LG
Life's Good

ENGLISH

OWNER'S MANUAL
LED LCD TV

LED LCD TV MODELS
22LE53** 42LE4***
26LE53**
32LE53**
42LE53**

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

www.lg.com

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PREPARATION

LCD TV MODELS

ACCESSORIES

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

■ Image shown may differ from your TV.

Owner's Manual

Batteries (AAA)

Remote Control

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.

Only 22/26LE53**

Cable Holder

DC Adapter

Power Cord

x 4

(M4x14)

x 4

(M4x20)
(Only 26LE53**)

Bolts for stand assembly

Only 32/42LE53**, 42LE4***

(Only 32LE53**)

x 8

(M4x20)

(Only 42LE53**, 42LE4***)

x 4

(M4 x 24)

x 4

(M4 x 16)

1-screw for stand fixing
(Only 32LE53**)

x 2

Component gender cable,
AV gender cable

Cable Holder

Separate purchase

Wall Mounting Bracket

LSW100B or LSW100BG

(32LE53**
22/26LE53**)

LSW200B or LSW200BG

(42LE53**
42LE4***)

Wireless Media Box

AN-WL100W

(32/42LE53**, 42LE4***)

PREPARATION

FRONT PANEL CONTROLS

NOTE

- ▶ TV can be placed in standby mode in order to reduce the power 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 drag the TV. The floor or the product may be damaged.

Only 32/42LE53**

■ Image shown may differ from your TV.

Remote Control Sensor

Intelligent Sensor
Adjusts picture according to the surrounding conditions.

Power/Standby Indicator
(Can be adjusted using the **Power Indicator** in the **OPTION** menu.)

Touch Sensor

• You can use the desired button function by touching.

PREPARATION

Only 22/26LE53**

■ Image shown may differ from your TV.

Only 42LE4***

■ Image shown may differ from your TV.

PREPARATION

BACK PANEL INFORMATION

Only 32/42LE53**, 42LE4***

■ Image shown may differ from your TV.

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

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

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

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

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

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

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

❽ **Antenna Input**
Connect antenna to this jack.

❾ **Cable Input**
Connect cable signals to this jack.

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

⓫ **Headphone Socket**
Plug the headphone into the headphone socket.

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

PREPARATION

Only 22/26LE53**

■ Image shown may differ from your TV.

❶ **DC ADAPTER PORT**
Connect to the power cord socket.

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

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

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

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

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

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

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

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

❿ **Cable Input**
Connect cable signals to this jack.

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

⓬ **Headphone Socket**
Plug the headphone into the headphone socket.

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 22LE53**

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

2. Assemble the parts of the **Stand Body** with the **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.

M4 X 14

Only 26/32/42LE53**, 42LE4***

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

2. Assemble the parts of the stand body with the stand base of the TV.

3. Assemble the TV as shown.

4. Assemble the parts of the **Stand Rear Cover** with the TV.

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.

Only 22/26LE53**

After connecting the cables as necessary, install **Cable Holder** as shown and bundle the cables.

Only 42LE4***,32/42LE53**

1. Secure the power cord with the **Cable Holder** on the TV back cover.
It will help prevent the power cable from being removed by accident.

2. After connecting the cables as necessary, install **Cable Holder** as shown and bundle the cables.

PREPARATION

ATTACHING THE TV TO A DESK

(Only 32LE53**)

■ Image shown may differ from your TV.

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

1-Screw (provided as parts of the product)

WARNING

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

SWIVEL STAND

(Except 22LE53**)

■ 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.

CONNECTION OF TV

(Only 22/26LE53**)

■ Image shown may differ from your TV.

1. Connect the antenna cable to the antenna input port on the TV.
2. Connect the DC adapter plug to the power input jack on the TV.
3. Connect the power cord to the DC adapter first, then plug the power cord into the wall power outlet.

CAUTION

► Please be sure to connect the TV to the DC power adapter before connecting the TV's power plug to a wall power outlet.

DESKTOP PEDESTAL INSTALLATION

■ Image shown may differ from your TV.

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

KENSINGTON SECURITY SYSTEM

- This feature is not available for all models.
- Image shown may differ from your TV.

The TV is equipped with a Kensington Security System connector on the back panel. Connect the Kensington Security System cable as shown below.
For the detailed installation and use of the Kensington Security System, refer to the user's guide provided with the Kensington Security System.
For further information, contact http://www.kensington.com, the internet homepage of the Kensington
company. Kensington sells security systems for expensive electronic equipment such as notebook PCs and LCD projectors.

NOTE

- ▶ The Kensington Security System is an optional accessory.
- ▶ If the TV feels cold to the touch, there may be a small "flicker" when it is turned on.
  This is normal, there is nothing wrong with TV.
- ▶ Some minute dot defects may be visible on the screen, appearing as tiny red, green, or blue spots. However, they have no adverse effect on the monitor's performance.
- ▶ Avoid touching the LCD screen or holding your finger(s) against it for long periods of time.
  Doing so may produce some temporary distortion effects on the screen.

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.

PREPARATION

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

EARTHING

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

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

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.

Model	VESA (A * B)	Standard Screw	Quantity
42LE4***	200 * 200	M6	4
22/26LE53**	100 * 100	M4	4
32LE53**	200 * 100	M4	4
42LE53**	200 * 200	M6	4

NOTE

► Should Install wall mount on a solid wall perpendicular to the floor.
► Should use a special wall mount, if you want to install it to ceiling or slanted wall.
► The surface that wall mount is to be mounted on should be of sufficient strength to support the weight of TV set; e.g. concrete, natural rock, brick and hollow block.
► Installing screw type and length depends on the wall mount used. Further i nformation, 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.

REMOTE CONTROL KEY FUNCTIONS

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

⏻(POWER)	Switches the TV on from standby or on to standby.
ENERGY SAVING	Adjust the Energy Saving mode of the TV.(▶ **p.83)**
AV MODE	It helps you select and set images and sounds.
INPUT	External input mode rotate in regular sequence.(▶ **p.34**)
TV/RAD	Selects Radio, TV and DTV channel.
0~9 number button	Selects a programme. Selects numbered items in a menu.
LIST	Displays the programme table. (▶ **p.32**)
Q.VIEW	Returns to the previously viewed programme.
MENU	Selects a menu.
GUIDE	Shows programme schedule.(▶ **p.75**)
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.16**)
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.
INFO ⓘ	Shows the present screen information.
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.
Coloured buttons	These buttons are used for teletext (on TELETEXT models only), Programme edit .
1 DIGITAL TELETEXT	These buttons are used for digital teletext. For further details, see the 'Digital Teletext' section.(▶**p.117**)
SUBTITLE	Recalls your preferred subtitle in digital mode.

PREPARATION

VOLUME UP /DOWN	Adjusts the volume.
FAV	Displays the selected favourite programme.
MARK	Select the input to apply the Picture Wizard settings. Check and un-check programmes in the USB menu.
RATIO	Selects your desired Aspect Ratio of picture. (▶ **p.80**)
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.

MY MEDIA Menu control buttons	Controls MY MEDIA menu(Photo List and Music List).

SIMPLINK	See a list of AV devices connected to TV. When you toggle this button, the Simplink menu appears at the screen.(▶ **p.36**)

Installing Batteries

- Open the battery compartment cover on the back and install the batteries matching correct polarity (+with +,-with -).
- Install two 1.5V AAA batteries. Do not mix old or used batteries with new ones.
- Close cover.
- 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.
- The 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 32/42LE53** models.
- 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**(Except for 22/26LE53**), 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 (50/60Hz only)	O (24Hz/30Hz/50Hz/60Hz)

***COMPONENT IN2** jack is just composed by an integrated video jack and an integrated audio jack. And the integrated audio jack also can be used as the AV IN2 jack.
Once you connected the integrated audio jack, the AV2 connection remind OSD will display, if you just need it as the component Audio jack, please choose No.

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

EXTERNAL EQUIPMENT SETUP

CONNECTING WITH AN HDMI CABLE

1. Connect the HDMI output of the external equipment (digital set-top box, DVD, etc.) to **HDMI/DVI IN 1** , **HDMI/DVI IN 2**, **HDMI/DVI IN 3** (only for 32/42LE53**) or **HDMI IN 3** (For 26LE53**, 42LE4** is **HDMI IN 3**) or **HDMI IN 4** (Except for 22/26LE53**, 42LE4**) jack on the TV.
2. Turn on the external equipment.
3. Select **HDMI1, HDMI2, HDMI3** (Except for 22LE53**) or **HDMI4** (only for 32/42LE53**) input source using the **INPUT** button on the remote control.

NOTE

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

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** or **HDMI/DVI IN 3**(Except for 22/26LE53**,42LE4**) 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** or **HDMI3**(Except for 22/26LE53**,42LE4**) input source using the **INPUT** button on the remote control.

EXTERNAL EQUIPMENT SETUP

USB SETUP

1. Connect the USB device to the **USB IN** jack on the TV.
2. After connecting the **USB IN** jack, you use the **USB** function. (▶ p.41)

CONNECTING WITH A RF CABLE

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

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

EXTERNAL EQUIPMENT SETUP

CONNECTING WITH AN 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 IN 2**, 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.

EXTERNAL EQUIPMENT SETUP

HEADPHONE SETUP

You can listen the sound through the headphone.

1. Plug the headphone into the headphone socket.

2. To adjust the headphone volume, press the ◿ + or - button. If you press the MUTE button, the sound from the headphone is switched off.

NOTE

- ► AUDIO menu items are disabled when connecting a headphone.
- ► When changing AV MODE with a headphone connected, the change is applied to video but not to audio.
- ► Optical Digital Audio Out is not available when connecting a headphone.

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

⚠ CAUTION

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

EXTERNAL EQUIPMENT SETUP

EXTERNAL EQUIPMENT WIRELESS CONNECTION

(Except for the 22/26LE53**)

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**(For 22/26LE53**, 42LE4** is **HDMI IN3**) or **HDMI IN 4** (Except for 22/26LE53**) jack on the TV.

LG Wireless Media Box

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.

SUPPORTED DISPLAY RESOLUTION

RGB-PC, HDMI/DVI-PC mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.468	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x768	47.78	59.87
1360x768	47.72	59.80
1280x1024	63.595	60.00
1920x1080 (RGB-PC)	66.587	59.93
1920x1080 (HDMI-PC)	67.5	60.00

HDMI/DVI-DTV mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x480	31.469	59.94
	31.5	60
720x576	31.25	50
1280x720	37.5	50
	44.96/45	59.94/60
1920x1080	33.72/33.75	59.94/60
	28.125	50
	26.97/27	23.97/24
	33.716/33.75	29.976/30.00
	56.25	50
	67.43/67.5	59.94/60

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 that is too long, there may be interference on the screen. We recommend using under 5m of cable. This provides the best picture quality.

EXTERNAL EQUIPMENT SETUP

SCREEN SETUP FOR PC MODE

Screen Reset

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

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

1 Select **PICTURE**.

2 Select **Screen**.

3 Select **Reset**.

4 Select **Yes**.

5 Run **Reset**.

- Press the **MENU/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.

EXTERNAL EQUIPMENT SETUP

Selecting Resolution

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

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

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.

Adjustment for screen Position, Size, Phase

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

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

Select **PICTURE**.

Select **Screen**.

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

Make appropriate adjustments.

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

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** or ⏻ **,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 **City**, **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.
   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: Select 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 : Select 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 Language: Select the sound output.

Sleep Timer : Set the sleep timer.

Skip Off/On : Select the Skip Off/On.

USB Device : Select “Eject” in order to eject USB device.

Display each menu.

Select your desired Source.

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

WATCHING TV / PROGRAMME CONTROL

ON SCREEN MENUS SELECTION AND ADJUSTMENT

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

(Except for 22/26LE53**)

1 Display each menu.

2 Select a menu item.

3 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.
- Press the **MENU/EXIT** button to return to normal TV viewing.
- Press the **BACK** button to move to the previous menu screen.

NOTE

► **IR Blaster** : For further information, refer to the optional **"Wireless Media Box"** manual for operating instructions.

AUTO PROGRAMME TUNING

Use this to automatically find and store all available programmes.
When you start auto programming, all previously stored service information will be deleted.
The maximum number of programmes that can be stored is 500. But the number may be different which depends 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 ^ v button. Then, press the **OK** button. Otherwise select **Close**.
- **Automatic Numbering** : Scramble Channel is skipped in **Auto Tuning** and **Manual Tuning**.

- 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)

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

1 Select **SETUP**.

2 Select **Manual Tuning**.

3 Select **DTV**.

4 Select the desired channel number.

5 Select update or add if signal present.

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

When manually tuning, you use the figures that are set up at Auto Tuning for each of necessary item.
When the change is needed, please first perform Auto Tuning.

- 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** or **Cable TV**.

4 or Select the desired programme number on.

5 Select a TV system.

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

7 or Select the desired channel number.

8 Commence searching.

9 Select **Store**.

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

- Use NUMBER buttons to input a 4-digit password in **Lock System** '**On**'.
- **I** : PAL I/II (U.K. / Ireland / Hong Kong / South Africa)
  DK : PAL D/K (East Europe / China / Africa / CIS)
  NTSC M : USA / Korea / Philippines
- 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** or **Cable TV**.

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**.

WATCHING TV / PROGRAMME CONTROL

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.

1

Select **SETUP**.

2

Select **Programme Edit**.

3

Enter the **Programme Edit**.

4
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

■ 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/Cable 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.

3 RED Delete. BLUE Release.

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

■ Moving a programme

1 Select a programme number to be moved.

2 GREEN Turn the programme number to green.

3 GREEN Release.

WATCHING TV / PROGRAMME CONTROL

■ 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 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.

■ Selecting favourite programme

Favourite programmes are 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 Add corresponding programme to Favourite list of current Favourite group.

3 MARK FAV 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.

BOOSTER(IN AIR DIGITAL MODE)

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

Select **SETUP**.

Select **Booster**.

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

Save.

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

WATCHING TV / PROGRAMME CONTROL

SOFTWARE UPDATE

Software Update means software can be downloaded through the digital terrestrial broadcasting system. But the actural situation is depending on the broadcasting signals of different area or different broadcasting service.

1

Select **Customer Support**.

2
Select **Software Update**.

3

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

4

Save.

- Press the **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.

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.

A window as display below appears when download completes.
TV is restarted when "Yes" is selected.

- During Progress of a Software Update, please note the following:
- Power to the TV must not be interrupted.
- The antenna must not be disconnected.
- 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.
- 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.

PICTURE/SOUND TEST

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

1

Select **Customer Support**.

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

3

Select **Yes** or **No**.

SIGNAL TEST

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

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

1 MENU RED Select **Customer Support**.

2 Select **Signal Test**.

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

4 OK Display the information of Channel.

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

WATCHING TV / PROGRAMME CONTROL

PRODUCT/SERVICE INFORMATION

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

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.

WATCHING TV / PROGRAMME CONTROL

SIMPLE MANUAL

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

■ Image shown may differ from your TV.

1

Select **Simple Manual**.

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

• 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 Programme is Locked .

■ Displaying programme LIST

1

Display the **Programme List.**

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

Turn the programme edit.

■ Selecting a programme in the programme list

1
Select a programme.

2

Switch to the chosen programme number.

The mode will be switched between DTV, RADIO, TV, Cable TV,from the program you are currently watching.

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

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.

■ Image shown may differ from your TV.

Select the input source.

- **Antenna** : Select it when watching the DTV/TV.
- **Cable** : Select it when watching the Cable DTV/Cable TV.
- **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 depends on connector.

INPUT LABEL

Select 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 **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**”.

1 Display the **SIMPLINK**.

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

3 Save.

- Press the **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**(For 22/26LE53**, 42LE4** is **HDMI IN3**) or **HDMI IN 4** (Except for 22/26LE 53**) terminal on the back of the TV and the HDMI out-put 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.

WATCHING TV / PROGRAMME CONTROL

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 HDMI cable over Version 1.3 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 titles of discs are conveniently displayed at the bottom of the screen.
3. **VCR playback :** Play and control the connected VCR.
4. **HDD Recordings playback :** Play and control recordings stored in HDD.
5. **Audio Out to Home theater/Audio Out to TV:** Select Home theater or TV speaker for Audio Out.

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

AV MODE

You can select the optimal images and sounds.

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

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

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

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.

TO USE A USB DEVICE

WHEN CONNECTING A USB DEVICE

When you connect a USB device, this pop up menu is displayed, automatically.
“POP UP MENU” will not be displayed while the OSD including Menu, EPG or Schedule list is activated.
When the Pop Up menu appears, you can select Music List, Photo List or Movie List in the USB menu.
In USB device, you can not add a new folder or delete the existing folder.

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

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

3 OK

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

When removing the USB device

Select the USB Device menu before removing the USB device.

1 Q.MENU Select **Eject**.

2 OK

TO USE A USB DEVICE

Precautions when using the USB device

- ▶ Only a USB storage device is recognizable.
- ▶ If the USB storage device is connected through a USB hub, the device is not recognizable.
- ▶ A USB storage device using an automatic recognition programme may not be recognized.
- ▶ A USB storage device which uses its own driver may not be recognized.
- ▶ The recognition speed of a USB storage device may depend on each device.
- ▶ Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- ▶ Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files, image files or movie files.
- ▶ Please use only a USB storage device which was formatted as a FAT32 file system, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.
- ▶ Please connect power to a USB storage device(over 0.5A) which requires an external power supply. If not, the device may not be recognized.
- ▶ Please connect a USB storage device with the cable offered by the device maker.
- ▶ 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 of 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 1TB or less for a USB external hard disk and 32GB or less for USB memory.
- ▶ Any device with more than the recommended capacity may not work properly.
- ▶ If a USB external hard disk with a "Energy Saving" function does not work, turn the hard disk off and on again to make it work properly.
- ▶ USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.

TO USE A USB DEVICE

MOVIE LIST

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

Movie(*.mpg/*.mpeg/*dat/*.ts/*.trp/*.tp/*.vob/*.mp4/*.mov/*.mkv/*.dvix/*.avi/*.asf/*.wmv/*/*.flv/*.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, HEAAC, ADPCM, WMA

Bit rate : within 32 ~ 320kbps(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.
- The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- A damaged movie file may not be played correctly, or some player functions may not be usable.
- Movie files produced with some encoders may not be played correctly.
- If the video and audio structure of recorded file is not interleaved, either video or audio is outputted.
- HD videos with a maximum of 1920x1080@25/30P or 1280x720@50/60P are supported, depending on the frame.
- Videos with resolutions higher than 1920X1080@25/30P or 1280x720@50/60P may not work properly depending on the frame.
- Movie files other than the specified types and formats may not work properly.
- **Max bitrate of playable movie file is 20Mbps.**
- We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264/AVC.
- DTS Audio codec is not supported.
- A movie file more than 30GB in file size is not supported for playback.
- A DivX movie file and its subtitle file must be located in the same folder.
- A video file name and its subtitle file name must be identical for it to be displayed.
- Playing a video via a USB connection that doesn't support high speed may not work properly.
- Files encoded with GMC(Global Motion Compensation) may not be played.
- When you are watching the movie by Movie List function, you can adjust an image by **Energy Saving** and **AV Mode** key on the remote control. User setup for each image mode does not operate.

TO USE A USB DEVICE

File / Extension name	Video Decoder	Audio Codec	Max Resolution
mpg, mpeg	MPEG1, MPEG2	MP2,MP3,AC3,LPCM	1920x1080@30p
dat	MPEG1	MP2	
ts,trp,tp	MPEG2, H.264, AVS, VC1	MP2,MP3,AC3,AAC,HEAAC	
vob	MPEG1, 2	MP2,MP3,AC3,LPCM	
mp4, mov	MPEG4,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-beta1/2H.264	AAC,HEAAC,MP3	
mkv	H.264, MPEG-1,2,4	MP2,MP3,AC3,AAC HEAAC,LPCM	
divx, avi	MPEG2, MPEG4,DivX 3.11, DivX 4. DivX 5, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2H.264	MP2,MP3,AC3,LPCM,ADPCM, AAC,HEAAC	
Motion JPEG (avi, mp4, mkv)	JPEG	LPCM, ADPCM	
asf, wmv	VC1	WMA	
flv	Sorenson H.263, H264	MP3, AAC	

TO USE A USB 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

TO USE A USB DEVICE

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

GREEN	Repeatedly, press the **GREEN** button to converted to **Photo List->Music List**.
YELLOW	A method to view in 5 large photos 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 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 Selected desired movie file.

5 Selected movie file is played.

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

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

NOTE

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

TO USE A USB DEVICE

Using the 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. 62) or when set as Marked Play.

TO USE A USB DEVICE

Using the Movie List function, play

Show the Popup menu.

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 increase the brightness of your screen.(Refer to p. 83)
AV MODE	Press the **AV MODE** button repeatedly to select the desired source.(Refer to p. 39)

TO USE A USB DEVICE

■ When you select the Set Video Play,

1

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

2

Make appropriate adjustments.

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

- ► **Picture Size** : Selects your desired picture format during movie play.
- ► **Audio Language** : Changes the Language Group of the audio during movie play.
- ► **Subtitle Language :** Turn on/off the external subtitle.
- ► **Language :** Activated for SMI subtitle and can select the language within the subtitle.
- ► **Code page :** Can select the font for subtitle. When set to default, same font as general menu will be used.
- ► **Sync** : Adjusts the time synchronisation of the subtitle from -10 secs ~ +10 secs by steps of 0.5 secs during movie play.
- ► **Position** : Changes the position of the subtitle either up or down during movie play.
- ► **Repeat :** Turn on/off repeat function of movie playback. When turned on, the file within the folder will be played back repeatedly.

NOTE

- ► Only 500 alphabets and 500 numbers are supported for each line of the subtitle.
- ► Only 10,000 of sync blocks can be supported within the subtitle file.

TO USE A USB DEVICE

■ **When you select the Set video,**

Select **Picture Mode** or **TruMotion.**

Make appropriate adjustments.

TO USE A USB DEVICE

■ **When you select the Set Audio,**

1

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

2

Make appropriate adjustments.

TO USE A USB DEVICE

PHOTO LIST

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

PHOTO(*.JPEG) supporting file

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

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

Screen Components

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

Select **MY MEDIA**.

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

TO USE A USB DEVICE

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

Using the remote control

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

TO USE A USB DEVICE

■ When selected photo files are displayed

1 Select the target folder or drive.

2 Select the desired photos.

3 BLUE or MARK FAV Convert to **Mark Mode**.

4 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.

TO USE A USB DEVICE

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.

TO USE A USB DEVICE

How to view photo

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

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

1 Select the target folder or drive.

2 Select the desired photos.

3 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 DEVICE

4 Select the **Slideshow**, **BGM**, **(Rotate)**, **(ZOOM IN)**, **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 Music Folder for BGM 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.

▶ **(ZOOM IN): View the photo by zoom in 2, 4 times**

▶ **Option** : Set values for **Slide Speed** and **Music Folder** for **BGM**.
- Use ∧ ∨ < > button and **OK** button to set values. Press **OK** to save the settings.
- You cannot change **Music Folder** while BGM is playing.

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

▶ **Exit :** Move to the previous menu screen.

TO USE A USB DEVICE

Using the Photo List function

1 Q.MENU or MENU Show the Popup menu.

2 OK Select **Set photo view.**, **Set video.** or **Set audio..**

NOTE

- ► Option values changed in **Photo List** does not affect **Movie 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 DEVICE

■ When you select the Set photo view,

1

Select **Slide Speed** or **BGM**

2

Make appropriate adjustments.

TO USE A USB DEVICE

■ **When you select the Set video,**

Select **Picture Mode** or **TruMotion.**

Make appropriate adjustments.

TO USE A USB DEVICE

■ **When you select the Set Audio,**

1

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

2

Make appropriate adjustments.

TO USE A USB DEVICE

MUSIC LIST

You can play music files on USB storage device.

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

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

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

MUSIC (*.MP3) supporting file
Bit rate 32 ~ 320
- Sampling rate MPEG1 Layer3 : 32kHz, 44.1kHz, 48kHz
- Sampling rate MPEG2 Layer3 : 16kHz, 22.05kHz, 24kHz
- Sampling rate MPEG2.5 Layer3 : 8kHz, 11.025kHz, 12kHz

Screen Components

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

TO USE A USB DEVICE

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

GREEN	Repeatedly, press the **GREEN** button to converted to **Movie List->Photo List**.
YELLOW	A method to view in 5 large photos or simple list.
BLUE	Convert to **Mark Mode**.
MENU or Q.MENU	Show the **Option** menu.
EXIT	Return to normal TV viewing.

TO USE A USB DEVICE

■ When selected music files are played

1 Select the target folder or drive.

2 Select the desired music title.

3 BLUE or MARK FAV Convert to **Mark Mode**.

4 Mark desired music file.

5 RED 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**.

TO USE A USB DEVICE

Using the remote control

RED	Display 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.

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

TO USE A USB DEVICE

Using the Music List function, play

Show the Popup menu.

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.

TO USE A USB 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. 83) Only Off/Screen Off operates from the Movie List, Photo List, Music List.
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.

TO USE A USB DEVICE

■ **When you select the Set audio play,**

1

Select **Set Audio Play.**

2

Make appropriate adjustments.

TO USE A USB DEVICE

■ **When you select the Set audio,**

1

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

2

Make appropriate adjustments.

TO USE A USB DEVICE

- If you don't press any button for a while during the playing, the play information box (as shown in the below) will float as a screen saver.
- The ‘Screen Saver’?

  Screen saver is to prevent screen pixel damage due to an fixed image remaining on the screen for a extended period of time.

NOTE

► 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 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 Select **MY MEDIA**.

2 Select **DivX Reg. Code**.

3 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.

TO USE A USB DEVICE

DEACTIVATION

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

1

Select **MY MEDIA**.

2

Select **Deactivation**.

3

Select **Yes**.

4

Display **Deactivation**.

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

EPG(ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL SIGNAL)

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

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

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

The EPG displays the programme details for the next 8 days.

INFO Show 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.		Displayed with a Dolby Digital Programme.
4:3	Aspect ratio of broadcasting programme.		Displayed with a Dolby Digital PLUS Programme.
16:9	Aspect ratio of broadcasting programme.		576i/p, 720p, 1080i/p : Resolution of broadcasting programme

Broadcasted programme with the icon may not be displayed in Monitor Out depending on the information of the programme.

Show next programme information.

OK A pop-up window for remind settings appears.

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.

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

Button Function in NOW/NEXT Guide Mode

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

RED Change EPG mode.

YELLOW Enter Manual Timer mode.

BLUE Enter Schedule List mode.

OK When 'Now' is selected, it is moved to selected program 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 TV or RADIO Programme.

INFO Detail information on or off

EPG (ELECTRONIC PROGRAMME GUIDE)

Button Function in 8 Day Guide Mode

Change EPG mode.

Enter Date setting mode.

Enter Manual Timer mode.

Enter Schedule List mode.

When 'Now' is selected, it move to selected program and EPG disappears
When 'Next' is selected, a reservation pop-up window appears.

Select a Programme.

Select the Broadcast Programme.

Page Up/Down.

or

or

Switch off EPG.

Select TV or RADIO Programme.

Detail information on or off

EPG (ELECTRONIC PROGRAMME GUIDE)

Button Function in Date Change Mode

GREEN Switch off Date setting mode.

OK Change to the selected date.

Select a date.

Switch off Date setting mode.

GUIDE or BACK or EXIT Switch off EPG.

Button Function in Extended Description Box

Text Up/Down.

Select Timer Remind setting mode.

INFO or BACK The detail information on or off.

GUIDE or EXIT Switch off EPG.

EPG (ELECTRONIC PROGRAMME GUIDE)

Button Function in Remind Setting Mode

Sets only a start time for the reminder with the end time grayed out.

Switch off Manual Timer mode.

Select Start Time, End time or Programme.

Change to Guide mode.

Change to Schedule List mode.

Save Timer Remind.

Button Function in Schedule List Mode

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

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

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.

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.

1

Select **Aspect Ratio**.

2
Select the desired picture format.

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

• 16:9

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

• Just Scan

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

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

• Original

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

• Full Wide

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

PICTURE CONTROL

• **4:3**

The following selection will allow you to view a picture with an original 4:3 aspect ratio, black 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 1~16.
▼ 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.
► In Antenna/Cable/AV mode, Full Wide is available.

PICTURE CONTROL

PICTURE WIZARD

This feature lets you adjust the picture quality of the original image.
Use this to calibrate the screen quality by adjusting the Black and White Level etc. General users can calibrate the screen quality by easily following each stage.
When you adjust the image to Low, Recommended or High, you can see the changed result as an example.

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 **Brightness, Contrast, Tint, Colour, Horizontal Sharpness, Vertical Sharpness**, **Backlight**.

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.

- 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 complies with the **Energy Star** requirements and is adjusted to the comfortable level to be viewed at home.

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

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

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

Select **PICTURE**.

Select **Energy Saving**.

Select **Auto , 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 do not press any button for 2 hours, the power of the TV will automatically be turned off.
- If you adjust "**Energy Saving-Auto**,**Maximum**, **Screen Off** ", **Backlight** feature will not work.
- You can also adjust this feature by selecting **Energy Saving** button on the remote control.
- When selecting Auto, Backlight is automatically adjusted through intelligent sensor according to the surrounding condition when intelligent sensor is in the TV.

PICTURE CONTROL

PRESET PICTURE SETTINGS

Picture Mode-Preset

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

Select **PICTURE**.

Select **Picture Mode**.

Select **Intelligent Sensor**(Only 42LE4***,32/42LE53**), **Vivid**, **Standard**, **Cinema**, **Sport** or **Game**.

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

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

PICTURE CONTROL

MANUAL PICTURE ADJUSTMENT

Picture Mode-User option

Backlight
To control the brightness of the screen, adjust the brightness of LCD panel.
Adjusting the backlight when setting the brightness of the set is recommended.

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

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

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

Colour
Adjusts intensity of all colours.

Tint
Adjusts the balance between red and green levels.

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 "**Intelligent Sensor**".

Select **PICTURE**.

Select **Picture Mode**.

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

Select **Backlight**, **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.

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

NOTE

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

▶ When the **Expert 1/2** is selected, you can select **Backlight**, **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**,**Clear White, Skin Colour,Noise Reduction**, **Digital Noise Reduction**, **Gamma**, **Black Level**, **Eye Care**, **Real Cinema**, **Colour Gamut** or **xvYCC.**

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

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.

Select Expert1 or Expert2, then press '8' '7' '4' '1' on the remote control, then you can get into **Day** or **Night** mode.

- 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/Medium/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/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.
Skin Colour (-5 to 5)	■ Expresses natural skin by detecting skin area of the video.
Noise Reduction (Off/Low/Medium/High/ Auto(In Analogue Mode Only))	■ Reduces screen noise without compromising video quality.
Digital Noise Reduction (Low/Medium/High/Off)	■ Removes noise regarding MPEG compressed video.
Gamma (Advanced Control: Low/Medium/High Expert Control: 1.9/2.2/2.4)	■ You can adjust brightness of dark area and middle gray level area of the picture. • **Low/1.9** : Make dark and middle gray level area of the picture brighter. • **Medium/2.2** : Express original picture levels. • **High/2.4**: Make dark and middle gray level area of the picture darker.
Black Level (Low/High/Auto)	• **Low** : The picture of the screen gets darker. • **High** : The picture of the screen gets brighter. • **Auto** : Realizing the black level of the screen and set it to High or Low automatically. ■ Set black level of the screen to proper level. ■ This function enables to select 'Low' or 'High' in the following mode: AV(NTSC-M), HDMI or Component. Otherwise, 'Black level' is set to 'Auto'.
Clear White (Off/Low/High)	■ Make brighter and clear the white area of screen.
Eye Care (Low/High/Off)	*This feature is not available for all models. ■ Adjust the brightness of the screen to prevent the screen from being too bright. Dims extremely bright pictures. ■ This feature is disable in "**Picture Mode-Vivid**, **Cinema**, **Expert1, Expert2, Intelligent Sensor**".
Real Cinema (On/Off)	■ You can watch a cinema-like video by eliminating judder effect. ■ Use this function when you watch film-originated movie contents. ■ This function can work when TruMotion is off.

PICTURE CONTROL

Colour Gamut (Advanced Control: Wide/Standard)	• **Standard** : Mode to reproduce original colour according to the standard of input signal independent of the display characteristics. • **Wide:** Mode to use and set the rich colour area of the display. ■ Maximize the utilization for colour area that can be expressed.
Colour Gamut (Expert Control: EBU/ SMPTE/BT709/Wide)	■ Displays color domain of signal in Expert Control.
Edge Enhancer (Off/Low/High)	■ Shows clearer and distinctive yet natural corners of the video. ■ This function is enabled in “Picture Mode- Expert.”
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 expert adjustment. ■ 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 ~ +50. b. • Method : 10 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 10, 20, 30 - 100. You can adjust Red, Green or Blue according to each setting. • Luminance: This function displays calculated luminance value for 2.2 gamma. You can input luminance value you want at 100 IRE, than the target luminance value for 2.2 gamma is displayed at every 10 steps from 10 IRE to 90 IRE. • Red/Green/Blue: The adjustment range is -50 ~ +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 ~ +30. • Red/Green/Blue/Yellow/Cyan/Magenta Tint : The adjustment range is -30 ~ +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.

1 Select **PICTURE**.

2 Select **Picture Reset**.

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

4 Initialize the adjusted value.

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

PICTURE CONTROL

TruMotion

(Only 32/42LE53**)

It is used for the best picture quality without any motion blur or judder when you enter a quick image or Film Source.

High : Provide smoother picture movement.
Low : Provide smooth picture movement. Use this setting for standard use.
Off : Turn off TruMotion Operation.
User : User can adjust **Judder** and **Blur** level in TruMotion Operation, separately.
- **Judder** : Adjust noise of the screen.
- **Blur** : Adjust after-image of the screen.

This feature is disable in RGB-PC,HDMI-PC mode.
If you enable "TruMotion", noise may appear on the screen.
If this occurs, set "TruMotion" to "Off".
If you select “**Picture Mode**-**Game** ”, set “**TruMotion**" to "**Off**".

Select **PICTURE**.

Select **TruMotion**.

Select **Low, High, User** or **Off**.

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

POWER INDICATOR

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

Standby Light
Determines whether to set the indicator light on the front of the TV to **On** or **Off** in standby mode.
Power Light
Determines whether to set the indicator light on the front of the TV to **On** or **Off** when the power turns on.

Select **OPTION**.

Select **Power Indicator**.

Select **Standby Light** or **Power Light**.

Select your desired Source.

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

PICTURE CONTROL

MHEG GUIDE

This menu determines whether to show the UI guide or the guide provided by MHEG when a user hits the 'GUIDE' key.
If you set the 'MHEG Guide' menu to On, the 'Digital Teletext' sent by broadcasters will be used. Note that 'Digital Teletext' is not always present.

Select OPTION.

Select MHEG Guide.

Select On or Off.

Save.

- 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.

PICTURE CONTROL

DEMO MODE

Display the slide show to explain the various logo of this TV.
It is not possible to use **Demo Mode** in **Home Use** mode.
In **Store Demo**, **Demo Mode** is automatically set to **On**.
Once **Demo Mode** is set to **Off** in **Store Demo**, **Demo Mode** does not run and only the screen is reset.
The screen is reset automatically after 5 minutes in **Demo Mode**.

1 Select **OPTION**.

2 Select **Mode Setting**.

3 Select **Store Demo**.

4 Select **On** to show the various logo of TV.

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

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

Because each broadcasting station has its own signal conditions, volume adjustment may be needed every time when the channel is changed. This feature allows users to enjoy stable volume levels by making automatic adjustments for each program.
If sound quality or volume is not at the level you want, it is recommended to use a separate home theater system or amp to cope with different user environments.

AUDIO is disabled when connecting a headset.

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 & LANGUAGE CONTROL

SOUND SETTING ADJUSTMENT -USER MODE

Select **AUDIO**.

Select **Sound Mode**.

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

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

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.

Select **AUDIO**.

Select **Infinite Sound**.

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.

SOUND & LANGUAGE CONTROL

TV SPEAKERS ON/ OFF SETUP

You can adjust the TV internal speaker status.

In **AV**, **COMPONENT**, **RGB** and **HDMI1/2/3** 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)

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. 108 to 109 (Audio Language Selection)

SOUND & LANGUAGE CONTROL

SELECTING DIGITAL AUDIO OUT

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

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

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

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

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

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 DD DD+ HE-AAC	PCM DD DD PCM
Auto(Speaker Off)	MPEG DD DD+ HE-AAC	PCM DD DD DD
PCM	PCM	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.

1 Select **AUDIO**.

2 Select **Reset**.

3 Initialize the adjusted value.

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

SOUND & LANGUAGE CONTROL

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.

Select **Audio Language**.

Select the sound output.

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

■ **Mono sound selection**

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

■ **Language selection for dual language broadcast**

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

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

NICAM RECEPTION (IN ANALOGUE MODE ONLY)

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

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

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

SPEAKER SOUND OUTPUT SELECTION

In 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

ON-SCREEN MENU LANGUAGE/COUNTRY/AREA SELECTION

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

1 Select your country.

* If you want to change Language/Area or Country selection

1 Select **OPTION**.

2 Select **Language(Language)**.

3 Select **Menu Language**.

4 Select your desired language.

5 Save.

1 Select **OPTION**.

2 Select **City/Area**.

3 Select your country.

4 Save.

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

NOTE

- ► If you do not finish the set-up **Installation Guide** by pressing **BACK** or if you time out on the OSD (On Screen Display) the installation menu will continuously appear until the set up is completed whenever the TV is switched on.
- ► DTV mode control buttons may not function based on country broadcasting circumstances.
- ► In country that Digital broadcasting regulation isn't fixed, some DTV function may not work depending on digital broadcasting circumstances.

SOUND & LANGUAGE CONTROL

LANGUAGE SELECTION (IN DIGITAL MODE ONLY)

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

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

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

Select **OPTION**.

Select **Language(Language)**.

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

SOUND & LANGUAGE CONTROL

< Audio Language Selection >

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

1

Select **Audio Language**.

2

Select an audio language.

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

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
AAC	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
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.

TIME SETTING

CLOCK SETUP

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

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

Select **TIME**.

Select **Clock**.

Select **Auto** or **Manual**.

Select either the year, month, date, time or Time Zone option.

Set the year, month, date, time or Time Zone option.

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

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 minute.

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

1 Select **Input**.

2 Select the input source.

3 Set the programme.

4 Adjust volume level at switch-on.

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

TIME SETTING

SLEEP TIMER SETTING

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

1

Select **Sleep Timer**.

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

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

PARENTAL CONTROL / RATINGS

SET PASSWORD & LOCK SYSTEM

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

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

1 Select **LOCK**.

2 Select **Lock System**.

3 Select **On**.

4 Set the password.

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

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

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

PARENTAL CONTROL / RATINGS

BLOCK PROGRAMME

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

It is available to use this function when **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

EXTERNAL INPUT BLOCKING

Enables you to block an input.

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

Select **LOCK**.

Select **Lock System**.

Select **Input Block**.

Select input source.

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

Save.

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

PARENTAL CONTROL / RATINGS

KEY LOCK

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

Select **LOCK**.

Select **Key Lock**.

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

Save.

- 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.

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

DIGITAL TELETEXT

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

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

- Image shown may differ from your TV.
  But the actural situation is depending on the broadcasting signals of different area or different broadcasting service.

TELETEXT WITHIN DIGITAL SERVICE

1. Press the numeric or P ∧ ∨ button to select a digital service which broadcasts digital teletext. To know which are digital teletext services, refer to the EPG service list.

2. Follow the indications on digital teletext and move onto the next step by pressing GUIDE, 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.

DIGITAL TELETEXT

TELETEXT IN DIGITAL SERVICE

1. Press the numeric or P ∧ ∨ button to select a certain service which broadcasts digital teletext.

2. Press the GUIDE, 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 GUIDE, TEXT or colour button to switch off digital teletext and return to TV viewing.

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

APPENDIX

TROUBLESHOOTING

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

The videofunction does not work.	
No picture & No sound	▲ Check whether the TV is switched on. ▲ Try another channel. The problem may be with the broadcast. ▲ Is the power cord inserted correctly into the mains? ▲ Check your antenna direction and/or location. ▲ Test the mains outlet by plugging another TV into the same outlet.
Picture appears slowly after switching on	▲ This is normal, the image is muted during the TV startup process. Please contact your service centre, if the picture has not appeared after five minutes.
No or poor colour or poor picture	▲ Adjust Colour in menu option. ▲ Allow a sufficient distance between the TV and the VCR. ▲ Try another channel. The problem may be with the broadcast. ▲ Are the video cables installed properly? ▲ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	▲ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	▲ Station or cable channel experiencing problems, tune to another station. ▲ Station signal is weak, reposition the antenna to receive weaker stations. ▲ Check for sources of possible interference.
Lines or streaks in pictures	▲ Check antenna (Change the position of the antenna).
No picture when connecting HDMI	▲ Check that your HDMI cable is version 1.3 or higher. If the HDMI cables don't support HDMI version 1.3, flickering or no screen display can result. Please use the latest cables that support at least HDMI version 1.3.

APPENDIX

The audio function does not work.	
Picture OK & No sound	A Press the ◿ + or − button. A Sound muted? Press MUTE button. A Try another channel. The problem may be with the broadcast. A Are the audio cables installed properly?
No output from one of the speakers	A Adjust **Balance** in menu option.
Unusual sound from inside the TV	A 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	A Check HDMI cable over version 1.3. A 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)	A Adjust resolution, horizontal frequency, or vertical frequency. A Check the input source.
Vertical bar or stripe on background & Horizontal Noise & Incorrect position	A Use Auto configure or adjust clock, phase, or H/V position. (Option)
Screen colour is unstable or single colour	A Check the signal cable. A 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.	A It means that the TV is currently set to **Store Demo** mode. To switch to **Home use** mode you should do the followings: From the TV Menu, choose **OPTION** -> Choose **Mode Setting** -> Choose **Home use**. Now, you have completed switching to the **Home use** mode.

MAINTENANCE

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

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

Cleaning the Screen

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

Cleaning the Cabinet

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

APPENDIX

PRODUCT SPECIFICATIONS

MODELS		22LE53**	26LE53**
		22LE5300-CA	26LE5300-CA
Dimensions (Width x Height x Depth)	with stand	542.9 x 407.1 x 155.4 mm	652.0 x 480.8 x 191.4 mm
	without stand	542.9 x 357.6 x 34.4 mm	652.0 x 420.3 x 34.4 mm
Weight	with stand without stand	4.2 kg 3.9 kg	6.1 kg 5.1 kg
Power requirement		DC 24V, 1.7A AC-DC adaptor: 24V⎓3.42A /AC 100-240V~ 50/60 Hz	DC 24V, 2.1A AC-DC adaptor: 24V⎓3.42A /AC 100-240V~ 50/60 Hz

MODELS		32LE53**	42LE53**
		32LE5300-CA	42LE5300-CA
Dimensions (Width x Height x Depth)	with stand	784.6 x 558.1 x 221.0 mm	1016.0 x 692.0 x 270.0 mm
	without stand	784.6 x 499.5 x 39.9 mm	1016.0 x 630.0 x 29.3 mm
Weight	with stand without stand	12.65 kg 10.5 kg	19.2 kg 16.7 kg
Power requirement		AC 100-240 V~ 50/60Hz,1.3A	AC 100-240 V~ 50/60Hz,1.5A

MODELS		42LE4 ***
		42LE4500-CA
Dimensions (Width x Height x Depth)	with stand	1018.0 x 692.0 x 270.0 mm
	without stand	1018.0 x 627.0 x 35.3 mm
Weight	with stand without stand	16.7 kg 14.2 kg
Power requirement		AC 100-240 V~ 50/60Hz,1.5A
Television System		DTMB, PAL D/K, PAL I, NTSC M
Programme Coverage		DTV: 21~69; PAL D/K: VHF/UHF 1~62, CATV 1~41; PAL I: VHF/UHF 1~69, CATV 1~47; NTSC M: VHF/UHF 2~83, CATV 1~71
External Antenna Impedance		75 Ω
Environment condition	Operating Temperature Operating Humidity	0 ~ 40°C / 32 ~ 104°F Less than 80%
	Storage Temperature Storage Humidity	-20 ~ 60°C / -4 ~ 140°F Less than 85%

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

APPENDIX

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)	R/C BUTTON
09	MUTE	R/C BUTTON
00	P ⌃	R/C BUTTON
01	P ⌄	R/C BUTTON
10~19	Number Key 0~9	R/C BUTTON
53	LIST	R/C BUTTON
1A	Q.VIEW	R/C BUTTON
72	RED Key	R/C BUTTON
71	GREEN Key	R/C BUTTON
63	YELLOW Key	R/C BUTTON
61	BLUE Key	R/C BUTTON
39	SUBTITLE	R/C BUTTON
7E	SIMPLINK	R/C BUTTON
B1	■	R/C BUTTON
B0	▶	R/C BUTTON
BA	II	R/C BUTTON
8F	◀◀	R/C BUTTON
8E	▶▶	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.129**

Select **OPTION**.

Select **Set ID**.

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

• Press 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 ~ 01
02. Aspect Ratio	k	c	Refer to p. 127
03. Screen Mute	k	d	00 ~ 01
04. Volume Mute	k	e	00 ~ 01
05. Volume Control	k	f	00 ~ 64
06. Contrast	k	g	00 ~ 64
07. Brightness	k	h	00 ~ 64
08. Colour	k	i	00 ~ 64
09. Tint	k	j	00 ~ 64
10. Sharpness	k	k	00 ~ 64
11. OSD Select	k	l	00 ~ 01
12. Remote control lock mode	k	m	00 ~ 01
13. Treble	k	r	00 ~ 64
14. Bass	k	s	00 ~ 64
15. Balance	k	t	00 ~ 64
16. Colour Temperature	k	u	00 ~ 02
17. Energy Saving	j	q	00 ~ 04
18. Auto Configuration	j	u	01
19. Tune Command	m	a	Refer to p. 129
20. Programme Add/Skip	m	b	00 ~ 1
21. Key	m	c	Key Code
22. Control Back Light	m	g	00 ~ 64
23. Input select (Main)	x	b	Refer to p. 130

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

Transmission / Receiving Protocol

Transmission

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

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

OK Acknowledgement

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

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

Error Acknowledgement

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

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

Data 00: Illegal Code

APPENDIX

01. Power (Command: k a)

► To control Power On/Off of the set.

Transmission

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

Data 00 : Power Off 01 : Power On

Ack

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

► To show Power On/Off.

Transmission

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

Ack

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

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

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

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

Transmission

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

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

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 50Hz/60Hz, 720p 50Hz/60Hz, 1080p 24Hz/30Hz/50Hz/60Hz), Component(720p, 1080i, 1080p 50Hz/60Hz) mode, Just Scan is available.
* **Full Wide** is supported only for Analogue, AV1,2.

03. Screen Mute (Command: k d)

► To select screen mute on/off.

Transmission

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

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

Ack

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

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

04. Volume Mute (Command: k e)

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

Transmission

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

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

Ack

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

05. Volume Control (Command: k f)

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

Transmission

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

Data Min : 00 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 129.

Ack

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

06. Contrast (Command: k g)

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

Transmission

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

Data Min : 00 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 129.

Ack

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

07. Brightness (Command: k h)

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

Transmission

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

Data Min : 00 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 129..

Ack

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

08. Colour (Command: k i)

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

Transmission

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

Data Min : 00 ~ Max : 64
* Refer to 'Real data mapping 1'. See page 129..

Ack

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

09. Tint (Command: k j)

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

Transmission

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

Data Red : 00 ~ Green : 64
∗ Refer to 'Real data mapping 1'. See page 129.

Ack

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

10. Sharpness (Command: k k)

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

Transmission

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

Data Min : 00 ~ Max : 64
∗ Refer to 'Real data mapping 1'. See page 129..

Ack

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

11. OSD Select (Command: k l)

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

Transmission

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

Data 00 : OSD off 01 : OSD on

Ack

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

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

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

Transmission

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

Data 00 : Lock off 01 : Lock on

Ack

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

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

13. Treble (Command: k r)

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

Transmission

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

Data Min : 00 ~ Max : 64
∗ Refer to 'Real data mapping 1'. See page 129.

Ack

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

14. Bass (Command: k s)

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

Transmission

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

Data Min : 00 ~ Max : 64
∗ Refer to 'Real data mapping 1'. See page 129.

Ack

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

15. Balance (Command: k t)

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

Transmission

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

Data Min : 00 ~ Max : 64
∗ Refer to 'Real data mapping 1'. See page 129.

Ack

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

16. Colour Temperature (Command: k u)

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

Transmission

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

Data 00: Medium 01:Cool 02: Warm

Ack

17. 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

Ack

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

18. Auto Configure(Command: j u)

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

Transmission

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

Data 01: To set

Ack

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

19.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 ~ Max: 63 (0~99)
Digital - Min: 00 ~ Max: 3E7 (0~999)
(Except For Sweden, Finland, Norway, Denmark, Ireland)
Digital - Min: 00 ~ Max: 270F (0~9999)
(Only Sweden, Finland, Norway, Denmark, Ireland)

Ack

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

Data Min: 00 ~ Max: 7DH

20. 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

*** Real data mapping 2**

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

21. Key(Command: m c)

► To send IR remote key code.

Transmission

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

Data Key code - Refer to page 123.

Ack

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

22. Control Back Light (Command: m g)

► To Control the back light.

Transmission

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

Data : data Min: 00 ~ Max: 64

Ack

[g][ ][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

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

Ack

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

APPENDIX

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GPL EXECUTABLES:

- Linux kernel 2.6
- busybox
- lzo

LGPL LIBRARIES:

- uClibc

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APPENDIX

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Version 1.1

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