all models.

### There is a problem in PC mode. (Only PC mode applied)

The signal is out of range (Invalid format)	<ul style="list-style-type: none"><li>■ Adjust resolution, horizontal frequency, or vertical frequency.</li><li>■ Check the input source.</li></ul>
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	<ul style="list-style-type: none"><li>■ Use Auto configure or adjust clock, phase, or H/V position. (Option)</li></ul>
Screen colour is unstable or single colour	<ul style="list-style-type: none"><li>■ Check the signal cable.</li><li>■ Reinstall the PC video card.</li></ul>

### 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.	<ul style="list-style-type: none"><li>■ It means that the TV is currently set to <b>Store Demo</b> mode. To switch to <b>Home use</b> mode you should do the followings: From the TV Menu, choose <b>OPTION</b> -&gt; Choose <b>Mode Setting</b> -&gt; Choose <b>Home use</b>. Now, you have completed switching to the <b>Home use</b> mode.</li></ul>
--	---

# APPENDIX

## 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 to 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.

# PRODUCT SPECIFICATIONS

MODELS		42PQ6***	50PQ6***	50PS3***
		42PQ60D-GA	50PQ60D-GA	50PS30FD-GA
Dimensions (Width x Height x Depth)	with stand	1031.2 x 720.9 x 308 mm 40.6 x 28.4 x 12.1 inches	1228.8 x 824.6 x 353 mm 48.3 x 32.4 x 13.8 inches	1216.7 x 818.1 x 353.0 mm 47.9 x 32.2 x 13.9 inches
	without stand	1031.2 x 656.7 x 80.8 mm 40.6 x 25.9 x 3.2 inches	1228.8 x 772 x 78.9 mm 48.3 x 30.3 x 3.1 inches	1216.7 x 759.1 x 83.0 mm 47.9 x 29.9 x 3.3 inches
Weight	with stand	25.3 kg / 55.7 lbs	35 kg / 77.1 lbs	35.4 kg / 78.0 lbs
	without stand	23.3 kg / 5.3 lbs	32.5 kg / 71.6 lbs	32.8 kg / 72.3 lbs
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz
Power Consumption				
MODELS		50PS8***	60PS8***	
		50PS80FD-GA	60PS80FD-GA	
Dimensions (Width x Height x Depth)	with stand	1228.0 x 835.8 x 309 mm 48.4 x 32.9 x 12.2 inches	1465.4 x 986.4 x 371 mm 57.7 x 38.8 x 14.6 inches	
	without stand	1228.0 x 795.1 x 78.9 mm 48.4 x 31.3 x 3.1 inches	1465.4 x 926.7 x 82.1 mm 57.7 x 36.5 x 3.2 inches	
Weight	with stand	38.3 kg / 84.4 lbs	53.6 kg / 118.7 lbs	
	without stand	34.3 kg / 75.6 lbs	46.6 kg / 102.7 lbs	
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	
Power Consumption				
Environment condition	Operating Temperature	32 ~ 104°F (0 ~ 40°C)		
	Operating Humidity	Less than 80%		
	Storage Temperature	-4 ~ 140°F (-20 ~ 60°C)		
	Storage Humidity	Less than 85%		
Supported movie files		Refer to p. 65~66		

	Digital	Analogue
Television System	DVB-T	PAL B/G, DK, I
Programme Coverage	UHF 21-69	BG: VHF/UHF 1-69, CATV 01-47 I: VHF/UHF 1-69, CATV 01-47 DK: VHF/UHF 1-69, CATV 01-47
External Antenna Impedance	75 ohm	75 ohm

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

# APPENDIX

## IR CODES

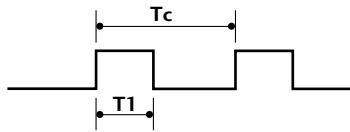
### 1. How to Connect

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

### 2. Remote Control IR Codes

#### ■ Output waveform

Single pulse, modulated with 37.917KHz signal at 455KHz



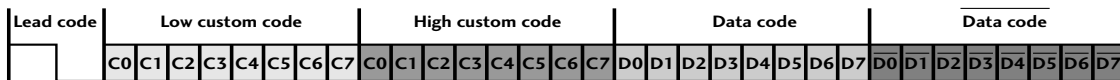
Carrier frequency

$$FCAR = 1/Tc = fOSC/12$$

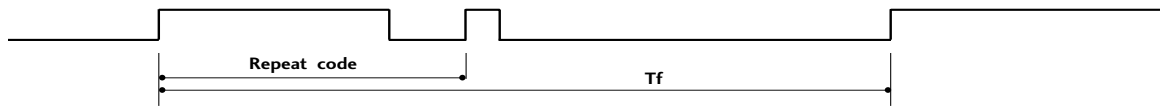
$$\text{Duty ratio} = T1/Tc = 1/3$$

#### ■ Configuration of frame

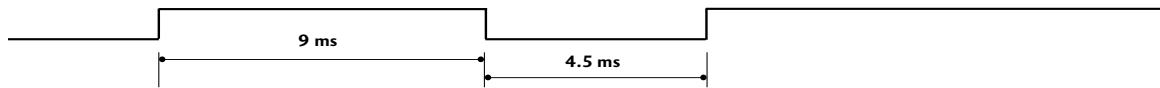
1st frame



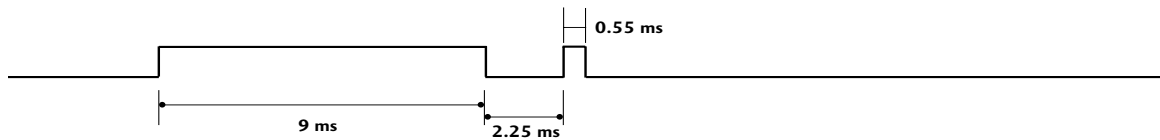
Repeat frame



#### ■ Lead code



#### ■ Repeat code

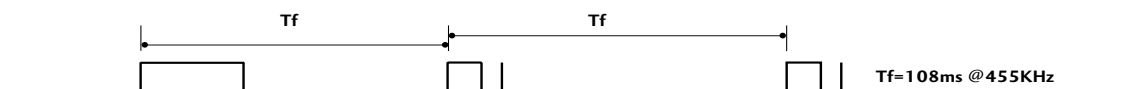


#### ■ Bit description



#### ■ Frame interval: Tf

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



Code (Hexa)	Function	Note
08	POWER	R/C BUTTON (POWER ON/OFF)
0B	INPUT	R/C BUTTON
f0	TV/RAD	R/C BUTTON
45	Q.MENU	R/C BUTTON
43	MENU	R/C BUTTON
AB	GUIDE	R/C BUTTON
07	Left (<)	R/C BUTTON
06	Right (>)	R/C BUTTON
40	Up (^)	R/C BUTTON
41	Down (v)	R/C BUTTON
44	OK(●)	R/C BUTTON
28	RETURN/EXIT	R/C BUTTON
AA	INFO ⓘ	R/C BUTTON
30	AV MODE	R/C BUTTON
02	⏪ +	R/C BUTTON
03	⏪ -	R/C BUTTON
00	P ^	R/C BUTTON
01	P v	R/C BUTTON
1E	FAV(MARK)	R/C BUTTON
09	MUTE	R/C BUTTON
10 ~ 19	Number Key 0~9	R/C BUTTON
53	LIST	R/C BUTTON
1A	Q.VIEW	R/C BUTTON
72	RED Key	R/C BUTTON
71	GREEN Key	R/C BUTTON
63	YELLOW Key	R/C BUTTON
61	BLUE Key	R/C BUTTON
20	TEXT	R/C BUTTON
21	T.OPT(T.Option)	R/C BUTTON
39	SUBTITLE	R/C BUTTON
7E	SIMPLINK	R/C BUTTON
95	ENERGY SAVING	R/C BUTTON
65	FREEZE	R/C BUTTON
79	RATIO	R/C BUTTON

# APPENDIX

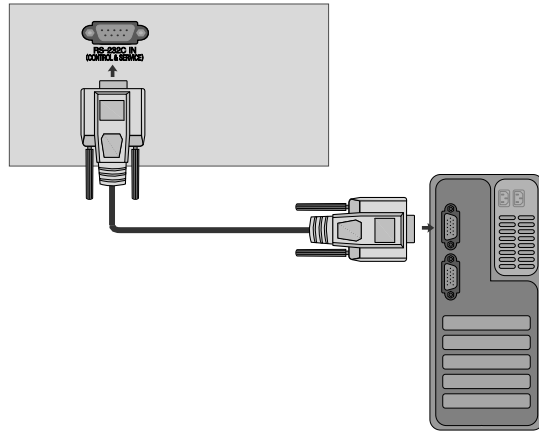
## EXTERNAL CONTROL DEVICE SETUP

### RS-232C Setup

Connect the RS-232C (serial port) input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

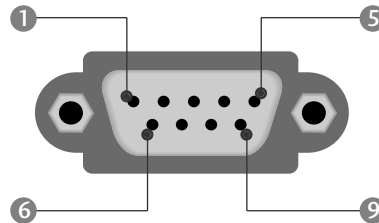
Connect the serial port of the control device to the RS-232C jack on the product back panel.

Note: RS-232C connection cables are not supplied with the product.



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

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



### RS-232C Configurations

#### 7-Wire Configurations (Standard RS-232C cable)

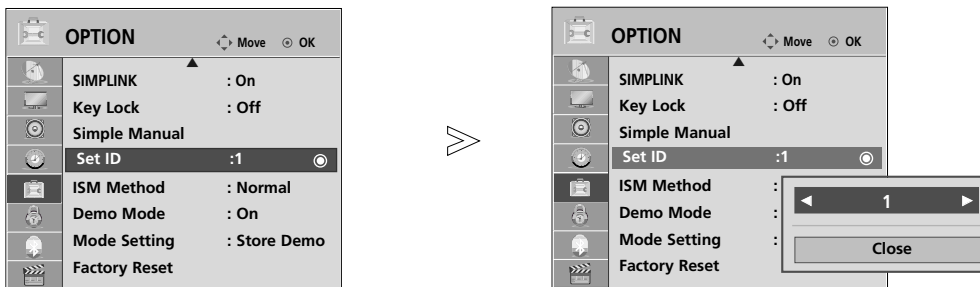
	PC	TV	
RXD	2 ● ——— ● 3		TXD
TXD	3 ● ——— ● 2		RXD
GND	5 ● ——— ● 5		GND
DTR	4 ● ——— ● 6		DSR
DSR	6 ● ——— ● 4		DTR
RTS	7 ● ——— ● 8		CTS
CTS	8 ● ——— ● 7		RTS
	D-Sub 9	D-Sub 9	









#### 3-Wire Configurations (Not standard)

	PC	TV	
RXD	2 ● ——— ● 3		TXD
TXD	3 ● ——— ● 2		RXD
GND	5 ● ——— ● 5		GND
DTR	4	6	DTR
DSR	6	4	DSR
RTS	7	7	RTS
CTS	8	8	CTS
	D-Sub 9	D-Sub 9	

## Set ID

Use this function to specify a set ID number.  
Refer to 'Real Data Mapping' ▶ p.121



- 1 MENU   Select **OPTION**.
- 2    Select **Set ID**.
- 3    Adjust **Set ID** to choose the desired TV ID number.  
The adjustment range of SET ID is 1~99.

- Press **RETURN** to move to the previous menu screen.

# APPENDIX

## Communication Parameters

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

### Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	a	00 ~ 01
02. Aspect Ratio	k	c	Refer to p. 119
03. Screen Mute	k	d	00 ~ 01
04. Volume Mute	k	e	00 ~ 01
05. Volume Control	k	f	00 ~ 64
06. Contrast	k	g	00 ~ 64
07. Brightness	k	h	00 ~ 64
08. Colour	k	i	00 ~ 64
09. Tint	k	j	00 ~ 64
10. Sharpness	k	k	00 ~ 64
11. OSD Select	k	l	00 ~ 01
12. Remote control lock mode	k	m	00 ~ 01
13. Treble	k	r	00 ~ 64
14. Bass	k	s	00 ~ 64
15. Balance	k	t	00 ~ 64
16. Colour Temperature	k	u	00 ~ 02
17. ISM Method	j	p	Refer to p. 121
18. Energy Saving	j	q	00 ~ 04
19. Auto Configuration	j	u	01
20. Tune Command	m	a	Refer to p. 121
21. Programme Add/Skip	m	b	00 ~ 01
22. Key	m	c	Key Code
23. Input select (Main)	x	b	Refer to p. 122

- \* When setting the 17 ~ 23, a menu does not appear on screen.
- \* Note : During USB operations such as Dvix or EMF, all commands except Power(ka) and Key(mc) are not executed and treated as NG.

### Transmission / Receiving Protocol

#### Transmission

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

- \* [Command 1] : First command to control the TV.  
(j, k, m or x)
- \* [Command 2] : Second command to control the TV.
- \* [Set ID] : You can adjust the set ID to choose desired monitor ID number in option menu. Adjustment range is 1 ~ 99. When selecting Set ID '0', every connected set is controlled. Set ID is indicated as decimal (1~99) on menu and as Hexa decimal (0x0~0x63) on transmission/receiving protocol.
- \* [DATA] : To transmit command data. Transmit 'FF' data to read status of command.
- \* [Cr] : Carriage Return  
ASCII code '0x0D'
- \* [ ] : ASCII code 'space (0x20)'

#### OK Acknowledgement

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

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

#### Error Acknowledgement

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

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

Data 00: Illegal Code



# APPENDIX

## 01. Power (Command: k a)

- ▶ To control Power On/Off of the set.

### Transmission

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

Data 00 : Power Off      01 : Power On

### Ack

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

- ▶ To show Power On/Off.

### Transmission

```
[k][a][ ][Set ID][ ][FF][Cr]
```

### Ack

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

- \* Similarly, if other functions transmit '0xFF' data based on this format, Acknowledgement data feed back presents status about each function.
- \* OK Ack., Error Ack. and other message may display on the screen when TV is power On.

## 02. Aspect Ratio (Command: k c) (Main Picture Size)

- ▶ To adjust the screen format. (Main picture format)  
You can also adjust the screen format using the **Aspect Ratio** in the Q.MENU. or PICTURE menu.

### Transmission

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

Data 01 : Normal screen (4:3)    07 : 14:9  
02 : Wide screen (16:9)    09 : Just Scan  
04 : Zoom                    10~1F : Cinema Zoom 1~16  
06 : Original

### Ack

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

- \* Using the PC input, you select either 16:9 or 4:3 screen aspect ratio.
- \* In DTV/HDMI (1080i 50Hz/60Hz, 720p 50Hz/60Hz, 1080p 24Hz/30Hz/50Hz/60Hz), Component (720p, 1080i, 1080p 50Hz/60Hz) mode, **Just Scan** is available.

## 03. Screen Mute (Command: k d)

- ▶ To select screen mute on/off.

### Transmission

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

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

### Ack

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

- \* In case of video mute on only, TV will display On Screen Display(OSD). But, in case of Screen mute on, TV will not display OSD.

## 04. Volume Mute (Command: k e)

- ▶ To control volume mute on/off.  
You can also adjust mute using the MUTE button on remote control.

### Transmission

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

Data 00 : Volume mute on (Volume off)  
01 : Volume mute off (Volume on)

### Ack

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

## 05. Volume Control (Command: k f)

- ▶ To adjust volume.  
You can also adjust volume with the VOLUME buttons on remote control.

### Transmission

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

Data Min : 00 ~ Max : 64

- \* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 06. Contrast (Command: k g)

- ▶ To adjust screen contrast.  
You can also adjust contrast in the PICTURE menu.

### Transmission

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

Data Min : 00 ~ Max : 64

- \* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 07. Brightness (Command: k h)

- ▶ To adjust screen brightness.  
You can also adjust brightness in the PICTURE menu.

### Transmission

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

Data Min : 00 ~ Max : 64

- \* Refer to 'Real data mapping 1' See page 121.

### Ack

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

## 08. Colour (Command: k i)

- ▶ To adjust the screen colour.  
You can also adjust colour in the PICTURE menu.

### Transmission

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

Data Min : 00 ~ Max : 64

- \* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

# APPENDIX

## 09. Tint (Command: k j)

- ▶ To adjust the screen tint.  
You can also adjust tint in the PICTURE menu.

### Transmission

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

Data Red : 00 ~ Green : 64  
\* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 10. Sharpness (Command: k k)

- ▶ To adjust the screen sharpness.  
You can also adjust sharpness in the PICTURE menu.

### Transmission

```
[k][k][ ][Set ID][ ][Data][Cr]
```

Data Min : 00 ~ Max : 64  
\* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 11. OSD Select (Command: k l)

- ▶ To select OSD (On Screen Display) on/off when controlling remotely.

### Transmission

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

Data 00 : OSD off      01 : OSD on

### Ack

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

## 12. Remote control lock mode (Command: k m)

- ▶ To lock the front panel controls on the monitor and remote control.

### Transmission

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

Data 00 : Lock off      01 : Lock on

### Ack

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

- \* If you are not using the remote control, use this mode.  
When main power is on/off, external control lock is released.
- \* Local Power Key will work properly.

## 13. Treble (Command: k r)

- ▶ To adjust treble.  
You can also adjust treble in the AUDIO menu.

### Transmission

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

Data Min : 00 ~ Max : 64  
\* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 14. Bass (Command: k s)

- ▶ To adjust bass.  
You can also adjust bass in the AUDIO menu.

### Transmission

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

Data Min : 00 ~ Max : 64  
\* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 15. Balance (Command: k t)

- ▶ To adjust balance.  
You can also adjust balance in the AUDIO menu.

### Transmission

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

Data Min : 00 ~ Max : 64  
\* Refer to 'Real data mapping 1'. See page 121.

### Ack

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

## 16. Colour Temperature (Command: k u)

- ▶ To adjust colour temperature. You can also adjust Colour Temperature in the PICTURE menu.

### Transmission

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

Data 00: Medium    01: Cool    02: Warm

### Ack

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

## 17. ISM Method (Command: j p)

- ▶ To control the ISM method. You can also adjust ISM Method in OPTION menu.

### Transmission

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

Data 02: Orbiter  
 04: White wash  
 08: Normal  
 20: Colour Wash

### Ack

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

## 18. Energy Saving (Command: j q)

- ▶ To reduce the power consumption of the TV. You can also adjust Energy Saving in OPTION menu.

### Transmission

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

Power Saving Function				Level	Description	
7	6	5	4			
0	0	0	0	Low Power	0 0 0 0	Off
0	0	0	0	Low Power	0 0 0 1	Minimum
0	0	0	0	Low Power	0 0 1 0	Medium
0	0	0	0	Low Power	0 0 1 1	Maximum
0	0	0	1	Intelligent Sensor	0 0 0 0	Low
0	0	0	1	Intelligent Sensor	0 0 0 1	Middle
0	0	0	1	Intelligent Sensor	0 0 1 0	High

### Ack

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

## 19. Auto Configure(Command: j u)

- ▶ To adjust picture position and minimize image shaking automatically. It works only in RGB (PC) mode.

### Transmission

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

Data 01: To set

### Ack

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

## 20. Tune Command (Command: m a)

- ▶ Select channel to following physical number.

### Transmission

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

Data00 : High channel data  
 Data01 : Low channel data  
 ex. No. 47 -> 00 2F (2FH)  
 No. 394 -> 01 8A (18AH),  
 DTV No. 0 -> Don't care  
 Data020x00 : Analogue Main  
 0x10 : DTV Main  
 0x20 : Radio

Channel data range  
 Analogue - Min: 00 ~ Max: 63 (0~99)  
 Digital - Min: 00 ~ Max: 3E7 (0~999)

### Ack

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

Data Min: 00 ~ Max: 7DH

## 21. Programme Add/Skip(Command: m b)

- ▶ To set skip status for the current Programme.

### Transmission

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

Data 00 : Skip      01 : Add

### Ack

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

### \* Real data mapping 1

00 : Step 0  
 ⋮  
 A : Step 10 (Set ID 10)  
 ⋮  
 F : Step 15 (Set ID 15)  
 10 : Step 16 (Set ID 16)  
 ⋮  
 64 : Step 100  
 6E : Step 110  
 ⋮  
 73 : Step 115  
 74 : Step 116  
 ⋮  
 C7 : Step 199  
 ⋮  
 FE : Step 254  
 FF : Step 255

### \* Real data mapping 2

00 :-40  
 01 :-39  
 02 :-38  
 ⋮  
 28 : 0  
 ⋮  
 4E : +38  
 4F : +39  
 50 : +40

# APPENDIX

## 22. Key (Command: m c)

► To send IR remote key code.

*Transmission*

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

Data Key code - Refer to page 151.

*Ack*

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

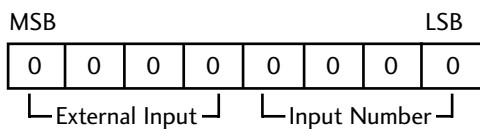
## 23. Input select (Command: x b) (Main Picture Input)

► To select input source for main picture.

*Transmission*

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

Data Structure



External Input				Data
0	0	0	0	DTV
0	0	0	1	Analogue
0	0	1	0	AV
0	1	0	0	Component
0	1	1	0	RGB
1	0	0	1	HDMI

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

*Ack*

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

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# APPENDIX

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