Life's Good

PLASMA TV
OWNER'S MANUAL

PLASMA TV MODELS

42PG2***
50PG2***
50PG3***
60PG3***
42PG6***
50PG6***
50PG7***
60PG7***

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.

Digital Video Broadcasting

DVB is a registered trademark of the DVB Project

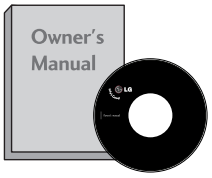
ID Number(s): 5495: 60PG30FD-AA
5496: 50PG30FD-AA
5205: 50PG60UD-AA
5206: 42PG60UD-AA
5209: 42PG20D-AA
5210 : 50PG20D-AA
5522: 60PG70FD-AB
5523: 50PG70FD-AB

ENERGY STAR

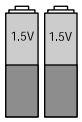
ACCESSORIES

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

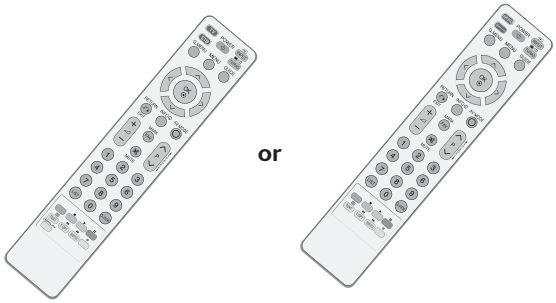
■ Image shown may differ from your TV.



Owner's Manual



Batteries



Remote Control

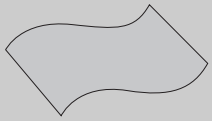


Power Cord



Ferrite Core (only 50/60PG3*, 50/60PG7***)**

This feature is not available for all models.



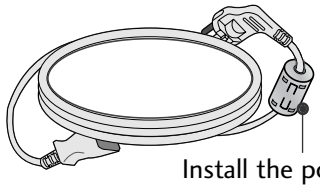
Polishing Cloth
Polishing cloth for use on the screen.

*** 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.

Use of ferrite core (only 50/60PG3*, 50/60PG7***)**

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

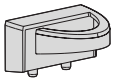


Install the power plug closely.

Cable management clip



(only 42/50PG6*, 50/60PG7***)**



(only 50/60PG3*, 42/50PG2***)**

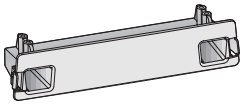


(only 50PG6*, 50/60PG7***)**

Protection Cover



or



Cable Holder



Except 50PG6*, 50/60PG7*****

42PG6* : 1EA**
50/60PG3* : 2EA**
42PG2* : 1EA**
50PG2* : 2EA**

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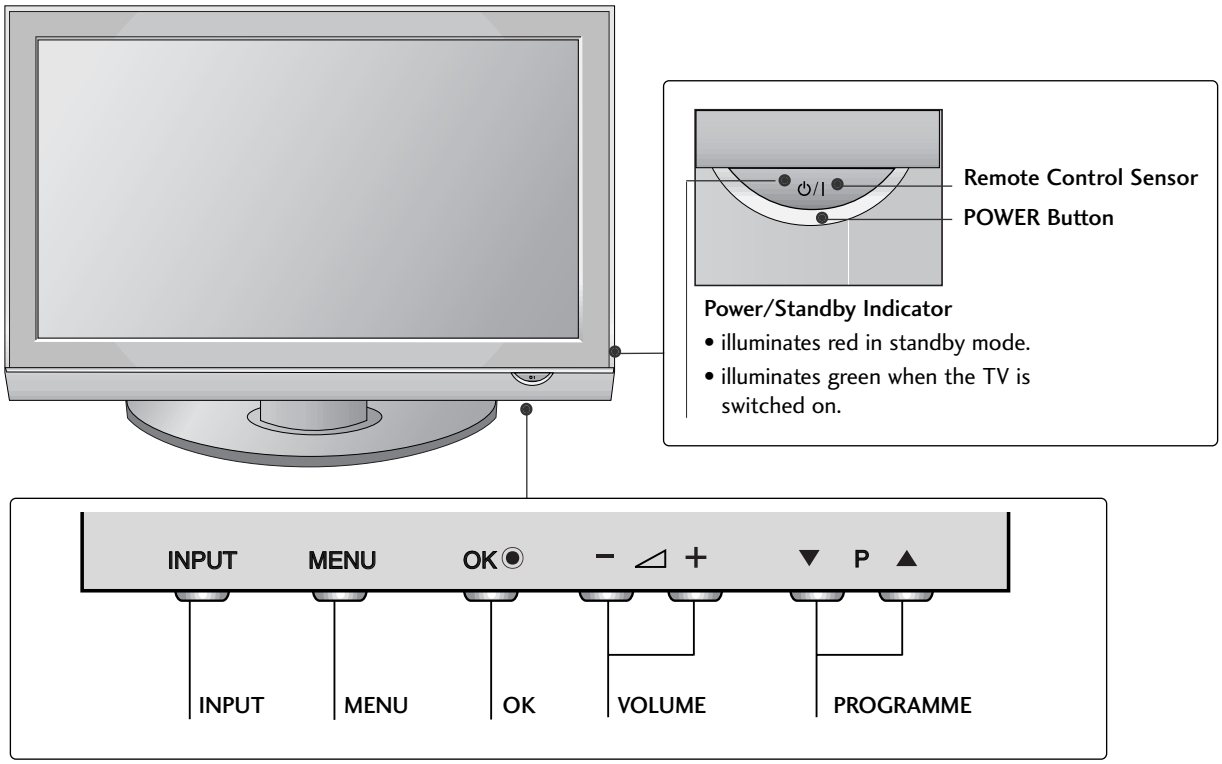
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PREPARATION

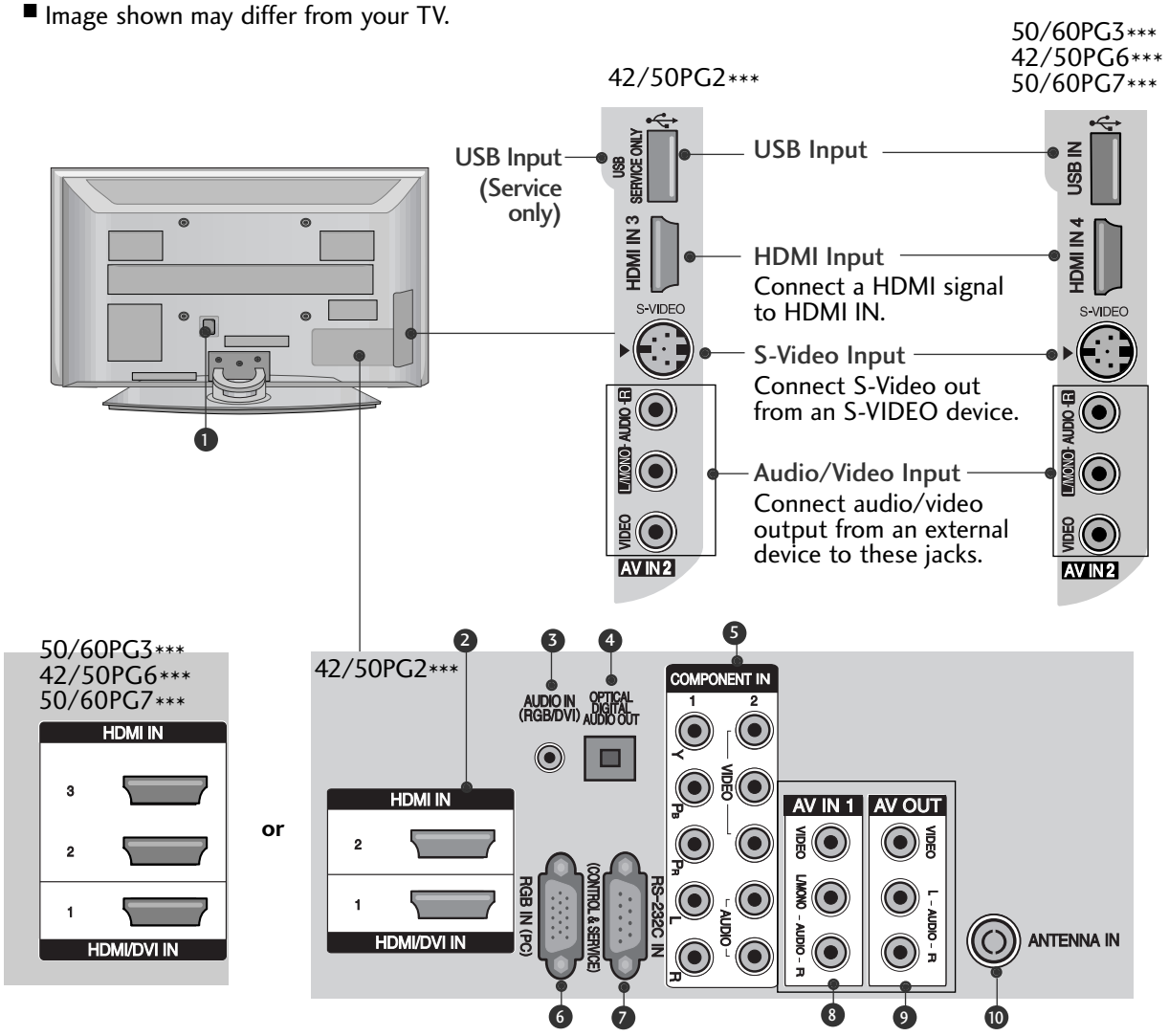
FRONT PANEL CONTROLS

- 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.



BACK PANEL INFORMATION

■ Image shown may differ from your TV.



❶ **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.

❷ **HDMI Input**
Connect a HDMI signal to HDMI IN.
Or DVI(VIDEO)signal to HDMI/DVI port with DVI to HDMI cable.

❸ **RGB/DVI Audio Input**
Connect the audio from a PC.

❹ **OPTICAL DIGITAL AUDIO OUT**
Connect digital audio from various types of equipment.
Note: In standby mode, these ports do not work.

❺ **Component Input**
Connect a component video/audio device to these jacks.

❻ **RGB Input**
Connect the output from a PC.

❼ **RS-232C IN (CONTROL & SERVICE) PORT**
Connect to the RS-232C port on a PC.

❽ **Audio/Video Input (AV IN 1)**
Connect audio/video output from an external device to these jacks.

❾ **AV Output**
Connect second TV or monitor to the AV OUT socket on the set.

❿ **Antenna Input**
Connect RF antenna to this jack.

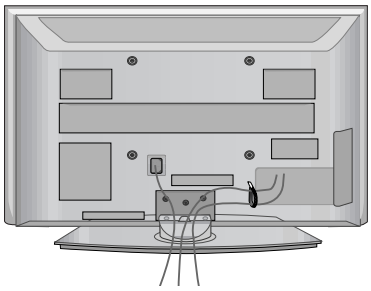
BACK COVER FOR WIRE ARRANGEMENT

■ Image shown may differ from your TV.

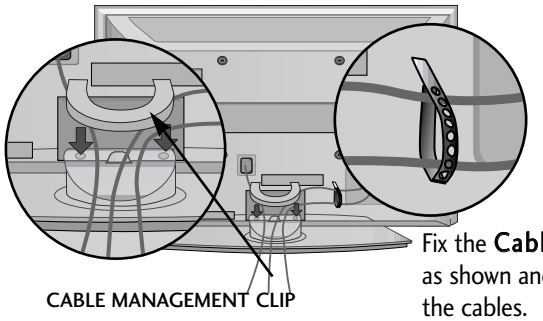
42PG6***

1 Connect the cables as necessary.

To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.



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

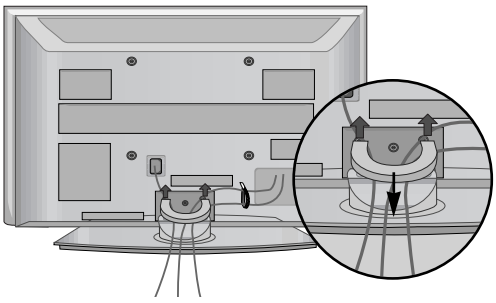


Fix the **Cable Holder** as shown and bundle the cables.

How to remove the cable management clip

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

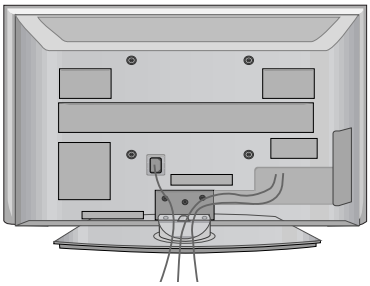
* For the 42PG6*** model, press the center of the CABLE MANAGEMENT CLIP and then lift it.



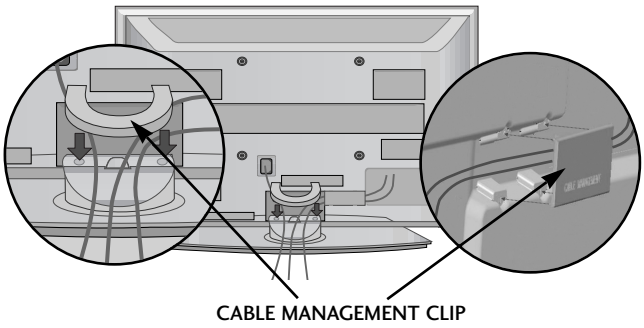
50PG6***, 50/60PG7***

1 Connect the cables as necessary.

To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.

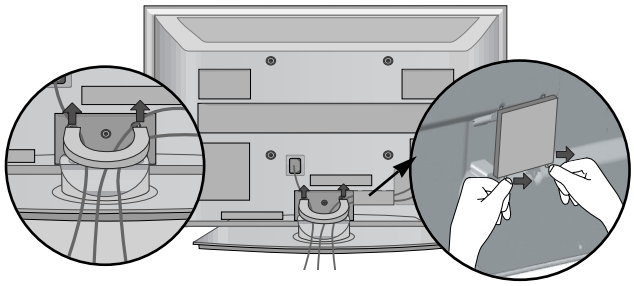


2 Install the **CABLE MANAGEMENT CLIP** as shown.



How to remove the cable management clip

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



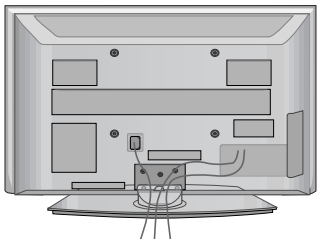
Separate CABLE MANAGEMENT from TV by pressing two latches.

PREPARATION

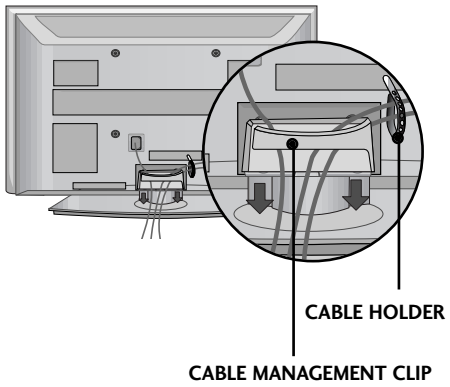
■ Image shown may differ from your TV.

42/50PG2***, 50/60PG3***

1 Connect the cables as necessary.
To connect additional equipment, see the **EXTERNAL EQUIPMENT SETUP** section.

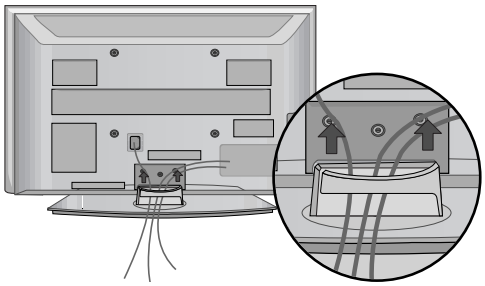


2 Install the **CABLE MANAGEMENT CLIP** as shown.
If your TV has the CABLE HOLDER, install it as shown and bundle the cables.



How to remove the cable management clip

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



NOTE

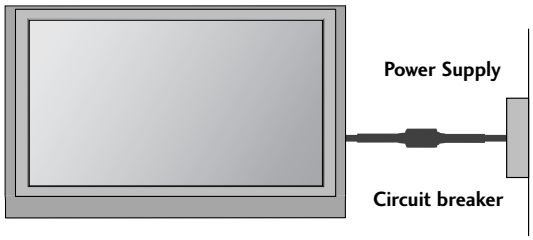
▶ Do not use the **CABLE MANAGEMENT CLIP** to lift the TV.
- If the TV is dropped, you may be injured or the TV may be damaged.

- 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

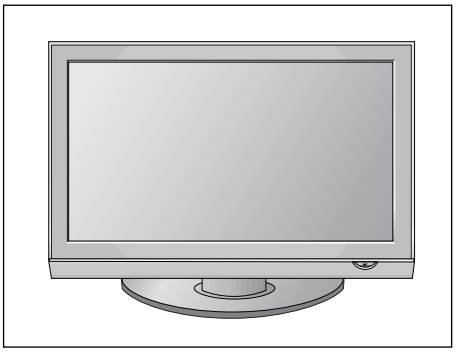
Ensure that you connect the earth wire to prevent possible electric shock. If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

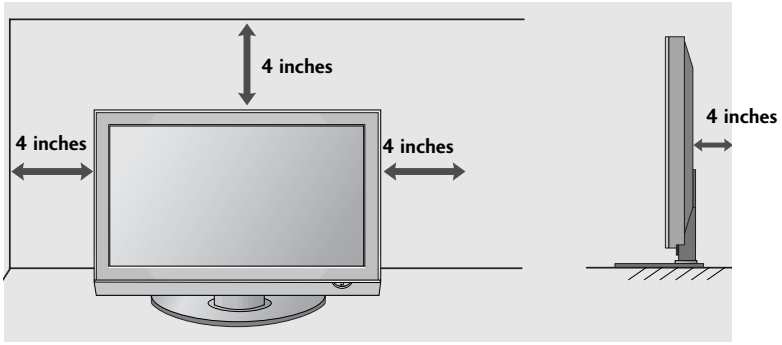
Do not try to earth the TV by connecting it to telephone wires, lightening rods or gas pipes.



DESKTOP PEDESTAL INSTALLATION

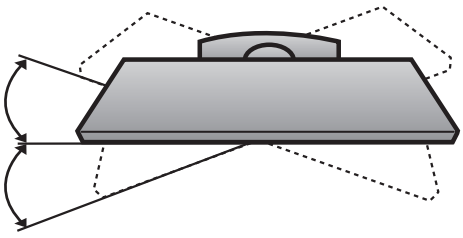
For adequate ventilation allow a clearance of 4" (10cm) all around the TV.





SWIVEL STAND

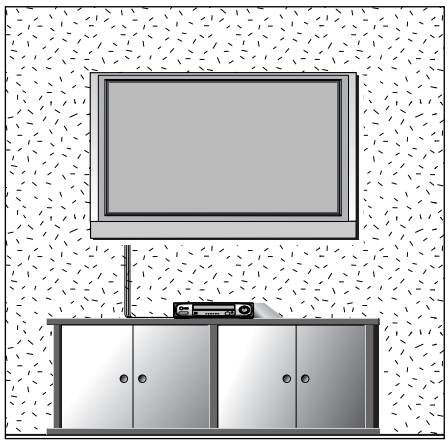
After installing the TV, you can adjust the TV set manually to the left or right direction by 20 degrees to suit your viewing position.

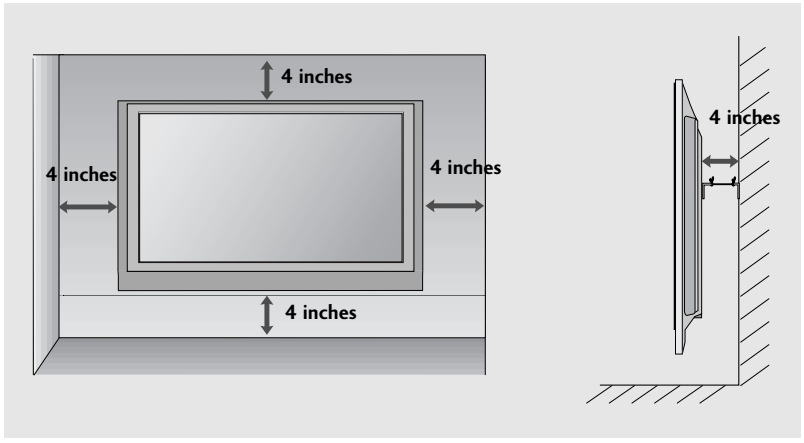


PREPARATION

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.

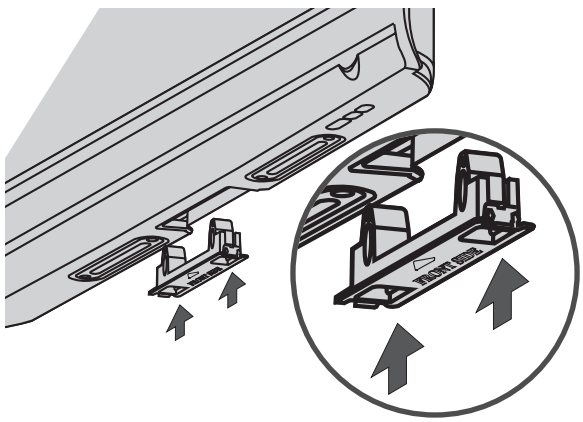




NOT USING THE DESK-TYPE STAND

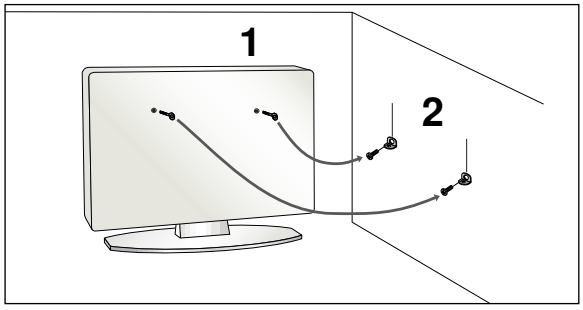
- Image shown may differ from your TV.

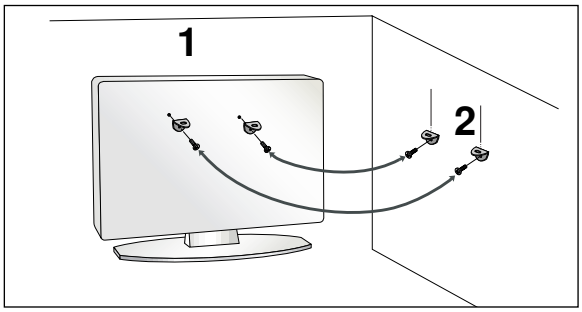
When installing the wall-mounted unit, use the protection cover for desk-type stand installation. Insert the PROTECTION COVER into the TV until clicking sound.



PLEASE SET IT UP CAREFULLY SO THE PRODUCT DOES NOT FALL OVER.

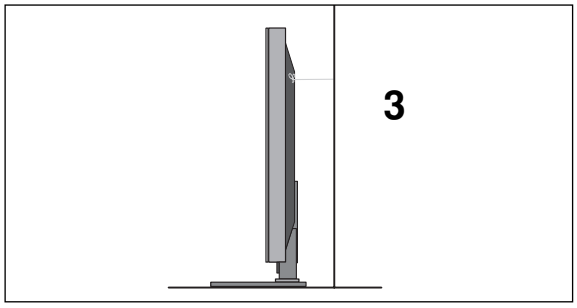
- You should purchase necessary components to fix the TV to the wall on the market.
- Position the TV close to the wall to avoid the possibility of it falling when pushed.
- The instructions shown below are a safer way to set up the TV, which is to fix it to the wall, avoiding the possibility of it falling 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

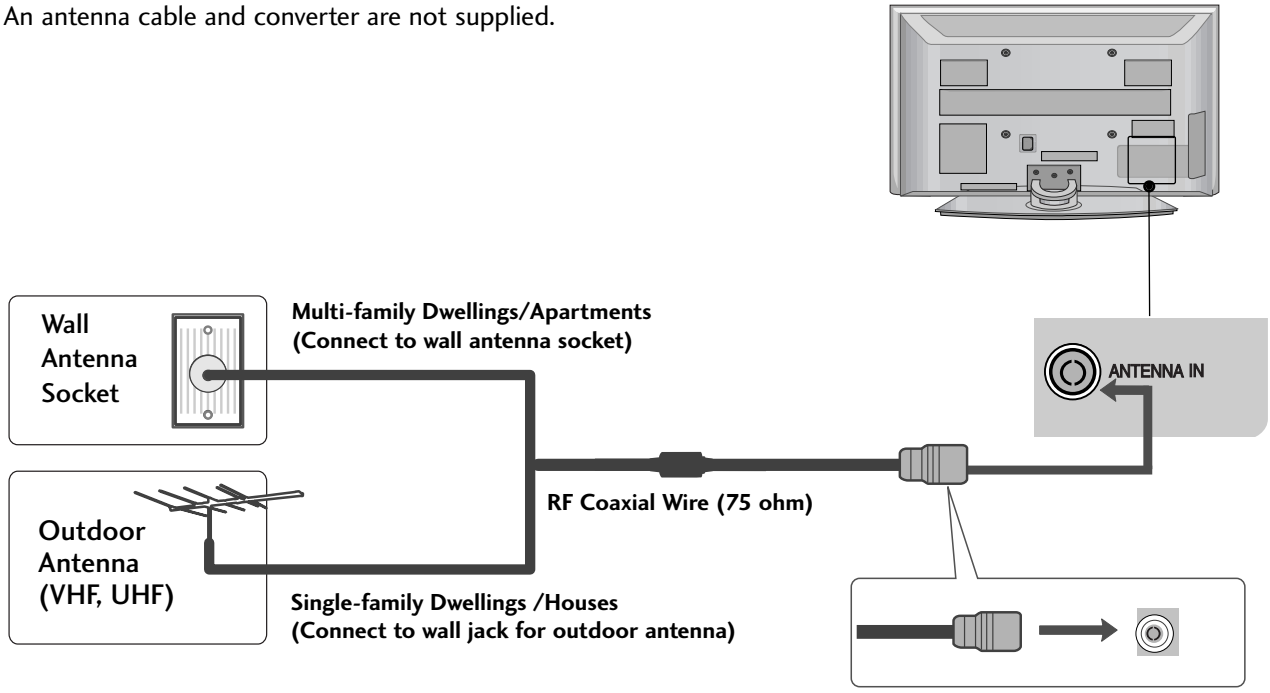
- ► When moving the TV undo the cords first.
- ► Use a platform or cabinet strong and large enough to support the size and weight of the TV.
- ► To use the TV safely make sure that the height of the bracket on the wall and on the TV is the same.

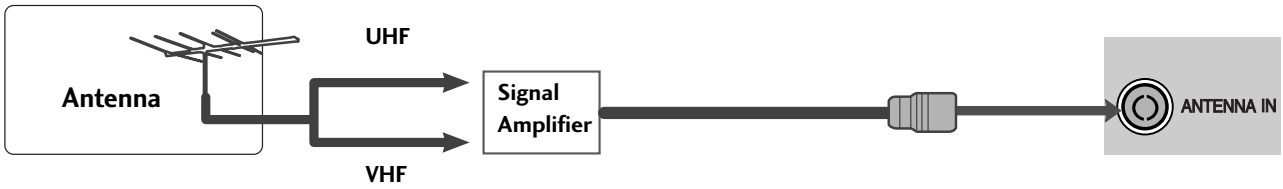
PREPARATION

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

ANTENNA CONNECTION

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





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

EXTERNAL EQUIPMENT SETUP

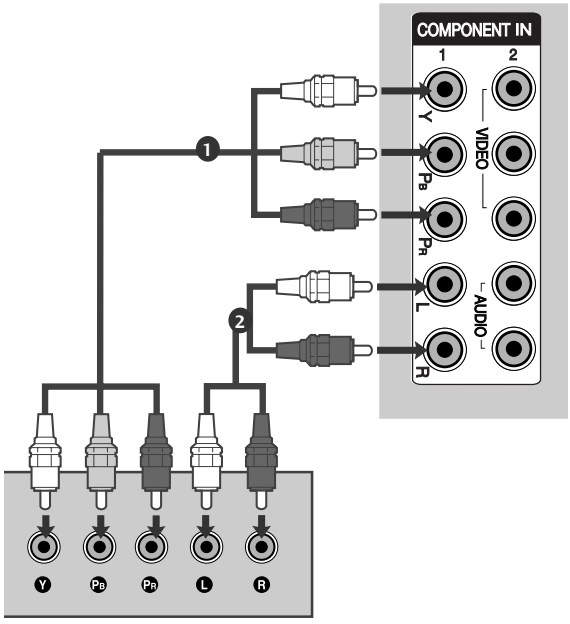
- **To avoid damaging any equipment, never plug in any power cords until you have finished connecting all equipment.**
- **This section on EXTERNAL EQUIPMENT SETUP mainly uses diagrams for the 42/50PG6*** models.**
- Image shown may differ from your TV.

HD RECEIVER SETUP

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

Connecting with a component cables

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

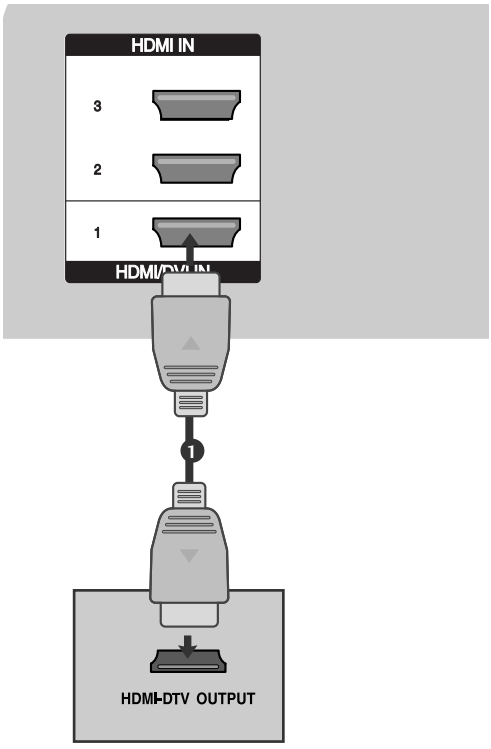


Signal	Component	HDMI
480i/576i	Yes	No
480p/576p	Yes	Yes
720p/1080i	Yes	Yes
1080p	Yes (50Hz/60Hz only)	Yes (24Hz/30Hz/50Hz/60Hz)

EXTERNAL EQUIPMENT SETUP

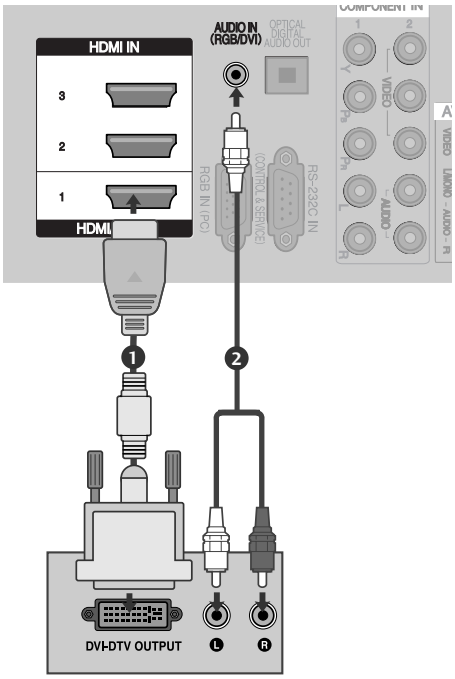
Connecting a set-top box with an HDMI cable

1. Connect the digital set-top box to **HDMI/DVI IN 1**, **HDMI IN 2**, **HDMI IN 3** or **HDMI IN 4**(except 42/50PG2***) 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**(except 42/50PG2***) input source using the **INPUT** button on the remote control.



Connecting with an HDMI to DVI cable

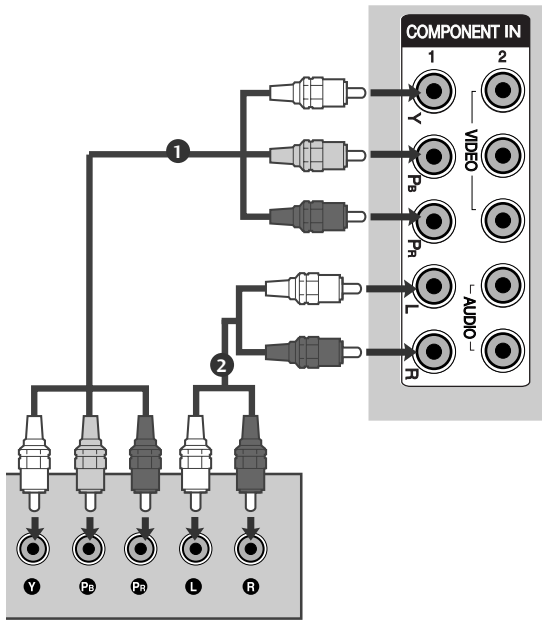
1. Connect the digital set-top box to **HDMI/DVI IN 1** jack on the TV.
2. Connect the audio output of the digital set-top box to the **AUDIO IN (RGB/DVI)** jack on the TV.
3. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
4. Select **HDMI1** input source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



DVD SETUP

Connecting with a component cables

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



Component Input ports

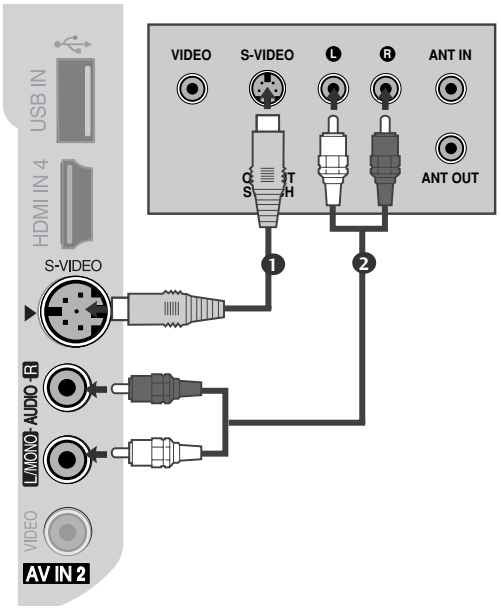
To achieve better picture quality, connect a DVD player to the component input ports as shown below.

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

EXTERNAL EQUIPMENT SETUP

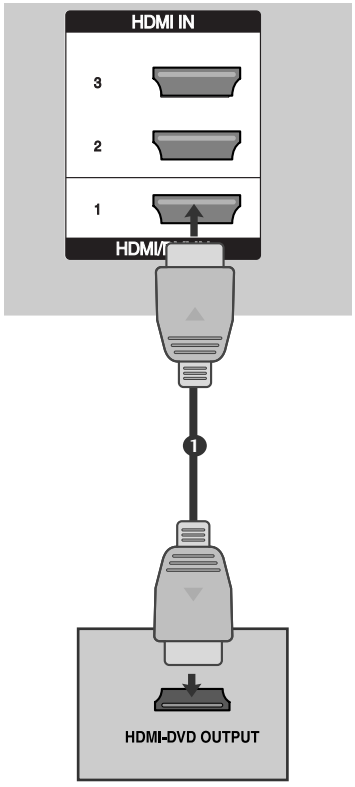
Connecting with a S-Video cable

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 **AV2** 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**(except 42/50PG2***) jack on the TV.
2. Select **HDMI1**, **HDMI2**, **HDMI3** or **HDMI4**(except 42/50PG2***) input source using the **INPUT** button on the remote control.
3. Refer to the DVD player's manual for operating instructions.



NOTE

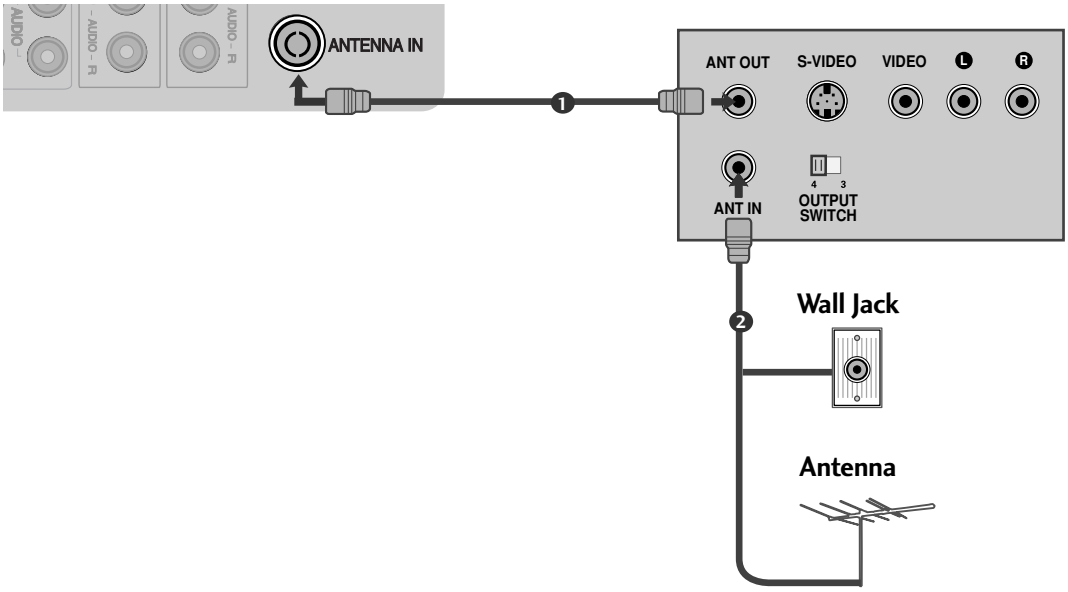
- ►The TV can receive video and audio signals simultaneously when using a HDMI cable.
- ►If the DVD does not support Auto HDMI, you must set the output resolution appropriately.

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.

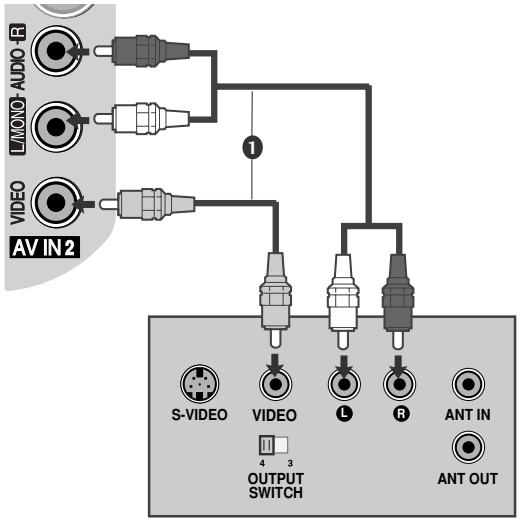
Connecting with a RF Cable



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 an 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 **AV2** input source using the **INPUT** button on the remote control.
   If connected to **AV IN 1** input, select **AV1** input source.

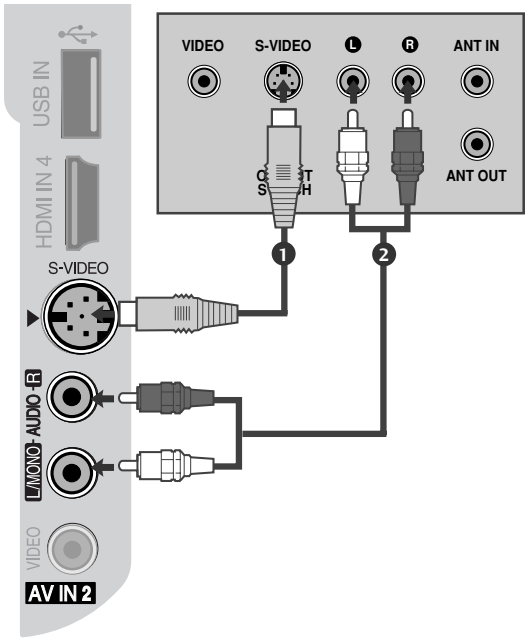


NOTE

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

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 **AV2** input source with using the **INPUT** button on the remote control.



NOTE

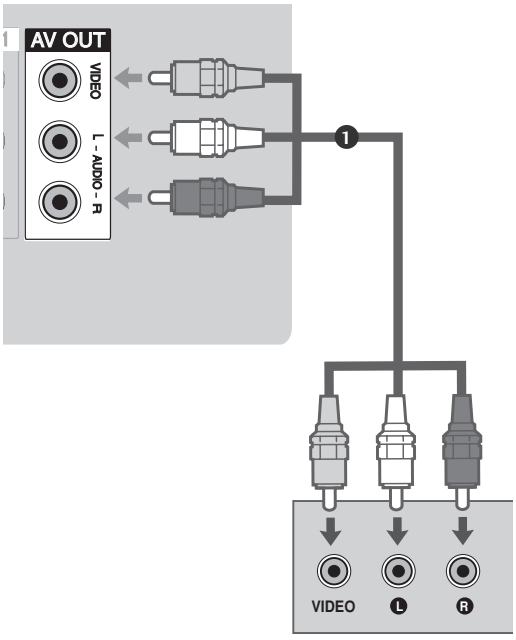
- If both S-VIDEO and VIDEO sockets have been connected to the S-VHS VCR simultaneously, only the S-VIDEO can be received.

EXTERNAL EQUIPMENT SETUP

AV OUTPUT SETUP

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

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



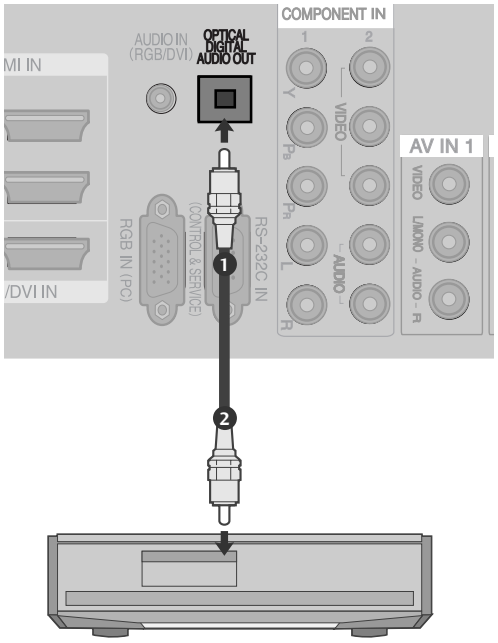
NOTE

- Component, RGB, HDMI input sources cannot be used for AV out.
- We recommend to use the AV OUT jacks for VCR recording.

DIGITAL AUDIO OUT SETUP

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

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



⚠ CAUTION

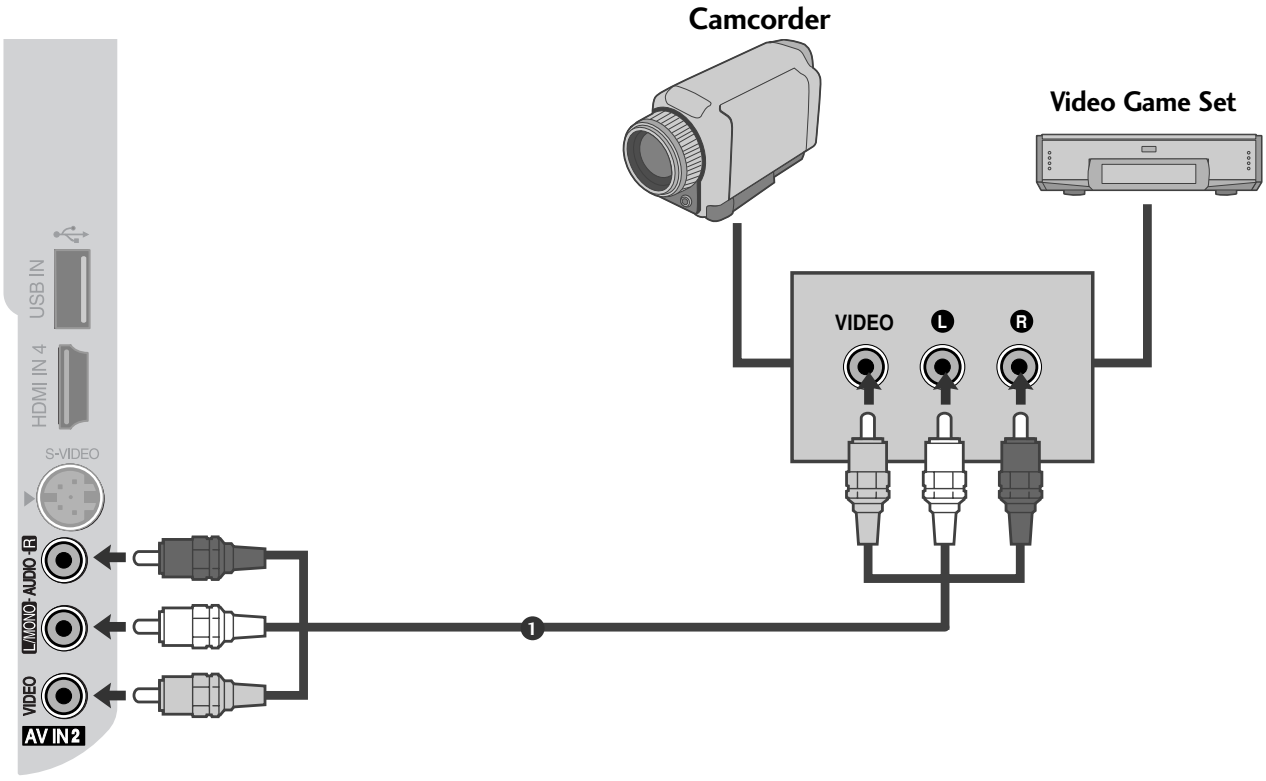
▶Do not look into the optical output port. Looking at the laser beam may damage your vision.

NOTE

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

EXTERNAL EQUIPMENT SETUP

OTHER A/V SOURCE SETUP



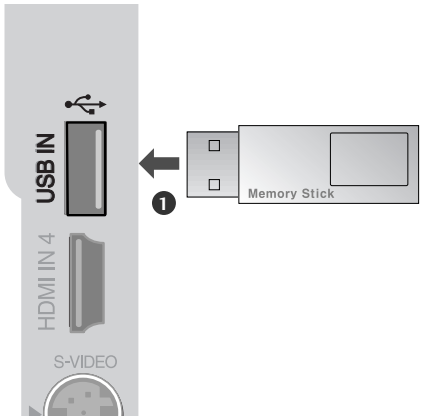
1. Connect the **AUDIO/VIDEO** jacks between TV and external equipment. Match the jack colours . (Video = yellow, Audio Left = white, and Audio Right = red)

2. Select **AV2** input source with using the **INPUT** button on the remote control.
If connected to **AV IN 1** input, select **AV1** input source.

3. Operate the corresponding external equipment.
Refer to external equipment operating guide.

USB IN SETUP

Except 42/50PG2***



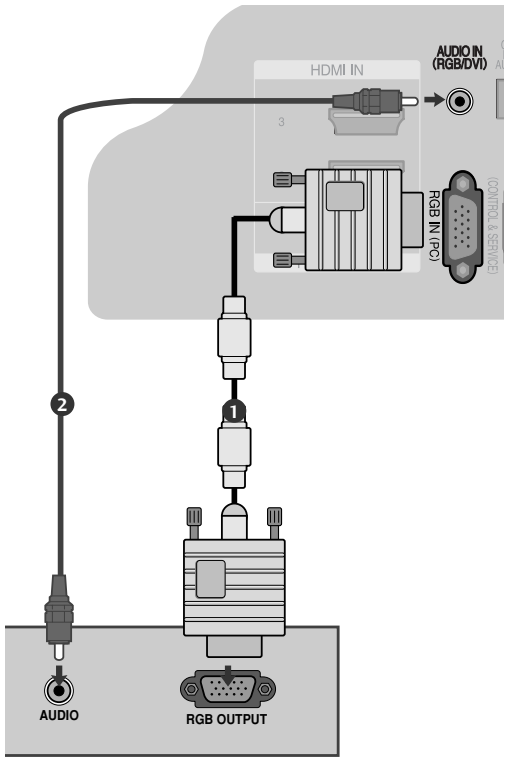
1 Connect the USB device to the **USB IN** jacks on the side of TV.

2 After connecting the **USB IN** jacks, you use the **USB** function. (▶ p.56)

PC SETUP

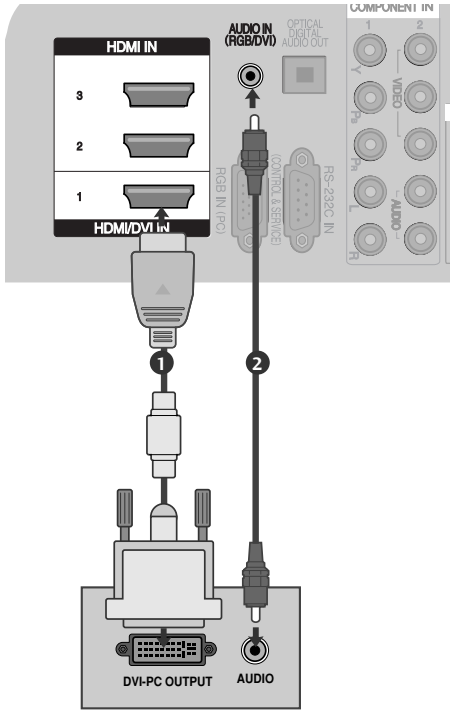
This TV provides Plug and Play capability, meaning that the PC adjusts automatically to the TV's settings.

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

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	59.8
1280x1024	63.98	60.02
1400x1050	65.317	59.979
1920x1080	66.587	59.934

(only 50/60PG3***, 50/60PG7***)

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
1280x720	37.50	50.00
	44.96	59.94
	45.00	60
1920x1080	28.125	50.00
	33.72	59.94
	33.75	60
	27.00	24.00
	33.75	30
	56.25	50.00
	67.433	59.94
	67.50	60

EXTERNAL EQUIPMENT SETUP

NOTE

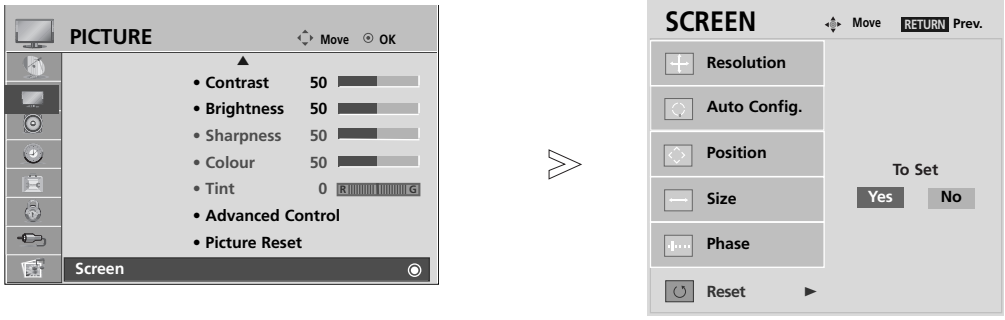
- ►To enjoy vivid picture and sound, connect a PC to the TV.
- ►Avoid keeping a fixed image on the set's screen for prolonged periods of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- ►Connect the PC to the RGB (PC) or HDMI IN (or HDMI/DVI IN) 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 (Analogue 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 analogue and digital RGB simultaneously, set the TV to either RGB or HDMI; (the other mode is set to Plug and Play automatically by the TV.)
- ►DOS mode may not work depending on the video card if you use 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 in 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 MENU Select **PICTURE**.

2 OK Select **SCREEN**.

3 OK Select **Reset**.

4 OK Select **Yes**.

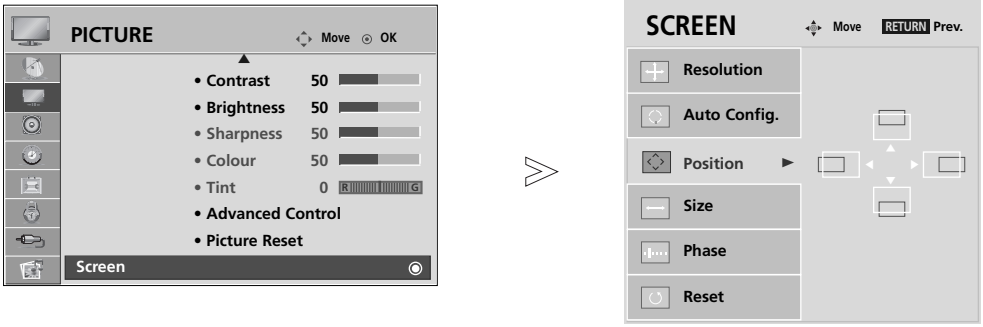
5 OK Run **Reset**.

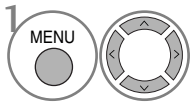
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Adjustment for screen Position, Size, Phase

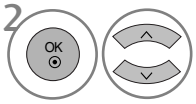
If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture phase manually.

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

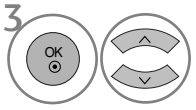




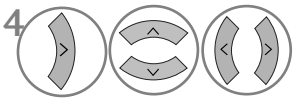
Select **PICTURE**.



Select **SCREEN**.



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



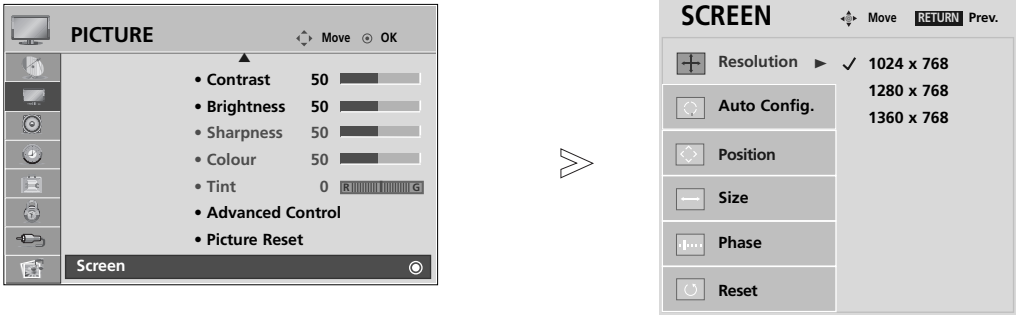
Make appropriate adjustments.

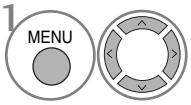
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Selecting Resolution

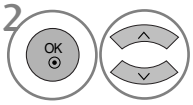
To view a normal picture, match the resolution of RGB mode and selection of PC mode.

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

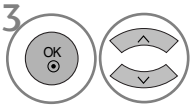




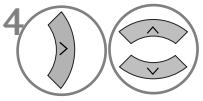
Select **PICTURE**.



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.

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.



1 Select **PICTURE**.

2 Select **SCREEN**.

3 Select **Auto Config.**.

4 Select **Yes**.

5 Run **Auto Config.**.

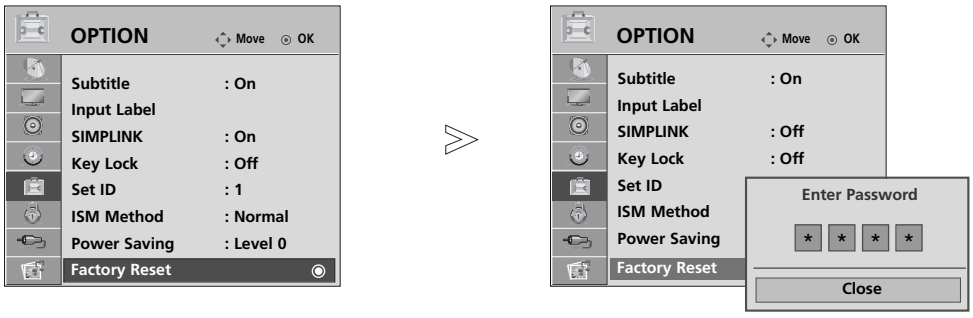
- If the position of the image is still not correct, try Auto adjustment again.
- If picture needs to be adjusted again after Auto adjustment in RGB (PC), you can adjust the **Position**, **Size** or **Phase**.

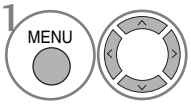
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

Initializing
(Reset to original factory settings)

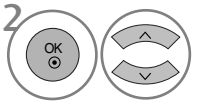
This function operates in current mode.
To initialize the adjusted value.

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

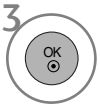




Select **OPTION**.



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.



RATIO Selects your desired picture format.

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

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.

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**.

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

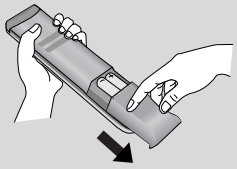
SUBTITLE Recalls your preferred subtitle in digital mode.



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 / USB Menu control buttons	Controls SIMPLINK or USB menu.

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.

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.

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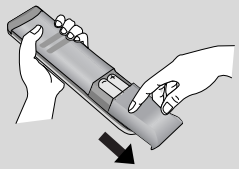
SIMPLINK See a list of AV devices connected to TV. When you toggle this button, the Simplink menu appears at the screen.



VOLUME UP /DOWN	Adjusts the volume.
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- 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 ⏻ / **I**, **INPUT** or **P** ▲ ▼ button on the TV or press the **POWER**, **INPUT**, **P** ^ v 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 **Select Mode, 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. "Home" mode is the optimal setting for home environments, and is the TV's default mode.
d. "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.
e. The mode (Home, In Store) can be changed by executing Factory Reset in the OPTION menu.

PROGRAMME SELECTION

1. Press the **P** ^ v or **NUMBER** buttons to select a programme number.

VOLUME ADJUSTMENT

1. Press the ◿ **+** or **-** button to adjust the volume.

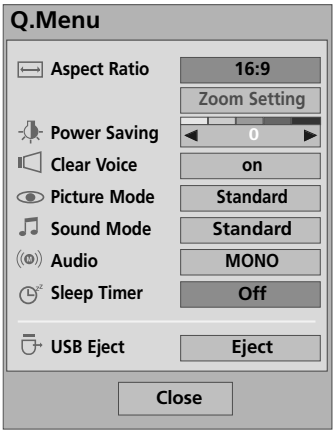
   If you wish to switch the sound off, press the MUTE button.

   You can cancel this function by pressing the **MUTE**, ◿ **+** or **-** button.

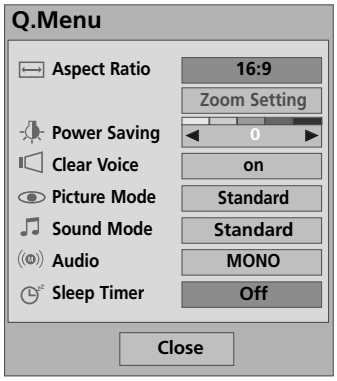
QUICK MENU

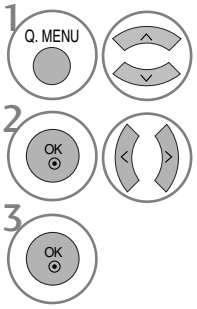
Your TV's OSD (On Screen Display) may differ slightly from that shown in this manual.
Q.Menu (Quick Menu) is a menu of features which users might use frequently.

- **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**: Adjusts screen brightness to reduce the power consumption of the TV.
- **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.(except 42/50PG2***)



Only 42/50PG2***





Display each menu.

or

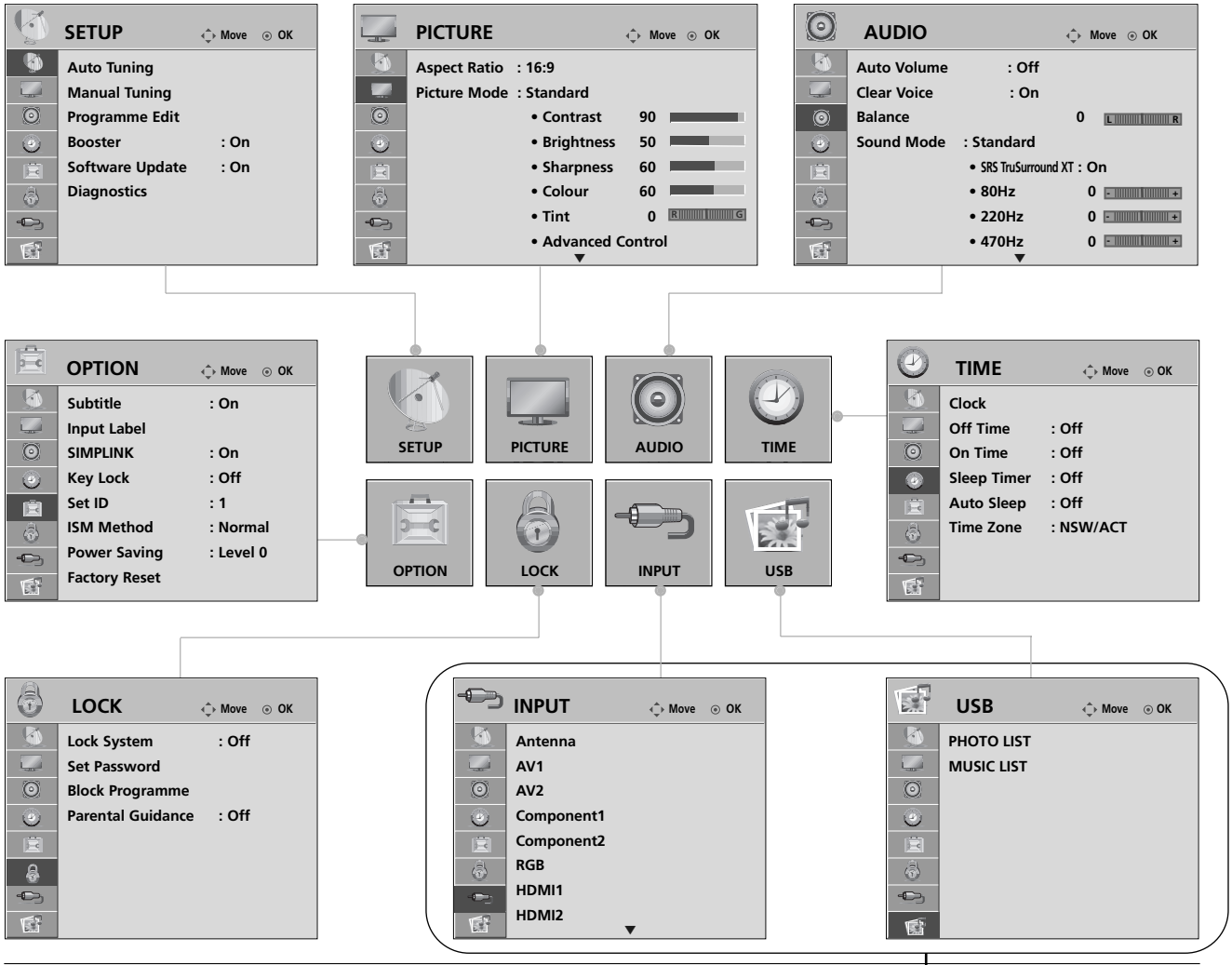
Select your desired Source.

- 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.



1 MENU — Display each menu.

2 OK — Select a menu item.

3 OK — 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.

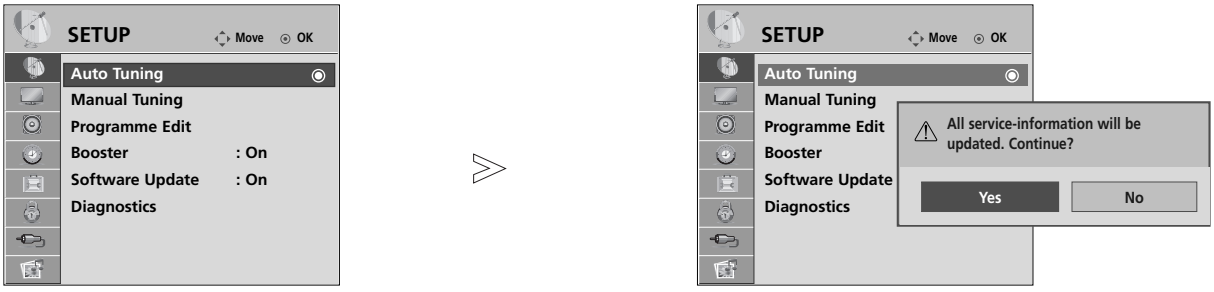
NOTE

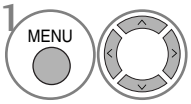
► It is not possible to use **INPUT** and **USB** menu in **42/50PG2*** ** models.

AUTO PROGRAMME TUNING

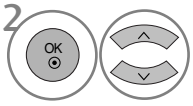
Use this to automatically find and store all available programmes.

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

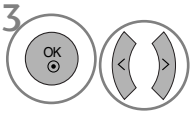




Select **SETUP**.



Select **Auto Tuning**.



Select **Yes**.



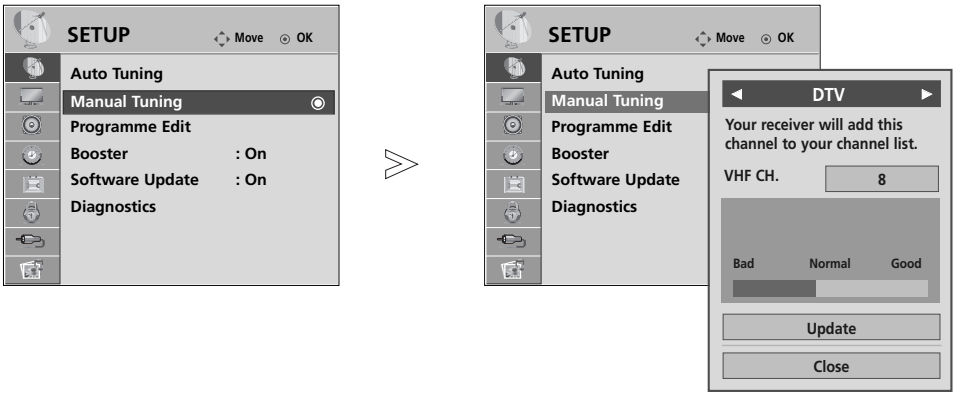
Run **Auto tuning**.

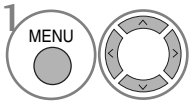
- Use NUMBER buttons to input a 4-digit password in **Lock System** '**On**'.
- If you wish to keep on auto tuning select **YES** using the < > button. Then, press the **OK** button. Otherwise select **NO**.

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

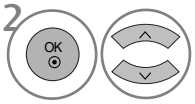
MANUAL PROGRAMME TUNING (IN DIGITAL MODE)

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

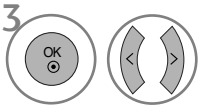




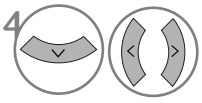
Select **SETUP**.



Select **Manual Tuning**.



Select **DTV**.



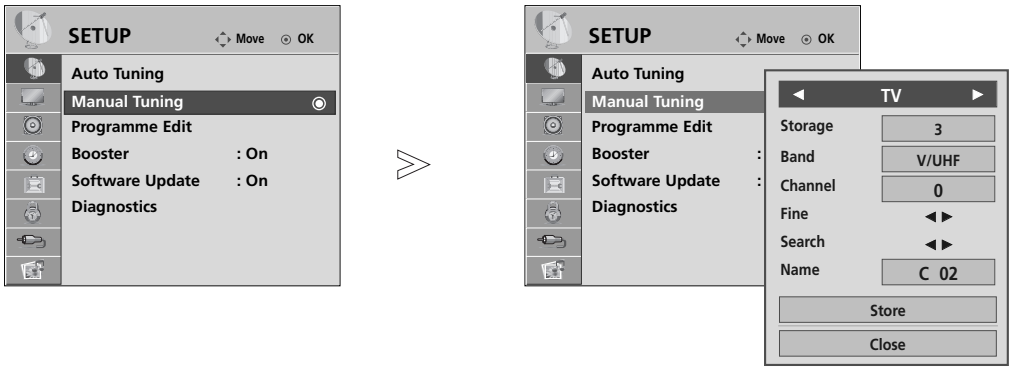
Select the desired channel number.

- 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 MENU — Select **SETUP**.

2 OK — Select **Manual Tuning**.

3 OK — Select **TV**.

4 or — Select the desired programme number on.

5 — Select **V/UHF** or **Cable**.

6 or — Select the desired channel number.

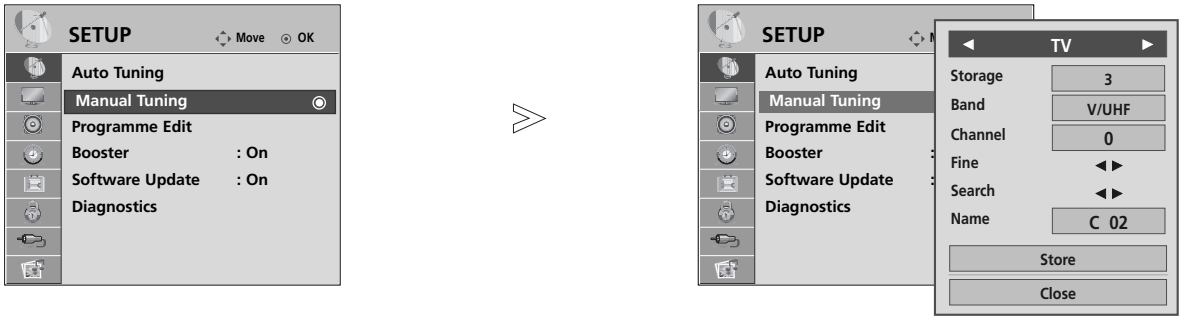
7 — Commence searching.

8 OK — 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**'.
- To store another channel, repeat steps 4 to 9.

WATCHING TV / PROGRAMME CONTROL



■ Assigning a station name

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

1 MENU — Select **SETUP**.

2 OK — Select **Manual Tuning**.

3 OK — Select **TV**.

4 OK — Select **Name**.

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

6 OK — Select **Close.**

7 OK — Select **Store.**

■ Fine Tuning

Normally fine tuning is only necessary if reception is poor.

1 MENU — Select **SETUP**.

2 OK — Select **Manual Tuning**.

3 OK — Select **TV**.

4 Select **Fine**.

5 Fine tune for the best picture and sound.

6 OK — Select **Store**

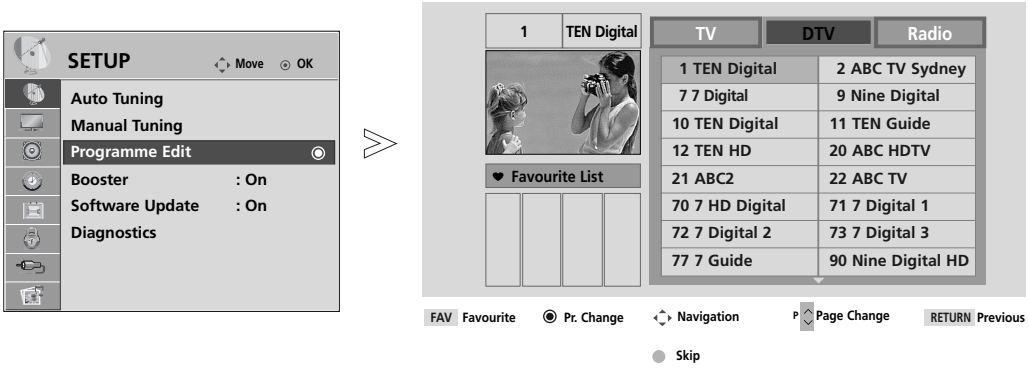
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

PROGRAMME EDIT

When a programme number is skipped, it means that you will be unable to select it using **P** ∧ ∨ 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.



1 MENU

Select **SETUP**.

2 OK

Select **Programme Edit**.

3 OK

Enter the **Programme Edit**.

4

Select a programme to be stored or skipped.

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

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

WATCHING TV / PROGRAMME CONTROL

(IN DTV/RADIO MODE)

■ Skipping a programme number



Select a programme number to be skipped.



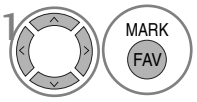
Turn the skipped programme number to blue.



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** ∧ ∨ 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.

■ 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 **PR** ∧ ∨ 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.

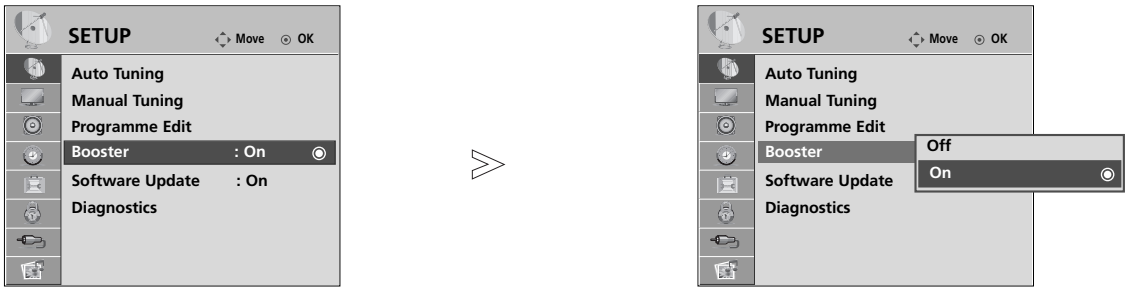
■ Selecting a Favourite Programme

1 MARK FAV Select your favourite programme number.

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

BOOSTER

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



1 MENU Select **SETUP**.

2 OK Select **Booster**.

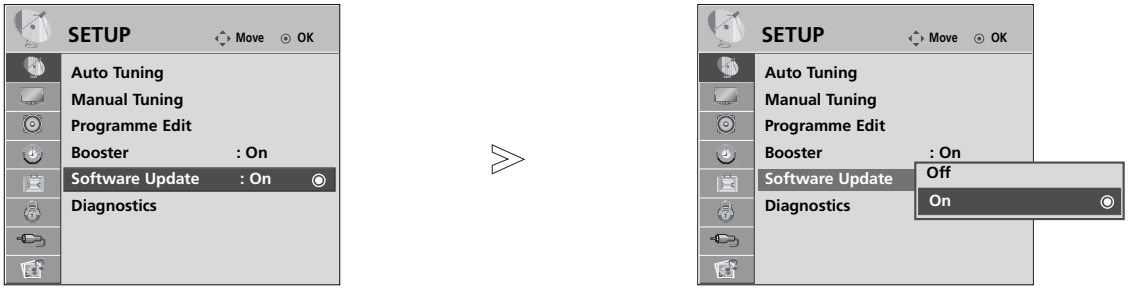
3 OK Select **On** or **Off**.

4 OK 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.



1 MENU — Select **SETUP**.

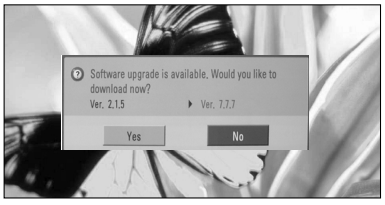
2 OK — Select **Software Update**.

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

4 OK — Save.

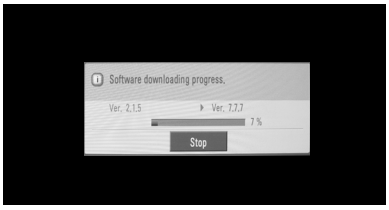
* When setting "Software Update"

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



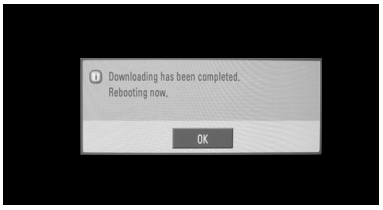
When the Software Update menu is "**Off**", the message to change it to "**On**" appears.

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.

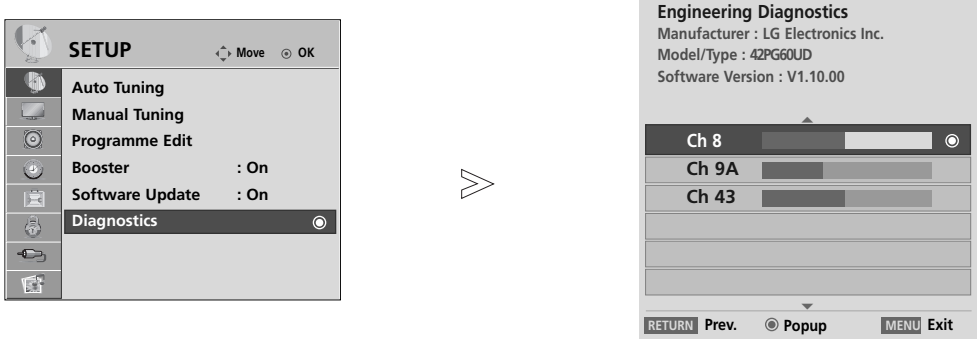


- **During Progress of a Software Update, please note the following:**
- Power to the TV must not be interrupted.
- The TV must not be switched off.
- The antenna must not be disconnected.
- After Software Update, you can confirm the updated software version in Diagnostics menu.

DIAGNOSTICS

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

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



1 MENU

Select **SETUP**.

2 OK

Select **Diagnostics**.

3 OK

Display Manufacturer, Model/Type and Software Version.

4 OK

Display the information of Channel.

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

SELECTING THE PROGRAMME 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

1 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

1 — Select a programme.

2 OK — Switch to the chosen programme number.

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

■ Paging through a programme list

1 P PAGE — Turn the pages.

2 LIST — Return to normal TV viewing.

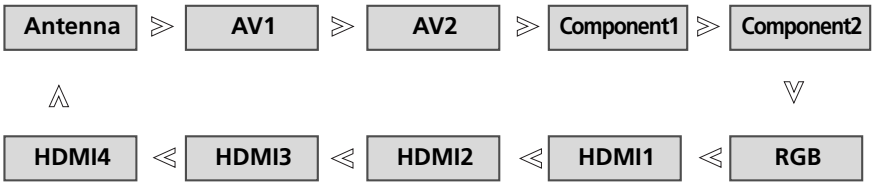
■ Displaying the favourite programme table

1 MARK FAV — Display the Favourite Programme table.

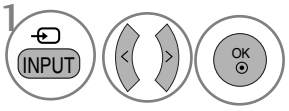
WATCHING TV / PROGRAMME CONTROL

INPUT LIST

HDMI and AV1, 2 can be recognized by a detect pin and thus enabled only when an external device approves voltage.
By using **TV/RAD** button, you can move from External Input to RF Input and to the last watched programme in DTV/RADIO/TV mode.

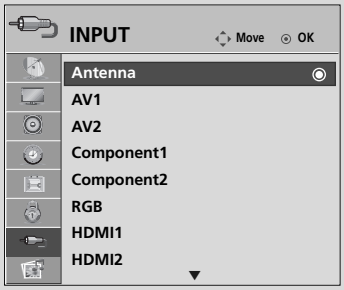


(except 42/50PG2***)



Select the input source.

• You can also adjust **INPUT** menu.



except 42/50PG2***

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

SIMPLINK

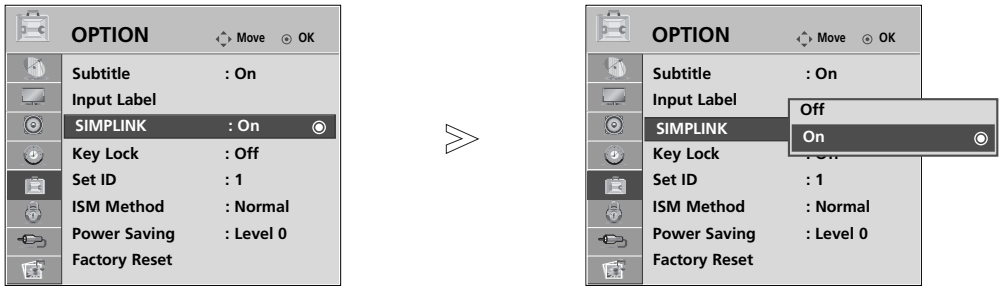
This function operates only with devices with the SIMPLINK logo.
Please check the SIMPLINK logo.

The product 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 3(only 42/50PG2*) and HDMI IN 4**(only 50/60PG3***, 42/50PG6***, 50/60PG7***) **input.**



1 MENU Select **OPTION**.

2 OK Select **SIMPLINK**.

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

4 OK Save.

- 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

SIMPLINK Functions

Disc playback
Control connected AV devices by pressing the ∧ ∨ < > , OK, ▶, ■, II, ◀◀ and ▶▶ buttons.(The ● 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 ∧ ∨ < > button and then **OK** button to select the desired SIMPLINK source.

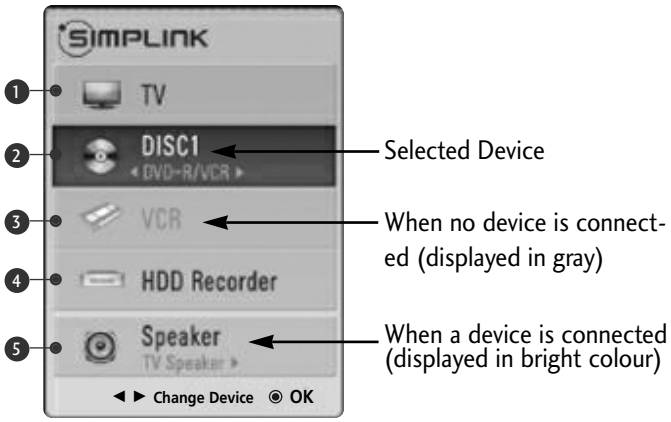
❶ **TV viewing :** Switch to the previous TV programme regardless of the current mode.

❷ **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.

❸ **VCR playback :** Play and control the connected VCR.

❹ **HDD Recordings playback :** Play and control recordings stored in HDD.

❺ **Audio Out to Home theatre/Audio Out to TV:** Select Home theatre or TV speaker for Audio Out.



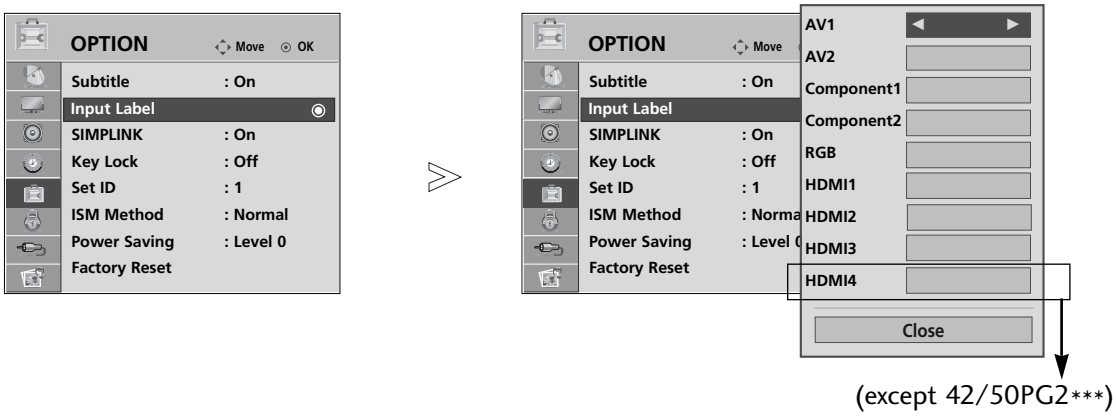
- **Home theatre**: Only one supported at a time
- **DVD, Recorder**: Up to three supported at a time
- **VCR**: Only one supported at a time

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 theatre function, the speaker automatically switches to home theatre speaker (HT speaker).

INPUT LABEL

Selects a label for each input source.



(except 42/50PG2***)

1 MENU Select **OPTION**.

2 OK Select **Input Label**.

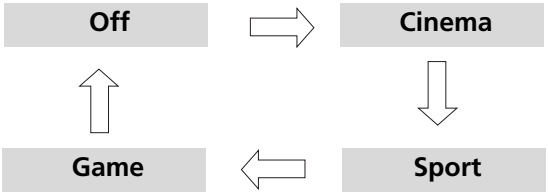
3 OK Select the source.

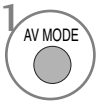
4 Select the label.

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

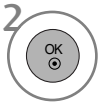
AV MODE

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.



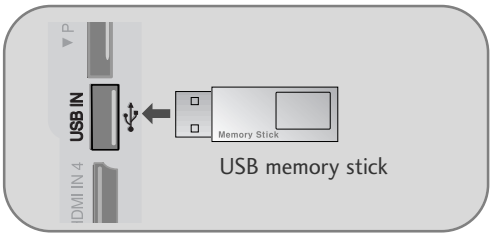
- If you select **Cinema Mode** in **AV mode**, **Cinema** mode will be selected both for **Picture Mode** and **Sound Mode** in **PICTURE** menu and **AUDIO** menu respectively.
- If you select "**Off**" in **AV mode**, the picture and image which you initially set will be selected.

TO USE THE USB DEVICE

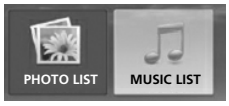
This function is not available for all models.
When connecting the USB device

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



2 Select **PHOTO LIST** or **MUSIC LIST**



3 OK

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

When removing the USB device

Select the USB Eject menu before removing the USB device.

1 Q. MENU Select **USB Eject**.

2 OK

Precautions when using the USB device

- ▶ Only a USB storage device is recognizable.
- ▶ If the USB storage device is connected through a USB hub, the device is not recognizable.
- ▶ A USB storage device using an automatic recognition programme may not be recognized.
- ▶ A USB storage device which uses its own driver may not be recognized.
- ▶ The recognition speed of a USB storage device may depend on each device.
- ▶ Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- ▶ Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files 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).

Screen Components

1 MENU Select **USB**.

2 OK OK Select **PHOTO LIST**.

❶ Moves to upper level file
❷ Current page/Total pages
❸ Total number of marked photos
❹ Usable USB memory
❺ Corresponding buttons on the remote control



- Non-supported files are displayed in the form of bitmap.

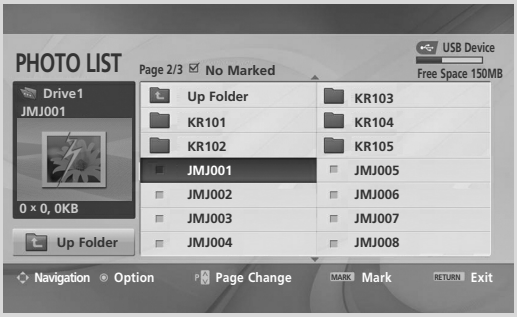
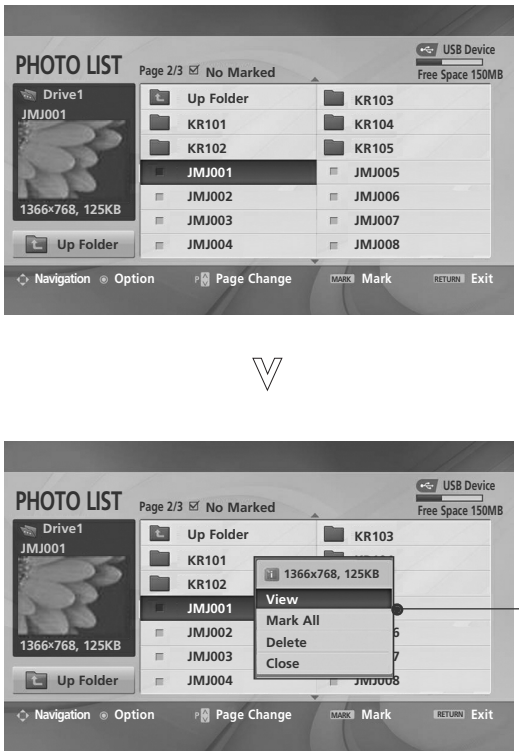


Photo Selection and PopUp Menu



▶ **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.

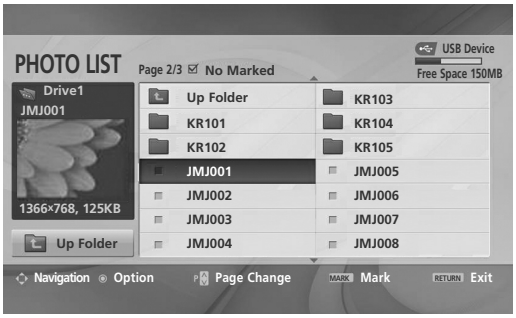
4 Select the desired PopUp menu.

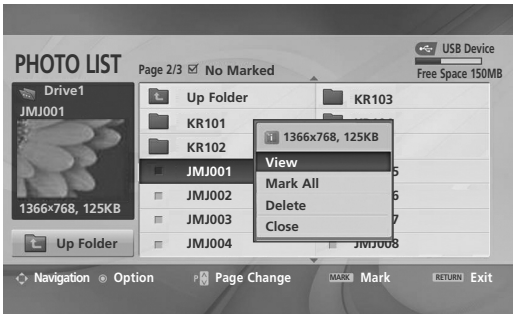
- Use the **P** ∧ ∨ button to navigation in the photo page.
- Use the **MARK** button to mark or unmark a photo. When one or more photos are marked, you can view individual photos or a slide show of the marked photos. If no photos are marked, you can view all photos individually or all photos in the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

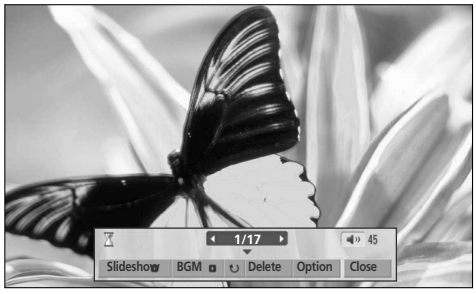
- Press the **RETURN** button to return to normal TV viewing.

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.

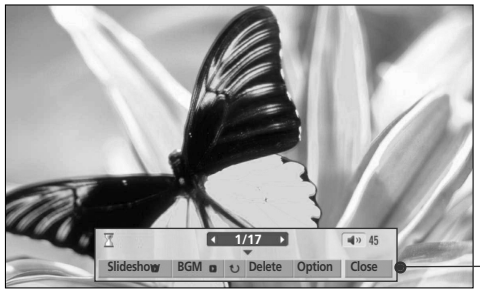
3 Show the PopUp menu.

4 Select **View.**

5 The selected photo is displayed in full size.

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

TO USE THE USB DEVICE



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

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

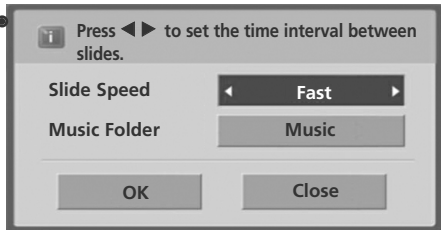
▶ **Slideshow** : When no picture is selected, all photos in the current folder are displayed during slide show. When selected, the selected photos are displayed during slide show.
- Set the time interval of the slide show in **Option**.

▶ **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.

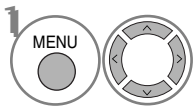
The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.

MUSIC(*.MP3) supporting file

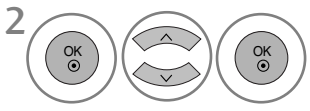
Bit rate 32 ~ 320

• Sampling rate MPEG1 layer 3 : 32khz, 44.1khz, 48khz.

Screen Components



Select **USB**.



Select **MUSIC LIST**.

❶ Moves to upper level file

❷ Current page/Total pages

❸ Total number of marked music titles

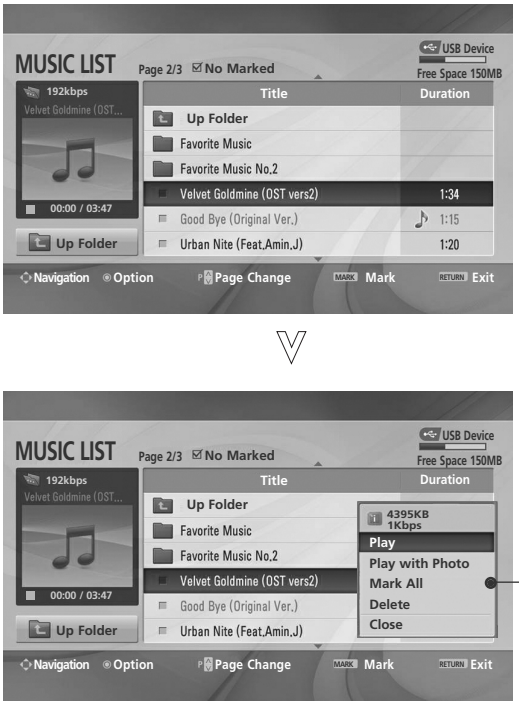
❹ Usable USB memory

❺ Corresponding buttons on the remote control



Music Selection and PopUp Menu

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



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

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

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

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

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

▶ **Mark All** : Mark all music title in the folder.

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

▶ **Delete** : Delete the selected music titles.

▶ **Close** : Close the pop-up menu.

1 Select the target folder or drive.

2 Select the desired music title.

3 Show the PopUp menu.

4 Select the desired PopUp menu.

- Use the **P** ∧ ∨ 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 music title will be played in sequence. For example, if you want to listen to only one music repeatedly, just mark the music only and play it. If no music is marked, all the music in the folder will be played in sequence.

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

■ 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).

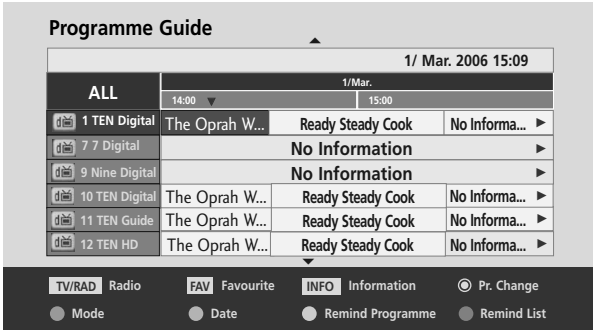
This function can be used only when the EPG information is broadcast by broadcasting companies

The EPG displays the programme details for next 7 days.

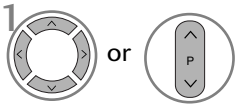
Switch on/off EPG



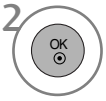
Switch on or off EPG.



Select a programme



Select desired programme.



Display the selected programme.

Button Function in NOW/NEXT Guide Mode



Change EPG mode.



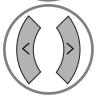
Enter Timer Remind setting mode.



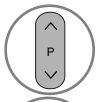
Enter Timer Remind list mode.



Change to the selected programme.


Select NOW or NEXT Programme.


Select the Broadcast Programme.



Page Up/Down.



or



Switch off EPG.



Select TV or RADIO Programme.



Detail information on or off

Button Function in 7 Day Guide Mode



Change EPG mode.



Enter Date setting mode.



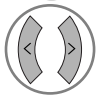
Enter Timer Remind setting mode.

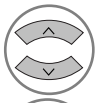


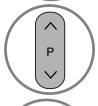
Enter Timer Remind list mode.



Change to the selected programme.


Select NOW or NEXT Programme.


Select the Broadcast Programme.



Page Up/Down.



or



Switch off EPG.



Select TV or RADIO Programme.



Detail information on or off

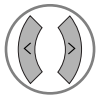
Button Function in Date Change Mode



Switch off Date setting mode.



Change to the selected date.


Select a date.


Switch off Date setting mode.



or



Switch off EPG.

EPG (ELECTRONIC PROGRAMME GUIDE)(IN DIGITAL MODE)

Button Function in Extended Description Box



The detail information on or off.



Text Up/Down.



Enter Timer Remind setting mode.



or



Switch off EPG.

Button Function in Remind Setting Mode



Change to Guide or Timer list mode.



Save Timer Remind.



Select Service, Date or Start time.



Function setting.

Button Function in Remind List Mode



Add new Manual Timer setting mode.



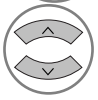
Enter **Remind List** editing mode.



Delete the selected item.



Change to Guide mode.



Select **Remind List**.

PICTURE CONTROL

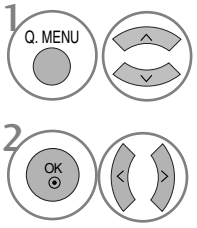
PICTURE SIZE (ASPECT RATIO) CONTROL

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 ∧ ∨ 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

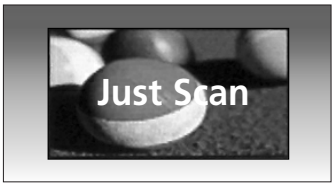
The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen(useful for viewing 4:3 formatted DVDs)



• 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 are noise in original Picture, You can see the noise at the edge.



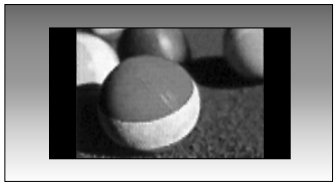
• Original

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



• 4:3

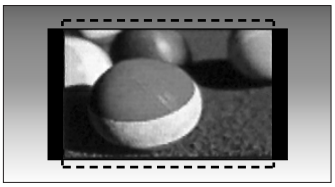
The following selection will allow you to view a picture with an original 4:3 aspect ration, gray bars will appear on both the left and right of the screen.



PICTURE CONTROL

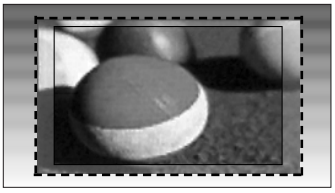
• **14:9**

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.

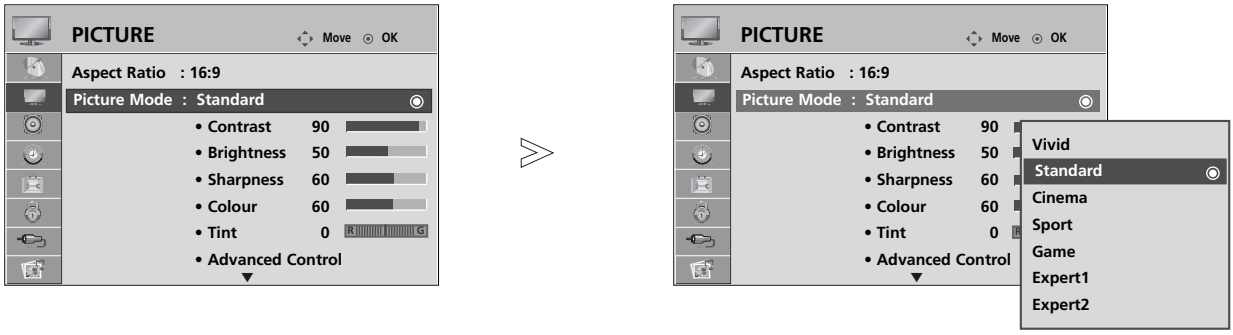


NOTE

- ▶ 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.
- ▶ **Just Scan** function only operates in DTV HD level(576p or above).

PRESET PICTURE SETTINGS

Picture Mode-Preset



1 MENU

Select **PICTURE**.

2 OK

Select **Picture Mode**.

3 OK

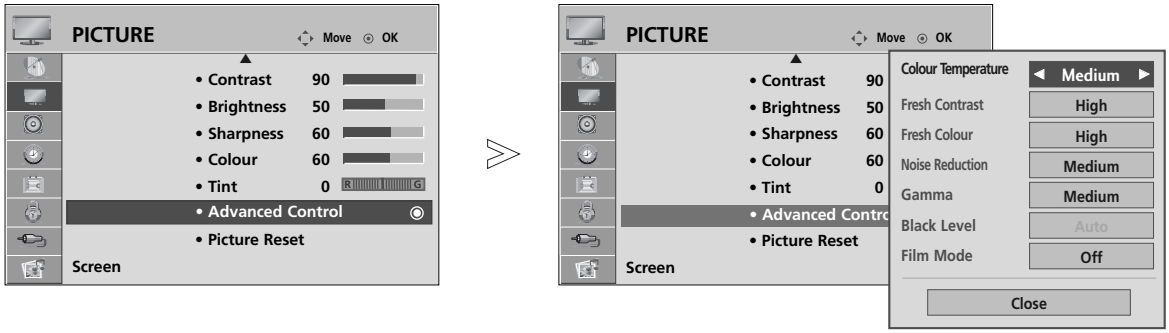
Select **Vivid**, **Standard**, **Cinema**, **Sport** or **Game**.

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

Auto Colour Tone Control (Cool/Medium/Warm)

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 MENU Select **PICTURE**.

2 OK Select **Advanced Control**.

3 OK Select **Colour Temperature**.

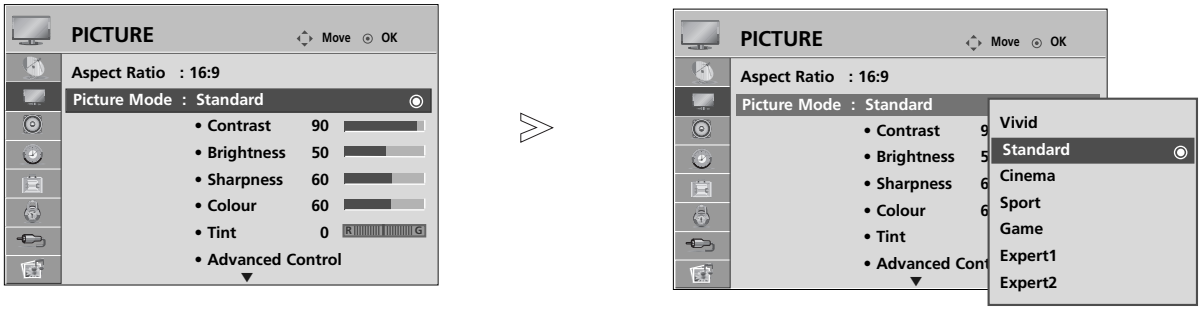
4 Select either **Cool**, **Medium** or **Warm**.

- 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

- **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.



1 MENU

Select **PICTURE**.

2 OK

Select **Picture Mode**.

3 OK

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

4 OK

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

5 OK

Make appropriate adjustments.

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

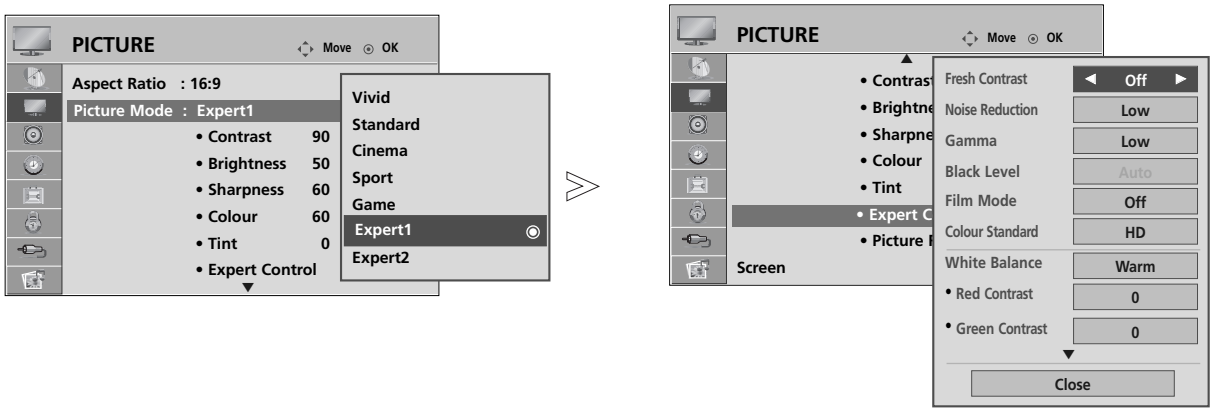
NOTE

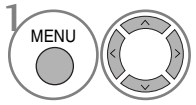
► You cannot adjust colour, sharpness and tint in the RGB-PC mode.

PICTURE CONTROL

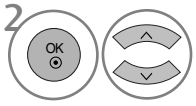
Picture Mode-Expert Control

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

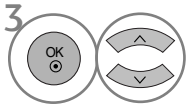




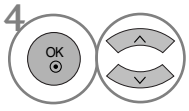
Select **PICTURE**.



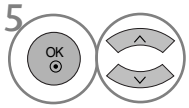
Select **Picture Mode**.



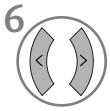
Select **Expert1** or **Expert2**.



Select **Expert Control**.



Select your desired Source.



Make appropriate adjustments.

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

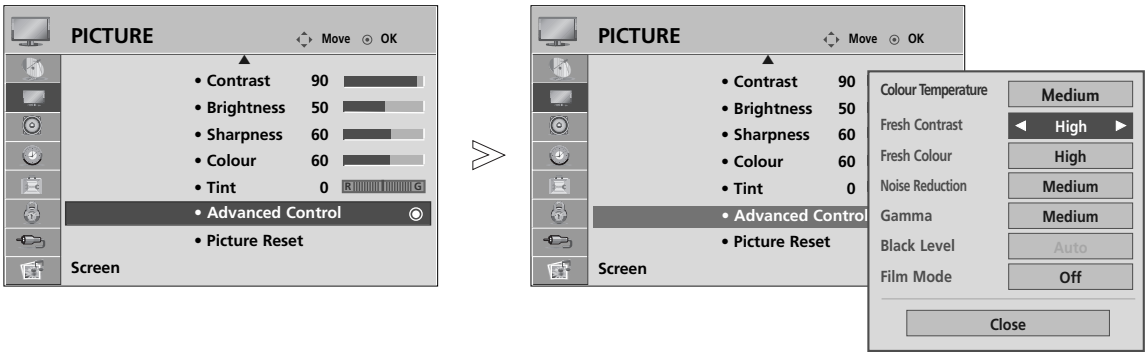
PICTURE IMPROVEMENT TECHNOLOGY

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.



1 Select **PICTURE**.

2 Select **Advanced Control**.

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

4 Select your desired Source.

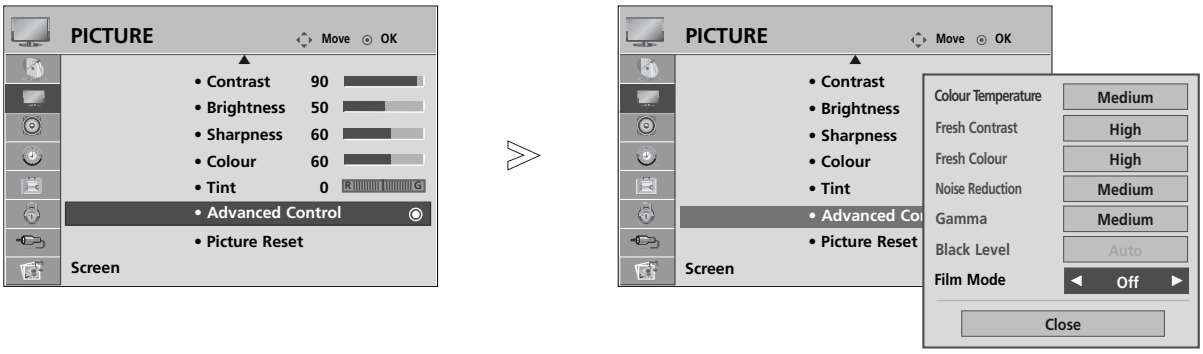
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

PICTURE CONTROL

ADVANCED - FILM MODE

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.



1 MENU Select **PICTURE**.

2 OK Select **Advanced Control**.

3 OK Select **Film Mode**.

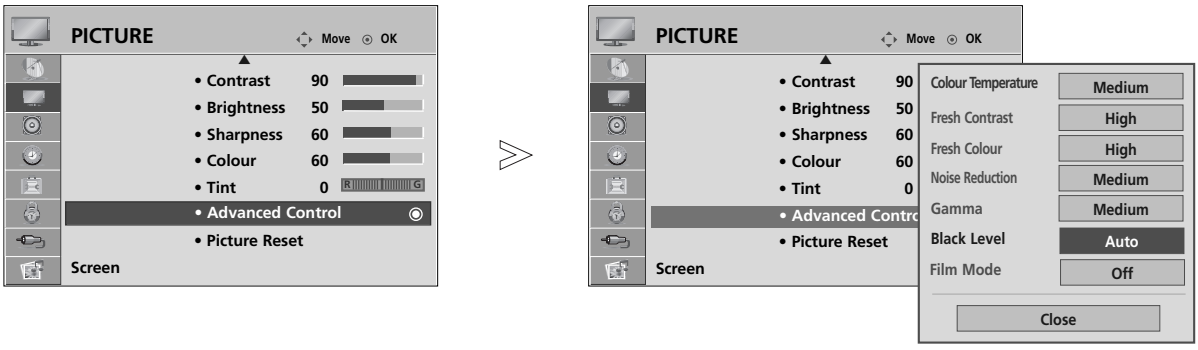
4 Select **On** or **Off**.

- 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 .



1 MENU Select **PICTURE**.

2 OK Select **Advanced Control**.

3 OK Select **Black Level**.

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

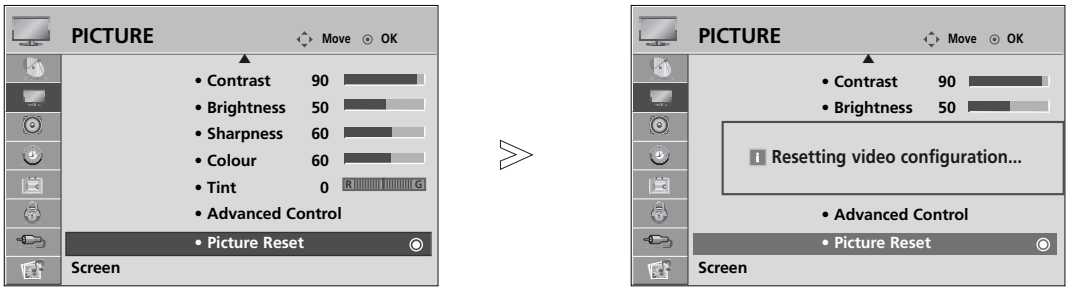
- **Low** : The reflection of the screen gets darker.
- **High** : The reflection of the screen gets brighter.
- **Auto** : Realizing the black level of the screen and set it to High or Low automatically.

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

PICTURE CONTROL

PICTURE RESET

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



1 MENU

Select **PICTURE**.

2 OK

Select **Picture Reset**.

3 OK

Initialize the adjusted value.

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

IMAGE STICKING MINIMIZATION (ISM) METHOD

A frozen or still picture 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.

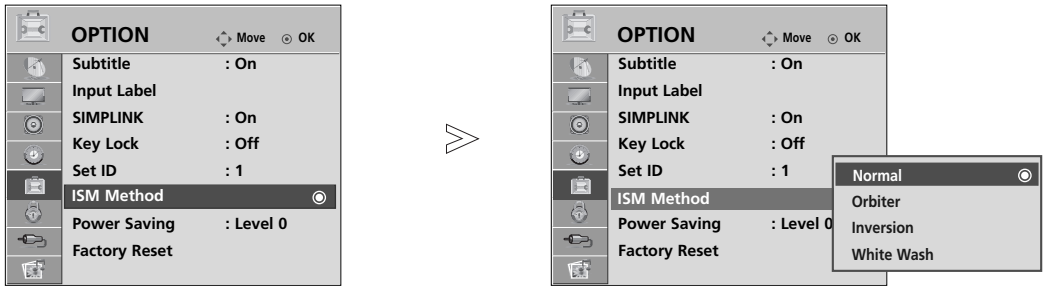
Note: An excessive permanent image may be impossible to clear entirely with White Wash.

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.



1 MENU

Select **OPTION**.

2 OK

Select **ISM Method**.

3 OK

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

4 OK

Save.

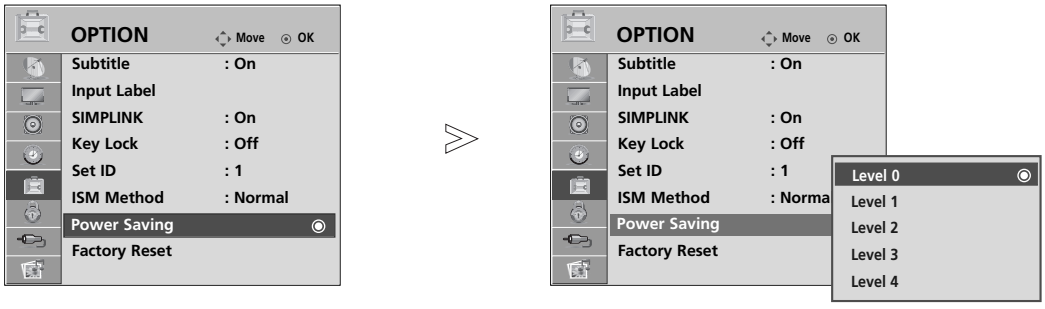
• If you do not need this function, set **Normal.**

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

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

POWER SAVING PICTURE MODE

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



1 MENU — Select **OPTION**.

2 OK — Select **Power Saving**.

3 OK — Select **Level 0**, **Level 1**, **Level 2**, **Level 3** or **Level 4**.

4 OK — Save.

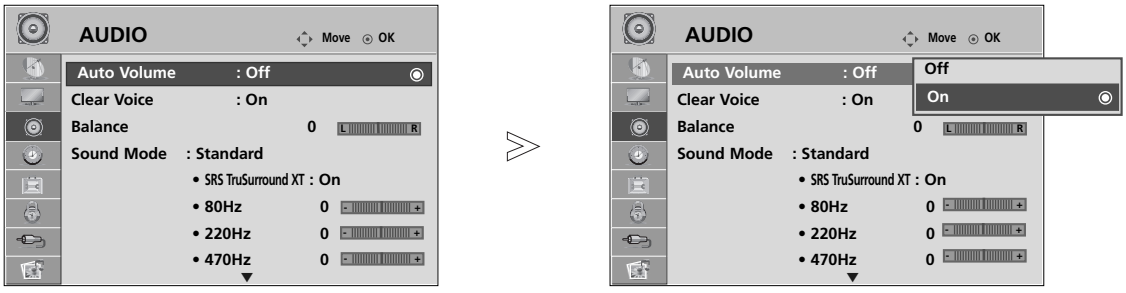
- Level 0 is the brightest.
- You can also adjust **Power Saving** in the **Q. Menu**.

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

SOUND & LANGUAGE CONTROL

AUTO VOLUME LEVELLER

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



1 MENU

Select **AUDIO**.

2 OK

Select **Auto Volume**.

3 OK

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.

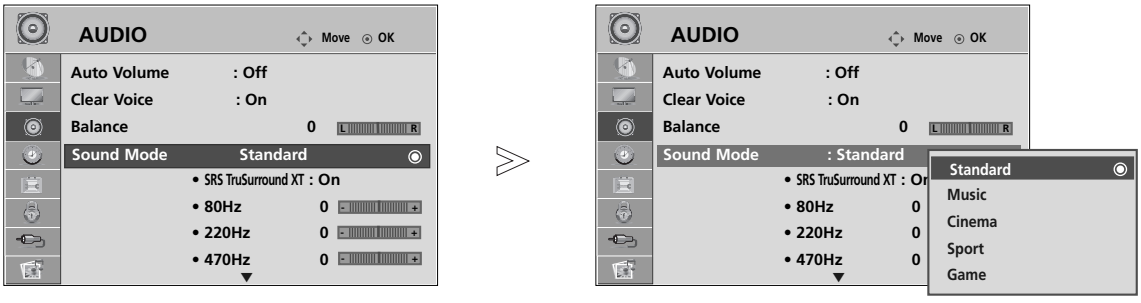
SOUND & LANGUAGE CONTROL

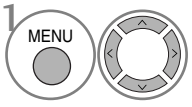
PRESET SOUND SETTINGS-SOUND MODE

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

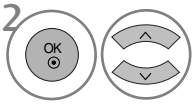
Sound Mode lets you enjoy the best sound without any Special adjustment as the TV sets the appropriate sound options based on the programme content.

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

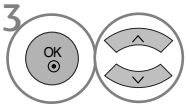




Select **AUDIO**.



Select **Sound Mode**.



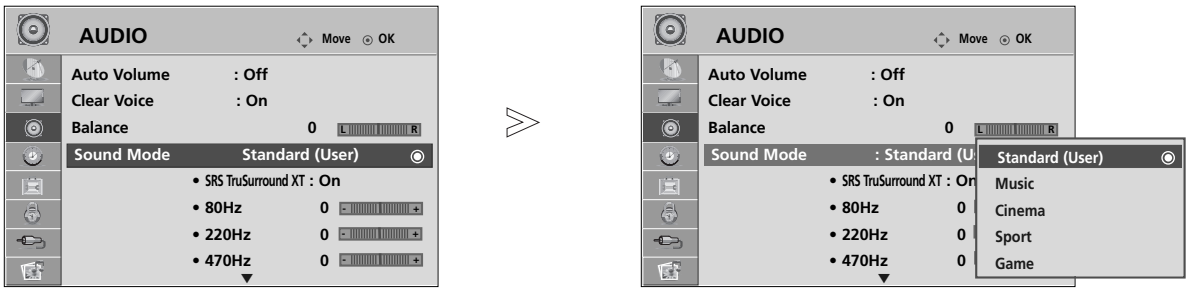
Select **Standard, Music, Cinema, Sport** or **Game**.

- 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 MENU Select **AUDIO**.

2 OK Select **Sound Mode**.

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

4 OK Select a frequency band.

5 OK Set the desired sound level.

SRS TRUSURROUND XT

1 MENU Select **AUDIO**.

2 OK Select **SRS TruSurround XT**.

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

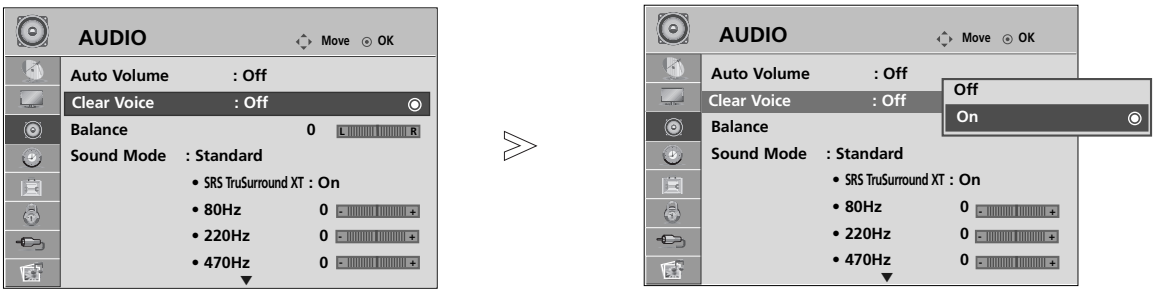
SRS TruSurround XT Select this option to sound realistic.

▶ SRS TruSurround XT DIGITAL 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.



1 MENU Select **AUDIO**.

2 OK Select **Clear Voice**.

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

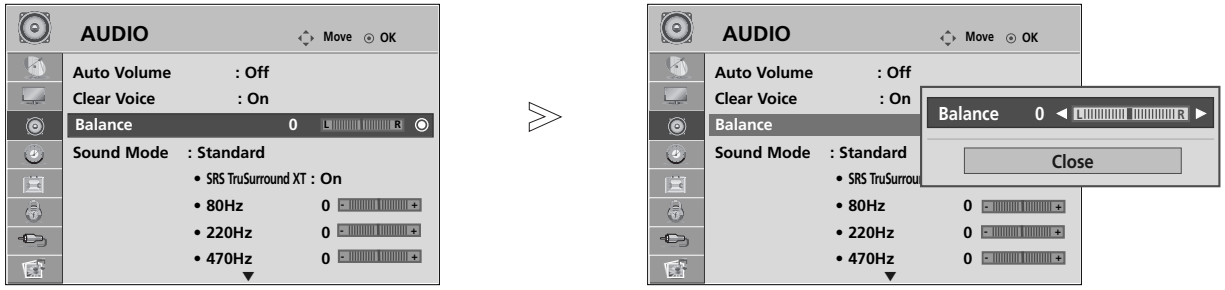
• If you select "**On**" for **Clear Voice**, **SRS TruSurround XT** feature will not work.

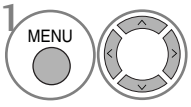
• Press the **MENU** button to return to normal TV viewing.

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

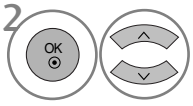
BALANCE

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

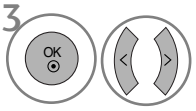




Select **AUDIO**.



Select **Balance**.



Make desired adjustment.

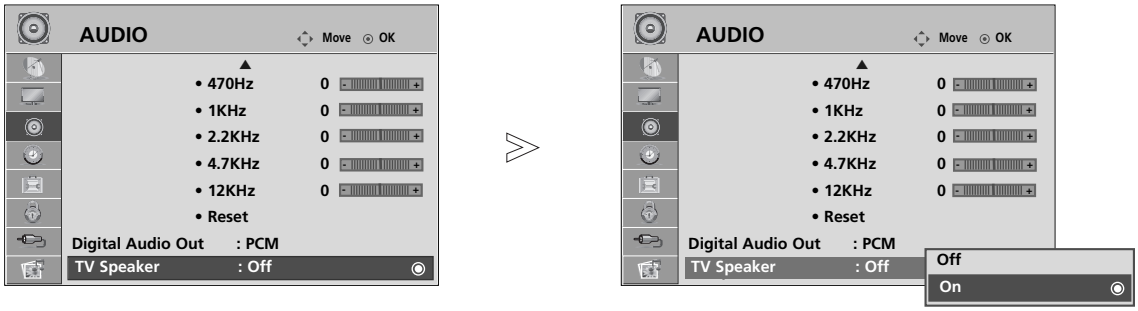
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

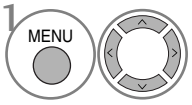
TV SPEAKERS ON/ OFF SETUP

You can adjust the TV internal speaker status.

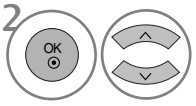
In **AV**, **COMPONENT**, **RGB** and **HDMI1** with HDMI to DVI cable, the TV speaker can be operational even when there is no video signal.

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

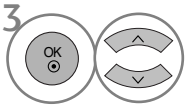




Select **AUDIO**.



Select **TV Speaker**.

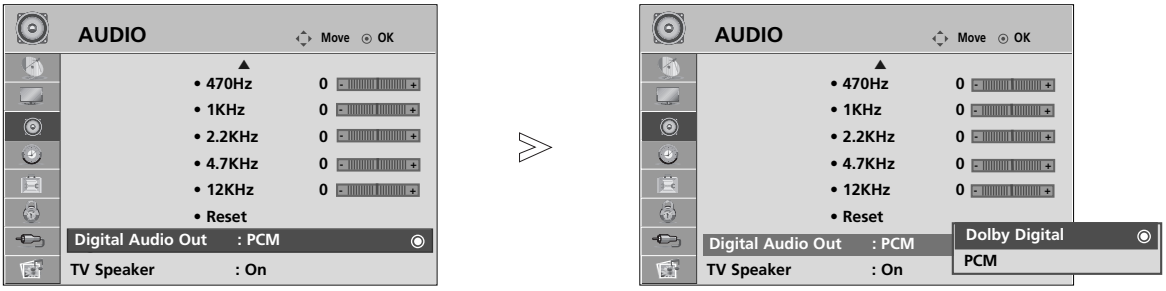


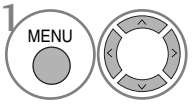
Select **On** or **Off**.

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

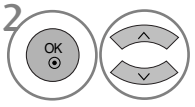
SELECTING DIGITAL AUDIO OUT

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.

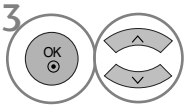




Select **AUDIO**.



Select **Digital Audio Out**.



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

DOLBY DIGITAL

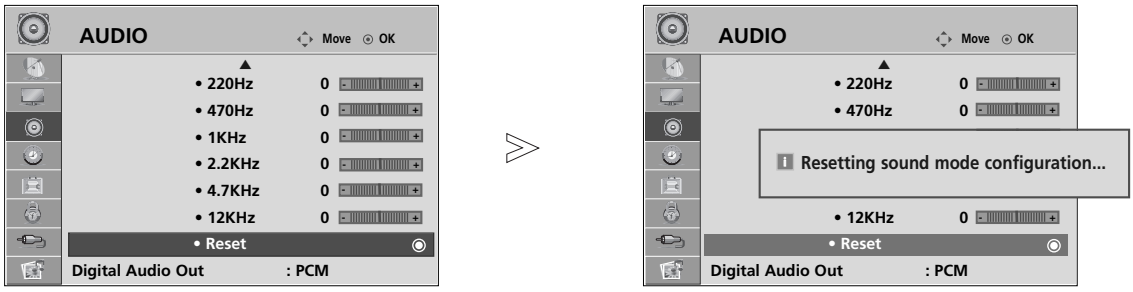
Manufactured under license from Dolby Laboratories. "*Dolby* "and the double-D symbol are trade-marks of Dolby Laboratories.

- There is a possibility that when HDMI mode, some DVD player 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.

AUDIO RESET

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



1 MENU Select **AUDIO**.

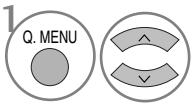
2 OK Select **Reset**.

3 OK Initialize the adjusted value.

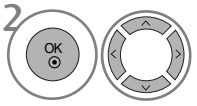
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

STEREO RECEPTION (IN ANALOGUE MODE ONLY)

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



Select **Audio**.



Selects the sound output.

Broadcast	On Screen Display
Mono	MONO
Stereo	MONO / STEREO

■ **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. To switch back to stereo.

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.

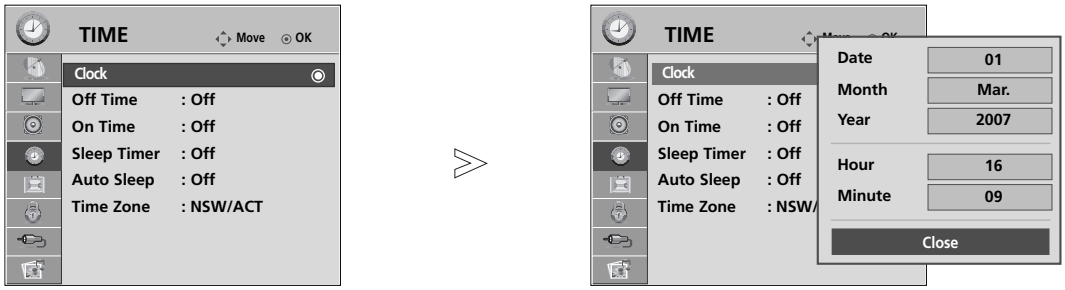
R+R: Audio signal from audio R input is sent to left and right loudspeakers.

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.



1 MENU — Select **TIME**.

2 OK — Select **Clock**.

3 OK — Select either the year, date, or time option.

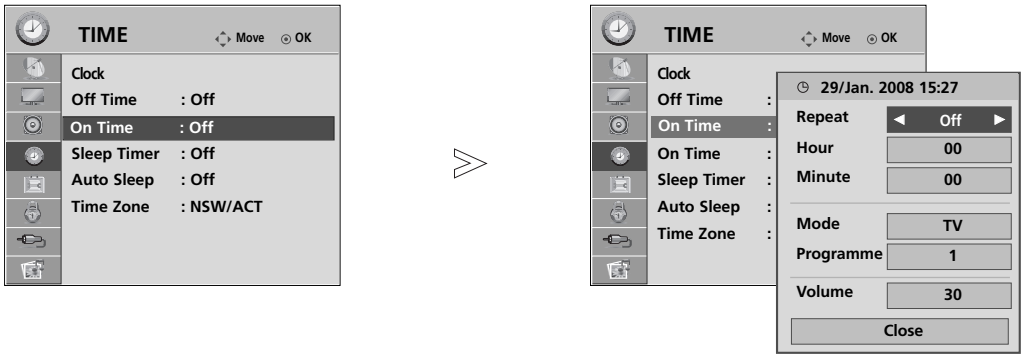
4 — Set the year, date, and time options.

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

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 MENU Select **TIME**.

2 OK Select **Off Time** or **On Time**.

3 OK 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 OK Select **Mode**.

2 Select **TV**, **DTV** or **Radio**.

3 Set the programme.

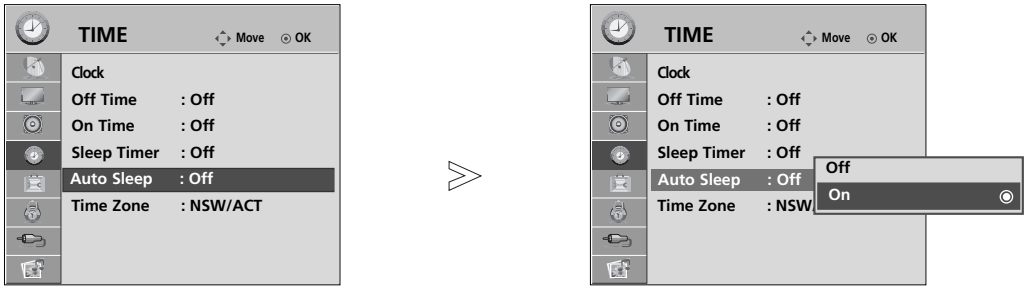
4 Adjust volume level at switch-on.

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

TIME SETTING

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 MENU

Select **TIME**.

2 OK

Select **Auto Sleep**.

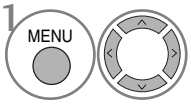
3 OK

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

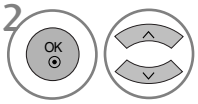
- Press the **MENU** button to return to normal TV viewing.
- Press the **RETURN** button to move to the previous menu screen.

TIME ZONE SETUP

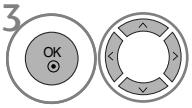
When you select a Time Zone city, the TV time is set by the time offset information based on Time Zone and GMT (Greenwich Mean Time) which is received with the broadcast signal and the time is set automatically by a digital signal.



Select **TIME**.



Select **Time Zone**.



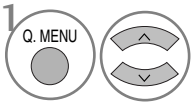
Select your viewing area time zone.



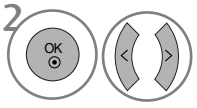
Confirm it.

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.



Select **Sleep Timer**.



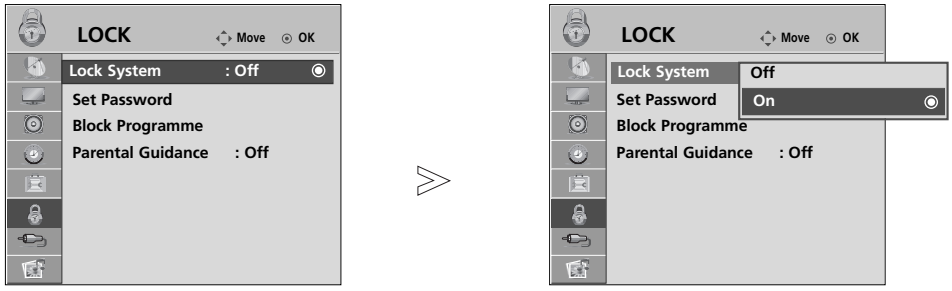
Select **Off**, **10**, **20**, **30**, **60**, **90**, **120**, **180** or **240 Min**.

- 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 MENU — Select **LOCK**.

2 OK — Select **Lock System**.

3 OK — Select **On**.

4 OK OK — Set the password.

5 — Input a 4-digit password.
Be sure to remember this number!
Re-enter new password for confirm.

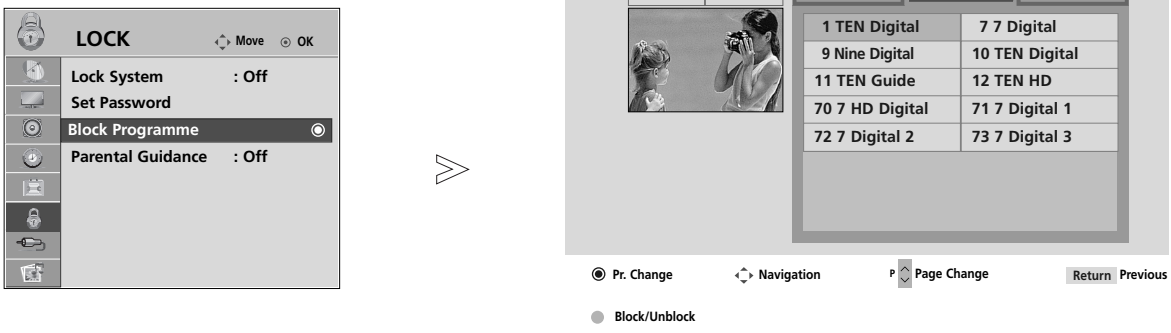
- If you forget your password, press ‘7’, ‘7’, ‘7’, ‘7’ on the remote control handset.

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

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**".



1 MENU

Select **LOCK**.

2 OK

Select **Block Programme**.

3 OK

Enter the **Block Programme**.

4 GREEN

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.

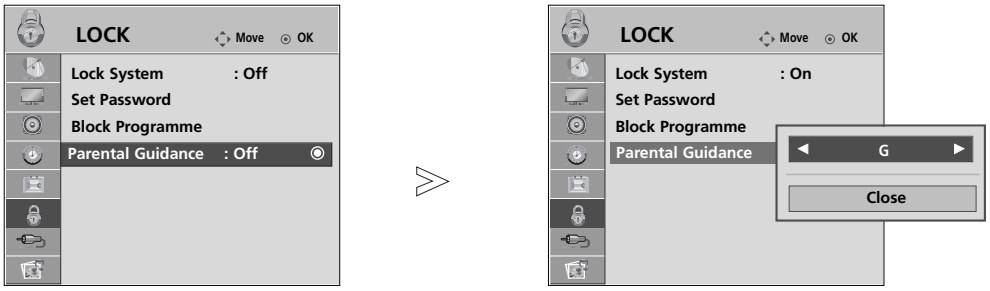
PARENTAL CONTROL

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 MENU

Select **LOCK**.

2 OK

Select **Parental Guidance**.

3 OK

Make appropriate adjustments.

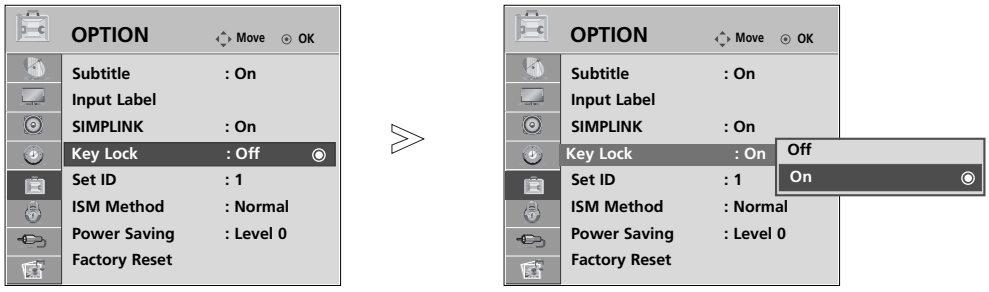
4 OK

Save.

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

KEY LOCK

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



1 MENU — Select **OPTION**.

2 OK — Select **Key Lock**.

3 OK — Select **On** or **Off**.

4 OK — Save.

- In **Key Lock** '**On**', if the TV is turned off, press the ⏻ / I, **INPUT**, **P** ▲ or ▼ button on the TV or **POWER**, **INPUT**, **P** ^ ˇ 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

❶ 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.
❷ The **P** ∧ ∨ button can be used to select the preceding or following page.

TOP TEXT

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

■ Block / group / page selection

❶ With the blue button you can progress from block to block.
❷ Use the yellow button to proceed to the next group with automatic overflow to the next block.
❸ With the green button you can proceed to the next existing page with automatic overflow to the next group. Alternatively the **P** ∧ button can be used.
❹ The red button returns to the previous selection. Alternatively the **P** ∨ button can be used.

■ Direct page selection

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

FASTEXT

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

■ Page selection

❶ Press the **T.OPT** button and then use ∧ ∨ button to select menu. Display the index page.
❷ You can select the pages which are colour coded along the bottom line with corresponding coloured buttons.
❸ AS with SIMPLE teletext mode, you can select a page by entering its three digit page number with the NUMBER buttons in FASTEXT mode.
❹ The **P** ∧ ∨ button can be used to select the preceding or following page.

SPECIAL TELETEXT FUNCTIONS

■ Press the **T. OPT** button and then use ∧ ∨ 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.



■ **INDEX**

Select the each index page.

APPENDIX

TROUBLESHOOTING

The TV does not operate properly.	
The remote control does not work	■ Check to see if there is any object between the TV and the remote control causing an obstruction. Ensure you are pointing the remote control directly at the TV. ■ Ensure that the batteries are installed with correct polarity (+ to +, - to -). ■ 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 product 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 product and the VCR. ■ Try another channel. The problem may be with the broadcast. ■ Are the video cables installed properly? ■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	■ Station or cable 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	■ Press the + or - button. ■ Sound muted? Press **MUTE** button. ■ Try another channel. The problem may be with the broadcast. ■ Are the audio cables installed properly?
No output from one of the speakers	■ Adjust **Balance** in menu option.
Unusual sound from inside the product	■ A change in ambient humidity or temperature may result in an unusual noise when the product is switched on or off and does not indicate a fault with the product.
No sound when connecting HDMI or USB	■ Check HDMI cable over version 1.3. ■ Check USB cable over version 2.0. *This feature is not available for all models.

There is a problem in PC mode. (Only PC mode applied)	
The signal is out of range (Invalid format)	■ Adjust resolution, horizontal frequency, or vertical frequency. ■ Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	■ Use Auto configure or adjust clock, phase, or H/V position. (Option)
Screen colour is unstable or single colour	■ Check the signal cable. ■ Reinstall the PC video card.

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		42PG6*** 42PG60UD-AA	50PG6*** 50PG60UD-AA	50PG3*** 50PG30FD-AA	60PG3*** 60PG30FD-AA
Dimensions (Width x Height x Depth)	with stand	1044.4 x 735.4 x 308.0 mm 41.1x 28.9 x 12.1 inches	1235.6 x 849.3 x 364.1 mm 48.6 x 33.4x 14.3inches	1232 x 850 x 363.6 mm 48.5 x 33.5x 14.3inches	1468 x 1009.1 x 413.9 mm 57.8 x 39.7 x 16.3 inches
	without stand	1044.4 x 680.6 x 79.6 mm 41.1 x 26.7 x 3.1 inches	1235.6 x 792.8 x 79.6 mm 48.6x 31.2 x 3.1 inches	1232 x 793 x 84 mm 48.5x 31.2 x 3.3 inches	1468 x 949.5 x 88.5 mm 57.8 x 37.4 x 3.5 inches
Weight	with stand	28 kg / 61.7 lbs	43.65 kg / 96.2 lbs	42.3 kg / 93.3 lbs	80.6 kg / 177.7 lbs
	without stand	25 kg / 55 lbs	39.7kg / 87.5lbs	38.3kg / 84.4lbs	72.6 kg / 160.1 lbs
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz

MODELS		42PG2*** 42PG20D-AA	50PG2*** 50PG20D-AA	50PG7*** 50PG70FD-AB	60PG7*** 60PG70FD-AB
Dimensions (Width x Height x Depth)	with stand	1040 x 731.3 x 308 mm 40.9x 28.7 x 12.1 inches	1224.7 x 849 x 364 mm 48.2 x 33.4x 14.3inches	1235.6 x 849.3 x 364.1 mm 48.6 x 33.4x 14.3inches	1455 x 985 x 414 mm 57.3 x 38.8 x 16.3 inches
	without stand	1040 x 677 x 86 mm 40.9 x 26.6 x 3.4 inches	1224.7 x 790 x 86 mm 48.2x 31.1 x 3.4 inches	1235.6 x 792.8 x 79.6 mm 48.6x 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	27.3 kg / 60.1 lbs	41.8 kg / 92.2 lbs	45.7 kg / 100.7 lbs	62.4 kg / 137.6 lbs
	without stand	24.4 kg / 53.8 lbs	37.8kg / 83.3lbs	41.7kg / 91.9 lbs	54.9 kg / 121.0 lbs
Power requirement		AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz	AC100-240V~ 50/60Hz
Television System Program Coverage External Antenna Impedance		PAL B/G, DVB-T VHF 0-12, UHF 20-75, CATV 02-44, DTV 06-12, 27-69 75 ohm			
Environment condition	Operating Temperature Operating Humidity	32 ~ 104˚F (0 ~ 40˚C) Less than 80%			
	Storage Temperature Storage Humidity	-4 ~ 140˚F (-20 ~ 60˚C) Less than 85%			

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

APPENDIX

This function is not available for all models.

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 ∧ ∨ 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 illumintated.
3. Press the **MENU** and **MUT**E 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.

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

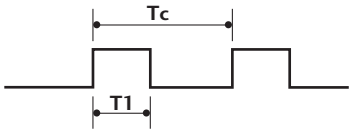
1. How to Connect

■ 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



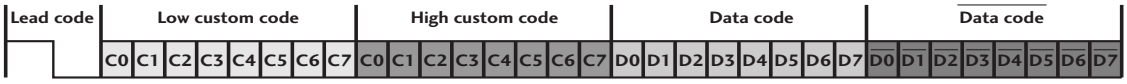
Carrier frequency

FCAR = 1/TC = fOSC/12

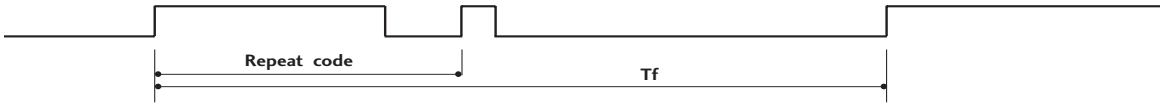
Duty ratio = T1/TC = 1/3

■ Configuration of frame

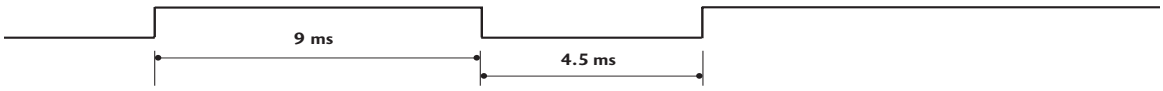
1st frame



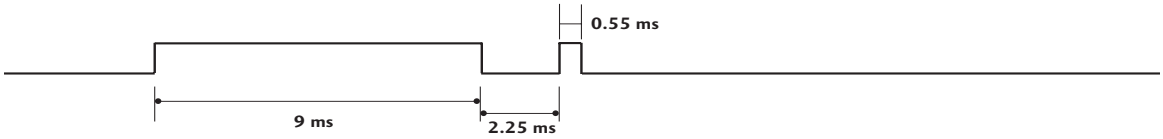
Repeat frame



■ Lead code

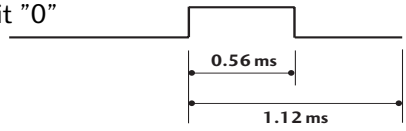


■ Repeat code

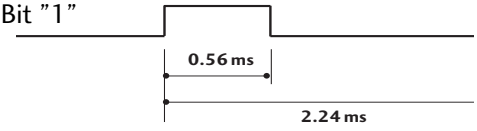


■ Bit description

Bit "0"

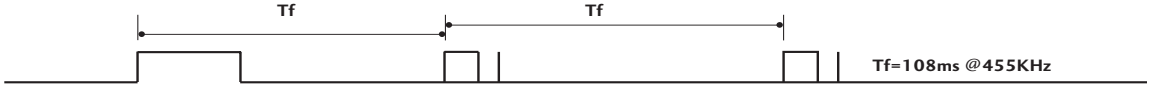


Bit "1"



■ 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 (∨)	R/C BUTTON
44	OK(◉)	R/C BUTTON
28	RETURN/EXIT	R/C BUTTON
AA	INFO ⓘ	R/C BUTTON
30	AV MODE	R/C BUTTON
02	◿ +	R/C BUTTON
03	◿ -	R/C BUTTON
00	P ∧	R/C BUTTON
01	P ∨	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
79	RATIO	R/C BUTTON

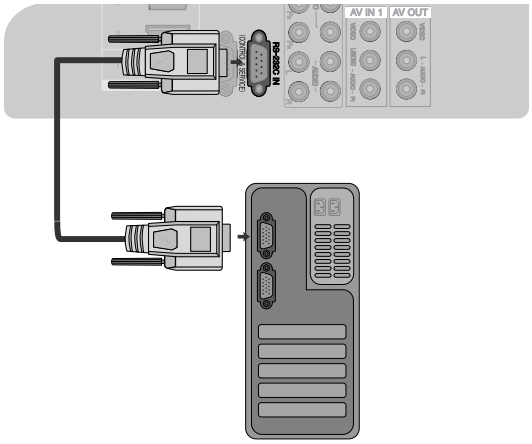
EXTERNAL CONTROL THROUGH RS-232C

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.

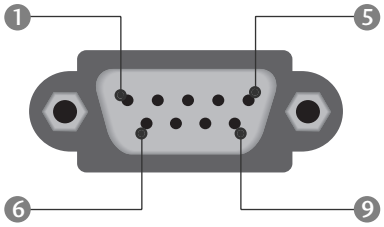
Connect the serial port of the control device to the RS-232C jack on the product back panel.

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)

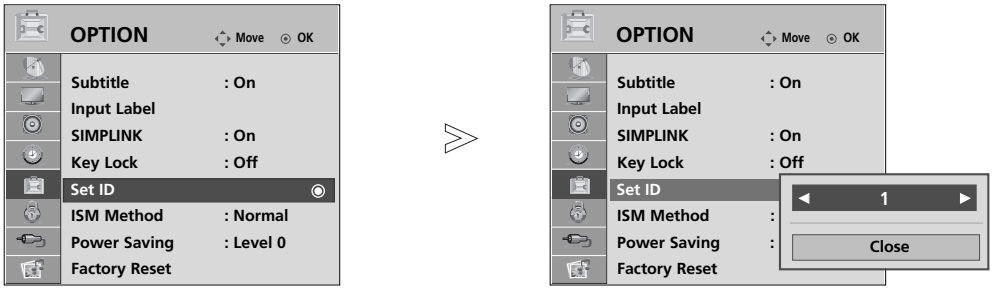
	PC	TV	
RXD	2	3	TXD
TXD	3	2	RXD
GND	5	5	GND
DTR	4	6	DSR
DSR	6	4	DTR
RTS	7	8	CTS
CTS	8	7	RTS
	D-Sub 9	D-Sub 9	

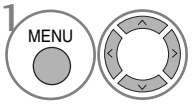
3-Wire Configurations(Not standard)

	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	

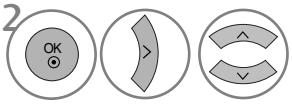
Set ID

Use this function to specify a set ID number.
Refer to 'Real Data Mapping'. ► p.110

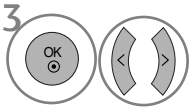




Select **OPTION**.



Select **Set ID**.



adjust **Set ID** to choose the desired TV ID number.
The adjustment range of SET ID is 1~99.

• Press **BACK** 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. 108
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. 109
17. Power Saving	j	q	00 ~ 04
18. Auto Configuration	j	u	01
19. Equalize	j	v	Refer to p. 110
20. Tune Command	m	a	Refer to p. 110
21. Channel Add/Skip	m	b	00 ~ 01
22. Key	m	c	Key C ode
23. Input select (Main)	x	b	Refer to p. 111

* When setting the 15 ~ 23, 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 01 : 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] [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)
02 : Wide screen (16:9)
04 : Zoom1
05 : Zoom2
06 : Original
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 HDMI/Component (over 720p), DTV(over HD TV) 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 110.

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 110.

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 110.

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 110.

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 110.

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 110.

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 110.

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 (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 (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	1KHz					
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 104.

Ack

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

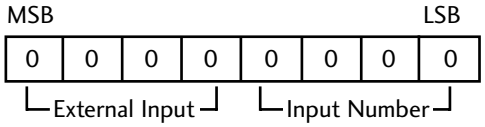
23. Input select (Command: x b) (Main Picture Input)

▶ To select input source for main picture.

Transmission

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

Data Structure



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