LG
Life's Good

ENGLISH

OWNER'S MANUAL
PLASMA TV

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

www.lg.com

Separate purchase

Wall Mounting Bracket

AW-50PG60MS AW-50PG60M

(50PK5**, 50PK7***, 50PK9***)

AW-60PG60MS AW-60PG60M

(60PK7***, 60PK9***)

Optional extras can be changed or modified for quality improvement without any notification.
Contact your dealer for buying these items.
This device only works with compatible LG Plasma TV.

Wireless Media Box

Wireless LAN for Broadband/ DLNA Adaptor

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

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PREPARATION

PLASMA TV Models : 50PK5***, 50/60PK7***, 50/60PK9***

ACCESSORIES

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

■ Image shown may differ from your TV.

Owner's Manual

Nero MediaHome
4 Essentials CD

Power Cord

Remote Control
Batteries (AAA)

Cable Holder

Cable
Management Clip
(Only 50/60PK9***)

Protection
Cover

M4x28 M5x14
(Only 50PK5**)

M4x28 M4x14
(Only 50PK7***, 50PK9***)

Bolts for stand assembly

This item is not included 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.

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

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

Install the power plug closely.

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

Ferrite core can be used to reduce the electromagnetic wave when connecting the LAN cable.
Place the ferrite core far from TV and wind the LAN cable in the ferrite core once.

PREPARATION

FRONT PANEL CONTROLS

NOTE

- ▶ TV can be placed in standby mode in order to reduce the power consumption. And TV should be switched off using the power switch on the TV if it will not be watched for some time, as this will reduce energy consumption.
  The energy consumed during use can be significantly reduced if the level of brightness of the picture is reduced, and this will reduce the overall running cost.

CAUTION

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

■ Image shown may differ from your TV.

Only 50PK5**

Only 50/60PK7***, 50/60PK9***

BACK PANEL INFORMATION

Only 50PK5**

■ Image shown may differ from your TV.

❶ **Power Cord Socket**
This TV operates on an AC power.
Caution: Never attempt to operate the TV on DC power.

❷ **RGB/DVI Audio Input**
Connect the audio from a PC or DTV.

❸ **RGB IN Input**
Connect the output from a PC.

❹ **OPTICAL DIGITAL AUDIO OUT**
Connect digital audio to various types of equipment.
Connect to a Digital Audio Component.
Use an Optical audio cable.

❺ **RS-232C IN (CONTROL & SERVICE) PORT**
Connect to the RS-232C port on a PC.
This port is used for Service or Hotel mode.

❻ **Audio/Video Input**
Connect audio/video output from an external device to these jacks.

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

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

❾ **Antenna Input**
Connect antenna or cable to this jack.

❿ **USB Input**
Connect USB storage device to this jack.

Only 50/60PK7***, 50/60PK9***

■ Image shown may differ from your TV.

❶ **Power Cord Socket**
This TV operates on an AC power.
Caution: Never attempt to operate the TV on DC power.

❷ **WIRELESS Control**
Connect the Wireless Ready Dongle to the TV to control the external input devices connected to Wireless Media Box wirelessly.

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

❹ **RGB IN Input**
Connect the output from a PC.

❺ **OPTICAL DIGITAL AUDIO OUT**
Connect digital audio to various types of equipment.
Connect to a Digital Audio Component.
Use an Optical audio cable.

❻ **RS-232C IN (CONTROL & SERVICE) PORT**
Connect to the RS-232C port on a PC.
This port is used for Service or Hotel mode.

❼ **Audio/Video Input**
Connect audio/video output from an external device to these jacks.

❽ **LAN**
Network connection for Weather info, Movie Online, Photo Album, etc.
Also used for video, photo and music files on a local network.

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

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

⓫ **Antenna Input**
Connect antenna or cable to this jack.

⓬ **USB Input**
Connect USB storage device to this jack.

PREPARATION

STAND INSTALLATION

■ Image shown may differ from your TV.

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

(Only 50PK5***, 50PK7***)

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

2. Set the **Stand Base** on even floor. Assemble the parts of the **Stand Body** with the **Stand Base** of the TV.

3. Assemble the TV as shown.

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

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

(Only 50PK9***)

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

2. Set the **Stand Base** on even floor. Assemble the parts of the **Stand Body** with the **Stand Base** of the TV.

3. Assemble the parts of the **Cable Management Clip** with the **Stand Body**.

4. Assemble the TV as shown.

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

BACK COVER FOR WIRE ARRANGEMENT

■ Image shown may differ from your TV.

After connecting the cables as necessary, install **Cable Holder** as shown and bundle the cables. In case of the LAN cable, install as shown to reduce the electromagnetic wave.

(50PK5*)**

(50PK7*, 50PK9***)**

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

2. Install the **Cable Management Clip** into the TV until clicking sound.

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.

HOW TO REMOVE THE CABLE MANAGEMENT CLIP

■ Image shown may differ from your TV.

Hold the **Cable Management Clip** with both hands and pull it backward as shown.

PREPARATION

NOT USING THE DESK-TYPE STAND

■ Image shown may differ from your TV.
When installing the wall-mounted unit, use the protection cover.

Insert the **Protection Cover** into the TV until clicking sound.

Protection Cover
(Fix a Guide to the Outsides.)

SWIVEL STAND

■ Image shown may differ from your TV.
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.

CAREFUL INSTALLATION ADVICE

■ You should purchase necessary components to fix the TV safety and secure 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, by fixing it to the wall, avoiding the possibility of it falling forwards if pulled. This will prevent the TV from falling forward and causing injury. This will also prevent the TV from damage. Ensure that children do not climb or hang from the TV.

1. Use the eye-bolts or TV brackets/bolts to fix the product to the wall as shown in the picture.
(If your TV has bolts in the 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 for alignment. It is safer to tie the rope so it becomes horizontal between the wall and the product.

NOTE

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

- 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

- Image shown may differ from your TV.

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

WALL MOUNT: HORIZONTAL INSTALLATION

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

❶ NOTE

► Should Install wall mount on a solid wall perpendicular to the floor.
► Should use a special wall mount, if you want to install it to ceiling or slanted wall.
► The surface that wall mount is to be mounted on should be of sufficient strength to support the weight of TV set; e.g. concrete, natural rock, brick and hollow block.
► Installing screw type and length depends on the wall mount used. Further information, refer to the instructions included with the mount.
► LG is not liable for any accidents or damage to property or TV due to incorrect installation:
- Where a non-compliant VESA wall mount is used.
- Incorrect fastening of screws to surface which may cause TV to fall and cause personal injury.
- Not following the recommended Installation method.

Model	VESA (A * B)	Standard Screw	Quantity
50PK5***	400 * 400	M6	4
50PK7***	400 * 400	M6	4
60PK7***	600 * 400	M8	4
50PK9***	400 * 400	M6	4
60PK9***	600 * 400	M8	4

PREPARATION

REMOTE CONTROL KEY FUNCTIONS

When using the remote control, aim it at the remote control sensor on the TV.
In Analogue TV and some countries, some remote control keys may not work.

⏻ (POWER)	Switches the TV on from standby or off to standby.
LIGHT (Only 50PK9***)	You can turn the light of the remote control button on or off.
ENERGY SAVING	Adjust the Energy Saving mode of the TV.(▶ **p.100**)
AV MODE	It helps you select and set images and sounds when connecting AV devices.(▶ **p.48**)
INPUT	External input mode rotate in regular sequence. (▶ **p.43**)
TV/RAD	Selects Radio, TV and DTV channel.

MENU	Selects a menu. Clears all on-screen displays and returns to TV viewing from any menu.(▶ **p.25**)
NetCast (Except for 50PK5***)	Select the desired NetCast menu source. (▶ **p.52**) (Weather info, Movie Online, Photo Album) NetCast menu source can differ by country.
Q. MENU	Select the desired quick menu source. (Aspect Ratio, Clear Voice II , Picture Mode, Sound Mode, Audio Language, Sleep Timer, Skip Off/On, USB Device).(▶ **p.24**)
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.
BACK	Allows the user to move return one step in an interactive application, EPG or other user interaction function.
EXIT	Clears all on-screen displays and returns to TV viewing from any menu.
GUIDE	Shows programme guide.(▶ **p.91**)

INFO ⓘ	Shows the present screen information.

0 to 9 number button	Selects a programme. Selects numbered items in a menu.
␣ (Space)	Opens an empty space on the screen keyboard.
LIST	Displays the programme table. (▶ **p.41)**
Q.VIEW	Returns to the previously viewed programme.

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

1 TELETEXT BUTTONS	These buttons are used for teletext. For further details, see the 'Teletext' section.(▶ **p.134**)
SUBTITLE	Recalls your preferred subtitle in digital mode.

FREEZE	Pause the present picture at the screen. (It doesn't work at USB Mode and Simplink.) The TV returns to normal viewing automatically if no signal is received or no operation is performed for 5 minutes. If you keep the screen in Freeze condition, the residual image can exist.

SIMPLINK	See a list of AV devices connected to TV. When you toggle this button, the Simplink menu appears at the screen.(▶ **p.45**)

PREPARATION

VOLUME UP /DOWN	Adjusts the volume.
MARK	Select the input to apply the Picture Wizard settings. Mark and un-mark programmes in the USB menu.
FAV	Displays the selected favourite programme.
CHAR/NUM	Shifts the Character or Number for NetCast menu.
RATIO	Selects your desired Aspect Ratio of picture. (▶ **p.97**)
DELETE	Deletes the entered character when entering the character on the screen keyboard.
MUTE	Switches the sound on or off.
Programme UP/DOWN	Selects a programme.
PAGE UP/ DOWN	Move from one full set of screen information to the next one.

SIMPLINK / MY MEDIA Menu control buttons	Controls SIMPLINK or MY MEDIA menu (Photo List, Music List and Movie List).

Installing Batteries

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

EXTERNAL EQUIPMENT SETUP

- 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 cord until you have finished connecting all equipment.
- This section on **EXTERNAL EQUIPMENT SETUP** mainly uses diagrams for the 50/60 PK950.
- Image shown may differ from your TV.

CONNECTING WITH A COMPONENT CABLE

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.

1. Connect the video outputs (Y, PB, PR) of the external equipment (digital set-top box, DVD, etc.) to the **COMPONENT IN VIDEO** jacks on the TV.
2. Connect the audio output of the external equipment (digital set-top box, DVD, etc.) to the **COMPONENT IN AUDIO** jacks on the TV.
3. Turn on the external equipment.
   (Refer to the external equipment's manual for operating instructions.)
4. Select the **COMPONENT1** input source using the **INPUT** button on the remote control.
   If connected to **COMPONENT IN 2**, select **COMPONENT2** input source.

▶ HDMI Audio Supported format : Dolby Digital, PCM.
DTS Audio format is not supported.

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

Component Input ports

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

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

CONNECTING WITH AN HDMI CABLE

1. Connect the HDMI output of the external equipment (digital set-top box, DVD, etc.) to **HDMI/DVI IN 1, HDMI/DVI IN 2, HDMI/DVI IN 3, HDMI/DVI IN 4**(Except for PK5**) jack on the TV.
2. Turn on the external equipment.
   (Refer to the external equipment's manual for operating instructions.)
3. Select **HDMI1, HDMI2, HDMI3, HDMI4**(Except for PK5**) input source using the **INPUT** button on the remote control.

NOTE

- The TV can receive video and audio signals simultaneously when using an HDMI cable.
- If the DVD does not support Auto HDMI, you must set the output resolution appropriately.
- Check that your HDMI cable is High Speed HDMI Cable. If the HDMI cables are not High Speed HDMI Cable, flickering or no screen display can result. Please use the High Speed HDMI Cable.

EXTERNAL EQUIPMENT SETUP

- To avoid damaging any equipment, never plug in any power cord until you have finished connecting all equipment.
- This section on **EXTERNAL EQUIPMENT SETUP** mainly uses diagrams for the 50/60 PK950.
- Image shown may differ from your TV.

CONNECTING WITH AN HDMI TO DVI CABLE

1. Connect the digital set-top box or the DVI output of the PC to **HDMI/DVI IN 1, HDMI/DVI IN 2, HDMI/DVI IN 3, HDMI/DVI IN 4**(Except for PK5**) jack on the TV.
2. Connect the audio output of the digital set-top box or the PC audio output to the **AUDIO IN (RGB/DVI)** jack on the TV.
3. Turn on the digital set-top box or the PC and the TV.
   (Refer to the digital set-top box or the PC manual for operating instructions.)
4. Select **HDMI1, HDMI2, HDMI3, HDMI4**(Except for PK5**) input source using the **INPUT** button on the remote control.

USB SETUP

1. Connect the USB device to the **USB IN 1** or **USB IN 2**(Except for PK5**) jack on the TV.
2. After connecting the **USB IN 1** or **USB IN 2** jack, you use the **USB** function. (▶ **p.60**)

CONNECTING WITH AN RF CABLE

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

1. Connect the **ANT OUT** socket of the VCR to the **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 or external equipment. 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.)
   Or, Operate the corresponding external equipment. (Refer to external equipment operating guide.)
3. Select **AV1** input source using the **INPUT** button on the remote control.
   If connected to **AV IN2**, select **AV2** 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.

EXTERNAL EQUIPMENT SETUP

CONNECTING WITH A D-SUB 15 PIN CABLE

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

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.

DIGITAL AUDIO OUT SETUP

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

1. Connect one end of an optical cable to the TV Digital Audio (Optical) Output port.
2. Connect the other end of the optical cable to the digital audio (Optical) input on the audio equipment.
3. Set the "TV Speaker option - Off " in the AUDIO menu.(▶ **p.119**). Refer to the external audio equipment instruction manual for operation.

⚠ CAUTION

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

EXTERNAL EQUIPMENT WIRELESS CONNECTION
(Except for 50PK5**)

LG TVs with a Wireless Control port support the LG Wireless Media Box, which is sold separately. When you connect the Wireless Ready Dongle (included with the Wireless Media Box) to the TV, external devices can be connected to the LG Wireless Media Box and video and audio will be sent to the TV wirelessly.

After the wireless is connected, press the **INPUT** button to view the wireless input screen.
Refer to the Wireless Media Box manual for operating instructions.

1. Connect the **WIRELESS CONTROL** jack of the Wireless Ready Dongle to the **WIRELESS CONTROL** jack on the TV.
2. Connect **HDMI OUT** jack of the Wireless Ready Dongle to the **HDMI/DVI IN 1, HDMI/DVI IN 2, HDMI/DVI IN 3, HDMI/DVI IN 4** jack on the TV.

LG Wireless Media Box

LG Wireless Ready Dongle

NOTE

- **WIRELESS CONTROL** : Wireless Ready Dongle power supply and control usage.
- **HDMI** : Video/Audio signal is connected in Wireless Ready Dongle.
- When you connect to the Wireless Media Box (Separately sold product), you can watch the external device connected to the Wireless Media Box through wireless connection.
- When using the external device connected to the Wireless Media Box, some functions of the TV.
- In wireless external output, Real Cinema and Digital Noise Reduction functions are not supported.

EXTERNAL EQUIPMENT SETUP

SUPPORTED DISPLAY RESOLUTION

RGB-PC, HDMI/DVI-PC mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x400	31.469	70.08
640x480	31.469	59.94
800x600	35.156	56.25
800x600	37.879	60.31
1024x768	48.363	60.00
1280x768	47.693	59.992
1360x768	47.712	60.015
1280x1024	63.981	60.020
1920x1080	66.587	59.934

HDMI/DVI-DTV mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x480	31.47	59.94
	31.47	60
720x576	31.25	50
1280x720	37.5	50
	44.96	59.94
	45	60
1920x1080	33.72	59.94
	33.75	60
	28.125	50
	26.97	23.94
	27	24
	33.71	29.97
	33.75	30.00
	56.25	50
	67.432	59.939
	67.5	60

NOTE

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

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].

Select **PICTURE**.

Select **Screen**.

Select **Reset**.

Select **Yes**.

Run **Reset**.

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

Auto Configure (RGB [PC] mode only)

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

Auto configure

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

Select **PICTURE**.

Select **Screen**.

Select **Auto Config.**

Select **Yes**.

Run **Auto Config.**

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

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

EXTERNAL EQUIPMENT SETUP

Adjustment for screen Position, Size, Phase

If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture position 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/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

NETWORK SETUP (Except for 50PK5**)

Wired Network Connection

This TV can be connected to a local area network (LAN) via the LAN port. After making the physical connection, the TV needs to be set up for network communication.

1. Connect the LAN port of the Modem or Router to the LAN port on the TV.
2. Select "**Network Setting**" in the **NETWORK** menu.
3. After connecting the **LAN** port, use the **NetCast** menu. For more information about NetCast setup and trouble-shooting, visit http://lgknowledgebase.com. Search for **NetCast**.

⚠ CAUTION

- ► Do not connect a modular phone cable to the LAN port.
- ► Since there are various connection methods, please follow the specifications of your telecommunication carrier or internet service provider.

EXTERNAL EQUIPMENT SETUP

Wired Network Setup

If wired and wireless networks are both available, wired is the preferred method.
After making a physical connection, a small number of home networks may require the TV network settings to be adjusted.
For detail information, contact your internet provider or router manual.

1 Select **NETWORK**.

2 Select **Network Setting**.

3 Select **Wired**.

4 If you already set Network Setting: Select **Resetting**. The new connection settings resets the current network settings.

5 Select **IP Auto Setting** or **IP Manual Setting**.

When Selecting **IP Manual Setting:**
IP addresses will need to be input manually.

6 Select **OK**.

- This feature requires an always-on broadband internet connection.
- You do not need to connect to a PC to use this function.
- If **Network Setting** is not working, check your network conditions. Check the LAN cable and make sure your router has DHCP turned on if you wish to use the Auto Setting.
- If the **Network Setting** is not completed, network may not operate normally.
- **IP Auto Setting**: Select it if there is a DHCP server on the local area network (LAN) via wired connection, the TV will automatically be allocated an IP address. If you're using a broadband router or broadband modem that has a DHCP (Dynamic Host Configuration Protocol) server function. The IP address will automatically be determined.
- **IP Manual Setting**: Select it if there is no DHCP server on the network and you want to set the IP address manually.

EXTERNAL EQUIPMENT SETUP

NOTE

- ► For more information about NetCast setup and troubleshooting, visit **http://lgknowledgebase.com** Search for NetCast.
- ► Use a standard LAN cable with this TV. Cat5 or better with a RJ45 connector.
- ► Many network connection problems during set up can often be fixed by re-setting the router or modem. After connecting the player to the home network, quickly power off and/or disconnect the power cable of the home network router or cable modem. Then power on and/or connect the power cable again.
- ► Depending on the internet service provider (ISP), the number of devices that can receive internet service may be limited by the applicable terms of service. For details, contact your ISP.
- ► LG is not responsible for any malfunction of the TV and/or the internet connection feature due to communication errors/malfunctions associated with your broadband internet connection, or other connected equipment.
- ► LG is not responsible for problems within your internet connection.
- ► Some content available through the network connection may not be compatible with the TV. If you have questions about such content, please contact the producer of the content.
- ► You may experience undesired results if the network connection speed does not meet the requirements of the content being accessed.
- ► Some internet connection operations may not be possible due to certain restrictions set by the Internet service provider (ISP) supplying your broadband Internet connection.
- ► Any fees charged by an ISP including, without limitation, connection charges are your responsibility.
- ► A 10 Base-T or 100 Base-TX LAN port is required for connection to this TV. If your internet service does not allow for such a connection, you will not be able to connect the TV.
- ► A DSL modem is required to use DSL service and a cable modem is required to use cable modem service. Depending on the access method of and subscriber agreement with your ISP, you may not be able to use the internet connection feature contained in this TV or you may be limited to the number of devices you can connect at the same time. (If your ISP limits sub-scription to one device, this TV may not be allowed to connect when a PC is already connected.)
- ► The use of a “Router” may not be allowed or its usage may be limited depending on the policies and restrictions of your ISP. For details, contact your ISP directly.
- ► The wireless network operates at 2.4 GHz radio frequencies that are also used by other household devices such as cordless telephone, Bluetooth® devices, microwave oven, and can be affected by interference from them. It can be interrupted by the device using 5 GHz radio frequencies. It is same device with LG wireless media box, cordless telephone, other Wi-Fi device.
- ► It may decrease the service speed using Wireless network by surrounding wireless condition.
- ► Turn off all unused network equipment in your local home network. Some devices may generate network traffic.
- ► In some instances, placing the access point or wireless router higher up away from the floor may improve the reception.
- ► The reception quality over wireless depends on many factors such as type of the access point, distance between the TV and access point, and the location of the TV.
- ► When connecting internet through the wired/wireless sharing machine, it may interrupt the connection because of the use limitation and confirmation of service company.
- ► To connect wireless AP, an AP that supports the wireless connection is necessary, and the wireless connection function of the AP needs to be activated. Please enquire to the AP supplier for the possibility of AP wireless connections.
- ► Please verify the security settings of AP SSID for wireless AP connection, and enquire to the AP supplier for the AP SSID security settings.
- ► The TV can become slower or malfunction with wrong settings of network equipments (wired/wireless router, hub, etc). Please install correctly by referring to the manual of the equipment, and set the network.
- ► When AP is set to include 802.11n, and if Encryption is designated as WEP(64/128bit) or WPA(TKIP/AES), the connection may not be possible.
- ► There may be different connection methods according to the AP manufacturers.

Wireless Network Connection

The LG Wireless LAN for Broadband/DLNA Adaptor, allows the TV to connect to a wireless lan network.

The network configuration and connection method may vary depending on the equipment in use and the network environment. Refer to the setup instructions supplied with your access point or wireless router for detailed connection steps and network settings.

1. Connect the “LG **Wireless LAN for Broadband/DLNA Adaptor**” to the **USB IN 1** or **USB IN 2** jack on the TV.

2. Select “**Network Setting**” in the **NETWORK** menu.
After connecting, you can use the **NetCast** menu.

NOTE

- ► For enjoying pictures, music, or video stored in the PC using the router, the use of wired port in the router is recommended.
- ► When the wireless port of the router is used, there may be restrictions for some functions.

EXTERNAL EQUIPMENT SETUP

Wireless Network Setup

Setting up the AP (Access Point) or the wireless router is required before connecting the TV to the network.

If you already set the **Network Setting**

If your AP is locked

1

Select **NETWORK**.

2

Select **Network Setting**.

3

Select **Wireless**.

4

If you already set Network Setting: Select **Resetting**.
The new connection settings resets the current network settings.

5

Select **Setting from the AP list**.

6

Scan the all available AP (Access Point) or wireless routers within range and display them as a list.

7

Select an AP (Access Point) or wireless router on the list.
(If your AP is locked, insert the security key of AP).

8

Input the security key of AP.

9 Repeat step 4-5 on P.14.

When a security code is already set

PIN (Personal Identification Number)

If you want to connect the AP (Access Point) or router with PIN, use this feature.

1 Repeat step 1-6 on P.18.

2 RED Connect the access point with **PIN** mode.

3 You can see the Network ID and Security Key on your TV screen.
Enter the PIN number to your device.

4 OK Select **Connect**.

5 Repeat step 4-5 on P.14.

- PIN number is the unique 8 digit number of the dongle.

EXTERNAL EQUIPMENT SETUP

Simple setting (WPS-button mode)

If your access point or wireless router that supports PIN or WPS (Wi-Fi Protected Setup), it's available to use your access point or wireless router within 120 counts. You do not need to know the access point name (SSID: Service Set Identifier) and security code of your access point or wireless router.

1 Repeat step 1-4 on P.18.

2

Select **Simple setting (WPS Mode)**.

3

Select **Connect**.

4 Repeat step 4-5 on P.14.

Ad-hoc Mode

This is the method of communicating directly with the machine to communicate without AP.
This is the same as connecting two PCs with a cross cable.

- Example of the PC setting that supports a wireless network

1. Find a wireless network device in your PC.
2. Select LGTV10 that appears in the list. (Select the same name as the network ID that appears on your TV screen.)
3. Type 1111111111 in the Inserting the security key dialog.
   (Type the security key that appears on your TV screen.)

- PC Setting
Internet Protocol(TCP/IP) of PC needs to be set manually.
IP address, Subnet Mask, and default Gateway can be set with your own discretion.
i.e) IP address: 192.168.0.1 / Subnet Mask: 255.255.255.0 / default Gateway: 192.168.0.10
- TV Setting
Verify IP address and gateway of PC.
Input Gateway address of PC to IP Address, and IP Address of PC to Gateway, and select **OK**.
i.e) IP address: 192.168.0.10 / Subnet Mask: 255.255.255.0 / default Gateway: 192.168.0.1

---

1 Repeat step 1-3 on P.18.

2

Select **Setting Ad-hoc network**.

3

Select **OK**.

4

Select **Connect** to connect Ad-hoc network.
You can see the Network ID and Security Key on your TV screen.
Enter this Network ID and Security Key to your device.If a network may not operate, change the setting information using the RED button.

5

Insert the IP address.

6

Network setting is completed.
Select **Close**.

EXTERNAL EQUIPMENT SETUP

Network Status

Wireless Connection

Wired Connection

Select **NETWORK**.

Select **Network Status**.

Check the **Network Status**.

- **Setting**: Return to the network setting menu or wireless network setting type menu.
- **Test**: Test the current network status after setting the network.
- **Close**: Return to the previous menu.

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** ∧ ∨ or **NUMBER** button on the remote control and the TV will switch on.

INITIALIZING SETUP

1. If the OSD (On Screen Display) is displayed on the screen after turning on the TV, you can adjust the **Language**(Except for Singapore, South Africa), **Mode Setting**, **Auto Tuning**.

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

PROGRAMME SELECTION

1. Press the **P** ∧ ∨ or NUMBER buttons to select a programme number.

VOLUME ADJUSTMENT

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

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

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

WATCHING TV / PROGRAMME CONTROL

QUICK MENU

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

- **Aspect Ratio**: Selects your desired picture format.
  For Zoom Setting, select 14:9, Zoom and Cinema Zoom in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.
- **Clear Voice II** : By differentiating the human sound range from others, it helps users listen to human voices better.
- **Picture Mode** : Selects your desired Picture Mode.
- **Sound Mode** : It is a feature to automatically set the sound combination which it deems the best for the images being watched. Selects your desired Sound Mode.
- **Audio** or **Audio Language** : Selects the sound output.
- **Sleep Timer** : Sets the sleep timer.
- **Skip Off/On** : Selects the Skip Off/On.
- **USB Device** : Selects “Eject” in order to eject USB device.

1

Display each menu.

2

Select your desired Source.

3

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

ON SCREEN MENUS SELECTION AND ADJUSTMENT

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

Display each menu.

Select a menu item.

Move to the pop up menu.

- Press the **RED** button, you can check the **Customer Support** menu.
- Press the **GREEN** button, you can check the **Simple Manual** menu.(Except for PK5**)
- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

NOTE

► It is possible to use **Hard of Hearing, Parental Guidance** menu in DTV country only.

WATCHING TV / PROGRAMME CONTROL

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

■ Image shown may differ from your TV.

(Except for PK5**)

AUTO PROGRAMME TUNING

Use this to automatically find and store all available programmes.

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

The maximum number of programmes that can be stored is 200. But the number may differ slightly depending on broadcasting signals.

1 Select **SETUP**.

2 Select **Auto Tuning**.

3 Select **Start**.

4 Run **Auto tuning**.

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

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

MANUAL PROGRAMME TUNING
(IN DIGITAL MODE)(ONLY DTV COUNTRY)

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

Select **SETUP**.

Select **Manual Tuning**.

Select **DTV**.

Select the desired channel number.

Select update or add if signal present.

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

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

MANUAL PROGRAMME TUNING

(IN ANALOGUE MODE)

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

1 Select **SETUP**.

2 Select **Manual Tuning**.

3 Select **TV**.

4 or Select the desired programme number on.

5 Select a TV system.

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

7 or Select the desired channel number.

8 Commence searching.

9 Select **Store**.

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

- Use NUMBER buttons to input a 4-digit password in **Lock System** '**On**'.
- **BG** : PAL B/G (South Africa / Singapore / Indonesia / Israel / Malaysia / Vietnam / Asia)
  DK : PAL D/K (South Africa / Singapore / Indonesia / Israel / Malaysia / Vietnam / Asia)
  I : PAL I/II (South Africa / Singapore / Indonesia / Israel / Malaysia / Vietnam / Asia)
  M : NTSC-M (South Africa / Indonesia / Israel / Malaysia / Vietnam / Asia)
- To store another channel, repeat steps 4 to 9.

WATCHING TV / PROGRAMME CONTROL

■ Assigning a station name

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

1 Select **SETUP**.

2 Select **Manual Tuning**.

3 Select **TV. (Only DTV Country)**

4 Select **Name**.

5 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 Select **Close**.

7 Select **Store**.

■ Fine Tuning

Normally fine tuning is only necessary if reception is poor.

1 Select **SETUP**.

2 Select **Manual Tuning**.

3 Select **TV. (Only DTV Country)**

4 Select **Fine**.

5 Fine tune for the best picture and sound.

6 Select **Store**.

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

PROGRAMME EDIT

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

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

This function enables you to skip the stored programmes.

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

Select **SETUP**.

Select **Programme Edit**.

Enter the **Programme Edit**.

Select a programme to be stored or skipped.

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

WATCHING TV / PROGRAMME CONTROL

IN DTV/RADIO MODE (ONLY DTV COUNTRY)

■ Skipping a programme number

1 Select a programme number to be skipped.

2 BLUE Turn the programme number to blue.

3 BLUE Release.

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

■ Locking a programme number

1 Select a programme number to be locked.

2 YELLOW Turn the programme number to yellow.

3 YELLOW Release.

- It can be registered as Lock programme even when Lock System is turned Off.

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 programme number to red.

- 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 GREEN Turn the programme number to green.

3 GREEN Release.

■ Skipping a programme number

1 Select a programme number to be skipped.

2 BLUE Turn the programme number to blue.

3 BLUE Release.

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

■ Locking a programme number

1 Select a programme number to be locked.

2 YELLOW Turn the programme number to yellow.

3 YELLOW Release.

• It can be registered as Lock programme even when Lock System is turned Off.

■ Selecting favourite programme

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

1 Select your desired programme.

2 MARK FAV CHAR/NUM Add corresponding programme to Favourite list of current Favourite group.

3 MARK FAV CHAR/NUM Release.

■ Selecting favourite programme group

1 Select your desired programme.

2 Q.MENU Display a pop-up window where Favourite group can be changed.

3 OK Select a Favourite group.

SOFTWARE UPDATE

You can update the TV with the latest software to enhance the product operation and/or add new features.
You can update the software by connecting the TV directly to the software update server.
The Software Update function may not work properly depending on your internet environment. In this case, you can obtain the latest software from the authorized LG Electronics Service Center then update your TV.

■ Image shown may differ from your TV.

1 MENU RED Select **Customer Support**.

2 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.

- Use the **Check Update Version** to update the latest software on the Network server manually.

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

■ When setting “Software Update”

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

Simple Update : for current update stream

Schedule Update : for scheduled update stream

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

When new Software is available when connected to Internet, the following message will be displayed.

Download starts when "Yes" is selected. At this time, progressing pop-up window does not display.

Download progress status can be checked from Software Update menu.

TV is restarted when download is completed.

- During Progress of a Software Update, please note the following:
- Power to the TV must not be interrupted.
- After Software Update, you can confirm the updated software version in Software Update menu.
- It may take hours to download the software, so make sure that the power stays on during the download.

<Simple Update, Schedule Update> (Only DTV Country)

- The antenna must not be disconnected.
- The software is downloaded only in Standby mode or in MUX with Software Update Service, and stops when the power cord is unplugged or when viewing MUX without Software Update Service.
- When you return to Standby mode or MUX with Software Update Service, the software download will resume from where it stopped.

<Network Update>

- You cannot open NetCast while the software is being updated.
- Do not release the Network connection during Update.

PICTURE/SOUND TEST

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

■ Image shown may differ from your TV.

1 MENU RED Select **Customer Support**.

2 Select **Picture Test** or **Sound Test**.

3 OK Select **Yes** or **No**.

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

SIGNAL TEST (ONLY DTV COUNTRY)

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

This displays the information and signal strength of the tuned *MUX.
This displays the signal information and service name of the selected MUX.
(*MUX: A higher directory of channels in digital broadcasting (a single MUX contains multiple channels.))

■ Image shown may differ from your TV.

1 MENU **RED** Select **Customer Support**.

2 Select **Signal Test**.

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

4 OK Display the information of Channel.

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

PRODUCT/SERVICE INFORMATION

This function is a customer support function that can see product/service information and customer service center information.

■ Image shown may differ from your TV.

1 MENU **RED** Select **Customer Support**.

2 Select **Product/Service Info.**

3 OK Display Model/Type, Software version, Serial Number, Used time, Customer service center and Homepage.

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

NETWORK TEST (Except for 50PK5**)

Check the network status.

■ Image shown may differ from your TV.

1 MENU RED Select **Customer Support**.

2 OK Select **Network Test**.

3 OK Check the **Network status.**

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

WATCHING TV / PROGRAMME CONTROL

SIMPLE MANUAL (Except for 50PK5**)

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

■ Image shown may differ from your TV.

1 MENU GREEN Select **Simple Manual**.

2 Select the part of the manual you want to see.

- Use the RED button to go to the Index page.
- Use the BLUE button to play the Simple Manual automatically or manually.

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

SELECTING THE PROGRAMME LIST

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

Mini Glossary

🔒 Displayed when the Locked Programme.

■ Displaying programme LIST

1 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.

BLUE — Turn the programme edit.

■ Selecting a programme in the programme list

1 Select a programme.

2 OK — Switch to the chosen programme number.

TV/RAD — The mode will be switched between TV, DTV, and Radio from the program you are currently watching. (Only DTV Country)

WATCHING TV / PROGRAMME CONTROL

■ Paging through a programme list

1

Turn the pages.

2

Return to normal TV viewing.

■ Displaying the favourite programme list

1

Display the Favourite Programme List.

Turn the programme edit.

Current channel is registered/ cancelled as preferred channel on currently selected Group.

Favourite group is changed.

INPUT LIST

HDMI and AV 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. (Only DTV Country)

■ Image shown may differ from your TV.

Select the input source.

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

WATCHING TV / PROGRAMME CONTROL

INPUT LABEL

Selects a label for each input source.

■ Image shown may differ from your TV.

1

Select **Input Label**.

2
Select the source.

3
Select the label.

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

DATA SERVICE

(This menu is enabled only in South Africa, Malaysia.)

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

1

Select **OPTION**.

2

Select **Data Service**.

3

Select **MHEG** or **Teletext**.

4

Save.

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

SIMPLINK

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

This TV might not function properly when using it with other products with HDMI-CEC function.
This allows you to control and play other AV devices connected to the display through HDMI cable without additional cables and settings.

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

In wireless external output, SIMPLINK function is not supported.

---

1 Display the **SIMPLINK**.

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

3 Save.

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

WATCHING TV / PROGRAMME CONTROL

Connecting to Home Theater with the SIMPLINK logo.

1. Connect the **HDMI/DVI IN 1, HDMI/DVI IN 2, HDMI/DVI IN 3, HDMI/DVI IN 4**(Except for PK5**) terminal on the back of the TV and the HDMI output terminal of the Home Theater using HDMI cables.
2. Connect the Digital Audio output terminal on the back of the TV and the Digital Audio input terminal of the Home Theater using optical cables.
3. Select Home Theater in the Speaker menu by pushing the **SIMPLINK** button.

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

NOTE

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

SIMPLINK Functions

Disc playback

Control connected AV devices by pressing the ∧ ∨ < >, OK, ▶, ■, II, ◀◀ and ▶▶ buttons.

Direct Play

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

Select AV device

Enables you to select one of the AV devices connected to the TV and operate it.

Power off all devices

When you switch off the TV, all connected devices are turned off.

Switch audio-out

Offers an easy way to switch audio-out.

Sync Power on

When the equipment with Simplink function connected HDMI terminal starts to play, The TV will change automatically to turn on mode.

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

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

SIMPLINK Menu

Press the ∧ ∨ < >button and then OK button to select the desired SIMPLINK source.

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

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

AV MODE

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

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

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

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

NOTE

THXCinema or **Cinema** : Operate to Cinema at the Movie, Photo which used an USB device.

INITIALIZING(RESET TO ORIGINAL FACTORY SETTINGS)

This function initializes all settings.
But the settings of **Day** and **Night** of the **Picture Mode** cannot be initialized.
It is useful to initialize the product or when you move to other city or country.
When the Factory Reset is completed, you must restart the Initializing setup.

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

Select **OPTION**.

Select **Factory Reset**.

Select **Yes**.

Start Factory Reset.

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

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

NETCAST (Except for 50PK5**)

LEGAL NOTICE

1

Select **NETWORK**.

2

Select **Legal Notice**.

3

Check Legal notice.

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

IMPORTANT NOTICE RELATING TO NETWORK SERVICES

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NETCAST MENU

These services are provided by separate Content Provider.

Please visit the content providers web site for specific information on their services. (But, some content manual maybe not provide depending on Content Provider).

NetCast menu source can differ by country.

1 Select **NetCast** menu option.

2 Enjoy the **Weather info, Movie Online** or **Photo Album.**

- Press the **RED** button to select Weather of area.
- Press the **EXIT** button to return to normal TV viewing.

NOTE

- ► The videos list searched from the TV may different with the list searched from a web browser on PC.
- ► The settings of this TV do not affect the Movie Online's playback quality.
- ► The playback videos may be paused, stopped or buffering occurring often depending on your broadband speed.
  We recommend a minimum connection speed of 1.5 Mbps. For the best playback condition, a connection speed of 4.0 Mbps is required. Sometimes your broadband speed varies based on your ISP's network conditions. Contact your ISP if you have problems maintaining a fast connection that is reliable, or if you want to increase your connection speed. Many ISPs offer a variety of broadband speed options.
- ► To view the owner's manual that provided by the Content Provider, visit our website at http://www.lg.com.
- ► For service that requires log in, join the applicable service on the website using the PC and log in through the TV to enjoy various additional functionalities.
- ► When you set the city you want with Setup by pressing the red button, the background of NetCast will be set to the weather of the selected city.
- ► If there is no user action 2 minutes following freezing image or video on screen, the screensaver will activate itself preventing fixed image remaining on screen.

MOVIE ONLINE

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

Movie Online Screen Components

❶ Movie Online menu
❷ Videos list

RED	Set the option menu.
NetCast	Return to NetCast menu.
EXIT	Return to TV viewing.

NOTE

- When you press the Q.Menu button while the Movie Online video is playing in full mode, you can set the video options.

Movie Online Service menu

- **Home**: You can watch the popular video in real time.
- **Featured**: The featured videos list will be displayed.
- **Popular**: The best rated videos list from Movie Online server will be displayed.
- **Most Viewed**: The most viewed videos list will be displayed.
- **Search**: The keypad/keyboard menu will be displayed.
- **History**: The videos list that you previously played will be displayed. Maximum of 20 videos can be stored.
- **Favorites**: In sign-in status, this menu will be displayed the videos list that is arranged in the Movie Online server with your account (Some videos may not appear on the **Favorites** list, even if the vid-eos are arranged in the server).
- **Sign in (Sign Out)**: Displays the keypad/keyboard menu to sign in or returns to the sign-out status.

Using the remote control

■	Stops the video and displays related videos list.
II	Pause the video while it is playing.
►	Play the selected video.
< >	Skip the playback forward or backward.
RED	Set the option menu.
NetCast	Return to NetCast menu.
EXIT	Return to TV viewing.

WEATHER INFO

Weather info is the programme to view the weather of the city the user wants.

Weather info Screen Components

1. Weather info menu
2. Weather list by city
3. Corresponding buttons on the remote control

RED	Change between Celsius and Fahrenheit.
	Move the focus to the menu you want.
OK	Select the focused menu.
NetCast	Return to NetCast menu.
EXIT	Return to TV viewing.

Weather info Service menu

- **Home**: The weather of selected city is displayed.
- **Favorite City:** Frequently checked cities can be registered to check the weather.

NOTE

- ► By default, New York, London and Paris are registered and the user can add/delete cities from **Favorite City**.
- ► LG is not responsible for the accuracy of the weather forecast.
- ► Applicable weather information can differ from the actual weather depending on the information provided by Weather info.

PHOTO ALBUM

Photo Album is an application that appreciates digital image files.

Photo Album Screen Components

1. Photo Album menu
2. Photos list
3. Corresponding buttons on the remote control

	Select the desired photo.
OK	The selected photo file is displayed.
NetCast	Return to NetCast menu.
EXIT	Return to TV viewing.

Photo Album Service menu

- **Home**: The featured photos list will be displayed.
- **Friends**: You can register users with the pictures you want as friends. You can add up to 10 friends.
- **Search**: The keypad/keyboard menu will be displayed.
- **My Photos**: You can view the pictures uploaded to the Web. This function can only be used when you sign in.
- **Sign in (Sign Out)**: Displays the keypad/keyboard menu to sign in or returns to the sign-out status.

TO USE A USB OR PC DEVICE

WHEN CONNECTING A USB DEVICE

When you connect a USB device, this pop up menu is displayed, automatically.
“POP UP MENU” will not be displayed while the OSD including Menu, EPG or Schedule list is activated.
When the Pop Up menu appears, you can select Music List, Photo List or Movie List in the MY MEDIA menu.
In USB device, you can not add a new folder or delete the existing folder.
After choosing the desired type of media, choose a device to open files from. The options are: USB device or DLNA(Except for 50PK5**).

1 Connect the USB device to the **USB IN 1** or **USB IN 2** jack on the TV.

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

3 Select the desired device.

4 **BLUE** Search other network device.

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

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

When removing the USB device

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

1 Q.MENU Select **USB Device**.

2 OK Select **Eject**.

NOTE

■ Image shown may differ from your TV.

► In order to avoid losing the USB memory stick, use the USB connector(sold separately) to fix the USB memory stick to the USB connector holder of the TV.

Precautions when using the USB device

- ► Only a USB storage device is recognizable.
- ► If the USB storage device is connected through a USB hub, the device is not recognizable.
- ► A USB storage device using an automatic recognition programme may not be recognized.
- ► A USB storage device which uses its own driver may not be recognized.
- ► The recognition speed of a USB storage device may depend on each device.
- ► Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- ► Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files, image files or movie files.
- ► Please use only a USB storage device which was formatted as a FAT32 file system, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.
- ► Please connect power to a USB storage device(over 0.5 A) which requires an external power supply. If not, the device may not be recognized.
- ► Please connect a USB storage device with the cable offered by the device maker.
- ► Some USB storage devices may not be supported or operated smoothly.
- ► File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.
- ► Be sure to back up important files since data stored in a USB memory device may be damaged. We will not be responsible for any data loss.
- ► If the USB HDD does not have an external power source, the USB device may not be detected. So be sure to connect the external power source. - Please use a power adaptor for an external power source. We do not guarantee an USB cable for an external power source.
- ► If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- ► If a USB memory device is connected to a USB multi-card reader, its volume data may not be detected.
- ► If the USB memory device does not work properly, disconnect and reconnect it.
- ► How fast a USB memory device is detected differs from device to device.
- ► If the USB is connected in Standby Mode, specific hard disk will automatically be loaded when the TV is turned on.
- ► The recommended capacity is 1 TB or less for a USB external hard disk and 32 GB or less for USB memory.
- ► Any device with more than the recommended capacity may not work properly.
- ► If a USB external hard disk with a "Energy Saving" function does not work, turn the hard disk off and on again to make it work properly.
- ► USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- ► Maximum of 999 folders or files can be recognized under one folder.
- ► The file arrangement of the USB storage device is similar to that of Windows XP and supports up to 100 alphabetical characters.
- ► If there are a lot of folders or files all within one folder, the device may not be able to access these properly.

TO USE A USB OR PC DEVICE

DLNA (Except for 50PK5**)

About DLNA

This TV is a DLNA Certified digital media product. It can display and play a movie, photo and music content from your DLNA server. The Digital Living Network Alliance (DLNA) is a cross-industry organization of consumer electronics, computing industry and mobile device companies. Digital Living provides consumers with easy sharing of digital media through a wired or wireless network in the home.

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

NOTE

- ►The supplied Nero MediaHome 4 Essentials CD-ROM is a customized software edition only for sharing files and folders to this TV.
- ►The supplied Nero MediaHome 4 Essentials software does not support following functions: Transcoding, Remote UI, TV control, Internet services and Apple iTunes
- ►This manual explains operations with the English version of Nero MediaHome 4 Essentials as examples. Follow the explanation referring to the actual operations of your language version.
- ►If there are too many folders and files in one folder, it may not operate properly.
- ►For the DLNA option, use the Nero MediaHome program that is provided with the TV. However, we cannot guarantee that third party programmes will work perfectly.

Installing Nero MediaHome 4 Essentials

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

Requirement PC system before you install Nero MediaHome 4 Essentials

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

1 Start up your computer, and insert the Nero MediaHome 4 Essentials CD-ROM into your computer's CD-ROM drive.
An installation wizard will walk you through the quick and uncomplicated installation process.

2 Close all Microsoft Windows programmes and exit any anti-virus software that may be running.

3 Insert the Nero MediaHome 4 Essentials CD-ROM into your computer's CD-ROM drive.

4 Click **Nero MediaHome 4 Essentials**. The installation is prepared and the installation wizard appears.

5 Click the **Next** button to display the serial number input screen.
Click **Next** to go to the next step.

6 If you accept all conditions, click **I accept the License Conditions** check box and click **Next**. Installation is not possible without this agreement.

7 Click **Typical** and click **Next**. The installation process is started.

8 If you want to take part in the anonymous collection of data, select the check box and click the **Next** button.

9 Click the **Exit** button to complete the installation.

TO USE A USB OR PC DEVICE

Sharing files and folders

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

1 Double-click the **Nero MediaHome 4 Essentials** icon on the desktop.

2 Click **Network** icon on the left and define your network name in the **Network name** field. The Network name you enter will be recognized by your TV.

3 Click **Shares** icon on the left.

4 Click **Local Folders** tab on the **Shared** screen.

5 Click **Add** icon to open the **Browse Folder** window.

6 Select the folder containing the files you want to share. The selected folder is added to the list of shared folders.

7 Click **Start Server** icon to start the server.

NOTE

►If the shared folders or files are not displayed on the TV, click the folder on the **Local Folders** tab and click **Rescan Folder** at the **More** button.

►Visit **www.nero.com** for more information and software tools.

Playing back shared contents

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

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

2

Select **MY MEDIA**.

3

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

4

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

NOTE

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

MOVIE LIST

You can play movie files on a USB or PC storage device.
The movie list is activated once USB is detected. It is used when playing movie files on TV.
Displays the movies in the USB folder and supports Play.
Allows playback of all movies in the folder and user desired files.
It is a movie list that displays folder information and movie file.
The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.

Movie(*.mpg/*.mpeg/*.dat/*.ts/*.trp/*.tp/*.vob/*.mp4/*.mov/*.mkv/*.dvix/*.avi/*.asf/*.wmv/*.avi(motion-jpeg)/*.mp4(motion-jpeg)/*.mkv(motion-jpeg))supporting file

Video format : DivX3.11, DivX4.12, DivX5.x, DivX6, Xvid1.00, Xvid1.01, Xvid1.02, Xvid1.03, Xvid1.10 beta-1/beta-2, Mpeg-1, Mpeg-2, Mpeg-4, H.264/AVC, VC1, JPEG, Sorenson H.263

Audio format : Dolby Digital, AAC, Mpeg, MP3, LPCM, HE-AAC, ADPCM, WMA

Bit rate : within 32 kbps to 320 kbps(MP3)

External Subtitle format : *.smi/*.srt/*.sub(MicroDVD,Subviewer1.0/2.0)/*.ass/*.ssa/*.txt(TMPlayer)/*.psb(PowerDivX)

Internal Subtitle format : only, XSUB (It is the subtitle format used in DivX6 files)

- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Subtitles in languages other than the supported languages are not available.
- Changing font and colour in subtitles is not supported.
- Subtitles in languages other than one specified are not supported.
- Video files with subtitle files of 1 MB or larger may not be played properly.
- The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- A damaged movie file may not be played correctly, or some player functions may not be usable.
- Movie files produced with some encoders may not be played correctly.
- If the video and audio structure of recorded file is not interleaved, either video or audio is outputted.
- HD videos with a maximum of 1920x1080@25/30P or 1280x720@50/60P are supported, depending on the frame.
- Videos with resolutions higher than 1920X1080@25/30P or 1280x720@50/60P may not work properly depending on the frame.
- Movie files other than the specified types and formats may not work properly.
- **Max bitrate of playable movie file is 20 Mbps.**
- We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264/AVC.
- DTS Audio codec is not supported.
- A movie file more than 30 GB in file size is not supported for playback.
- A DivX movie file and its subtitle file must be located in the same folder.
- A video file name and its subtitle file name must be identical for it to be displayed.
- Playing a video via a USB connection that doesn’t support high speed may not work properly.
- The movie file encoded by the GMC (Global Motion Compensation) and Qpel (Quarterpel Motion Estimation) is not supported.
- When you are watching the movie by Movie List function, you can adjust an image by Energy Saving and AV Mode key on the remote control. User setup for each image mode does not operate.
- Trick Mode does not support other functions than ►► if video files do not have index information.
- When playing video file using network, the Trick mode is limited to 2-times speed.
- Video file names that contain special characters may not be playable.

Supported DivX file

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

TO USE A USB OR PC DEVICE

Screen Components

You can also adjust **USB** in the **INPUT** menu.

Select **MY MEDIA**.

Select **Movie List.**

❶ Moves to upper level folder
❷ Current page/Total pages
❸ Corresponding buttons on the remote control
❹ Contents under the folder focused on ❶
❺ Current page/ total pages of contents under the folder focused on ❶

• Some files may be displayed the preview image by icon only.

• Non-supported files are displayed the preview image by icon only.

• Abnormal files are displayed in the form of bitmap.

Movie Selection

■ When playing movie files

1 Select the target folder or drive.

2 Select the desired movie title.

3 Movie files are played.

• Use the **P** ∧ ∨ button to navigation in the movie page.

Using the remote control

RED	Change device.
GREEN	Repeatedly, press the **GREEN** button to converted to **Photo List->Music List**.
YELLOW	A method to view in 5 large thumbnail or simple list.
BLUE	Convert to **Mark Mode**.
EXIT	Return to normal TV viewing.
▶	Press the **PLAY(▶)** button to return to normal playback.

TO USE A USB OR PC DEVICE

■ When selected movie files are played

1 Select the target folder or drive.

2 Select the desired movie title.

3 Convert to **Mark Mode**.

4 Mark desired Movie file.

5 Marked movie file is played.

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

NOTE

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

Using the remote control

RED	Play the selected movie file. Once a movie file finishes playing, the next selected one will be played automatically.
GREEN	Mark all movie files on the screen.
YELLOW	Deselect all marked movie files.
BLUE	Exit the **Mark Mode**.
EXIT	Return to normal TV viewing.

NOTE

- ► If you select “Yes” from OSD when playing the same file after the movie file has been stopped, it will restart where it stopped previously.
- ► If continuous series files exist within the folder, the next file will automatically be played.
  But, this excludes cases when the **Repeat** function of Movie List Option is turned “**On**” (Refer to p. 72) or when set as Marked Play.

TO USE A USB OR PC DEVICE

Using the Movie List function, play

1 Q.MENU or MENU Show the **Option** menu.

2 Select **Set Video Play., Set Video.** or **Set Audio..**

NOTE

- Option values changed in **Movie List** does not affect **Photo List** and **Music List**.
- Option value changed in **Photo List** and **Music List** are changed likewise in **Photo List** and **Music List** excluding **Movie List**.
- When replaying the video file after stopping, you can play from where it stopped previously.

Using the remote control

■	Stop the playing movie file.
►	Press the **PLAY(►)** button to return to normal playback.
II	During playback, press the **Pause(II)** button. ■ Still screen is displayed. ■ If no buttons are pressed on the remote control for 10 minutes after pausing, the TV returns to the playback state. ■ Press the **Pause(II)** button and then use the **FF(►►)** button for slow motion.
◄◄ / ►►	When playing, repeatedly, press the **REW(◄◄)** button to speed up ◄◄(x2) -> ◄◄◄(x4) -> ◄◄◄◄(x8) ->◄◄◄◄◄(x16) ->◄◄◄◄◄◄(x32) . repeatedly, press the **FF(►►)** button to speed up ►►(x2)-> ►►►(x4) -> ►►►►(x8) ->►►►►►(x16) -> ►►►►►►(x32). ■ Pressing these buttons repeatedly increases the fast forward/reverse speed.
MENU or Q.MENU	Show the **Option** menu.
BACK	Hide the menu on the full-sized screen. ■ To see the menu again on the full-sized screen, press **OK** button to display.
EXIT	Return to normal TV viewing.
〈 〉	■ When using the 〈 or 〉 button during playback a cursor indicating the position can be viewed on the screen.
ENERGY SAVING	Press the **ENERGY SAVING** button repeatedly to change the brightness of your screen.(Refer to p. 102)
AV MODE	Press the **AV MODE** button repeatedly to select the desired source.(Refer to p. 48)

TO USE A USB OR PC DEVICE

■ When you select the Set Video Play,

1

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

2
Make appropriate adjustments.

Subtitle Language	Support Language
Latin1	English, French, Spanish, Portuguese, Malaysia, Indonesia
Cyrillic	Russian
Thai	Thai
Hebrew	Hebrew
Arabic	Arab, Parsi, Krudish
Unicode(UTF-16)	Vietnamese language

- ► **Picture Size** : Selects your desired picture format during movie play.
- ► **Audio Language** : Changes the Language Group of the audio during movie play. Files with a single audio track cannot be selected.
- ► **Subtitle :** Turn on/off the external subtitle.
- ► **Language :** Activated for SMI subtitle and can select the language within the subtitle.
- ► **Code page :** This function is not available in this model.
- ► **Sync** : Adjusts the time synchronisation of the subtitle from -10 secs to +10 secs by steps of 0.5 secs during movie play.
- ► **Position** : Changes the position of the subtitle either up or down during movie play.
- ► **Size** : Selects your desired Subtitle size during movie play.
- ► **Repeat :** Turn on/off repeat function of movie playback. When turned on, the file within the folder will be played back repeatedly. Even when the repeated playback is turned off, it can run the playback if the file name is similar to the previous file.

❗ NOTE

- ► Only 10,000 of sync blocks can be supported within the subtitle file.
- ► When playing a video, you can adjust the Picture Size by pressing the RATIO button.

■ When you select the Set Video,

■ Image shown may differ from your TV.

Select **Picture Mode.**

Make appropriate adjustments. (Refer to p. 103 to 110)

■ When you select the Set Audio,

Select **Sound Mode, Auto Volume, Clear Voice II** or **Balance.**

Make appropriate adjustments. (Refer to p. 114 to 118)

TO USE A USB OR PC DEVICE

PHOTO LIST

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

PHOTO(*.JPEG) supporting file

Baseline : 64 x 64 to 15360 x 8640
Progressive : 64 x 64 to 1920 x 1440

- You can play JPEG files only.
- Non-supported files are displayed in the form of predefined icon.
- An error message occurs for corrupted files or file formats that cannot be played.
- Corrupted image files may not be displayed properly.
- It may take some time to view high-resolution images in full screen.

Screen Components

You can also adjust **USB** in the **INPUT** menu.

1

Select **MY MEDIA**.

2

Select **Photo List.**

❶ Moves to upper level folder
❷ Current page/Total pages
❸ Corresponding buttons on the remote control
❹ Contents under the folder focused on ❶
❺ Current page/ total pages of contents under the folder focused on ❶

Photo Selection

■ When playing photo files

1 Select the target folder or drive.

2 Select the desired photos.

3 Photo files are displayed.

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

Using the remote control

RED	Change device.
GREEN	Repeatedly, press the **GREEN** button to converted to **Music List->Movie List**.
YELLOW	A method to view in 5 large thumbnail or simple list.
BLUE	Convert to **Mark Mode**.
EXIT	Return to normal TV viewing.

TO USE A USB OR PC DEVICE

■ When selected photo files are displayed

1 Select the target folder or drive.

2 OK Select the desired photos.

3 BLUE or MARK FAV CHAR/NUM Convert to **Mark Mode**.

4 OK Mark desired photo file.

5 RED Marked photo file is displayed.

• When one or more photos are marked, you can view each marked photo or a slide show of the marked photos. If no photos are marked, you can view every individual photo in the folder or a slide show of all photos in the folder.

Using the remote control

RED	Display the selected photo file.
GREEN	Mark all photo files on the screen.
YELLOW	Deselect all marked photo files.
BLUE	Exit the **Mark Mode**.
EXIT	Return to normal TV viewing.

How to view photo

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

The aspect ratio of a photo may change the size of the photo displayed on the screen in full size. Press the **EXIT** button to move to the previous menu screen.

1 Select the target folder or drive.

2 Select the desired photos.

3 The selected photo is displayed in full size.

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

• Press the **EXIT** button to go back to Photo List.
• Press the **BACK** button to make Help OSD disappear.

TO USE A USB OR PC DEVICE

Select the **Slideshow**, **BGM**, ↻ **(Rotate)**, **/**, **,** **Option, Hide** or **Exit**.

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

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

▶ **BGM** (Background Music) : Listen to music while viewing photos in full size.
- Set the BGM device and album in Options before using this function.
- You can adjust **Option** by **Q.MENU** or **MENU** button on the remote control.

▶ ↻ **(Rotate)** : Rotate photos.
- Rotates the photo 90°, 180°, 270°, 360° clockwise.
- It can not be rotate when the width of a picture is bigger than supported height.

▶ **/ : You can view the photo in Full or Original mode.**

▶ : Press the **ENERGY SAVING** button repeatedly to increase the brightness of your screen.(Refer to p. 102)

▶ **Option** : Set values for **Slide Speed** and **BGM**.
- Use ^ v < >button and **OK** button to set values. Press **OK** to save the settings.
- You cannot change **BGM** while BGM is playing.
- You can only select the MP3 folder saved on the device that currently displays the photo.

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

Press the **EXIT** button to go back to **Photo List.**

Using the Photo List function

1 Q.MENU or MENU Show the **Option** menu.

2 Select **Set Photo View., Set Video.** or **Set Audio..**

NOTE

- Option values changed in **Movie List** does not affect **Photo List** and **Music List**.
- Option value changed in **Photo List** and **Music List** are changed likewise in **Photo List** and **Music List** excluding **Movie List**.

TO USE A USB OR PC DEVICE

■ When you select the Set Photo View,

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

2 Make appropriate adjustments.

■ When you select the Set Video,

■ Image shown may differ from your TV.

1 Select **Picture Mode.**

2 Make appropriate adjustments. (Refer to p. 103 to 110)

■ When you select the Set Audio,

1

Select **Sound Mode, Auto Volume, Clear Voice II** or **Balance.**

2

Make appropriate adjustments. (Refer to p. 114 to 118)

TO USE A USB OR PC DEVICE

MUSIC LIST

You can play music files on USB or PC storage device.

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

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

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

MUSIC (*.MP3) supporting file
Bit rate 32 to 320
- Sampling rate MPEG1 Layer3 : 32 kHz, 44.1 kHz, 48 kHz
- Sampling rate MPEG2 Layer3 : 16 kHz, 22.05 kHz, 24 kHz

Screen Components

You can also adjust **USB** in the menu.

1

Select **MY MEDIA**.

2

Select **Music List.**

❶ Preview: If any album jacket for the file(Album Art Image) exists, this jacket is displayed.
❷ Moves to upper level folder
❸ Current page/Total pages
❹ Corresponding buttons on the remote control
❺ Contents under the folder focused on ❶
❻ Current page/ total pages of contents under the folder focused on ❶

Music Selection

■ When playing music files

1 Select the target folder or drive.

2 Select the desired music title.

3 Music files are played.

• Use the **P** ∧ ∨ button to navigate up/down in the music page.

Using the remote control

RED	Change device.
GREEN	Repeatedly, press the **GREEN** button to converted to **Movie List->Photo List**.
YELLOW	A method to view in 5 large thumbnail or simple list.
BLUE	Convert to **Mark Mode**.
EXIT	Return to normal TV viewing.

TO USE A USB OR PC DEVICE

■ When selected music files are played

1 Select the target folder or drive.

2 Select the desired music title.

3 Convert to **Mark Mode**.

4 Mark desired music file.

5 Marked music file is played.

- 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.
- If you want to activate Random playback, you must set **Option->Set audio play.->Random** to **On**.

Using the remote control

RED	Play the selected music file.
GREEN	Mark all music files on the screen.
YELLOW	Deselect all marked music files.
BLUE	Exit the **Mark Mode**.
EXIT	Return to normal TV viewing.

Using the Music List function, play

1 Q.MENU or MENU Show the **Option** menu.

2 Select **Set Audio Play.** or **Set Audio.**

NOTE

- Option values changed in Movie List does not affect Photo List and Music List.
- Option value changed in Photo List and Music List are changed likewise in Photo List and Music List excluding Movie List.
- You can listen to the music only within the device currently played.

TO USE A USB OR PC DEVICE

Using the remote control

■	Stop the playing music file.
▶	Press the **PLAY(▶)** button to return to normal playback.
II	When you press the **Pause(II)** button while playing the file, the playback will be paused. When you press the **Pause(II)** button again while the playback is paused, it will resume the playback.
◀◀ / ▶▶	When playing, When you press the **REW(◀◀)** button, the previous music file will be played. When you press the **FF(▶▶)** button, the next music file will be played.
GREEN	Start playing the selected music files and then move to the **Photo List**.
ENERGY SAVING	Press the **ENERGY SAVING** button repeatedly to increase the brightness of your screen.(Refer to p. 102)
MENU or Q.MENU	Show the **Option** menu.
BACK	■ When you press the **Back** button while the music is playing, the music player currently playing will be hidden and only the music list will be displayed.
EXIT	■ When you press the **Exit** button while the Music player is displayed, only the music will be stopped and the player will not return to normal TV viewing. ■ When you press the **Exit** button while the music is stopped or while the music player is hidden, the player will return to normal TV viewing.
〈 〉	■ When using the 〈 or 〉 button during playback a cursor indicating the position can be played.

■ When you select the Set Audio Play,

1 Select **Repeat** or **Random.**

2 Make appropriate adjustments.

■ When you select the Set Audio,

1

Select **Sound Mode, Auto Volume, Clear Voice II** or **Balance.**

2
Make appropriate adjustments. (Refer to p. 114 to 118)

■ 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

- ► 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.

TO USE A USB OR PC DEVICE

DIVX REGISTRATION CODE

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

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

1 MENU Select **MY MEDIA**.

2 OK BLUE Select **DivX Reg. Code**.

3 OK Display DivX Reg. Code.

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

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

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

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

"Pat. 7,295,673; 7,460,688;7,519,274"

NOTE

- ▶ Movie files are supported as follows

Resolution : under 1920x1080 WxH pixels

Frame rate : under 30 frames/sec(1920x1080), under 60 frames/sec(under 1280x720)

- ▶ Video Codec : MPEG 1, MPEG 2, MPEG 4, H.264/AVC, DivX 3.11, DivX 4.12, DivX 5.x, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1, Xvid 1.10-beta2, JPEG, VC1, Sorenson H.263/H.264
- ▶ The DRM file in DLNA server is not played when Movie List is in operation.

DEACTIVATION

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

1 MENU Select **MY MEDIA**.

2 OK BLUE Select **Deactivation**.

3 OK Select **Yes**.

4 OK Display **Deactivation**.

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

GAME

GAME

Allows you to enjoy the games installed on the TV.

■ Image shown may differ from your TV.

1

Select **GAME**.

2

Select the desired game.

3

Enter the selected game mode.

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

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.

You must set the Clock in the **Time** menu, before using EPG function.

The EPG displays the programme details for 8 days.

INFO Shows current programme information

	Displayed with a TV or DTV Programme.		Displayed with a Teletext Programme.
	Displayed with a Radio Programme.		Displayed with a Subtitle Programme.
MHEG	Displayed with a MHEG Programme.		Displayed with a Scramble Programme.
HE-AAC	Displayed with a HE-AAC Programme.	D	Displayed with a Dolby Digital Programme.
4:3	Aspect ratio of broadcasting programme.	D+	Displayed with a Dolby Digital Plus Programme.
16:9	Aspect ratio of broadcasting programme.	576i/p, 720p, 1080i/p : Resolution of broadcasting programme	

Shows next programme information.

OK A pop-up window for remind settings appear.

Select Timer Remind setting mode.

EPG (ELECTRONIC PROGRAMME GUIDE)

SWITCH ON/OFF EPG

1 GUIDE Switch on or off EPG.

SELECT A PROGRAMME

1 or P Select desired programme.

BUTTON FUNCTION IN NOW/NEXT GUIDE MODE

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

RED Change EPG mode.

YELLOW Enter Manual Timer mode.

BLUE Enter Schedule List mode.

OK When 'NOW' is selected, it is moved to selected programme and EPG disappears
When 'NEXT' is selected, a reservation pop-up window appears.

Select NOW or NEXT Programme.

Select the Broadcast Programme.

P Page Up/Down.

GUIDE or BACK or EXIT Switch off EPG.

TV/RAD Select DTV or RADIO Programme.

INFO Detail information on or off.

BUTTON FUNCTION IN 8 DAY GUIDE MODE

RED — Change EPG mode.

GREEN — Enter Date setting mode.

YELLOW — Enter Manual Timer mode.

BLUE — Enter Schedule List mode.

OK — When 'Currently broadcasting programme' is selected, it is moved to selected programme and EPG disappears
When 'Future broadcasting programme' is selected, a reservation pop-up window appears.

Select Programme.

Select the Broadcast Programme.

P PAGE — Page Up/Down.

GUIDE or BACK or EXIT — Switch off EPG.

TV/RAD — Select DTV or RADIO Programme.

INFO — Detail information on or off.

BUTTON FUNCTION IN DATE CHANGE MODE

GREEN or ⌄ or BACK — Switch off Date setting mode.

OK — Change to the selected date.

Select a date.

GUIDE or EXIT — Switch off EPG.

EPG (ELECTRONIC PROGRAMME GUIDE)

BUTTON FUNCTION IN EXTENDED DESCRIPTION BOX

The detail information on or off.

Text Up/Down.

Select Timer Remind setting mode.

or

Switch off EPG.

BUTTON FUNCTION IN REMIND SETTING MODE

Sets only a start time for the reminder.

Switch off Manual Timer mode.

Change to Guide mode.

Change to Schedule List mode.

Move to the desired date.

Enter Repeat Option mode.

Select your desired Repeat Option.(Once/Daily/ Weekly/Mon.~Fri./Sat.~Sun.)

Select Start Time and Programme.

Save Timer Remind.

BUTTON FUNCTION IN SCHEDULE LIST MODE

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

Change to Manual Timer mode.

or

Change to Guide mode.

Switch off **Schedule List**.

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

Select **Schedule List**.

Page Up/Down.

MHEG (MULTIMEDIA AND HYPERMEDIA INFORMATION CODING EXPERT GROUP) (IN DIGITAL MODE)

(Only South Africa, Malaysia)

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

TELETEXT WITHIN DIGITAL SERVICE

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

TELETEXT IN DIGITAL SERVICE

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

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

PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

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

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

You can adjust the enlarge proportion using ∧ ∨ button.

This function works in the following signal.

Select **Aspect Ratio**.

Select the desired picture format.

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

• 16:9

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

• Just Scan

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

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

• Original

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

or

• Full Wide

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

4:3 and 14:9 video is supported in full screen without any video distortion through DTV input.

or

PICTURE CONTROL

• **4:3**

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

• **14:9**

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

• **Zoom**

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

• **Cinema Zoom**

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

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

◄ or ► button: Adjust enlarge proportion of Cinema Zoom. The adjustment range is 1 to 16.
▼ or ▲ button: Move the screen.

NOTE

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

PICTURE WIZARD

This feature lets you adjust the picture quality of the original image.

Use this to calibrate the screen quality by adjusting the Black and White Level etc. General users can calibrate the screen quality by easily following each stage.

When you adjust the image to Low, Recommended or High, you can see the changed result as an example.

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

Select **PICTURE**.

Select **Picture Wizard**.

Adjust **Standard(Black Level, White Level, Tint, Colour, Horizontal Sharpness, Vertical Sharpness)** or **Preferred(Black Level, White Level, Tint, Colour, Sharpness, Dynamic Contrast**, **Colour Temperature**.)

Select input source to apply the settings.

- If you stop the setting before the final stage, the changes will not be applied
- The adjustment value is saved to **Expert1**.
- Once the Picture Wizard sets the image quality, the Energy Saving is changed into Off.
- If the picture quality setting of **Expert1** is changed, use the **Picture Reset** before entering the **Picture Wizard** to reset the picture quality setting.
- **Standard** : mode to set standard picture quality.
- **Preferred** : mode to set user preferred picture quality rather than standard picture.

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

PICTURE CONTROL

ENERGY SAVING

It reduces the TV's power consumption.

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

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

When adjusting Energy Saving in MHEG mode, the Energy Saving setting is applied after MHEG is finished.

Selecting '**Screen Off**' while tuned to a radio station channel will reduce power consumption.

Select **PICTURE**.

Select **Energy Saving**.

Select **Intelligent Sensor, Off, Minimum , Medium, Maximum** or **Screen Off**.

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

- When you select Screen Off, the screen will be turned off in 3 seconds and Screen Off will start.
- If you adjust "**Energy Saving-Intelligent Sensor**", **Sharpness, Colour, Colour Temperature** feature will not work.
- You can also adjust this feature by selecting **Energy Saving** button on the remote control.

PRESET PICTURE SETTINGS

Picture Mode-Preset

Vivid	Strengthen the contrast, brightness, colour and sharpness for vivid picture.
Standard	The most general screen display status.
APS Auto Power Save	Optimizes power consumption.
Cinema or THX **Cinema**	Optimizes video for watching movies.
THX **Bright Room**	This is the specification to optimize TV viewing in Bright Room.
Sport	Optimizes video for watching sports events.
Game	Optimizes video for playing games.

Select **PICTURE**.

Select **Picture Mode**.

Select **Vivid**, **Standard**, APS , **Cinema(**Only 50PK5**), THX **Cinema(**Except for 50PK5**), THX **Bright Room(**Except for 50PK5**), **Sport** or **Game**.

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

PICTURE CONTROL

- **Picture Mode** adjusts the TV for the best picture appearance. Select the preset value in the **Picture Mode** menu based on the programme category.
- When the Intelligent sensor function is on, the most suitable picture is automatically adjusted according to the surrounding conditions.
- You can also adjust **Picture Mode** in the **Q. Menu**.
- **Intelligent Sensor** : Adjusts picture according to the surrounding conditions.
- APS (Auto Power Saving) : Maximize reducting the power consumption without hurting the picture quality.
- If you adjust "**Picture Mode-THX Cinema(Except for 50PK5**), THX Bright Room"(Except for 50PK5**)** or **Cinema(Only 50PK5**)**, "**Energy Saving-Intelligent Sensor, Minimum**, **Medium**, **Maximum**" feature will not work.
- If you adjust "**Picture Mode-** APS ", "**Energy Saving-Off, Minimum**, **Medium**, **Maximum**" feature will not work.

- **THX Cinema** :This is cinema quality mode to provide you the experience of watching a movie at home. The user will be able enjoy the best level of satisfactory screen quality in any movie without any separate adjustments. Cinema expresses the optimal screen quality when it is darkest. When selecting **THX Cinema**, **THX Bright Room** Aspect ratio changes to Just scan.**(Except for 50PK5**)**

- **THX Cinema**(Thomlinson Holman 's Experiment)is the audio and video certification standard of THX established by George Lucas, who directed the movie Star Wars, and Thomlinson.
  This is the product to be certified in THX display area and guarantees screen quality that exceeds the display standard specification in both hardware and software.**(Except for 50PK5**)**

MANUAL PICTURE ADJUSTMENT

Picture Mode-User option

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

Brightness
Adjusts the base level of the signal in the picture.

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

Colour
Adjusts intensity of all colours.

Tint
Adjusts the balance between red and green levels.

Colour Temp.
Adjust to left direction to make a picture reddish or adjust to right direction to make a picture bluish.

It is not available to use this function in " APS Auto Power Save , THX**Cinema**, THXBright Room(Except for 50PK5**)"

Select **PICTURE**.

Select **Picture Mode**.

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

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

Make appropriate adjustments.

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

NOTE

► You cannot adjust colour, sharpness and tint in the RGB-PC/HDMI-PC mode.
► When the THX**Cinema**(Except for 50PK5**), THX**Bright Room**(Except for 50PK5**) or Expert1/2 are selected, you can select **Contrast**, **Brightness**, **H Sharpness, V Sharpness**, **Colour** or **Tint.**

PICTURE CONTROL

PICTURE IMPROVEMENT TECHNOLOGY

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

You can set the video value differently for each input.

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

Image shown may differ from your TV.

Select **PICTURE**.

Select **Advanced Control**.

Select your desired Source :
Dynamic Contrast, **Dynamic Colour**, **Noise Reduction**, **Gamma**, **Black Level**, **Film Mode, Colour Gamut**, **Edge Enhancer** or **xvYCC.** (Refer to p. 108 to 109)

Make appropriate adjustments.

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

EXPERT PICTURE CONTROL

By segmenting categories, **Expert1** and **Expert2** provide more categories which users can set as they see fit, offering the optimal picture quality for users.
This may also be used to help a professional optimize the TV performance using specific videos.

Image shown may differ from your TV.

1 Select **PICTURE**.

2 Select **Picture Mode**.

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

4 Select **Expert Control**.

5 Select your desired Source.

6 Make appropriate adjustments.

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

PICTURE CONTROL

*This feature is not available for all models.

Dynamic Contrast (Off/Low/High)	■ Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.
Dynamic Colour (Off/Low/Medium/High)	■ Adjusts screen colours so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.
Noise Reduction (Off/Low/Medium/High/ Auto (In Analogue mode only))	■ Reduces screen noise without compromising video quality.
Gamma (Low/Medium/High)	■ You can adjust brightness of dark area and middle gray level area of the picture. • **Low** : Makes dark and middle gray level area of the picture brighter. • **Medium** : Expresses original picture levels. • **High** : Makes dark and middle gray level area of the picture darker. ■ Set up to Medium in TV modes. it's set up to disable.
Black Level (Low/High/Auto)	• **Low** : The picture of the screen gets darker. • **High** : The picture of the screen gets brighter. • **Auto** : Sets black level of the screen to High or Low automatically according to the input signal level. ■ This function enables to select 'Low' or 'High' in the following mode: AV(NTSC-M), HDMI or Component. Otherwise, 'Black level' is set to 'Auto'.
Film Mode (On/Off)	■ You can watch a cinema-like video by eliminating judder effect. ■ Uses this function when you watch film-originated movie contents.
Colour Gamut (Advanced Control/ Expert Control) (Wide/Standard)	• **Standard** : Mode to use original colour area regardless of the display characteristics. • **Wide:** Mode to use maximum colour area of the TV display. • On the photo using a USB DEVICE, In case of picture mode is photo, The Details become Wide/sRGB
Edge Enhancer (On/Off)	■ Makes the edge of the picture clearer and distinctive.
xvYCC (Auto/off/on)	*This feature is not available for all models. ■ This is the function to express richer colour. ■ This function is enabled in "Picture mode - Cinema, Expert" when xvYCC signal is inputted through HDMI
Expert Pattern (Off/Pattern1/Pattern2)	■ This is the pattern necessary for checking the picture of Digital TV. This function is enabled in "Picture Mode - Expert" when you watch DTV.

Colour Filter (Off/Red/Green/Blue)	■ This is the function to filter the specific colours of the video. You can use the RGB filter to set colour saturation and hue accurately.
Colour Temperature (Medium/Warm/Cool)	This is the function to adjust the overall colour of the screen to the feeling you want. a. • Method : 2 Points • Pattern: Inner, Outer • Red/Green/Blue Contrast, Red/Green/Blue Brightness: The adjustment range is -50 to +50. b. • Method : 20 Point IRE • Pattern: Inner / Outer • IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 5, 10, 15 to 100. You can adjust Red, Green or Blue according to each setting. • Red/Green/Blue: The adjustment range is -50 to +50.
Colour Management System	■ As the tool used by the experts to make adjustments by using the test patterns, this does not affect other colours but can be used to selectively adjust the 6 colour areas (Red/Green/Blue/Cyan/Magenta/Yellow). Colour difference may not be distinctive even when you make the adjustments for the general video. ■ Adjusts Red/Green/Blue/Yellow/Cyan/Magenta. • Red/Green/Blue/Yellow/Cyan, Magenta Colour : The adjustment range is -30 to +30. • Red/Green/Blue/Yellow/Cyan/Magenta Tint : The adjustment range is -30 to +30. ■ This feature is disable in RGB-PC and HDMI (PC) mode.

PICTURE CONTROL

PICTURE RESET

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

Select **PICTURE**.

Select **Picture Reset**.

Select **Yes**.

Initialize the adjusted value.

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

IMAGE STICKING MINIMIZATION (ISM) METHOD

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

White Wash

White wash removes permanent images from the screen.

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

Orbiter

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

Colour Wash

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

Select **OPTION**.

Select **ISM Method**.

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

Save.

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

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

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

PICTURE CONTROL

MODE SETTING

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

Select **OPTION**.

Select **Mode Setting**.

Select **Store Demo** or **Home Use**.

Save.

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

DEMO MODE

It is not possible to use **Demo Mode** in **Home Use** mode.
In **Store Demo**, **Demo Mode** is automatically set to **On**.
Once **Demo Mode** is set to **Off** in **Store Demo**, **Demo Mode** does not run and only the screen is reset.
The screen is reset automatically after 5 minutes in **Demo Mode**.

1

Select **OPTION**.

2

Select **Mode Setting**.

3

Select **Store Demo**.

4
Select **On**.

5

Return to TV viewing.
If you want to stop the demo, press any button. (except for MUTE, ◿ **+** , **-** button)

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

SOUND & LANGUAGE CONTROL

AUTO VOLUME LEVELER

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

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

If sound quality or volume is not at the level you want, it is recommended to use a separate home theater system or amp to cope with different user environments.

Select **AUDIO**.

Select **Auto Volume**.

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

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

CLEAR VOICE II

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

Select **AUDIO**.

Select **Clear Voice II**.

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

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

Adjustment for Clear Voice Level With selecting On

Select **Level**.

Make desired adjustment.

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

PRESET SOUND SETTINGS-SOUND MODE

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

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

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

Standard Offers standard-quality sound.
Music Optimizes sound for listening to music.
Cinema Optimizes sound for watching movies.
Sport Optimizes sound for watching sports events.
Game Optimizes sound for playing games.

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

SOUND SETTING ADJUSTMENT -USER MODE

1 Select **AUDIO**.

2 Select **Sound Mode**.

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

4 Select **Treble** or **Bass**.

5 Set the desired sound level.

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

INFINITE SOUND

Select this option to sound realistic.

1 Select **AUDIO**.

2 Select **Infinite Sound**.

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

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

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

BALANCE

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

Select **AUDIO**.

Select **Balance**.

Make desired adjustment.

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

TV SPEAKERS ON/ OFF SETUP

You can adjust the TV internal speaker status.

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

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

Select **AUDIO**.

Select **TV Speaker**.

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

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

NOTE

- ► When the TV speaker is turned off while the Simplink home theater is operating, the sound output automatically switches to the Home theater speaker, but when the TV speaker is turned on, the sound output the TV speaker.
- ► Some menus in **AUDIO** are disabled when TV Speaker is set to Off.

DTV AUDIO SETTING (IN DIGITAL MODE ONLY)
(Only DTV Country)

When different audio types exist in an input signal, this function allows you to select the audio type you want.

Select **AUDIO**.

Select **DTV Audio Setting**.

Select **Auto, HE-AAC, Dolby Digital +, Dolby Digital** or **MPEG**.

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

- **Auto**: Automatically outputs in the order **HE-AAC** > **Dolby Digital+** > **Dolby Digital** > **MPEG**.
- **HE-AAC, Dolby Digital +, Dolby Digital, MPEG**: Allows users to select the audio type they want.
  ex) If **MPEG** is selected, **MPEG** is always outputted.
  If MPEG is not supported, another audio type is set in that order.
- Refer to p. 127 to 128 (Audio Language Selection)

SELECTING DIGITAL AUDIO OUT

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

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

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

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

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

Select **AUDIO**.

Select **Digital Audio Out**.

Select **Auto** or **PCM**.

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

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

Item	Audio Input	Digital Audio output
Auto(Speaker On)	MPEG Dolby Digital Dolby Digital Plus HE-AAC	PCM Dolby Digital Dolby Digital PCM
Auto(Speaker Off)	MPEG Dolby Digital Dolby Digital Plus HE-AAC	PCM Dolby Digital Dolby Digital Dolby Digital
PCM	All	PCM

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

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

AUDIO RESET

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

Select **AUDIO**.

Select **Reset**.

Select **Yes**.

Initialize the adjusted value.

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

I/II

STEREO/DUAL RECEPTION (IN ANALOGUE MODE ONLY)

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

1

Select **Audio**.

2

Select the sound output.

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

■ **Mono sound selection**

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

■ **Language selection for dual language broadcast**

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

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

SOUND & LANGUAGE CONTROL

NICAM RECEPTION (IN ANALOGUE MODE ONLY)

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

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

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

SPEAKER SOUND OUTPUT SELECTION

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

Select the sound output.

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

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

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

SOUND & LANGUAGE CONTROL

LANGUAGE SELECTION (IN DIGITAL MODE ONLY)
(Only DTV Country)

The Audio function allows selection of a preferred language.
If audio data in a selected language is not broadcast, the default language audio will be played.

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

In Digital mode, use the teletext language function when two or more teletext languages are broadcast. If teletext data in a selected language is not broadcast, the default teletext language page will be displayed.

Select **OPTION**.

Select **Language(Language)**.

Select **Audio Language, Subtitle Language** or **Teletext Language.**

Select your desired language.

Save.

Select **OPTION**.

Select **Hard of Hearing(**⊡**)**.

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

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

< Audio Language Selection >

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

Select **Audio Language.**

Select an audio language.

Audio Language OSD Information

Display	Status
N.A	Not Available
MPEG	MPEG Audio
DD	Dolby Digital Audio
	Audio for “Visual Impaired”
ABC	Audio for “Hearing Impaired”
DD+	Dolby Digital Plus Audio
HE-AAC	HE-AAC Audio

< Subtitle Language Selection >

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

▶ Press the ∧ ∨ button to select a subtitle language.

Subtitle Language OSD Information

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

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

SOUND & LANGUAGE CONTROL

Analogue TV	DOLBY DIGITAL	Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
Digital TV	DOLBY DIGITAL PLUS	Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
	• There is a possibility that when HDMI mode, some DVD players do not make SPDIF sound. At that time, set the output of the digital audio of the DVD player to PCM. (In HDMI, Dolby Digital Plus is not supported).	

TIME SETTING

CLOCK SETUP

The clock is set automatically when receiving a digital signal in **Auto** mode. You can set the clock manually in **Manual** mode.

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

<Only Indonesia>
GMT (Greenwich Mean Time) which is received with the broadcast signal and the time is set automatically by a digital signal.

Time Zone is activated only in **Auto** Mode.

1 Select **TIME**.

2 Select **Clock**.

3 Select **Auto** or **Manual**. (Only DTV Country)

4 Select either the year, month, date, time or Time Zone(Only Indonesia, Israel) option.

5 Set the year, month, date, time or Time Zone (Only Indonesia, Israel) option.

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

TIME SETTING

AUTO ON/OFF TIME SETTING

The Off time function automatically switches the TV to standby at a preset time.
Two hours after the TV is switched on by the on time function it will automatically switch back to stand-by mode unless a button has been pressed.

The Off time function overrides the On time function if both are set to the same time.
The TV must be in standby mode for the On time to work.

1 Select **TIME**.

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

3 Select **Repeat**.

4 Select **Off**, **Once**, **Daily**, **Mon. ~ Fri.**, **Mon. ~ Sat.**, **Sat. ~ Sun.** or **Sun.**.

5 Set the hour.

6 Set the minutes.

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

1 Select **Input**.

2 Select the input source.

3 Set the programme.

4 Adjust volume level at switch-on.

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

SLEEP TIMER SETTING

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

1

Select **Sleep Timer**.

2

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

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

PARENTAL CONTROL / RATINGS

SET PASSWORD & LOCK SYSTEM

Enter the password, press ‘0’, ‘0’, ‘0’, ‘0’ on the remote control handset.

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

1 Select **LOCK**.

2 Select **Lock System**.

3 Select **On**.

4 Set the password.

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

- If you forget your password, press ‘0’, ‘3’, ‘2’, ‘5’ on the remote control handset.

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

BLOCK PROGRAMME

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

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

Enter a password to watch a blocked programme.

1

Select **LOCK**.

2

Select **Lock System**.

3
Select **Block Programme**.

4

Enter the **Block Programme**.

5

Select a programme to be locked.

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

PARENTAL CONTROL / RATINGS

PARENTAL CONTROL (IN DIGITAL MODE ONLY)

(Only DTV Country)

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

A password is required to gain access to this menu.

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

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

Enter a password to watch a blocked programme.

1 Select **LOCK**.

2 Select **Lock System**.

3 Select **Parental Guidance**

4 Make appropriate adjustments.

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

EXTERNAL INPUT BLOCKING

Enables you to block an input.

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

■ Image shown may differ from your TV.

Select **LOCK**.

Select **Lock System**.

Select **Input Block**.

Select input source.

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

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

PARENTAL CONTROL / RATINGS

KEY LOCK

This feature can be used to prevent unauthorized viewing by locking out the front panel controls, so that it can only be used with the remote control.
This TV is programmed to remember which option it was last set to even if you turn the TV off.

Select **LOCK**.

Select **Key Lock**.

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

- In **Key Lock** '**On**', if the TV is turned off, press the ⏻ **/ I**, INPUT, P ∧ ∨ button on the TV or POWER INPUT, P ∧ ∨ 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.
- When another OSD is displayed, '⚠ **Key Lock On** ' will not operate.

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

TELETEXT

This feature is not available in all countries.

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

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

SWITCH ON/OFF

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

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

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

SIMPLE TEXT

■ Page selection

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

TELETEXT

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.
❹ Alternatively the P ∧ button can be used.
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.

■ **Index**

Select the each index page.

■ **Time**

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

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

■ **Hold**

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

■ **Reveal**

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

■ **Update**

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

APPENDIX

TROUBLESHOOTING

The TV does not operate properly.	
The remote control does not work	■ Check to see if there is any object between the TV and the remote control causing an obstruction. Ensure you are pointing the remote control directly at the TV. ■ Ensure that the batteries are installed with correct polarity (+ to +, - to -). ■ Install new batteries.
Power is suddenly turned off	■ Is the sleep timer set? ■ Check the power control settings. Has the Power supply been interrupted. ■ If the TV is switched on and there is no input signal, it will switch off automatically after 15 minutes.

The video function does not work.	
No picture & No sound	■ Check whether the TV is switched on. ■ Try another channel. The problem may be with the broadcast. ■ Is the power cord inserted correctly into the mains? ■ Check your antenna direction and/or location. ■ Test the mains outlet by plugging another TV into the same outlet.
Picture appears slowly after switching on	■ This is normal, the image is muted during the TV startup process. Please contact your service centre, if the picture has not appeared after five minutes.
No or poor colour or poor picture	■ Adjust Colour in menu option. ■ Allow a sufficient distance between the TV and the VCR. ■ Try another channel. The problem may be with the broadcast. ■ Are the video cables installed properly? ■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	■ Station or cable channel experiencing problems, tune to another station. ■ Station signal is weak, reposition the antenna to receive weaker stations. ■ Check for sources of possible interference.
Lines or streaks in pictures	■ Check antenna (Change the position of the antenna).
No picture when connecting HDMI	■ Check that your HDMI cable is High Speed HDMI Cable. If the HDMI cables are not High Speed HDMI Cable, flickering or no screen display can result. Please use the High Speed HDMI Cable.

The audio function does not work.	
Picture OK & No sound	■ Press the ◿ **+** or **-** button. ■ Sound muted? Press MUTE button. ■ Try another channel. The problem may be with the broadcast. ■ Are the audio cables installed properly?
No output from one of the speakers	■ Adjust **Balance** in menu option.
Unusual sound from inside the TV	■ A change in ambient humidity or temperature may result in an unusual noise when the TV is switched on or off and does not indicate a fault with the TV.
No sound when connecting HDMI or USB	■ Check HDMI cable is High Speed HDMI Cable. ■ 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.

There is a problem with PICTURE settings.	
When the user changes the picture settings, the TV automatically converts back to the initial settings after a certain period of time.	■ It means that the TV is currently set to **Store Demo** mode. To switch to **Home use** mode you should do the followings: From the TV Menu, choose **OPTION** -> Choose **Mode Setting** -> Choose **Home use**. Now, you have completed switching to the **Home use** mode.

MAINTENANCE

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

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

Cleaning the Screen

1. A good way to keep the dust off your screen for a while is to wet a soft cloth in a mixture of luke-warm 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		50PK9***	60PK9***
		50PK950-TA	60PK950-TA
Dimensions (Width x Height x Depth)	with stand	1190.0 mm x 804.5 mm x 294.5 mm	1408.8 mm x 937.9 mm x 384.0 mm
	without stand	1190.0 mm x 737.0 mm x 52.4 mm	1408.8 mm x 860.7 mm x 52.4 mm
Weight	with stand without stand	34.8 kg 30.2 kg	50.9 kg 43.3 kg

MODELS		50PK7***	60PK7***	50PK5***
		50PK750-TA	60PK750-TA	50PK550-TA
Dimensions (Width x Height x Depth)	with stand	1184.0 mm x 801.0 mm x 309.7 mm	1402.8 mm x 934.3 mm x 384.0 mm	1171.4 mm x 786.2 mm x 309.7 mm
	without stand	1184.0 mm x 738.5 mm x 52.4 mm	1402.8 mm x 866.8 mm x 52.4 mm	1402.8 mm x 724.4 mm x 55.3 mm
Weight	with stand without stand	32.3 kg 29.9 kg	50.3 kg 42.7 kg	31 kg 28.6 kg
CI Module Size (Width x Height x Depth)		100.0 mm x 55.0 mm x 5.0 mm		
Environment condition	Operating Temperature Operating Humidity	0 °C to 40 °C Less than 80 %		
	Storage Temperature Storage Humidity	-20 °C to 60 °C Less than 85 %		
Supported movie files		Refer to p. 66 to 67		

- The specifications shown above may be changed without prior notice for quality improvement.
- For the power supply and power consumption, refer to the label attached to the product.

APPENDIX

		Digital TV	Analogue TV
Singapore	Television System	DVB-T	PAL B/G, DK, I
	Program Coverage	UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47
Indonesia, Israel	Television System	DVB-T	PAL B/G, DK, I, M
	Program Coverage	UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
South Africa	Television System	DVB-T	PAL B/G, DK, I, M
	Program Coverage	VHF 4 to 11, 13 UHF 21 to 68	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
Veitnam, Malaysia	Television System	DVB-T	PAL B/G, DK, I, M
	Program Coverage	VHF 6 to 12, UHF 21 to 69	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
Analogue model	Television System	-	PAL B/G, DK, I, M
	Program Coverage	-	BG : VHF/UHF 1 to 69, CATV 01 to 47 I : VHF/UHF 1 to 69, CATV 01 to 47 DK : VHF/UHF 1 to 69, CATV 01 to 47 M : VHF/UHF 2 to 78, CATV 01 to 71
	External Antenna Impedance	75 Ω	75 Ω

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

IR CODES

This feature is not available for all models.

Code (Hexa)	Function	Note
95	Energy Saving	R/C BUTTON
08	POWER	R/C BUTTON(POWER ON/OFF)
0B	INPUT	R/C BUTTON
79	RATIO	R/C BUTTON
F0	TV/RAD	R/C BUTTON
45	Q.MENU	R/C BUTTON
43	MENU	R/C BUTTON
AB	GUIDE	R/C BUTTON
40	Up (∧)	R/C BUTTON
41	Down (∨)	R/C BUTTON
07	Left (<)	R/C BUTTON
06	Right (>)	R/C BUTTON
44	OK(◉)	R/C BUTTON
28	BACK	R/C BUTTON
5B	EXIT	R/C BUTTON
AA	INFO ⓘ	R/C BUTTON
30	AV MODE	R/C BUTTON
02	◿ +	R/C BUTTON
03	◿ -	R/C BUTTON
1E	FAV (MARK) (CHAR/NUM)	R/C BUTTON
09	MUTE (DELETE)	R/C BUTTON
00	P ∧	R/C BUTTON
01	P ∨	R/C BUTTON
10 to 19	Number Key 0 to 9	R/C BUTTON
53	LIST	R/C BUTTON
1A	Q.VIEW	R/C BUTTON
72	RED Key	R/C BUTTON
71	GREEN Key	R/C BUTTON
63	YELLOW Key	R/C BUTTON
61	BLUE Key	R/C BUTTON
20	TEXT	R/C BUTTON
21	T.OPT(T.Option)	R/C BUTTON
39	SUBTITLE	R/C BUTTON
7E	SIMPLINK	R/C BUTTON
B1	■	R/C BUTTON
B0	►	R/C BUTTON
BA	II(FREEZE)	R/C BUTTON
8F	◄◄	R/C BUTTON
8E	►►	R/C BUTTON
59	NetCast	R/C BUTTON

EXTERNAL CONTROL DEVICE SETUP

RS-232C Setup

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

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

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

Type of Connector; D-Sub 9-Pin Male

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

RS-232C Configurations

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

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

3-Wire Configurations(Not standard)

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

Set ID

Use this function to specify a set ID number.
Refer to ‘Real Data Mapping’. ▶ **p.151**

Select **OPTION**.

Select **Set ID**.

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

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

APPENDIX

Communication Parameters

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

Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	a	00 to 01
02. Aspect Ratio	k	c	Refer to p. 149
03. Screen Mute	k	d	Refer to p. 149
04. Volume Mute	k	e	00 to 01
05. Volume Control	k	f	00 to 64
06. Contrast	k	g	00 to 64
07. Brightness	k	h	00 to 64
08. Colour	k	i	00 to 64
09. Tint	k	j	00 to 64
10. Sharpness	k	k	00 to 64
11. OSD Select	k	l	00 to 01
12. Remote control lock mode	k	m	00 to 01
13. Treble	k	r	00 to 64
14. Bass	k	s	00 to 64
15. Balance	k	t	00 to 64
16. Colour Temperature	x	u	00 to 64
17. ISM Method	j	p	Refer to p. 151
18. Energy Saving	j	q	00 to 05
19. Auto Configuration	j	u	01
20. Tune Command	m	a	Refer to p. 151
21. Programme Add/Skip	m	b	00 to 01
22. Key	m	c	Key Code
23. Input select (Main)	x	b	Refer to p. 152

* Note : During USB operations such as Dvix or EMF, all commands except Power(ka) and Key(mc) are not executed and treated as NG.

Transmission / Receiving Protocol

Transmission

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

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

OK Acknowledgement

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

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

Error Acknowledgement

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

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

Data 00: Illegal Code

01. Power (Command: k a)

▶ To control Power On/Off of the set.

Transmission

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

Data 00 : Power Off 01 : Power On

Ack

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

▶ To show Power On/Off.

Transmission

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

Ack

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

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

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

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

Transmission

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

Data 01 : Normal screen (4:3) 07 : 14:9
02 : Wide screen (16:9) 09 : Just Scan
04 : Zoom 0B : Full Wide
06 : Original 10 to 1F : Cinema Zoom 1 to 16

Ack

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

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

03. Screen Mute (Command: k d)

▶ To select screen mute on/off.

Transmission

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

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

Ack

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

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

04. Volume Mute (Command: k e)

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

Transmission

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

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

Ack

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

05. Volume Control (Command: k f)

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

Transmission

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

Data Min : 00 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

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 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

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 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

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 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

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 to Green : 64
* Refer to 'Real data mapping 1'. See page 151.

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 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

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.
* In the standby mode, if key lock is on, TV will not turn on by power on key of IR & Local Key.

13. Treble (Command: k r)

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

Transmission

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

Data Min : 00 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

Ack

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

14. Bass (Command: k s)

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

Transmission

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

Data Min : 00 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

Ack

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

15. Balance (Command: k t)

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

Transmission

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

Data Min : 00 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

Ack

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

16. Colour Temperature (Command: x u)

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

Transmission

[x][u][ ][Set ID][ ][Data][Cr]

Data Min : 00 to Max : 64
* Refer to 'Real data mapping 1'. See page 151.

Ack

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

17. ISM Method (Command: j p)

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

Transmission

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

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

Ack

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

18. Energy Saving (Command: j q)

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

Transmission

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

Power Saving Function					Level				Description
7	6	5	4		3	2	1	0	
0	0	0	0	Low Power	0	0	0	0	Off
0	0	0	0	Low Power	0	0	0	1	Minimum
0	0	0	0	Low Power	0	0	1	0	Medium
0	0	0	0	Low Power	0	0	1	1	Maximum
0	0	0	0	Low Power	0	1	0	1	Screen Off
0	0	0	0	Low Power	0	1	0	0	Intelligent Sensor

Ack

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

19. Auto Configure(Command: j u)

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

Transmission

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

Data 01: To set

Ack

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

20. Tune Command (Command: m a)

▶ Select channel to following physical number.

Transmission

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

Data00 : High channel data
Data01 : Low channel data
ex. No. 47 -> 00 2F (2FH)
No. 394 -> 01 8A (18AH),
DTV No. 0 -> Don't care
Data02 : 0x00 : Analogue Main
0x10 : DTV Main
0x20 : Radio

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

Ack

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

Data Min: 00 to Max: 7DH

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

▶ To set skip status for the current Programme.

Transmission

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

Data 00 : Skip 01 : Add

Ack

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

*** Real data mapping 1**

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

22. Key(Command: m c)

▶ To send IR remote key code.

Transmission

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

Data Key code - Refer to page 151.

Ack

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

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

▶ To select input source for main picture.

Transmission

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

Data Structure

MSB LSB

0	0	0	0	0	0	0	0
External Input				Input Number			

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

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

Ack

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

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