

# LCD TV | PLASMA TV OWNER'S MANUAL

## LCD TV MODELS

32LG70\*\*  
37LG70\*\*  
42LG70\*\*  
47LG70\*\*  
52LG70\*\*

## PLASMA TV MODELS

50PG70\*\*  
60PG70\*\*

Please read this manual carefully before operating your TV.  
Retain it for future reference.  
Record 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 service.



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

ID Number(s): 5512: 32LG7000 5245: 50PG7000  
5511: 37LG7000 5244: 60PG7000  
5510: 42LG7000  
5530: 47LG7000  
5509: 52LG7000

CE0678



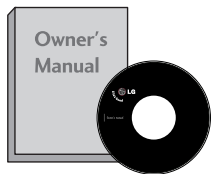
This product qualifies for ENERGY STAR in the "factory default (Home mode)" setting and this is the setting in which power savings will be achieved.(Plasma TV only)



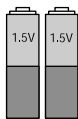
# ACCESSORIES

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

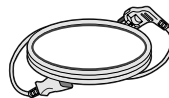
- Image shown may differ from your TV



Owner's Manual



Batteries

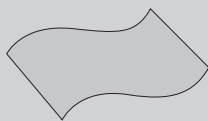


Power Cord



Remote Control

This feature is not available for all models.

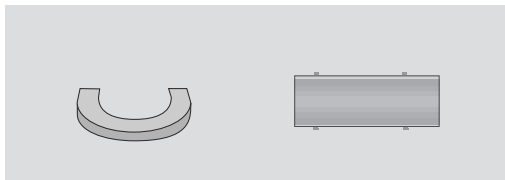


Polishing Cloth  
Polishing cloth for use on  
the screen.

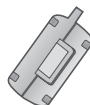
\* Lightly wipe any stains or fingerprints on the surface of the TV with the polishing cloth.

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

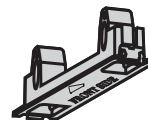
## PLASMA TV models



Cable management clip

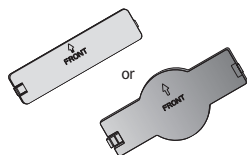


Ferrite core  
(Refer to p.10)



Protection cover  
(Refer to p.13)

## LCD TV models



Protection Cover  
(Refer to p.13)

(32/37/42LG70\*\* only)



Bolts for stand assembly  
(Refer to p.8)

(32LG70\*\* only)



1-screw for stand fixing  
(Refer to p.12)

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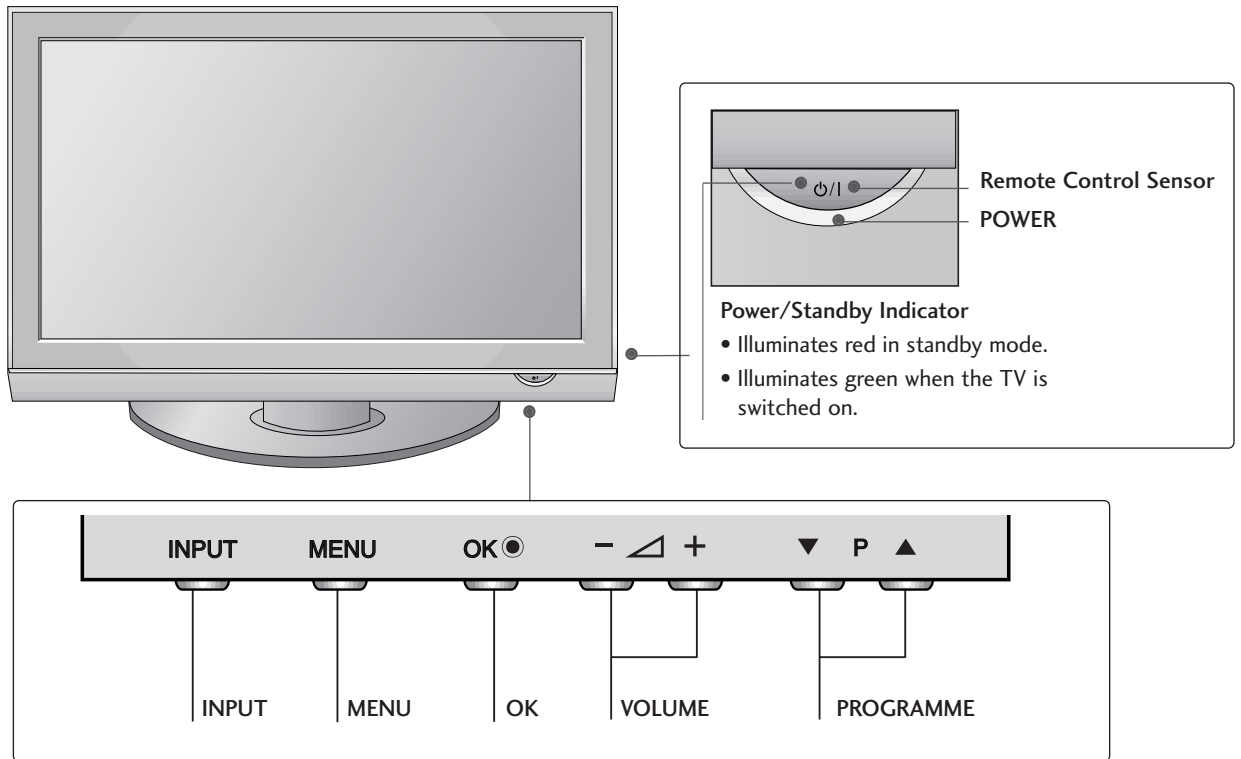
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# PREPARATION

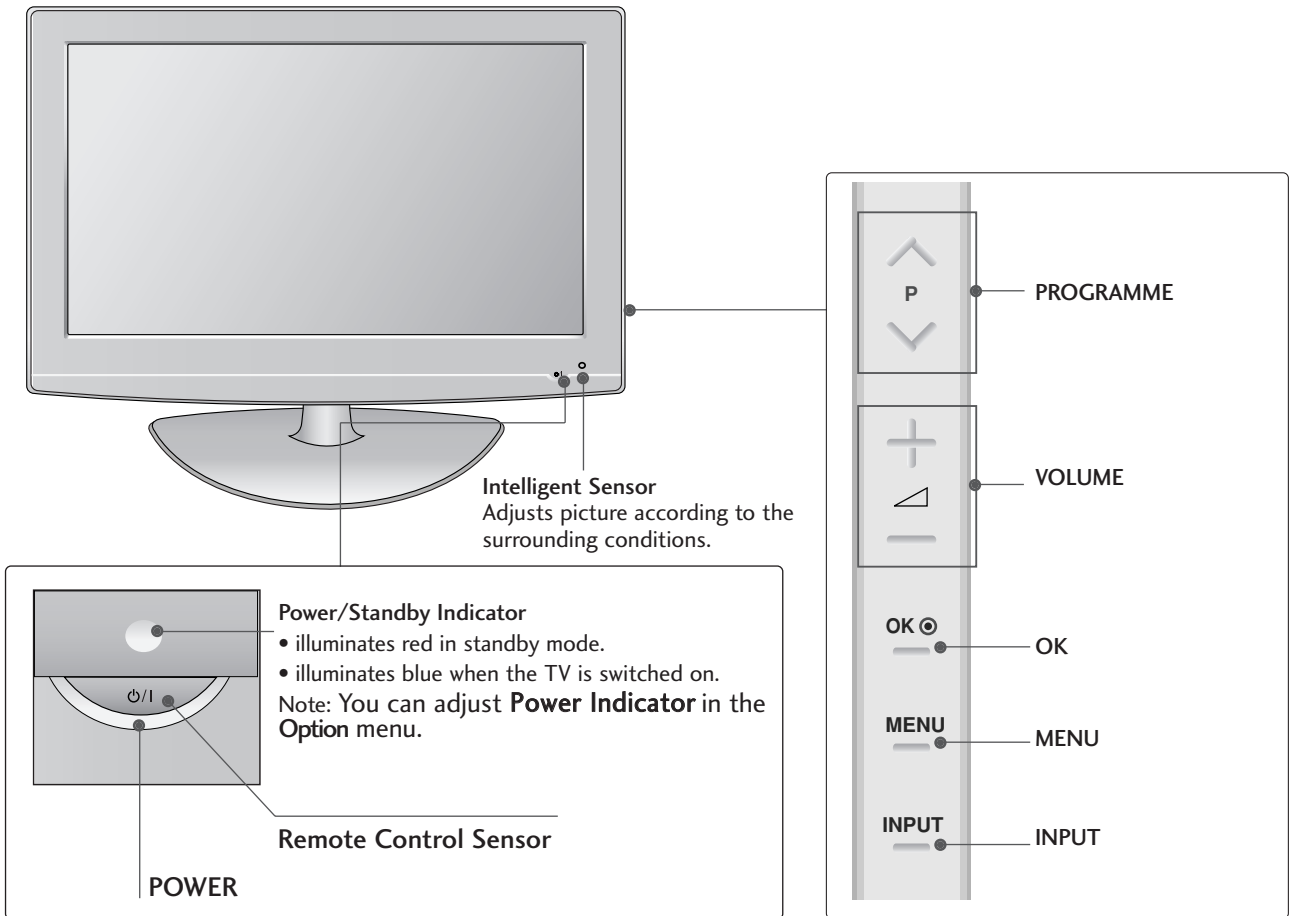
## FRONT PANEL CONTROLS

- Image shown may differ from your TV
- If your TV has a protection film attached, remove the film and then wipe the product with a polishing cloth.

### Plasma TV Models



## LCD TV Models

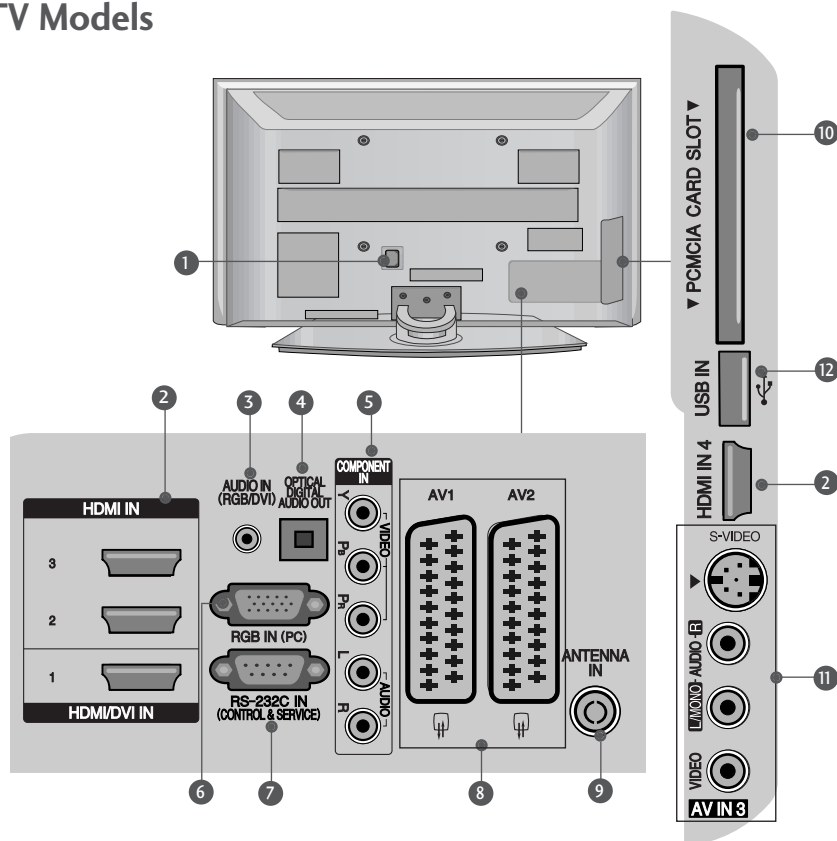


# PREPARATION

## BACK PANEL INFORMATION

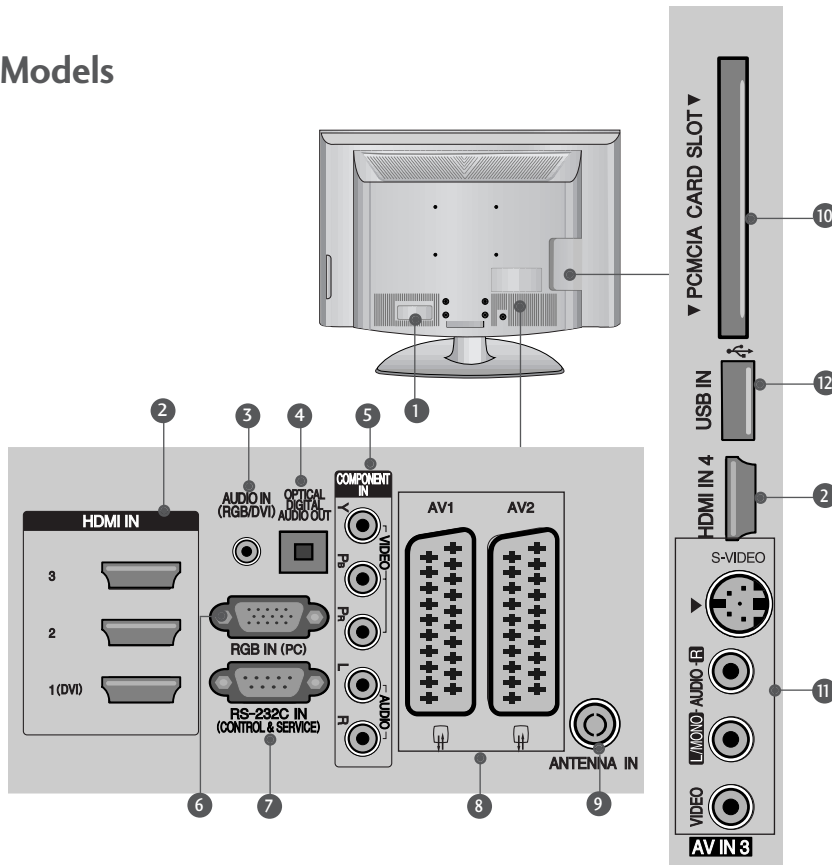
■ Image shown may differ from your TV.

### Plasma TV Models



- 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 **HDMI Input**  
Connect a HDMI signal to HDMI IN.  
Or DVI(VIDEO)signal to HDMI/DVI port with DVI to HDMI cable.
- 3 **RGB/DVI Audio Input**  
Connect the audio from a PC or DTV.
- 4 **OPTICAL DIGITAL AUDIO OUT**  
Connect digital audio from various types of equipment.  
Note: In standby mode, these ports do not work.
- 5 **Component Input**  
Connect a component video/audio device to these jacks.
- 6 **RGB Input**  
Connect the output from a PC.
- 7 **RS-232C IN (CONTROL & SERVICE) PORT**  
Connect to the RS-232C port on a PC.
- 8 **Euro Scart Socket (AV1/AV2)**  
Connect scart socket input or output from an external device to these jacks.
- 9 **Antenna Input**  
Connect RF antenna to this jack.
- 10 **PCMCIA (Personal Computer Memory Card International Association) Card Slot**  
(This feature is not available in all countries.)
- 11 **S-Video Input**  
Connect S-Video out from an S-VIDEO device.  
**Audio/Video Input**  
Connect audio/video output from an external device to these jacks.
- 12 **USB Input**

## LCD TV Models



- 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.
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# PREPARATION

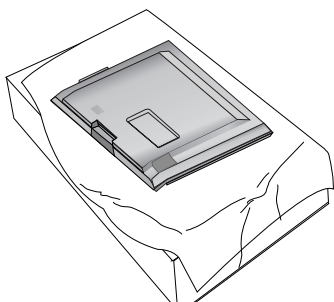
## STAND INSTALLATION

■ Image shown may differ from your TV

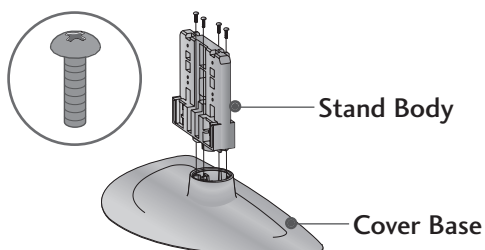
When assembling the desk type stand, check whether the bolt is fully tightened. (If not tightened fully, the product can tilt forward after the product installation.) If you tighten the bolt with excessive force, the bolt can deviate from abrasion of the tightening part of the bolt.

### 32/37/42LG70\*\* only

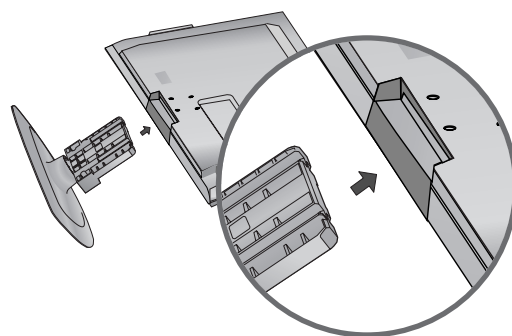
- 1 Carefully place the TV screen side down on a cushioned surface to protect the screen from damage.



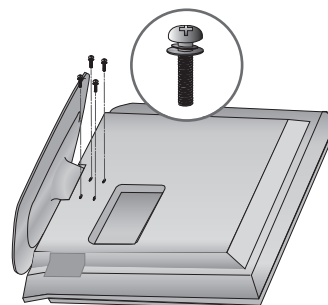
- 2 Assemble the parts of the **Stand Body** with the **Cover Base** of the TV.



- 3 Assemble the TV as shown.

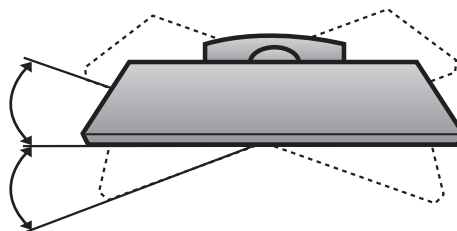


- 4 Fix the 4 bolts securely using the holes in the back of the TV.



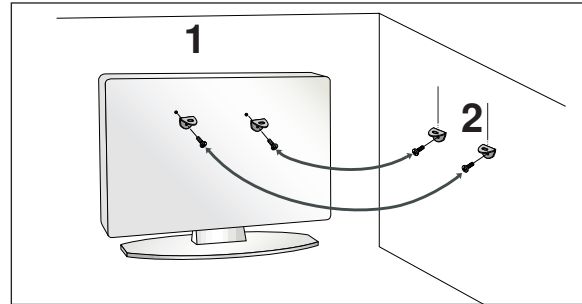
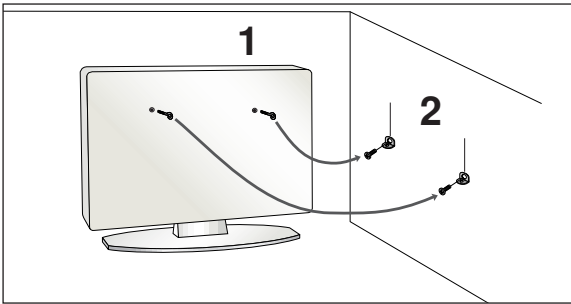
## SWIVEL STAND

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.

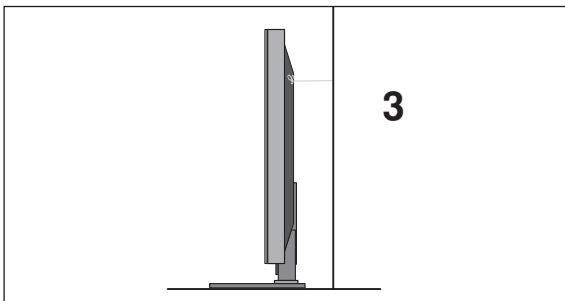


## PLEASE SET IT UP CAREFULLY SO THE PRODUCT DOESN'T FALL OVER.

- You should purchase necessary components to fix the TV to the wall on the market.
- 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, which is to fix 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 eyebolts, loosen then bolts.)  
\* 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 to tie the product. 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.

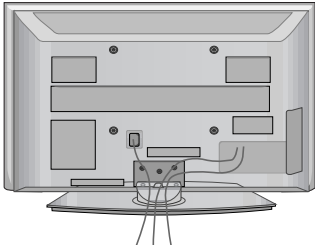
# PREPARATION

## BACK COVER FOR WIRE ARRANGEMENT

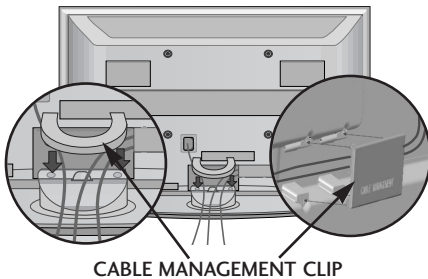
■ Image shown may differ from your TV.

### Plasma TV models

- 1 Connect the cables as necessary.  
To connect additional equipment, see the **External equipment Setup** section.



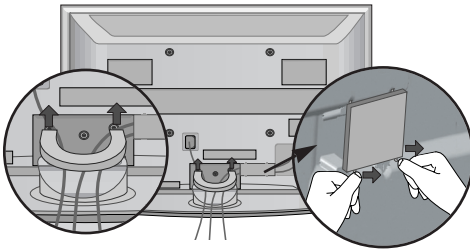
- 2 Install the **CABLE MANAGEMENT CLIP** as shown.



CABLE MANAGEMENT CLIP

### How to remove the cable management clip

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



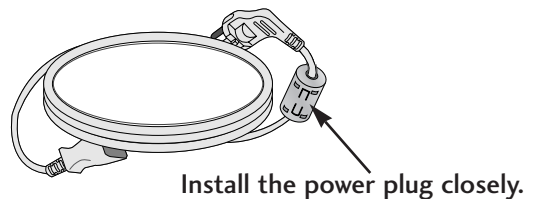
Separate CABLE MANAGEMENT from TV by pressing two latches.

#### ! 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.

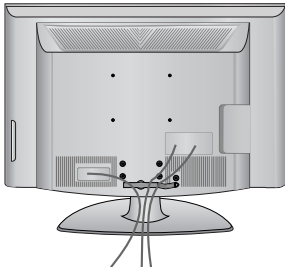
### Use of ferrite core (50/60PG70\*\* Only)

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.

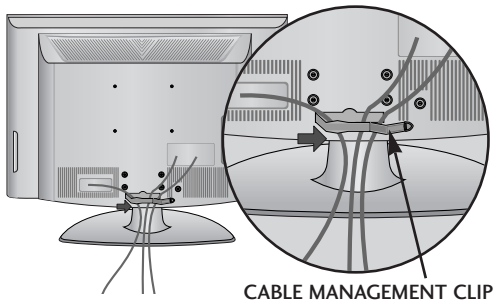


## LCD TV models

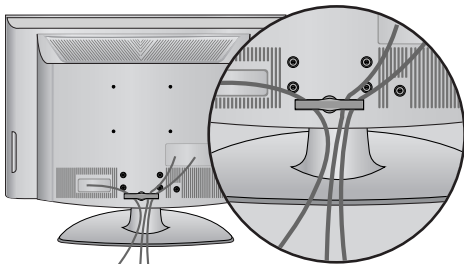
- 1 Connect the cables as necessary.  
To connect additional equipment, see the **External Equipment Setup** section of the manual.



- 2 Open the **CABLE MANAGEMENT CLIP** as shown and manage the cables.



- 3 Fit the **CABLE MANAGEMENT CLIP** as shown.



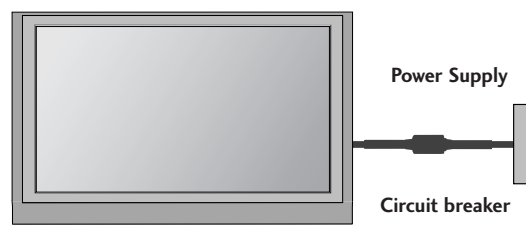
# PREPARATION

- 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

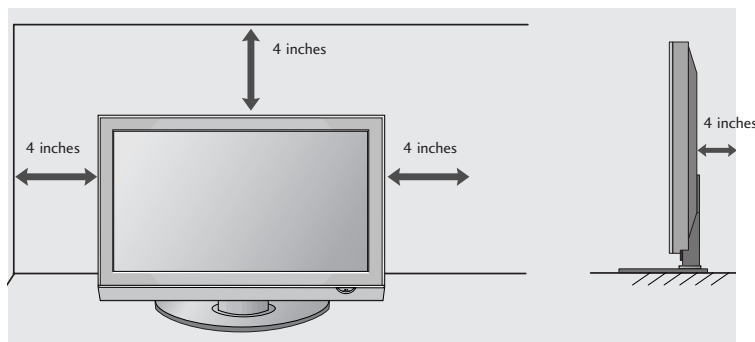
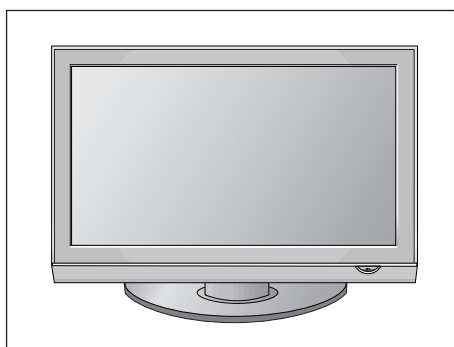
Ensure that you connect the earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

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



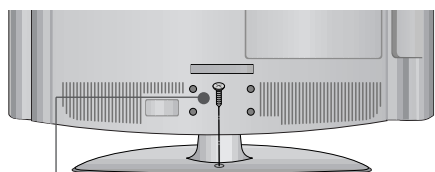
## DESKTOP PEDESTAL INSTALLATION

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

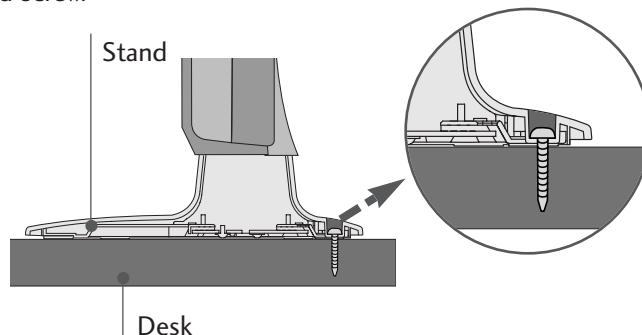


## ATTACHING THE TV TO A DESK (32LG70\*\* only )

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



1 -Screw  
(provided as parts of the product)

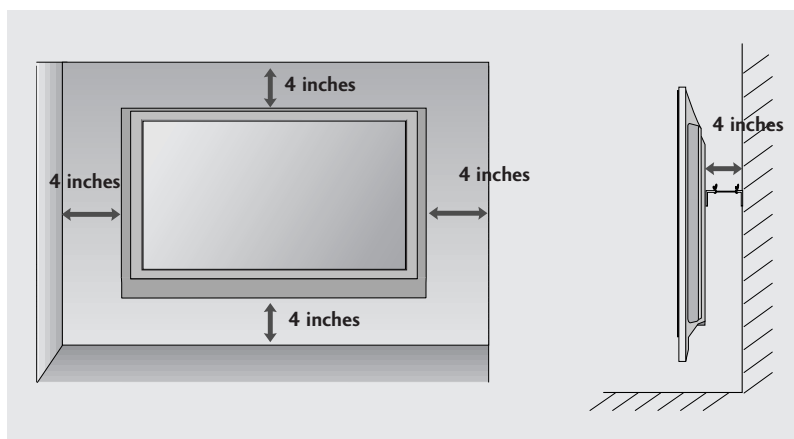
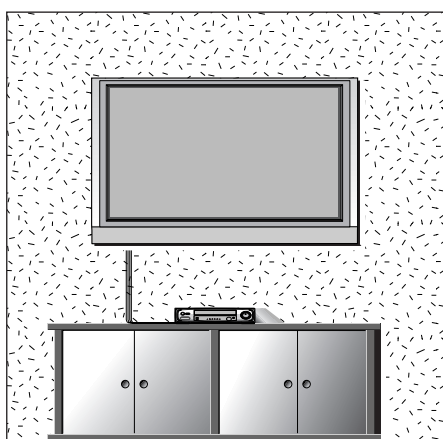


## ! WARNING

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

## WALL MOUNT: HORIZONTAL INSTALLATION

For adequate ventilation allow a clearance of 4" (10cm) all around the TV. We recommend that you use a wall mounting bracket of LG brand when mounting the TV to a wall.

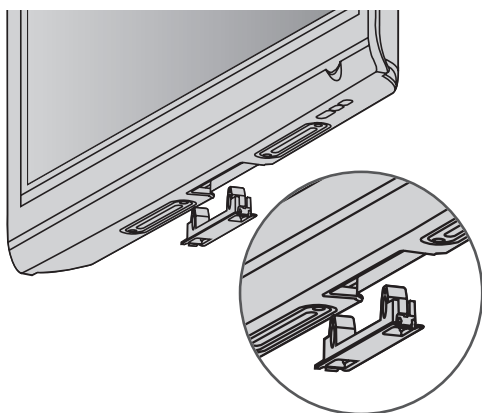


## NOT USING THE DESK-TYPE STAND

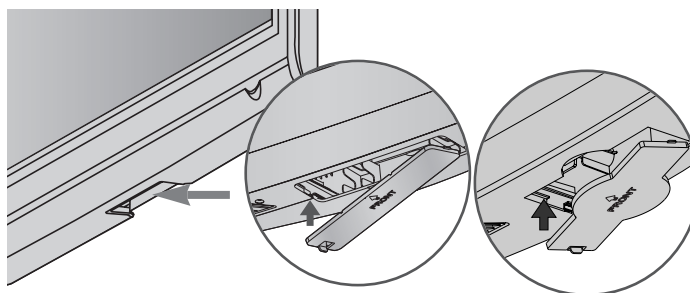
■ Image shown may differ from your TV.

When installing the wall-mounted unit, use the protection cover for desk-type stand installation.

### Plasma TV models



### LCD TV models



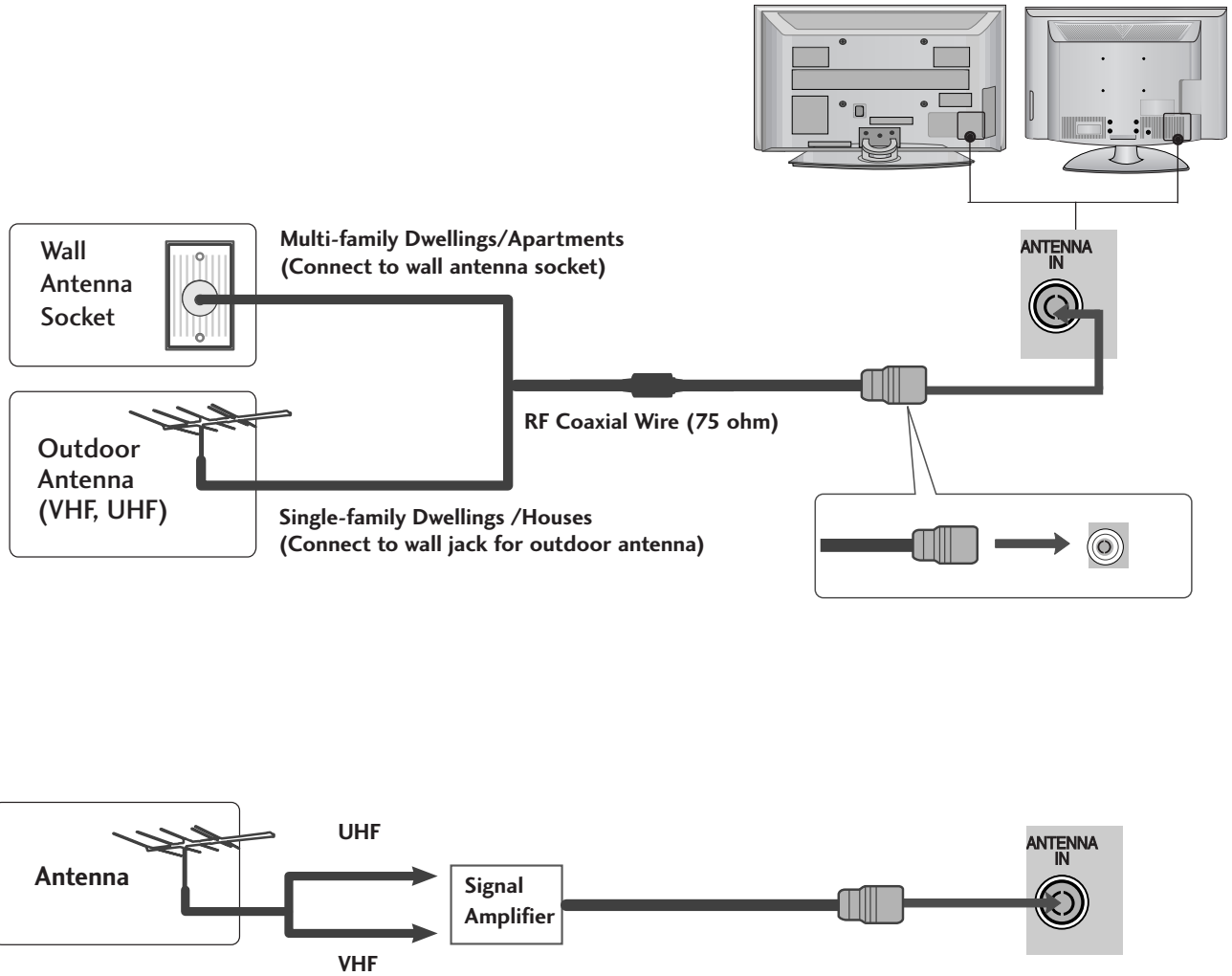
Insert the **PROTECTION COVER** into the TV until clicking sound.

# 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

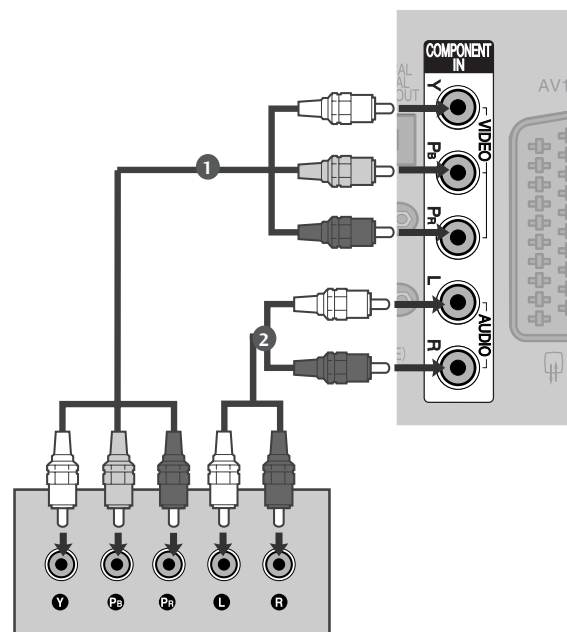
- To avoid damaging any equipment, never plug in any power cords until you have finished connecting all equipment.
- This section on EXTERNAL EQUIPMENT SETUP mainly uses diagrams for the 50PG70\*\* models.
- Image shown may differ from your TV.

## 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 cable

- 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** input source using the **INPUT** button on the remote control.

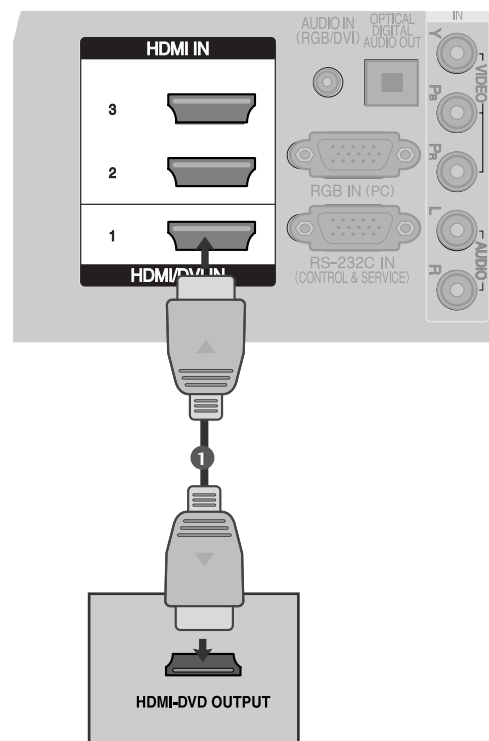


Signal	Component	HDMI
480i/576i	Yes	No
480p/576p	Yes	Yes
720p/1080i	Yes	Yes
1080p	Yes (50/60Hz only)	Yes (24Hz/30Hz/50Hz/60Hz)

# EXTERNAL EQUIPMENT SETUP

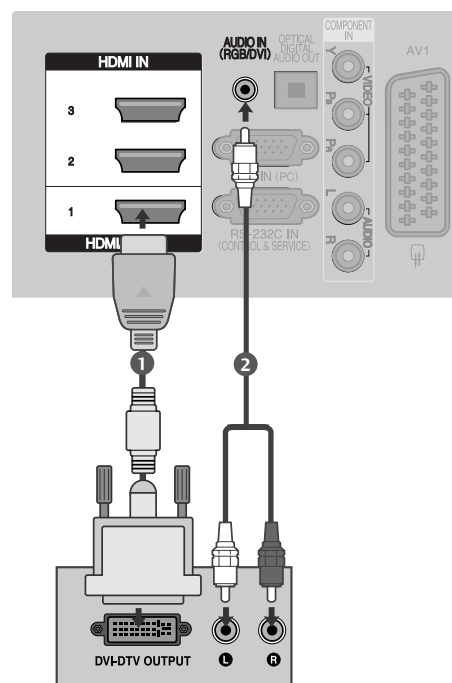
## Connecting a set-top box with an HDMI cable

- 1 Connect the digital set-top box to **HDMI/DVI IN 1**, **HDMI IN 2**, **HDMI IN 3** or **HDMI IN 4** 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**, **HDMI3** or **HDMI4** input source using the **INPUT** button on the remote control.



## 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.



# DVD SETUP

## Connecting with a component cable

- 1

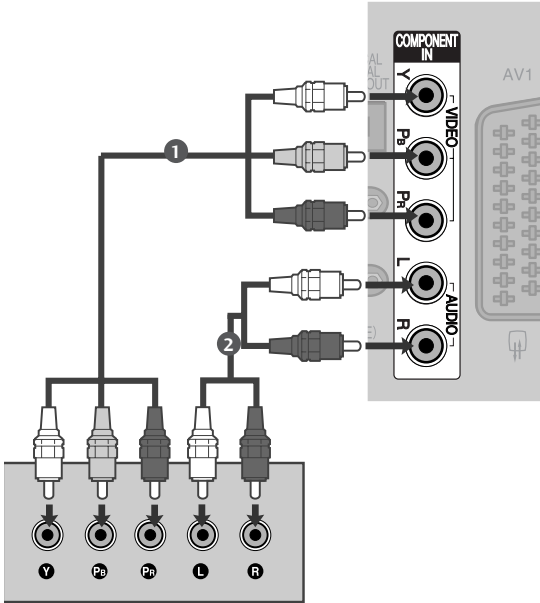
Connect the video outputs (Y, Pb, Pr) of the DVD to the **COMPONENT IN VIDEO** jacks on the TV.
- 2

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** input source using the **INPUT** button on the remote control.
- 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	P <sub>B</sub>	P <sub>R</sub>
Video output ports on DVD player	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	Pb	Pr

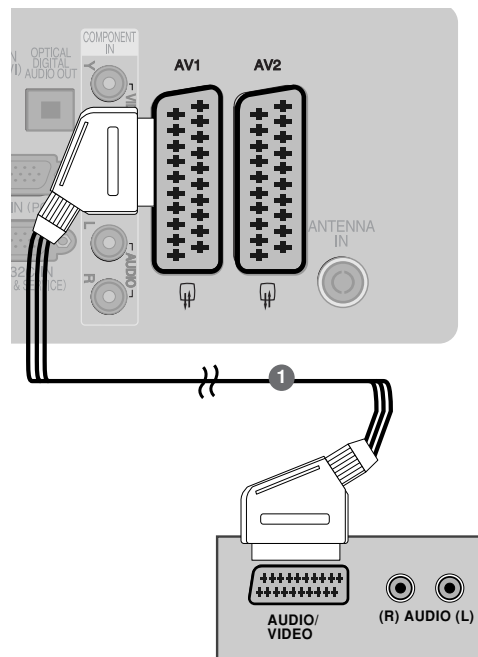
# EXTERNAL EQUIPMENT SETUP

## Connecting with a Euro Scart cable

- 1 Connect the Euro scart socket of the DVD to the **AV1** Euro scart socket on the TV.
- 2 Turn on the DVD player, insert a DVD.
- 3 Select **AV1** input source using the **INPUT** button on the remote control.  
If connected to **AV2** Euro scart socket, select **AV2** input source.
- 4 Refer to the DVD player's manual for operating instructions.

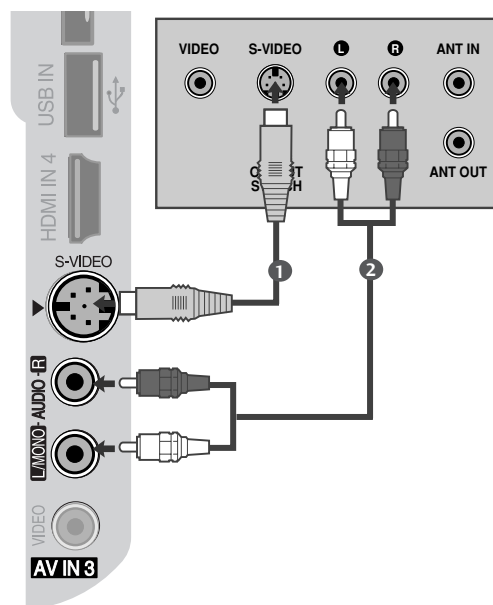
### ! NOTE

- Any Euro scart cable used must be signal shielded.



## Connecting with a S-Video cable

- 1 Connect the S-VIDEO output of the DVD to the **S-VIDEO** input on the TV.
- 2 Connect the audio outputs of the DVD to the **AUDIO** input jacks on the TV.
- 3 Turn on the DVD player, insert a DVD.
- 4 Select **AV3** input source using the **INPUT** button on the remote control.
- 5 Refer to the DVD player's manual for operating instructions.

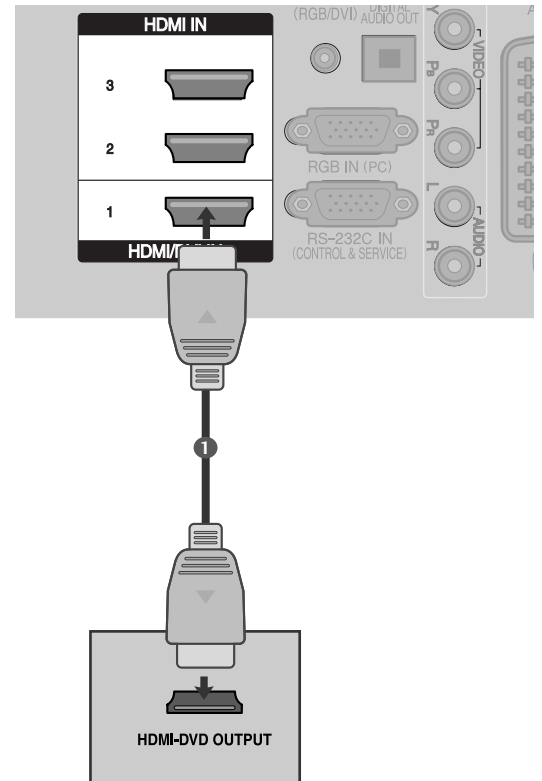


## Connecting the HDMI cable

- 1 Connect the HDMI output of the DVD to the **HDMI/DVI IN 1**, **HDMI IN 2**, **HDMI IN 3** or **HDMI IN 4** jack on the TV.
- 2 Select **HDMI1**, **HDMI2**, **HDMI3** or **HDMI4** 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.

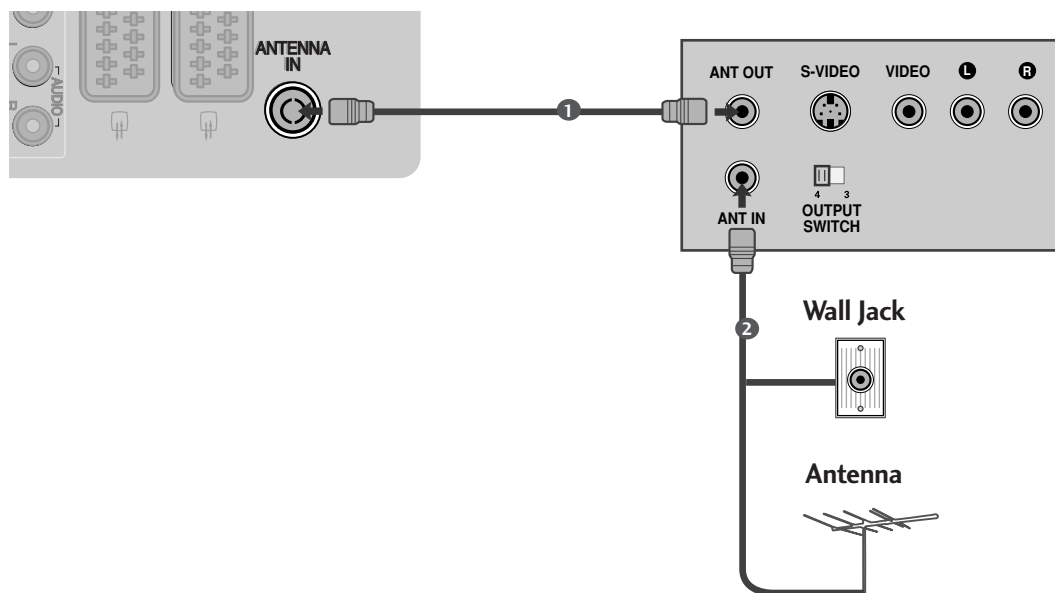


# EXTERNAL EQUIPMENT SETUP

## VCR SETUP

- To avoid picture noise (interference), allow adequate distance between the VCR and TV.
- Typically a frozen still picture from a VCR. If 4:3 picture format is used for an extended period the fixed images on the sides of the screen may remain visible.

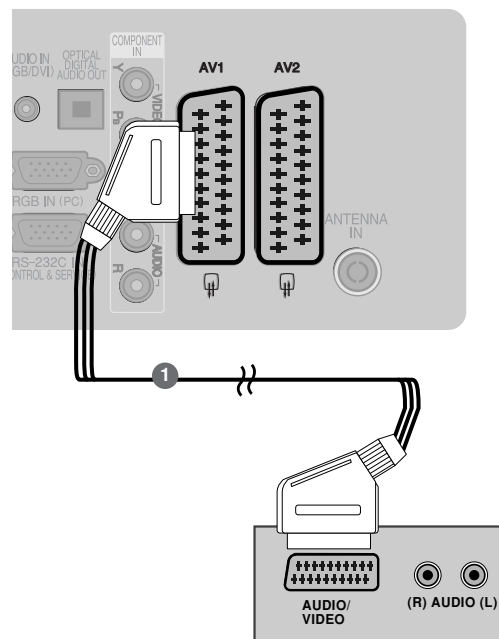
### Connecting with a RF Cable



- 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.

## Connecting with a Euro Scart cable

- 1 Connect the Euro scart socket of the VCR to the **AV1** Euro scart socket on the TV.
- 2 Insert a video tape into the VCR and press **PLAY** on the VCR. (Refer to the VCR owner's manual.)
- 3 Select **AV1** input source using the **INPUT** button on the remote control.
- 4 If connected to **AV2** Euro scart socket, select **AV2** input source.

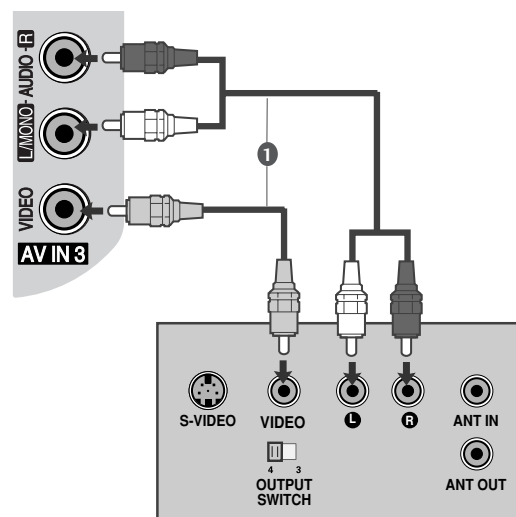


### ! NOTE

- Any Euro Scart cable used must be signal shielded.

## Connecting with a RCA cable

- 1 Connect the **AUDIO/VIDEO** jacks between TV and VCR. Match the jack colours (Video = yellow, Audio Left = white, and Audio Right = red)
- 2 Insert a video tape into the VCR and press **PLAY** on the VCR. (Refer to the VCR owner's manual.)
- 3 Select **AV3** input source using the **INPUT** button on the remote control.



### ! NOTE

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

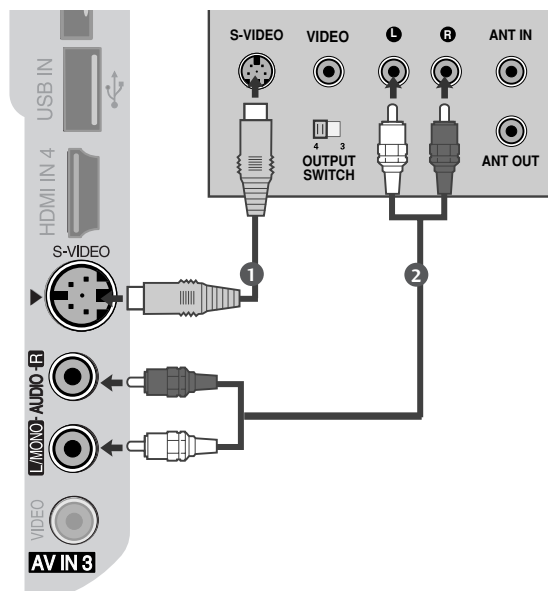
# EXTERNAL EQUIPMENT SETUP

## Connecting with a S-Video cable

- 1 Connect the S-VIDEO output of the VCR to the **S - VIDEO** input on the TV set. The picture quality is improved; compared to normal composite (RCA cable) input.
- 2 Connect the audio outputs of the VCR to the **AUDIO** input jacks on the TV.
- 3 Insert a video tape into the VCR and press **PLAY** on the VCR. (Refer to the VCR owner's manual.)
- 4 Select **AV3** input source with using the **INPUT** button on the remote control.

### ! NOTE

- If both S-VIDEO and VIDEO sockets have been connected to the S-VHS VCR simultaneously, only the S-VIDEO can be received.

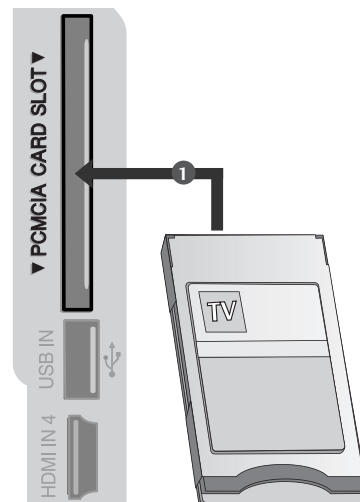


## INSERTION OF CI MODULE

- To view the encrypted (pay) services in digital TV mode.
- This feature is not available in all countries.

- 1 Insert the CI Module to **PCMCIA** (Personal Computer Memory Card International Association) **CARD SLOT** of TV as shown.

For further information, see p.49.



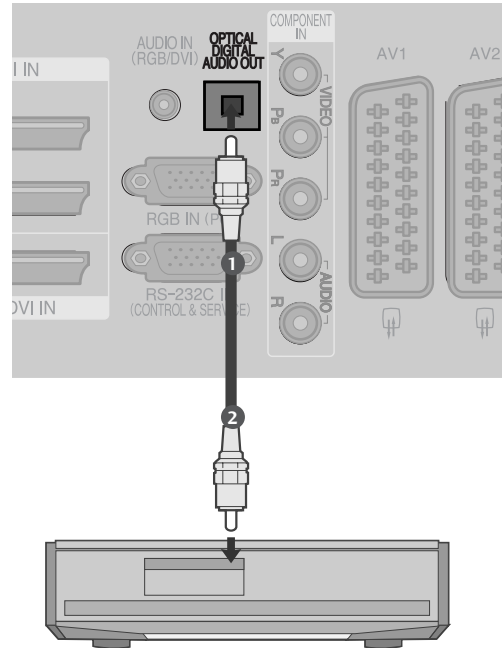
# DIGITAL AUDIO OUT SETUP

Sending the TV's audio signal to external audio equipment via the Digital Audio Output (Optical) port.

- 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.96). Refer to the external audio equipment instruction manual for operation.

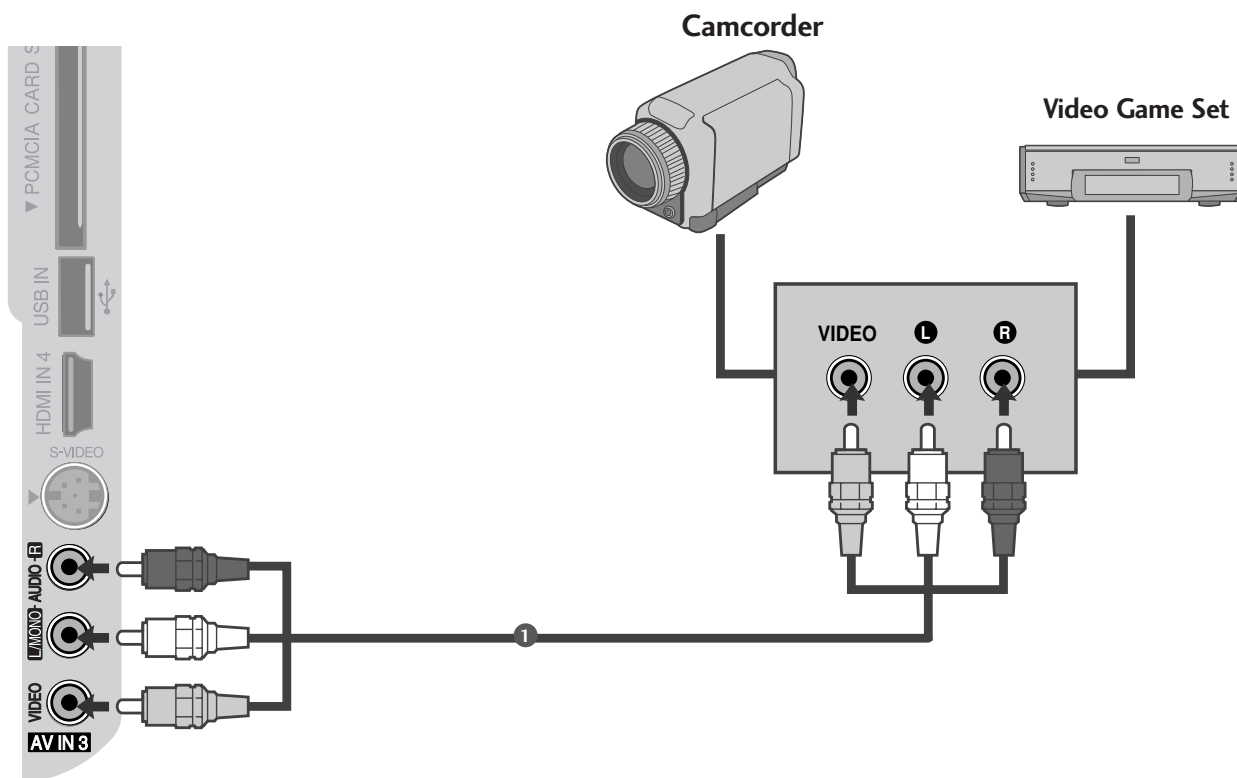
## ⚠ CAUTION

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



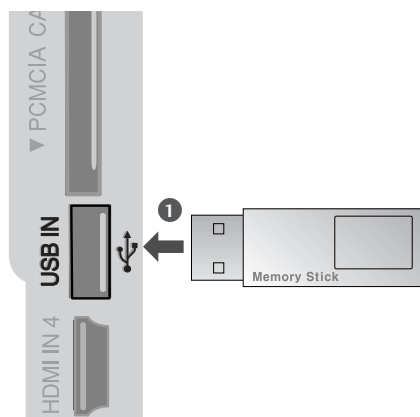
# EXTERNAL EQUIPMENT SETUP

## 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 **AV3** input source with using the **INPUT** button on the remote control.
- 3 Operate the corresponding external equipment.  
Refer to external equipment operating guide.

## USB IN SETUP



- 1 Connect the USB device to the **USB IN** jacks on the side of TV.
- 2 After connecting the **USB IN** jacks, you use the **USB** function. (► p.64)

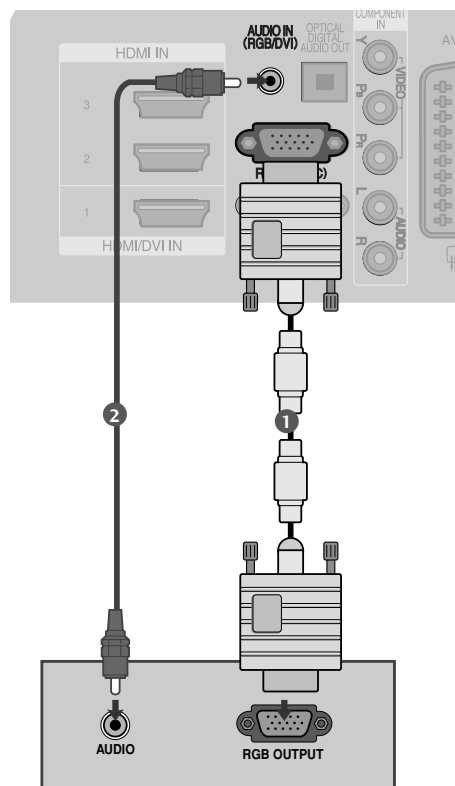
# EXTERNAL EQUIPMENT SETUP

## PC SETUP

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

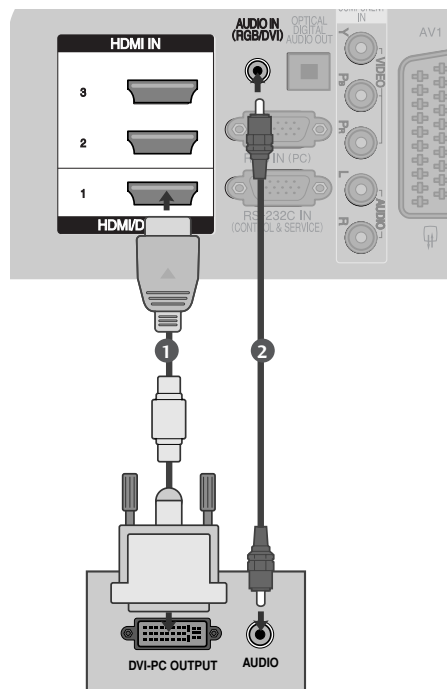
### Connecting with a D-sub 15 pin cable

- 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 a 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.



## Supported Display Resolution

### Plasma TV Models

#### 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
1920x1080	66.587	59.934
1280x1024	63.98	60.02
1400x1050	65.317	59.979

#### 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
1920x1080	28.125	50.00
	33.72	59.94
	33.75	60
	27.00	24.00
	33.750	30
	56.25	50.00
	67.433	59.94
	67.50	60

### LCD TV Models

#### 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
1920x1080	66.587	59.934
1280x1024	63.98	60.02
1400x1050	65.317	59.979

#### 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	50.94
	45.00	60
1920x1080	28.125	50.00
	33.72	59.94
	33.75	60
	27.00	24.00
	33.750	30
	56.25	50.00
	67.433	59.94
	67.50	60

# EXTERNAL EQUIPMENT SETUP

## ! NOTE

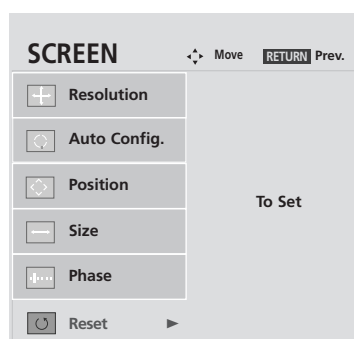
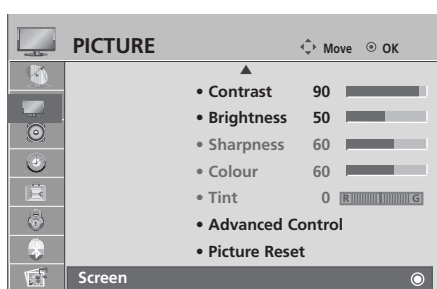
- ▶ To enjoy vivid picture and sound, connect a PC to the TV.
- ▶ Avoid keeping a fixed image on the set's screen for prolonged periods of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- ▶ Connect the PC to the RGB (PC) or HDMI IN (or HDMI/DVI IN) port of the TV; change the resolution.
- ▶ 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.
- ▶ 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.
- ▶ This TV uses a VESA Plug and Play Solution. The TV provides EDID data to the PC system with a DDC protocol. The PC adjusts automatically when using this TV.
- ▶ DDC protocol is preset for RGB (Analog RGB), HDMI (Digital RGB) mode.
- ▶ 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 graphic card on the PC does output analog 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 a HDMI to DVI cable.
- ▶ If you use too long an RGB-PC cable, there may be interference on the screen. We recommend using under 5m of cable. This provides the best picture quality.
- ▶ If connected HDMI(1080p, over 12bit) to HDMI jack on the side, screen may abnormal.










## 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**.

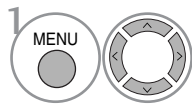
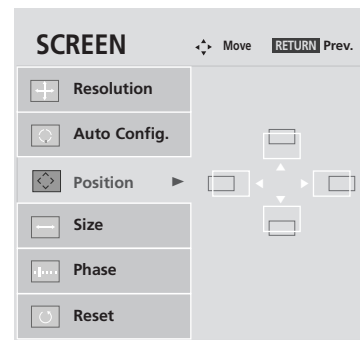
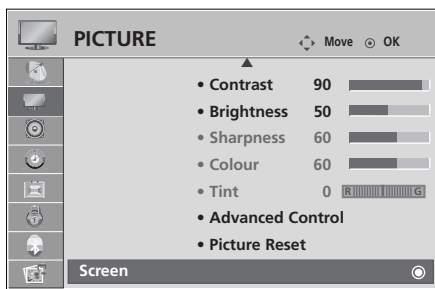
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# EXTERNAL EQUIPMENT SETUP

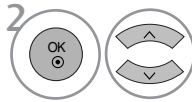
## Adjustment for screen Position, Size, Phase

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

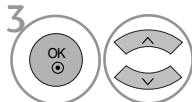
This function works in the following mode : RGB[PC].



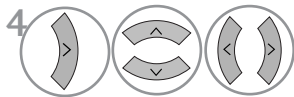
Select **PICTURE**.



Select **SCREEN**.



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



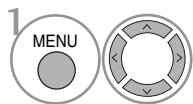
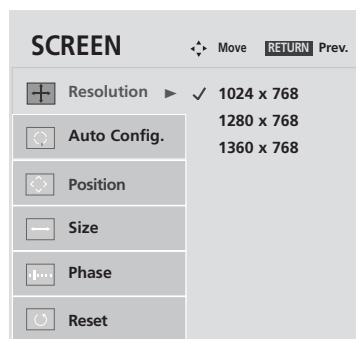
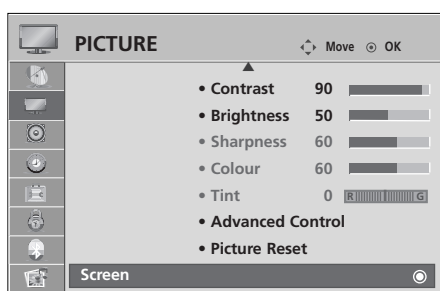
Make appropriate adjustments.

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

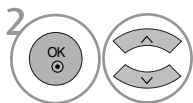
## Selecting Resolution

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

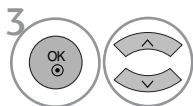
This function works in the following mode: RGB[PC]



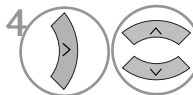
Select **PICTURE**.



Select **SCREEN**.



Select **Resolution**.



Select the desired resolution.

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

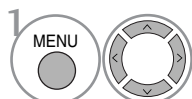
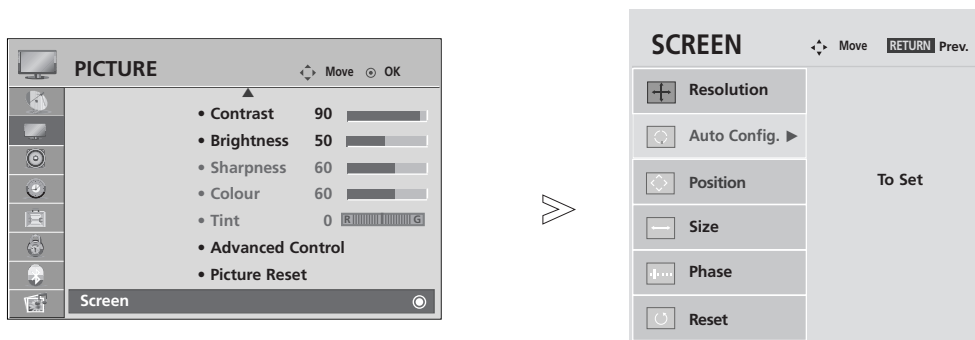
# EXTERNAL EQUIPMENT SETUP

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

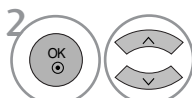
Automatically adjusts picture position and minimizes image instability. After adjustment, if the image is still not correct, your TV is functioning properly but needs further adjustment.

### Auto configure

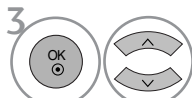
This function is for automatic adjustment of the screen position, clock, and phase. The displayed image will be unstable for a few seconds while the auto configuration is in progress.



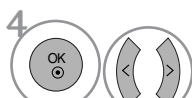
Select **PICTURE**.



Select **SCREEN**.



Select **Auto Config..**



Select **Yes**.



Run **Auto Config..**

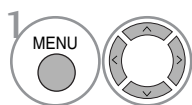
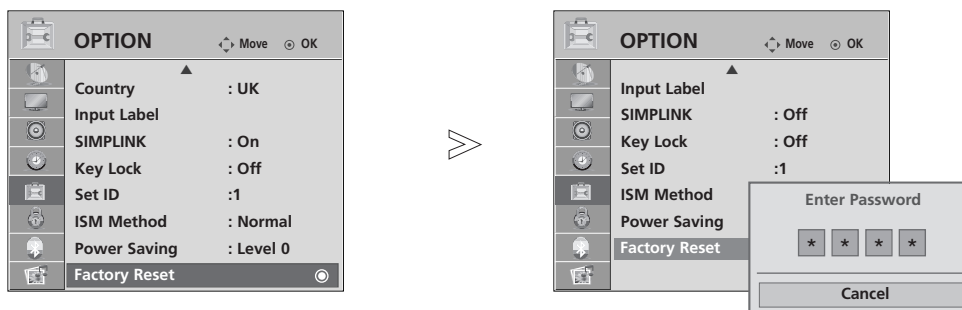
- If the position of the image is still not correct, try Auto adjustment again.
- If picture needs to be adjusted again after Auto adjustment in RGB (PC), you can adjust the **Position**, **Size** or **Phase**.

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

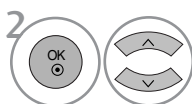
## Initializing (Reset to original factory settings)

This function operates in current mode.  
To initialize the adjusted value.

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



Select **OPTION**.



Select **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.

# WATCHING TV / PROGRAMME CONTROL

## REMOTE CONTROL KEY FUNCTIONS

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



**1** **MODE** Selects the remote operating modes.

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

**INPUT** External input mode rotate in regular sequence.  
Switches the TV on from standby.

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

**Q. MENU** Select the desired quick menu source. (Aspect Ratio, Power Saving(Plasma TV models), Backlight(LCD TV models), Clear Voice, Picture Mode, Sound Mode, Audio, Sleep Timer, USB Eject.)

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

**GUIDE** Shows programme schedule.

**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.

**AV MODE** It helps you select and set images and sounds when connecting AV devices.

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

**2** **TELETEXT BUTTONS** These buttons are used for teletext.  
For further details, see the 'Teletext' section.

**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.



**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.

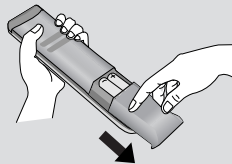
**0~9 number button** Selects a programme.  
Selects numbered items in a menu.

**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).

## 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.  
At this stage, the TV switches to standby mode.
- 2 In standby mode to turn TV on, press the  $\phi$  / I, INPUT or P  $\blacktriangle$   $\blacktriangledown$  (or P  $\wedge$   $\vee$ ) button on the TV or press the POWER, INPUT, P  $\wedge$   $\vee$  or NUMBER button on the remote control and the TV will switch on.

### Initializing setup

If the OSD (On Screen Display) is displayed on the screen after turning on the TV, you can adjust the **Language, Select Mode, Country, Time Zone, Auto programme tuning.**

#### Note:

- a. It will automatically disappear after approx. 40 seconds unless a button is pressed.
- 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" mode is the optimal setting for home environments, and is the TV's default mode.
- e. "In Store" mode is the optimal setting for store environments. If a user modifies image quality data, "In Store" mode initializes the product to the image quality set by us after a certain period of time.
- f. The mode (Home, In Store) can be changed by executing Factory Reset in the OPTION menu.
- g. "In store" Mode is an optimal setting for displaying at stores. "In-Store" mode initializes the TV to set the image quality and operates "TruMotion Demo" after a certain period of time.(37/42/47/52LG70\*\* only.)

## PROGRAMME SELECTION

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

## VOLUME ADJUSTMENT

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

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

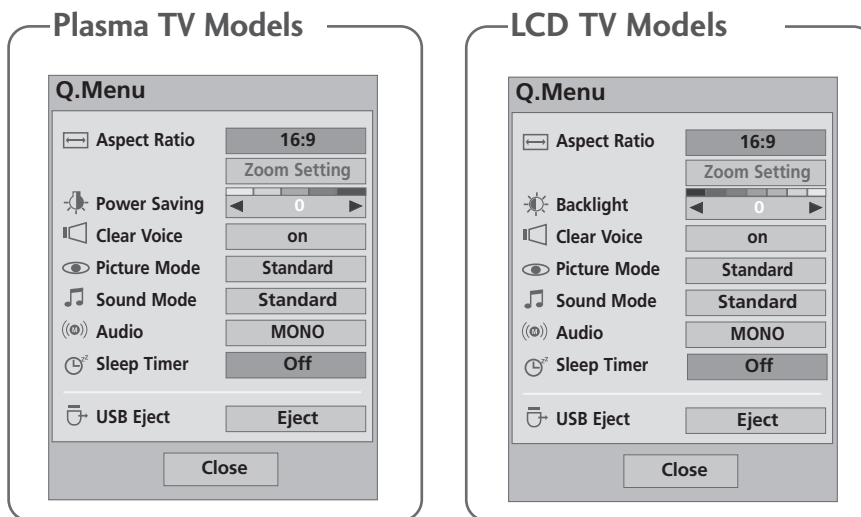
You can cancel this function by pressing the MUTE,  $\blacktriangle$  + or - button.

## 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, Zoom1 and Zoom2 in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.
- **Power Saving** (Plasma TV Only): Adjusts screen brightness to reduce the power consumption of the TV.
- **Backlight** (LCD TV Only): Adjusts screen brightness. It returns to the default settings brightness by changing mode source.
- **Clear Voice** : 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.
- **USB Eject** : Select "USB Eject" in order to eject USB device.



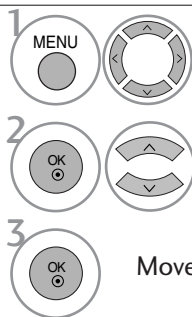
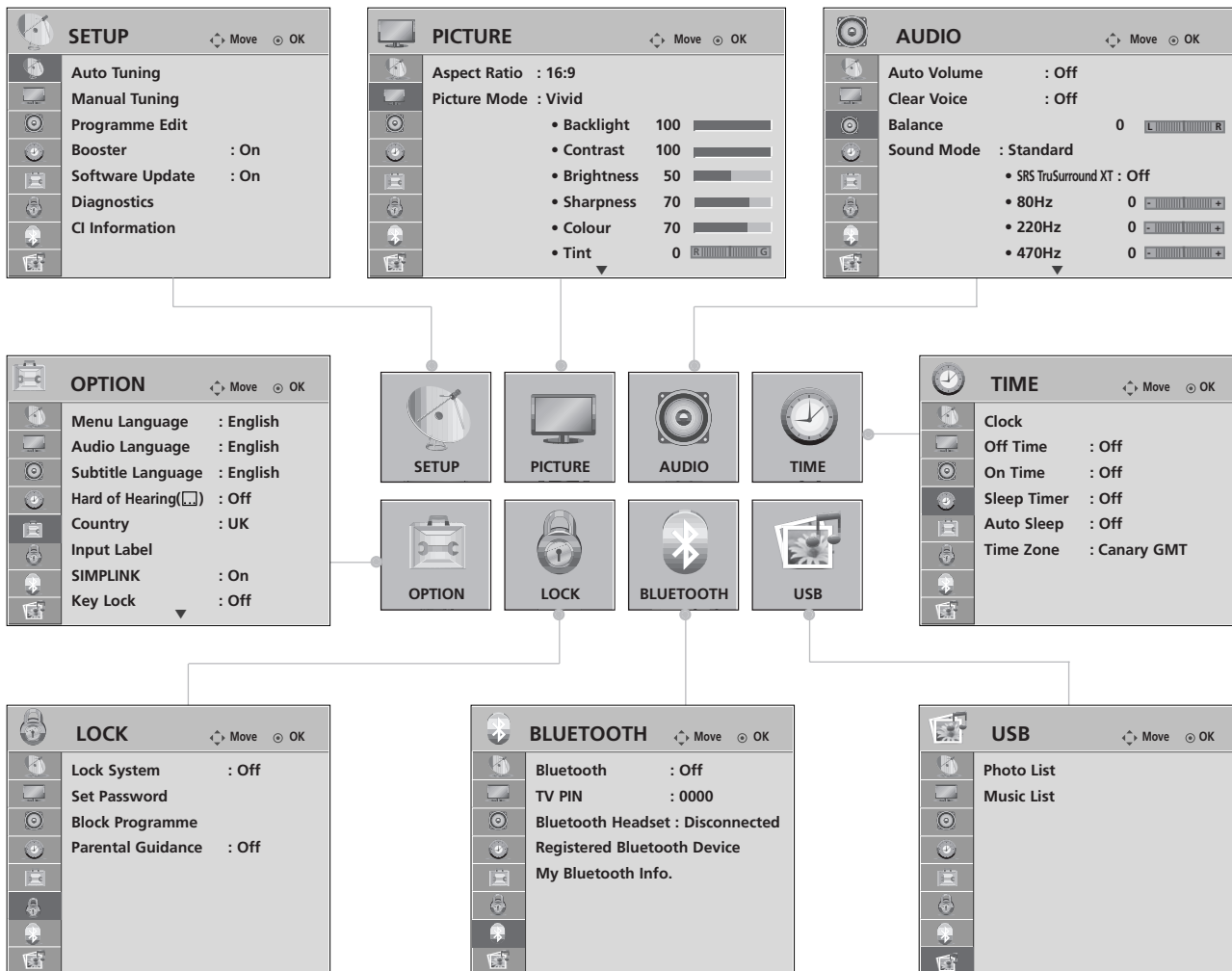
1. Display each menu.
2. or Select your desired Source.
- 3.

- 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.



Display each menu.

Select a menu item.

Move to the pop up menu.

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

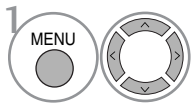
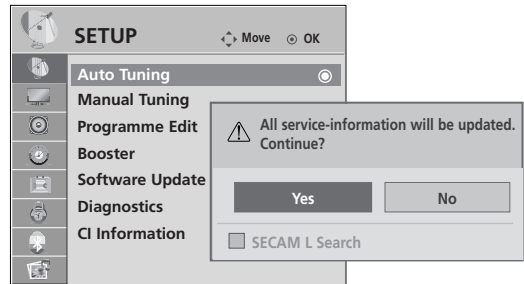
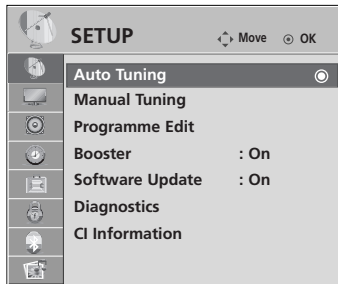
### ! NOTE

- ▶ It is possible to use **ISM Method** and **Power Saving** in **Plasma TV** models only.
- ▶ It is possible to use **Backlight**, **Power Indicator**, **TruMotion**, **TruMotion Demo**, **Simple Manual** in **LCD TV** models only.
- ▶ It is possible to use **TruMotion**, **TruMotion Demo** in **37/42/47/52LG70\*\*** models only.
- ▶ It is not possible to use **CI Information** and **Booster** in **Analogue** mode.

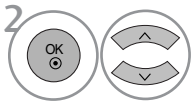
# AUTO PROGRAMME TUNING

Use this to automatically find and store all available programmes.

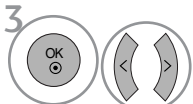
When you start auto programming, all previously stored service information will be deleted.



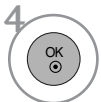
Select **SETUP**.



Select **Auto Tuning**.



Select **Yes**.



Run **Auto tuning**.

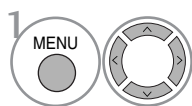
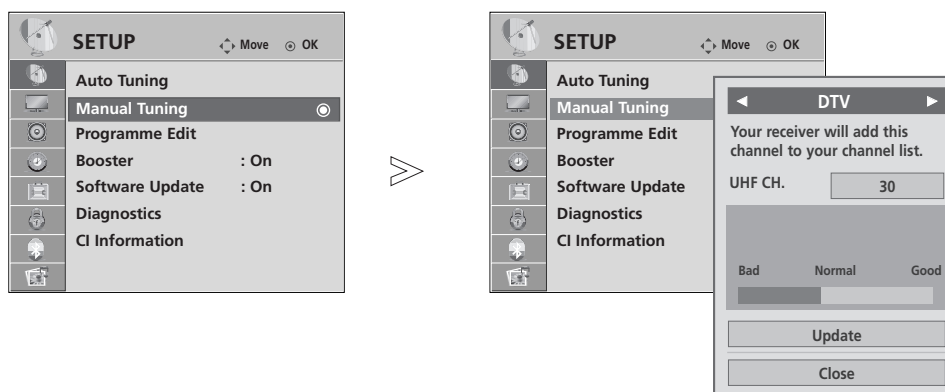
- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- If you wish to keep on auto tuning select **YES** using the < > button. Then, press the **OK** button. Otherwise select **NO**.

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

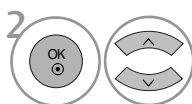
# WATCHING TV / PROGRAMME CONTROL

## MANUAL PROGRAMME TUNING (IN DIGITAL MODE)

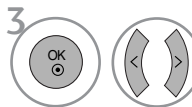
Manual Tuning lets you manually add a programme to your programme list.



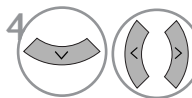
Select **SETUP**.



Select **Manual Tuning**.



Select **DTV**.



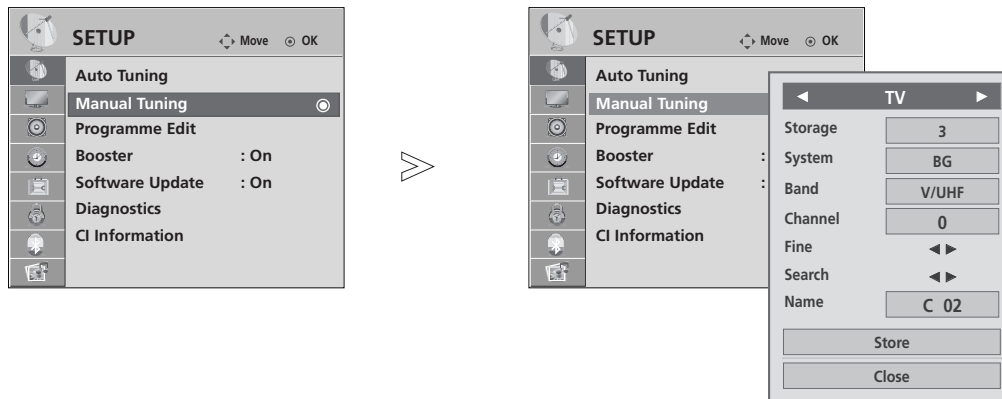
Select the desired channel number.

- 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.

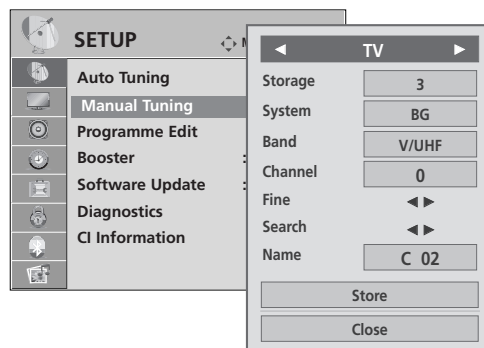
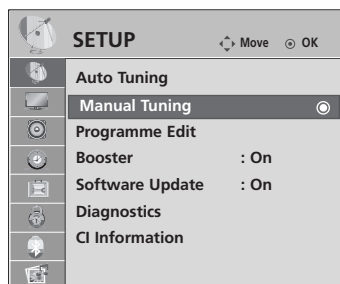


- 1 Select **SETUP**.
- 2 Select **Manual Tuning**.
- 3 Select **TV**.
- 4 or Select the desired programme number on.
- 5 Select a TV system.
- 6 Select **V/UHF** or **Cable**.
- 7 or Select the desired channel number.
- 8 Commence searching.
- 9 Select **Store**

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

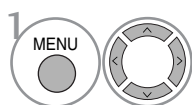
- Use **NUMBER** buttons to input a 4-digit password in **Lock System 'On'**.
- **L** : SECAM L/L' (France)  
**BG** : PAL B/G, SECAM B/G (Europe / East Europe / Asia / New Zealand / M.East / Africa / Australia)  
**I** : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)  
**DK** : PAL D/K, SECAM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

# WATCHING TV / PROGRAMME CONTROL

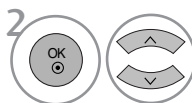


## ■ Assigning a station name

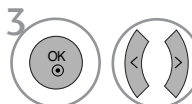
You can assign a station name with five characters to each programme number.



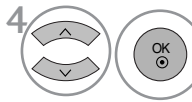
Select **SETUP**.



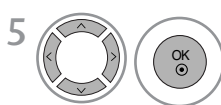
Select **Manual Tuning**.



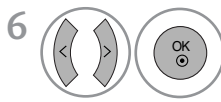
Select **TV**.



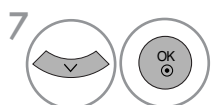
Select **Name**.



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.



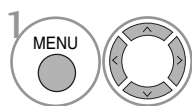
Select **Close**



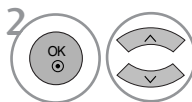
Select **Store**

## ■ Fine Tuning

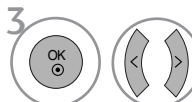
Normally fine tuning is only necessary if reception is poor.



Select **SETUP**.



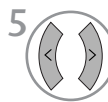
Select **Manual Tuning**.



Select **TV**.



Select **Fine**.



Fine tune for the best picture and sound.



Select **Store**

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

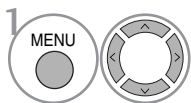
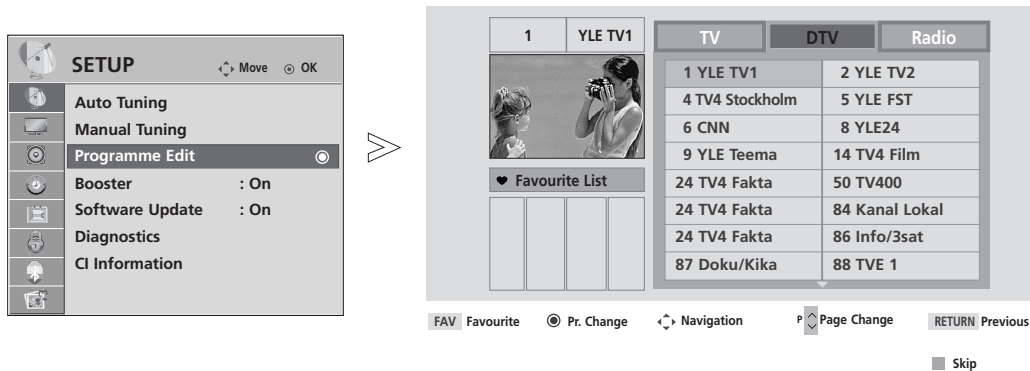
# PROGRAMME EDIT

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

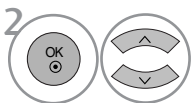
If you wish to select the skipped programme, directly enter the programme number with the **NUMBER** buttons or select it in the Programme edit menu.

This function enables you to skip the stored programmes.

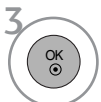
In some countries it is possible to move a programme number by using the **YELLOW** button only.



Select **SETUP**.



Select **Programme Edit**.



Enter the **Programme Edit**.



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



Select a programme number to be skipped.



Turn the skipped programme number to blue.



Release the skipped programme.

- When programmes are to be skipped, skipped programme shows in blue and these programmes will not be selected by the **P** ^ v 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.

### ■ Selecting favourite programme



Select your favourite programme number.

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

## 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.

### ■ Auto Sort

- 1  **GREEN** Start Auto Sort.





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

### ■ Deleting a programme




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

- 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   **YELLOW** Turn the moved programme number to YELLOW.
- 3  **YELLOW** Release the moved programme.

### ■ Skipping a programme number

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

- 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.

### ■ Selecting a Favourite Programme

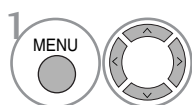
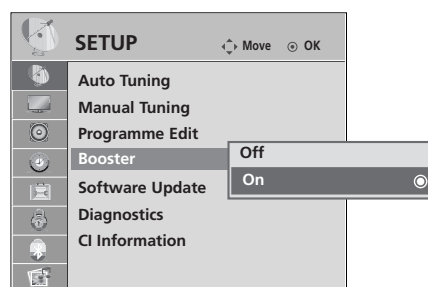
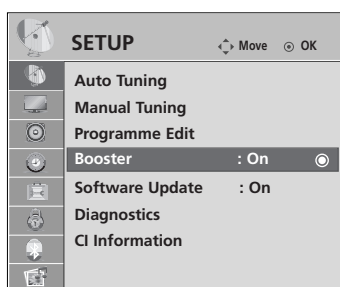
- 1   **MARK FAV** Select your favourite programme number.

- The selected programme will be added to the favourite programme list.

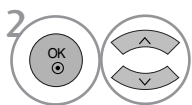
# WATCHING TV / PROGRAMME CONTROL

## BOOSTER (IN DIGITAL MODE)

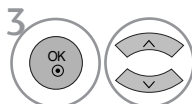
If reception is poor select Booster to On.  
When the signal is strong, select "Off".



Select **SETUP**.



Select **Booster**.



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

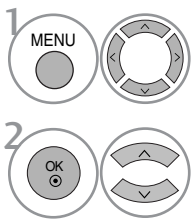
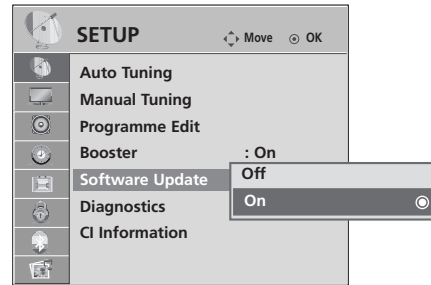
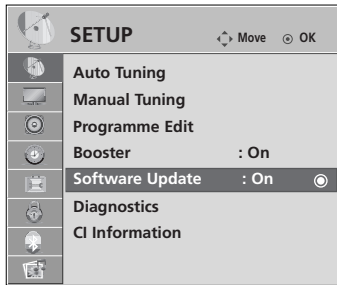


Save.

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

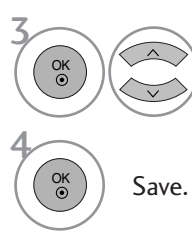
# SOFTWARE UPDATE

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



Select **SETUP**.

Select **Software Update**.



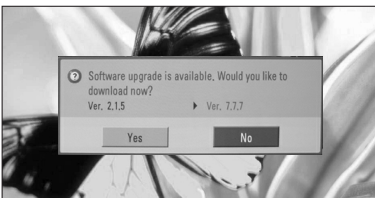
Select **On** or **Off**.

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

Save.

## \* When setting "Software Update"

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



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

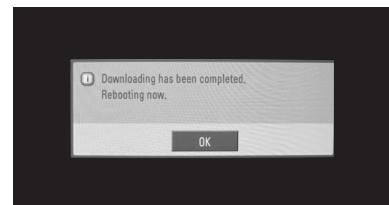
Select the **YES** using the < > button and you will see the following picture.



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.

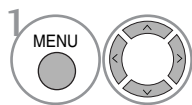
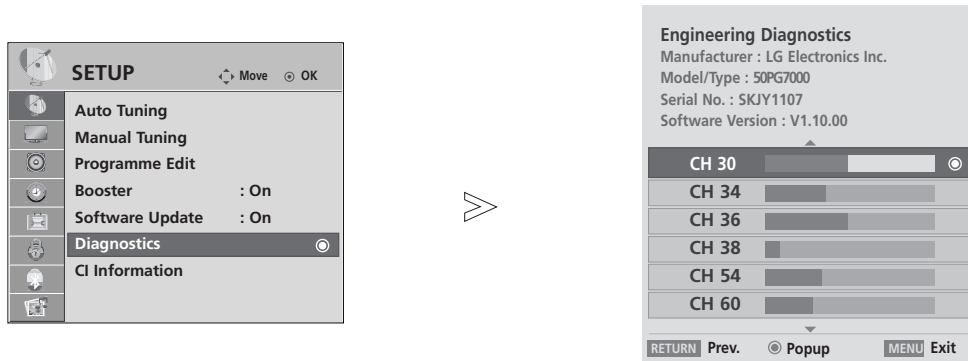
# WATCHING TV / PROGRAMME CONTROL

## DIAGNOSTICS

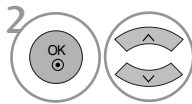
This function enables you to view information on the Manufacturer, Model/Type, Serial Number and Software Version.

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

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



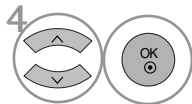
Select **SETUP**.



Select **Diagnostics**.



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



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.

## CI [COMMON INTERFACE] INFORMATION

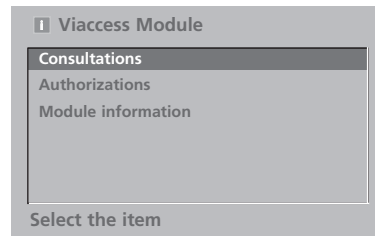
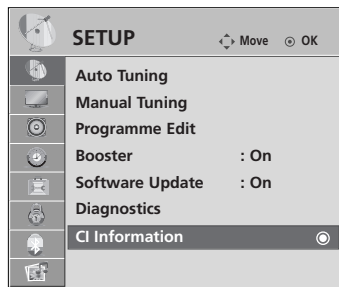
This function enables you to watch some encrypted services (pay services). If you remove the CI Module, you cannot watch pay services.

When the module is inserted into the CI slot, you can access the module menu.

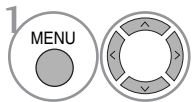
To purchase a module and smart card, contact your dealer. Do not repeatedly insert or remove a CI module from the TV. This may cause a malfunction. When the TV is turned on after inserting a CI Module, you may not have any sound output.

This may be incompatible with the CI module and smart card.

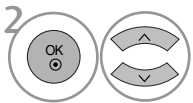
CI (Common Interface) functions may not be possible depending upon the country broadcasting circumstances.



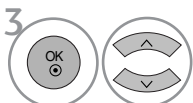
- This OSD is only for illustration and the menu options and screen format will vary according to the Digital pay services provider.
- It is possible for you to change CI (Common Interface) menu screen and service by consulting your dealer.



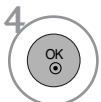
Select **SETUP**.



Select **CI Information**.



Select the desired item: Module information, smart card information, language, or software download etc.



- 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

## SELECTING THE PROGRAMME TABLE

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

### Mini Glossary



Displayed when the Locked Programme.



### ■ Displaying programme LIST



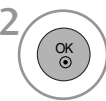
Display the Programme List.

- 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



Select a programme.

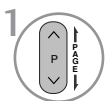


Switch to the chosen programme number.



From the programme you are currently watching, the mode will change from TV to DTV to Radio.

### ■ Paging through a programme list



Turn the pages.



Return to normal TV viewing.

### ■ Displaying the favourite programme table

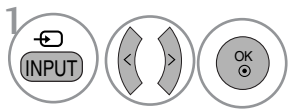
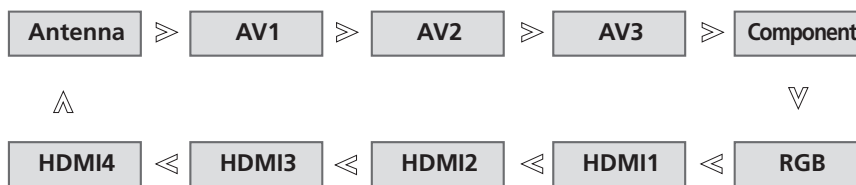


Display the Favourite Programme table.

# INPUT LIST

HDMI and AV1, 2 (SCART) 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.



Select the input source.

- **Antenna** : Select it when watching the DTV/TV.
- **AV1, AV2, AV3** : 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.
- **HDMI1, HDMI2, HDMI3, HDMI4** : Select it when using DVD, PC or Digital set-top box depend on connector.

# WATCHING TV / PROGRAMME CONTROL



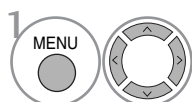
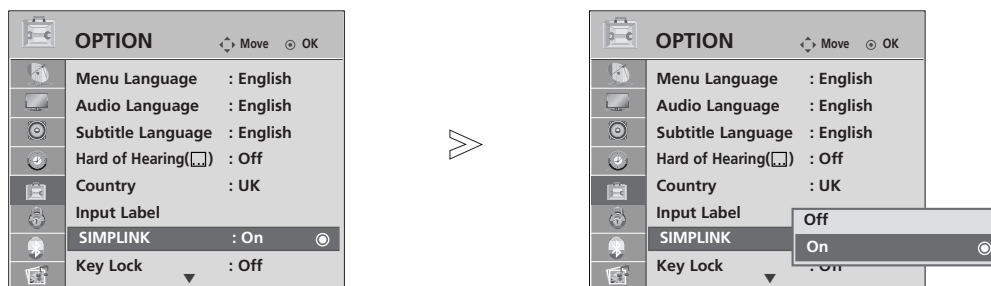
This function operates only with devices with the SIMPLINK logo.  
Please check the SIMPLINK logo.

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

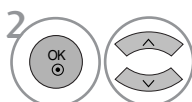
This allows you to control and play other AV devices connected to the display through HDMI cable without additional cables and settings.

If you do not want SIMPLINK menu, select “Off”.

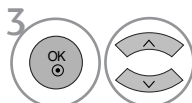
SIMPLINK function is not supported by HDMI IN 4 input.



Select **OPTION**.



Select **SIMPLINK**.



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



Save.

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

## ! 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.
- ▶ After connecting the HDMI terminal for the home theatre with the SIMPLINK function using the above method, connect the DIGITAL AUDIO OUT terminal on the back of the TV to the DIGITAL AUDIO IN terminal on the back of the SIMPLINK device with the OPTICAL cable.
- ▶ When operating an external device with SIMPLINK, press the TV button from the MODE buttons on the remote control.
- ▶ 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.
- ▶ When you select or operate a media device with home theater function, the speaker automatically switches to home theater speaker (HT speaker).

## SIMPLINK Functions

### Disc playback

Control connected AV devices by pressing the  $\wedge$   $\vee$   $<$   $>$ , OK,  $\blacktriangleright$ ,  $\blacksquare$ ,  $\text{II}$ ,  $\ll$  and  $\gg$  buttons. (The  $\bullet$  button does not provide such functions.)

### Direct Play

After connecting AV devices to the TV, you can directly control the devices and play media without additional settings.

### Select AV device

Enables you to select one of the AV devices connected to the TV 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 you play the connected AV device, TV will automatically turn on.

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

## SIMPLINK Menu

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

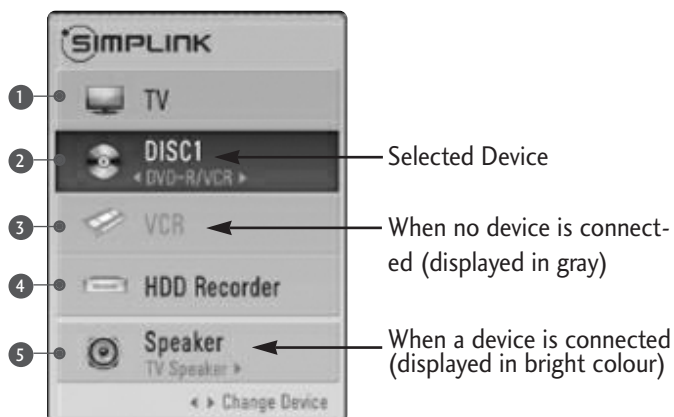
① **TV viewing** : Switch to the previous TV programme regardless of the current mode.

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.

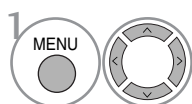
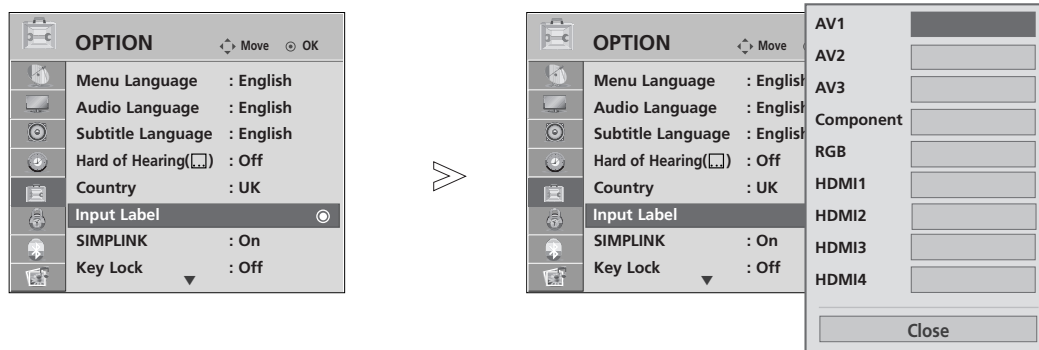


- Home theater: Only one supported at a time
- DVD, Recorder: Up to three supported at a time
- VCR: Only one supported at a time

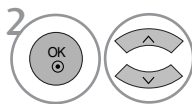
# WATCHING TV / PROGRAMME CONTROL

## INPUT LABEL

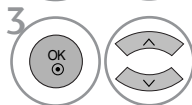
Selects a label for each input source.



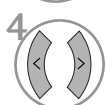
Select **OPTION**.



Select **Input Label**.



Select the source.

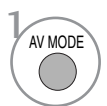
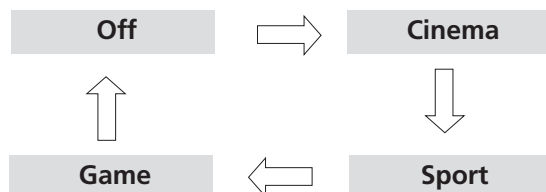


Select the label.

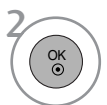
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

## AV MODE

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



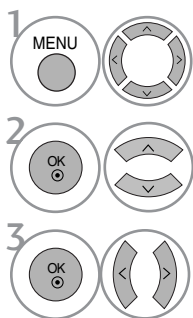
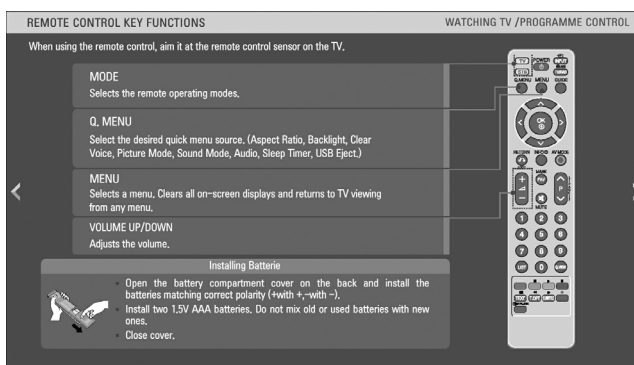
Press the **AV MODE** button repeatedly to select the desired source.



- If you select **Cinema Mode** in **AV mode**, **Cinema** mode 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.

## SIMPLE MANUAL(LCD TV ONLY)

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



Select **OPTION**.

Select **Simple Manual**.

Select the part of the manual you want to see.

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

# TO USE THE BLUETOOTH

## Bluetooth?

Bluetooth is a short distance networking technology using 2.4 GHz frequency to connect various types of information devices such as computer, cell phone and PDA, as well as digital appliances through wireless connection, without having to connect any cable, to enable data exchange.

With the Bluetooth communication function, you can connect the Bluetooth enabled wireless stereo headset or receive images from the Bluetooth enabled cell phone using this TV.

- Communication spec. : BLUETOOTH Specification version 2.0
- Output : BLUETOOTH Specification Power Class 2
- Maximum communication Range : Line of open sight approx. 10m(30ft)
- Frequency band : 2.4GHz band (2.400 GHz ~ 2.4835GHz)
- Compatible BLUETOOTH Profile : A2DP(Advanced Audio Distribution Profile)  
OPP(Object Push Profile)

## Precautions when using the Bluetooth

- ▶ Use within 10m(-45° ~ 45°) range.  
If you use the device out of the range or within the range with obstacles, it can result in communication error.
- ▶ Communication error can occur depending on the surrounding device.
- ▶ Products using the same frequency of 2.4 GHz (Wireless LAN, microwave oven etc.), can cause communication error by using the same frequency bandwidth.
- ▶ The device search time differs depending on the number of Bluetooth devices and the operating situation, and the probability of search increases with less number of devices.
- ▶ Electromagnetic wave can be interfered with applicable wireless devices.
- ▶ Because applicable wireless devices have the possibility of electronic wave interference, they cannot provide services related to human life.
- ▶ For the external Bluetooth device, you can only connect one headset at a time.
- ▶ You cannot receive the image while using the Bluetooth headset.
- ▶ MP3 function is not supported.
- ▶ For details of Bluetooth, refer to the user manual of the Bluetooth device.

QDID : B014281

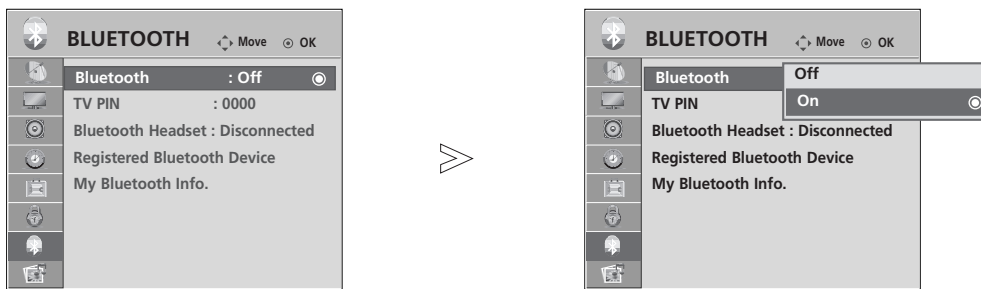
## SETTING THE BLUETOOTH








If you want to listen to the broadcasted sound using the Bluetooth headset or receive the jpeg images from an external device and view them on the TV, you can use the wireless communication without having to connect any cables.

You can use the BLUETOOTH menu by selecting “**On**”.

If you do not want to use the Bluetooth function, select “**Off**”.

If it is connected to the external Bluetooth device, you can select “Off” after disconnecting the device.



- 1   Select **BLUETOOTH**.
- 2   Select **Bluetooth**.
- 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.

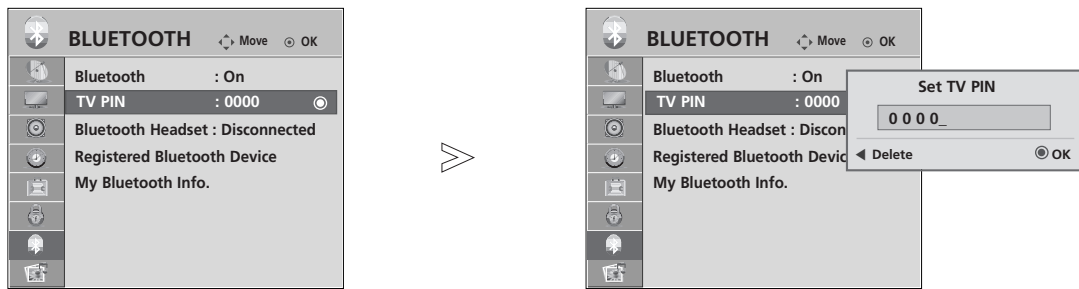
# TO USE THE BLUETOOTH

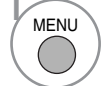






## SET TV PIN

To accept connection from an external Bluetooth device or to connect to an external Bluetooth device.

For details on how to set the PIN of the external Bluetooth device, refer to the user manual of the applicable device.

Set TV PIN can support up to maximum of 10 digits.



- 1   Select **BLUETOOTH**.
- 2   Select **TV PIN**.
- 3   Select the desired PIN number.
- 4 

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

## BLUETOOTH HEADSET

When you select the Bluetooth stereo headset, you can listen to the TV sound in the Bluetooth stereo headset through wireless communication.

You must pair it with any new Bluetooth device before the first use. For details, refer to the user manual of the applicable device. Maximum of 12 lists can be used.

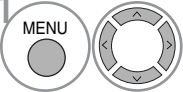
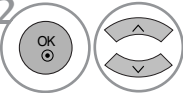

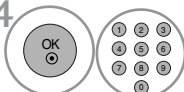

When the unit is searching for the Bluetooth stereo headset, other buttons except for the “Stop” (OK button) do not work.

### Connecting a new Bluetooth headset

You can only search for the new Bluetooth stereo headset only in the **Disconnected** condition.

When you run the search, it will show you the list of all Bluetooth stereo headsets responding.

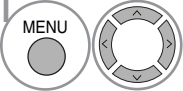
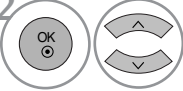
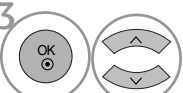


After new Bluetooth device is searched, the PIN number is validated to connect the device. For details, refer to the user manual of the applicable device.

- 1  Select **BLUETOOTH**.
- 2  Select **Bluetooth Headset**.
- 3  Search the Bluetooth headset.
- 4  Select Bluetooth headset PIN number. Refer to the user manual of the applicable device for the PIN number.
- 5  Connect the Bluetooth headset.

### Connecting to Bluetooth headset already registered

Bluetooth stereo headsets are listed in the order most recently used with the headset currently in use listed at the top.

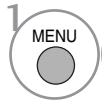
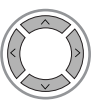

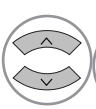

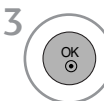
When connecting to the Bluetooth device already registered, you can select and connect directly without any PIN validation.

- 1  Select **BLUETOOTH**.
- 2  Select **Bluetooth Headset**.
- 3  Select the desired Bluetooth headset.
- 4  Message asking to connect the selected Bluetooth headset will be displayed. Select **Yes** or **No**.
- 5  Connect the Bluetooth headset.

- After connecting/using the Bluetooth stereo headset, the headset setting will Disconnected condition automatically when you turn off/on the power of the TV.
- After connecting the Bluetooth stereo headset, the TV speaker is switched to Mute condition and the sound will only be generated from the headset.

# TO USE THE BLUETOOTH

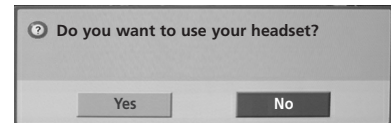
## Disconnecting the Bluetooth headset during use

- 1   Select **BLUETOOTH**.
- 2    Select **Bluetooth Headset**.
- 3  Disconnect the Bluetooth headset.

## When requesting to connect to TV from the Bluetooth headset

When the Bluetooth menu is "On" and there is a connection request from the headset, this message is displayed.

It's only available for the headset in support of this feature. (Refer to the user manual of the applicable Bluetooth headset.)



- 1    Select **Yes** or **No**.

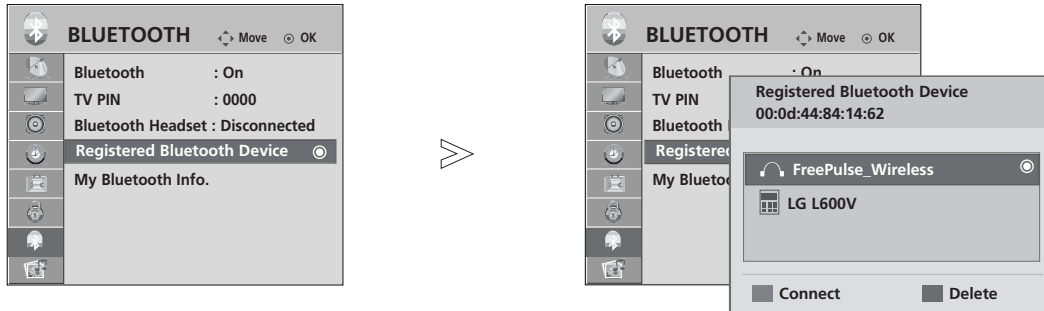
### ! NOTE

- ▶ LG recommends the following headset models. (Model name : MOTOROLA (HT820, S9), Jabra (BT620S, BT8010), Plantronics (Pulsar590), Nokia (BH-501), Sony (DR-BT30Q), Philips (HSB7100), Logitech (Freepulse-Wireless), Idobi (HP-910), LG (HBS250)). It might be audio delay according to the buffering memory size of headset.
- ▶ Only the stereo headset officially certified to be Bluetooth compatible can be searched and connected.
- ▶ Only the stereo headset that supports the A2DP (AV) function among the Bluetooth devices can be connected.
- ▶ The stereo headset that supports only the HF (Hands Free) function among the Bluetooth devices cannot be connected.
- ▶ If the PIN number saved in Bluetooth PIN setting is different from the PIN number described in the user manual of the stereo headset, the device will not be connected. For more details, refer to the user manual of the applicable device.
- ▶ If the surrounding environment of the TV is as follows, the device may not be searched or connected properly.
  - If there is strong electromagnetic wave.
  - If there are many Bluetooth devices.
  - If the stereo headset is turned off, not in place or has an error.
  - Because products such as microwave oven, wireless LAN, plasma light, gas range etc., use the same frequency range, it can cause communication error.
- ▶ Only one stereo headset can be connected at once.
- ▶ You cannot connect other Bluetooth device other than the stereo headset simultaneously.
- ▶ Connection that is lost due to the TV being turned off etc. will not be automatically recovered. Try connecting the applicable device again.
- ▶ Some operations can be slower while operating the headset.
- ▶ Even if you choose simplink Home Theater after using the headset during Simplink operation, the unit will not automatically switch to Home Theater speakers.
- ▶ When the headset connection continuously fails, pair the device one more time.

## MANAGING REGISTERED BLUETOOTH DEVICE

If there are no devices registered, Registered B/T Device menu will be deactivated and cannot be used.

When 12 devices are registered, you cannot register any more devices, and the external device will no longer be able to pair up with the TV. In this case, you should delete one (disconnect first if a device is connected to the TV) and then you can register another device



- 1 Select **BLUETOOTH**.
- 2 Select **Registered Bluetooth Device**.
- 3 Check the registered Bluetooth device.

### ■ Connecting the registered Bluetooth stereo headset

- 1 Select the registered Bluetooth stereo headset you want.
- 2 Message asking to connect the selected Bluetooth device will be displayed.
- 3 Select **Yes** or **No**.

### ■ Deleting registered Bluetooth device

- 1 Select the Bluetooth device you want.
- 2 Message asking to delete the selected Bluetooth device will be displayed.
- 3 Select **Yes** or **No**.

# TO USE THE BLUETOOTH

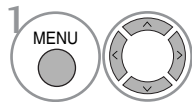
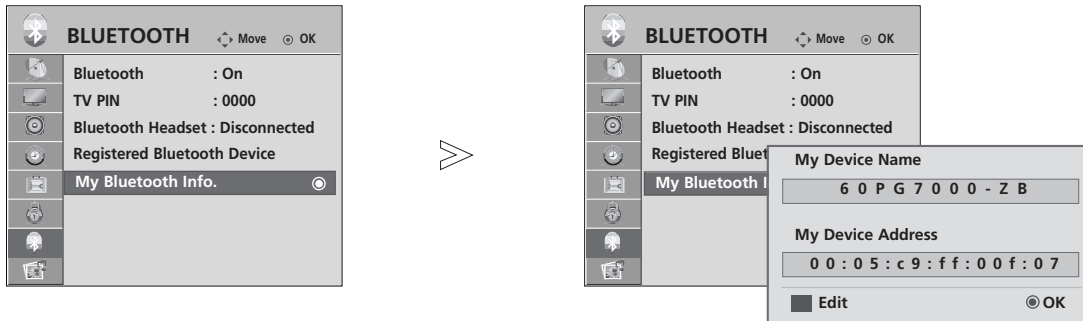
## MY BLUETOOTH INFORMATION

This function provides the My Bluetooth Information to the user.

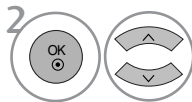
"Edit" will be available when selecting "Bluetooth device- disconnected"

You can edit the My device name.

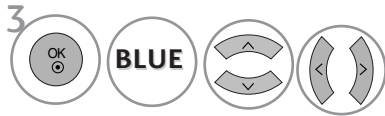
You can check the My device Address.



Select **BLUETOOTH**.



Select **My Bluetooth Info..**



You can use an the alphabet **A** to **Z**, the number **0** to **9**, +/ -, and blank.

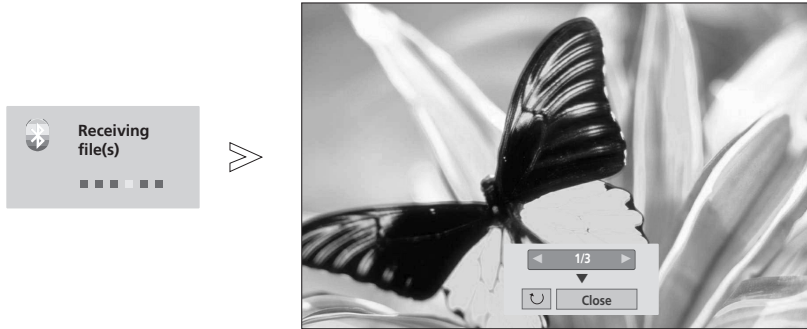


Save.

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

## RECEIVING PHOTOS THROUGH EXTERNAL BLUETOOTH DEVICE

Send the photo from the external Bluetooth device. For details on how to send the photo from the external Bluetooth device, refer to the user manual of the applicable device.




- When you select **Close** with the  $\wedge \vee < >$  button, the OSD will disappear. And when you press the OK button again, it will appear again.



Select the desired photos.

 (**Rotate**) : Rotate photos.

- Rotates the photo 90° clockwise upon **OK** button on  (**Rotate**).

- The maximum accumulated size of the image that can be received is 10MBytes.
- Only the OPP (Object Push Profile) method is supported among the method on sending the image through the Bluetooth cell phone.
- You cannot receive the image while using the Bluetooth stereo headset.
- When the external Bluetooth device is currently sending the photo, press the **RETURN** button to stop receiving the photo. In this all the photos already received will be deleted.

# TO USE THE USB DEVICE

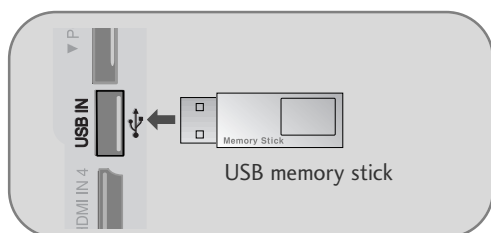
## When connecting the USB device

When you connect a USB device, this screen is displayed, automatically.

“POP UP MENU” will not be displayed while the OSD including Menu, EPG or Schedule list is activated or while the Bluetooth Headset is connected.

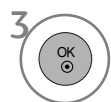
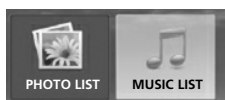
In USB device, you can not add a new folder or delete the existing folder.

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



- It doesn't support USB HDD
- This TV Supports on JPEG and MP3.

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



## When removing the USB device

Select the USB EJECT menu before removing the USB device.



## 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 or image files.
- ▶ Please use only a USB storage device which was formatted as a FAT32 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 which requires an external power supply. If not, the device may not be recognized.
- ▶ Please connect a USB storage device with cable is offered by USB maker. If connected with cable is not offered by USB maker or an excessively long cable, 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.
- ▶ Please up the important file because a data of USB device may be damaged. Data management is consumer's responsibility and in consequence the manufactures does not cover the product bearing data damage.

# PHOTO LIST

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


## PHOTO(\*.JPEG) supporting file

Baseline: 7680 x 4320

- You can play JPEG files only.
- Only baseline scan is supported among JPEG (SOF0, SOF1 only).
- Non-supported files are displayed in the form of bitmap.




## Screen Components

1




Select **USB**.

2

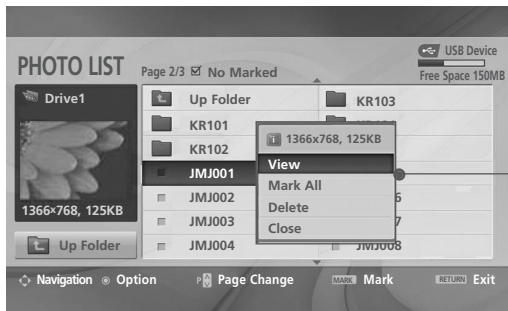
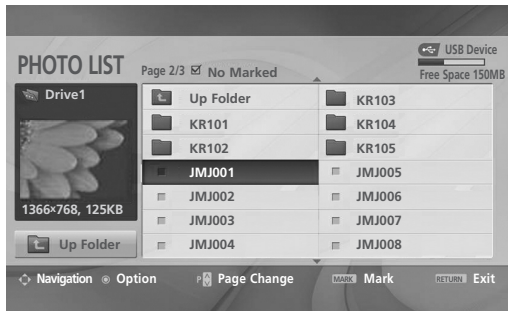
Select **Photo List**.

- ① Moves to upper level file
- ② Current page/Total pages
- ③ Total number of marked photos
- ④ Usable USB memory
- ⑤ Corresponding buttons on the remote control











# TO USE THE USB DEVICE

## 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** : Delete the selected photo item.
- ▶ **Close** : Close the pop-up menu.

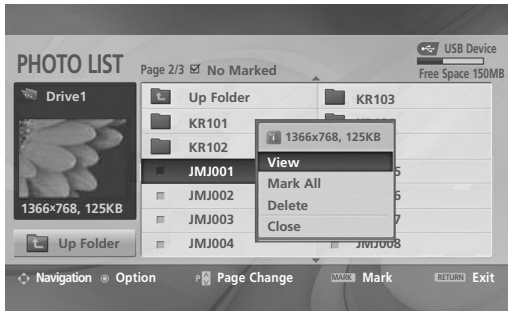
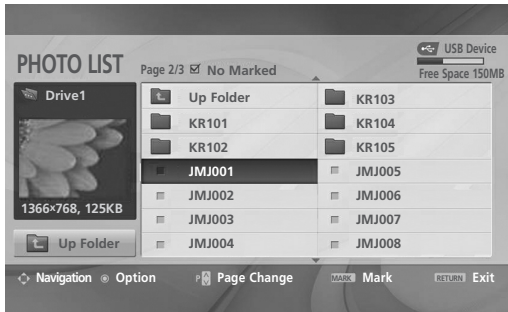
- 1  Select the target folder or drive.
- 2   Select the desired photos.
- 3  Show the PopUp menu.
- 4   Select the desired PopUp menu.

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

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







## Set up the menu in Full-Sized Screen

You can change the settings to display photos stored on a USB device, on a full-sized screen.  
Detailed operations are available on full-sized photo view screen.



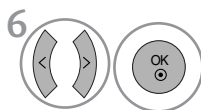
The aspect ratio of a photo may change the size of the photo displayed on the screen in full size.

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** ^ v button to navigation in the photo page.

# TO USE THE USB DEVICE



6 Select the **Slideshow**, **BGM**, **Rotate**, **Delete**, **Option** or **Close**

- Use **^** **v** **<** **>** button to select the previous or next photo.
- Use **^** **v** **<** **>** 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. When selected, the selected photos are displayed during slide show.

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

► **BGM** : Listen to music while viewing photos in full size.

- Set the BGM device and album in **Option**.

► **Rotate** : Rotate photos.

- Rotates the photo 90° clockwise.

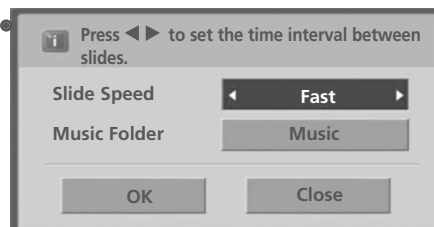
► **Delete** : Delete photos.

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

- Use **<** **>** 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.

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

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



# MUSIC LIST

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.

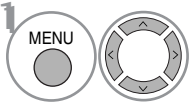
**MUSIC (\*.MP3) supporting file**

Bit rate 32 ~ 320

- Sampling rate MPEG1 layer 3: 32 kHz, 44.1 kHz, 48 kHz.

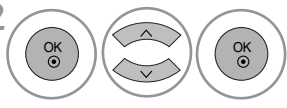
## Screen Components

**1**



Select **USB**.

**2**



Select **Music List**


**1** Moves to upper level file

**2** Current page/Total pages

**3** Total number of marked musics

**4** Usable USB memory

**5** Corresponding buttons on the remote control

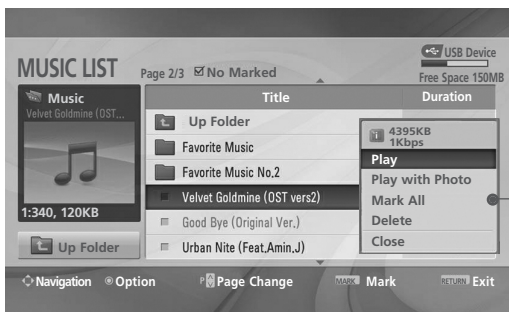
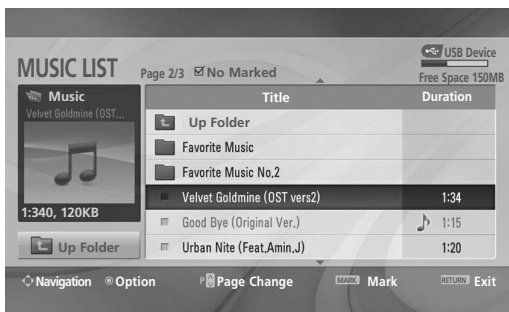


The screenshot shows the 'MUSIC LIST' interface. At the top, it says 'Page 2/3' and 'No Marked'. On the right, it shows 'USB Device' and 'Free Space 150MB'. The main area is a table with 'Title' and 'Duration' columns. The first row is 'Up Folder'. The second row is 'Favorite Music'. The third row is 'Favorite Music No.2'. The fourth row is 'Velvet Goldmine (OST vers2)' with a duration of 1:34. The fifth row is 'Good Bye (Original Ver.)' with a duration of 1:15. The sixth row is 'Urban Nite (Feat.Amin.J)' with a duration of 1:20. At the bottom, there is a navigation bar with buttons: 'Navigation', 'Option', 'Page Change', 'Mark', and 'Exit'.







# TO USE THE USB DEVICE

## Music Selection and PopUp Menu

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



- ▶ **Play (During stop)** : Play the selected musics.  
Once a music finishes playing, the next selected one will be played. When there are no selected musics 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 musics.  
Once a music finishes playing, the next selected one will be played automatically.
- ▶ **Stop Play (During playback)** : Stop the playing musics.
- ▶ **Play with Photo** : Start playing the selected musics and then move to the Photo List.
- ▶ **Mark All** : Mark all musics in the folder.
- ▶ **Unmark All** : Deselect all marked musics.
- ▶ **Delete** : Delete the selected musics.
- ▶ **Close** : Close the pop-up menu.

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

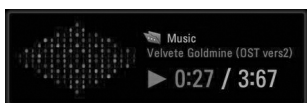
- Use the **P** ^ v button to navigation in the music page.
- Use **MARK** button to mark or unmark a music. When one or more music files are marked, the marked musics will be played in sequence. For example, if you want to listen to only one music repeatedly, just mark the music only and play it. If 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.




- 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 music is playing,  is displayed in back of the music 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.

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

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

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

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

The EPG displays the programme details for next 8 days.



Shows the present screen information.



Displayed with a DTV Programme.



Displayed with a Radio Programme.



Displayed with a MHEG Programme.



Displayed with a Teletext Programme.



Displayed with a Subtitle Programme.



Displayed with a Scramble Programme.



Displayed with a Dolby Programme.

## Switch on/off EPG



Switch on or off EPG.

# Programme Guide

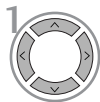
1 YLE TV1		<div>6/ Mar 2006 15:09</div>	
ALL		6/Mar(Mon)	
		14:00	15:00
1 YLE TV1	No Information		Kungskonsumente
2 YLE TV2	No Information	TV2: Farmen	No Information
4 TV..	No Information		
5 YLE FST	No Information		
6 CNN	No Information		
8 YLE24	...	...	Tänään otsikoissa

TV/RAD Radio

☐ Mode
 ☐ Date
 ☐ Manual Timer
 ☐ Schedule List

☒ FAV Favourite
 ☐ INFO Information
 ☒ Pr. Change

## Select a programme



or














Select desired programme.















Display the selected programme.







## Button Function in NOW/NEXT Guide Mode

 <b>RED</b>	Change EPG mode.		Select the Broadcast Programme.
 <b>YELLOW</b>	Enter Timer Record/Remind setting mode.		Page Up/Down.
 <b>BLUE</b>	Enter Timer Record/Remind list mode.	 or 	Switch off EPG.
 <b>OK</b>	Change to the selected programme.		Select TV or RADIO Programme.
	Select NOW or NEXT Programme.		Detail information on or off

## Button Function in 8 Day Guide Mode

 <b>RED</b>	Change EPG mode.		Select the Broadcast Programme.
 <b>GREEN</b>	Enter Date setting mode.		Page Up/Down.
 <b>YELLOW</b>	Enter Timer Record/Remind setting mode.	 or 	Switch off EPG.
 <b>BLUE</b>	Enter Timer Record/Remind list mode.		Select TV or RADIO Programme.
 <b>OK</b>	Change to the selected programme.		Detail information on or off
	Select NOW or NEXT Programme.		

## Button Function in Date Change Mode

 <b>GREEN</b>	Switch off Date setting mode.		Switch off Date setting mode.
 <b>OK</b>	Change to the selected date.	 or 	Switch off EPG.
	Select a date.		

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

## Button Function in Extended Description Box



Text Up/Down.



Enter Timer Record/Remind setting mode.



The detail information on or off.



or



Switch off EPG.

## Button Function in Record/Remind Setting Mode

- This function is available only when recording equipment that use pin8 recording signalling has been connected to the DTV-OUT(AV2) terminal, using a SCART cable.



Change to Guide or Timer list mode.



Save Timer Record/Remind.



Select Type, Service, Date or Start/End time.



Function setting.

## Button Function in Schedule List Mode



Add new Manual Timer setting mode.



Enter **Schedule List** editing mode.



Delete the selected item.



Change to Guide mode.



Select **Schedule List**.

# PICTURE CONTROL

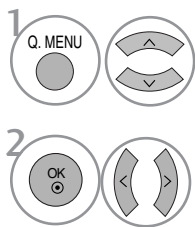
## PICTURE SIZE (ASPECT RATIO) CONTROL

You can watch the screen in various picture formats; 16:9, Just Scan, Original, 4:3, 14:9 and Zoom1/2.

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.



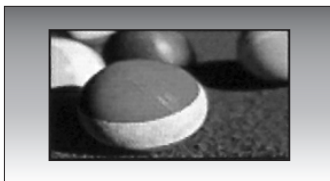
Select **Aspect Ratio**.

Select the desired picture format.

- You can also adjust **Aspect Ratio** in the **PICTURE** menu.
- For Zoom Setting, select **14:9**, **Zoom1** and **Zoom2** in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.

### • 16:9

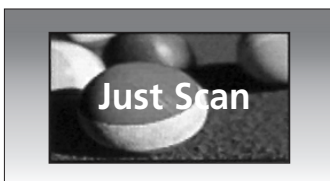
The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen(useful for viewing 4:3 formatted DVDs).



### • Just Scan

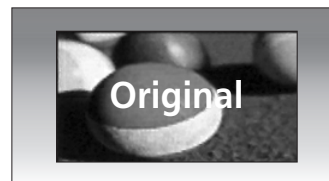
Following Selection will lead to you view the picture of best quality without loss of original picture in high resolution image.

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 ration, gray bars will appear on both the left and right of the screen.



# PICTURE CONTROL

## • 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.



## • Zoom1

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.



## • Zoom2

Choose Zoom 2 when you wish the picture to be altered, both horizontally extended and vertically cropped. The picture adopting a compromise between alteration and screen coverage.

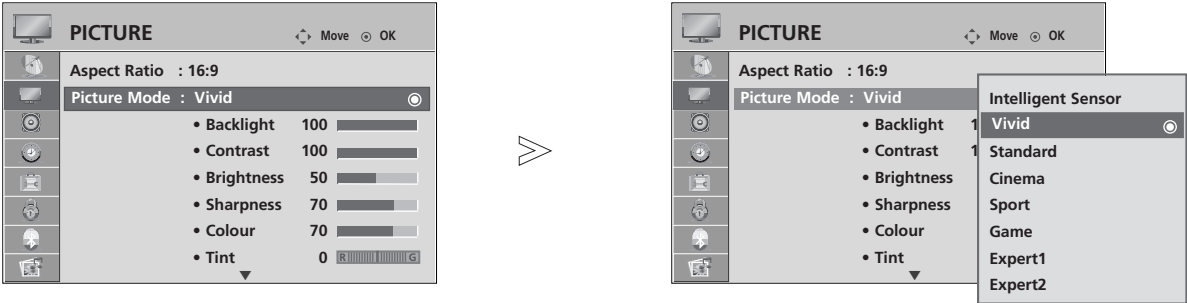


## ! NOTE



- ▶ You can only select **4:3**, **16:9 (Wide)**, **14:9**, **Zoom 1/2** in Component, HDMI mode.
- ▶ You can only select **4:3**, **16:9 (Wide)** in RGB mode only.
- ▶ In HDMI/Component (over 720p) mode, **Just Scan** is available.

# PRESET PICTURE SETTINGS



## Picture Mode-Preset





- 1



Select **PICTURE**.
- 2



Select **Picture Mode**.
- 3



Select **Intelligent Sensor**(LCD TV only), **Vivid**, **Standard**, **Cinema**, **Sport** or **Game**.

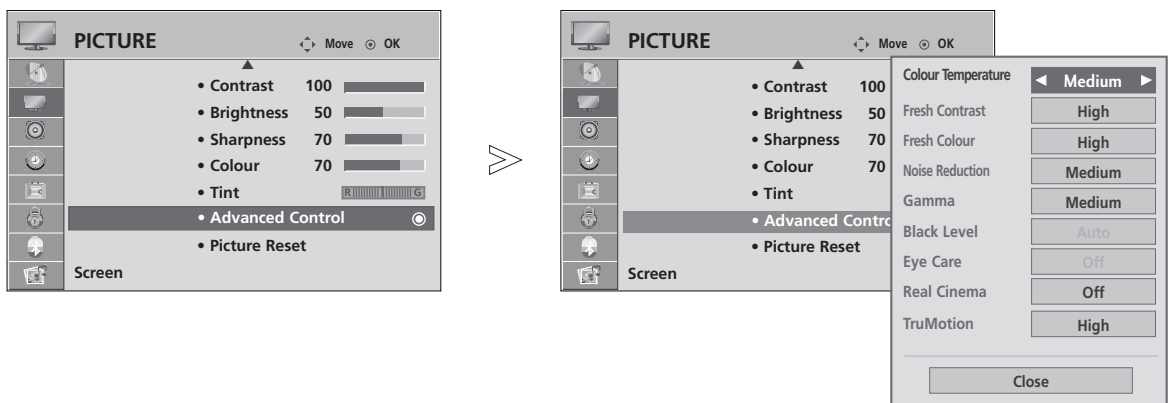
- **Picture Mode** adjusts the TV for the best picture appearance. Select the preset value in the **Picture Mode** menu based on the programme category.
- When the Intelligent sensor function is on, the most suitable picture is automatically adjusted according to the surrounding conditions. (LCD TV only)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









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

# PICTURE CONTROL

## Auto Colour Tone Control (Warm/Medium/Cool)

Choose one of three automatic colour adjustments. Set to warm to enhance hotter colours such as red, or set to cool to see less intense colours with more blue.



1.   Select **PICTURE**.
2.   Select **Advanced Control**.
3.   Select **Colour Temperature**.
4.   Select either **Cool**, **Medium** or **Warm**.

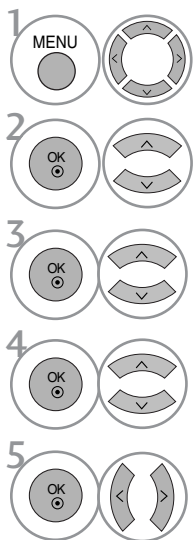
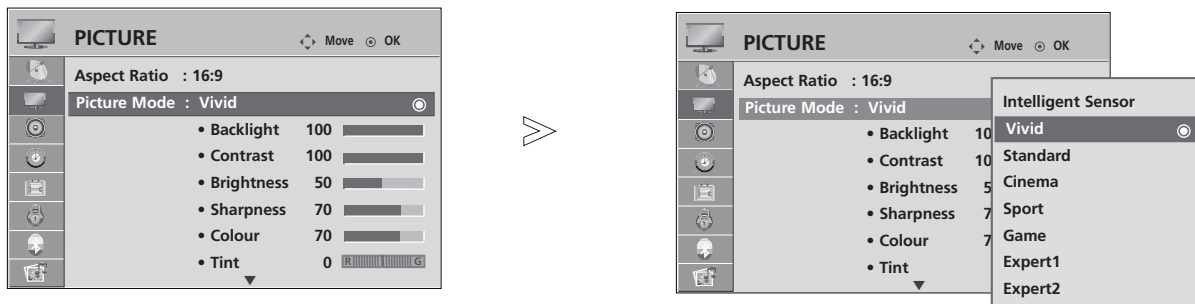
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# MANUAL PICTURE ADJUSTMENT

## Picture Mode-User option

- **Backlight** (LCD TV Only)  
To control the brightness of the screen, adjust the brightness of LCD panel.
- **Contrast**  
Adjusts the difference between light and dark levels in the picture.
- **Brightness**  
Increases or decreases the amount of white 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.

It is not available to use this function in “**Intelligent Sensor**(LCD TV only)”.



Select **PICTURE**.

Select **Picture Mode**.

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

Select **Backlight**(LCD TV only), **Contrast, Brightness, Sharpness, Colour or Tint**.

Make appropriate adjustments.

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

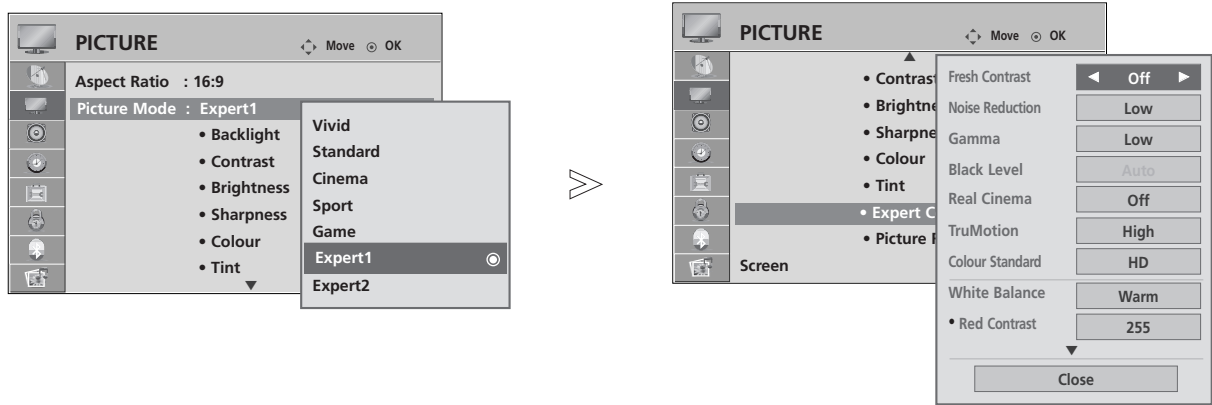
### ! NOTE












- ▶ You cannot adjust colour, sharpness and tint in the RGB-PC mode.

# PICTURE CONTROL

## Picture Mode-Expert 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.



- 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 IMPROVEMENT TECHNOLOGY

## Fresh Contrast

Optimizes the contrast automatically according to the brightness of the reflection.

## Fresh Colour

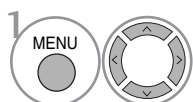
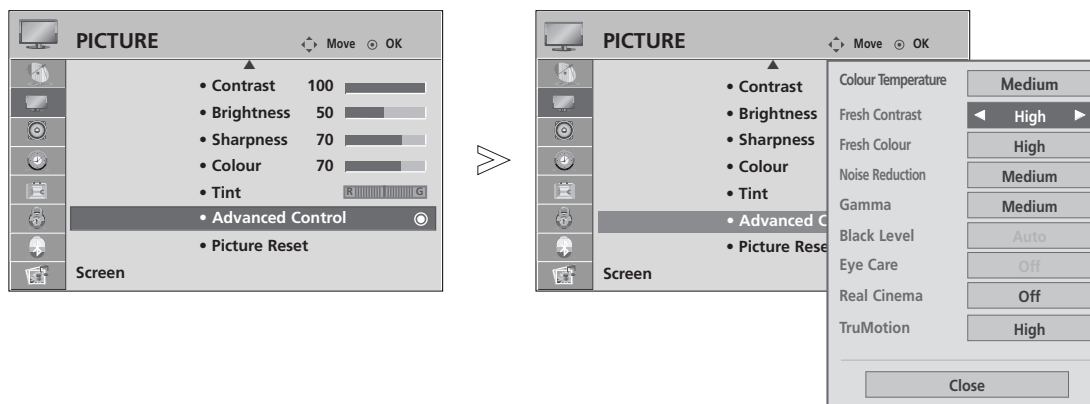
Adjusts the colour of the reflection automatically to reproduce as close as possible natural colours.

## Noise Reduction

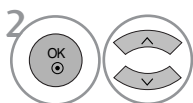
Removes interference up to the point where it does not damage the original picture.

## Gamma.

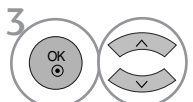
High gamma values display whitish images and low gamma values display high contrast images.



Select **PICTURE**.



Select **Advanced Control**.



Select **Fresh Contrast, Fresh Colour, Noise Reduction or Gamma**.



Select your desired Source.

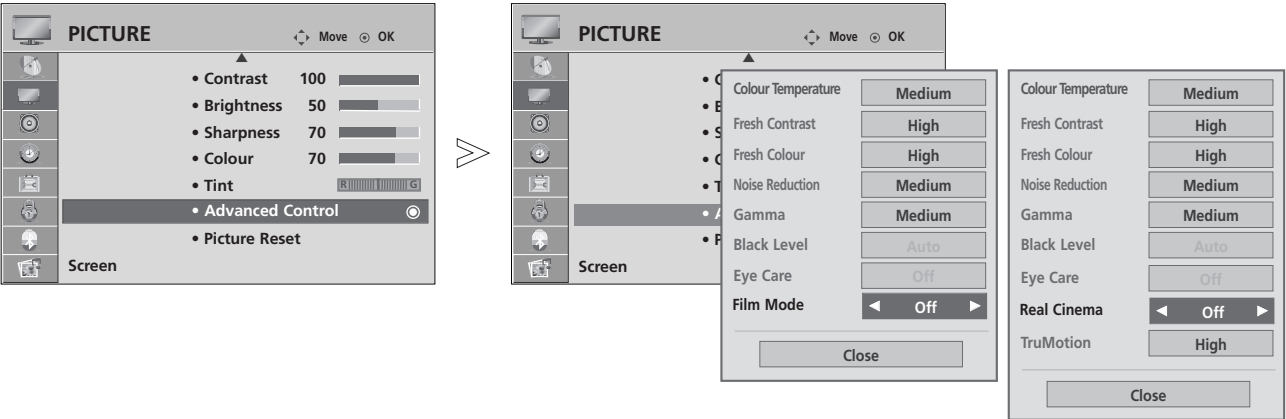
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PICTURE CONTROL

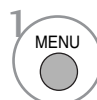







## ADVANCED - FILM MODE/ REAL CINEMA(37/42/47/52LG70\*\* Only)

To set the TV up for the best picture quality for viewing films.

This feature operates only in TV, AV and Component 480i/576i/1080i mode(Film Mode only).



37/42/47/52LG70\*\* Only

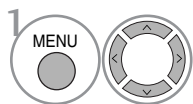
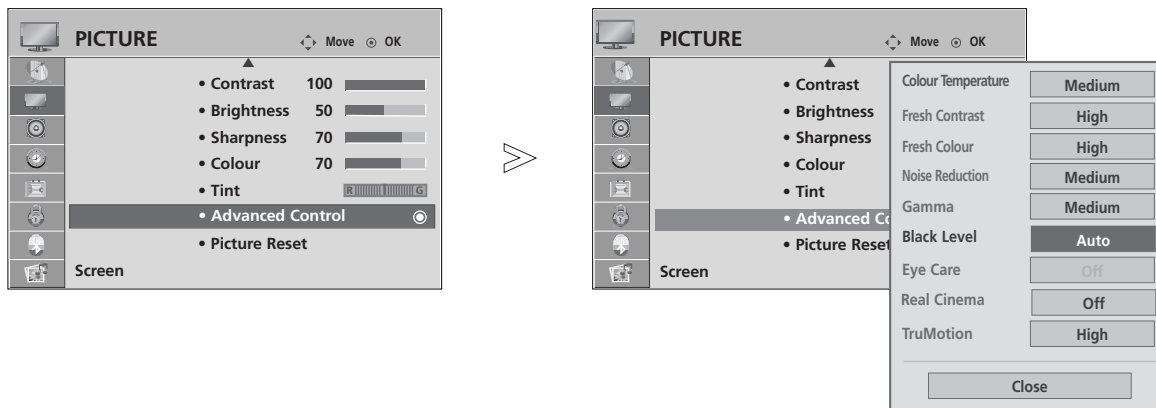
- 1   Select **PICTURE**.
- 2   Select **Advanced Control**.
- 3   Select **Film Mode**(or **Real Cinema**(37/42/47/52LG70\*\* Only)).
- 4   Select **On** or **Off**.

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

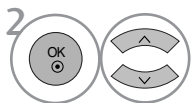
## ADVANCED - BLACK(DARKNESS) LEVEL

When you view a film this function adjusts the TV to best picture quality.

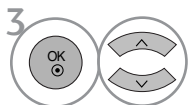
This function works in the following mode: AV (NTSC-M), HDMI or Component .



Select **PICTURE**.



Select **Advanced Control**.



Select **Black Level**.



Select **Low** or **High**.

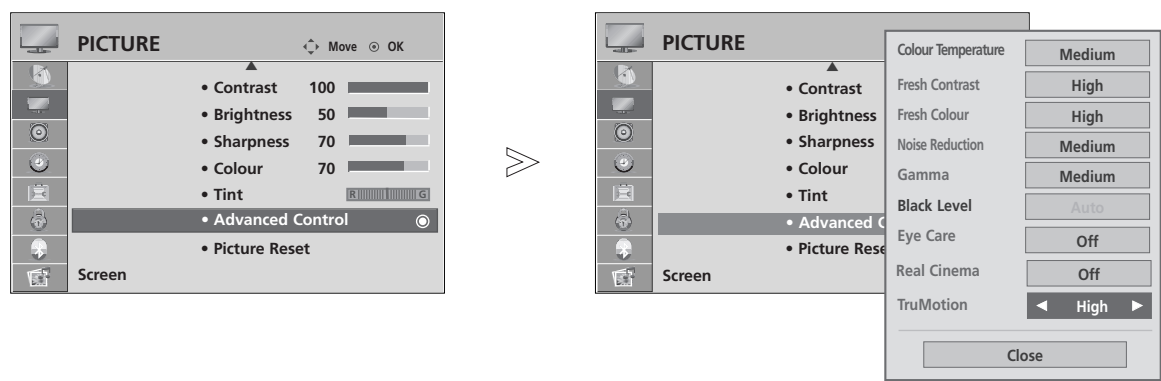
- **Low** : The reflection of the screen gets darker.
- **High** : The reflection of the screen gets brighter.
- **Auto** : Realizing the black level of the screen and set it to High or Low automatically.








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

# PICTURE CONTROL

## ADVANCED - TRUMOTION (37/42/47/52LG70\*\* Only)

It is used for the best picture quality without any motion blur or judder when you enter a quick image or Film Source.  
This feature is disable in RGB-PC,HDMI-PC mode.



-   Select **PICTURE**.
-   Select **Advanced Control**.
-   Select **TruMotion**.
-  Select **Off, Low or High**.

- **High**  
Provides smoother picture movement.
- **Low**  
Provides smooth picture movement. Use this setting for standard use.
- **Off**  
Use this setting when "High" and "Low" setting result in noise.

- If you enable "TruMotion", noise may appear on the screen.
- If this occurs, set "TruMotion" to "Off".

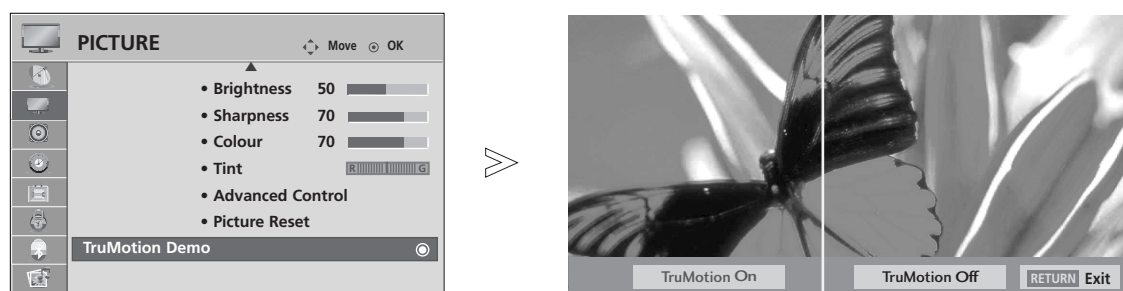
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

## TRUMOTION DEMO (37/42/47/52LG70\*\* Only)

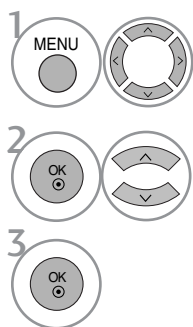
Use it to see the difference between TruMotion Demo on and TruMotion Demo off.

It's not available to use this function in RGB[PC], HDMI[PC] mode.

If you select TruMotion Demo during operating bluetooth headset, bluetooth headset is disconnected.



■ Image shown may differ from your TV.



Select **PICTURE**.

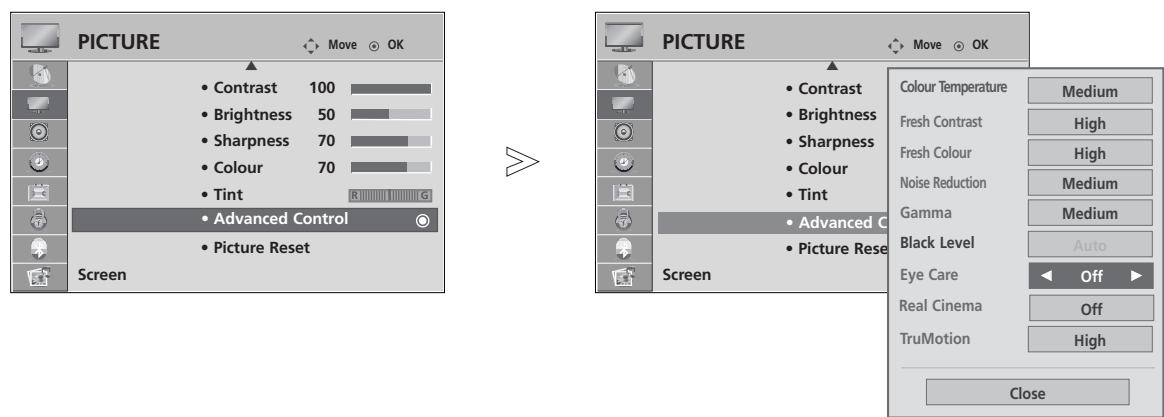
Select **TruMotion Demo**.


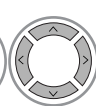

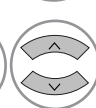

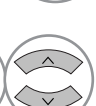


• Press the **RETURN** button to return to normal TV viewing.

# PICTURE CONTROL

## EYE CARE (LCD TV ONLY)

It helps you adjust brightness when the screen is too bright to prevent dazzling.

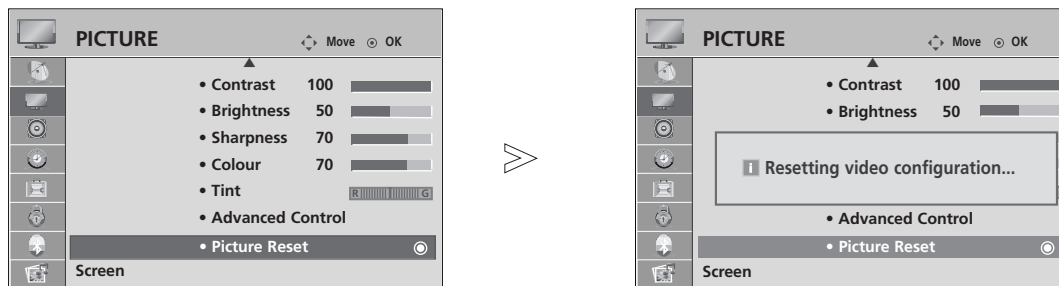







-   Select **PICTURE**.
-   Select **Advanced Control**.
-   Select **Eye Care**.
-   Select **On** or **Off**.

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

# PICTURE RESET

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



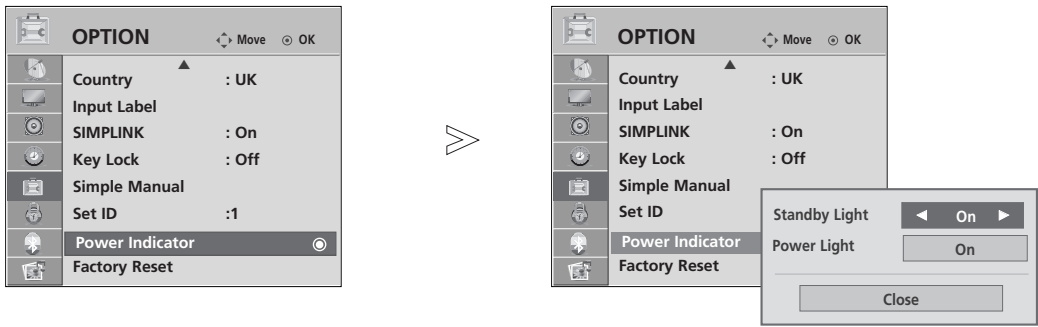
- 1   Select **PICTURE**.
- 2   Select **Picture Reset**.
- 3  Initialize the adjusted value.

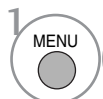

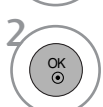
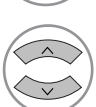
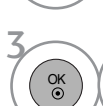


- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PICTURE CONTROL

## POWER INDICATOR (LCD TV ONLY)

It helps you adjust the brightness of moving LED and sound when power is turned on.



-   Select **OPTION**.
-   Select **Power Indicator**.
-   Select **Standby Light** or **Power Light**.
-  Select your desired Source.

- 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 (PLASMA TV ONLY)

A frozen or still picture from a PC/Video game 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.

## White Wash

White wash removes permanent images from the screen.

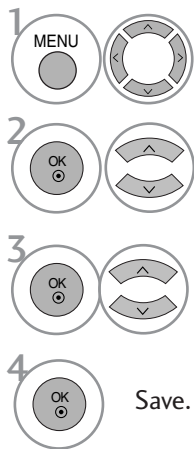
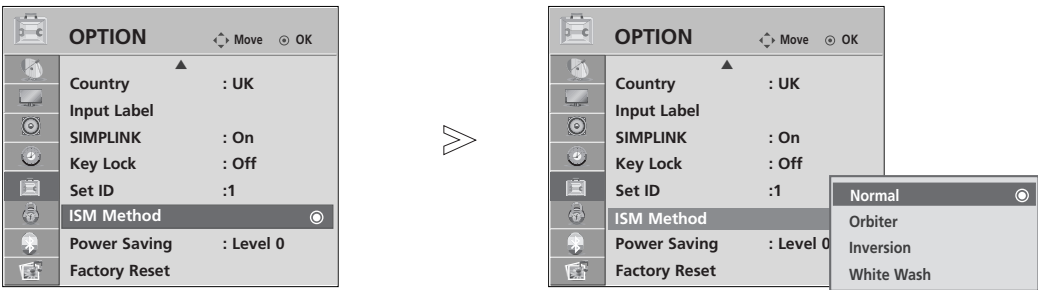
Note: An excessive permanent image may be impossible to clear entirely with White Wash.

## 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.

## Inversion

This function inverts the panel colour of the screen. The panel colour is automatically inverted every 30 minutes.



Select **OPTION**.

Select **ISM Method**.

Select **Normal, Orbiter, Inversion or White Wash**.

Save.

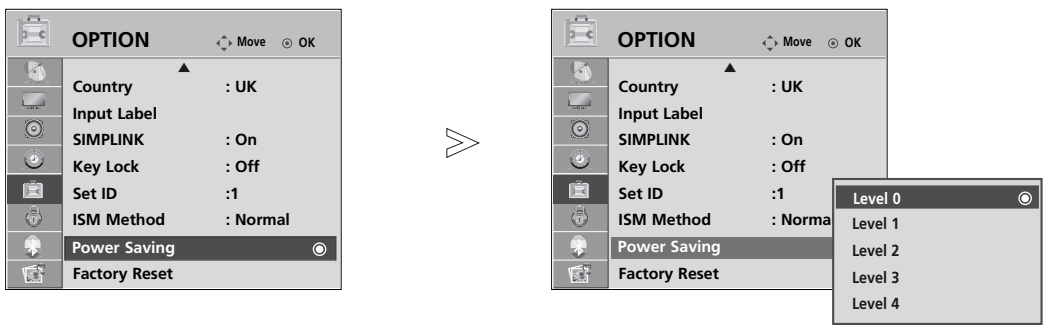
• If you do not need this function, set **Normal**.

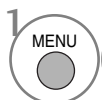

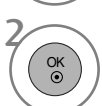
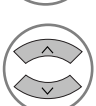
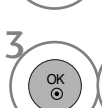

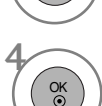
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PICTURE CONTROL

## POWER SAVING PICTURE MODE (PLASMA TV ONLY)

This function allows you to reduce the power consumption of the TV.



- 1   Select **OPTION**.
- 2   Select **Power Saving**.
- 3   Select **Level 0, Level 1, Level 2, Level 3 or Level 4**.
- 4  Save.

- Level 0 is the brightest.
- You can also adjust **Power Saving** in the **Q. Menu**.

### ! NOTE

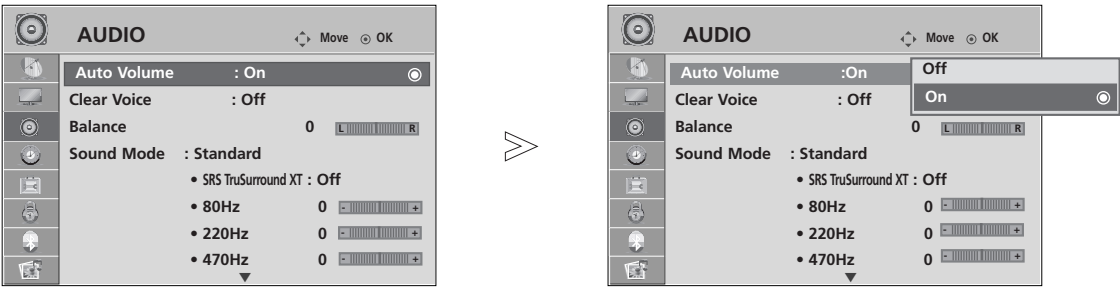
- The default factory setting complies with the **Energy star** requirements and is adjusted to the comfortable level to be viewed at home.  
You can increase the brightness of your screen by adjusting the **Power Saving Level** or by setting the **Picture Mode**.


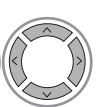
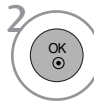
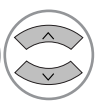


- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# SOUND & LANGUAGE CONTROL

## AUTO VOLUME LEVELER

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



-   Select **AUDIO**.
-   Select **Auto Volume**.
-   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.

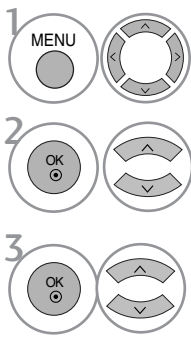
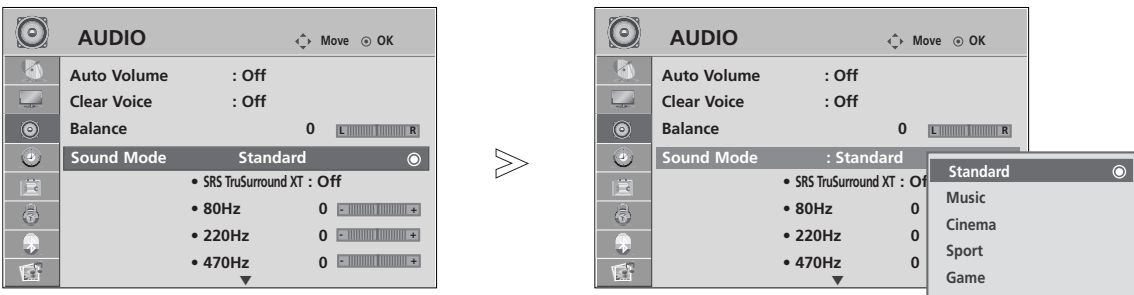
# SOUND & LANGUAGE CONTROL

## PRESET SOUND SETTINGS-SOUND MODE

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

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.



Select **AUDIO**.

Select **Sound Mode**.

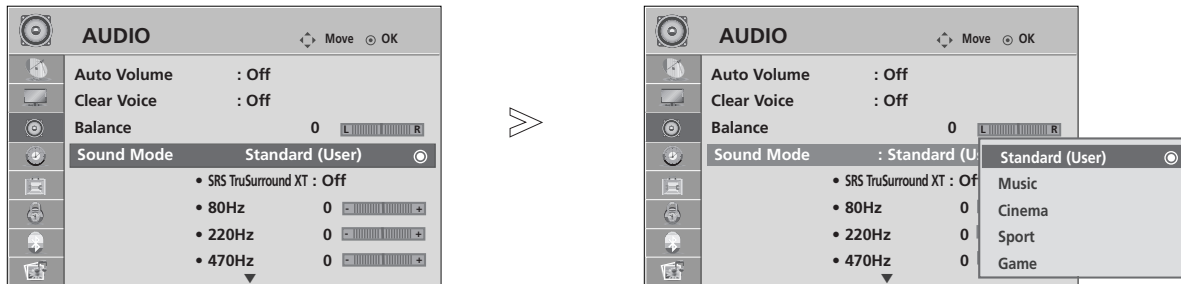
Select **Standard, Music, Cinema, Sport or Game**.











• 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

Adjusting the audio equalizer.




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

## SRS TRUSURROUND XT

- 1   Select **AUDIO**.
- 2   Select **SRS TruSurround XT**.
- 3   Select **On** or **Off**.

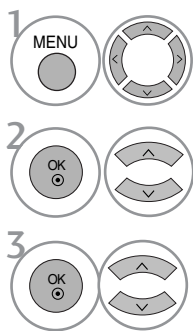
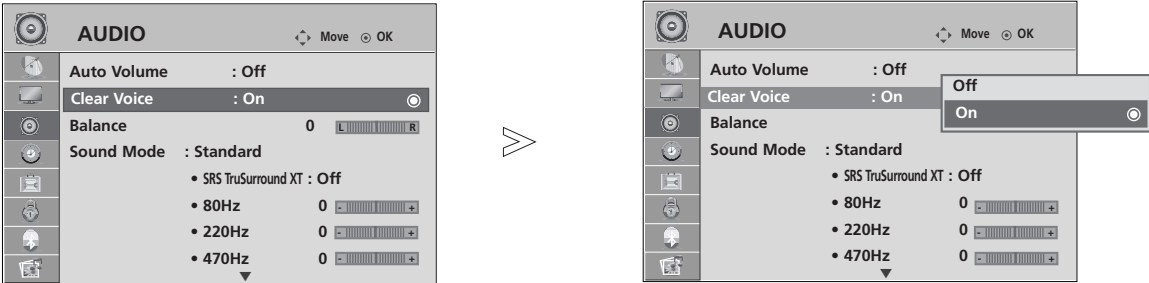
**SRS TruSurround XT** Select this option to sound realistic.

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

# SOUND & LANGUAGE CONTROL

## CLEAR VOICE

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



Select **AUDIO**.

Select **Clear Voice**.

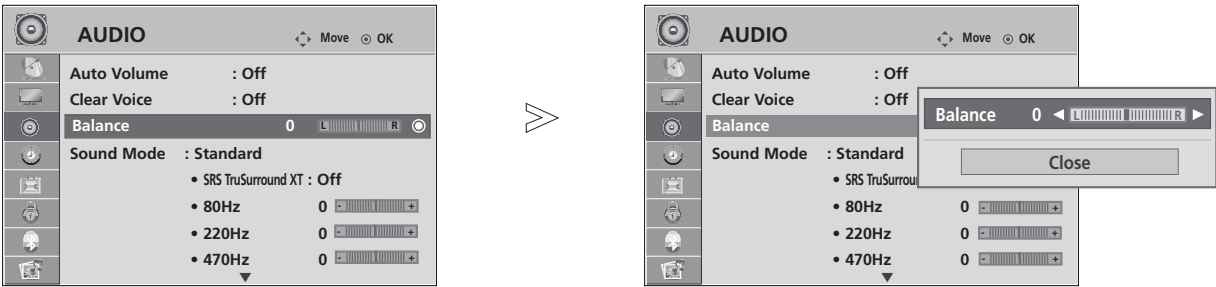
Select **On** or **Off**.

• If you select “On” for **Clear Voice**, **SRS TruSurround XT** feature will not work.

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

# BALANCE

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



-   Select **AUDIO**.
-   Select **Balance**.
-   Make desired adjustment.

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

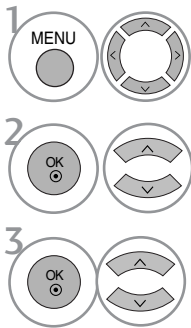
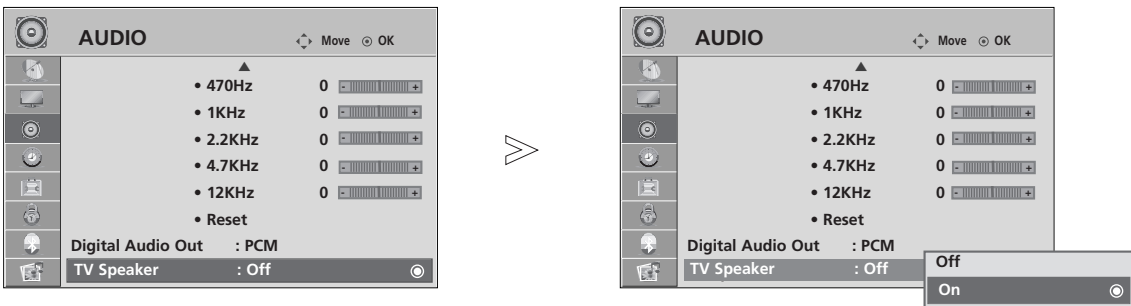
# SOUND & LANGUAGE CONTROL

## TV SPEAKERS ON/ OFF SETUP

You can adjust the TV internal speaker status.

In **AV1**, **AV2**, **AV3**, **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 internal speakers.



Select **AUDIO**.

Select **TV Speaker**.

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.

## SELECTING DIGITAL AUDIO OUT

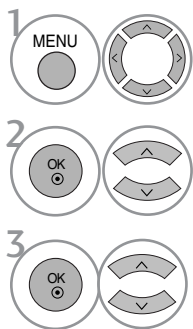
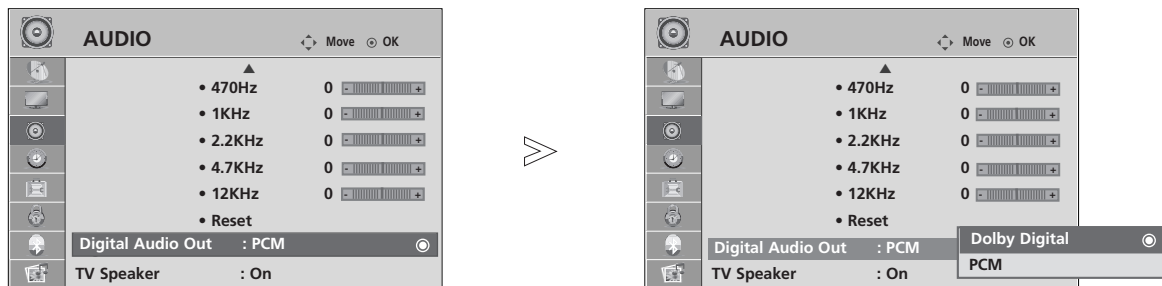
This function allows you to select your preferred Digital Audio Output.

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

When Dolby digital is available, selecting Dolby Digital in the Digital Audio Out menu will set SPDIF output to Dolby Digital

If Dolby Digital is selected in the digital audio out menu when dolby digital is not available, SPDIF output will be PCM.

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.



Select **AUDIO**.

Select **Digital Audio Out**.

Select **Dolby Digital** or **PCM**.



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

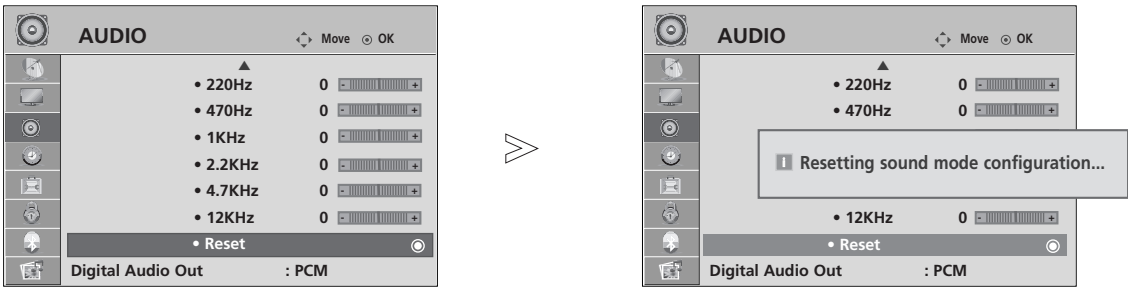
- There is a possibility that when HDMI mode, some DVD players do not make SPDIF sound. At that time, set the output of the digital audio of the DVD player to PCM.

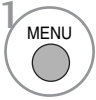
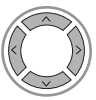
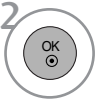
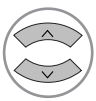

- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# SOUND & LANGUAGE CONTROL

## AUDIO RESET

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



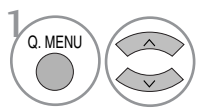
- 1   Select **AUDIO**.
- 2   Select **Reset**.
- 3  Initialize the adjusted value.

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

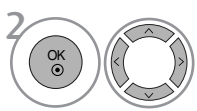
# Stereo/Dual Reception (In Analogue Mode Only)

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

- 1



Select **Audio**.
- 2



Select the sound output.

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

- Mono sound selection

If the stereo signal is weak in stereo reception, you can switch to mono. In mono reception, the clarity of sound is improved.
- Language selection for dual language broadcast

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

DUAL I

Sends the primary broadcast language to the loudspeakers.

DUAL II

Sends the secondary broadcast language to the loudspeakers.

DUAL I+II

Sends a separate language to each loudspeaker.

# SOUND & LANGUAGE CONTROL

## NICAM Reception (In Analogue Mode Only)

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

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

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

## Speaker Sound Output Selection

In 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.

## ON-SCREEN MENU LANGUAGE / COUNTRY SELECTION

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



1   Select your desired language.

2   Select your country.

\* If you want to change Language/ Country selection

1   Select **OPTION**.

2   Select **Menu Language** or **Country**.

3   Select your desired language or country.

4  Save.

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

### ! NOTE

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

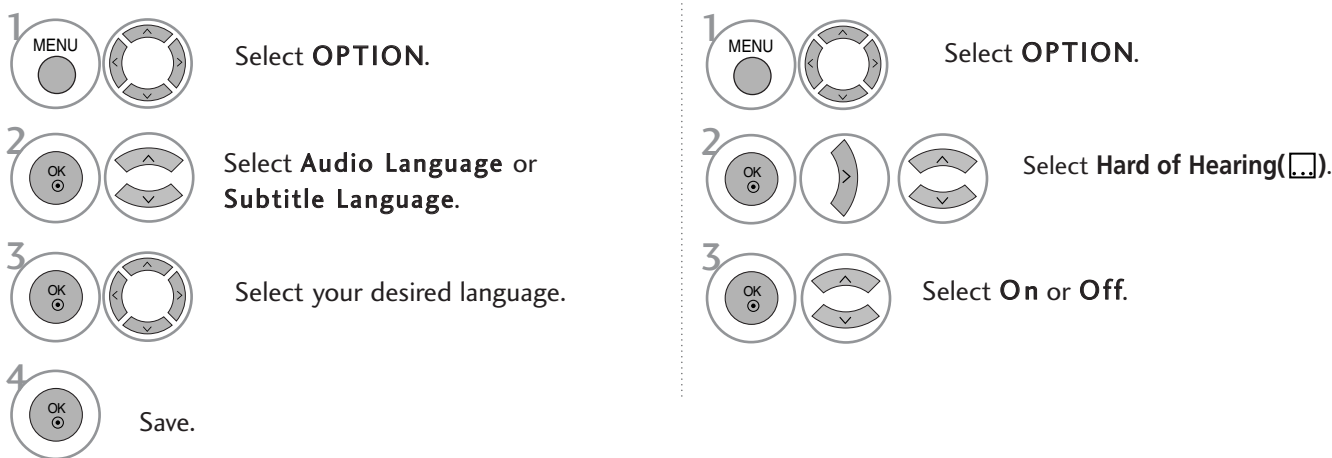
# SOUND & LANGUAGE CONTROL

## 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.

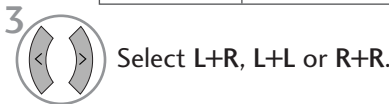
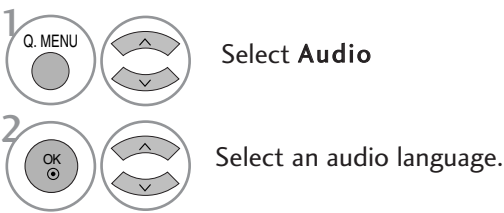
When the languages you selected as the primary for Audio Language and Subtitle Language are not supported, you can select language in secondary category.



• 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.



### Audio Language OSD Information

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

### < Subtitle Language Selection >

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

### Subtitle Language OSD Information

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

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








# 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, date, or time option.
-  Set the year, date, and time options.

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

# TIME SETTING

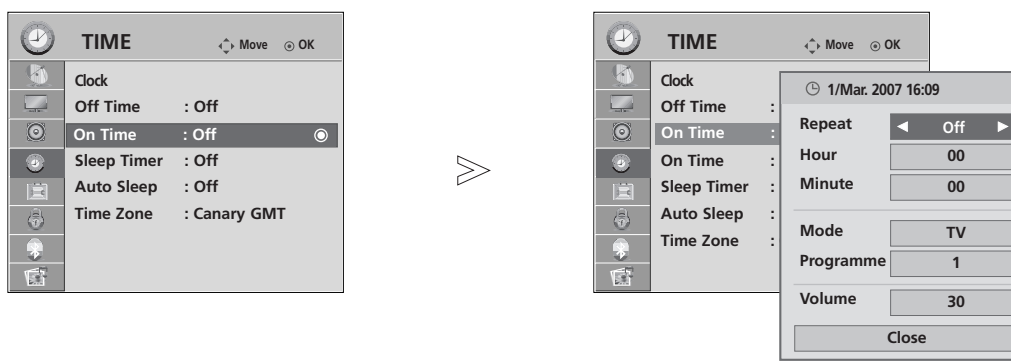
## AUTO ON/OFF TIMER SETTING

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 timer function if both are set to the same time.

The TV must be in standby mode for the On timer 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.

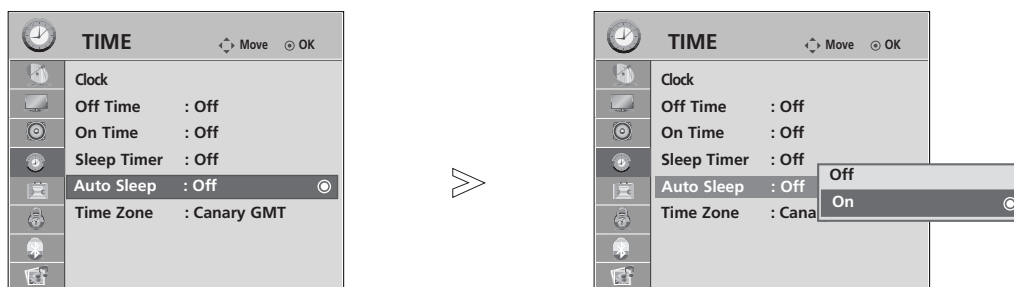
- To cancel **On/Off Time** function, select **Off**.
- For **On Time** function only







- 1 Select **Mode**.
- 2 Select **TV, DTV or Radio**.
- 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.

# AUTO SHUT-OFF SETTING

If the TV is switched on and there is no input signal, it will switch off automatically after 10 minutes.



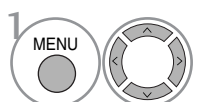
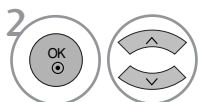
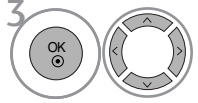
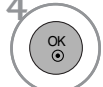
1.   Select **TIME**.
2.   Select **Auto Sleep**.
3.   Select **Off** or **On**.

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

# TIME SETTING

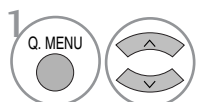
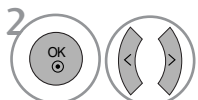
## TIME ZONE SETUP

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

- 1  Select **TIME**.
- 2  Select **Time Zone**.
- 3  Select your viewing area time zone.
- 4  Confirm it.

## SLEEP TIMER SETTING

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

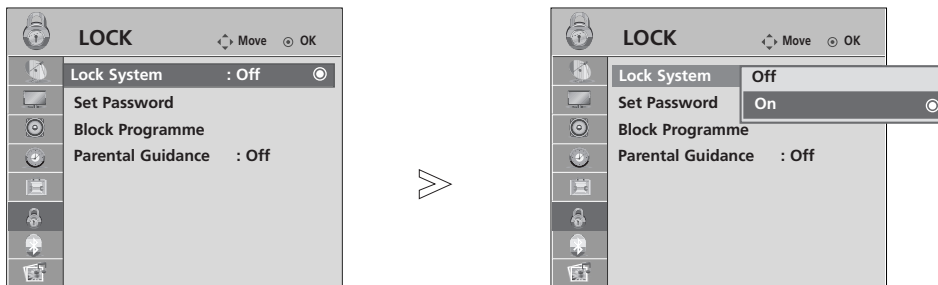
- 1  Select **Sleep Timer**.
- 2  Select **Off, 10, 20, 30, 60, 90, 120, 180 or 240 Min.**











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

# PARENTAL CONTROL / RATINGS

## SET PASSWORD & LOCK SYSTEM

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



- 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.

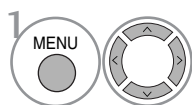
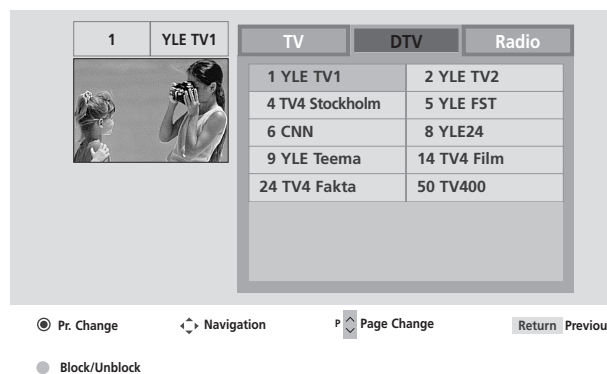
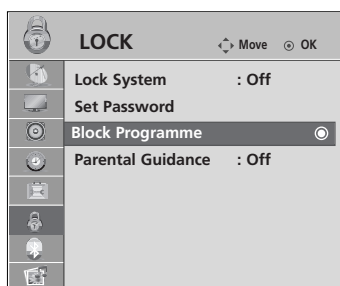
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

# PARENTAL CONTROL / RATINGS

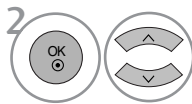
## BLOCK PROGRAMME

Blocks any programmes 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"**.



Select **LOCK**.



Select **Block Programme**.



Enter the **Block Programme**.



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.

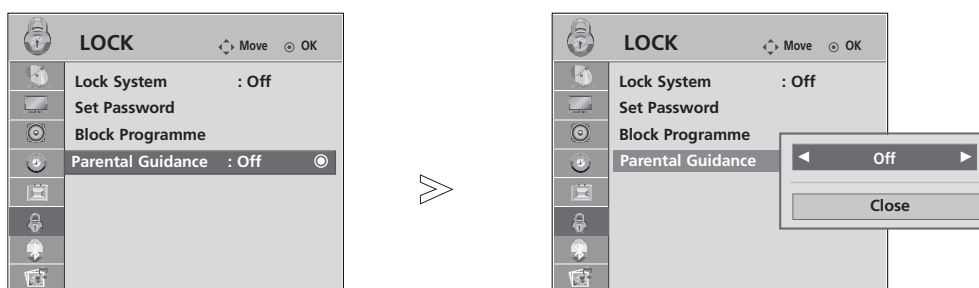
# PARENTAL CONTROL








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.



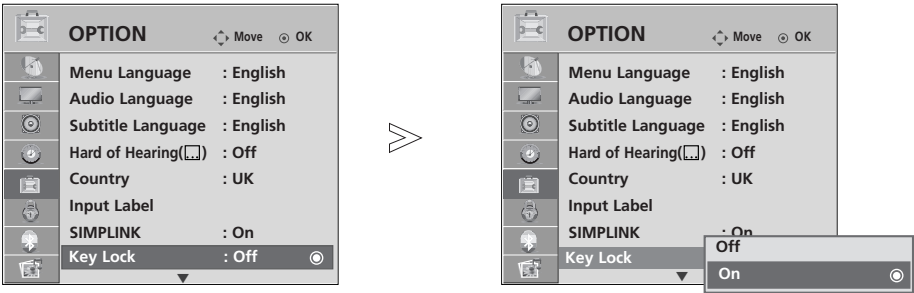
- 1   Select **LOCK**.
- 2   Select **Parental Guidance**.
- 3   Make appropriate adjustments.
- 4  Save.

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

# PARENTAL CONTROL / RATINGS

## 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  $\phi$  / 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.

- 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**  $\wedge$   $\vee$  button can be used to select the preceding or following page.

## TOP TEXT

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

### ■ Block / group / page selection

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

### ■ Direct page selection


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

# TELETEXT

## 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.



### ■ 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.



### ■ TIME

When viewing a TV programme, select this menu to display the time at the top right hand corner of the screen. In the teletext mode, press this button to select a sub page number. The sub page number is displayed at the bottom of the screen. To hold or change the sub page, press the RED/GREEN,  $< >$  or NUMBER buttons.



### ■ HOLD

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

# DIGITAL TELETEXT

\*This function works in UK only.

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

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

## TELETEXT WITHIN DIGITAL SERVICE

- 1 Press the numeric or **P**  $\wedge$   $\vee$  button to select a digital service which broadcasts digital teletext.  
To know which are digital teletext services, refer to the EPG service list.
- 2 Follow the indications on digital teletext and move onto the next step by pressing **TEXT**, **OK**,  $\wedge$   $\vee$   $<$   $>$ , **RED**, **GREEN**, **YELLOW**, **BLUE** or **NUMBER** buttons and etc..
- 3 To change digital teletext service, select a different service by the numeric or **P**  $\wedge$   $\vee$  button.



## TELETEXT IN DIGITAL SERVICE

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

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



# APPENDIX

## TROUBLESHOOTING

### The TV does not operate properly.

The remote control does not work

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

Power is suddenly turned off

- Is the sleep timer set?
- Check the power control settings. Has the Power supply been interrupted.
- Is Auto sleep activated on this station?

### 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 HDMI cable over version 1.3.  
If the HDMI cables don't support HDMI version 1.3, it can cause flickers or no screen display. In this case use the latest cables that support 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 1.1.</li> </ul> <p style="text-align: right;">*This feature is not available for all models.</p>

### 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>In Store</b> mode. To switch to <b>Home</b> mode you should do the followings: From the TV Menu, choose <b>OPTION</b> -&gt; <b>Factory Reset</b> -&gt; <b>Yes</b> (wait for a few seconds for the TV to download again) -&gt; OSD "<b>WELCOME</b>" appears -&gt; Press <b>OK</b> button -&gt; Choose <b>Language</b> -&gt; Choose <b>Home</b> -&gt; Select your <b>Country</b> and <b>Time Zone</b> -&gt; Press <b>OK</b> button. Program search will begin automatically (You can stop the search by pressing the <b>OK</b> button). Now, you have completed switching to the <b>Home</b> mode.</li> </ul>
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# 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		32LG70**	37LG70**	42LG70**
		32LG7000-ZA	37LG7000-ZA	42LG7000-ZA
Dimensions (Width x Height x Depth)	with stand	797 x 597 x 227.3 mm 31.3 x 23.5 x 8.9 inches	918.6 x 684.8x 293.4mm 36.2x 26.9 x 11.6 inches	1026.2 x 734 x 293.4 mm 40.4 x 28.8 x 11.5 inches
	without stand	797x 558.6x 100.5mm 31.3 x 21.9 x 3.9 inches	918.6x 635.8x 111.7mm 36.2x 25 x 4.4 inches	1026.2 x 6879 x 111.8 mm 40.4 x 270 x 4.4 inches
Weight	with stand	13.0kg / 28.7 lbs	18.5kg / 40.8 lbs	22.1 kg / 48.7 lbs
	without stand	11.5kg /25.4 lbs	15.8 kg / 34.8lbs	19.4 kg / 42.8lbs
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz
Power Consumption		180W	180W	230W
MODELS		47LG70**	52LG70**	
		47LG7000-ZA	52LG7000-ZA	
Dimensions (Width x Height x Depth)	with stand	1140.4 x 820.1 x 342.9 mm 44.8 x 32.2 x 13.5 inches	1284.4 x 898.6 x 342.9 mm 50.5 x 35.3 x 13.5 inches	
	without stand	1140.4 x 764.8 x 129.0 mm 44.8 x 30.1 x 5.0 inches	1284.4 x 844.6 x 129.5 mm 50.5 x 33.2 x 5.1 inches	
Weight	with stand	29.8 kg / 65.7lbs	39.5 kg / 87.1 lbs	
	without stand	25.1 kg / 55.3 lbs	34.8kg / 76.7lbs	
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	
Power Consumption		300W	350W	
Television System		PAL/SECAM B/G/D/K, PAL I/II, SECAM L/L'		
Program Coverage		VHF: E2 ~ E12, UHF: E21 ~ E69, CATV: S1 ~ S20, HYPER: S21 ~ S47		
External Antenna Impedance		75 Ω		
Environment condition	Operating Temperature	0 ~ 40°C / 32 ~ 104°F		
	Operating Humidity	Less than 80%		
	Storage Temperature	-20 ~ 60°C / -4 ~ 140°F		
	Storage Humidity	Less than 85%		

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

# APPENDIX

MODELS		50PG70** 50PG7000-ZB	60PG70** 60PG7000-ZB
Dimensions (Width x Height x Depth)	with stand	1235.6 x 849.3 x 364.1 mm 48.6 x 33.4 x 14.3 inches	1455 x 985 x 414 mm 57.3 x 38.8 x 16.3 inches
	without stand	1235.6 x 792.8 x 79.6 mm 48.6 x 31.2 x 3.1 inches	1455 x 924.8 x 84.1 mm 57.3 x 36.4 x 3.3 inches
Weight	with stand	45.65 kg / 100.6 lbs	62.4kg / 137.6 lbs
	without stand	41.7kg / 91.9lbs	54.9 kg / 121.0 lbs
Power requirement Power Consumption		AC100-240V~ 50/60Hz 520W	AC100-240V~ 50/60Hz 700W
Television System Program Coverage External Antenna Impedance		PAL/SECAM B/G/D/K, PAL I/II, SECAM L/L' VHF: E2 ~ E12, UHF: E21 ~ E69, CATV: S1 ~ S20, HYPER: S21 ~ S47 75 Ω	
Environment condition	Operating Temperature	0 ~ 40°C / 32 ~ 104°F	
	Operating Humidity	Less than 80%	
	Storage Temperature	-20 ~ 60°C / -4 ~ 140°F	
	Storage Humidity	Less than 85%	

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

# PROGRAMMING THE REMOTE CONTROL

The remote control is a multi brand or universal remote. It can be programmed. to operate most remote controlled devices from other manufacturers.

Note that the remote control may not control all models from other brands.

## Programming a code into a remote mode

- 1 Testing your remote control.  
To find out whether your remote control can operate other components without programming, turn on a component such as a STB and press the corresponding mode button (such as a **STB**) on the remote control, while pointing at the component. Test the POWER and P  $\wedge$   $\vee$  buttons to see if the component responds correctly. If the component does not operate correctly, the remote control requires programming to operate the device.
- 2 Switch on the component to be programmed, then press the corresponding mode button (such as **STB**) on the remote control. The remote control button of the desired device is illuminated.
- 3 Press the **MENU** and **MUTE** buttons simultaneously, the remote control is ready to be programmed with the code.
- 4 Enter a code number using the number buttons on the remote control. Programming code numbers for the corresponding component can be found on the following pages. If the code is correct, the device will turn off.
- 5 Press the **MENU** button to store the code.
- 6 Test the remote control functions to see if the component responds correctly. If not, repeat from step 2.

# APPENDIX

## HDSTB

Brand	Codes	Brand	Codes	Brand	Codes
ALPHASTAR DSR	123	HOUSTON TRACKER	033 037 039 051	PROSAT	072
AMPLICA	050		057 104	RCA	066 106
BIRDVIEW	051 126 129	HUGHES	068	REALISTIC	043 074
CHANNEL MASTER	013 014 015 018	JANIEL	060 147	SAMSUNG	123
	036 055	JERROLD	061	SATELLITE SERVICE CO	028 035 047 057
CHAPARRAL	008 009 012 077	KATHREIN	108		085
CITOH	054	LEGEND	057	SCIENTIFIC ATLANTA	032 138
CURTIS MATHES	050 145	LG	001	SONY	103
DRAKE	005 006 007 010	LUTRON	132	STARCAST	041
	011 052 112 116	LUXOR	062 144	SUPER GUIDE	020 124 125
	141	MACOM	010 059 063 064	TEECOM	023 026 075 087
DX ANTENNA	024 046 056 076		065		088 090 107 130
ECHOSTAR	038 040 057 058	MEMOREX	057		137
	093 094 095 096	NEXTWAVE	028 124 125	TOSHIBA	002 127
	097 098 099 100	NORSAT	069 070	UNIDEN	016 025 042 043
	122	PACE SKY SATELLITE	143		044 045 048 049
ELECTRO HOME	089	PANASONIC	060 142		078 079 080 086
EUROPLUS	114	PANSAT	121		10 135 136
FUJITSU	017 021 022 027	PERSONAL CABLE	117	VIEWSTAR	115
	133 134	PHILIPS	071	WINEGARD	128 146
GENERAL INSTRUMENT	003 004 016 029	PICO	105	ZENITH	081 082 083 084
	031 059 101	PRESIDENT	019 102		091 120
HITACHI	139 140	PRIMESTAR	030 110 111		

# IR CODES

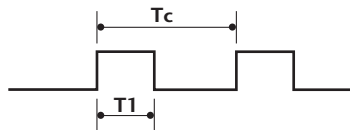
## 1. How to Connect

- 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



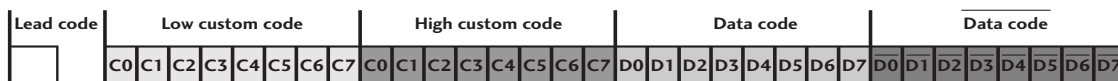
Carrier frequency

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

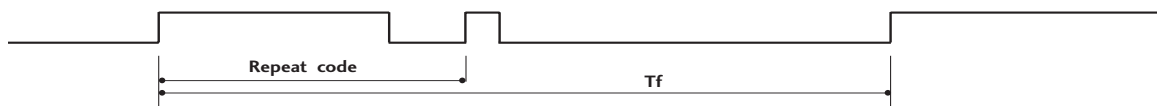
$$\text{Duty ratio} = T1/Tc = 1/3$$

### ■ Configuration of frame

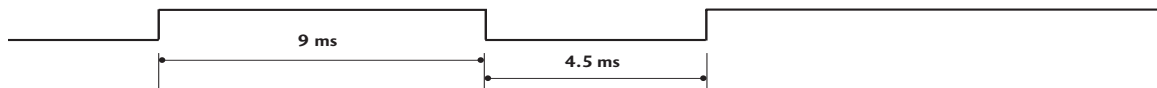
1st frame



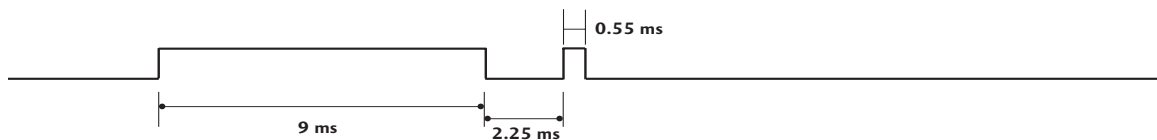
Repeat frame



### ■ Lead code

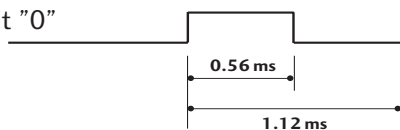


### ■ Repeat code

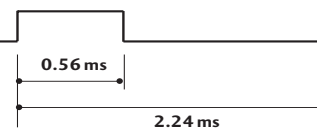


### ■ Bit description

Bit "0"

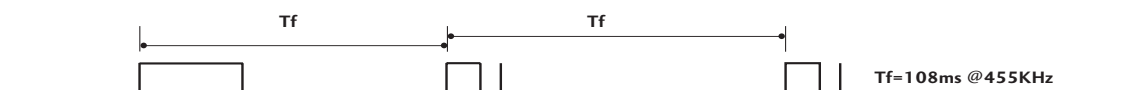


Bit "1"



### ■ Frame interval: Tf

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



# APPENDIX

Code (Hexa)	Function	Note
08	POWER	R/C BUTTON (POWER ON/OFF)
0B	INPUT	R/C BUTTON
f0	TV/RADIO	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	R/C BUTTON
AA	INFO ( i )	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	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.Option	R/C BUTTON
39	SUBTITLE	R/C BUTTON
BD	● (Record)	R/C BUTTON
7E	SIMPLINK	R/C BUTTON

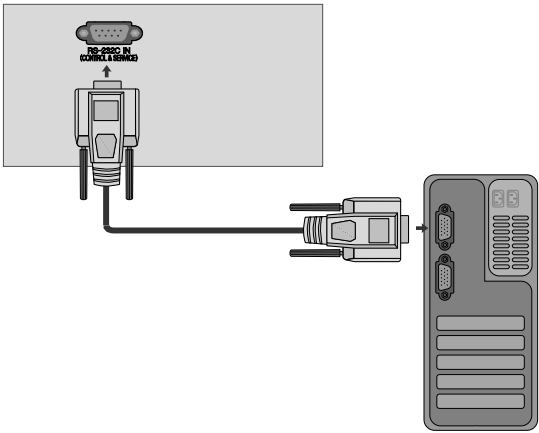
# EXTERNAL CONTROL DEVICE SETUP

## 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.

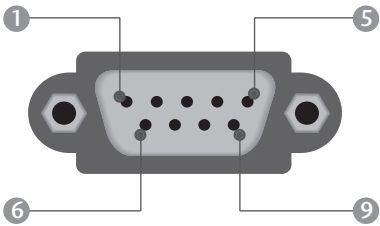
Connect the serial port of the control device to the RS-232C jack on the product back panel.

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)

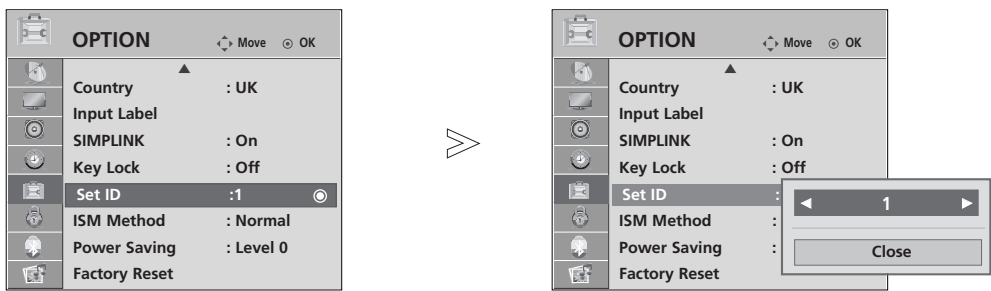
	PC	TV	
RXD	2	3	TXD
TXD	3	2	RXD
GND	5	5	GND
DTR	4	6	DSR
DSR	6	4	DTR
RTS	7	8	CTS
CTS	8	7	RTS
	D-Sub 9	D-Sub 9	

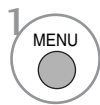
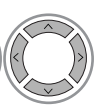

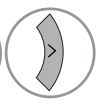



### 3-Wire Configurations(Not standard)

	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.128



- 1   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.

## 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. 126
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. Balance	k	t	00 ~ 64
14. Colour Temperature	k	u	00 ~ 02
15. Abnormal Status	k	z	00 ~ a
16. ISM Method	j	p	Refer to p. 127
17. Power Saving	j	q	00 ~ 04
18. Auto Configuration	j	u	01
19. Equalize	j	v	Refer to p. 128
20. Tune Command	m	a	Refer to p. 128
21. Channel Add/Skip	m	b	00 ~ 01
22. Key	m	c	Key C ode
23. Control Back Light	m	g	00 ~ 64
24. Input select (Main)	x	b	Refer to p. 129

\* When setting the 15 ~ 24, a menu does not appear on screen.

### 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)      05 : Zoom2  
02 : Wide screen (16:9)      06 : Original  
04 : Zoom1                      07 : 14:9  
09 : Just Scan

### 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 24Hz/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)  
01 : Screen mute on (Picture off)

### Ack

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

## 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 128.

### 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 128.

### 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 128.

### 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 128.

### Ack

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

**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 128.

*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 128.

*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.

**13. 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 128.

*Ack*

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

**14. 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]

**15. Abnormal State (Command: k z)**

- To recognize an abnormal state.

*Transmission*

[k][z][ ][Set ID][ ][FF][ ][Cr]

Data FF : Read

*Ack*

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

Data 00: Normal (Power on and signal exist)  
01: No signal (Power on)  
02: Turn the TV off by remote control  
03: Turn the TV off by sleep time function  
04: Turn the TV off by RS-232C function  
05: 5V down  
06: AC down  
07: Turn the TV off by Fan Alarm function  
08: Turn the TV off by Off time function  
09: Turn the TV off by Auto sleep function  
a: Turn the TV off by AV board detection.

\* This function is "read only".

**16. ISM Method (Plasma TV only)  
(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 01: Inversion  
02: Orbiter  
04: White wash  
08: Normal

*Ack*

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

# APPENDIX

## 17. Power Saving (Plasma TV only) (Command: j q)

- To reduce the power consumption of the TV. You can also adjust Low Power in OPTION menu.

### Transmission

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

Data Min :00 ~ Max :04 (\*transmit by hexadecimal code)

### Ack

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

## 18. 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]

## 19. Equalize(Command: j v)

- To adjust equalize.

### Transmission

[j][v][ ][Set ID][ ][Data][Cr]

MSB

LSB

0	0	0	0	0	0	0	0
---	---	---	---	---	---	---	---

└─ Frequency ─┐

└─ Data ─┐

7	6	5	Frequency	4	3	2	1	0
0	0	0	80Hz	00000 ~10010				
0	0	1	220Hz					
0	1	0	470Hz					
0	1	1	1 KHz					
1	0	0	2.2KHz					
1	0	1	4.7KHz					
1	1	0	12KHz					

### Ack

[v][ ][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 88 (188H),  
DTV No. 0 -> Don't care

Data02 0x00 : ATV Main

0x10 : DTV Main

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: FF

## 21. Channel 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

## 22. Key(Command: m c)

► To send IR remote key code.

*Transmission*

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

Data Key code - Refer to page 122.

*Ack*

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

## 23. Control Back Light (Command: m g) (LCD TV only)

► To Control the back light.

*Transmission*

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

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

*Ack*

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

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

► To select input source for main picture.

*Transmission*

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

Data Structure

MSB				LSB			
0	0	0	0	0	0	0	0
└ External Input ┘				└ Input Number ┘			

External Input				Data
0	0	0	0	DTV
0	0	0	1	Analogue
0	0	1	0	AV
0	1	0	0	Component
0	1	0	1	RGB-PC
1	0	0	1	HDMI/DTV-PC

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]

# APPENDIX

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- busybox

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- glibc

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