LG
Life's Good

OWNER'S MANUAL
LCD TV

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

www.lg.com

LICENSES

Supported licenses may differ by model. For more information about licenses, visit www.lg.com.

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

> **NOTE**
>
> • Image shown may differ from you TV.
> • Your TV's OSD(On Screen Display) may differ slightly from that shown in this manual.
> • The available menus and options may differ from the input source or product model that you are using.
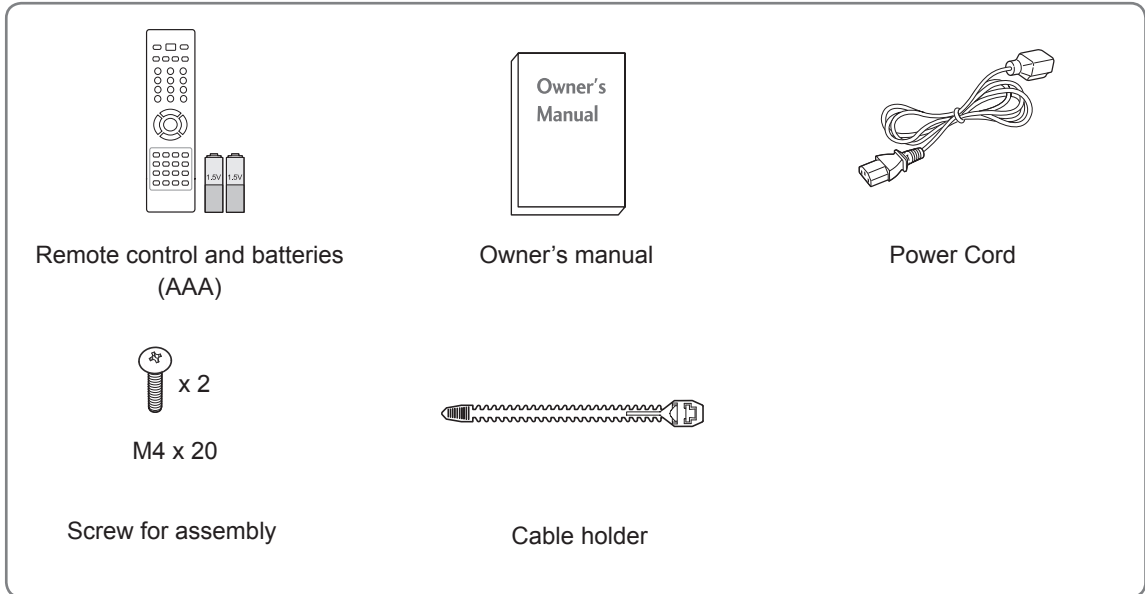
TABLE OF CONTENTS

ASSEMBLING AND PREPARING

Unpacking

Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product.
The illustrations in this manual may differ from the actual product and item.

Remote control and batteries (AAA)

Owner's manual

Power Cord

x 2

M4 x 20

Screw for assembly

Cable holder

⚠ **CAUTION**

• Do not use any unapproved items to ensure the safety and product life span.
• Any damages or injuries by using unapproved items are not covered by the warranty.

Parts and buttons

• Image shown may differ from your TV.

🛈 **NOTE**

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

⚠ **CAUTION**

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

Speakers

Remote control sensors

Power indicator

MODE   − PR +   ⏻ / |

SERVICE ONLY   HƆMI IN

Rear Connection panel (See p.23)

AV IN   AUDIO OUT

VIDEO L/MONO AUDIO R   L   R   ANTENNA IN

Button	Description
⏻ /		Turns the power on or off.
MODE	Selects the Volume, Input, Picture Mode, Sound Mode, Aspect Ratio, Auto Tuning.
- PR +	Scrolls through the saved programmes. Sets the MODE selected Volume, Input, Picture Mode, Sound Mode, Aspect Ratio, Auto Tuning. ✓ **Volume** **Input** **Picture Mode** **Sound Mode** **Aspect Ratio** **Auto Tuning** **+ OK - ▼** ❶ Press the **−** button to select the desired menu. ❷ Press the **+** button to access the selected menu. ❸ Press the **MODE** button to return to the nomal TV viewing. ＊ When you using the function, press the MODE button to return to the previous menu.

	Menu	Button
	Volume	**+** : Volume Up / **−** : Volume Down
	Input	**+** : Selects the mode / **−** : Scrolls the menu
	Picture	
	Sound	**+** : Scrolls the menu to the right / **−** : Scrolls the menu to the left
	Aspect Ratio	
	Auto Tuning	**+** : Searches the channel / **−** : Stops searching the channel

Lifting and moving the TV

When moving or lifting the TV, read the following to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.

⚠ **CAUTION**

• Avoid touching the screen at all times, as this may result in damage on the screen.

• It is recommended to move the TV in the box or packing material that the TV originally came in.
• Before moving or lifting the TV, disconnect the power cord and all cables.
• When holding the TV, the screen should face away from you to avoid damage.

• Hold the top and bottom of the TV frame firmly. Make sure not to hold the transparent part, speaker, or speaker grill area.
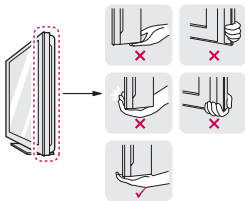
• When transporting a large TV, there should be at least 2 people.
• When transporting the TV by hand, hold the TV as shown in the following illustration.
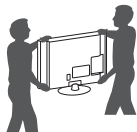
• When transporting the TV, do not expose the TV to jolts or excessive vibration.
• When transporting the TV, keep the TV upright, never turn the TV on its side or tilt towards the left or right.

Setting up the TV

Put your TV on a pedestal stand and mount the TV on a table or wall.

Attaching the stand

If you are not mounting the TV to a wall, use the following instructions to attach the stand.

⚠ **CAUTION**

• Tighten the screws firmly to prevent the TV from tilting forward. Do not over tighten.

1 Lay the TV with the screen side down on a flat surface.
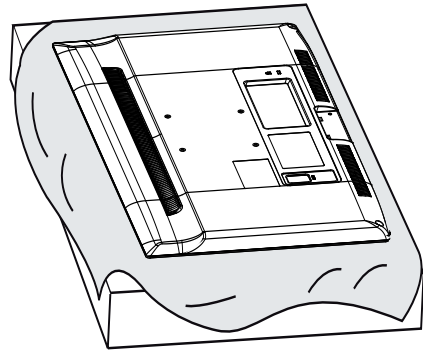
⚠ **CAUTION**

• Lay a foam mat or soft protective cloth on the surface to protect the screen from damage. Make sure no objects press against the screen.

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

Stand Body

Stand Base
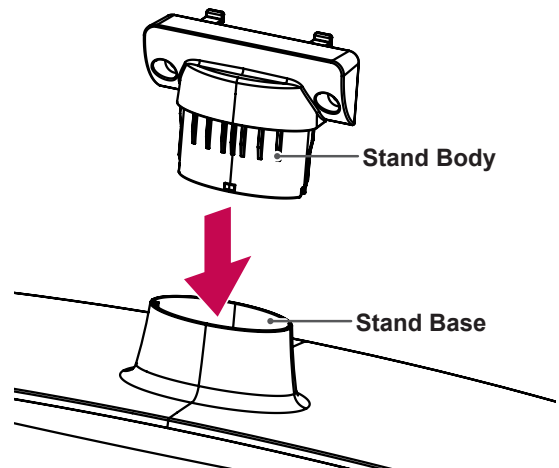
3 Assemble the TV as shown.
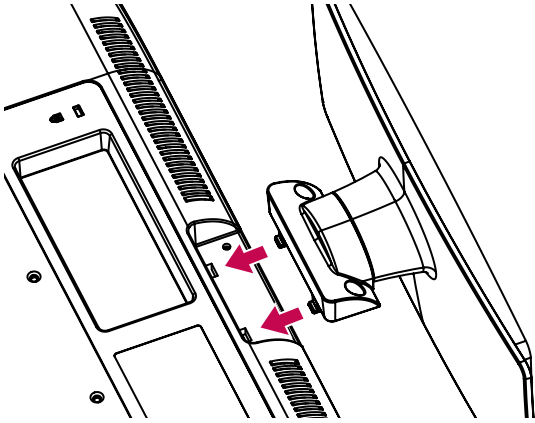
4 Secure the TV and the stand with the 2 screws.

Screw for assembly	Number of screws
M4 x 20	2
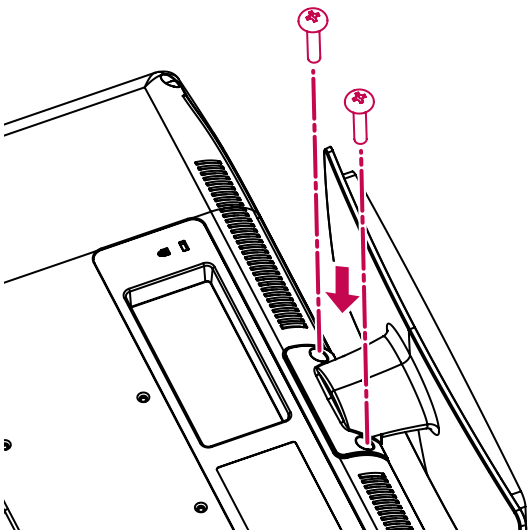
Tidying cables

Gather and bind the cables with the **Cable Holder** on the TV back cover.
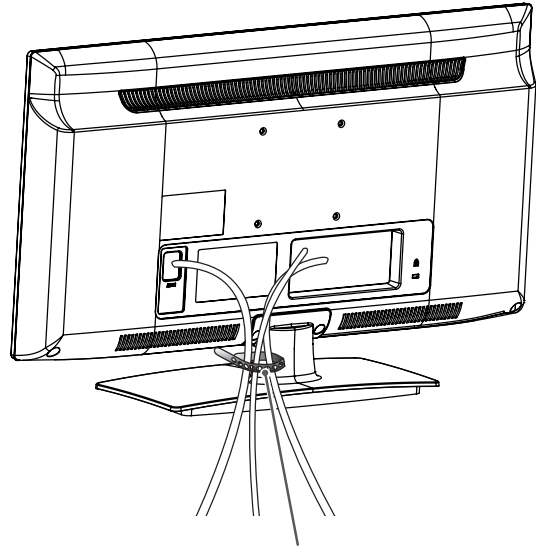
Cable Holder

⚠ **CAUTION**

y Do not move the TV by holding the **Cable Holder**, as the Cable holders may break, and injuries and damage to the TV may occur.

Mounting on a table

1 Lift and tilt the TV into its upright position on a table.

- Leave a 10 cm (minimum) space from the wall for proper ventilation.
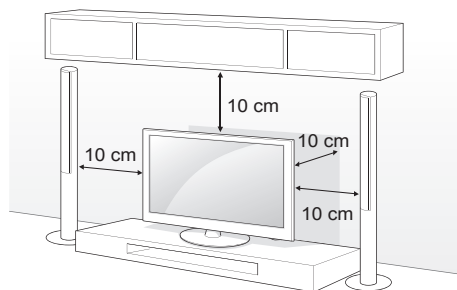
2 Connect the power cord to a wall outlet.
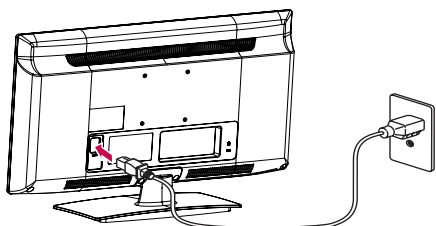
⚠ CAUTION

• Do not place the TV near or on sources of heat, as this may result in fire or other damage.

Using the Kensington security system

(This feature is not available for all models.)
The Kensington security system connector is located at the rear of the TV. For more information of installation and using, refer to the manual provided with the Kensington security system or visit *http://www.kensington.com*.

Connect the Kensington security system cable between the TV and a table.
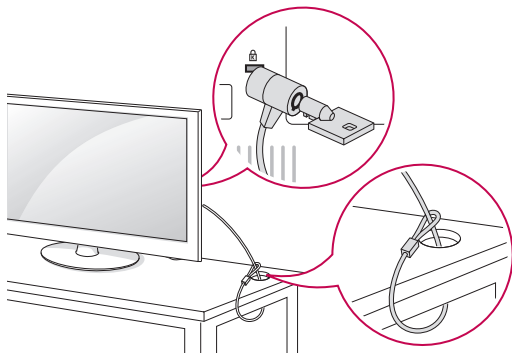
Securing the TV to a wall

(This feature is not available for all models.)
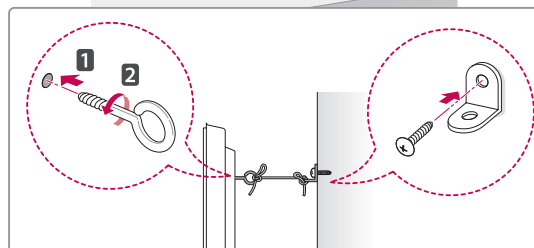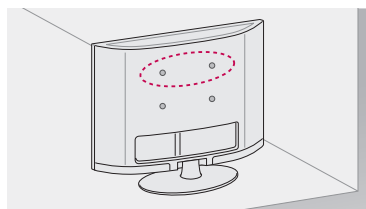
1 Insert and tighten the eye-bolts, or TV brackets and bolts on the back of the TV.

- If there are bolts inserted at the eye-bolts position, remove the bolts first.

2 Mount the wall brackets with the bolts to the wall.

Match the location of the wall bracket and the eye-bolts on the rear of the TV.

3 Connect the eye-bolts and wall brackets tightly with a sturdy rope.

Make sure to keep the rope horizontal with the flat surface.

⚠ CAUTION

• Make sure that children do not climb on or hang on the TV.

❗ NOTE

• Use a platform or cabinet that is strong and large enough to support the TV securely.

Mounting on a wall

Attach a wall mount bracket at the rear of the TV carefully and install the wall mount bracket on a solid wall perpendicular to the floor. When you attach the TV to other building materials, please contact qualified personnel.
LG recommends that wall mounting be performed by a qualified professional installer.
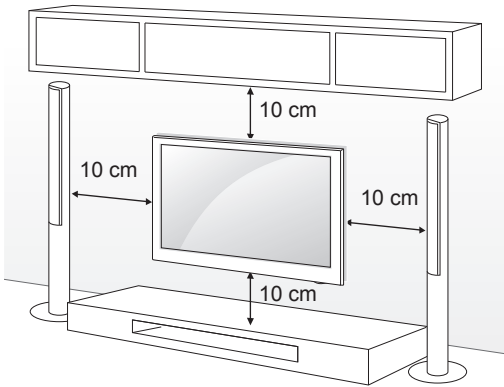
Make sure to use screws and wall mount bracket that meet the VESA standard. Standard dimensions for the wall mount kits are described in the following table.

Separate purchase(Wall Mounting Bracket)

Model	22LK2∗∗
VESA (A x B)	100 x 100
Standard screw	M4
Number of screws	4
Wall mount bracket	LSW100B, LSW100BG
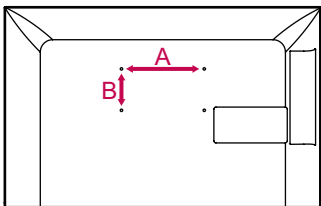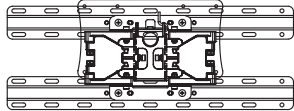
⚠ **CAUTION**

• Disconnect the power first, and then move or install the TV. Otherwise electric shock may occur.
• If you install the TV on a ceiling or slanted wall, it may fall and result in severe injury. Use an authorized LG wall mount bracket and contact the local dealer or qualified personnel.
• Do not over tighten the screws as this may cause damage to the TV and void your warranty.
• Use the screws and wall mount bracket that meet the VESA standard. Any damages or injuries by misuse or using an improper accessory are not covered by the warranty.

🛈 **NOTE**

• Use the screws that are listed on the VESA standard screw specifications.
• The wall mount kit includes an installation manual and necessary parts.
• The length of screws may differ depending on the wall mount. Make sure to use the proper length.
• For more information, refer to the manual supplied with the wall mount bracket.

REMOTE CONTROL

The descriptions in this manual are based on the buttons on the remote control.
Please read this manual carefully and use the TV correctly.

To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching ⊕ and ⊖ ends to the label inside the compartment, and close the battery cover. Be sure to point the remote control toward the remote control sensor on the TV.
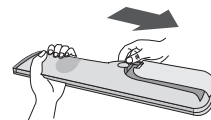
To remove the batteries, perform the installation actions in reverse.

⚠ **CAUTION**

- Do not mix old and new batteries, as this may damage the remote control.
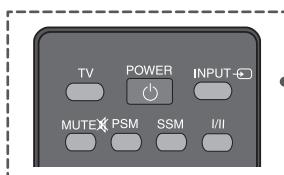
⏻ (POWER)
Turns the TV on or off.
TV
Returns to the TV viewing from any mode.
INPUT (See p.16)
Changes the input source.
MUTE
Mutes all sounds.
PSM
Recalls your preferred picture setting.
SSM
Recalls your preferred sound setting.
I/II (See p.21)
Selects the sound output.
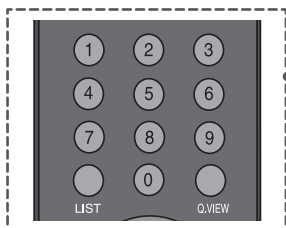
0 to 9 number buttons
Selects a programme.
Selects numbered items in a menu.
LIST (See p.14)
Accesses the saved programme list.
Q.VIEW
Returns to the previously viewed programme.
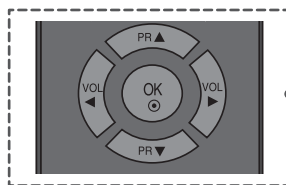
Navigation buttons (up/down/left/right)
Scrolls through menus or options.
Adjusts the volume.
Selects a programme.
OK
Selects menus or options and confirms your input.
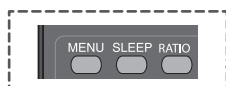
MENU (See p.17)
Selects a menu.
SLEEP
Sets the sleep timer.
RATIO (See p.15)
Selects your desired picture format.
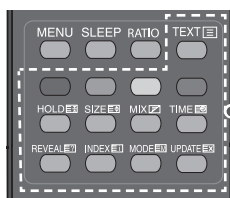
Control buttons
These buttons are used for teletext (on **TELETEXT** models only) or **Programme edit**.
TELETEXT buttons (See p.26)
These buttons are used for teletext.
For further details, see the 'Teletext' section.

WATCHING TV

Connecting to an antenna

Connect an antenna to watch TV while referring to the following.
To prevent damage do not connect to the mains outlet until all connections are made between the devices.

Connecting an antenna

Connect the TV to a wall antenna socket with an RF cable (75 Ω).
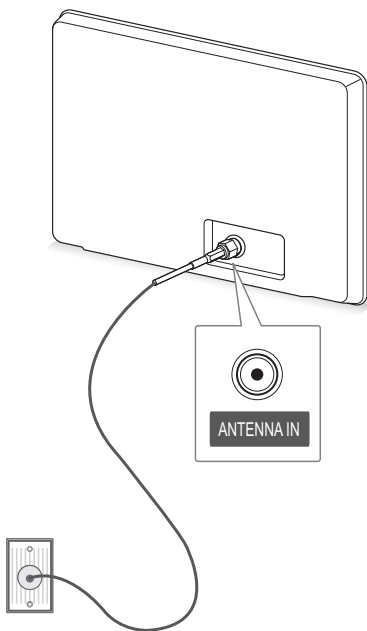
ANTENNA IN

Wall Antenna Socket

> **NOTE**
>
> • Use a signal splitter to use more than 2 TVs.
> • If the image quality is poor, install a signal amplifier properly to improve the image quality.
> • If the image quality is poor with an antenna connected, aim the antenna to the correct direction.
> • An antenna cable and converter are not supplied.

Turning the TV on for the first time

When you turn the TV on for the first time, the Initial setting screen appears. Select a language and customize the basic settings.

1 Connect the power cord to a power outlet.

2 In Standby mode, press ⏻**(POWER)** to turn the TV on.

   The Initial setting screen appears if you turn the TV on for the first time.

> **NOTE**
>
> • You can also access **Factory Reset** by accessing **Option** menu.

3 Follow the on-screen instructions to customize your TV settings according to your preferences.

| **Language** | Selects a language to display. |

⇩

| **Auto Tuning** | Scans and saves available programmes automatically. |

4 When the basic settings are complete, press **OK**.

> **NOTE**
>
> • If you do not complete the Initial setting, it will appear whenever the TV turns on.
> • Disconnect the power cord from the power outlet when you do not use the TV for a long period of time.

5 To turn the TV off, press ⏻**(POWER)**.

Watching TV

1 In Standby mode, press ⏻**(POWER)** to turn the TV on.

2 Press **INPUT** and select **TV**.

3 To turn the TV off, press ⏻**(POWER)**.
   The TV switches to Standby mode.

Managing programmes

Automatically setting up programme

Use this to automatically find and store all available programmes.
When you start auto programming, all previously stored service information will be deleted.

1 Press **MENU** and the Navigation buttons to scroll to **SETUP**.

2 Press the Navigation buttons to scroll to **Auto Tuning**.

3 Select **To Set** and press the Navigation buttons to scroll to **System.** Select your desired system.

4 Press the Navigation buttons to scroll to **Storage From** and select the initial programme number.

5 Press the Navigation buttons to scroll to **Search** and select **To Start** to begin auto tuning.

   The TV scans and saves available programmes automatically.

6 When you return to the previous menu, press **MENU**.

Manually setting up programme

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

1 Press **MENU** and the Navigation buttons to scroll to **SETUP**.

2 Press the Navigation buttons to scroll to **Manual Tuning**.

3 Press the Navigation buttons to scroll to **Storage**.

4 Press the Navigation buttons or Number buttons to select the desired programme number.

5 Press the Navigation buttons to scroll to **System**.

6 Press the Navigation buttons to scroll to TV System menu.

7 Press the Navigation buttons to scroll to **Band**.

8 Press the Navigation buttons to scroll to **V/UHF or Cable**.

9 Press the Navigation buttons to scroll to **Channel**.

   Press the Navigation buttons and then select the desired programme number with the Navigation buttons or Number buttons.

10 Press the Navigation buttons to scroll to **Search**.

11 Press the Navigation buttons to scroll and start searching.

12 Press the **OK** to store it.

13 When you return to the previous menu, press **MENU**.

> **!** NOTE
>
> • To store another programme, repeat steps 3 to 11.

Assigning a station name

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

1　Press **MENU** and the Navigation buttons to scroll to **SETUP**.

2　Press the Navigation buttons to scroll to **Manual Tuning**.

3　Press the Navigation buttons to scroll to **Name**.

4　Press the Navigation buttons to scroll to select the position and make your choice of the second character, and so on. You can use an the alphabet A to Z, the number 0 to 9, +/ -, and blank and press **OK**.

5　Press the **OK** to store it.

6　When you return to the previous menu, press **MENU**.

Fine Tuning

Normally fine tuning is only necessary if reception is poor.

1　Press **MENU** and the Navigation buttons to scroll to **SETUP**.

2　Press the Navigation buttons to scroll to **Manual Tuning**.

3　Press the Navigation buttons to scroll to **Fine**.

4　Press the Navigation buttons to fine tune for the best picture and sound.

5　Press the **OK** to store it.

6　When you return to the previous menu, press **MENU**.

Editing your programme list

When a programme number is skipped, it means that you will be unable to select it using **P ▲▼** button during TV viewing.
If you wish to select the skipped programme, directly enter the programme number with the NUMBER buttons or select it in the Programme edit menu.
This function enables you to skip the stored programmes.

1   Press **MENU** and the Navigation buttons to scroll to **SETUP**.

2   Press the Navigation buttons to scroll to **Programme Edit**.

3   Select **To Set** and edit programmes using the following buttons.

Button	Description
Red button	Deletes a programme. Press the Red button twice. The selected programme is deleted, all the following programmes are shifted up one position.
Green button	Moves a programme. Press the Green button again to release this function.
Blue button	Selects a programme number to be skipped. Press the Blue button again to release the skipped programme.

4   When you return to the previous menu, press **MENU**.

Selecting a programme on the programme list

1   Press **LIST** to access the programme list.

2   Press the Navigation buttons to select to desired programme and press **OK**.

3   When you return to the previous menu, press **LIST**.

❗ NOTE

• You may find some blue programmes. They 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.

Using favourite programmes

Add the programmes that you watch frequently to the favourite list.

1   Press **MENU** and the Navigation buttons to scroll to **SETUP**.

2   Press the Navigation buttons to scroll to **Favourite Programme**.

3   Press the Navigation buttons and the Number buttons to select to the desired programme.

4   To store another programme, repeat steps 3. You can store up to 8 programmes.

5   When you return to the previous menu, press **MENU**.

❗ NOTE

• Press Yellow button to access directly to the stored **Favourite Programme.** Press the Yellow button again to shift the stored **Favourite Programme.**

Using additional options

Adjusting aspect ratio

Resize an image to view at its optimal size by pressing **RATIO** while you are watching TV.

> **! NOTE**
>
> • You can also change the image size by accessing **Aspect Ratio** in the **PICTURE** menus.
> • You can adjust the enlarge proportion using the Navigation buttons.

- **16:9**: Resizes images to fit the screen width. (This function works in RF/AV/HDMI Mode.)

- **Original**: When your TV receives a wide screen signal it will automatically change to the picture format broadcasted.

- **4:3**: Resizes images to the previous standard 4:3. (This function works in RF/AV/HDMI Mode.)

- **14:9** : You can view a picture format of 14:9 or a general TV programme in the 14:9 mode. The 14:9 screen is viewed in the same way as in 4:3, but is moved to the up and down.
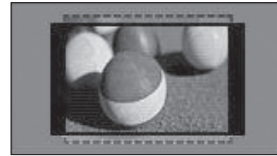
- **Zoom 1** : The following selection will allow you to view the picture without any alteration, while filling the entire screen. However, the top and bottom of the picture will be cropped. (This function works in RF/AV Mode.)
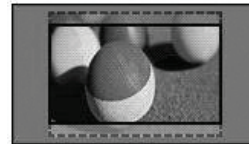
- **Zoom 2** : Choose Zoom 2 when you wish the picture to be altered, both horizontally extended and vertically cropped. The picture adopting a compromise between alteration and screen coverage. (This function works in RF/AV Mode.)

> **! NOTE**
>
> • If you enlarge or reduce an image, the image may be distorted.

Using the input list

Selecting an input source

1 Press **INPUT** to access the input sources.
   - The connected device displays on each input source.

2 Press the Navigation buttons or input button to scroll to one of the input sources and press **OK**.

• Image shown may differ from your TV.

Input
TV
AV
HDMI
▲▼ OK

Input source	Description
TV	Watch TV over the air and digital cable broadcast.
AV	Watch video from a VCR or other external devices.
HDMI	Watch video from a HTS or other high definition devices.

CUSTOMIZING TV SETTINGS

The SETUP Menu

1 Press **MENU** and press the Navigation buttons to scroll to one of the following menus and press **OK**.

2 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.

3 When you return to the previous menu, press **MENU**.

Menu		Description
	SETUP	Sets up and edit programmes.
	PICTURE	Adjusts the image size, quality, or effect.
	AUDIO	Adjusts the sound quality, effect, or volume level.
	TIME	Sets the time, date, or timer feature.
	OPTION	Customizes the general settings.

Customizing Settings

SETUP Settings

1 Press **MENU** and the Navigation buttons to scroll to **Setup**.

2 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.

3 When you return to the previous menu, press **MENU**.

• Image shown may differ from your TV.

```
Setup

  Auto Tuning
  Manual Tuning
  Programme Edit
  Favourite Programme



▲▼◄► OK  MENU
```
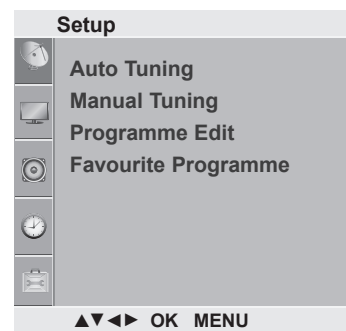
The available programme settings are described in the following:

Setting	Description
Auto Tuning	Tunes and stores all available programmes through antennas inputs (See p.12).
Manual Tuning	Tunes and stores the programmes you want manually (See p.12).
Programme Edit	Edits programmes (See p.14).
Favourite Programme	Selects your favourite programmes directly(See p.14).

PICTURE Settings

1 Press **MENU** and the Navigation buttons to scroll to **Picture**.

2 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.

3 When you return to the previous menu, press **MENU**.

• Image shown may differ from your TV.

Picture	
Aspect Ratio	
Picture Mode	
• Backlight	**100**
• Contrast	**100**
• Brightness	**50**
• Sharpness	**70**
• Colour	**70**
• Tint	**0**
• Advanced	
• Picture Reset	

The available picture settings are described in the following.

Setting	Description	
Aspect Ratio	Changes the image size to view images at its optimal size (See p.15).	
Picture Mode	Selects one of the preset image or customizes options in each mode for the best TV screen performance. You are also able to customize advanced options of each mode.	
	Mode	
	Vivid(user)	Adjusts the video image for the retail environment by enhancing the contrast, brightness, colour, and sharpness.
	Standard	Adjusts the image for the normal environment.
	Cinema	Optimizes the video images for a cinematic look to enjoy movies as if you are in a movie theatre.

Basic image options

Setting	Description
Backlight	Adjusts the brightness of the screen by controlling the LCD backlight. If you decrease the brightness level, the screen becomes darker and the power consumption will be reduced without any video signal loss.
Contrast	Increases or decreases the gradient of the video signal. You may use **Contrast** when the bright part of the picture is saturated.
Brightness	Adjusts the base level of the signal in the picture.
Sharpness	Adjusts the level of crispness in the edges between the light and dark areas of the picture. The lower the level, the softer the image.
Colour	Adjusts intensity of all colours.
Tint	Adjusts the balance between red and green levels.
Advanced	Customizes the advanced options.
Picture Reset	Restores the options of each mode to the factory default.

Advanced image options (Depending on model)

Setting	Description
Dynamic Contrast	Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.
Dynamic Colour	Adjusts screen colours so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue and green white look more vivid.
Noise Reduction	Reduces screen noise without compromising video quality.
Black Level	Sets black level of the screen to proper level. This function is available in the following modes: RF, AV or HDMI. » Low: The reflection of the screen gets darker. » High: The reflection of the screen gets brighter.
Film Mode	Makes video clips recorded in film look more natural. This feature operates only in RF or AV mode 480i/576i.
Colour Temperature	Choose one of three automatic colour adjustments. Set to warm to enhance hotter colours such as red, or set to cool to see less intense colours with more blue. You can control red, green, blue to adjust colour details.

AUDIO Settings

1 Press **MENU** and the Navigation buttons to scroll to **Audio**.

2 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.

3 When you return to the previous menu, press **MENU**.
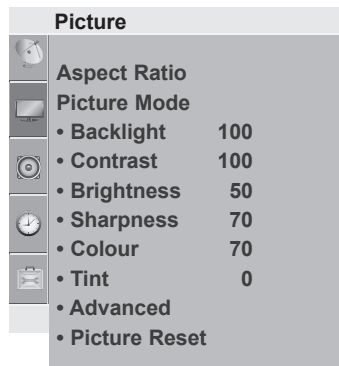
• Image shown may differ from your TV.

Audio	
Sound Mode	
• Treble	50
• Bass	50
• Reset	
Auto Volume	
Balance	0
▲▼◄► OK MENU	
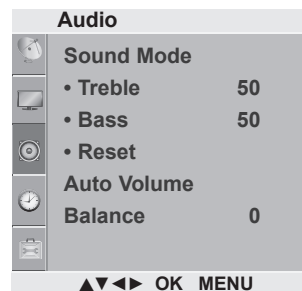
The available audio settings are described in the following.

Setting	Description	
Sound Mode	Selects one of the preset sound modes or customizes options in each mode.	
	Mode	
	Standard	Select when you want standard-quality sound.
	Music	Select when you listen to music.
	Cinema	Select when you watch movies.
	Option	
	Treble	Controls the dominant sounds in the output. When you turn up the treble, it will increase the output to the higher frequency range.
	Bass	Controls the softer sounds in the output. When you turn up the bass, it will increase the output to the lower frequency range.
	Reset	Resets the sound mode to the default setting.
Auto Volume	Activates the Auto Volume feature to keep the volume level consistent whenever you change channels. The volume level may not be consistent due to different signal conditions of broadcasting stations.	
Balance	Adjust balance between the left and right speakers according to your room environment.	

This feature may not be applied based on country broadcasting circumstance.

Stereo/Dual Reception

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

1   Press **I/II** button to select the **Multi Audio** menu.

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

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

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

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

Nicam Reception

If the TV is equipped with a receiver for NICAM reception, high quality NICAM (Near Instantaneous Companding Audio Multiplex) digital sound can be received.
Sound output can be selected according to the type of broadcast received.

1   When **NICAM** mono is received, you can select **NICAM MONO** or **FM MONO**.

2   When **NICAM** stereo is received, you can select **NICAM STEREO** or **FM MONO**.
    If the stereo signal is weak, switch to **FM MONO**.

3   When **NICAM** dual is received, you can select **NICAM DUAL I**, **NICAM DUAL II** or **NICAM DUAL I+II** or **FM MONO**.

Speaker Sound Output Selection

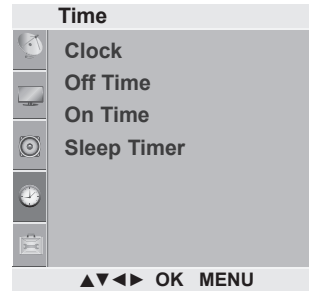In AV, Component, RGB and HDMI mode, you can select output sound for the left and right loudspeakers.
Select the sound output.

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

TIME Settings

1 Press **MENU** and the Navigation buttons to scroll to **Time**.

2 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.

3 When you return to the previous menu, press **MENU**.

• Image shown may differ from your TV.

```
Time
  Clock
  Off Time
  On Time
  Sleep Timer


▲▼◄► OK MENU
```

The available time settings are described in the following

Setting	Description
Clock	Sets the time.
Off Time/On Time	Sets the time to turn on or off the TV automatically. To use this function, you should set the current time and date in advance.
	⓪ NOTE • If you do not press any button within 2 hours after the TV turns on by the On Time feature, the TV enters the Standby mode automatically. • If you set both Off time and On time features to the same time, the Off time feature overrides the On time feature.
Sleep Timer	Sets the length of time until the TV to turns off. When you turn the TV off and turn it on again, the Sleep timer feature will be set to off.

OPTION Settings

1 Press **MENU** and the Navigation buttons to scroll to **Option**.

2 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.

3 When you return to the previous menu, press **MENU**.

• Image shown may differ from your TV.

```
Option
  Language
  Key Lock
  Factory Reset


▲▼◄► OK MENU
```
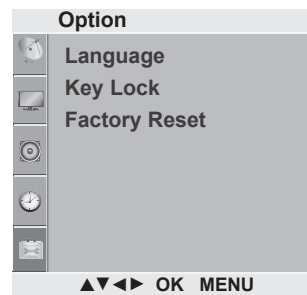
The available general settings are described in the following:

Setting	Description
Language	Selects a language for the display or audio.
Key Lock	Activates or deactivates the lock system.
Factory Reset	Resets the TV to factory default and erases all stored programmes. Customizes the TV settings to suit your preference. The factory reset screen will appear when you turn on the TV for the first time.

MAKING CONNECTIONS

Connect various external devices to the TV and switch input modes to select an external device. For more information on external device's connection, refer to the manual provided with each device.
Available external devices are: HD receivers, DVD players, VCRs, audio systems, and other external devices.

> **NOTE**
>
> - If you record a TV programme on a DVD recorder or VCR, make sure to connect the TV signal input cable to the TV through a DVD recorder or VCR. For more information on recording, refer to the manual provided with the connected device.
> - The external device connection may differ from the model.
> - Connect external devices to the TV regardless of the order of the TV port.

Connection Overview

Connect various external devices to the ports on the TV back panel.

1   Find an external device you want to connect to your TV as shown on the following illustration.

2   Check the connection type of the external device.

3   Go to the appropriate illustration and check the connection details.

HD Receiver   **DVD**   **VCR**

Speaker

HDMI – See p.24
Composite – See p.24
Audio – See p.25
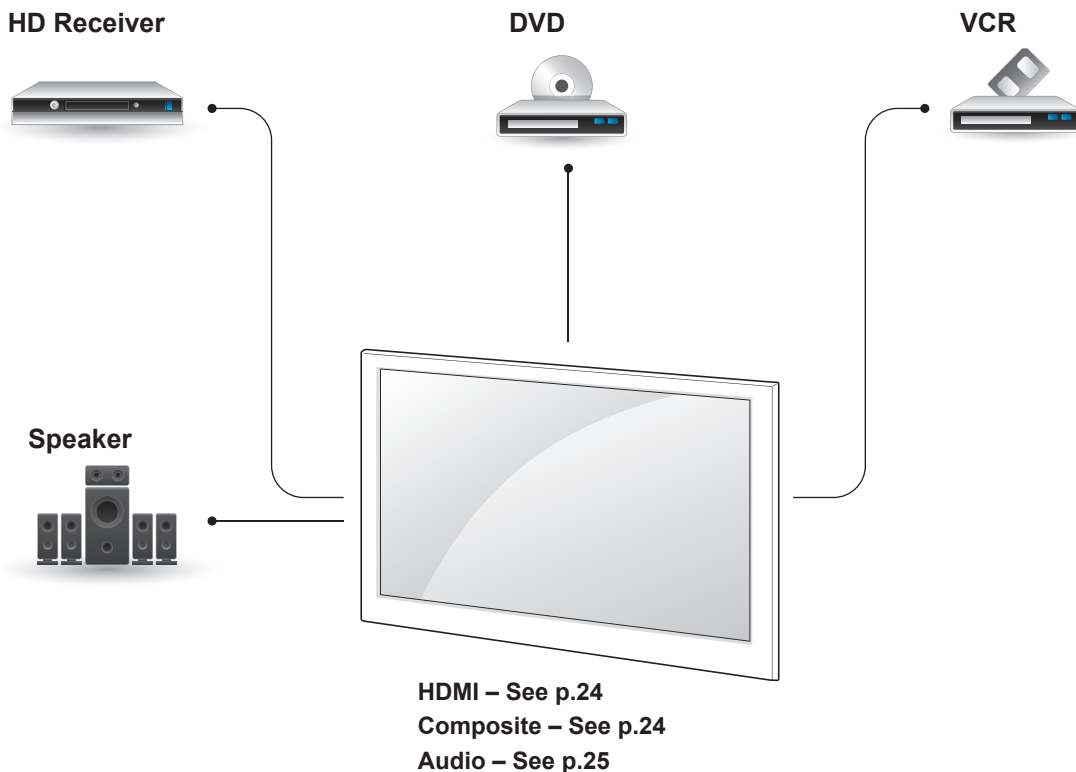
> **NOTE**
>
> - Refer to the external equipment's manual for operating instructions.

• Image shown may differ from your TV.

Connecting to a HD receiver, DVD, or VCR player

Connect a HD receiver, DVD, or VCR player to the TV and select an appropriate input mode.

HDMI connection

Transmits the digital video and audio signals from an external device to the TV. Connect the external device and the TV with the HDMI cable as shown in the following illustration.
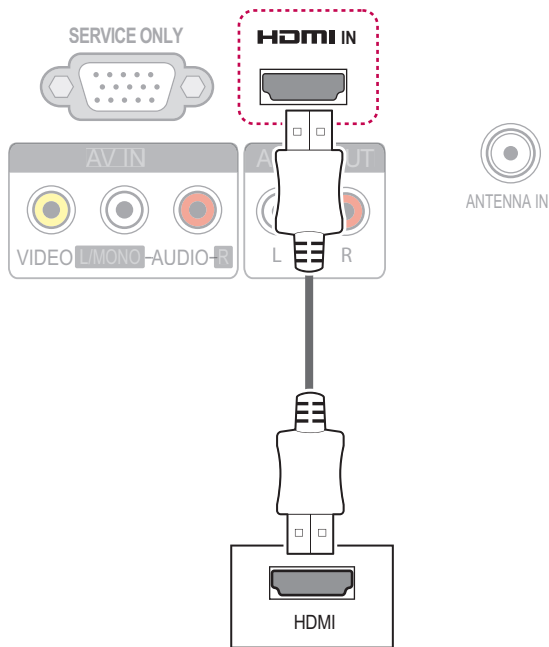
Composite Connection

Transmits the analogue video and audio signals from an external device to the TV. Connect the external device and the TV with the composite cable as shown in the following illustration.
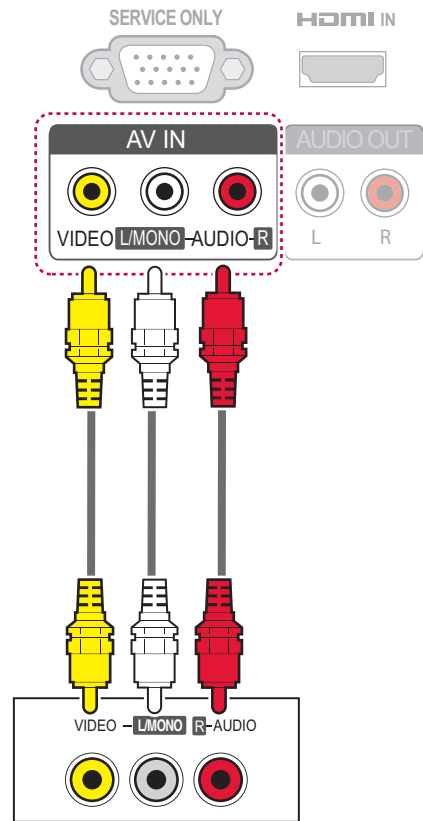
> **NOTE**
>
> • If you have a mono VCR, connect the audio cable from the VCR to the AUDIO L/MONO jack of the TV.

Connecting to an Audio System

Use an external audio system instead of the built-in speaker.

External Stereo Connection

Use to connect to an external amplifier, or surround sound system.

External Stereo
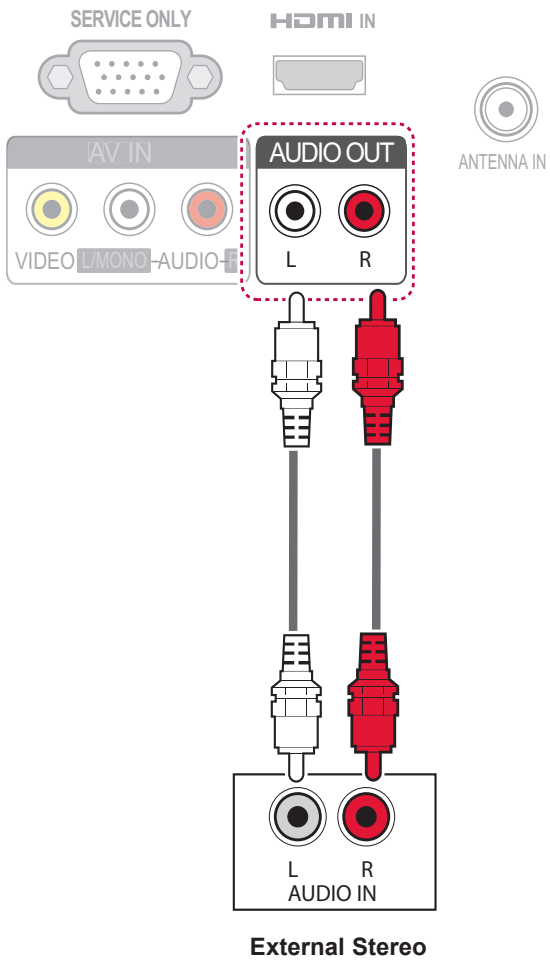
TELETEXT

• This feature is not available in all countries. Teletext is a free service broadcast by most TV stations which gives up-to-the-minute information on news, weather, television programmes, share prices and many other topics.

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

Switch On/Off

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

Simple Text

Page selection

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

2 The **P ▲▼** button can be used to select the preceding or following page.

Programming a colour button in LIST mode

If the TV is in SIMPLE text, TOP text or FASTEXT mode, press the ▤ button to switch to **LIST** mode. Four teletext page numbers of your choice can be colour coded and easily selected by pressing the corresponding coloured button on the remote control handset.

1 Press a coloured button.

2 Using the Number buttons, select the page you wish to programme.

3 Press the **OK** button. The selected page is stored as the selected page number, blinking once to confirm this. From now on, you can select this page with the same coloured button.

4 The three other coloured buttons are programmed in this way.

Top Text

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

Block / Group / Page Selection

1 With the Blue button you can progress from block to block.

2 Use the Yellow button to proceed to the next group with automatic overflow to the next block.

3 With the Green button you can proceed to the next existing page with automatic overflow to the next group. Alternatively, the **P ▲** button can be used.

4 The red button returns to the previous selection. Alternatively the **P ▼** button can be used.

Direct Page Selection

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

Fastext

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

Page selection

1 Press the ▤ button to select the index page.

2 You can select the pages which are colour coded along the bottom line with corresponding coloured buttons.

3 AS with SIMPLE teletext mode, you can select a page by entering its three digit page number with the Number buttons in FASTEXT mode.

4 The **P ▲▼** button can be used to select the preceding or following page.

Special Teletext Function

▤ 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 button, Green button, ▲▼ or Number buttons. Press again to exit this function.

▤ SIZE

Selects double height text.
Press this button to enlarge the top half of the page.
Press this button again to enlarge the bottom half of the page.
Press this button again to return to the normal display.

▤ 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.

▤ Reveal

Select this menu to display concealed information, such as solutions to riddles or puzzles. Press this button again to remove the information from the display.

▤ Index

Select the each index page.

▤ 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. To continue press this button again.

▤ MIX

Displays the teletext pages superimposed on the TV picture.
To switch the TV picture off press this button again.

MAINTENANCE

Cleaning Your TV

> ⚠ **CAUTION**
>
> • Make sure to turn the power off and disconnect the power cord and all other cables first.
> • When the TV is left unattended and unused for a long time, disconnect the power cord from the wall outlet to prevent possible damage from lightning or power surges.

Screen and frame

To remove dust or light dirt, wipe the surface with a dry, clean, and soft cloth.
To remove major dirt, wipe the surface with a soft cloth dampened in clean water or a diluted mild detergent. Then wipe immediately with a dry cloth.

> ⚠ **CAUTION**
>
> • Do not push, rub, or hit the surface with your fingernail or a sharp object, as this may result in scratches on the screen and image distortions.
> • Do not use any chemicals, such as waxes, benzene, alcohol, thinners, insecticides, air fresheners, lubricants, as these may damage the screen's finish and cause discolourations.

Cabinet and stand

To remove dust or light dirt, wipe the cabinet with a dry, clean, and soft cloth.
To remove major dirt, wipe the cabinet with a soft cloth dampened in a clean water or water containing a small amount of mild detergent. Then wipe immediately with a dry cloth.
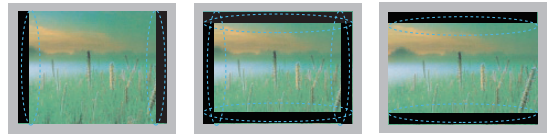
> ⚠ **CAUTION**
>
> • Do not spray liquid onto the surface. If water enters the TV, it may result in fire, electric shock, or malfunction.
> • Do not use any chemicals as this may deteriorate the surface.

Power cord

Remove the accumulated dust or dirt on the power cord regularly.

Preventing "Image burn" or "Burn-in" on your TV screen

• If a fixed image displays on the TV screen for a long period of time, it will be imprinted and become a permanent disfigurement on the screen. This is "image burn" or "burn-in" and not covered by the warranty.
• If the aspect ratio of the TV is set to 4:3 for a long period of time, image burn may occur on the letterboxed area of the screen.
• Avoid displaying a fixed image on the TV screen for a long period of time (2 or more hours for LCD, 1 or more hours for the Plasma TV) to prevent image burn.

TROUBLESHOOTING

General

Problem	Resolution
Cannot control the TV with the remote control.	• Check the remote control sensor on the product and try again. • Check if there is any obstacle between the product and the remote control. • Check if the batteries are still working and properly installed (⊕ to ⊕, ⊖ to ⊖).
No image display and no sound is produced.	• Check if the product is turned on. • Check if the power cord is connected to a wall outlet. • Check if there is a problem in the wall outlet by connecting other products.
Image appears slowly when the TV turns on.	• The image is muted during the product stat up process. This is normal. If the image does not appear in a few minutes, unplug the TV for 30 seconds and try again. If the image still does not appear, contact the authorized service centre in your local area.
Cannot connect external devices.	• Refer to the "Connection overview" and connect an external device.
The TV turns off suddenly.	• Check the power control settings. The power supply may be interrupted. • Check if the auto sleep feature is activated in the Time settings. Refer to the "Sleep Timer". • If there is no signal while the TV is on, the TV will turn off automatically after 15 minutes of inactivity.

Audio

Problem	Resolution
No sound is produced while images are displaying.	• Press **VOL** ◄ or ► button. • Check if the sound is muted by pressing **MUTE**. • Scroll to other channels. There may a problem with the broadcast. • Check if the audio cables are connected properly.
No output from one of the speakers	• Adjust Balance in the menu option.
Unusual sound from inside the TV is produced.	• A change in ambient humidity or temperature may result in an unusual noise when the product turns on or off. There is no problem with your product.

Video

Problem	Resolution
An image displays in black and white or the colour quality is poor.	• Adjust the colour setting in the menu option. • Keep a sufficient distance between this product and other electronic products. • Scroll to other channels. There may a problem with the broadcast.
Horizontal or vertical bars appears or images blur	• Check if there is local interference such as an electrical appliance or power tool.
Lines or streaks appear on images	• Check the antenna or aim the antenna to the correct direction.
Afterimages (ghosts) appear when the product turns off	• Pixels may have been damaged from a fixed image displayed for a long time (image burn). Use a screen saver to prevent the pixel damage on the screen.
The power is on but the screen appears extremely dark.	• Adjust the brightness and contrast in the menu option.
"No Signal" appears on the screen.	• Check if the signal cable is connected between the TV and products properly. • Check the selected input source by pressing **INPUT**.
Black spots appear on the screen.	• Several pixels in red, green, white, or black may appear on the screen that can attribute to the characteristics of the panel. This is normal.
The display offset is wrong.	• Adjust the position setting in the menu option. • Check if the video card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution using the display settings on the external device.
Thin lines appear in the background of the screen.	• Check the video cable connections.
The reception on some channels is poor	• Scroll to other channels. There may a problem with the broadcast. • The station signal may be weak. Aim the antenna to the correct direction. • Check if there is local interference such as an electrical appliance or power tool.

SPECIFICATIONS

MODELS	22LK2**
	22LK230-TA
	22LK230Z-TA

Dimensions (W x H x D)	With stand	640 mm x 391.4 mm x 168.1 mm
	Without stand	640 mm x 334.5 mm x 56 mm
Weight	With stand	4.4 kg
	Without stand	4.1 kg
Power requirement		AC 100-240 V~ 50 / 60 Hz
Television System Programme Coverage External Antenna Impedance		PAL/SECAM B/G/D/K, PAL I/II, NTSC-M VHF: NZ1~E21, UHF: E21 ~ E69, CATV: S1 ~ S20, HYPER: S21 ~ S47 75Ω

Environment condition	Operating Temperature	0 °C to 40 °C
	Operating Humidity	Less than 80 %
	Storage Temperature	-20 °C to 60 °C
	Storage Humidity	Less than 85 %

Product specifications shown above may be changed without prior notice due to upgrade of product functions.
For the power supply and power consumption, refer to the label attached to the product.

HDMI-DTV supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x480	31.47 31.5	59.94 60.00
720x576	31.25	50
1280x720	44.96 45 37.5	59.94 60.00 50.00

🛈 **NOTE**

• In some external device is connected, it may take some time to display the TV screen when you change the resolution.

LG
Life's Good

The model and serial numbers of the TV is
located on the back of the TV
Record it below should you ever need service.

MODEL _____

SERIAL _____