LG

Life's Good

OWNER'S MANUAL

M197WDP
M227WDP
M237WDP

Make sure to read the Safety Precautions before using the product.
Keep the User's Guide(CD) in an accessible place for furture reference.
See the label attached on the product and give the information to your dealer when you ask for service.
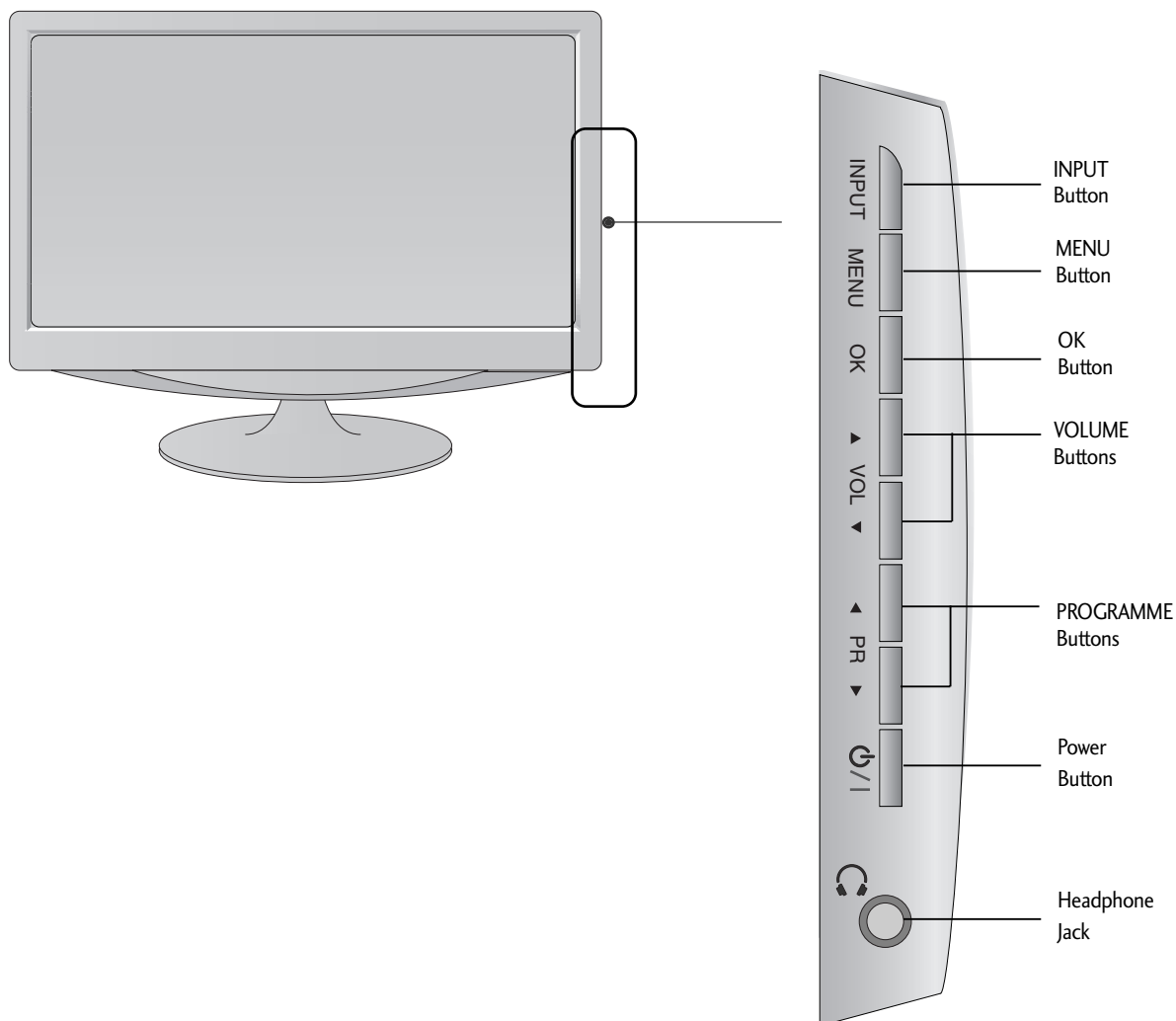
DVB
Digital **V**ideo
Broadcasting

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

PREPARATION

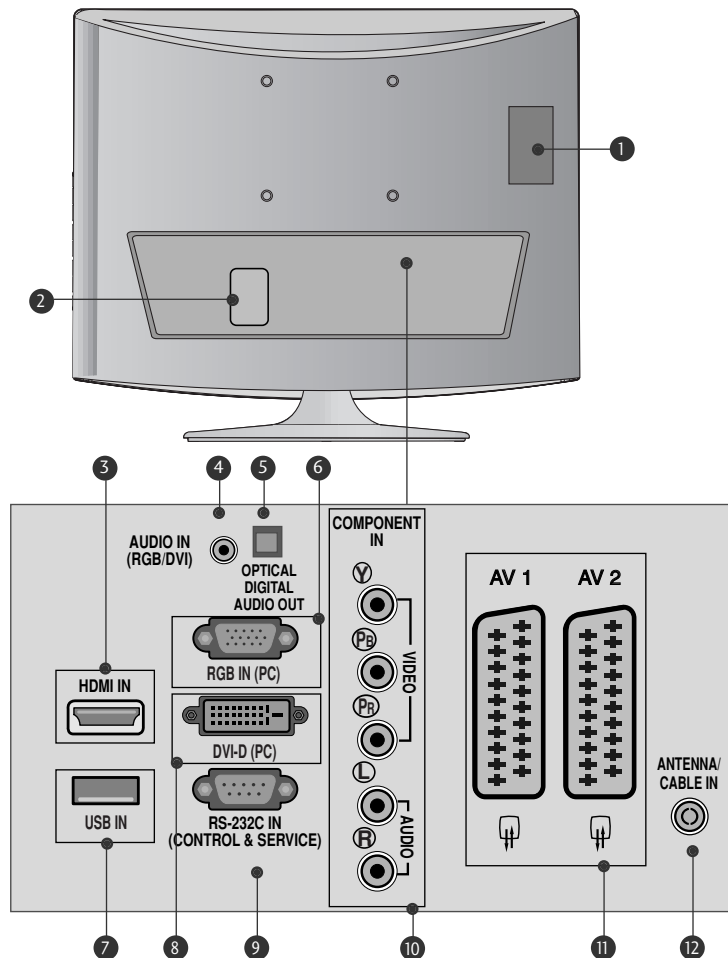# FRONT PANEL CONTROLS

■ This is a simplified representation of the front panel. The image shown may be somewhat different from your set.

INPUT

MENU

OK

▲ VOL ▼

▲ PR ▼

INPUT
Button

MENU
Button

OK
Button

VOLUME
Buttons

PROGRAMME
Buttons

Power
Button

Headphone
Jack

<M197WDP/M227WDP>

BACK PANEL INFORMATION

■ This is a simplified representation of the back panel. The image shown may be somewhat different from your set.

❶ **PCMCIA (Personal Computer Memory Card International Association) Card Slot**
This feature is not available in all countries.

❷ **Power Cord Socket**
This set operates on AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.

❸ **HDMI Input(Not Support PC)**
Connect a HDMI signal to HDMI IN.
Or DVI (VIDEO) signal to HDMI IN with DVI to HDMI cable.

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

❺ **Optical Digital Audio Out**
Connect digital audio from various types of eguipment.

❻ **RGB INPUT (PC)**
Connect the output from a PC.

❼ **USB IN**

❽ **DVI-D Input**
Connect the output from a PC.

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

❿ **Component Input**
Connect a component video/audio device to these jacks.
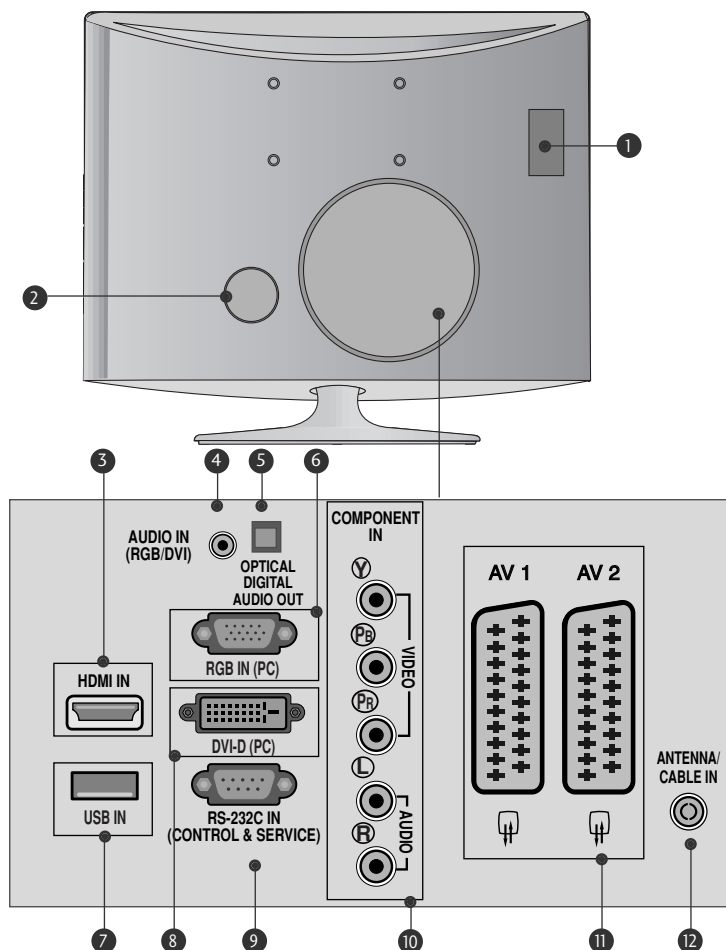
⓫ **Euro Scart Socket (AV1/AV2)**
Connect scart socket input or output from an external device to these jacks.

⓬ **Antenna Input**
Connect over-the-air signals to this jack.

BACK PANEL INFORMATION

■ This is a simplified representation of the back panel. The image shown may be somewhat different from your set.

AUDIO IN
(RGB/DVI)

OPTICAL
DIGITAL
AUDIO OUT

COMPONENT
IN

AV 1   AV 2

RGB IN (PC)

HDMI IN

DVI-D (PC)

USB IN

RS-232C IN
(CONTROL & SERVICE)

Y
PB
PR
L
R

VIDEO

AUDIO

ANTENNA/
CABLE IN

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Connect to the RS-232C port on a PC.

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⓫ **Euro Scart Socket (AV1/AV2)**
Connect scart socket input or output from an external device to these jacks.

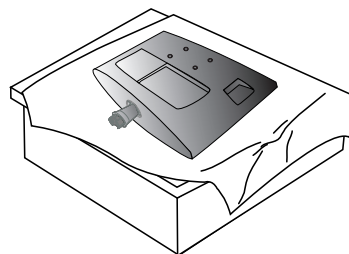⓬ **Antenna Input**
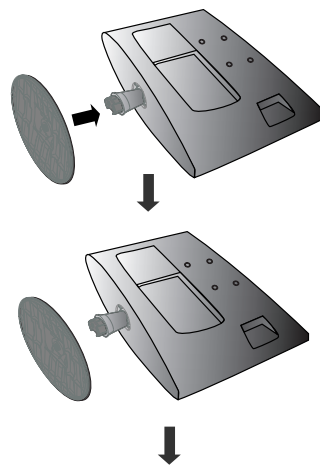Connect over-the-air signals to this jack.

<M197WDP/M227WDP>

STAND INSTALLATION

■ The image shown may be somewhat different from your set.

1 Carefully place the product screen side down on a cushioned surface that will protect product and screen from damage.
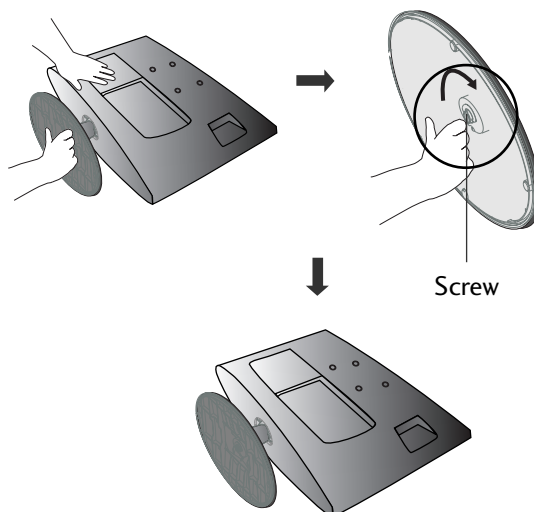
2 Insert the **stand base** into the product

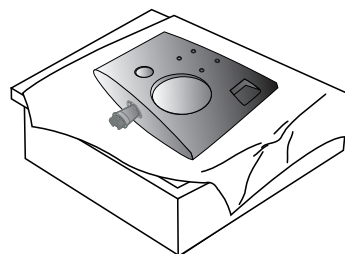**3** Attach the monitor to the Stand Base by turning the screw to the right.
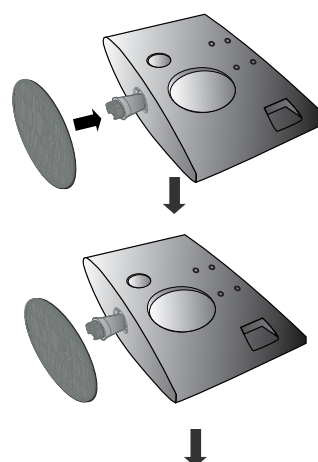
* Turn the screw by using the screw handle

Screw

PREPARATION

<M237WDP>

STAND INSTALLATION

■ The image shown may be somewhat different from your set.

1 Carefully place the product screen side down on a cushioned surface that will protect product and screen from damage.
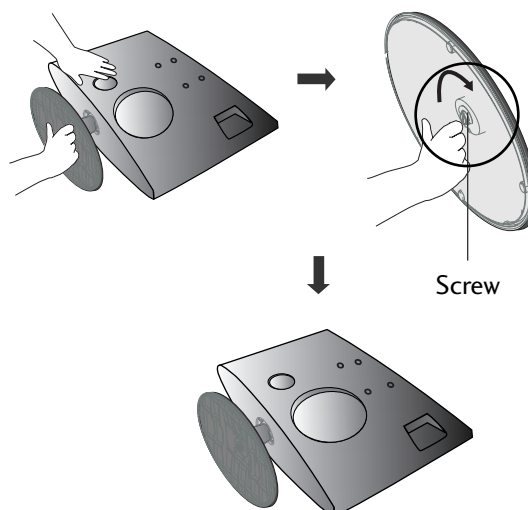
2 Insert the **stand base** into the product

3 Attach the monitor to the Stand Base by turning the screw to the right.
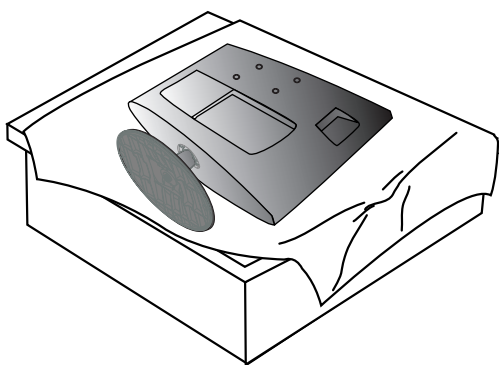
   * Turn the screw by using the screw handle
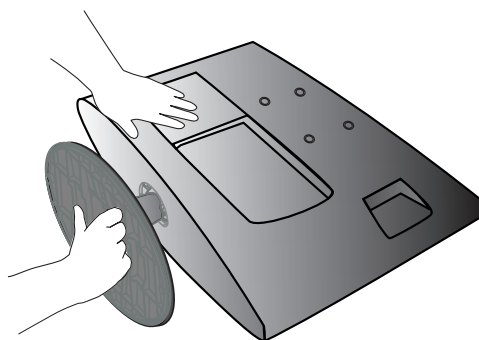
Screw

<M197WDP/M227WDP>

DETACHING STAND
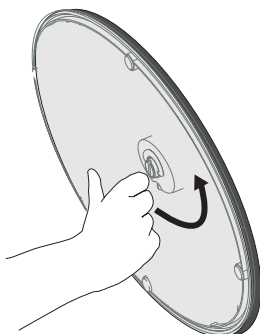
■ The image shown may be somewhat different from your set.

1 Place the set screen side down on a cushion or soft cloth.

2 Detach the monitor to the Stand Base by turning the screw to the left.

3 Turn the screw by using the screw handle

4 Pull the stand base.

5

PREPARATION

<M237WDP>

DETACHING STAND

■ The image shown may be somewhat different from your set.

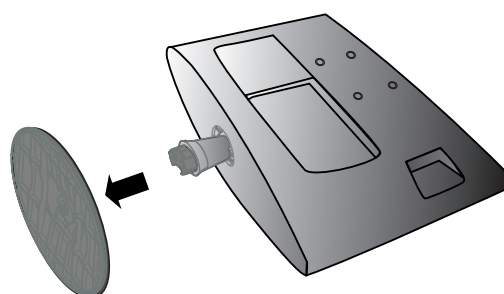**1** Place the set screen side down on a cushion or soft cloth.

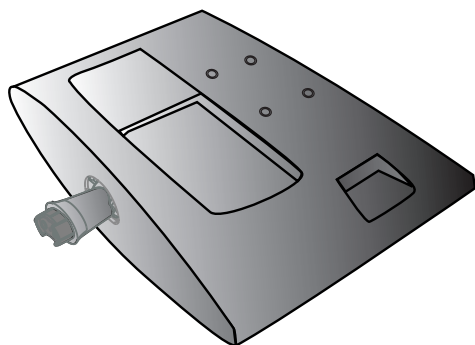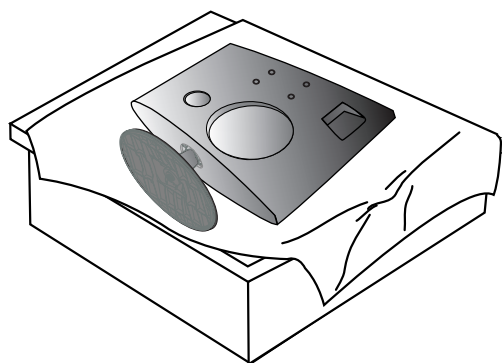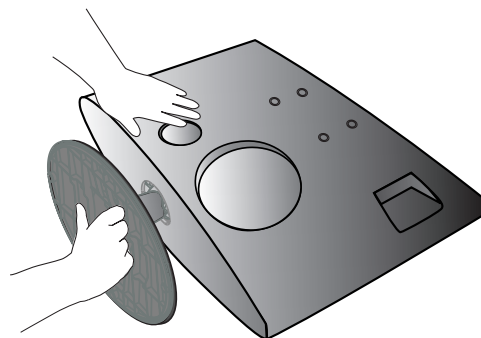**2** Detach the monitor to the Stand Base by turning the screw to the left.

3 Turn the screw by using the screw handle
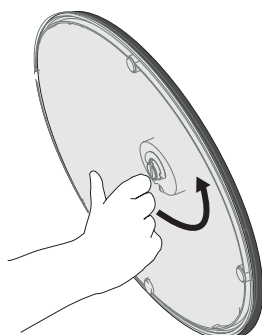
4 Pull the stand base.
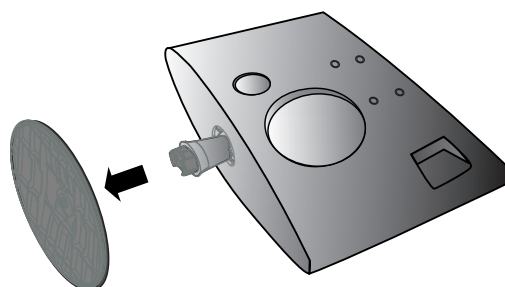
5
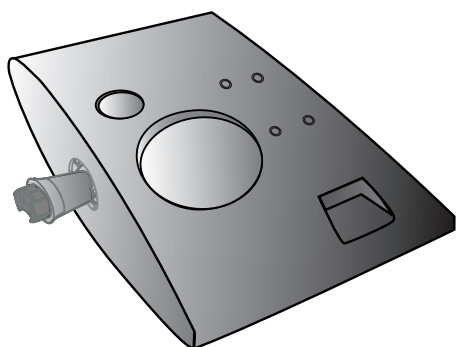
PREPARATION

WALL MOUNT: HORIZONTAL INSTALLATION

For proper ventilation, allow a clearance of 4 inches on each side and from the wall. Detailed installation instructions are available from your dealer, see the optional Tilt Wall Mounting Bracket Installation and Setup Guide.
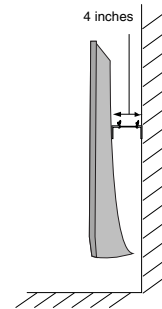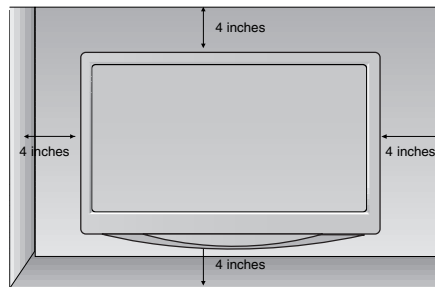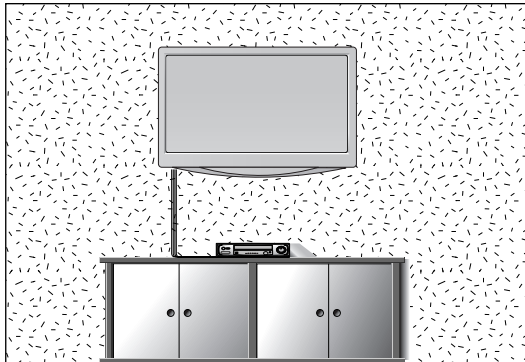
DESKTOP PEDESTAL INSTALLATION

For proper ventilation, allow a clearance of 4 inches on each side and from the wall.
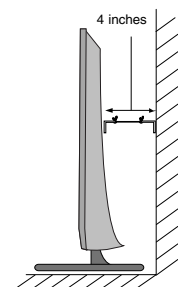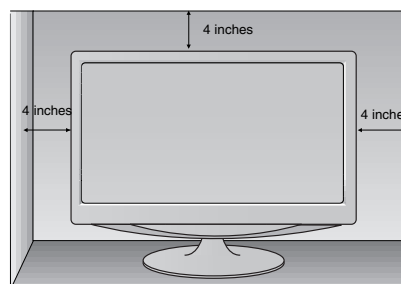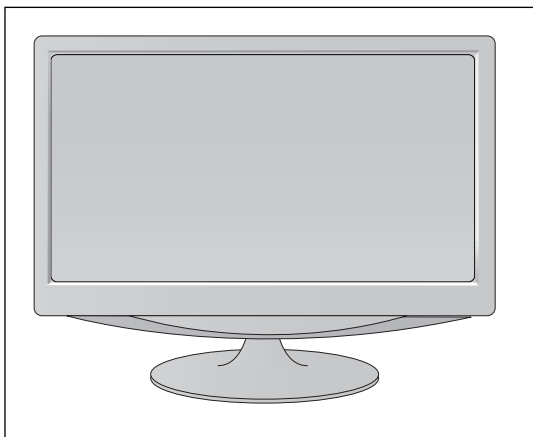
PREPARATION

POSITIONING YOUR DISPLAY

■ The image shown may be somewhat different from your set.
 Adjust the position of the panel in various ways for maximum comfort.

• **Tilt range**

-5°   -15°
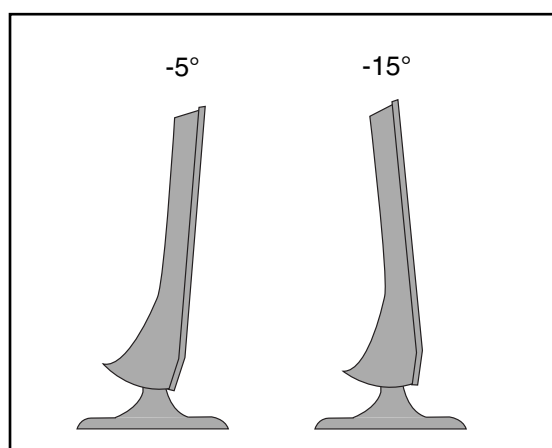
LOCATION

Position your set so that no bright light or sunlight falls directly onto the screen. Care should be taken not to expose the set to any unnecessary vibration, moisture, dust or heat. Also, ensure that the set is placed in a position to allow a free flow of air. Do not cover the ventilation openings on the back cover.
If you intend to mount the set to a wall, attach Wall mounting interface (optional parts) to the back of the set.
When you install the set using the wall mounting interface (optional parts), attach it carefully so it will not drop.
- Be sure to use screws and a wall mount that meet VESA standards.
- Using screws longer than those recommended might damage the product.
- Using screws that do not meet VESA standards might either damage the product or result in it coming away from the
  wall. We will not be held responsible for any damage resulting from failure to follow these instructions.

< Screw Mounting Interface Dimension >
M197WDP/M227WDP : 100mm x 100mm hole spacing
M237WDP : 75mm x 75mm hole spacing
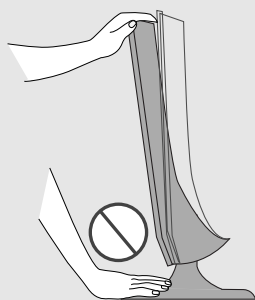
Warning:
When adjusting the angle of the screen,do not put your
finger(s)in between the head of the monitor and the stand
body.You can hurt your finger(s).

PREPARATION

KENSINGTON SECURITY SYSTEM

- The product is equipped with a Kensington Security System connector on the back panel. Connect the Kensington Security System cable as shown below.
- For 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.

NOTES
a. If the product feels cold to the touch, there may be a small "flicker" when it is turned on.
   This is normal, there is nothing wrong with product.
b. 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.
c. 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.

<M197WDP/M227WDP>   <M237WDP>
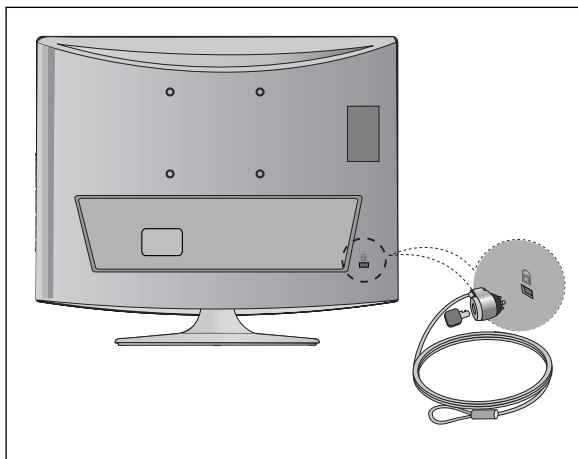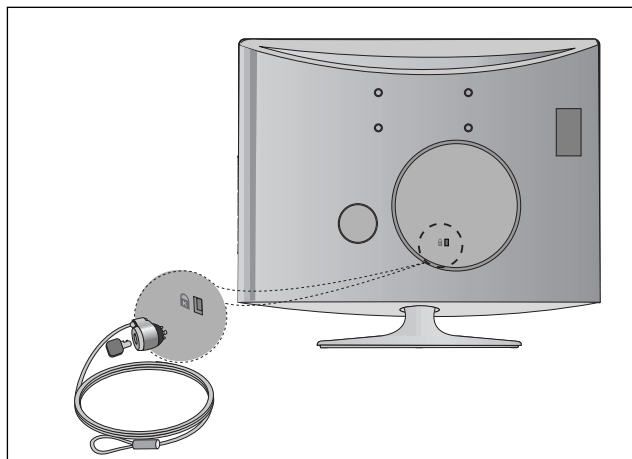
EXTERNAL EQUIPMENT SETUP

■ To prevent equipment damage, never plug in any power cords until you have finished connecting all equipment.

ANTENNA CONNECTION

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

Wall Antenna Socket

Multi-family Dwellings/Apartments
(Connect to wall antenna socket)

ANTENNA/
CABLE IN

RF Coaxial Wire (75 ohm)

Outdoor Antenna (VHF, UHF)

Single-family Dwellings /Houses
(Connect to wall jack for outdoor antenna)

Antenna

UHF

Signal Amplifier

ANTENNA/
CABLE IN

VHF
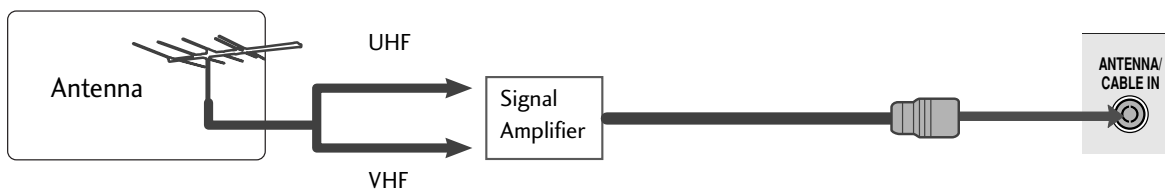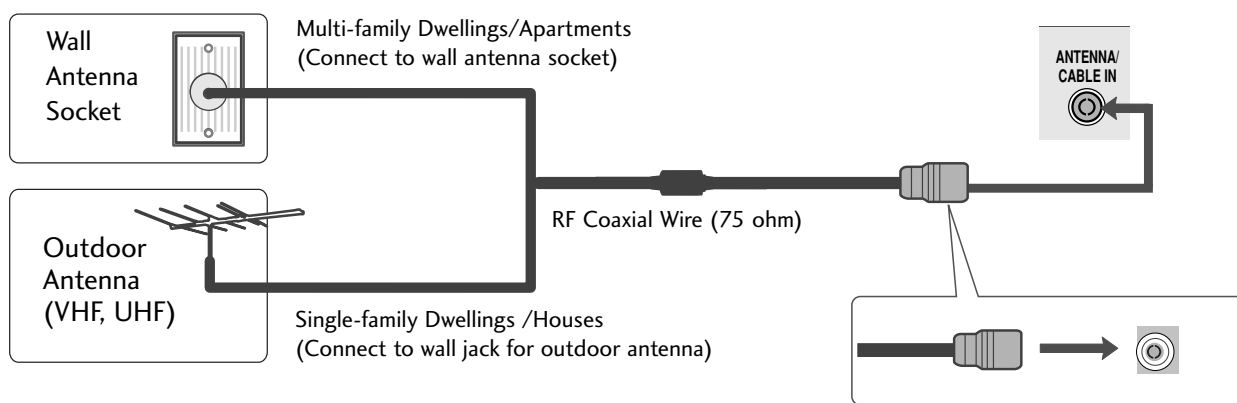
■ In poor signal areas, to get better picture quality, install a signal amplifier to the antenna as shown above.
■ If signal needs to be split for two TVs, use an antenna signal splitter for connection.

EXTERNAL EQUIPMENT SETUP

■ To prevent the equipment damage, never plug in any power cords until you have finished connecting all equipment.
■ The image shown may be somewhat different from your set.

HD RECEIVER SETUP

When connecting with a component cable

1 Connect the SET-TOP outputs to the **COMPONENT IN VIDEO** sockets (Y P$_B$ P$_R$) on the set.

2 Connect the audio cable from the SET-TOP to **COMPO-NENT IN AUDIO** sockets of the set.

3 Press the **INPUT** button to select **Component.**

Signal	Component	HDMI
480i/576i	Yes	No
480p/576p	Yes	Yes
720p/1080i	Yes	Yes
1080p	Yes	Yes
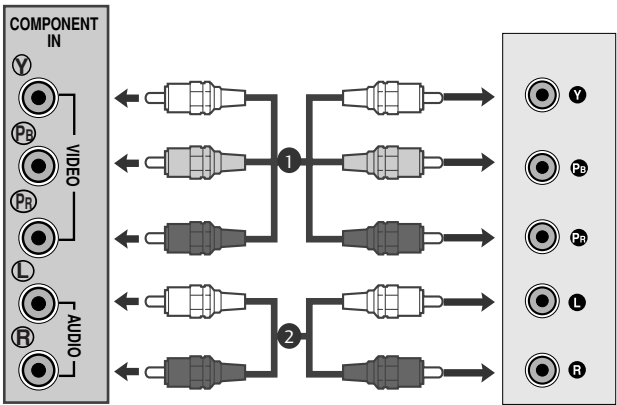
EXTERNAL EQUIPMENT SETUP

When connecting with a HDMI

1 Connect the HDMI output of the digital set-top box to the **HDMI IN** jack on the set.

HDMI IN

HDMI-DVD OUTPUT
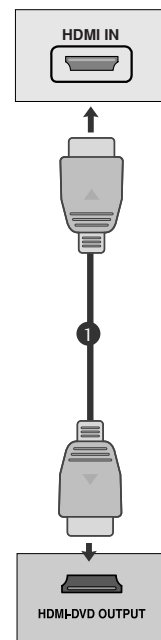
When connecting with a HDMI to DVI cable

1 Connect the digital set-top box to **HDMI IN** jack on the set.

2 Connect the audio output of the digital set-top box to the **AUDIO IN (RGB/DVI)** jack on the set.

3 Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)

HDMI IN   AUDIO IN (RGB/DVI)

DVI OUTPUT   AUDIO L R

---
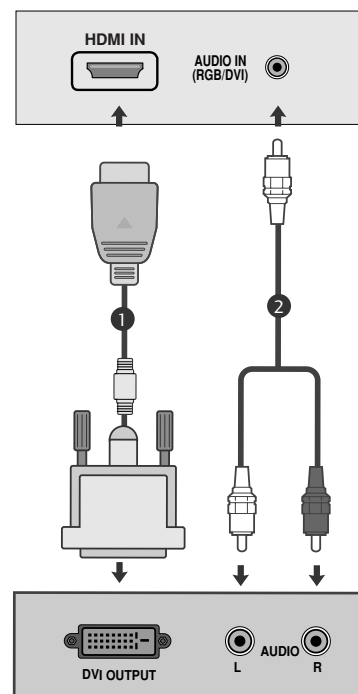
❶ NOTE

▶ HDMI Input does not support PC mode. If it is connected PC, the screen may not be displayed properly.

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EXTERNAL EQUIPMENT SETUP

DVD SETUP

When connecting with a component cable

1 Connect the video output sockets (Y P_B P_R) of the DVD to the **COMPONENT IN VIDEO** sockets (Y P_B P_R) of the set.

2 Connect the audio cable from the DVD to **COMPONENT IN AUDIO** sockets of the set.

**3** Press the **INPUT** button to select **Component**.

4 Press the **PLAY** button on the DVD.
The DVD playback picture appears on the screen.

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

Component ports on the set	Y	P_B	P_R

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

14
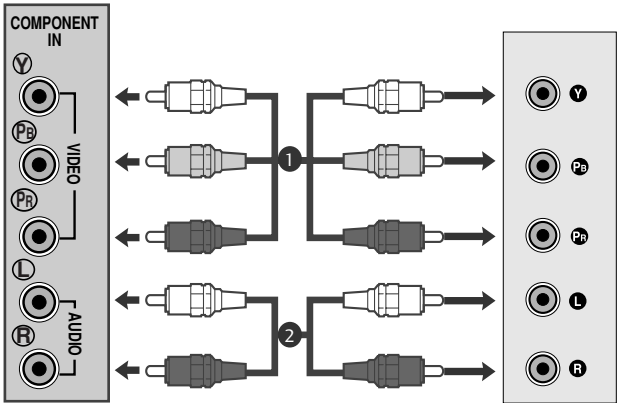
EXTERNAL EQUIPMENT SETUP

When connecting with a Euro Scart[DVD]

1 Connect the Euro scart socket of the DVD to the Euro scart socket of the set.

2 Press the **INPUT** button to select **AV1**.
If connected to **AV2** Euro scart socket, select **AV2** input source.

3 Press the **PLAY** button on the DVD.
The DVD playback picture appears on the screen.
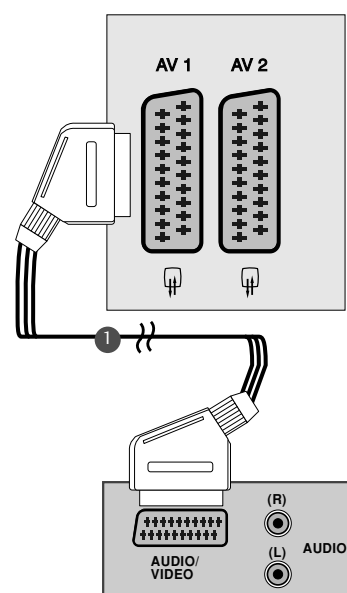
❗ NOTE

▶ Signal type RGB, i.e. the signals red, green and blue can only be selected for the Euro scart and the AV 1 can be received. These signals are transmitted, for example, by a paid TV decoder, game machine or photo CD unit, etc.
▶ Please use shielded scart cable.

When connecting HDMI cable

1 Connect the HDMI output of the DVD to the **HDMI IN** jack on the set.
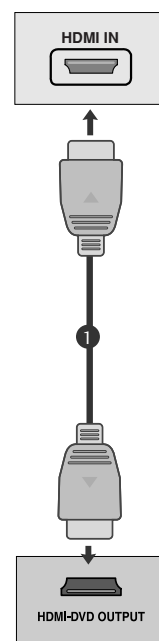
❗ NOTE

▶ Set can receive the video and audio signal simultaneously by using a HDMI cable.
▶ If the DVD player does not support Auto HDMI, you need to set the DVD output resolution appropriately.

EXTERNAL EQUIPMENT SETUP

VCR SETUP

■ To avoid picture noise (interference), leave an adequate distance between the VCR and set.

■ Typically a still picture is shown on the VCR. If a user uses 4:3 picture format for a long time, an afterimage may remain on the sides of the screen.

When connecting with an antenna

Wall Jack

Antenna
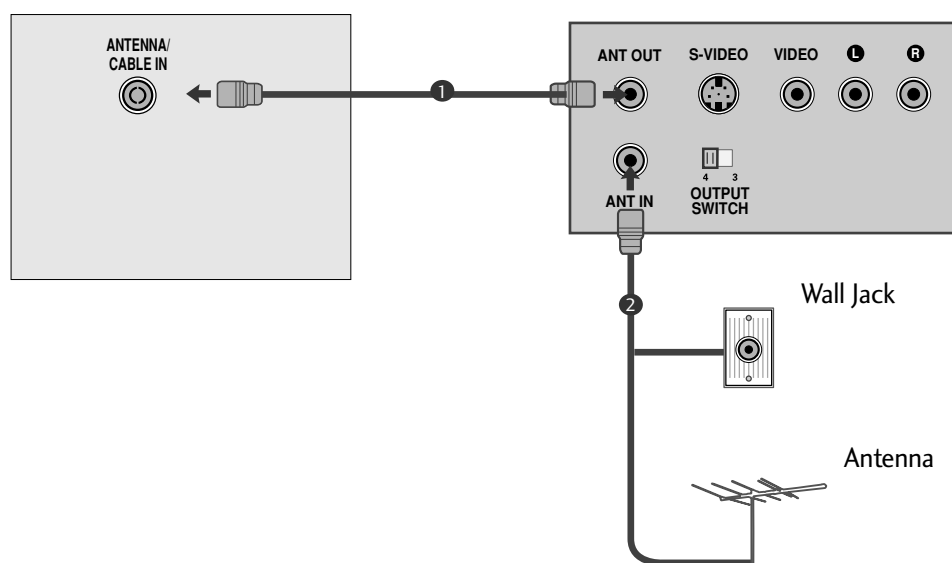
1 Connect the RF out socket of the VCR to the aerial socket of the set.

2 Connect the aerial cable to the RF aerial in socket of the VCR.

3 Store the VCR channel on a desired programme number using the 'Manual programme tuning' section.

4 Select the programme number where the VCR channel is stored.

5 Press the **PLAY** button on the VCR.

EXTERNAL EQUIPMENT SETUP

USB SETUP

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

2 After connecting the **USB IN** jacks, you use the **USB** function. (► **p.86**)

USB IN

Memory Stick

When connecting with a Euro Scart[VCR]

1 Connect the Euro scart socket of the VCR to the Euro scart socket of the set.
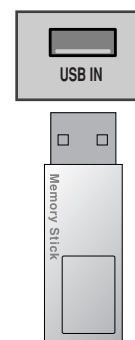
2 Press the **PLAY** button on the VCR.
If your VCR outputs an AV switching signal via the Scart lead, the set will auto switch to **AV 1** mode on start of playback, but if you want to keep on watching in TV mode, press the ▲ / ▼ or NUMBER buttons.
If connected to **AV2** Euro scart socket, select **AV2** input source.

Otherwise press the **INPUT** button on the remote control handset to select **AV 1**. The VCR playback picture appears on the screen.

You can also record programmes received by the set on video tape.
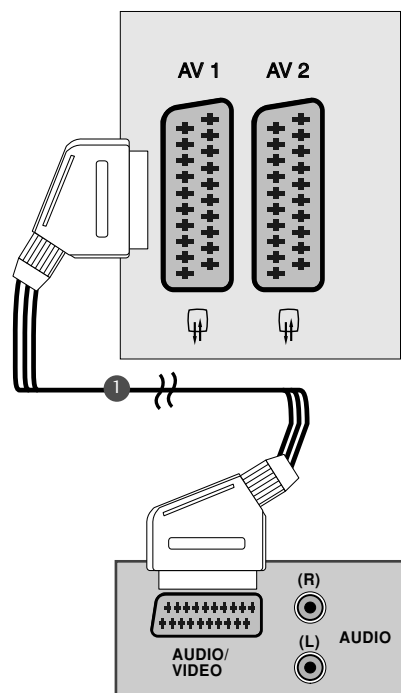
AV 1   AV 2

(R)
(L)   AUDIO
AUDIO/
VIDEO

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❶ NOTE

► Signal type RGB, i.e. the signals red, green and blue can only be selected for the Euro scart and the AV 1 can be received. These signals are transmitted, for example, by a paid TV decoder, game machine or photo CD unit, etc.

► Please use shielded scart cable.

EXTERNAL EQUIPMENT SETUP

INSERTION OF CI MODULE

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

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

For further information, see p. 37.
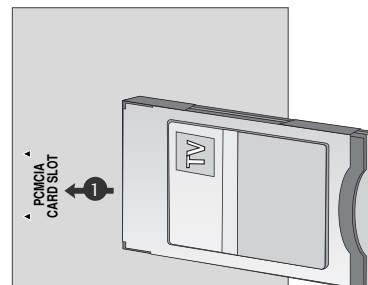
PC SETUP

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

When connecting with a D-sub 15 pin cable

① Connect the signal cable from the monitor output socket of the PERSONAL COMPUTER to the PC input socket of the set.

② Connect the audio cable from the PC to the **AUDIO IN (RGB/DVI)** sockets of the set.

③ Press the INPUT button to select **RGB**.

④ Switch on the PC, and the PC screen appears on the set. The set can be operated as a PC monitor.
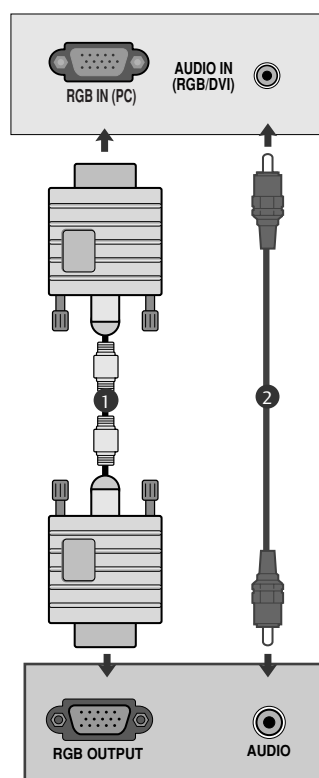
❶ NOTE

► You must use shielded signal interface cables (D sub 15 pin cable, DVI cable) with ferrite cores to maintain standard compliance for the product.

EXTERNAL EQUIPMENT SETUP

When connecting with a DVI cable

① Connect the DVI output of the PC to the **DVI-D IN** jack on the set.

② Connect the audio cable from the PC to the **AUDIO IN (RGB/DVI)** sockets of the set.

❗ NOTE

▶ If the set is cold, there may be a small "flicker" when the set is switched on. This is normal, there is nothing wrong with the set.

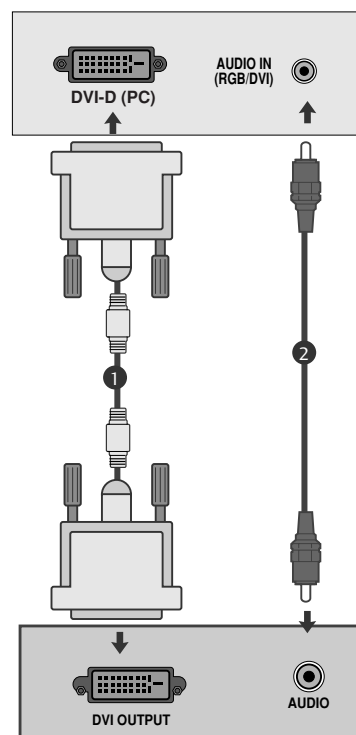▶ If possible, use the 1360x768 @ 60 Hz video mode to obtain the best image quality for your LCD monitor. If used with other resolutions, some scaled or processed pictures may appear on the screen. The set has been preadjusted to the mode 1360x768 @ 60 Hz. **(M197WDP)**

▶ If possible, use the 1920x1080 @ 60 Hz video mode to obtain the best image quality for your LCD monitor. If used with other resolutions, some scaled or processed pictures may appear on the screen. The set has been preadjusted to the mode 1920x1080 @ 60 Hz. **(M227WDP/M237WDP)**

▶ Some dot defects may appear on the screen, like Red, Green or Blue spots. However, this will have no impact or effect on the monitor performance.

▶ Do not press the LCD screen with your finger for a long time as this may produce some temporary distortion effects on the screen.

▶ 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.

EXTERNAL EQUIPMENT SETUP
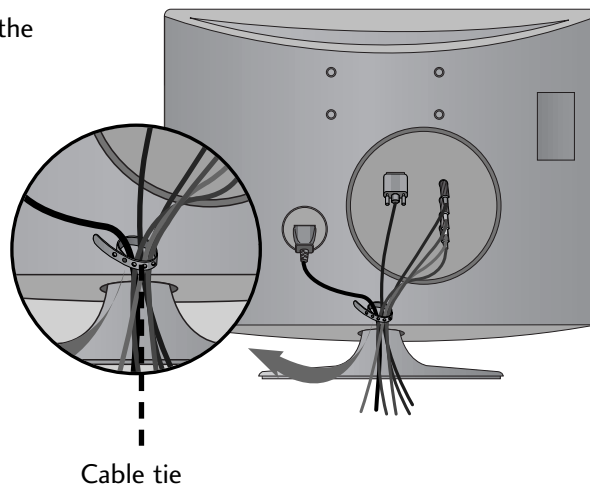
BACK COVER FOR WIRE ARRANGEMENT

<M197WDP/M227WDP>

Tie cables together with a cable management as
shown in the illustration.

Cable management

<M237WDP>
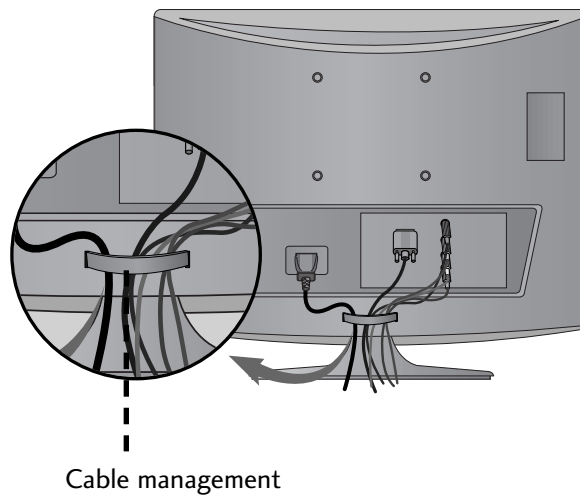
Tie cables together with a cable tie as shown in the
illustration.

Cable tie

EXTERNAL EQUIPMENT SETUP

RGB/DVI[PC]

<M197WDP>

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.468	70
640x480	31.469	60
	37.500	75
800x600	37.879	60
	46.875	75
1024x768	48.363	60
	60.123	75
1280x768	47.776	60
1360x768	47.712	60
1366x768	47.7	60

<M227WDP/M237WDP>

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x400	31.468	70
640x480	31.469	60
	37.500	75
800x600	37.879	60
	46.875	75
1024x768	48.363	60
	60.123	75
1152x864	67.500	75
1280x1024	63.981	60
	79.976	75
1680x1050	64.674	60
	65.290	60
1600x1200	75.000	60
1920x1080	66.587	60

HDMI[DTV] (Not Support PC)

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720x480/60p	31.469	60
	31.5	60
720x576/50p	31.25	50
1280x720/50p	37.5	50
1280x720/60p	44.96	60
	45	60
1920x1080/60i	33.72	60
	33.75	60
1920x1080/50i	28.125	50
1920x1080/24p	27	24
1920x1080/30p	33.75	30
1920x1080/50p	56.25	50
1920x1080/60p	67.43	60
	67.5	60

WATCHING TV /PROGRAMME CONTROL

REMOTE CONTROL KEY FUNCTIONS

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

1		
	POWER	Switches the set on or off.
	TV/PC	Selects TV or PC mode.
	INPUT	External input mode rotates in regular sequence.

2		
	TV/RADIO	Selects Radio or TV channel.
	I/II	Selects the sound output.(Refer to the p.68,69)
	MUTE	Switches the sound on or off.

3		
	0~9 number button	Selects a programme. Selects numbered items in a menu.
	LIST	Displays the programme table.(Refer to the p.38)
	Q.VIEW	Returns to the previously viewed programme.

4		
	MENU	Selects a menu. (Refer to the p.27)
	EXIT	Clears all on-screen displays.
	INFO ⓘ	Shows the present screen information.
	GUIDE	Shows programme schedule.(Refer to the p.39~41)
	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.

| 5		
	VOLUME UP /DOWN	Adjusts the volume.
	RETURN	Allows the user to move back one step in an interactive application, EPG or other user interaction function.
	*	No function
	FAV	Displays the selected favourite programme.(Refer to the p.38)
	Programme UP/DOWN	Selects a programme.

22

1	TELETEXT BUTTONS	These buttons are used for teletext. For further details, see the 'Teletext' section. (Refer to the p.94~96)	

2	USB Menu control buttons	Controls USB menu (Photo List and Music List) (Refer to the p.86)	

3	Q.MENU	Select the desired quick menu source. (Refer to the p.26)	
	MARK	Check and un-check programmes in the recorded set menu.	

Installing Batteries
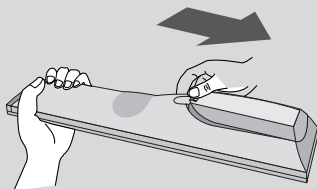
- Open the battery compartment cover on the back and install the batteries matching correct polarity (+ with +, - with -).

- Install two 1.5V AAA batteries. Don't mix old or used batteries with new ones.

- Close cover.

TURNING ON THE TV

- When your TV is turned on, you will be able to use its features.

1 Firstly,connect the power cord correctly and check the main power(⏻ / I)on the TV.

2 **Set ID : Off**
In standby mode to turn TV on, press the INPUT or PR ▲ / ▼ button on the TV or press the POWER button on the remote control and the TV will switch on.
Set ID : On
In standby mode to turn TV on,pr ss the INPUT or PR ▲ / ▼ button on the TV or press the POWER, INPUT, PR ▲ / ▼ or NUMBER button on the remote control and the TV will switch on.

Initializing setup

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

Note:
a. If you close without completing the initial setting, the Initial Setting menu can be displayed again.
b. Press the RETURN button to change the current OSD to the previous OSD.
c. For those countries without confirmed DTV broadcasting standards, some DTV featur s 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.

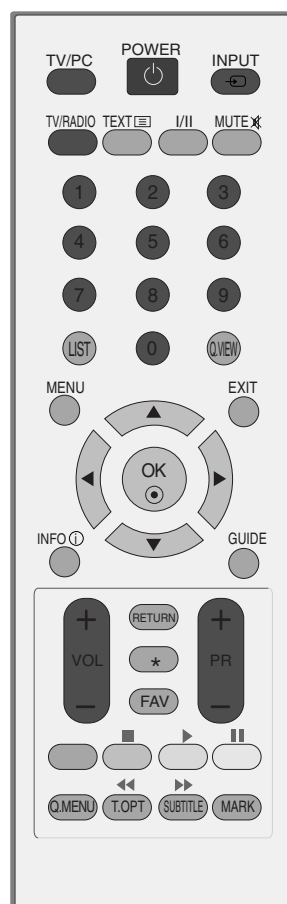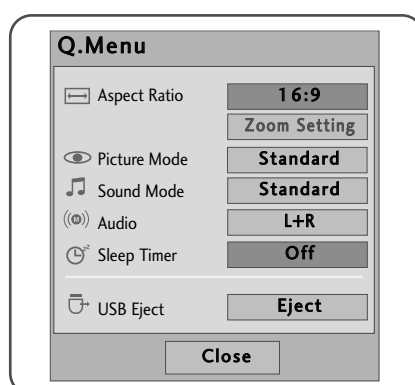# WATCHING TV /PROGRAMME CONTROL

PROGRAMME SELECTION

1   Press the **PR +** or **-** or NUMBER buttons to select a pro-
gramme number.

VOLUME ADJUSTMENT

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

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

You can cancel this function by pressing the MUTE,
VOL **+** or **-**, or I/II button.

QUICK MENU

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

• **Aspect Ratio**: Selects your desired picture format. For Zoom Setting, select 14:9, Zoom and Cinema Zoom in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.
• **Picture Mode** : Selects your desired Picture Mode.
• **Sound Mode** : It is a feature to automatically set the sound combination which it deems the best for the images being watched. Selects your desired Sound Mode.

• **Audio** : Selects the sound output.
• **Sleep Timer** : Sets the sleep timer.
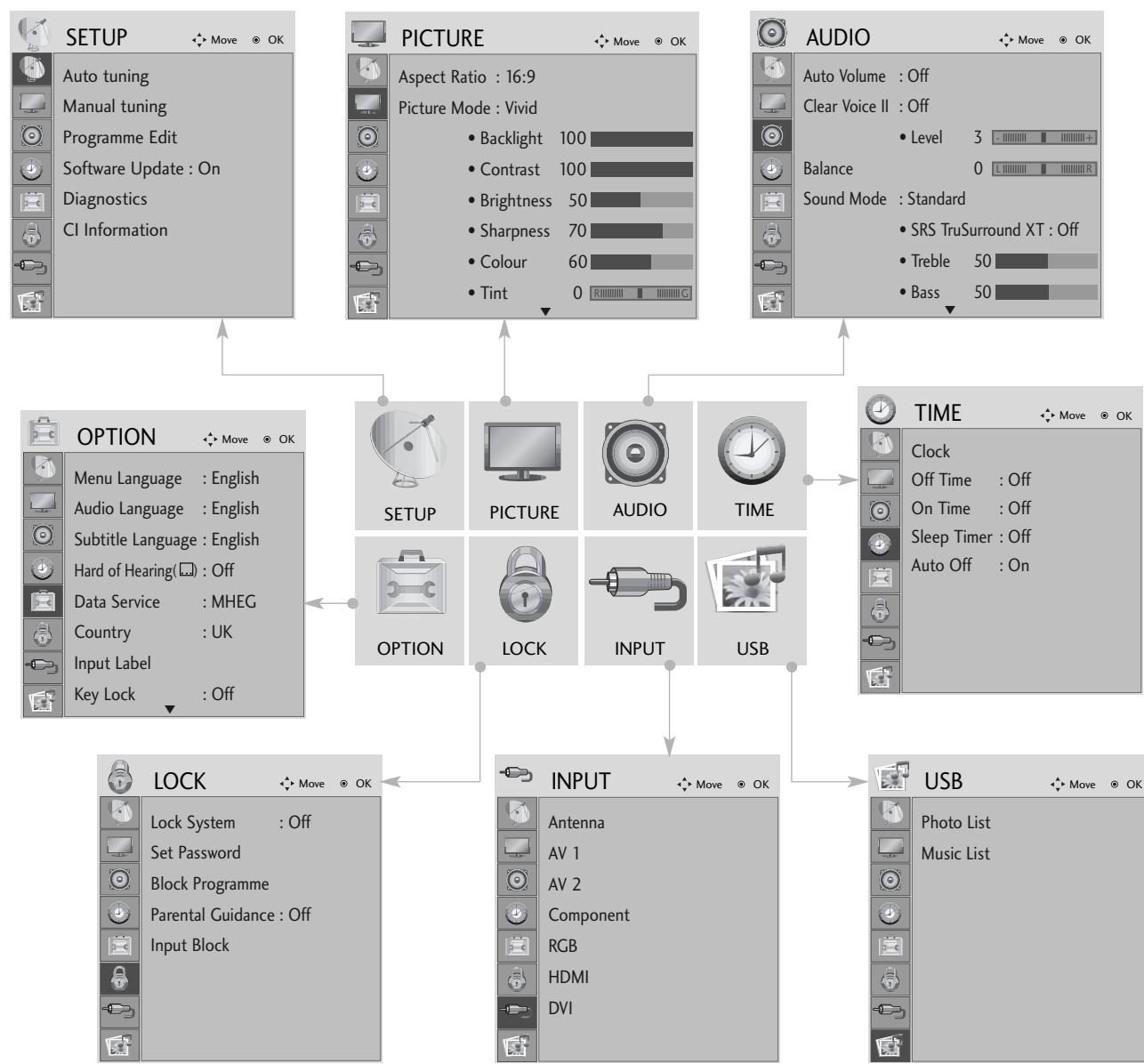• **USB Eject** : Selects "USB Eject" in order to eject USB device.

```
┌─────────────────────────────┐
│ Q.Menu                       │
│                              │
│  ▭  Aspect Ratio    16:9     │
│                   Zoom Setting│
│  ◉  Picture Mode   Standard   │
│  ♫  Sound Mode     Standard   │
│ ((◉)) Audio          L+R      │
│  ⏲  Sleep Timer      Off      │
│                              │
│  ⎇  USB Eject       Eject     │
│            Close             │
└─────────────────────────────┘
```

1 Q. MENU   Display each menu.

2 OK   or   Select your desired Source.

3 OK

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

ON SCREEN MENUS SELECTION AND ADJUSTMENT

Your set's OSD (On Screen Display) may differ slightly from what is shown in this manual.

SETUP	◁▷ Move ◉ OK
Auto tuning	
Manual tuning	
Programme Edit	
Software Update : On	
Diagnostics	
CI Information	

PICTURE	◁▷ Move ◉ OK
Aspect Ratio : 16:9	
Picture Mode : Vivid	
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R◀▨▨▨▨ ▨ ▨▨▨▨▨G

AUDIO	◁▷ Move ◉ OK
Auto Volume : Off	
Clear Voice II : Off	
• Level	3
Balance	0 L▨▨▨▨ ▨ ▨▨▨▨R
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50
• Bass	50

OPTION	◁▷ Move ◉ OK
Menu Language : English	
Audio Language : English	
Subtitle Language : English	
Hard of Hearing(▢) : Off	
Data Service : MHEG	
Country : UK	
Input Label	
Key Lock : Off	

SETUP   PICTURE   AUDIO   TIME

OPTION   LOCK   INPUT   USB

TIME	◁▷ Move ◉ OK
Clock	
Off Time : Off	
On Time : Off	
Sleep Timer : Off	
Auto Off : On	

LOCK	◁▷ Move ◉ OK
Lock System : Off	
Set Password	
Block Programme	
Parental Guidance : Off	
Input Block	

INPUT	◁▷ Move ◉ OK
Antenna	
AV 1	
AV 2	
Component	
RGB	
HDMI	
DVI	

USB	◁▷ Move ◉ OK
Photo List	
Music List	

1 MENU — Display each menu.

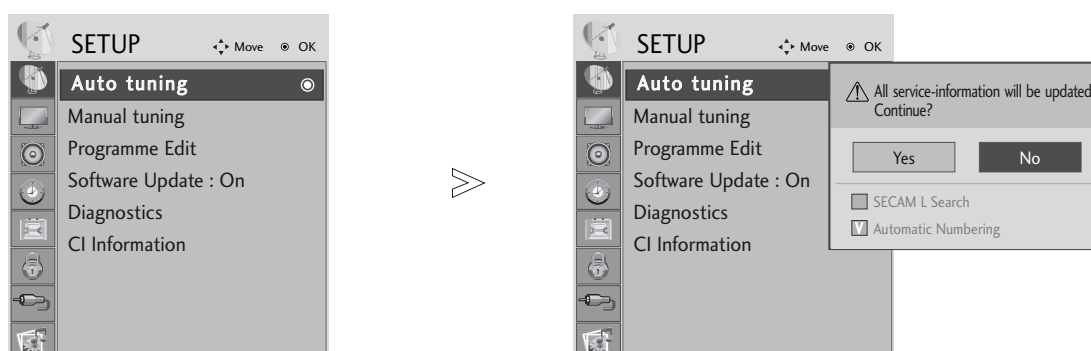2 OK — Select a menu item.

3 OK — Move to the pop up menu.

• Press the MENU or EXIT button to close the menu window.

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

WATCHING TV /PROGRAMME CONTROL
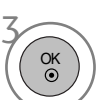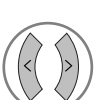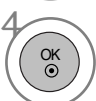
AUTO PROGRAMME TUNING

Use this to automatically find and store all available programmes.

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

SETUP · Move · OK
- **Auto tuning** ◉
- Manual tuning
- Programme Edit
- Software Update : On
- Diagnostics
- CI Information

⟩

SETUP · Move · OK
- **Auto tuning**
- Manual tuning
- Programme Edit
- Software Update : On
- Diagnostics
- CI Information

⚠ All service-information will be updated.
Continue?

Yes   No

☐ SECAM L Search
Ⓨ Automatic Numbering

---

1 MENU
Select **SETUP**.

2 OK
Select **Auto Tuning**.

3 OK
Select **Yes**.

4 OK
Run Auto tuning.

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

• Press the MENU or EXIT button to close the menu window.

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

MANUAL PROGRAMME TUNING (IN DIGITAL MODE)

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

	SETUP	◆ Move ⊙ OK
	Auto tuning	
	Manual tuning	⊚
	Programme Edit	
	Software Update : On	
	Diagnostics	
	CI Information	

≫

	SETUP	◆ Move ⊙ OK
	Auto tuning	
	Manual tuning	
	Programme Edit	
	Software Update : On	
	Diagnostics	
	CI Information	

◄ DTV ►

Your receiver will add this channel to your channel list.

UHF CH. 30
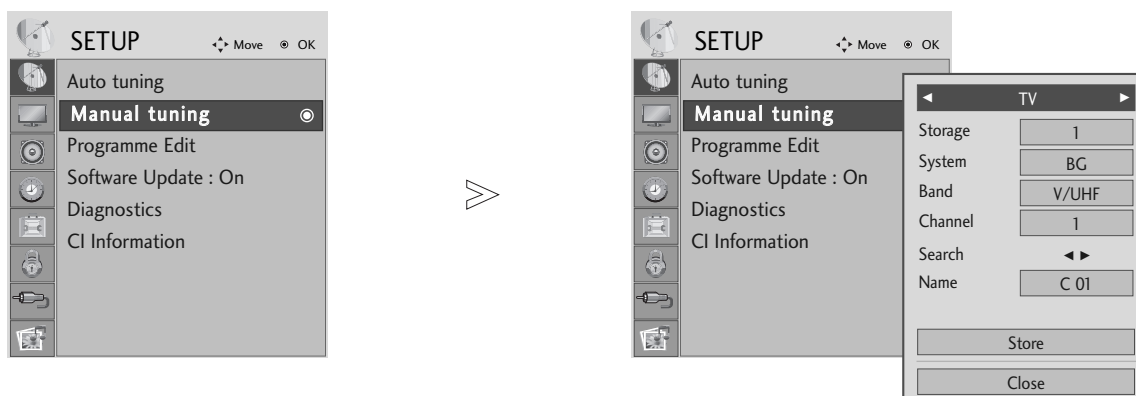
Bad   Normal   Good

Add

Close

1 MENU

Select **SETUP**.

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

2 OK

Select **Manual Tuning**.

3 OK
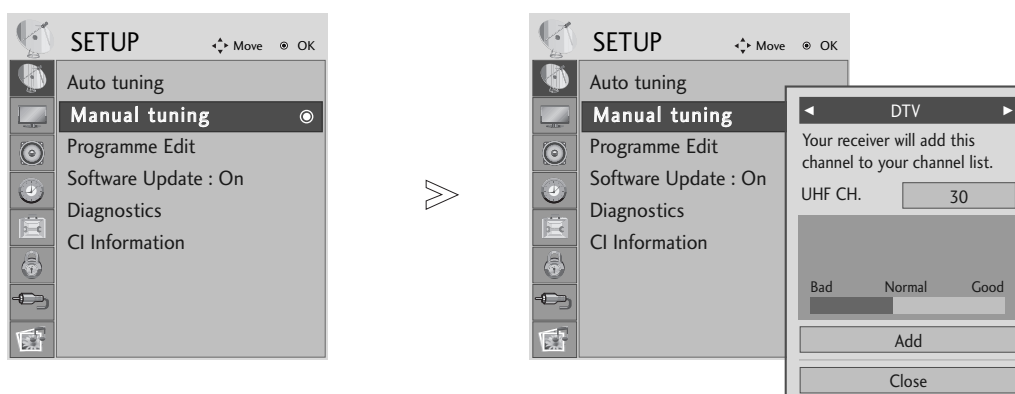
Select **DTV**.

4

Select the desired channel number.

• Press the MENU or EXIT button to close the menu window.

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

MANUAL PROGRAMME TUNING (IN ANALOGUE MODE)

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

SETUP	⟡ Move ◉ OK
Auto tuning	
Manual tuning	◉
Programme Edit	
Software Update : On	
Diagnostics	
CI Information	

SETUP	⟡ Move ◉ OK
Auto tuning	
Manual tuning	
Programme Edit	
Software Update : On	
Diagnostics	
CI Information	

◄ TV ►	
Storage	1
System	BG
Band	V/UHF
Channel	1
Search	◄ ►
Name	C 01
Store	
Close	

1 MENU — Select **SETUP**.

2 OK — Select **Manual Tuning**.

3 OK — Select **TV**.

4 or [number pad] — Select the desired programme number on.

5 Select a TV system.

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

7 or [number pad] — Select the desired channel number.

8 Start searching.

9 OK — Select **Store**.

• Press the MENU or EXIT button to close the menu window.

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

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

WATCHING TV /PROGRAMME CONTROL

■ Assigning a station name

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

1 MENU ⌃⌄⟨⟩ Select SETUP.

2 OK ⌃⌄ Select Manual Tuning.

3 OK ⟨⟩ Select TV.

4 ⌄ ⟨⟩ Select Name.

5 ⌃⟨⟩⌄ OK Select the position and make your choice of the second character, and so on.
You can use the alphabet **A** to **Z**, the number **0** to **9**, +/ -, and space.

6 ⟨⟩ OK Select Close.

7 ⌄ OK Select Store.

• Press the MENU or EXIT button to close the menu window.

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

PROGRAMME EDIT

When a programme number is skipped, it means that you will be unable to select it using PR + / - button during TV viewing.

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

This function enables you to skip the stored programmes.

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

SETUP	◈ Move	◉ OK
Auto tuning		
Manual tuning		
Programme Edit		◉
Software Update : On		
Diagnostics		
CI Information		

>

1	YLE TV1	DTV	RADIO	TV

1 YLE TV1	2 YLE TV2
4 TV4 Stockholm	5 YLE FST
6 CNN	8 YLE24
9 YLE Teema	14 TV4 Film
♥ Favourite List	24 TV4 Fakta	50 TV400
24 TV4 Fakta	84 Kanal Lokal
24 TV4 Fakta	86 Info/3sat
87 Doku/Kika	88 TVE 1

FAV Favourite	◉ Pr. Change	◀▲▶ Navigation	P Page Change	RETURN Previous
				● Skip

1 MENU

Select **SETUP**.

2 OK

Select **Programme Edit**.

3 OK

Enter the Programme Edit.

4

Select a programme to be stored or skipped.

• Use NUMBER buttons to input a 4-digit password in Lock System 'On'.
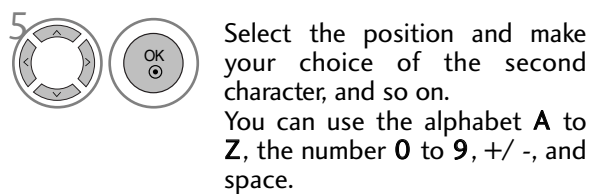
• Press the MENU or EXIT button to close the menu window.

• Press the RETURN button to move to the previous menu screen.
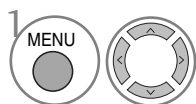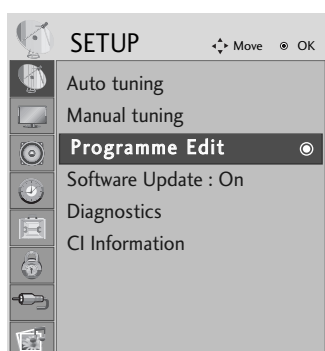
WATCHING TV /PROGRAMME CONTROL

IN DTV/RADIO MODE

■ Skipping a programme number

1 Select a programme number to be skipped.

2 BLUE Turn the skipped programme number to blue.

3 BLUE Release the skipped programme.

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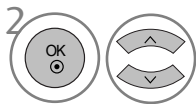- If you wish to select a skipped programme, directly enter the programme number with the NUMBER buttons or select it in the programme edit or EPG.

■ Selecting favourite programme
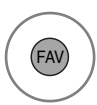
1 FAV Select your favourite programme number.

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

IN TV MODE

This function enables you to delete or skip the stored programmes.
You can also move some channels to other programme numbers.

■ Auto Sort

1
(GREEN)   Start Auto Sort.

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

■ Deleting a programme

1
(⌃⌄⌌⌍)   Select a programme number to be deleted.

2
(RED)   Turn the deleted programme number to red.

3
(RED)   Release the deleted programme.

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

---

■ Moving a programme

1
(⌃⌄⌌⌍)   Select a programme number to be moved.

2
(YELLOW) (⌃⌄⌌⌍)   Turn the moved programme number to YELLOW.

3
(YELLOW)   Release the moved programme.

■ Skipping a programme number

1
(⌃⌄⌌⌍)   Select a programme number to be skipped.

2
(BLUE)   Turn the skipped programme number to blue.

3
(BLUE)   Release the skipped programme.

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

■ Selecting a Favourite Programme

1
(⌃⌄⌌⌍) (FAV)   Select your favourite programme number.

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

SOFTWARE UPDATE

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

SETUP	⟨⟩ Move ⊙ OK
Auto tuning	
Manual tuning	
Programme Edit	
Software Update : On ⊙	
Diagnostics	
CI Information	

>

SETUP	⟨⟩ Move ⊙ OK
Auto tuning	
Manual tuning	
Programme Edit	
Software Update :	Off
Diagnostics	On ⊙
CI Information	

1 MENU ⟨⟩   Select **SETUP**.

2 OK ⊙ ⟨⟩   Select **Software Update**.
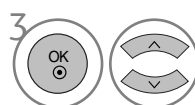
3 OK ⊙ ⟨⟩   Select **On** or **Off**.
                       • If you select On, a user
                         confirm message box will be
                         displayed to notify that new
                         software is found.

4 OK ⊙   Save.

* When setting "Software Update"

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

> ? Software update is available.
> Do you want to download?
> (Ver. 02.54.00)
>
> Your TV software is updated when you turn off
> the TV using the remote control or local key.
>
> Yes   No
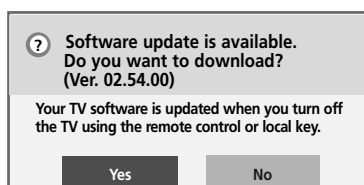
Simple Update :for current update stream

> ? The new software is updated at
> the time below.
> (Ver. 02.54.00)
>
> 10/Sep. 2008 00:00
> Would you like to download now?
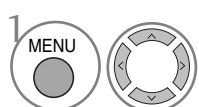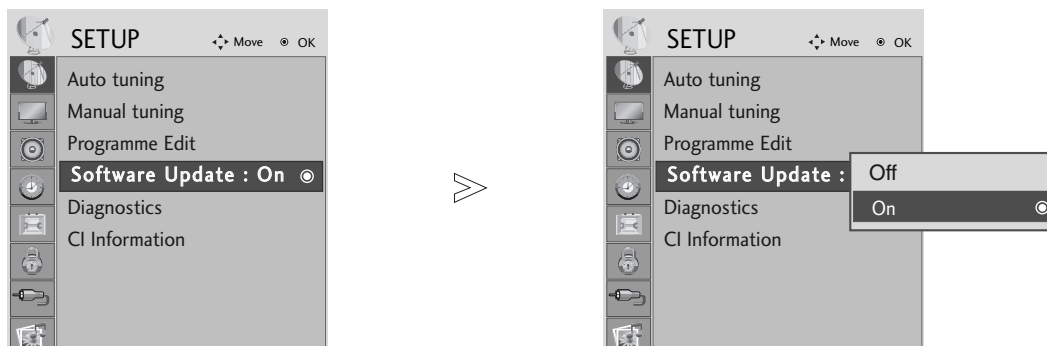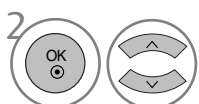>
> Yes   No
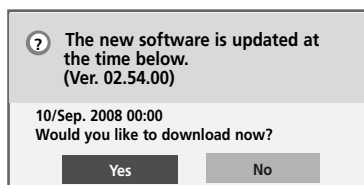
Schedule Update : for scheduled update stream

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

Select the **YES** using the ◄ ► button and when you see the following picture.

> ℹ Turning on the TV will stop the
> update. Do you want stop?
>
> Updating software
> (Ver. 02.33.00) ► (Ver. 02.54.00)
>   7 %
>
> Yes   No
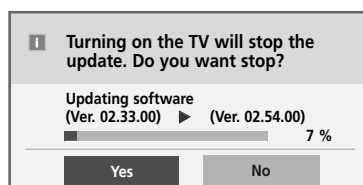
When the power is turned off, downloading starts. When the power is turned on while updating, the progress status is displayed.

After Software Update is completed, the System takes about one minute to restart.

> ℹ The update is completed.
> TV will be rebooted.
>
> Close
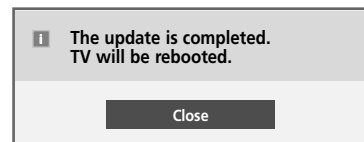
- During Progress of a Software Update, please note the following:
• Power to the set must not be interrupted.
• The set must not be switched off.
• The antenna must not be disconnected.
• After Software Update, you can confirm the updated software version in Diagnostics menu.
• It may take an hour to download the software, so make sure that the power stays on during the download.

DIAGNOSTICS (IN DIGITAL MODE ONLY)

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

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

SETUP	⬍ Move ⊙ OK
Auto tuning	
Manual tuning	
Programme Edit	
Software Update : On	
Diagnostics	◉
CI Information	

≫

Engineering Diagnostics

Manufacturer   : LG Electronics Inc.
Model/Type   : M197WDP-PZ
Serial No.   :
Software Version : V1.10.0

CH 30	◉
CH 34	
CH 36	
CH 38	
CH 54	
CH 60	

RETURN Prev.   ◉ Popup   MENU Exit

1 MENU

Select **SETUP**.

2 OK
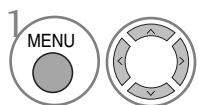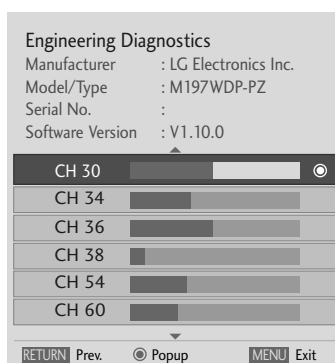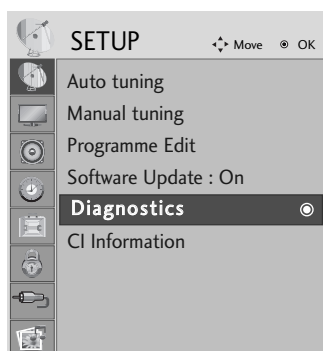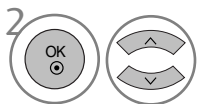
Select **Diagnostics**.

3 OK

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

4 OK
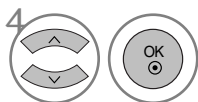
Display the Channel information.

• Press the MENU or EXIT button to close the menu window.

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

CI [COMMON INTERFACE] INFORMATION

This function enables you to watch some encrypted services (paid services). If you remove the CI Module, you cannot watch paid services.
When the module is inserted into the CI slot, you can access the module menu.
To purchase a module and smart card, contact your dealer. Do not repeatedly insert or remove a CAM module from the set. This may cause a malfunction. When the set is turned on after inserting a CI Module, you may not have any sound output.

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

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

SETUP	⬥ Move ◉ OK
Auto tuning	
Manual tuning	
Programme Edit	
Software Update : On	
Diagnostics	
CI Information	◎

Viaccess Module

Consultations
Authorizations
Module information

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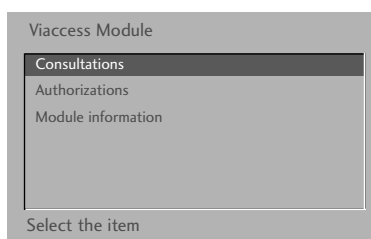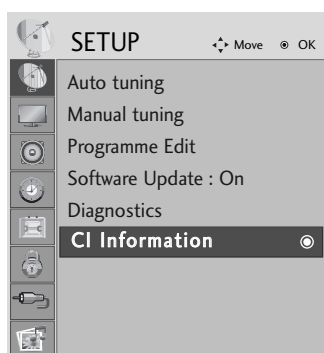
• This OSD is only for illustration and the menu options and screen format will vary according to the Digital pay services provider.
• It is possible for you to change CI (Common Interface) menu screen and service by consulting your dealer.
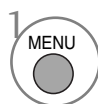
1 MENU   Select **SETUP**.

2 OK   Select **CI Information**.

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

4 OK   Save.

• Press the MENU or EXIT button to close the menu window.

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

SELECTING THE PROGRAMME TABLE

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

🔒 Displayed in the
Locked Programme.

■ Displaying programme LIST

1 **LIST**   Display the PROGRAMME LIST.

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

■ Selecting a programme in the programme list

1   Select a programme.

2 **OK**   Switch to the chosen programme number.

TV/RADIO   From the programme you are cur-
rently watching, the mode will
change from TV to DTV to Radio.

■ Paging through a programme list

1 **+ PR −**   Turns the pages.

2 **LIST**   Returns to normal TV viewing.

■ Displaying the favourite programme table

1 **FAV**   Display the Favourite Programme table.

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

This system has an Electronic Programme Guide (EPG) to help navigate 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 broadcasted by broadcasting companies.

The EPG displays the programme description for the next eight days.

|		
INFO ⓘ	Shows the present screen information.	▤ Displayed with a Teletext Programme.
📺	Displayed with a DTV Programme.	▦ Displayed with a Subtitle Programme.
📻	Displayed with a Radio Programme.	▓ Displayed with a Scramble Programme.
MHEG	Displayed with a MHEG Programme.	DⒹ Displayed with a Dolby Programme.
AAC	Displayed with a AAC Programme.	DⒹ+ Displayed with a Dolby Digital PLUS Programme.
4:3	Aspect ratio of broadcasting programme.	
16:9	Aspect ratio of broadcasting programme.	480i/p, 576i/p, 720p, 1080i/p : Resolution of broadcasting programme

Switch on/off EPG

1 GUIDE Switch on or off EPG.

Select a programme

1 ^ v < > or + PR − Select desired programme.

2 OK ⊙ Display the selected programme.

```
Programme Guide
📺 1  YLE TV1                    ▲         6/ Mar 2006 15:09
                                    6/Mar(Mon)
  ALL              14:00                    15:00
📺 1 YLE TV1              No Information           Kungskonsumente
📺 2 YLE TV2            No Information      TV2: Farmen  No Information
📺 4 TV..                     No Information
📺 5 YLE FST                  No Information
📺 6 CNN                      No Information
📺 8 YLE24      ...      ...        ...  ...   Tänään otsikoissa
                              ▼
TV/RAD  Radio     FAV  Favourite   INFO ⓘ Information   ◉ Pr. Change
● Mode          ● Date          ● Schedule         ● Schedule List
```

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

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 Timer Record/Remind setting mode.

BLUE   Enter Timer Record/Remind list mode.

OK   Change to the selected programme.

Select NOW or NEXT Programme.

Select the Broadcast Programme.

PR   Page Up/Down.

GUIDE or EXIT   Switch off EPG.

TV/RADIO   Select TV or RADIO Programme.

INFO ⓘ   The detail information on or off.

Button Function in 8 Day Guide Mode

RED   Change EPG mode.

GREEN   Enter Date setting mode.

YELLOW   Enter Timer Record/Remind setting mode.

BLUE   Enter Timer Record/Remind list mode.

OK   Change to the selected programme.

Select NOW or NEXT Programme.

Select the Broadcast Programme.

PR   Page Up/Down.

GUIDE or EXIT   Switch off EPG.

TV/RADIO   Select TV or RADIO Programme.

INFO ⓘ   The detailed information on or off.

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 EXIT   Switch off EPG.

EPG (ELECTRONIC PROGRAMME GUIDE) (IN DIGITAL MODE)

Button Function in Extended Description Box

Text Up/Down.

Enter Timer Record/Remind setting mode.

INFO ⓘ The detailed information on or off.

GUIDE or EXIT Switch off EPG.

Button Function in Record/Remind Setting Mode

Sets a start or end time for recording, and sets a reminder only for a start time, with the end time grayed out.

- This function is available only when recording equipment that uses 8 pin recording signalling has been connected to the DTV-OUT terminal, using a SCART cable.

YELLOW Change to Guide or Timer list mode.

OK Save Timer Record/Remind.

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

Function setting.

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.

YELLOW Add new Manual Timer setting mode.

GREEN Enter Schedule list editing mode.

RED Delete the selected item.

BLUE Change to Guide mode.

Select Schedule list.

PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

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

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 Q. MENU   Select **Aspect Ratio**.

2 OK   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).

• **4:3**

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

PICTURE CONTROL

• **Original**

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

• **14:9**

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

• **Zoom**

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

• **Cinema Zoom**

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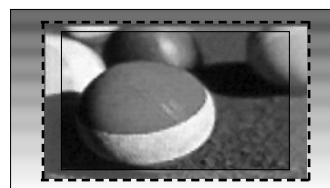
• **Just Scan**

The following Selection allows you to view the picture in the best quality without loss of original picture in high resolution image.
Note: If there is interference in original picture, you can view interference at the edge.

• **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.

🛈 NOTE

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

PRESET PICTURE SETTINGS

Picture Mode-Preset

PICTURE   ◆ Move   ◉ OK

Aspect Ratio : 16:9

Picture Mode : Standard

• Backlight   100
• Contrast   100
• Brightness   50
• Sharpness   8
• Colour   50
• Tint   0   R[IIIIII   IIIIIII]G

Standard   ◉
sRGB
Cinema
Sport
Game
Expert 1
Expert 2

<RGB,DVI Mode>

PICTURE   ❖ Move   ◉ OK

Aspect Ratio : 16:9

Picture Mode : Vivid   ◉

• Backlight   100
• Contrast   100
• Brightness   50
• Sharpness   70
• Colour   60
• Tint   0   R[IIIIII   IIIIIII]G

⟩

PICTURE   ◆ Move   ◉ OK

Aspect Ratio : 16:9

Picture Mode : Vivid

• Backlight   100
• Contrast   100
• Brightness   50
• Sharpness   70
• Colour   60
• Tint   0   R[IIIIII   IIIIIII]G

Vivid   ◉
Standard
Cinema
Sport
Game
Expert 1
Expert 2

<Other mode>

---

1 MENU   Select **PICTURE**.

2 OK   Select **Picture Mode**.

3 OK   Select desired picture value.

• Picture Mode adjusts the set for the best pic-
  ture appearance. Select the preset value in the
  Picture Mode menu based on the programme
  category.

• Press the MENU or EXIT button to close the menu window.

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

Auto Colour Tone Control (Warm/Medium/Cool)

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

PICTURE   ‹•› Move   ⊙ OK

- Backlight   100
- Contrast   100
- Brightness   50
- Sharpness   70
- Colour   60
- Tint   0   R▯▯▯▯▯ ▮ ▯▯▯▯▯G
- Advanced Control   ⊙
- Picture Reset

›

PICTURE   ‹•› Move   ⊙ OK

- Backlight   100
- Contrast   100
- Brightness   50
- Sharpness   70
- Colour   60
- Tint   0   R▯▯▯▯▯
- Advanced Control
- Picture Reset

Colour Temperature	◄ Medium ►
Dynamic Contrast	High
Dynamic Colour	High
Noise Reduction	Medium
Gamma	Medium
Black Level	Auto
Film Mode	Off
Close	
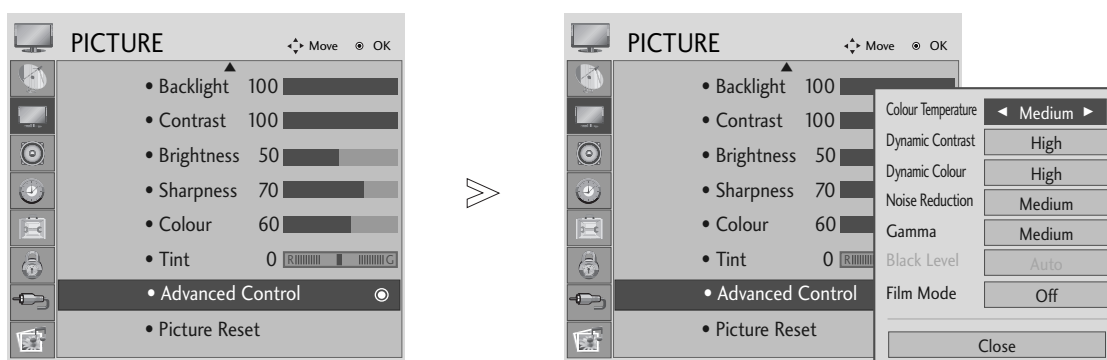
1   MENU   Select **PICTURE**.

2   OK ⊙   Select **Advanced Control**.

3   OK ⊙   Select **Colour Temperature**.

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

• Press the MENU or EXIT button to close the menu window.

• Press the RETURN button to move to the previous menu screen.
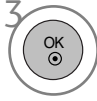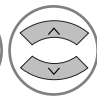
PICTURE CONTROL

Auto Colour Tone Control (6500K/9300K) (RGB,DVI mode only)

Advanced control menu is inactivated when picture mode is sRGB.

Choose one of two automatic colour adjustments.

PICTURE	⬧ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	8
• Colour	50
• Tint	0 R◼◼◼◼◼◼ ◼ ◼◼◼◼◼◼ G
• Advanced Control	◉
• Picture Reset	

⬎

PICTURE	⬧ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	8
• Colour	50
• Tint	0 R◼◼◼◼◼
• Advanced Control	
• Picture Reset	

Colour Temperature	◄ 6500K ►
Dynamic Contrast	Off
Dynamic Colour	Off
Noise Reduction	Off
Gamma	Medium
Black Level	Auto
Film Mode	Off
Close	

1 MENU   ⌃⌄❮❯   Select **PICTURE**.

2 OK   ⌃⌄   Select **Advanced Control**.

3 OK   ⌃⌄   Select **Colour Temperature**.

4 ❮❯   Select either **6500K**, **9300K**.

• Press the MENU or EXIT button to close the menu window.

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

MANUAL PICTURE ADJUSTMENT

Picture Mode-User option

PICTURE   ⟋⟍ Move ◉ OK

Aspect Ratio : 16:9

Picture Mode : Vivid (User)   ◉

• Backlight   100
• Contrast   100
• Brightness   50
• Sharpness   70
• Colour   60
• Tint   0   R▥▥▥▥   ▥▥▥▥G
▼

⟩

PICTURE   ⟋⟍ Move ◉ OK

Aspect Ratio : 16:9

Picture Mode : Standard (User)

• Backlight   100
• Contrast   100
• Brightness   50
• Sharpness   8
• Colour   50
• Tint   0   R▥▥▥▥   ▥▥▥▥G
▼

Standard (User)	◉
sRGB	
Cinema	
Sport	
Game	
Expert 1	
Expert 2	

<RGB,DVI Mode>

PICTURE   ⟋⟍ Move ◉ OK

Aspect Ratio : 16:9

Picture Mode : Vivid (User)

• Backlight   100
• Contrast   100
• Brightness   50
• Sharpness   70
• Colour   60
• Tint   0   R▥▥▥▥   ▥▥▥▥G
▼

Vivid (User)	◉
Standard	
Cinema	
Sport	
Game	
Expert 1	
Expert 2	

<Other mode>

---

1 MENU   Select **PICTURE**.

2 OK   Select **Picture Mode**.

3 OK   Select desired picture value.

4 OK   Select **Contrast**, **Brightness**, **Sharpness**, **Colour** or **Tint**.
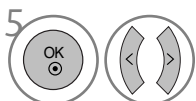
5 OK   Make appropriate adjustments.

• Press the MENU or EXIT button to close the menu window.

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

ⓘ NOTE

▶ You cannot adjust colour and tint in the RGB, DVI mode.

PICTURE CONTROL

PICTURE IMPROVEMENT TECHNOLOGY

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

Dynamic Colour
Adjusts the colour of the reflection automatically to reproduce natural colurs as close as possible.
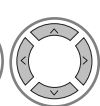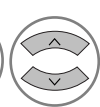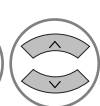
Noise Reduction
Removes interference up to the point where it does not damage the original picture.

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

PICTURE	Move OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R G
• Advanced Control	
• Picture Reset	

PICTURE	Move OK
• Backlight 100	Colour Temperature	Medium
• Contrast 100	Dynamic Contrast	◄ High ►
• Brightness 50	Dynamic Colour	High
• Sharpness 70	Noise Reduction	Medium
• Colour 60	Gamma	Medium
• Tint 0 R	Black Level	Auto
• Advanced Control	Film Mode	Off
• Picture Reset	Close
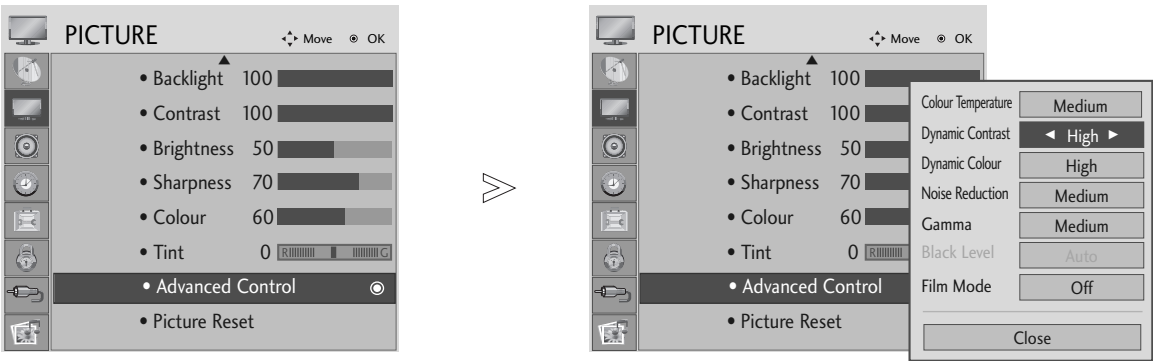
1 MENU — Select **PICTURE**.

2 OK — Select **Advanced Control**.

3 OK — Select **Dynamic Contrast**, **Dynamic Colour**, **Noise Reduction** or **Gamma**.

4 — Select your desired Source.

• Press the MENU or EXIT button to close the menu window.

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

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PICTURE CONTROL

ADVANCED - BLACK (DARKNESS) LEVEL

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

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

PICTURE	◈ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R□□□□ □ □□□□G
• Advanced Control	◉
• Picture Reset	

▷

PICTURE	◈ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R□
• Advanced Control	
• Picture Reset	

Colour Temperature	Medium
Dynamic Contrast	High
Dynamic Colour	High
Noise Reduction	Medium
Gamma	Medium
Black Level	◄ High ►
Film Mode	Off
Close	

MENU ⌄∧⌃◄►⌄

Select **PICTURE**.

| • **Low:** The reflection of the screen gets darker. |
| • **High:** The reflection of the screen gets brighter. |

OK⊙

Select **Advanced Control**.

OK⊙

Select **Black Level**.

◄►
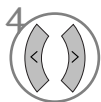
Select **Low** or **High**.

• Press the MENU or EXIT button to close the menu window.

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

❗ NOTE

► If input is not AV(NTSC-M), HDMI or component, this function set to auto.
► In case of auto, user can't adjust it directly.
► Auto: Realizing the black level of the screen and set it to High or Low automatically.

PICTURE CONTROL

ADVANCED - FILM MODE

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

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

PICTURE	⬩ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R⊪⊪⊪▮⊪⊪G
• Advanced Control	◉
• Picture Reset	

≫

PICTURE	⬩ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R⊪⊪
• Advanced Control	
• Picture Reset	

Colour Temperature	Medium
Dynamic Contrast	High
Dynamic Colour	High
Noise Reduction	Medium
Gamma	Medium
Black Level	Auto
Film Mode	◄ Off ►
Close	

1 MENU Select **PICTURE**.

2 OK Select **Advanced Control**.

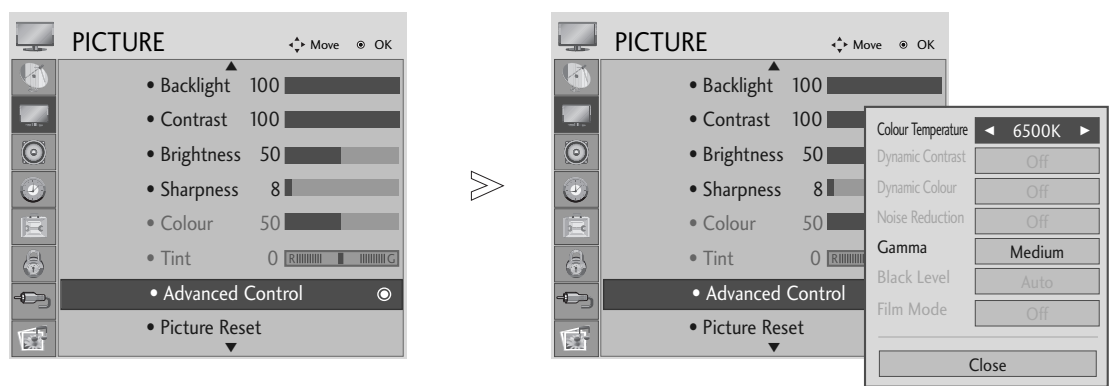3 OK Select **Film Mode**.

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

• Press the MENU or EXIT button to close the menu window.

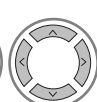• Press the RETURN button to move to the previous menu screen.

PICTURE CONTROL

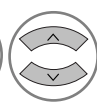## Expert Picture Control

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

As the detail item for video quality experts to fine tune the video using specific videos, this may not be effective for general videos.

PICTURE	⬩ Move ⦿ OK
Aspect Ratio : 16:9	
Picture Mode : Expert 1	
• Backlight 20	
• Contrast 80	
• Brightness 50	
• H Sharpness50	
• V Sharpness50	
• Colour 50	

Vivid
Standard
Cinema
Sport
Game
Expert 1   ⦿
Expert 2

⟫

PICTURE	⬩ Move ⦿ OK
• Contrast 80	
• Brightness 50	
• H Sharpness50	
• V Sharpness50	
• Colour 50	
• Tint 0 RI	
• Expert Control	
• Picture Reset	

Dynamic Contrast	◄ Off ►
Noise Reduction	Off
Gamma	Medium
Black Level	Auto
Film Mode	Off
Colour Standard	SD
White Balance	Warm
• Pattern	Outer

Close

1 MENU   Select **PICTURE**.

2 OK   Select **Picture Mode**.

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

4 OK   Select **Expert Control**.

5 OK   Select your desired Source.

6   Make appropriate adjustments.

• Press the MENU or EXIT button to close the menu window.

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

PICTURE CONTROL
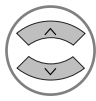
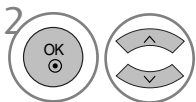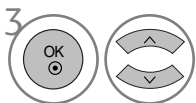|	
Dynamic Contrast **(Off/Low/High)**	■ Adjusts the contrast to keep it at the best level according to the brightness of the screen. The resolution of gradation is improved by making bright parts brighter and dark parts darker. This feature refers to dynamic contrast, and enhances the feeling of presence that contrast controls are intended to give by using dimming and other input signals.
Noise Reduction **(Off/Low/Medium/High)**	■ Reduces screen noise without compromising video quality. This feature is also used to reduce recursive noise and MPEG noise (Mosquito/Block).
Gamma **(Low/Medium/High)**	■ You can adjust brightness of dark area and middle gray level area of the picture. • Low : Make dark and middle gray level area of the picture brighten. • Medium: Express original picture gradation. • High: Make dark and middle gray level area of the picture darken.
Black Level **(Low/High)**	• Low :The reflection of the screen gets darker. • High: The reflection of the screen gets brighter. • Auto : Realizing the black level of the screen and set it to High or Low automatically. ■ Makes dark parts on the screen look darker. Set black level of the screen to proper level. This function works in the following mode: AV (NTSC-M), HDMI or Component . This function enables to select "Low" or "High" in the following mode : AV(NTSC-M), HDMI or Component. Otherwise, "Black level" is set to "Auto".
Film Mode **(On/Off)**	■ Makes video clips recorded in film look more natural. This feature operates only in TV, AV and Component 480i/576i/1080i mode.
Colour Standard **(SD/HD)**	■ Select the international standard for the colour gamut that will be applied when the colour gamut is set to Standard. • SD: Increase colour accuracy by adjusting the output image to meet the EBU (European Broadcasting Union) Colour Coordinate Standard. • HD: Increase colour accuracy by adjusting the output image to meet ITU.BT-709 (High Definition Signal International Colour Coordinate Standard).
White Balance **(Medium/Warm/Cool)**	■ White Balance (Medium/Warm/Cool) • Adjust white balance. ■ Pattern (Inner/Outer) • Decide whether to use the Inner Pattern or External Pattern when adjusting white balance. ■ Red Gain/Green Gain/Blue Gain • Adjust high-level white balance. ■ Red Offset/Green Offset/Blue Offset • Adjust low-level white balance.
Colour Management System	■ Colour (Red/Green/Blue/Yellow/Cyan/Magenta) • Adjust colour saturation by area. ■ Tint (Red/Green/Blue/Yellow/Cyan/Magenta) • Adjust colour tint by area.

PICTURE CONTROL

PICTURE RESET

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

PICTURE	⟨⟩ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R▓▓▓ ▌ ▓▓▓G
• Advanced Control	
• Picture Reset	◉

⟩

PICTURE	⟨⟩ Move ◉ OK
• Backlight	100
• Contrast	100
• Brightness	50
• Sharpness	70
• Colour	60
• Tint	0 R▓▓▓ ▌ ▓▓▓G
• Advanced Cont	ℹ Resetting video configuration...
• Picture Reset	

1 MENU ∧∨⟨⟩   Select **PICTURE**.

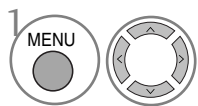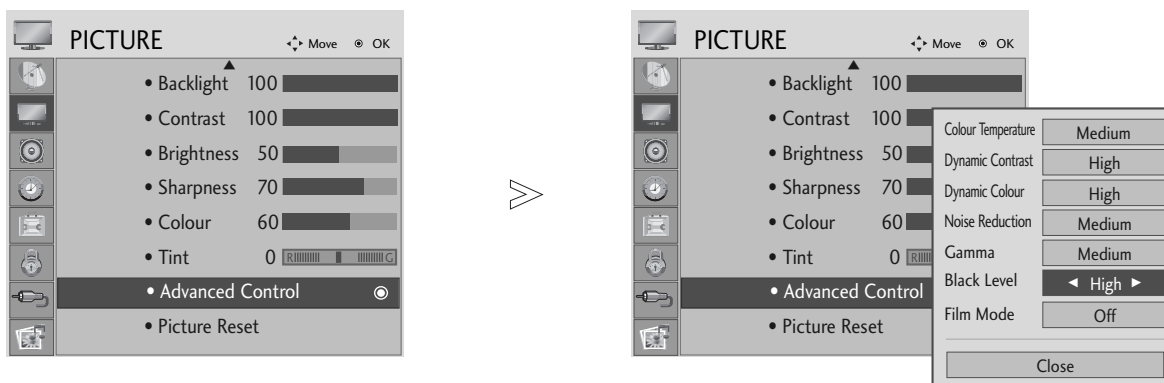2 OK ∧∨   Select **Picture Reset**.

3 OK   Initialize the adjusted value.

• Press the MENU or EXIT button to close the menu window.

• Press the RETURN button to move to the previous menu screen.
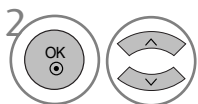
PICTURE CONTROL

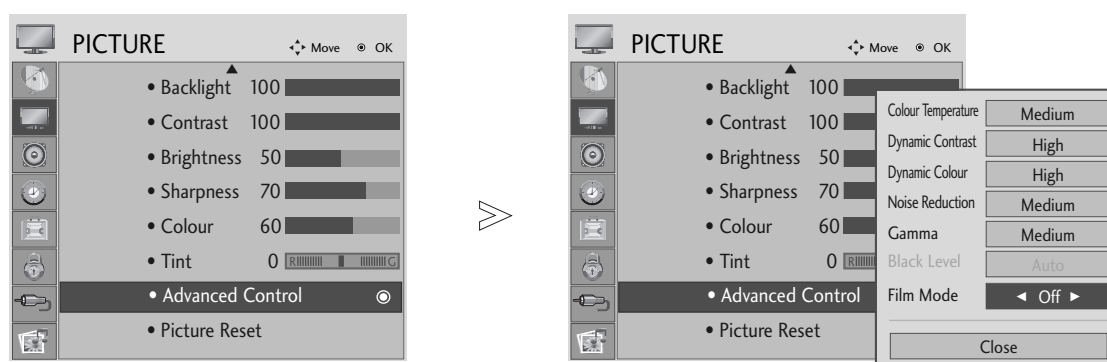## SCREEN SETUP FOR PC MODE

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] mode.

<M197WDP>
<Vertical resolution : 768>

SCREEN	✧ Move RETURN Prev.
⊞ Resolution ►	1024 x 768
◔ Auto Config.	1280 x 768
⊡ Position	✓ 1360 x 768
⊟ Size	1366 x 768
☷ Phase	
↻ Reset	

<M227WDP/M237WDP>
<Vertical resolution : 768>

SCREEN	✧ Move RETURN Prev.
⊞ Resolution ►	✓ 1024 x 768
◔ Auto Config.	1280 x 768
⊡ Position	1360 x 768
⊟ Size	1366 x 768
☷ Phase	
↻ Reset	

PICTURE	✧ Move ⊙ OK
• Contrast	100
• Brightness	50
• Sharpness	8
• Colour	50
• Tint	0 R◼◼◼◼◼◼◼◼◼◼◼G
• Advanced Control	
• Picture Reset	
Screen	◎

<M227WDP/M237WDP>
<Vertical resolution : 1050>

SCREEN	✧ Move RETURN Prev.
⊞ Resolution ►	1400 x 1050
◔ Auto Config.	✓ 1680 x 1050
⊡ Position	
⊟ Size	
☷ Phase	
↻ Reset	

<M227WDP/M237WDP>
<Vertical resolution : 900>

SCREEN	✧ Move RETURN Prev.
⊞ Resolution ►	1280 x 960
◔ Auto Config.	1400 x 900
⊡ Position	✓ 1600 x 900
⊟ Size	
☷ Phase	
↻ Reset	

1 MENU Select **PICTURE**.

2 OK Select **SCREEN**.

3 OK Select **Resolution**.

4 Select the desired resolution.

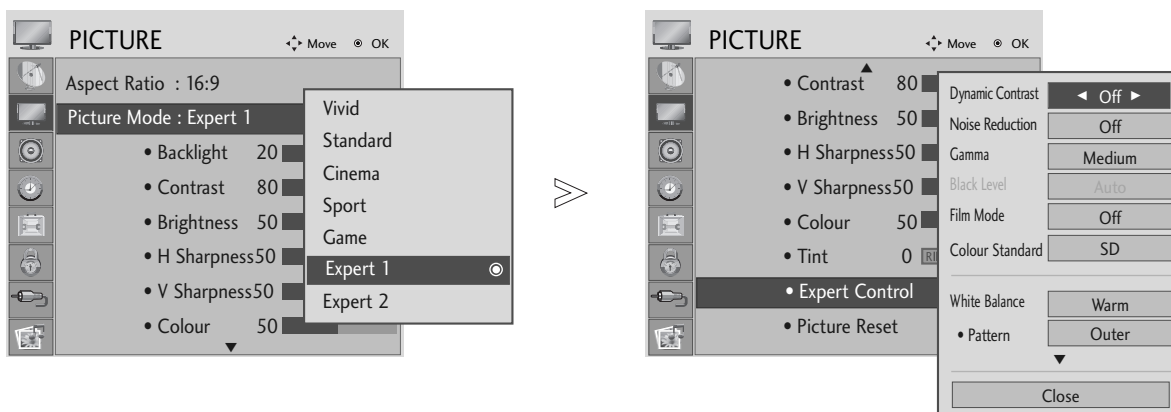• Press the MENU or EXIT button to close the menu window.

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

PICTURE CONTROL

Auto Configure (RGB [PC] mode only)

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

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

1. Using OSD

PICTURE	✛ Move ⊙ OK
• Contrast 100	
• Brightness 50	
• Sharpness 8	
• Colour 50	
• Tint 0 R⊫⊫⊫⊫⊫⊫⊫ G	
• Advanced Control	
• Picture Reset	
Screen ◉	

≫

SCREEN	✛ Move RETURN Prev.
⊞ Resolution	
◎ Auto Config. ►	
✛ Position	To Set
⊟ Size	
▦ Phase	Yes No
↻ Reset	

MENU Select **PICTURE**.

OK Select **SCREEN**.

OK Select **Auto Config**.

OK Select **Yes**.

OK 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 or EXIT button to close the menu window.

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

PICTURE CONTROL

## 2. Using OK(Remocon or control key)

This function is available for RGB signals only.

1 Press OK.

Auto Config. ▶ ⦿ (OK)

• If you don't want Auto Configure, do not press ⦿ OK

<M197WDP>

2 Press OK.

Auto in progress

<1360 x 768 Resolution>

⚠ Auto in progress
For optimal display
change resolution 1360 x 768

<Others Resolution>

<M227WDP/M237WDP>

2 Press OK.

Auto in progress

<1920 x 1080 Resolution>

⚠ Auto in progress
For optimal display
change resolution 1920 x 1080

<Others Resolution>

PICTURE CONTROL

Adjustment for screen Position, Size, Phase

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

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

PICTURE	·Move ⊙ OK
• Contrast	100
• Brightness	50
• Sharpness	8
• Colour	50
• Tint	0 R◀▮▮▮▮▮▮▮▮▮▮ ▮ ▮▮▮▮▮▮▮G
• Advanced Control	
• Picture Reset	
Screen	⊙

〉

SCREEN	·Move RETURN Prev.
Resolution	
Auto Config.	
Position	▶
Size	
Phase	
Reset	
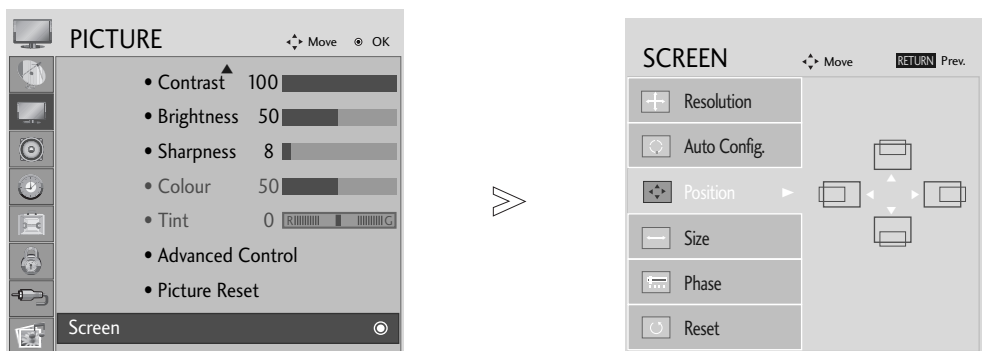
1 MENU Select **PICTURE**.

2 OK Select **SCREEN**.

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

4 Make appropriate adjustments.

• Press the MENU or EXIT button to close the menu window.

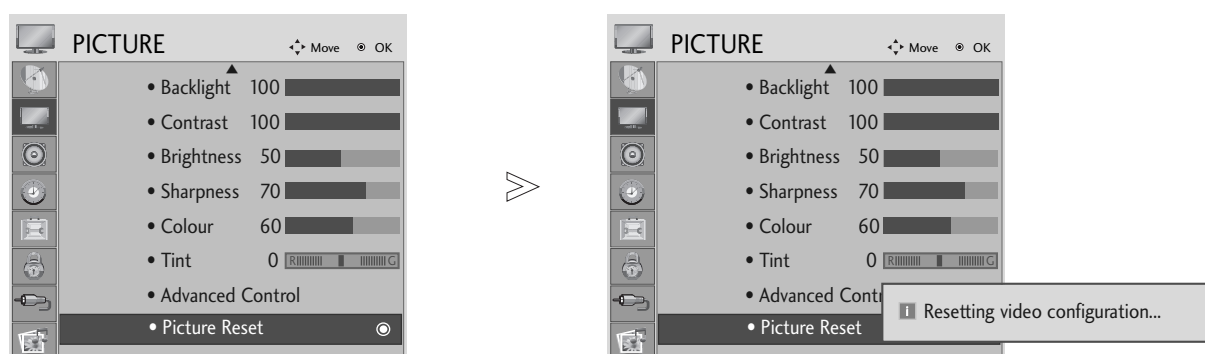• Press the RETURN button to move to the previous menu screen.

PICTURE CONTROL

Screen Reset

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

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

PICTURE	◆ Move ◉ OK
• Contrast	100
• Brightness	50
• Sharpness	8
• Colour	50
• Tint	0 R◼◼◼◼ ◼◼◼◼G
• Advanced Control	
• Picture Reset	
Screen	◉

⊳

SCREEN	◆ Move RETURN Prev.
⊞ Resolution	
◌ Auto Config.	
⊕ Position	To Set
▭ Size	
▦ Phase	
↻ Reset ►	

1 MENU ⌄ ^ ⌄ Select **PICTURE**.

2 OK ⌃⌄ Select **SCREEN**.

3 OK ⌃⌄ Select **Reset**.

4 OK ⟨ ⟩ Select **Yes.**

5 OK Run Reset.

• Press the MENU or EXIT button to close the menu window.

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

SOUND CONTROL

AUTO VOLUME LEVELER

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

AUDIO	Move OK
Auto Volume : Off	
Clear Voice II : Off	
• Level	3
Balance	0
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50
• Bass	50

AUDIO	Move OK		
Auto Volume : Off	Off	
Clear Voice II : Off	On	
• Level	3
Balance	0
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50
• Bass	50
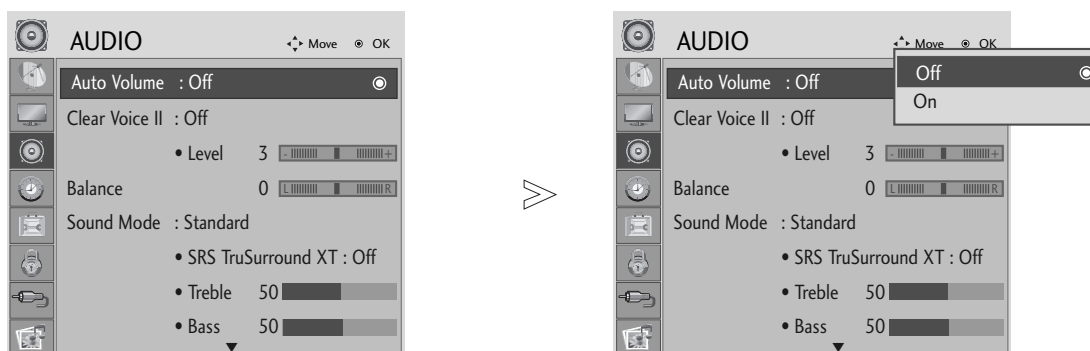
1 MENU   Select **AUDIO**.

2 OK   Select **Auto Volume**.

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

• Press the MENU or EXIT button to close the menu window.

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

SOUND CONTROL

CLEAR VOICE II

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

```
AUDIO                    ✧ Move    ◉ OK
  Auto Volume  : Off
  Clear Voice II  : Off                  ◉
           • Level      3  ▭▥▥▥▥▯▥▥▥▥+
  Balance               0  L▥▥▥▥▯▥▥▥▥R
  Sound Mode  : Standard
           • SRS TruSurround XT : Off
           • Treble     50  ▥▥▥
           • Bass       50  ▥▥▥
                ▼
```

▷

```
AUDIO                    ✧ Move    ◉ OK
  Auto Volume  : Off
  Clear Voice II  : Off        ┌──────────────┐
           • Level      3  ▭▥│ Off          ◉│
  Balance               0  L▥│ On            │
  Sound Mode  : Standard    └──────────────┘
           • SRS TruSurround XT : Off
           • Treble     50  ▥▥▥
           • Bass       50  ▥▥▥
                ▼
```

1 MENU ⌄∧⌄ Select **AUDIO**.

2 OK ⌄∧⌄ Select **Clear Voice II**

3 OK ⌄∧⌄ Select **On** or **Off**.

When the **Clear Voice II** is selected **On**,
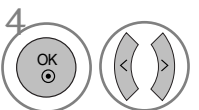
4 OK ⟨ ⟩ Select the desired **Level**.

┌─────────────────────────────────────┐
│ • **Select levels from '-6' to '+6'.** │
└─────────────────────────────────────┘

• Press the MENU or EXIT button to close the menu window.

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

SOUND CONTROL

BALANCE

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

	AUDIO	⬩ Move ◉ OK
	Auto Volume : Off	
	Clear Voice II : Off	
	• Level	3 ▫▩▩▩▩▩▩▩▩+
	Balance	0 L▩▩▩▩ ▩ ▩▩▩▩R ◉
	Sound Mode : Standard	
	• SRS TruSurround XT : Off	
	• Treble	50 ▩▩▩
	• Bass	50 ▩▩▩
	▼	

≫

	AUDIO	⬩ Move ◉ OK
	Auto Volume : Off	
	Clear Voice II : Off	
	• Level	3 ▫▩▩
	Balance	0 L▩▩
	Sound Mode : Standard	
	• SRS TruSurround XT : Off	
	• Treble	50 ▩▩▩
	• Bass	50 ▩▩▩
	▼	

• Balance 0 ◄ L▩▩▩▩ ▩ ▩▩▩▩R ►

Close

1 MENU Select **AUDIO**.

2 OK Select **Balance**.

3 OK Make desired adjustment.

• Press the MENU or EXIT button to close the menu window.

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

SOUND CONTROL

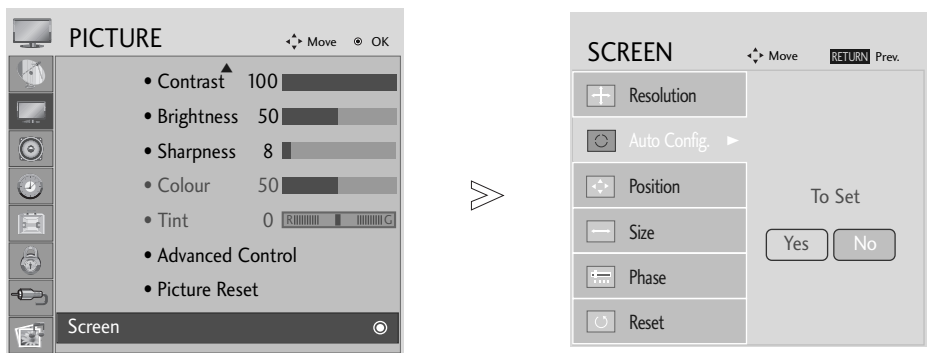## PRESET SOUND SETTINGS - SOUND MODE
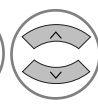
You can select your preferred sound setting; Standard, Music, Cinema, Sport or Game and you can also adjust Treble, Bass.

Sound Mode lets you enjoy the best sound without any Special adjustment as the 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.

AUDIO	◈ Move ◉ OK
Auto Volume : Off	
Clear Voice II : Off	
• Level	3 − ‖‖‖ ‖‖‖ +
Balance	0 L ‖‖‖ ‖‖‖ R
Sound Mode : Standard	◉
• SRS TruSurround XT : Off	
• Treble	50
• Bass	50

▷

AUDIO	◈ Move ◉ OK
Auto Volume : Off	
Clear Voice II : Off	
• Level	3 − ‖‖‖ ‖‖‖ +
Balance	0 L ‖‖‖	**Standard** ◉
Sound Mode : Standard	Music
• SRS TruSurround XT	Cinema
• Treble	50	Sport
• Bass	50	Game

Select **AUDIO**.

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

Select **Sound Mode**.

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

• Press the MENU or EXIT button to close the menu window.

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

SOUND SETTING ADJUSTMENT - USER MODE

⊚ AUDIO	⬩⬩ Move ⊙ OK
Auto Volume : Off	
Clear Voice II : Off	
• Level 3	- ▥▥▥▥ ▥▥▥▥ +
Balance 0	L ▥▥▥▥ ▥▥▥▥ R
Sound Mode : Standard(User) ⊚	
• SRS TruSurround XT : Off	
• Treble 50	▬▬▬▬▬
• Bass 50	▬▬▬▬▬
▼	

⊳⊳

⊚ AUDIO	⬩⬩ Move ⊙ OK
Auto Volume : Off	
Clear Voice II : Off	
• Level 3	- ▥▥▥▥ ▥▥▥▥ +
Balance 0	
Sound Mode : Standar	**Standard(User)** ⊚
• SRS TruSu	Music
• Treble 5	Cinema
• Bass 5	Sport
▼	Game

1 MENU
Select **AUDIO**.
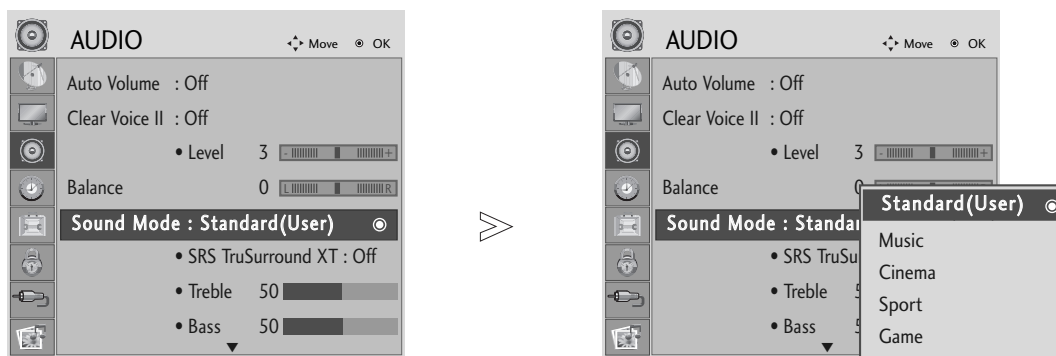
2 OK
Select **Sound Mode**.

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

4 OK
Select a **Treble**, **Bass**.

5 OK
Set the desired sound level.

SRS TRUSURROUND XT

Select this option to sound realistic.

1 MENU
Select **AUDIO**.

2 OK
Select **SRS TruSurround XT**.

5 OK
Select **On** or **Off**.

• **SRS TruSurround XT** : TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multicannel content over two speakers.
• When SRS TruSurround XT is 'On'. Treble, Bass figure is fixed to 50 and deactivated.

• Press the MENU or EXIT button to close the menu window.

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

▶ 5r5⊚ TruSurround XT is a trademark of SRS Labs, Inc.
▶ TruSurround XT technology is incorporated under license from SRS Labs, Inc.

SOUND CONTROL

AUDIO RESET

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

```
AUDIO              ◈ Move   ◉ OK

Balance            0  L▐▐▐▐▐  ▐▐▐▐▐ R
Sound Mode  : Standard
             • SRS TruSurround XT : Off
             • Treble    50 ▐
             • Bass      50 ▐
             • Reset                ◉
Digital Audio Out     : PCM
TV Speaker            : On
```

⟩

```
AUDIO              ◈ Move   ◉ OK

Balance            0  L▐▐▐▐▐  ▐▐▐▐▐ R
Sound Mode  : Standard
             • SRS TruSurround XT : Off
             • Treble    50 ▐
             • Bass      50 ▐
             • Rese  ⓘ Resetting sound mode configuration...
Digital Audio Out
TV Speaker            : On
```

1 MENU   Select **AUDIO**.

2 OK   Select **Reset**.

3 OK   Initialize the adjusted value.

• Press the MENU or EXIT button to close the menu window.

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

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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 Auto and Audio language have been set in a channel which broadcast Dolby Digital Audio, only Dolby Digital will be played.
If the sample rate converter on this chip does not support 44.1 to 48kHz, this content should always produce stereo PCM at digital output.
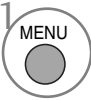
AUDIO	◆ Move ◉ OK
Balance	0 L▭▭▭▭ ▭▭▭▭ R
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50 ▭
• Bass	50 ▭
• Reset	
Digital Audio Out : PCM	◉
TV Speaker	: On

▷

AUDIO	◆ Move ◉ OK
Balance	0 L▭▭▭▭ ▭▭▭▭ R
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50 ▭
• Bass	50 ▭
• Reset	
Digital Audio Out : PCM	Auto
TV Speaker	: On PCM ◉
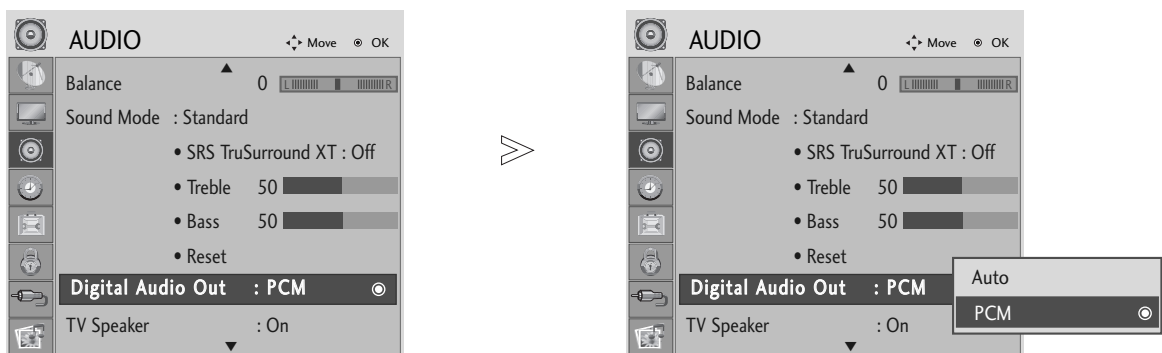
MENU   Select **AUDIO**.

OK   Select **Digital Audio Out**.

OK   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.

• Press the MENU or EXIT button to close the menu window.

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

SOUND CONTROL

TV SPEAKERS ON/ OFF SETUP

You can adjust the internal speaker status.

In TV, AV, COMPONENT, HDMI, RGB, DVI mode the TV speaker can be operational even though when there is no video signal.

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

AUDIO	⊹ Move ⊙ OK
Balance	0 L ▓▓▓▓ ▐ ▓▓▓▓ R
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50 ▓▓▓
• Bass	50 ▓▓▓▓
• Reset	
Digital Audio Out	: PCM
TV Speaker	**: On** ⊚

⟩

AUDIO	⊹ Move ⊙ OK
Balance	0 L ▓▓▓▓ ▐ ▓▓▓▓ R
Sound Mode : Standard	
• SRS TruSurround XT : Off	
• Treble	50 ▓▓▓
• Bass	50 ▓▓▓▓
• Reset	
Digital Audio Out	: PCM
TV Speaker	**: On**

Off
On ⊚

1 MENU   Select **AUDIO**.

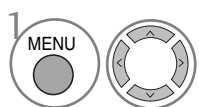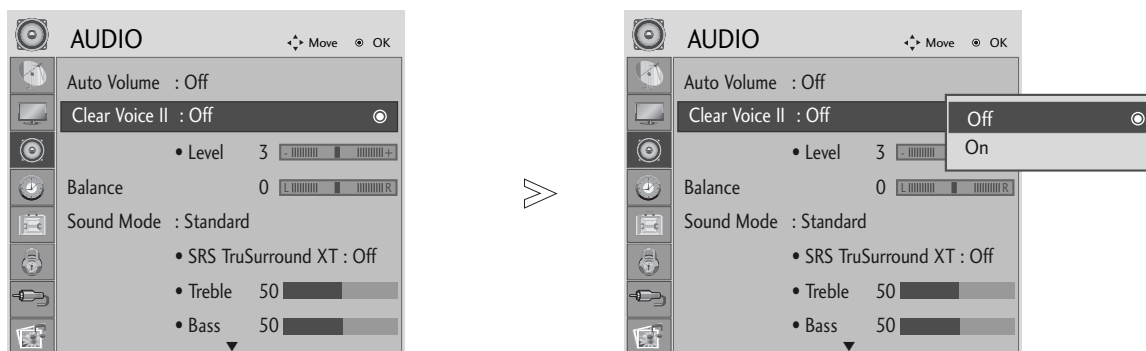2 OK   Select **TV Speaker**.

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

• Press the MENU or EXIT button to close the menu window.

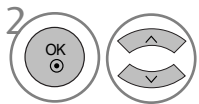• Press the RETURN button to move to the previous menu screen.

SOUND CONTROL

AUDIO DESCRIPTION(IN DIGITAL MODE ONLY)

This function is for the blind, and provides explanatory audio describing the current situation in a TV programme in addition to the basic audio.

When Audio Description On is selected, basic audio and Audio Description are provided only for those programmes that have Audio Description included.

When Main Audio is AAC or Dolby Digital Plus Audio, Audio Description is not supported.

AUDIO	◆ Move ◉ OK
• SRS TruSurround XT : Off	
• Treble	50
• Bass	50
• Reset	
Digital Audio Out	: PCM
TV Speaker	: On
Audio Description	: On ◉
• Volume	50

⟩

AUDIO	◆ Move ◉ OK
• SRS TruSurround XT : Off	
• Treble	50
• Bass	50
• Reset	
Digital Audio Out	: PCM
TV Speaker	: On
Audio Description	: (	Off
• Volume	50	On ◉

1 MENU   Select **AUDIO**.

2 OK   Select **Audio Description**.

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

When the **Audio Description** is selected **On**,

4 OK   Select the desired **Volume**.

• Press the MENU or EXIT button to close the menu window.

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

SOUND CONTROL

I/II

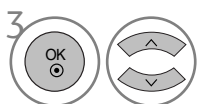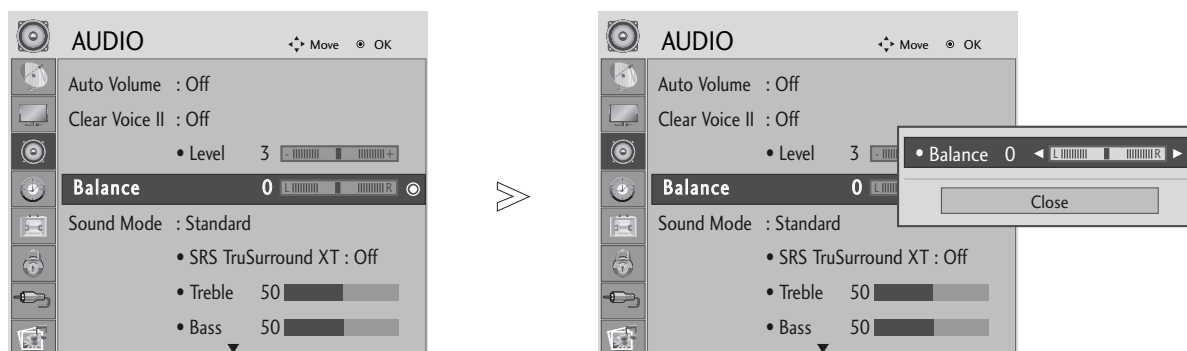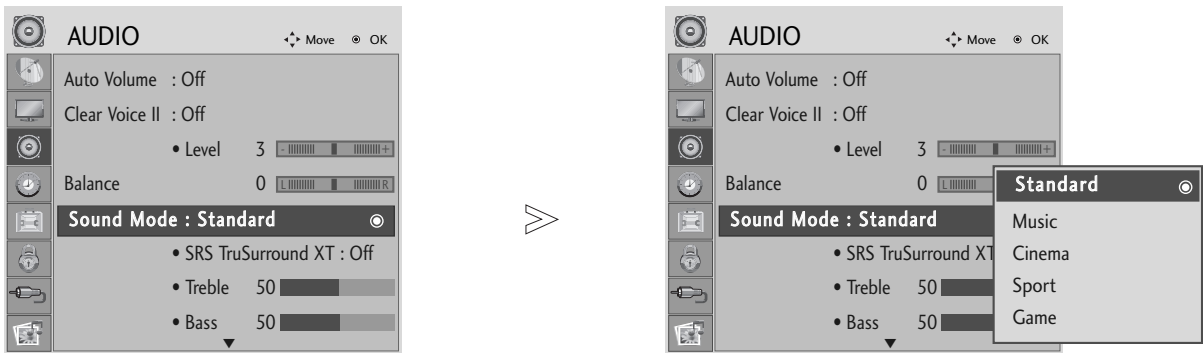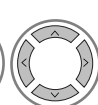### Stereo/Dual Reception (In Analogue Mode Only)

When a programme is selected, the sound information for the station appears after the programme number and station name disappear.
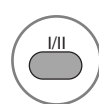
I/II   Select the sound output.

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

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

■ **Language selection for dual language broadcast**
If a programme can be received in two languages (dual language), you can switch to DUAL I, DUAL II or DUAL I+II.

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

SOUND CONTROL

NICAM Reception (In Analogue Mode Only)

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

Sound output can be selected according to the type of received broadcast as follows by pressing the I/II button repeatedly.

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, HDMI and DVI mode, you can select output sound for the left and right loudspeakers.

Repeatedly press the **I/II** button to select the sound output.

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

TIME SETTING

CLOCK SETUP

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

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

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

Once Clock is set in DTV mode, you cannot change time, but if the city name in Time Zone is changed into off-set, you can change time by 1 hour.

TIME	◇ Move ◉ OK
Clock	◎
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Off	: On

≫

TIME	◇ Move ◉ OK
Clock	
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Off	: On

Date	01
Month	Jan.
Year	2008
Hour	00
Minute	00
Time Zone	London
	GMT
Close	
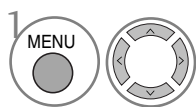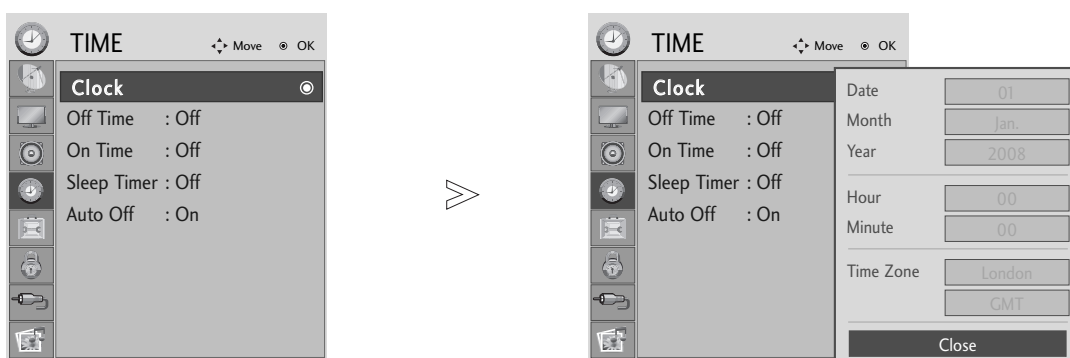
1 MENU   Select **TIME**.
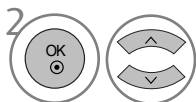
2 OK   Select **Clock**.
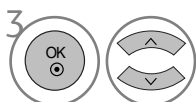
3 OK   Select either the year, date, time or Time Zone option.
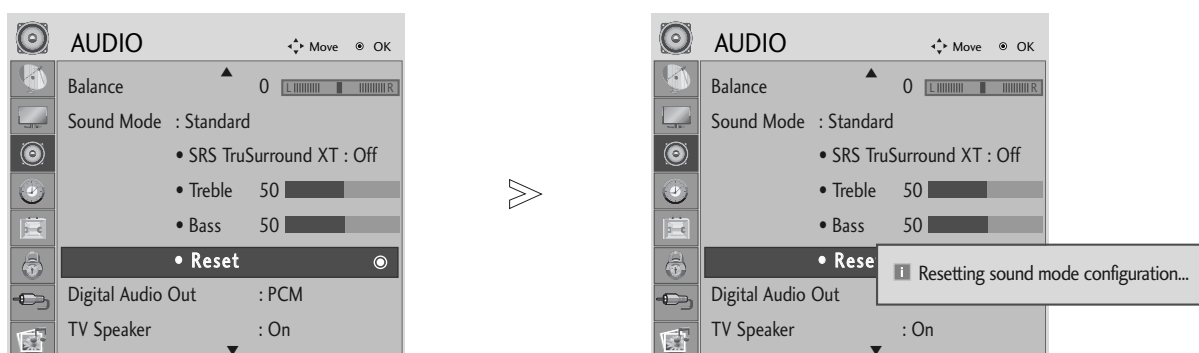
4   Set the year, date, and time options.

• Press the MENU or EXIT button to close the menu window.

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

TIME SETTING

AUTO ON/OFF TIMER SETTING

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

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

TIME	◆ Move ◉ OK
Clock	
Off Time	: Off
On Time	**: Off** ◉
Sleep Timer	: Off
Auto Off	: On

≫

TIME	◆ Move ◉ OK
Clock	
Off Time	: Off
On Time	**: Off**
Sleep Timer	: Off
Auto Off	: On

🕐 1/Jan. 2008 00:01

Repeat	◄ Off ►
Hour	00
Minute	00
Mode	DTV
Programme	800
Volume	30
Close	

1 MENU   Select **TIME**.

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

3 OK   Select **Repeat**.

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

5 Set the **hour**.

6 Set the **minutes**.

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

1 OK   Select **Mode**.

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

3 Set the programme.

4 Adjust volume level at switch-on.
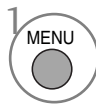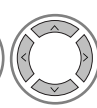
• Press the MENU or EXIT button to close the menu window.

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

TIME SETTING

AUTO SHUT-OFF SETTING

If the set is switched on and there is no input signal, it will switch off automatically after 10 minutes.
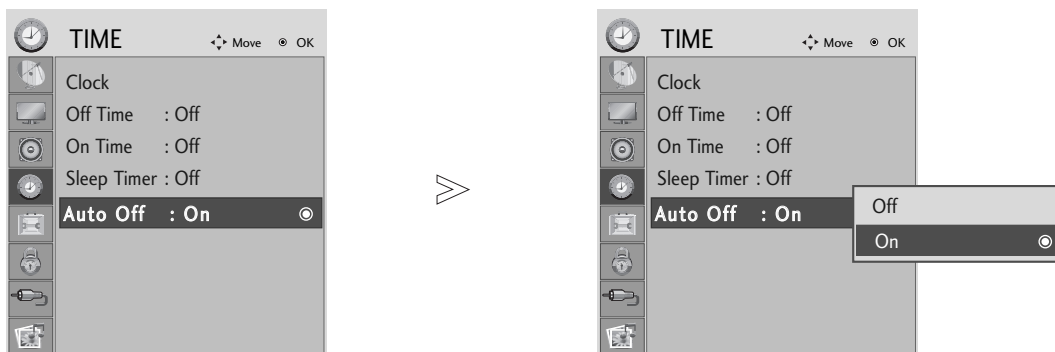
TIME	◇ Move ◉ OK
Clock	
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Off	**: On** ◉

≫

TIME	◇ Move ◉ OK
Clock	
Off Time	: Off
On Time	: Off
Sleep Timer	: Off
Auto Off	**: On**

Off
On ◉

1 MENU ∧∨ Select **TIME**.

2 OK ∧∨ Select **Auto Off**.

3 OK ∧∨ Select **Off** or **On**.

• Press the MENU or EXIT button to close the menu window.

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

TIME SETTING
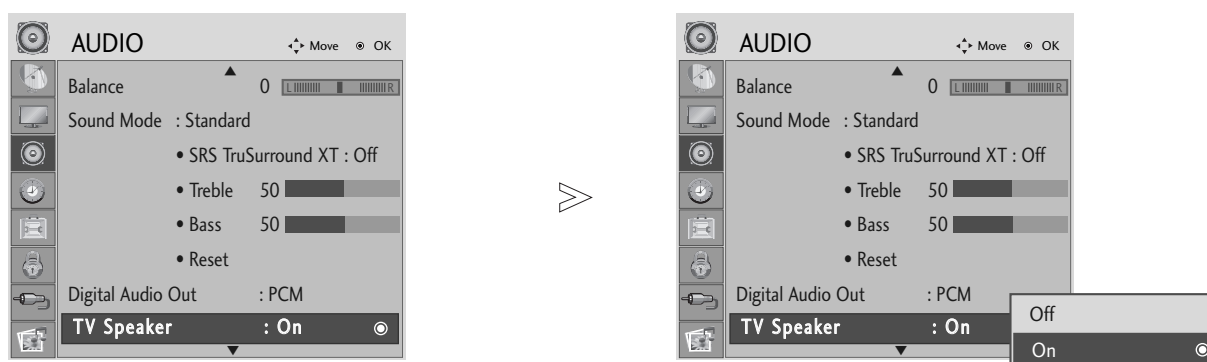
## SLEEP TIMER SETTING

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

1 MENU   Select **TIME**.

2 OK   Select **Sleep Timer**.

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

4 OK   Confirm it.

- When you switch the set off, the preset sleep time is cancelled.
- You can also adjust Sleep Timer in the TIME menu.
- When entering DPM (Sleep mode), the value of sleep time setting will be canceled.

OPTION SETTING

ON-SCREEN MENU LANGUAGE /
COUNTRY SELECTION

The installation guide menu appears on the TV screen when it is switched on for the first time.
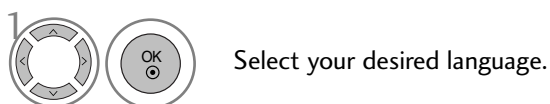
1   OK   Select your desired language.

2   OK   Select your country.

* If you want to change Language/ Country selection

1   MENU   Select OPTION.

2   OK   Select Menu Language or Country.
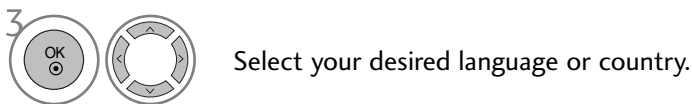
3   OK   Select your desired language or country.

4   OK   Save.

• Press the MENU or EXIT button to close the menu window.

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

❗ NOTE

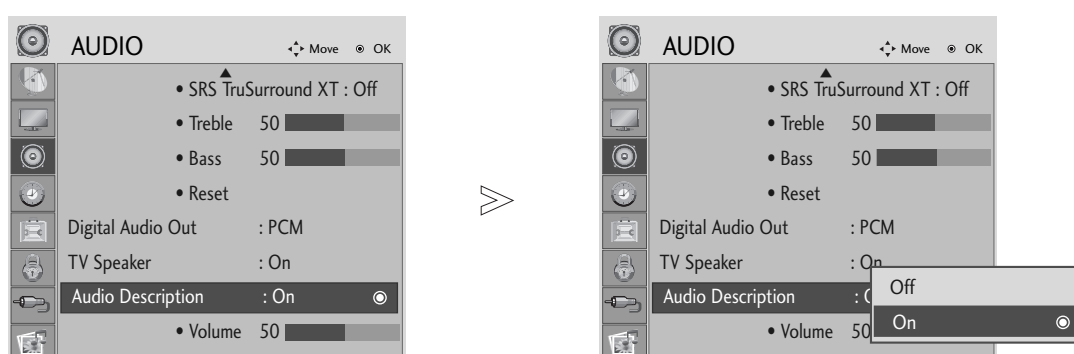► If you do not finish the set-up Installation Guide by pressing EXIT or if you time out on the OSD (On Screen Display) the installation menu will continuously appear whenever the set is switched on until the set up is completed.

► If you select the wrong local country, teletext may not appear correctly on the screen and some problems may occur during teletext operation.

► The CI (Common Interface) function may not be applied based on country broadcasting circumstances.

► DTV mode control buttons may not function based on country broadcasting circumstances.

► In countries that Digital broadcasting regulation isn't fixed, some DTV functions may not work depending on digital broadcasting circumstances.

OPTION SETTING

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.
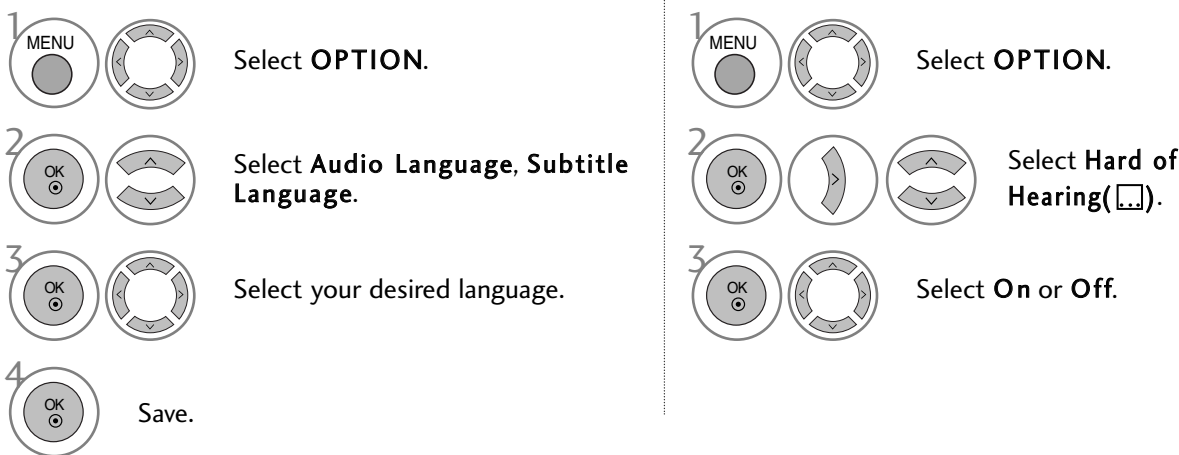
1 MENU — Select **OPTION**.

2 OK — Select **Audio Language**, **Subtitle Language**.

3 OK — Select your desired language.

4 OK — Save.

1 MENU — Select **OPTION**.

2 OK — Select **Hard of Hearing(...)**.

3 OK — Select **On** or **Off**.

• Press the MENU or EXIT button to close the menu window.

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

< Audio Language Selection >
► When two or more audio languages are broadcast, you can select the audio language.
► When Dolby Digital or Dolby Digital PLUS received, you cannot select the **L+R**, **L+L** or **R+R**.

1 Q. MENU — Select **Audio**

2 OK — 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
▤	Teletext Subtitle
ABC	Subtitle for "Hard of Hearing"

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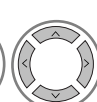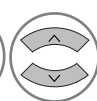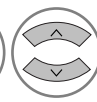
OPTION SETTING

DATA SERVICE

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

OPTION	◈ Move	◉ OK
Menu Language	: English	
Audio Language	: English	
Subtitle Language	: English	
Hard of Hearing(▱)	: Off	
Data Service	: MHEG	◉
Country	: UK	
Input Label		
Key Lock	: Off	

⟩

OPTION	◈ Move	◉ OK
Menu Language	: English	
Audio Language	: English	
Subtitle Language	: English	
Hard of Hearing(▱)	: Off	
Data Service		MHEG ◉
Country	:	Teletext
Input Label		
Key Lock	: Off	

1
MENU

Select **OPTION**.

2
OK
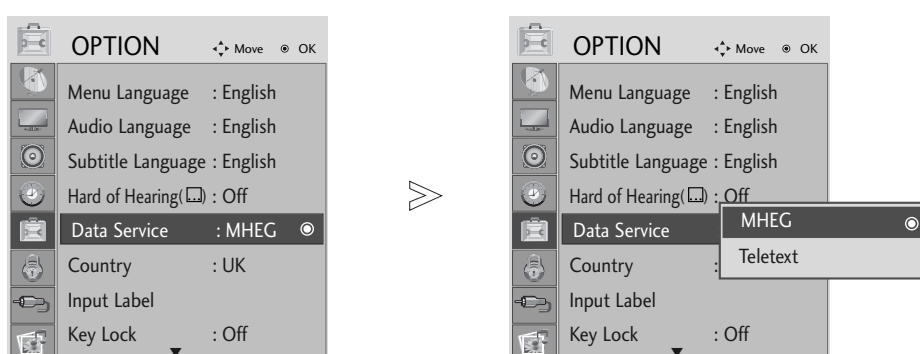
Select **Data Service**.

3
OK

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

4
OK

Save.

• Press the MENU or EXIT button to close the menu window.

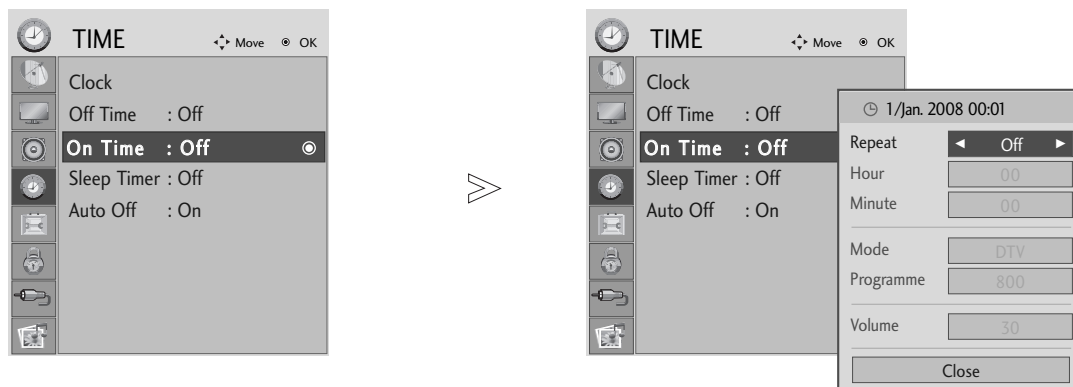• Press the RETURN button to move to the previous menu screen.

OPTION SETTING

INPUT LABEL

Selects a label for each input source.

OPTION	‹·› Move ⊙ OK
Menu Language	: English
Audio Language	: English
Subtitle Language	: English
Hard of Hearing(◻)	: Off
Data Service	: MHEG
Country	: UK
Input Label	⊙
Key Lock	: Off

⟩

OPTION	‹·› Move ⊙ OK		
Menu Language	: English		
Audio Language	: English		
Subtitle Language :		AV1	
Hard of Hearing(◻) :		AV2	
Data Service	:	Component	
Country	:	RGB	
Input Label		HDMI	
Key Lock	:	DVI	
		Close	
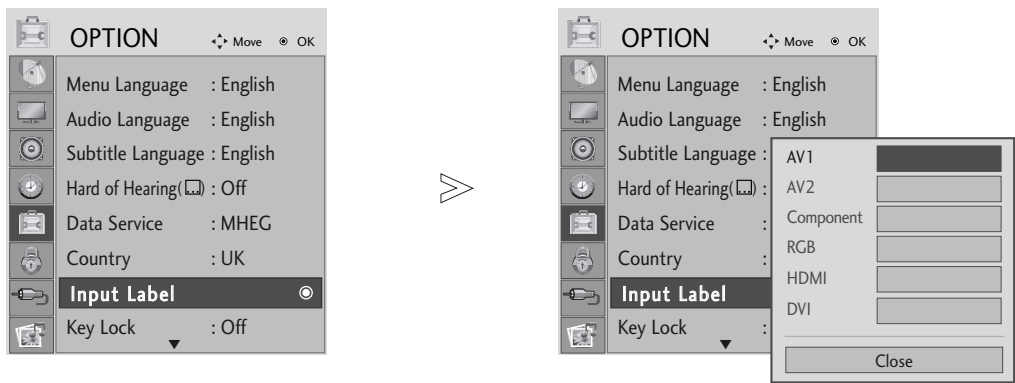
1 MENU Select **OPTION**.

2 OK Select **Input Label**.

3 OK Select the source.

4 Select the label.

• Press the MENU or EXIT button to close the menu window.

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

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OPTION SETTING

KEY LOCK

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

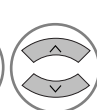| OPTION	◈ Move ◉ OK
Menu Language	: English
Audio Language	: English
Subtitle Language	: English
Hard of Hearing(⬚)	: Off
Data Service	: MHEG
Country	: UK
Input Label	
Key Lock	**: Off** ◉

≫

OPTION	◈ Move ◉ OK
Menu Language	: English
Audio Language	: English
Subtitle Language	: English
Hard of Hearing(⬚)	: Off
Data Service	: MHEG
Country	: UK
Input Label	
Key Lock	**: Off**

Off ◉
On

MENU ⬡ Select **OPTION**.

1
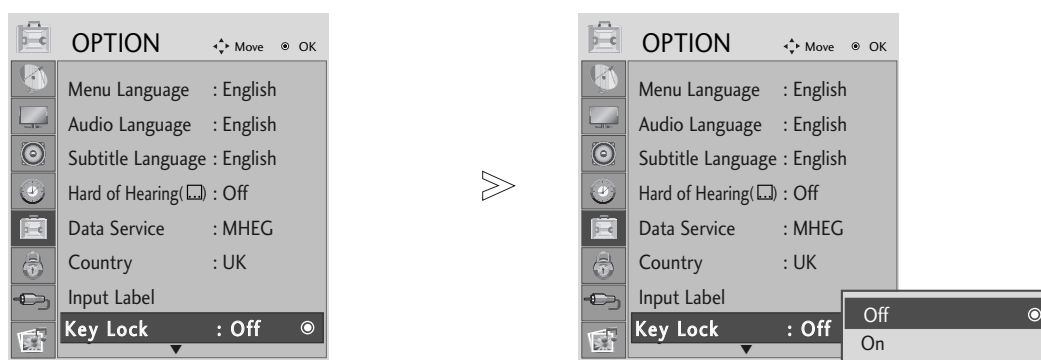
2 OK ⬡ Select **Key Lock**.

3 OK ⬡ Select **On** or **Off**.

4 OK Save.

• In Key Lock 'On', if the set is turned off, press the ⏻ / I, INPUT, PR ▲ ▼ button on the TV or POWER, INPUT, PR + - or NUMBER buttons on the remote control.
• 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 or EXIT button to close the menu window.

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

OPTION SETTING
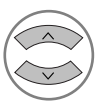
DDC CI(Only RGB, DVI mode)

DDC/CI (Display Data Channel Command Interface) is a communication protocol for communications between PC and set.

DDC/CI makes it possible to adjust and setup detailed functions on PC instead of the set OSD

Set can be adjusted with PC by connecting communication between PC and set when DDC/CI is ON, and set cannot be adjusted with PC because communication between PC and set is disconnected when DDC/CI is OFF.

OPTION	◇ Move ◉ OK
Country	: UK
Input Label	
Key Lock	: Off
Set ID	: Off
Power Indicator	
DDC CI	: On ◉
Mode Setting	: Home Use
Factory Reset	

≫

OPTION	◇ Move ◉ OK
Country	: UK
Input Label	
Key Lock	: Off
Set ID	: Off
Power Indicator	
DDC CI	Off
Mode Setting	On ◉
Factory Reset	

1 MENU   Select **OPTION**.

2 OK   Select **DDC CI**.

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

• Press the MENU or EXIT button to close the menu window.

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

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OPTION SETTING

MODE SETTING

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

OPTION	‹›↕ Move ◉ OK
Country	: UK
Input Label	
Key Lock	: Off
Set ID	: Off
Power Indicator	
DDC CI	: On
Mode Setting	**: Home Use ◉**
Factory Reset	

≫

Mode Setting

Selecting the environment.
Choose the setting mode you want.

Store Demo   Home Use

Select [Home Use] to use this TV at home. To use this TV at store,
select [Store Demo].
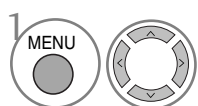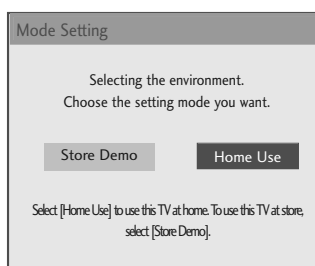
1 MENU   Select **OPTION**.
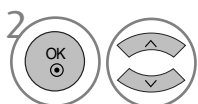
2 OK   Select **Mode Setting**.
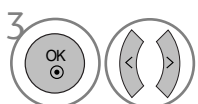
3 OK   Select **Store Demo** or **Home Use.**

• Press the MENU or EXIT button to close the menu window.

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

OPTION SETTING

Initializing
(Reset to original factory settings)

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

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

OPTION	◄‧► Move ◉ OK
Country	: UK
Input Label	
Key Lock	: Off
Set ID	: Off
Power Indicator	
DDC CI	: On
Mode Setting	: Home Use
Factory Reset	◉

OPTION	◄‧► Move ◉ OK
Country	: UK
Input Label	
Key Lock	: Off
Set ID	: Off
Power Indicator	
DDC CI	: On
Mode Setting	
Factory Reset	⚠ All user settings and channel setting will be reset. Still Continue?

Yes   No
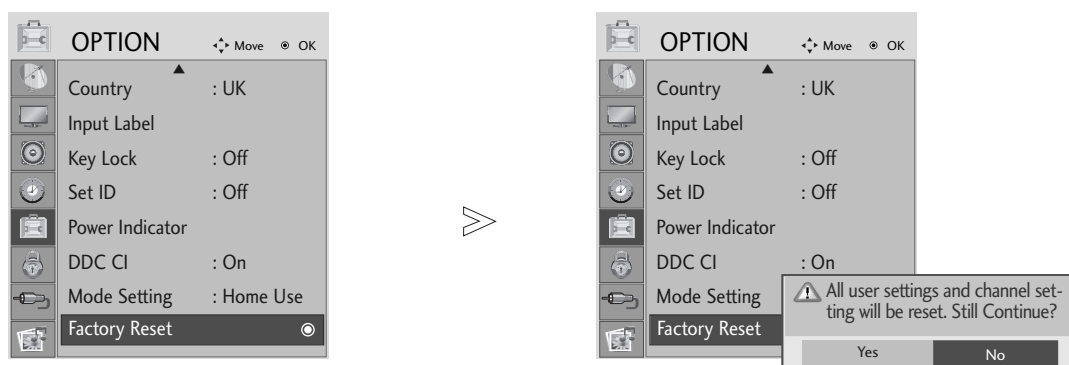
1 MENU   Select **OPTION**.

2 OK   Select **Factory Reset**.

3 OK

• Press the MENU or EXIT button to close the menu window.

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

PARENTAL CONTROL / RATINGS

SET PASSWORD & LOCK SYSTEM

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

LOCK	◆ Move ◉ OK
Lock System	**: Off** ◉
Set Password	
Block Programme	
Parental Guidance : Off	
Input Block	

LOCK	◆ Move ◉ OK
Lock System	Off ◉
Set Password	On
Block Programme	
Parental Guidance : Off	
Input Block	

≫
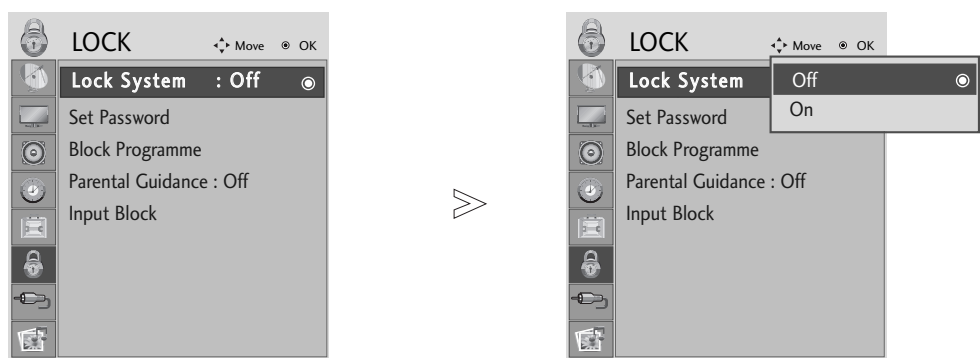
1 MENU Select **LOCK**.

2 OK Select **Lock System**.

3 OK Select **On**.

4 OK OK Set the password.

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

• If you forget your password, press '7', '7', '7', '7'
on the remote control handset.

• Press the MENU or EXIT button to close the menu window.

• Press the RETURN button to move to the previous menu screen.
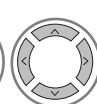
PARENTAL CONTROL / RATINGS

BLOCK PROGRAMME

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

This function is available in Lock System "On".

LOCK	◈ Move ⊙ OK
Lock System	: Off
Set Password	
Block Programme	◉
Parental Guidance : Off	
Input Block	

1	YLE TV1	TV	DTV	Radio

1 YLE TV1	2 YLE TV2
4 TV4 Stockholm	5 YLE FST
6 CNN	8 YLE24
9 YLE Teema	14 TV4 Film
24 TV4 Fakta	50 TV400
24 TV4 Fakta	84 Kanal Lokal
24 TV4 Fakta	86 Info/3sat
87 Doku/Kika	88 TVE 1

⊙ Pr. Change   ◈ Navigation   P Page Change   RETURN Previous
○ Block/Unblock

1   MENU   Select **LOCK**.

2   OK   Select **Block Programme**.

3   OK   Enter the Block Programme.

4   GREEN   Select a programme to be locked.

• Press the MENU or EXIT button to close the menu window.

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

PARENTAL CONTROL (IN DIGITAL MODE ONLY)
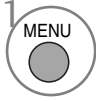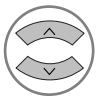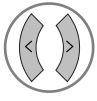
This function operates according to information from the broadcasting station. Therefore if the signal has incorrect information, this function does not operate.

A password is required to gain access to this menu.

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

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

LOCK	↕ Move ◉ OK
Lock System	: Off
Set Password	
Block Programme	
Parental Guidance : Off ◉	
Input Block	

⟩

LOCK	↕ Move ◉ OK
Lock System	: Off
Set Password	
Block Programme	
Parental Guidance	◄ Off ►
Input Block	Close
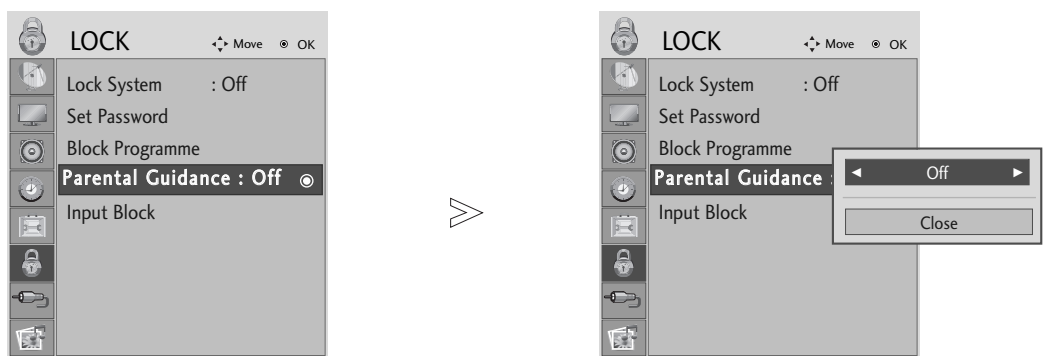
1 MENU Select **LOCK**.

2 OK Select **Parental Guidance**.

3 OK Make appropriate adjustments.

4 OK Save.
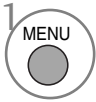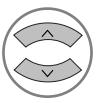
• Press the MENU or EXIT button to close the menu window.

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

INPUT BLOCK

Enables you to block an input.

|			
LOCK	Move	OK	
Lock System : Off			
Set Password			
Block Programme			
Parental Guidance : Off			
Input Block			

⟫

LOCK	Move	OK		AV1	◄ Off ►
Lock System : Off				AV2	Off
Set Password				Component	Off
Block Programme				RGB	Off
Parental Guidance : Off				HDMI	Off
Input Block				DVI	Off
				Close	
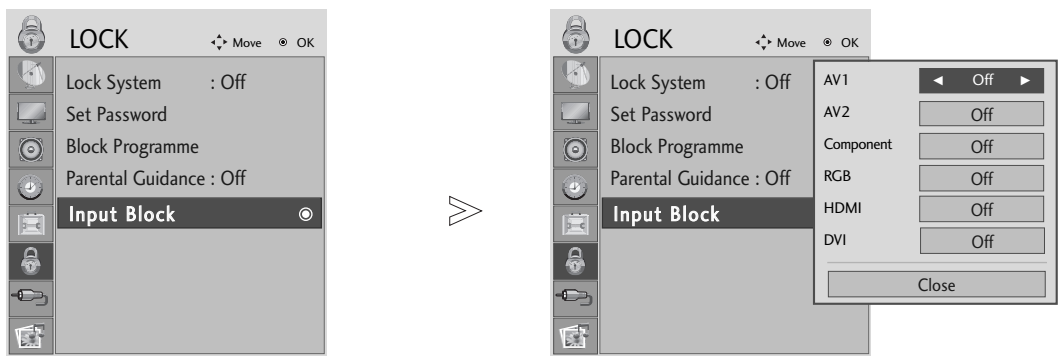
1 MENU   Select **LOCK**.

2 OK   Select **Input Block**

3 OK   Select the source.

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

• Press the MENU or EXIT button to close the menu window.

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

TO USE A USB DEVICE

When connecting a USB device

When you connect a USB device, this pop up menu is displayed, automatically.
If the Pop Up menu does not appear, you can select Music List or Photo List in the USB menu.
"POP UP MENU" will not be displayed while the OSD including Menu, EPG or Schedule list is activated.
In USB device, you can not add a new folder or delete the existing folder.
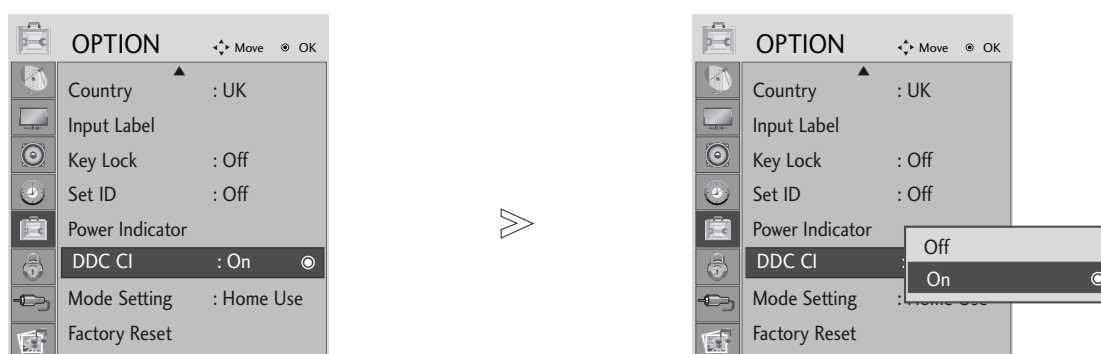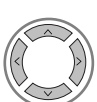
1 Connect the USB device to the **USB IN** jack on the rear of TV.

USB IN

USB memory stick

Memory Stick

• This TV Supports on JPEG and MP3.

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

PHOTO LIST   MUSIC LIST

3 OK
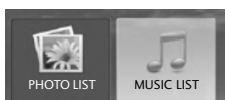
When removing the USB device

Select the USB Eject menu before removing the USB device.

1 Q. MENU   Select **Eject**.

2 OK
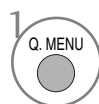
Precautions when using the USB device

► Only a USB storage device is recognizable.
► If the USB storage device is connected through a USB hub, the device is not recognizable.
  Some USB device has an internal hub, they may not be recognized.
► A USB storage device using an automatic recognition programme may not be recognized.
► A USB storage device which uses its own driver may not be recognized.
► The recognition speed of a USB storage device may depend on each device.
► Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
► Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files or image files.
► Please use only a USB storage device which was formatted as a FAT16, FAT32, 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.
  Data in a USB storage device cannot be deleted in the NTFS file system.
► Please connect power to a USB storage device which requires an external power supply. If not, the device may not be recognized.
► Some storage device requires external power, please insert USB device to the monitor after connect external power. If not, it cause the product to malfunction or fail to be played.
► Please connect a USB storage device with cable is offered by USB maker. If connected with cable is not offered by USB maker or an excessively long cable, the device may not be recognized.
► Some USB storage devices may not be supported or operated smoothly.
► Maximum of 999 files and folders can be recognized.
► Data in a USB storage device cannot be aligned.
  Up to 128 English characters can be recognized as a file name.
► Please back up the important file because a data of USB device may be damaged. Data management is consumer's responsibility and in consequence the manufactures does not cover the product bearing data damage.

TO USE A USB DEVICE

PHOTO LIST

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

PHOTO(*.JPEG) supporting file

Baseline: 15360 x 8640
Progressive format : 1024 x 768
• You can play JPEG files only.
• Only baseline scan is supported among JPEG (SOF0, SOF1 only).
• Non-supported files are displayed in the form of bitmap.

Screen Components

1 MENU [∧∨] Select **USB**.

2 OK [∧∨] OK Select **Photo List**.

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

* **MARK and FAV have same function in USB mode (FAV key operate like MARK key)**

USB Device
Free Space 150MB

Photo List   Page 2/3 ☑ No Marked

Drive1

Up Folder	KY103
KY101	KY104
KY102	KY105
JMJ001	JMJ005
JMJ002	JMJ006
JMJ003	JMJ007
JMJ004	JMJ008

1366×768, 125KB

Up Folder

⟳ Navigation   ◉ Option   P ∧∨ Page Change   MARK Mark   RETURN Exit

• Press the RETURN button to close the menu window.

Photo Selection and PopUp Menu

Photo List
Page 2/3 ☑ No Marked
USB Device
Free Space 150MB

Drive1
1366×768, 125KB
Up Folder

Up Folder	KR103
KR101	KR104
KR102	KR105
JMJ001	JMJ005
JMJ002	JMJ006
JMJ003	JMJ007
JMJ004	JMJ008

Navigation ⦿Option   P Page Change   MARK Mark   RETURN Exit

∇

Photo List
Page 2/3 ☑ No Marked
USB Device
Free Space 150MB

Drive1
1366×768, 125KB
Up Folder

Up Folder	KR103
KR101	
KR102	
JMJ001	
JMJ002	
JMJ003	
JMJ004	JMJ008

1366x768, 125KB
View
Mark All
Delete
Close

Navigation ⦿Option   P Page Change   MARK Mark   RETURN Exit

► **View** : Display the selected item.
► **Mark All** : Mark all photos on the screen.
► **Unmark All** : Deselect all marked photos.
► **Delete** : Delete the selected photo item.
► **Close** : Close the pop-up menu.

1 Select the target folder or drive.

2 Select the desired photos.

3 Show the PopUp menu.

4 Select the desired PopUp menu.

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

- Press the RETURN button to close the menu window.

TO USE A USB DEVICE

Set up the menu in Full-Sized Screen

You can change the settings to display photos stored on a USB device, on a full-sized screen.
Detailed operations are available on full-sized photo view screen.
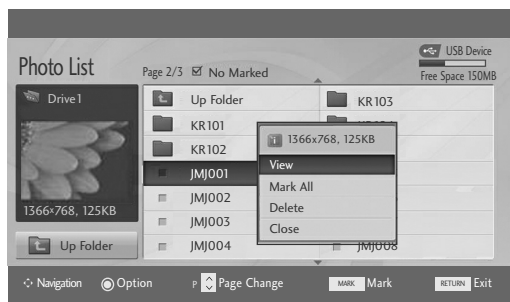
The aspect ratio of a photo may change the
size of the photo displayed on the screen in
full size.
Press the **RETURN** button to move to the previ-
ous menu screen.

---

1   Select the target folder or drive.

2   Select the desired photos.

3   Show the PopUp menu.

4   Select **View**.

5   The selected photo is displayed in full size.

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

• Press the RETURN button to close the menu window.

TO USE A USB DEVICE
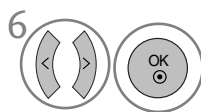
6 Select the **Slideshow** , **BGM**, ↻ **(Rotate)**, **Delete** , **Option** or **Hide**.

• Use 〈 〉 button to select the previous or next photo.
• Use 〈 〉 button to select and control the menu on the full-sized screen.

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

▶ **BGM** : Listen to music while viewing photos in full size.
  ▪ Set the BGM device and album in **Option** .

▶ ↻ **(Rotate)** : Rotate photos.
  ▪ Rotates the photo 90°, 180°, 270°, 360°clockwise.

▶ **Delete** : Delete photos.

▶ **OPTION** : Set values for **Slide Speed** and **Music Folder**.
  ▪ Use 〈 〉 ∧ ∨ button and **OK** button to set values. Then go to OK and press **OK** to save the settings.
  ▪ You cannot change **Music Folder** while BGM is playing.

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

ℹ Press ◀ ▶ to set the time interval between slides.		
Slide Speed	◀ Fast ▶	
Music Folder	Music	
OK	Cancel	
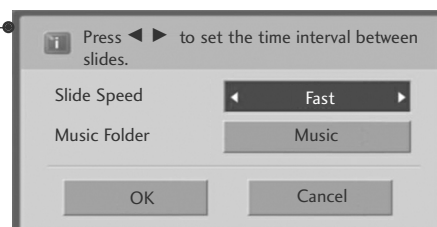
• Press the RETURN button to close the menu window.

TO USE A USB DEVICE

MUSIC LIST

Purchased music files(*.MP3) may contain copyright restrictions. Playback of these files may not be supported by this model.
Music file on your USB device can be played by this unit.
The On Screen Display may be different from your TV. Images are an example to assist with the TV operation.

MUSIC (*.MP3) supporting file
Bit rate 32 ~ 320kbps
• Sampling rate MPEG1 layer 3: 32 kHz, 44.1 kHz, 48 kHz.

Screen Components

1 MENU Select **USB**.

2 OK ⌄⌃ OK Select **Music List**.

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

* MARK and FAV have same function in USB mode (FAV key operate like MARK key)

❷ ❸ ❹

Music List   Page 2/3 ☑ No Marked   USB Device
                                                        Free Space 150MB

Music   Title   Duration
Velvet Goldmine (OST...   ⤴ Up Folder

                          📁 Favorite Music
                          📁 Favorite Music No.2
1:340, 120KB   ☐ Velvet Goldmine (OST vers2)   1:34
                          ☐ Good Bye (Original Ver.)   1:15
⤴ Up Folder   ☐ Urban Nite (Feat.Amin.J)   1:20

✧ Navigation ◉ Option   P ⌃⌄ Page Change   MARK Mark   RETURN Exit

❺

• Press the RETURN button to close the menu window.

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TO USE A USB DEVICE

Music Selection and PopUp Menu

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

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

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

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

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

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

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

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

▶ **Close** : Close the pop-up menu.

1 Select the target folder or drive.

2 Select the desired music title
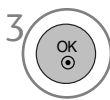
3 Show the PopUp menu.
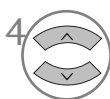
4 Select the desired PopUp menu.

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

• Use **MARK** button to mark or unmark a music. When one or more music files are marked, the marked music title will be played in sequence. For example, if you want to listen to only one music repeatedly, just mark the music only and play it. If no music is marked, all the music in the folder will be played in sequence.

• Press the RETURN button to close the menu window.

■ 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.

   Music
   Velvete Goldmine (OST vers2)
   ▶ 0:27 / 3:67
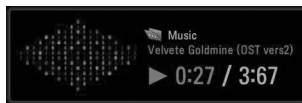
🛈 NOTE

▶ When music is playing, ▢ is displayed in back of the music title.
▶ A damaged or corrupted music does not play but displays 00:00 in playtime.
▶ A music downloaded from a paid service with copyright protection does not start but displays inappropri-
   ate 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.

Using the remote control

◀◀ / ▶▶	When playing, repeatedly, press the **REW(◀◀)** button to speed up ◀◀ -> ◀◀◀ -> ◀◀◀◀ -> ◀◀◀◀◀ ->◀◀◀◀◀◀ . repeatedly, press the **FF(▶▶)** button to speed up ▶▶-> ▶▶▶ -> ▶▶▶▶ -> ▶▶▶▶▶ -> ▶▶▶▶▶▶. ■ Pressing these buttons repeatedly increases the fast forward/reverse speed.
II	During playback, press the **Pause(II)** button. ■ Still screen is displayed.
< >	■ When using the < or > button during playback a cursor indicating the position can be viewed on the screen.
PLAY(▶)	Press the **PLAY(▶)** button to return to normal playback.

TELETEXT

This feature is not available in all countries.

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

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

SWITCH ON/OFF

Press the **TEXT** button to switch to teletext. The initial page or last page appears on the screen.
Two page numbers, TV station name, date and time are displayed on the screen headline. The first page number indicates your selection, while the second shows the current page displayed.
Press the **TEXT** or **EXIT** button to switch off teletext. The previous mode reappears.

SIMPLE TEXT

■ Page selection

❶ Enter the desired page number as a three-digit number with the NUMBER buttons. If during selection you press a wrong number, you must complete the three-digit number and then re-enter the correct page number.

❷ The PR+ or - button can be used to select the previous or next page.

TOP TEXT

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

■ Block / group / page selection

❶ With the blue button you can progress from block to block.

❷ Use the yellow button to proceed to the next group with automatic overflow to the next block.

❸ With the green button you can proceed to the next existing page with automatic overflow to the next group. Alternatively, the PR + button can be used.

❹ The red button permits you to return to previous selection. Alternatively, the PR - button can be used.

■ Direct page selection

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

TELETEXT

FASTEXT

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

■ Page selection

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

SPECIAL TELETEXT FUNCTIONS

■ Press the **T. OPT** button and then use ∧ ∨ button to select the **Text Option** menu.

▤ⁱ

■ **Index**
   Select the each index page.

▤⏱

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

▤⤓

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

▤?

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

▤✕

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

Text Option

| ▣ Index |
| ▣ Time |
| ▣ Hold |
| ▣ Reveal |
| ▣ Update |
| Close |
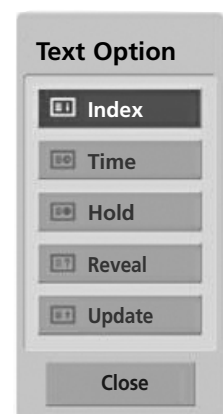
DIGITAL TELETEXT

*This function works in UK/ Ireland only.

The set gives you access to a digital teletext which is greatly improved in various aspects such as text, graphics and so on.
This digital teletext can be accessed by special digital teletext services and specific services which broadcast digital teletext.
You should select off from the subtitle language to display teletext by pressing SUBTITLE button.

TELETEXT WITHIN DIGITAL SERVICE

1 Press the numeric or PR + or - button to select a digital service which broadcasts digital teletext.
To know which are digital teletext services, refer to the EPG service list.

2 Follow the indications on digital teletext and move onto the next step by pressing TEXT, OK, ▲ or ▼, ◄ or ►, RED, GREEN, YELLOW, BLUE or NUMBER buttons and so on.

3 To change digital teletext service, just select a different service by the numeric or PR + or - button.

If pressing the MENU, GUIDE or INFO ⓘbutton, the teletext service disappear temporarily. When pressing these buttons again, the teletext service is appeared.

TELETEXT IN DIGITAL SERVICE

1 Press the numeric or PR + or - button to select a certain service which broadcasts digital teletext.

2 Press the TEXT or colour button to switch on teletext.

3 Follow the indications on digital teletext and move onto the next step by pressing OK, ▲ or ▼, ◄ or ►, RED, GREEN, YELLOW, BLUE or NUMBER buttons and so on.

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

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

If pressing the MENU, GUIDE or INFO ⓘbutton, the teletext service disappears temporarily. When pressing these buttons again, the teletext service is appears.

APPENDIX

TROUBLESHOOTING

The operation does not work normally.	
The remote control doesn't work	■ Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control directly at the set. ■ Ensure that the batteries are installed with correct polarity (+ to +, - to -). ■ Ensure that the correct remote operating mode is set: TV, VCR, etc. ■ Install new batteries.
Power is suddenly turned off	■ Is the sleep timer set? ■ Check the power control settings. Power interrupted. ■ No broadcast on station tuned with **Auto sleep** activated.

The video function does not work.	
No picture &No sound	■ Check whether the product is turned on. ■ Try another channel. The problem may be with the broadcast. ■ Is the power cord inserted into wall power outlet? ■ Check your antenna direction and/or location. ■ Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in.
Picture appears slowly after switching on	■ This is normal, the image is muted during the product startup process. Please contact your service centre, if the picture has not appeared after five minutes.
No color, poor colour, or poor picture	■ Adjust Colour in menu option. ■ Keep a sufficient distance between the product and the VCR. ■ Try another channel. The problem may be with the broadcast. ■ Are the video cables installed properly? ■ Activate any function to restore the brightness of the picture.
Horizontal/vertical bars or picture shaking	■ Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	■ Station or cable product experiencing problems, tune to another station. ■ Station signal is weak, reorient antenna to receive weaker station. ■ Check for sources of possible interference.
Lines or streaks in pictures	■ Check antenna (Change the direction of the antenna).

APPENDIX

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

Only RGB/DVI mode applied

No image is displayed.	
Power is on, power indic-tor is blue but the screen appears extremely dark.	■ Adjust brightness and contrast again.
Does the power indica-tor look amber?	■ If the product is in power saving mode, move the mouse or press any key.
Does the 'Out of range' message appear?	■ The signal from the PC (Video card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this user's guide.
Does the 'Check signal cable' message appear?	■ The signal cable between PC and product is not connected. Check the signal cable. ■ Press the 'INPUT' button in the remote control to check the input signal.

APPENDIX

'Unknown Product' message appears when the product is connected.	
Did you install the driver?	■ Install the product driver, which is provided with the product, or download it from the web site. (http://www.lge.com) ■ See if the plug_&_play function is supported by referring to the video card user's guide.

After-image appears on the product.	
After-image appears when the product is turned off.	■ If you use a fixed image for a long time, the pixels may be damaged quickly. Use the screen saver function.

Screen color is abnormal.	
Screen has poor color res-oluion (16_colors).	■ Set screen color resolution to more than 24 bits (true color) Select control Panel-Display-Settings-Color Table menu in Windows.
Screen color is unstable or mono color.	■ Check the connection status of the signal cable.
Do back spots appear on the screen?	■ Several pixels (red, green, white or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. It is not a malfunction of the LCD.

Only RGB mode applied

The screen image looks abnormal.	
Is the screen position wrong?	■ Adjust the Position menu in OSD. ■ See if the video card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the Control Panel-Display-Setting menu.
Do thin lines appear on the background screen?	■ Adjust the Clock menu in OSD.
Horizontal noise appears or the characters look blurred.	■ Adjust the Phase menu in OSD.

APPENDIX

MAINTENANCE

Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you can enjoy your new set.
Caution: Be sure to turn the power off and unplug the power cord before you begin any cleaning.

Cleaning the Screen

1 To keep the dust off your screen for a while, wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dishwashing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.

2 Make sure the excess water is off the screen, and then let it air-dry before you turn on your set.

Cleaning the Cabinet

- To remove dirt or dust, wipe the cabinet with a soft, dry, lint-free cloth.
- Please be sure not to use a wet cloth.

Extended Absence

> ⚠ CAUTION
>
> ► If you expect to leave your set dormant for a long time (such as a vacation), it's a good idea to unplug the power cord to protect against possible damage from lightning or power surges.

APPENDIX

PRODUCT SPECIFICATIONS
<M197WDP>

LCD Panel	Screen Type	18.51 inches Wide (470.1mm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 470.1mm
	Pixel Pitch	0.30(H) x 0.30(V) mm
Video Signal	Max. Resolution	1360 X 768 @60 Hz
	Recommended Resolution	1360 X 768 @60 Hz
	Horizontal Frequency	30 - 61 kHz
	Vertical Frequency	56 - 75 Hz
	Synchronization Type	Separate Sync, Digital
Input Connector		TV, D-Sub Analog, SCART*2, component, DVI-D, HDMI
Power	Rated Voltage	AC100-240V~ 50/60 Hz 0.6A
	Power Consumption	On Mode : 35W (typ.) Sleep Mode ≤ 1W Off Mode ≤ 0.5W
Tilt	Tilt Range	-5 ~ 15˚
Dimensions (Width x Height x Depth) Weight		454.7 x 362.8 x 193.2 mm (17.94 x 14.28 x 7.61 inches) 3.8 kg / 8.4 lbs
Environmental conditions	Operating Temperature Operating Humidity	10 ~ 35˚C 20 ~ 80%
	Storage Temperature Storage Humidity	-10 ~ 60˚C 5 ~ 90%

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

APPENDIX

PRODUCT SPECIFICATIONS

<M227WDP>

LCD Panel	Screen Type	21.53 inches Wide (546.86 mm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size: 546.86 mm
	Pixel Pitch	0.248(H) x 0.248(V) mm
Video Signal	Max. Resolution	1920 X 1080 @60 Hz
	Recommended Resolution	1920 X 1080 @60 Hz
	Horizontal Frequency	30 - 83 kHz
	Vertical Frequency	56 - 75 Hz
	Synchronization Type	Separate Sync, Digital
Input Connector		TV, D-Sub Analog, SCART*2, component, DVI-D, HDMI
Power	Rated Voltage	AC100-240V~ 50/60 Hz 0.9A
	Power Consumption	On Mode : 53W (typ.) Sleep Mode ≤ 1W Off Mode ≤ 0.5W
Tilt	Tilt Range	-5 ~ 15˚
Dimensions (Width x Height x Depth) Weight		519.8 x 400.5 x 193.2 mm (20.46 x 15.77 x 7.61 inches) 4.7 kg / 10.4 lbs
Environmental conditions	Operating Temperature	10 ~ 35˚C
	Operating Humidity	20 ~ 80%
	Storage Temperature	-10 ~ 60˚C
	Storage Humidity	5 ~ 90%

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

APPENDIX

PRODUCT SPECIFICATIONS

<M237WDP>

LCD Panel	Screen Type	23 inches Wide (584.2 mm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel Visible diagonal size : 584.2 mm
	Pixel Pitch	0.265(H) x 0.265(V) mm
Video Signal	Max. Resolution	1920 X 1080 @60 Hz
	Recommended Resolution	1920 X 1080 @60 Hz
	Horizontal Frequency	30 - 83 kHz
	Vertical Frequency	56 - 75 Hz
	Synchronization Type	Separate Sync, Digital
Input Connector		TV, D-Sub Analog, SCART*2, component, DVI-D, HDMI
Power	Rated Voltage	AC 100-240V ~ 50/60 Hz 1.0A
	Power Consumption	On Mode : 55W (typ.) Sleep Mode ≤ 1W Off Mode ≤ 0.5W
Tilt	Tilt Range	-5 ~ 15˚
Dimensions (Width x Height x Depth) Weight		560.8 x 427 x 193.2 mm (22.08 x 16.81 x 7.61 inches) 5.6 kg / 12.35 lbs
Environmental conditions	Operating Temperature Operating Humidity	10 ~ 35˚C 20 ~ 80%
	Storage Temperature Storage Humidity	-10 ~ 60˚C 5 ~ 90%

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

APPENDIX

PROGRAMMING THE REMOTE CONTROL

The remote is a multi-brand or universal remote. It can be programmed to operate most remote-controllable devices of other manufacturers.
Note that the remote may not control all models of other brands.

Programming a code into a remote mode

1 Test your remote control.
To find out whether your remote control can operate the component without programming, turn on the component such as a VCR and press the corresponding mode button (such as a **DVD** or **VCR**) on the remote control, while pointing at the component. Test the **POWER** and **PR + / -** buttons to see if the component responds properly. If not, the remote requires programming to operate the device.

2 Turn on the component to be programmed, then press the corresponding mode button (such as a **DVD** or **VCR**) on the remote control. The remote control button of desired device is lighted.

3 Press the **MENU** and **MUTE** buttons simultaneously, the remote control is ready to be programmed for the code.

4 Enter a code number using the number buttons on the remote control. Programming code numbers for the corresponding component can be found on the following pages. Again, if the code is correct, the device will turn off.

5 Press the **MENU** button to store the code.

6 Test the remote control functions to see if the component responds properly. If not, repeat from step 2.

PROGRAMMING CODE

DVD

Brand	Codes	Brand	Codes	Brand	Codes
APEX DIGITAL	022	MITSUBISHI	002	RCA	005 006
DENON	020 014	NAD	023	SAMSUNG	011 015
GE	005 006	ONKYO	008 017	SONY	007
HARMAN KARDON	027	PANASONIC	003 009	THOMPSON	005 006
JVC	012	PHILIPS	013	TOSHIBA	019 008
LG	001 010 016 025	PIONEER	004 026	YAMAHA	009 018
MAGNAVOX	013	PROCEED	021	ZENITH	010 016 025
MARANTZ	024	PROSCAN	005 006		

APPENDIX

VCR

Brand	Codes				Brand	Codes				Brand	Codes			
AIWA	034				MAGNAVOX	031	033	034	041	SAMSUNG	032	040	102	104
AKAI	016	043	046	124		067	068				105	107	109	112
	125	146			MARANTZ	012	031	033	067		113	115	120	122
AMPRO	072					069					125			
ANAM	031	033	103		MARTA	101				SANSUI	022	043	048	135
AUDIO DYNAMICS	012	023	039	043	MATSUI	027	030			SANYO	003	007	010	014
BROKSONIC	035	037	129		MEI	031	033				102	134		
CANON	028	031	033		MEMOREX	003	010	014	031	SCOTT	017	037	112	129
CAPEHART	108					033	034	053	072		131			
CRAIG	003	040	135			101	102	134	139	SEARS	003	008	009	010
CURTIS MATHES	031	033	041		MGA	045	046	059			013	014	017	020
DAEWOO	005	007	010	064	MINOLTA	013	020				031	042	073	081
	065	108	110	111	MITSUBISHI	013	020	045	046		101			
	112	116	117	119		049	051	059	061	SHARP	031	054	149	
DAYTRON	108					151				SHINTOM	024			
DBX	012	023	039	043	MTC	034	040			SONY	003	009	031	052
DYNATECH	034	053			MULTITECH	024	034				056	057	058	076
ELECTROHOME	059				NEC	012	023	039	043		077	078	149	
EMERSON	006	017	025	027		048				SOUNDESIGN	034			
	029	031	034	035	NORDMENDE	043				STS	013			
	036	037	046	101	OPTONICA	053	054			SYLVANIA	031	033	034	059
	129	131	138	153	PANASONIC	066	070	074	083		067			
FISHER	003	008	009	010		133	140	145		SYMPHONIC	034			
FUNAI	034									TANDY	010	034		
GE	031	033	063	072	PENTAX	013	020	031	033	TATUNG	039	043		
	107	109	144	147		063				TEAC	034	039	043	
GO VIDEO	132	136			PHILCO	031	034	067		TECHNICS	031	033	070	
HARMAN KARDON		012	045		PHILIPS	031	033	034	054	TEKNIKA	019	031	033	034
HITACHI	004	018	026	034		067	071	101			101			
	043	063	137	150	PILOT	101				THOMAS	034			
INSTANTREPLAY	031	033			PIONEER	013	021	048		TMK	006			
JCL	031	033			PORTLAND	108				TOSHIBA	008	013	042	047
JCPENNY	012	013	015	033	PULSAR	072					059	082	112	131
	040	066	101		QUARTZ	011	014			TOTEVISION	040	101		
JENSEN	043				QUASAR	033	066	075	145	UNITECH	040			
JVC	012	031	033	043	RCA	013	020	033	034	VECTOR RESEARCH	012			
	048	050	055	060		040	041	062	063	VICTOR	048			
	130	150	152			107	109	140	144	VIDEO CONCEPTS	012	034	046	
KENWOOD	014	034	039	043		145	147			VIDEOSONIC	040			
	047	048			REALISTIC	003	008	010	014	WARDS	003	013	017	024
LG (GOLDSTAR)	001	012	013	020		031	033	034	040		031	033	034	040
	101	106	114	123		053	054	101			053	054	131	
LLOYD	034				RICO	058				YAMAHA	012	034	039	043
LXI	003	009	013	014	RUNCO	148				ZENITH	034	048	056	
	017	034	101	106	SALORA	014					058	072	080	101
MAGIN	040													

APPENDIX
IR CODES

1. How to Connect

■ Connect your wired remote control to the Remote Control port on the set.

2. Remote Control IR Codes

■ Output waveform

Single pulse, modulated with 37.917 KHz signal at 455 KHz
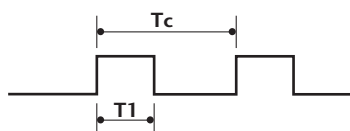
Carrier frequency

FCAR = 1/TC = fOSC/12

Duty ratio = T1/TC = 1/3

■ Configuration of frame

1st frame

Lead code	Low custom code								High custom code								Data code								Data code							
	C0	C1	C2	C3	C4	C5	C6	C7	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7

Repeat frame

Repeat code

Tf

■ Lead code

9 ms

4.5 ms

■ Repeat code

0.55 ms

9 ms

2.25 ms

■ Bit description

Bit "0"

0.56 ms

1.12 ms

Bit "1"

0.56 ms

2.24 ms
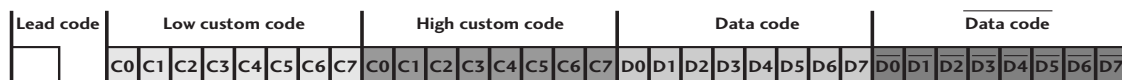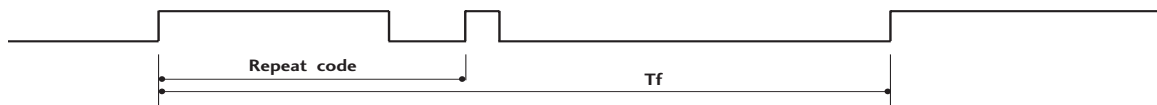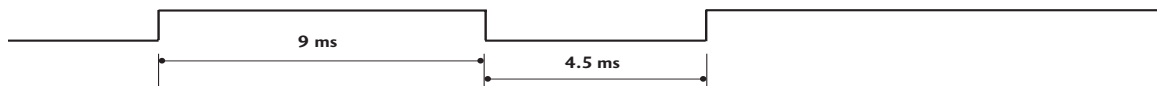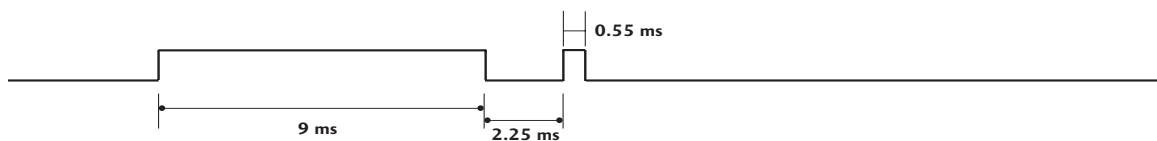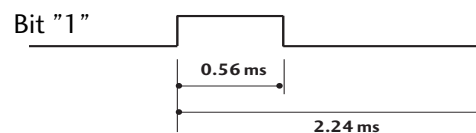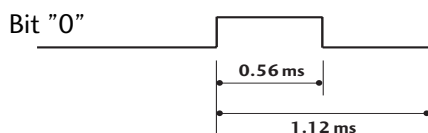
■ Frame interval: Tf

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

Tf

Tf

Tf=108ms @455KHz
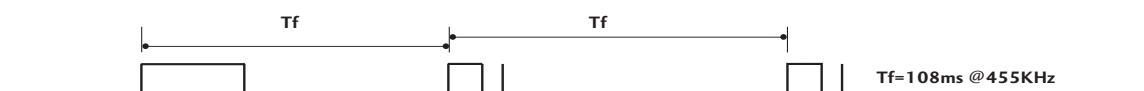
APPENDIX

Code (Hexa)	Function	Note
00	PR **+**	R/C BUTTON
01	PR **-**	R/C BUTTON
02	VOL **+**	R/C BUTTON
03	VOL **-**	R/C BUTTON
40	Up (▲)	R/C BUTTON
41	Down (▼)	R/C BUTTON
06	Right (►)	R/C BUTTON
07	Left (◄)	R/C BUTTON
08	POWER	R/C BUTTON (POWER ON/OFF)
09	MUTE	R/C BUTTON
0B	INPUT	R/C BUTTON
10	Number Key 0	R/C BUTTON
11	Number Key 1	R/C BUTTON
12	Number Key 2	R/C BUTTON
13	Number Key 3	R/C BUTTON
14	Number Key 4	R/C BUTTON
15	Number Key 5	R/C BUTTON
16	Number Key 6	R/C BUTTON
17	Number Key 7	R/C BUTTON
18	Number Key 8	R/C BUTTON
19	Number Key 9	R/C BUTTON
1A	Q.VIEW	R/C BUTTON
1E	FAV	R/C BUTTON
20	TEXT	R/C BUTTON
21	T.OPT	R/C BUTTON
28	RETURN	R/C BUTTON
39	SUBTITLE	R/C BUTTON
43	MENU	R/C BUTTON
44	OK(◉)	R/C BUTTON
45	Q.MENU	R/C BUTTON
50	TV/PC	R/C BUTTON
F0	TV/RADIO	R/C BUTTON
0A	I/II	R/C BUTTON
5B	EXIT	R/C BUTTON
1E	MARK	R/C BUTTON
53	LIST	R/C BUTTON
61	BLUE Key	R/C BUTTON
63	YELLOW Key	R/C BUTTON
71	GREEN Key	R/C BUTTON
72	RED Key	R/C BUTTON
AA	INFO ⓘ	R/C BUTTON
AB	GUIDE	R/C BUTTON

APPENDIX

EXTERNAL CONTROL DEVICE SETUP

RS-232C Setup

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

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

Note: RS-232C connection cables are not supplied with the product.
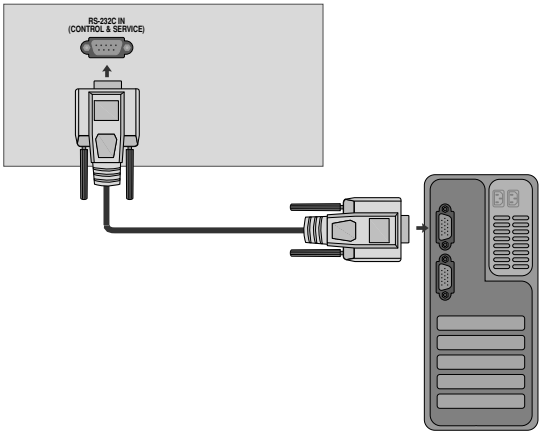
Type of Connector; D-Sub 9-Pin Male

No.	Pin Name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection
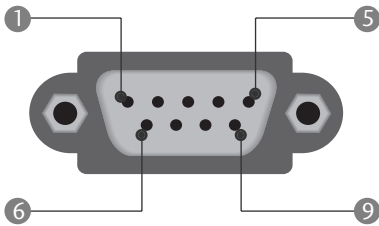
RS-232C Configurations

7-Wire Configurations (Standard RS-232C cable)			
	PC	TV	
RXD	2 ———— 3		TXD
TXD	3 ———— 2		RXD
GND	5 ———— 5		GND
DTR	4 ———— 6		DSR
DSR	6 ———— 4		DTR
RTS	7 ———— 8		CTS
CTS	8 ———— 7		RTS
	D-Sub 9	D-Sub 9	

3-Wire Configurations(Not standard)			
	PC	TV	
RXD	2 ———— 3		TXD
TXD	3 ———— 2		RXD
GND	5 ———— 5		GND
DTR	4	6	DTR
DSR	6	4	DSR
RTS	7	7	RTS
CTS	8	8	CTS
	D-Sub 9	D-Sub 9	

APPENDIX

Set ID

Use this function to specify a set ID number.
Refer to 'Real Data Mapping'. ► **p.114**

	OPTION	◇ Move ◉ OK
	Country	: UK
	Input Label	
	Key Lock	: Off
	Set ID	: Off ◉
	Power Indicator	
	DDC CI	: On
	Mode Setting	: Home Use
	Factory Reset	

≫

	OPTION	◇ Move ◉ OK
	Country	: UK
	Input Label	
	Key Lock	: Off
	Set ID	: Off ◄ Off ►
	Power Indicator	Close
	DDC CI	: On
	Mode Setting	: Home Use
	Factory Reset	

1 MENU

Select **OPTION**.

2 OK

Select **Set ID**.

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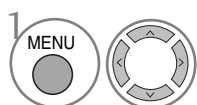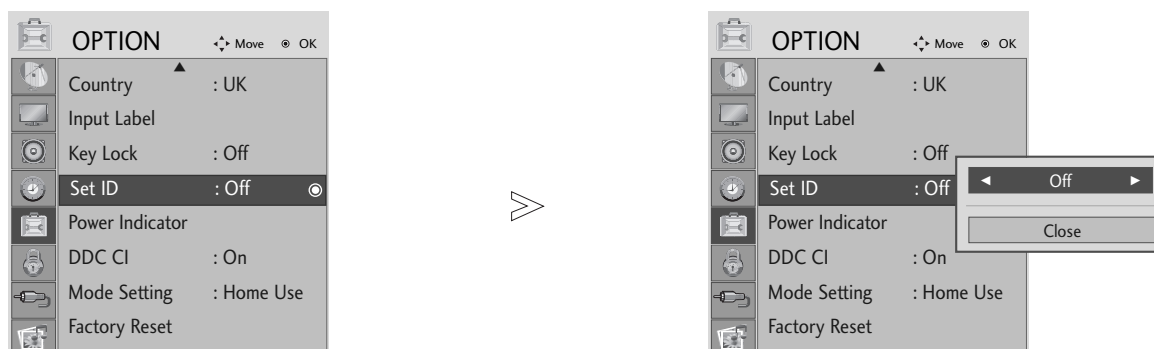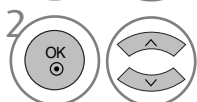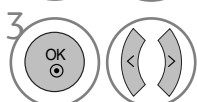
adjust **Set ID** to choose the desired TV ID number.
The adjustment range of SET ID is 1~99.

• Press the MENU or EXIT button to close the menu window.

• Press the RETURN 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. 111
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 ~ 06
17. Auto Configure	j	u	01
18. Tune Command	m	a	Refer to p. 113
19. Programme momory/Skip	m	b	00 ~ 01
20. Key	m	c	Key Code
21. Control Backlight	m	g	00 ~ 64
22. Input select (Main)	x	b	Refer to p. 113

* When setting 15 ~ 22, a menu does not appear on screen.

Transmission / Receiving Protocol

Transmission

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

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

OK Acknowledgement

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

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

Error Acknowledgement

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

* The TV transmits ACK (acknowledgement) based on this format when receiving abnormal data from nonviable functions or communication errors.

APPENDIX

01. Power (Command: k a)

▶ To control Power On/Off of the TV.

Transmission

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

Data 00 : Power Off   01   : Power On

Ack

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

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 PICTURE menu.
(1) ATV, AV1,2 Input mode
- 16:9 / Original / 4:3 / 14:9 / Cinema Zoom /
Zoom / Full Wide
(2) DTV
- 16:9 / Just Scan / Original / 4:3 / 14:9 / Cinema
Zoom / Zoom
(3) RGB, DVI, HDMI Input (HDMI-PC) mode
- 4:3 / 16:9
(4) Component, HDMI input (not HDMI-PC) mode
- 16:9 / 4:3 / 14:9 / Cinema Zoom / Zoom
(Just Scan : Only 720p over)

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]

03. Screen Mute (Command: k d)

▶ To select screen mute on/off.

Transmission

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

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

Ack

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

04. Volume Mute (Command: k e)

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

Transmission

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

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

Ack

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

05. Volume Control (Command: k f)

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

Transmission

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

Data Min : 00 ~ Max : 64
      * Refer to 'Real data mapping'. See page 113.

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'. See page 113.

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'. See page 113.

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'. See page 113.

Ack

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

APPENDIX

09. Tint (Command: k j)

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

Transmission

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

Data Min : 00 ~ Max : 64
      * Refer to 'Real data mapping'. See page 113.

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'. See page 113.

Ack

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

11. OSD Select (Command: k l)

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

Transmission

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

 Data 00 : OSD off   01 : OSD on

Ack

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

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

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

Transmission

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

Data 00 : Lock off   01 : Lock on

Ack

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

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

13. Treble (Command: k r)

▶ To adjust treble.
   You can also adjust treble in the AUDIO menu.
   In case that SRS TruSurround HD is 'On', it doesn't
   operate and is fixed to 50.
   No operation at USB input

Transmission

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

Data Min : 00 ~ Max : 64
      * Refer to 'Real data mapping'. See page 113.

Ack

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

14. Bass (Command: k s)

▶ To adjust Bass.
   You can also adjust bass in the AUDIO menu.
   In case that SRS TruSurround HD is 'On', it doesn't
   operate and is fixed to 50.
   No operation at USB input

Transmission

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

Data Min : 00 ~ Max : 64
      * Refer to 'Real data mapping'. See page 113.

Ack

[s][ ][Set ID][ ][OK][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'. See page 113.

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(not RGB DVI mode)
       05:9300K   06:6500K(Only RGB DVI mode)

Ack

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

APPENDIX

17. 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]

∗ Real data mapping

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

---

18. Tune Command (Command: m a)

▶ Select channel to following physical number.

Transmission

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

Data 00 : High channel data
Data 01 : Low channel data
    ex. No. 47 -> 00 2F (2FH)
         No. 394 -> 01 88 (188H),
         DTV No. 0 -> Don't care
Data 02 : 0x00 : ATV, 0x10 : DTV, 0x20 : Radio

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

Ack

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

Data Min: 00 ~ Max: 7DH

19. Programme memory/Skip (Command: m b)

▶ To set skip status for the current Programme.

Transmission

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

Data 00 : Skip
      01 : Memory

Ack

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

20. Key (Command : m c)

▶ To send IR remote key code.

Transmission

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

Data Key code - Refer to page 107.

Ack

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

21. Control Backlight (Command: m g)

▶ To Control the backlight. **(Only Auto Bright Off)**

Transmission

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

Data : Min: 00 ~ Max: 64 (*transmit by hexadecimal code)

Ack

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

22. 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	DVI
1	0	0	1	HDMI

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

Ack

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

LG Electronics Inc.

When does switchover happen?

*Copeland switches on October 17, 2007

Shetland Islands

STV North
2010

STV Central
2010/11

Border
2008/09*

Tyne
Tees
2012

Ulster
2012

Yorkshire
2011

Granada
2009

Wales
2009/10

Central
2011

Anglia
2011

London
2012

West
2010

Meridian
2012

West Country
2009

The exact date you switch depends on the transmitter you are served by. To check when you switch, go to Digital UK's postcode checker on www.digitaluk.co.uk

Check your ITV news service or look at Teletext page 106 to see what TV region you're in.

Visit us at **digitaluk.co.uk** call us on **0845 6 50 50 50†**

†Calls charged at BT rate of 3p per minute daytime and 1p per minute evenings and weekends.
Rates may vary for calls from non-BT lines.

Keep this important information about how to re-tune your TV during the **digital** TV switchover

Keep this leaflet and your instruction manual safe – you'll need them
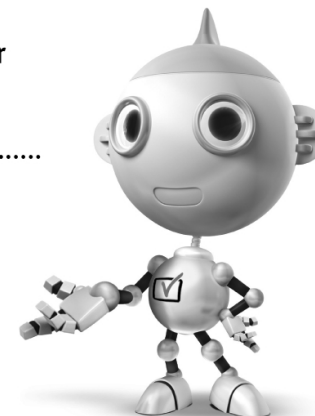
get set for **digital** ✓

Television in the UK is going digital, bringing us all more choice and new services. Starting in late 2007 and ending in 2012, television services in the UK will go completely digital, TV region by TV region.

Please see overleaf to find out when your area switches to digital.

Digital UK is the independent, non-profit organisation leading the process of digital TV switchover in the UK. Digital UK provides impartial information on what people need to do to prepare for the move to digital, and when they need to do it.

How the switchover affects your TV equipment:

Your new TV has a digital tuner built in, which means it is ready to receive the Freeview signal by simply plugging it into your aerial socket (check if you can get digital TV through your aerial now, or whether you'll have to wait until switchover, at **www.digitaluk.co.uk**).

When the TV switchover happens in your area, there are at least two occasions when you will need to re-tune your TV in order to continue receiving your existing TV channels, and also to pick up new ones. Digital UK, the body leading the digital TV switchover, will advise you when you need to re-tune during the switchover.

If you choose to connect your TV to satellite or cable with a digital box then it will not be affected by switchover, and you won't need to re-tune.

How to re-tune:

To find out how to re-tune your TV, check your manufacturer's instructions for details. Or see below for a typical sequence:

1. With your TV in digital TV mode, press 'Menu' on your remote control. (Some TVs will ask you for a code. If you have not already changed it, the default code is usually 0000, or check your instruction book.)

2. From the Menu options on screen, select 'SETUP'. Select 'Auto Tuning'* to re-tune your digital TV (not 'add channels'). You may have to wait a couple of minutes for the re-tune to complete.

*Also sometimes referred to as 'Update', 'Rescan', 'Replace', 'Auto-Tuning', 'Channel Search', 'First Time Install', or 'Store Channels'.

3. If you do not re-tune your channels when advised to do so by Digital UK, you may lose some or all of your channels until you do re-tune. You should re-tune your TV every few months to check for any new channels.

If you are missing any channels, it may be that they are not available in your area, or that your aerial needs upgrading.

If you have any questions, please contact your equipment supplier or call Digital UK on **0845 6 50 50 50** or visit **www.digitaluk.co.uk**