



LG

Life's Good

ENGLISH

OWNER'S MANUAL

LCD TV

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

LCD TV MODEL
M2241A

CONTENTS

3 ASSEMBLING AND PREPARING

- 3 Unpacking
- 4 Parts and buttons
- 5 Lifting and moving the TV
- 5 Setting up the TV
 - Attaching the Stand Base
 - Detaching the Stand Base and Body
- 6 - Mounting on a table
- 7 - Mounting on a wall

9 REMOTE CONTROL

11 WATCHING TV

- 11 Connecting an antenna or cable
 - Connecting an antenna or basic cable
 - Connecting with a cable box
- 12 Accessing the TV for the first time
- 13 Watching TV
- 13 Managing channels
 - Automatically setting up channels
 - Manually setting up channels
 - Editing your Channel list
 - Favorite channel setup
- 15 Using additional options
 - Adjusting aspect ratio
 - Using the input list
 - On-screen menu language
 - Locking the buttons on the TV

17 CONNECTING TO A PC

- 17 RGB connection
- 18 Adjusting the screen
 - Selecting an image mode
 - Customizing image options
 - Customizing PC display options
- 19 Adjusting the sound
 - Selecting an sound mode
 - Customizing sound options

21 ENTERTAINMENT

- 21 Using integrated media features
 - Connecting USB storage devices
 - Browsing files
 - Viewing Photos
 - Listening to Music

26 CUSTOMIZING SETTINGS

- 26 Accessing main menus
- 27 Customizing settings
 - CHANNEL settings
 - PICTURE settings
 - AUDIO settings
 - TIME settings
 - OPTION settings
 - USB settings

34 MAKING CONNECTIONS

- 34 Connection overview
- 36 Connecting to a Camcorder, Camera, HD receiver, DVD or VCR player, Gaming device
 - HDMI connection
 - Composite connection
- 36 Connecting to a USB

37 MAINTENANCE

- 37 Screen and frame
- 37 Cabinet and stand
- 37 Power cord

38 TROUBLESHOOTING

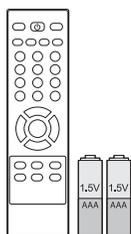
- 38 General
- 39 PC mode

41 SPECIFICATIONS

ASSEMBLING AND PREPARING

Unpacking

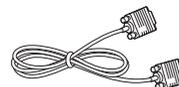
Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and accessories.



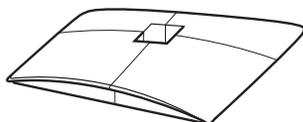
Remote control and Batteries



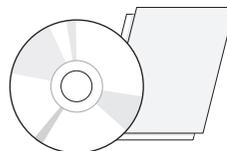
Power Cord



RGB Cable



Stand base



CD(Owner's Manual) / Card



CAUTION

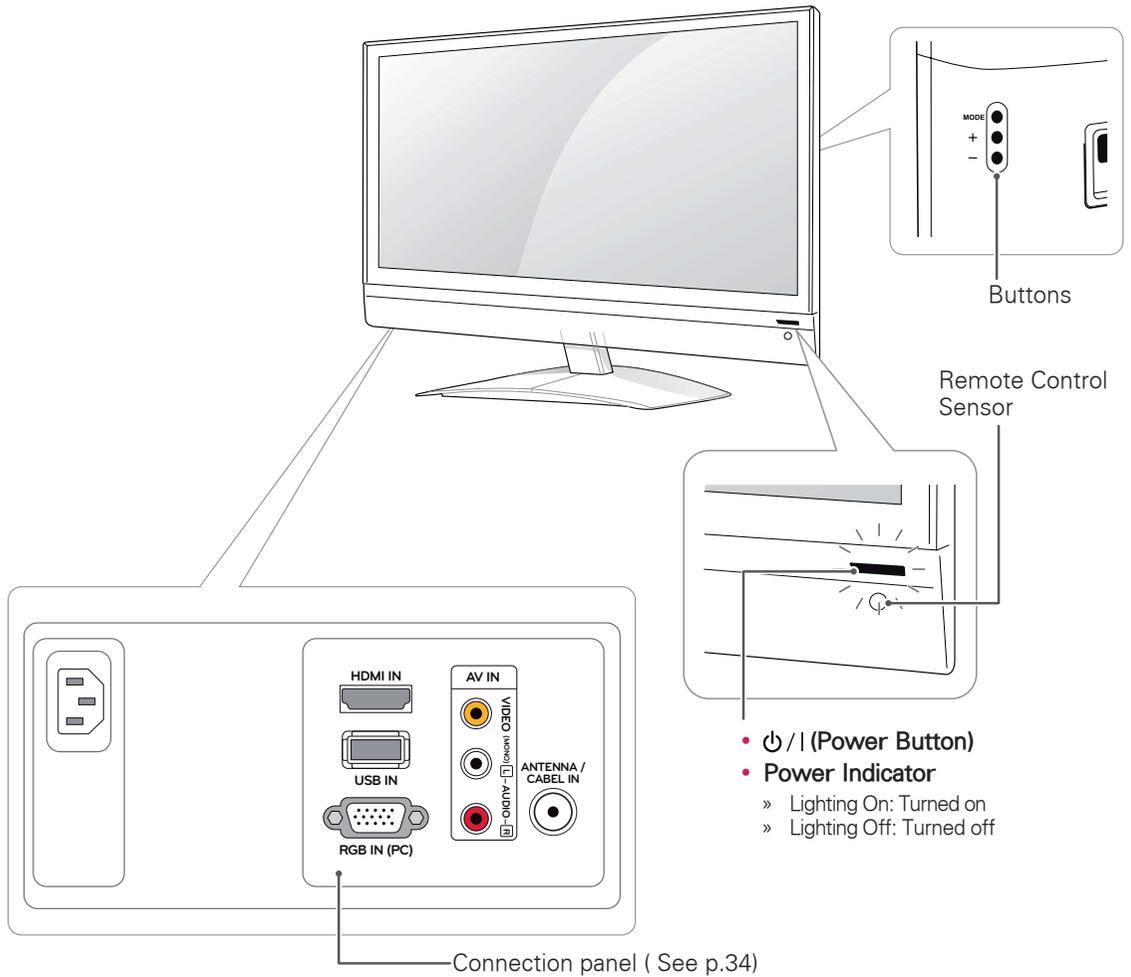
- Do not use any pirated items to ensure the safety and product life span.
- Any damages or injuries by using pirated items are not covered by the warranty.



NOTE

- The accessories supplied with your product may vary depending on the model.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.

Parts and buttons



- (Power Button)
- **Power Indicator**
 - » Lighting On: Turned on
 - » Lighting Off: Turned off

button	Description
MODE "●"	Selects the mode.(Channel Volume Input)
Channel	Scrolls through the saved Channel.
Volume	Adjust the Volume level.
Input	Changes the Input source.
	Adjusts the mode button level.



NOTE

- You can set the Power indicator to on or off by selecting **OPTION** in the main menus.
- Local keys work on **Power, Channel, Volume** and **Input** only.

Lifting and moving the TV

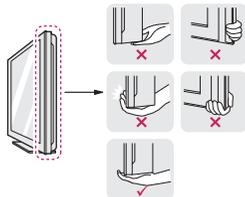
When moving or lifting the TV, read the following to prevent the TV from being scratched or damaged and for safe transportation regardless of its type and size.



CAUTION

Avoid touching the screen at all times, as this may result in damage to the screen or some of the pixels used to create images.

- 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.
- Hold the top and bottom of the TV frame firmly. Make sure not to hold the transparent part, speaker, or speaker grill area.



- When holding the TV, the screen should face away from you to prevent the screen from scratches.



- 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

Attaching the Stand Base

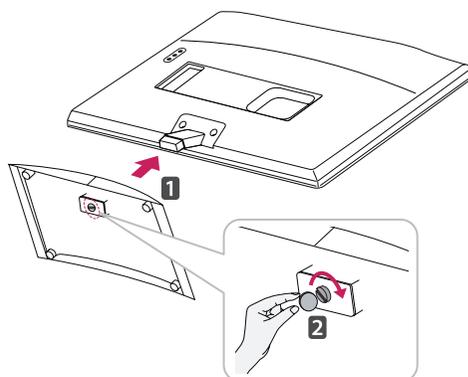
- 1 Place the TV with the screen side down on a flat and cushioned surface.



CAUTION

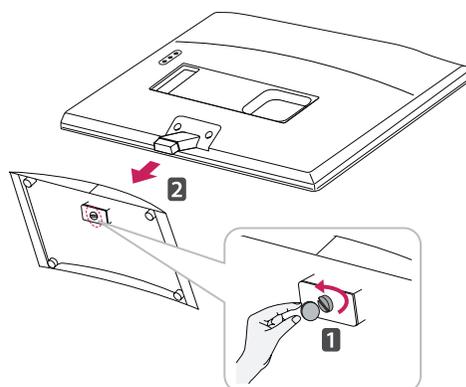
Lay a foam mat or soft protective cloth on the surface to protect the screen from damage.

- 2 Attach the **Stand Base** from the TV by turning the screw to the right with a **Coin**.

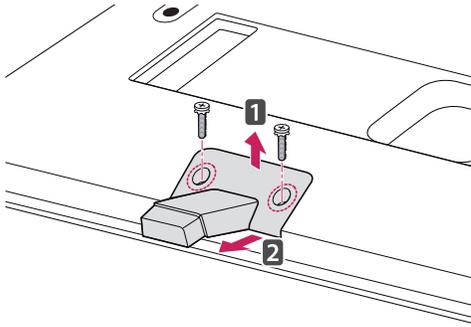


Detaching the Stand Base and Body

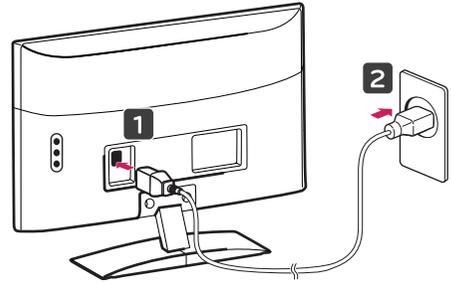
- 1 Place the TV with the screen side down on a flat and cushioned surface.
- 2 Turn the screw to the left, and then pull out the **Stand Base** from the **Stand Body**.



- 3 Remove 2 screws and pull out the **Stand Body** from the TV.



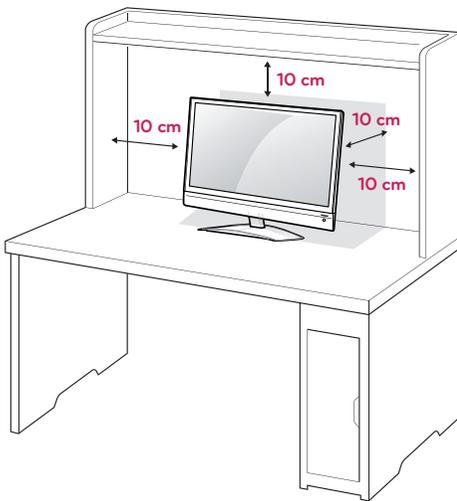
- 2 Connect the **Power Cord** to a wall outlet.



Mounting on a table

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

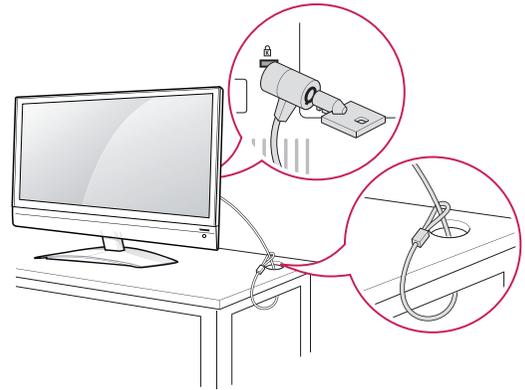
Leave a 10 cm (minimum) space from the wall for proper ventilation.



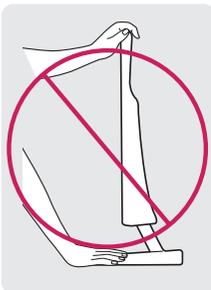
Using the Kensington security system

The Kensington security system connector is located at the back of the TV. For more information of installation and using, refer to the manual supplied with the Kensington security system or visit <http://www.kensington.com>.

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



! WARNING



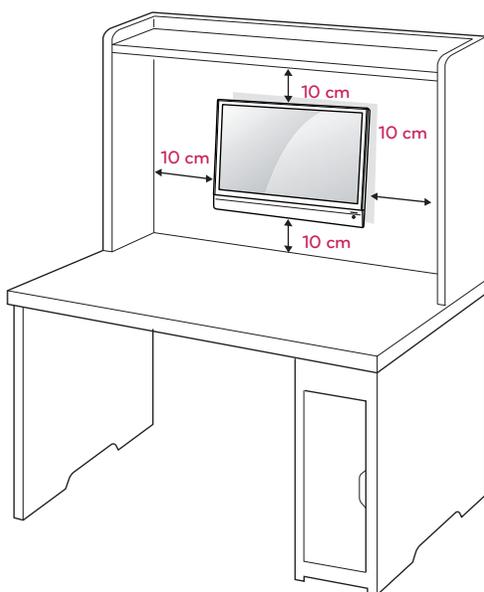
- It's a head fixed model and prohibited from adjusting the angle.
- If you try to adjust the angle forcibly, It can be damaged.

! NOTE

The Kensington security system is optional. You can obtain additional accessories from most electronics stores.

Mounting on a wall

For proper ventilation, allow a clearance of 10 cm 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.

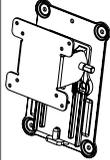


If you intend to mount the TV to a wall, attach the Wall mounting interface (optional parts) to the back of the set.

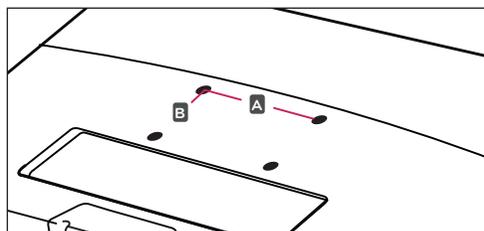
When you install the TV using the wall mounting interface (optional parts), attach it carefully so it will not drop.

- 1 Please use a wall mount interface in accordance with VESA Standards.
- 2 If you use screws longer than standard, the TV might be damaged internally.
- 3 If you use improper screws, the product might be damaged and drop from the mounted position. In this case, LG Electronics is not responsible for damage.
- 4 VESA compatible only with respect to screw mounting interface dimensions and mounting screw specifications.

- 5 Please use VESA standard as below.
 - 784.8 mm (30.9 inch) and under
 - * Wall Mount Pad Thickness : 2.6 mm
 - * Screw : Φ 4.0 mm x Pitch 0.7 mm x Length 10 mm
 - 787.4 mm (31.0 inch) and above
 - * Please use VESA standard wall mount pad and screws.

Model	M2241A
VESA (A x B)	75 x 75
Standard screw	M4
Number of screws	4
Wall mount bracket (optional)	RW120 

- VESA (A x B)



**CAUTION**

- Disconnect the power cord 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 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 mounts 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 wall mount bracket is optional. You can obtain additional accessories from your local dealer.
- The length of screws may differ depending on the wall mount. Be sure to use the proper length.
- For more information, refer to the instructions supplied with the wall mount.

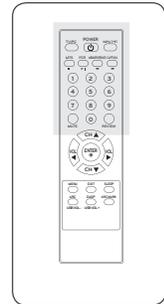
REMOTE CONTROL

The descriptions in this manual are based on the buttons of the remote control.

Please read this manual carefully and use the TV correctly.

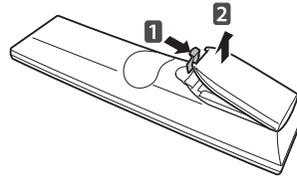
To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching ⊕ and ⊖ ends to the label inside the compartment, and close the battery cover.

To remove the batteries, perform the installation actions in reverse.

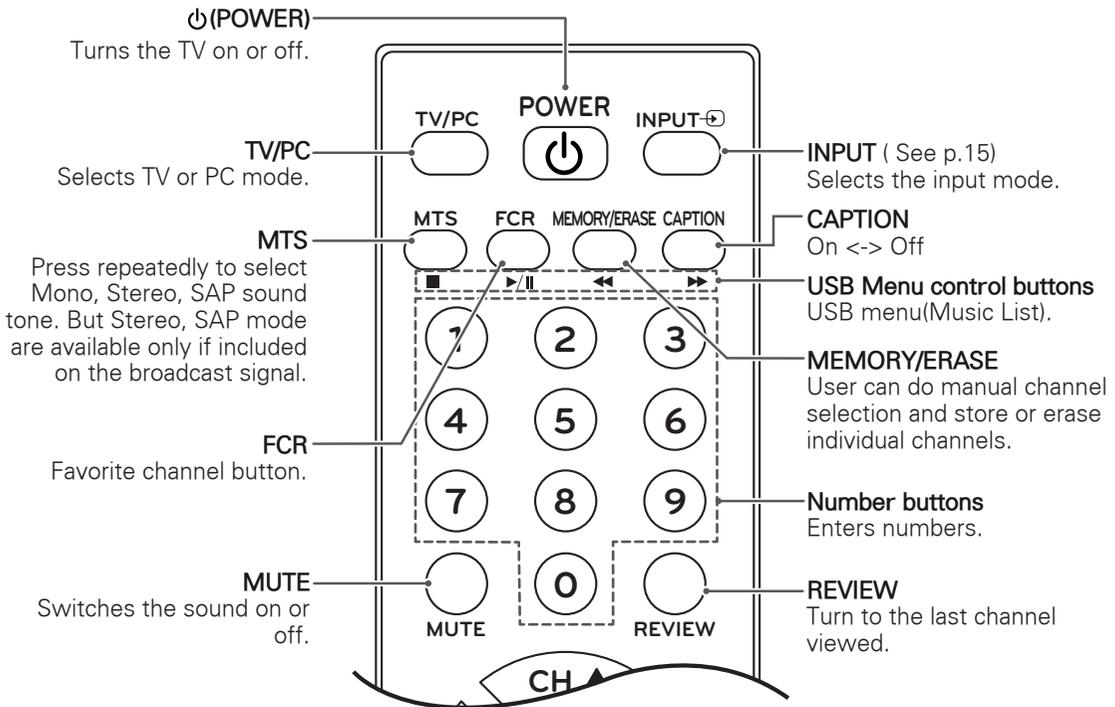


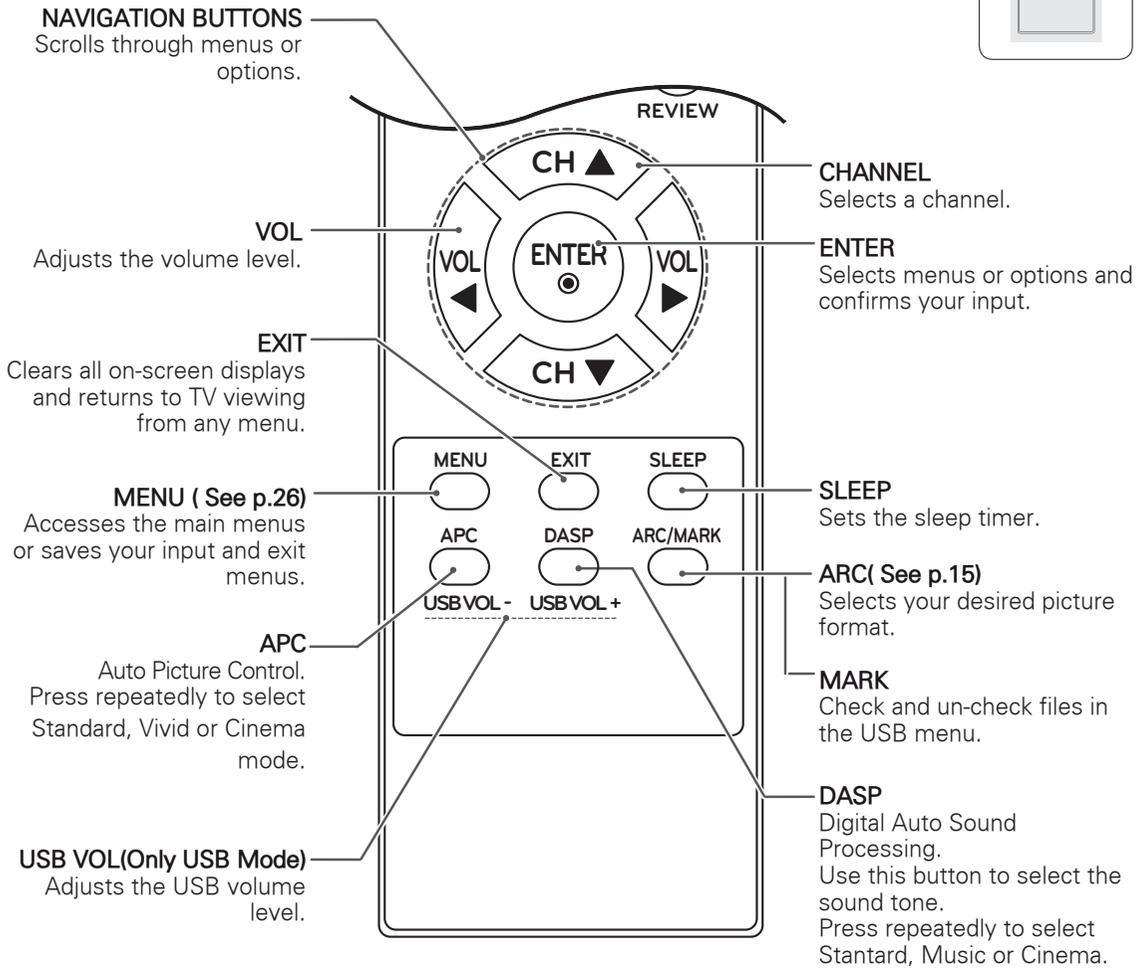
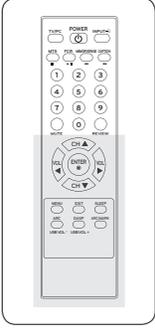
CAUTION

Do not mix old and new batteries, as this may damage the remote control.



Make sure to point the remote control to the remote control sensor on the TV.





NOTE

- If you lost remote controller, you have to buy it at once because local keys work at **Power, Channel, Volume** and **Input** only.

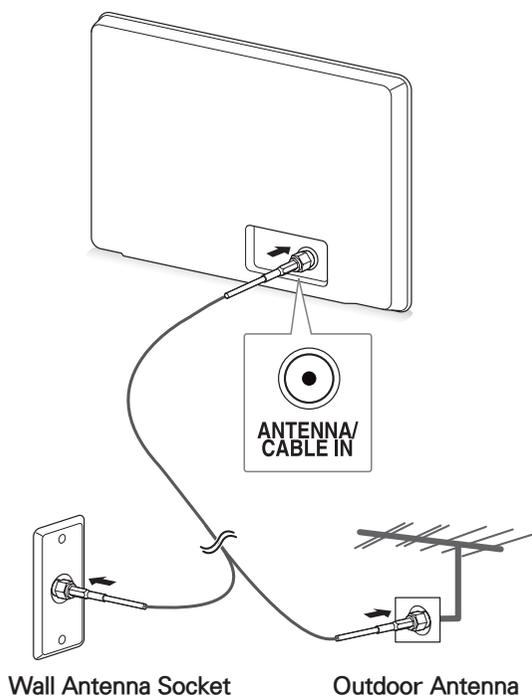
WATCHING TV

Connecting an antenna or cable

Connect an antenna, cable, or cable box to watch TV referring to the following. The illustrations may differ from the actual accessories and an RF cable is optional.

Connecting an antenna or basic cable

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

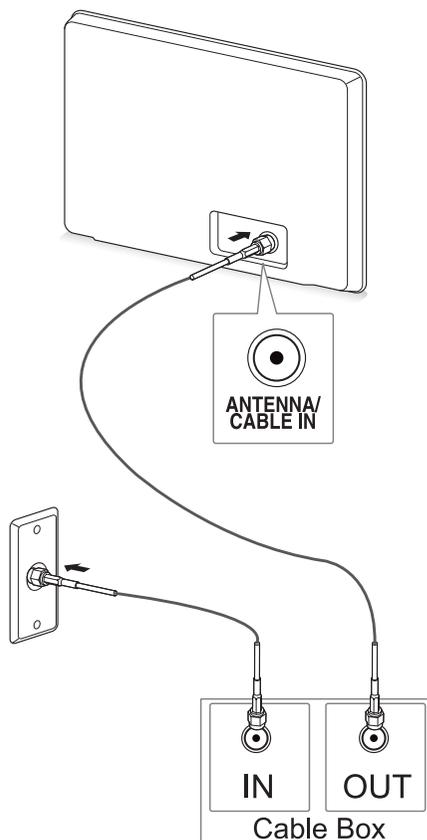


NOTE

- 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 proper direction.
- Visit <http://AntennaWeb.org> for more information about the antenna and cable connection.

Connecting with a cable box

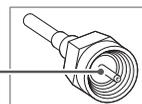
Connect the TV to a cable box and the cable box to a wall antenna socket with 2 RF cables (75 ohm).



CAUTION

- Make sure not to bend the copper wire of the RF cable.

Copper wire

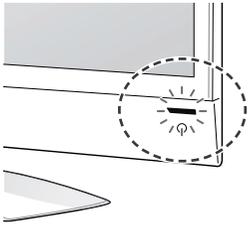


- Complete all connection instructions between devices, and then connect the power cord to the power outlet to prevent damages to your TV.

Accessing the TV for the first time

When you access the TV 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 Press **⏻/I** on the TV to turn the TV on.
The Power indicator lighting is turned on.



NOTE

When the TV is in Power saving mode, the Power indicator lighting blinks.

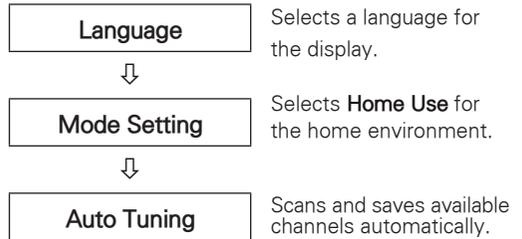


- 3 The initial setting screen appears if you access the TV for the first time.

NOTE

- You can also switch the TV from PC mode to TV mode, press **TV/PC**.
- You can also access **Factory Reset** by accessing **OPTION** in the main menus.
- If you do not operate the TV within 40 seconds when the setting menu screen appears, the setting menus will disappear.

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



NOTE

- To display images in the best quality for your home environment, select **Home Use** mode.
- **Store Demo** mode is suitable for the retail environment.
- If you select **Store Demo** mode, the previously customized settings will switch to the default settings of **Store Demo** in 5 minutes.

- 5 When the basic settings are complete, press **ENTER**.

NOTE

If you do not complete the initial setting, it will appear whenever you access the TV.

- 6 To turn the TV off, press **⏻/I** on the TV.
The Power Indicator turns off.

CAUTION

Disconnect the power cord from the power outlet when you do not use the TV for a long period of time.

Watching TV

- 1 Press **⏻** on the Remote control or **⏻/I** on the TV to turn the TV on.
- 2 Press **INPUT** and select **Antenna**.
- 3 Control the TV using the following buttons and menus while you are watching TV.

Button / Menu	Description
CH(▲, ▼)	Scrolls through the saved channels
0 - 9	Selects a channel by entering numbers
VOL (◀, ▶)	Adjusts the volume level
MUTE	Mutes all sounds
APC	Selects one of the preset image modes (See p.28)
DASP	Selects one of the preset audio modes. (See p.30)
ARC	Resizes an image (See p.15)

- 4 To turn the TV off, Press **⏻** on the Remote control or **⏻/I** on the TV.

Managing channels

Automatically setting up channels

Use this to automatically find and store all available channels.

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **CHANNEL** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to **Auto Tuning** and press **ENTER**.
- 4 Select **Yes** to start automatic tuning.
The TV scans and saves available channels automatically.
- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Manually setting up channels

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

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **CHANNEL** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to **Manual Tuning** and press **ENTER**.
- 4 Press the Navigation buttons to scroll to **TV** or **CATV**.
- 5 Press the Navigation buttons or Number buttons to select the desired channel number.
- 6 Press the Navigation buttons to scroll to add or delete channels.
- 7 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Editing your Channel list

- 1 Press **MENU** to access the main menus.
- 2 Press the **Navigation buttons** to scroll to **CHANNEL** and press **ENTER**.
- 3 Press the **Navigation buttons** to scroll to **Channel Edit** and press **ENTER**.
- 4 **Edit** channels using the following buttons.

Button	Description
NAVIGATION	Scrolls through channel types or channels
ENTER	Selects a channel to view
MEMORY/ERASE	Adds or deletes a channel. The deleted channel displays in blue.
FCR	Adds a channel in favorite list.

Favorite channel setup

Selecting favorite channel

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

- 1 Press **MENU** to access the main menus.
- 2 Press the **Navigation buttons** to scroll to **CHANNEL** and press **ENTER**.
- 3 Press the **Navigation buttons** to scroll to **Channel Edit** and press **ENTER**.
- 4 Press the **Navigation buttons** to scroll to **Channel** you want and press **FCR** button.
- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Displaying the favorite channel list

- 1 Press **FCR** button to access the favorite channel List.
- 2 When you are finished, press **MENU** or **EXIT**.

Using additional options

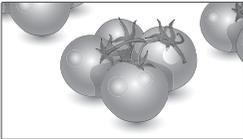
Adjusting aspect ratio

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

CAUTION

- If a fixed image displays on the 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 is set to 4:3 for a long period of time, image burn may occur on the letterboxed area of the screen.

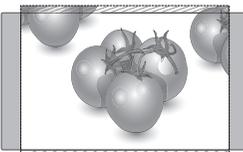
- **16:9**: The following selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen.



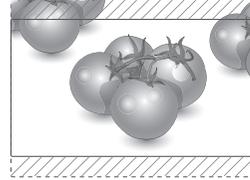
- **Just Scan**: Following Selection will lead you to view the picture of best quality without loss of original picture in high resolution image.
Note : If there is noise in original Picture, You can see the noise at the edge.



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



- **Zoom 1 & 2**: 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.



NOTE

- You can only select **4:3, 16:9 (Wide)** in **RGB** mode.
- You can only select **4:3, 16:9 (Wide)** in **HDMI** mode.
- In **HDMI** (over 720p) mode, **Just Scan** is available.
- You can only select **4:3, 16:9 (Wide), Zoom1/2** in **TV** and **AV** mode.

Using the input list

Selecting an input source

- 1 Press **INPUT** to access the input source list.
- 2 Press the Navigation buttons to scroll to one of the input sources and press **ENTER**.

Input source	Description
Antenna	Watch TV over the air and cable
AV	Watch the contents in a VCR or other external devices
RGB	View a PC display on the screen
HDMI	Watch contents in a DVD or Digital settop box or other high definition devices

On-screen menu language

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

- 1 Press the Navigation buttons to scroll to Desired Language and press **ENTER**.

If you want to change Language

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **OPTION** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to **Language** and press **ENTER**.
- 4 Press the Navigation buttons to scroll to Desired Language option you want and press **ENTER**.
- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

! 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 until the set up is completed whenever the TV is switched on.

Locking the buttons on the TV

Lock the buttons on the TV to prevent any unwanted operations or accidents by children.

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **OPTION** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to **Key Lock** and press **ENTER**.
- 4 Press the Navigation buttons to scroll to **On** and press **ENTER** to activate the Key lock feature.
- To deactivate the Key lock feature, select **Off**.
- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

! NOTE

- The TV remember the last setting after you turn the TV off.
- If you turn the TV off while the key lock feature is activated and wish to turn it back on, press the **⏻/I** on the TV. You can also switch the device on using the remote control by pressing the **⏻**, **INPUT**, **CH**, **^**, **v** or **Number** buttons.
- If you press any button on the TV with the Key lock feature activated, **▲ Key Lock ON** appears on the screen.

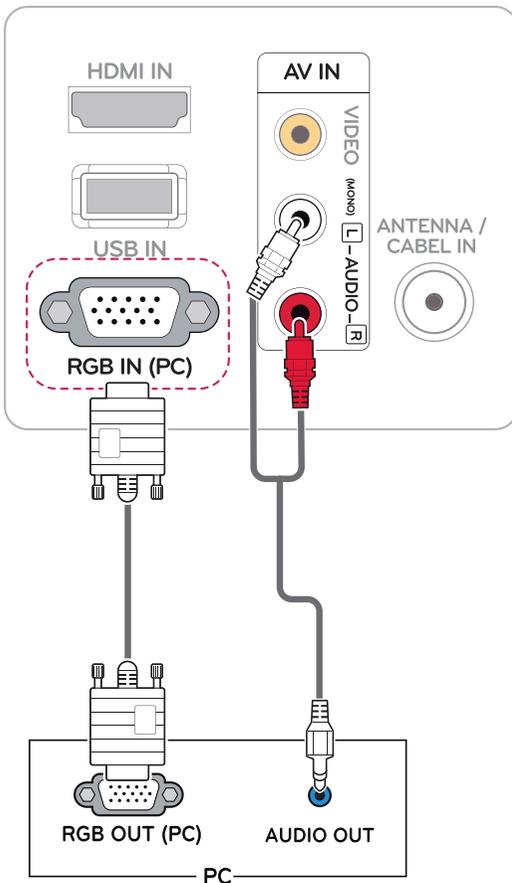
CONNECTING TO A PC

Your TV supports the Plug & Play* feature.

* Plug & Play: Plug and play is a computer feature that allows the new device, normally a peripheral, without requiring reconfiguration or manual installation of device drivers.

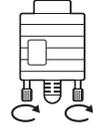
RGB connection

Transmits the analog video signal from your PC to the TV. Connect the PC and the TV with the D-sub 15 pin cable as shown the following illustrations. To transmit an audio signal, connect an optional audio cable as shown the following illustrations.



! CAUTION

- Connect the signal input cable and tighten it by turning the screws clockwise.
- Do not press the screen with your finger for a long time as this may result in temporary distortion on the screen.
- Avoid displaying a fixed image on the screen for a long period of time to prevent image burn. Use a screensaver if possible.



! NOTE

- If you do not use an optional external speaker, connect the PC to the TV with the optional audio cable.
- The Audio cable is optional. You can obtain additional accessories from most electronics stores.
- If you turn the TV on when the set becomes cold, the screen may flicker. This is normal.
- Some red, green, or blue spots may appear on the screen. This is normal.

Adjusting the screen

Selecting an image mode

Display images in its optimized settings by selecting one of the preset image modes.

- 1 Press **MENU** to access the main menus.
- 2 Press the **Navigation buttons to scroll to PICTURE** and press **ENTER**.
- 3 Press the **Navigation buttons to scroll to Picture Mode** and press **ENTER**.
- 4 Press the **Navigation buttons to scroll to an image mode you want** and press **ENTER**.

Mode	Description
Vivid	Adjusts the video image for the retail environment by enhancing the Contrast, Brightness, Color, and Sharpness .
Standard	Adjusts the image for the normal environment.
Cinema	Optimizes the video image for the cinematic look and enjoy movies as if you are in a movie theater.

- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Customizing image options

Customize basic and advanced options of each image mode for the best screen performance.

- 1 Press **MENU** to access the main menus.
- 2 Press the **Navigation buttons to scroll to PICTURE** and press **ENTER**.
- 3 Press the **Navigation buttons to scroll to Picture Mode**.
- 4 Press the **Navigation buttons to scroll to an image mode you want** and press **ENTER**.
- 5 Select and adjust following options, and then press **ENTER**.

Option	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 image is saturated.
Brightness	Adjusts the base level of the signal in the image. You may use Brightness when the dark part of the image is saturated.
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.
Color	Adjusts intensity of all Colors .
Tint	Adjusts the balance between Red and Green levels.
Advanced Control	Customizes the advanced options. See more information about advanced options See p.29.
Picture Reset	Restores the options to the default setting.

- 6 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Customizing PC display options

Customize options of each image mode for the best image quality.

- This function works in the following mode: RGB[PC] mode.
- 1 Press **MENU** to access the main menus.
 - 2 Press the Navigation buttons to scroll to **PICTURE** and press **ENTER**.
 - 3 Press the Navigation buttons to scroll to **Screen** and press **ENTER**.
 - 4 Select and adjust following options, and then press **ENTER**.

Option	Description
Resolution	Selects a proper Resolution .
Auto Config.	Sets to adjust the screen Position , Size and Phase automatically. The displayed image may be unstable for a few seconds while the configuration is in progress.
Position/ Size/Phase	Adjusts the options when the image is not clear, especially when characters are shaky, after the auto configuration.
Reset	Restores the options to the default setting.

- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Adjusting the sound

Selecting an sound mode

Play the sound in its optimized settings by selecting one of the preset sound modes.

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **AUDIO** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to **Sound Mode** and press **ENTER**.
- 4 Press the Navigation buttons to scroll to a sound mode you want and press **ENTER**.

Mode	Description
Standard	Selects when you want standard-quality sound.
Music	Selects when you listen to music.
Cinema	Selects when you watch movies.

- 5 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

Customizing sound options

Customize options of each sound mode for the best sound quality.

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **AUDIO** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to **Sound Mode** and press **ENTER**.
- 4 Press the Navigation buttons to scroll to a sound mode you want and press **ENTER**.
- 5 Select and adjust following options, and then press **ENTER**.

Option	Description
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.

- 6 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

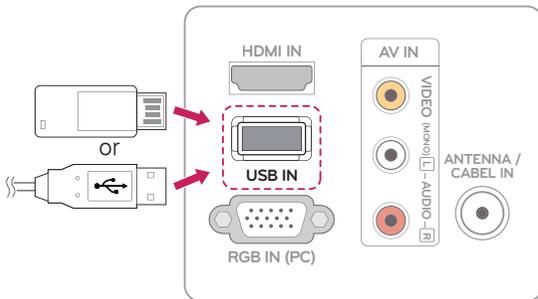
ENTERTAINMENT

Using integrated media features

Connecting USB storage devices

Connect USB storage devices such as a USB flash memory, external hard drive, or MP3 player to the TV and use multimedia features (“**Browsing files**” See p.22).

Connect a USB flash memory or USB memory card reader to the TV as shown on the following illustration. The **USB** screen appears.



CAUTION

- Back up your files saved on a USB storage device frequently, as you may lose or damage the files and this may be not covered by the warranty.

Tips for using USB storage devices

- Only a USB storage device is recognizable.
- If the USB storage device is connected through a USB hub, the device is not recognizable.
- A USB storage device using an automatic recognition program may not be recognized.
- A USB storage device which uses its own driver may not be recognized.
- The recognition speed of a USB storage device may depend on each device.
- Please do not turn off the TV or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal music files, image files.
- Please use only a USB storage device which was formatted as a FAT, FAT16, FAT32 file system provided with the windows operating system. In case of a storage device formatted as a different utility programme which is not supported by Windows, it may not be recognized.
- Please connect power to a USB storage device(over 0.5 A) which requires an external power supply. If not, the device may not be recognized.
- Please connect a USB storage device with the cable offered by the device maker.
- Some USB storage devices may not be supported or operated smoothly.
- File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.
- Be sure to back up important files since data stored in a USB memory device may be damaged. We will not be responsible for any data loss.
- If the USB HDD does not have an external power source, the USB device may not be detected. So be sure to connect the external

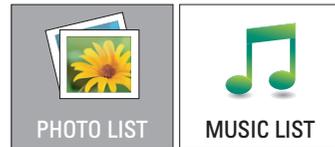
power source.

- Please use a power adaptor for an external power source. We do not guarantee an USB cable for an external power source.
- If your USB memory device has multiple partitions or if you use a USB multi-card reader, you can use up to 6 partitions or USB memory devices.
- If a USB memory device is connected to a USB multi-card reader, its volume data may not be detected.
- If the USB memory device does not work properly, disconnect and reconnect it.
- How fast a USB memory device is detected differs from device to device.
- If the USB is connected in Standby Mode, specific hard disk will automatically be loaded when the TV is turned on.
- The recommended capacity is 32 GB or less for USB memory.
- Any device with more than the recommended capacity may not work properly.
- USB storage devices below USB 2.0 are supported as well.
- When a broken file is played in the USB storage, the TV may turn off or work abnormally.
- If picture size is bigger than the recommended size, the picture quality would be bad.
- USB file/folder number has limitation, 648, at each folder.

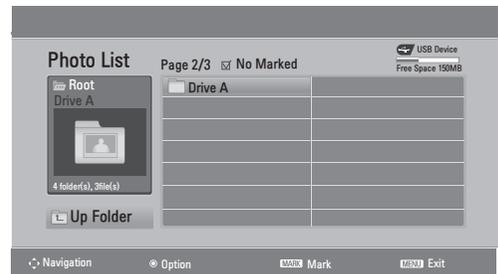
Browsing files

Access the **Photo** or **Music** lists and browse files.

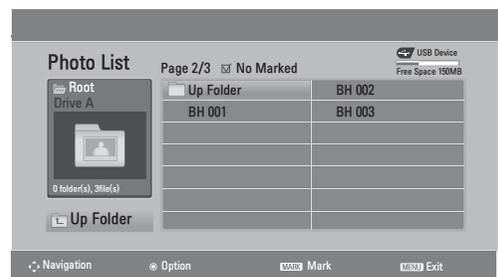
- 1 Connect a **USB** storage device.
- 2 Press the Navigation buttons to scroll to **PHOTO LIST** or **MUSIC LIST** and press **ENTER**.



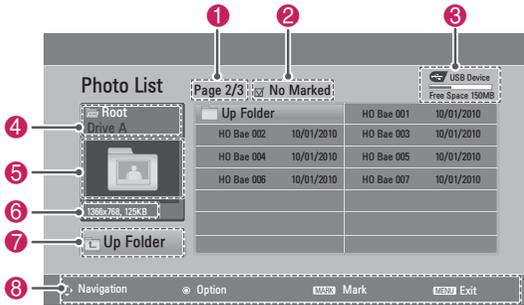
- 3 Select **Drive A** to access the connected USB storage device



- 4 Select a folder you want.
- To return to the previous level, select **Up Folder**.



- Press the Navigation buttons to browse files. The highlighted file will display in the preview window.



No.	Description
①	Current page number/total number of pages
②	The number of selected files
③	Usable USB memory
④	File and Folder name
⑤	Preview window
⑥	File size
⑦	Return to the previous level
⑧	Available buttons on the remote control

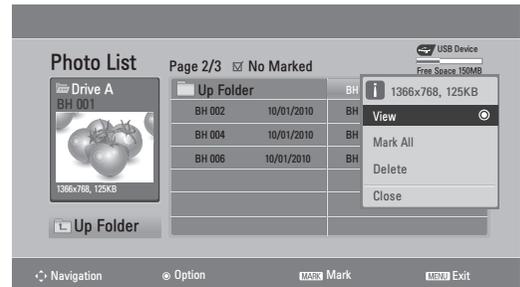
Supported file format

Type	Supported file format
Photo	<ul style="list-style-type: none"> JPEG Recommended size 960 pixel (W) x 540 pixel (H) Available size Baseline: 64 pixel (W) x 64 pixel (H) - 12244 pixel (W) x 8640 pixel (H) Progressive: 64 pixel (W) x 64 pixel (H) - 1920 pixel (W) x 816 pixel (H)
Music	<ul style="list-style-type: none"> MP3 Bit rate range 32 Kbps - 320 Kbps Sampling rate (Sampling Frequency) MPEG1 layer 3: 32 kHz, 44.1 kHz, 48 kHz MPEG2 layer 3: 16 kHz, 22.5 kHz, 24 kHz MPEG2.5 layer 3: 8 kHz, 11.025 kHz, 12 kHz <p>* A copy-protected file will not play.</p>

Viewing Photos

View image files saved in a USB storage device. The displays on the screen may differ from the model.

- Press the Navigation buttons to scroll to **USB** and press **ENTER**.
- Press the Navigation buttons to scroll to **Photo List** and press **ENTER**.
- Press the Navigation buttons to select **Drive A** to access the connected USB storage device.
- Press the Navigation buttons to scroll to a folder you want and press **ENTER**.
- Press the Navigation buttons to scroll to a file you want and press **ENTER**. A pop-up window will appear.

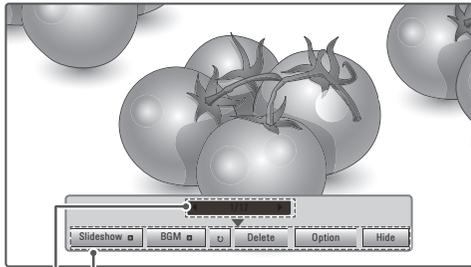


- View photos by using the following menus.

Menu	Description
View	Displays the selected photo in a full-screen view.
Mark All or Unmark All	Selects all files or clears all of your selections
Delete	Deletes a file saved in a USB storage device.
Close	Closes the pop-up menu.

Using photo options

Use the following options while viewing photos.

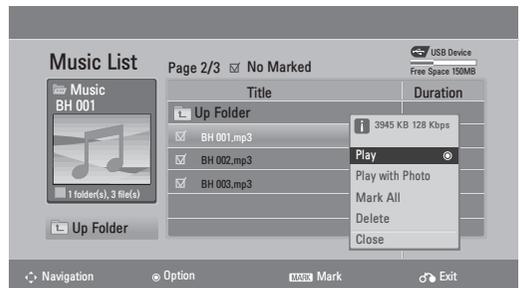


Options
Number of selected photos

Option	Description
Slideshow	Starts or stops a slideshow with selected photos. If there are no selected photos, all photos saved in the current folder display during a slideshow. To set a slideshow speed, select Option .
BGM	Turns the background music on or off. To set the background music folder, select Option .
⤵ (Rotate)	Rotates photos clockwise (90°, 180°, 270°, 360°). <div style="border: 1px solid black; padding: 5px;"> <p>NOTE</p> <p>The supported photo size is limited. You cannot rotate a photo if the resolution of the rotated width is larger than the supported resolution size.</p> </div>
Delete	Deletes a photo.
Option	<ul style="list-style-type: none"> Slide Speed: Selects a slideshow speed (Fast, Medium, Slow). Music Album: Selects a music folder for the background music. <div style="border: 1px solid black; padding: 5px;"> <p>NOTE</p> <p>You cannot change the music folder while the background music is playing.</p> </div>
Hide	Hides the option window. To display the options, press ENTER .

Listening to Music

- 1 Press the Navigation buttons to scroll to **USB** and press **ENTER**.
- 2 Press the Navigation buttons to scroll to **Music List** and press **ENTER**.
- 3 Select **Drive A** to access the connected USB storage device.
- 4 Press the Navigation buttons to scroll to a folder you want and press **ENTER**.
- 5 Press the Navigation buttons to scroll to a file you want and press **ENTER**.
A pop-up window will appear.



- 6 Play music by using the following menus.

Menu	Description
Play, Stop Play, or Play Marked	Plays music, stops playback, or plays the selected music file. If you play music without selecting music files, all of the music files saved in the current folder will play. The ♪ icon will appear in front of the duration on the currently playing file.
Play with Photo	Displays photos during playback.
Mark All or Unmark All	Selects all files or clears all of your selections
Delete	Deletes a file saved in a USB storage device.
Close	Closes the pop-up menu.

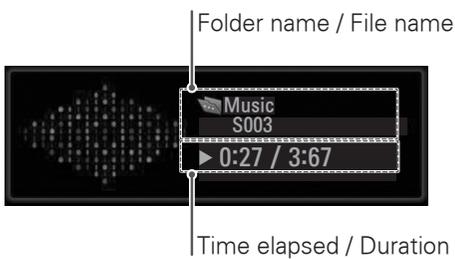
- 7 Control playback by using the following buttons.

Button	Description
■	Stops playback
▶/	Plays a music file and Pauses or resumes playback
▶▶	Skips to the next file
◀◀	Skips to the previous file

! NOTE

- A damaged or corrupted file will not play and the duration of the file display as 00:00.
- A copy-protected file will not play.
- If the TV is not in use for some time during playback, the information box as a screensaver will appear to prevent image burn.

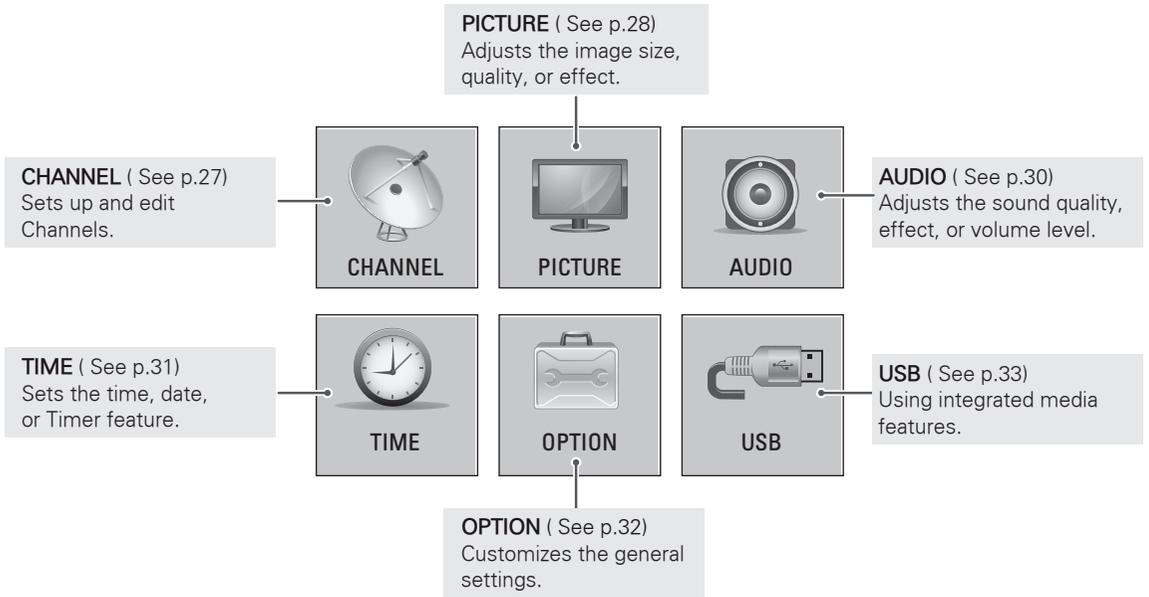
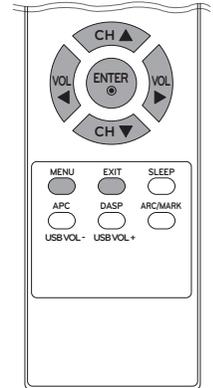
To return to the Music list screen, press **MENU** or **EXIT, ENTER**.



CUSTOMIZING SETTINGS

Accessing main menus

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to one of the following menus and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
- 4 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.



Customizing settings

CHANNEL settings

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **CHANNEL** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **MENU**.
- 4 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.

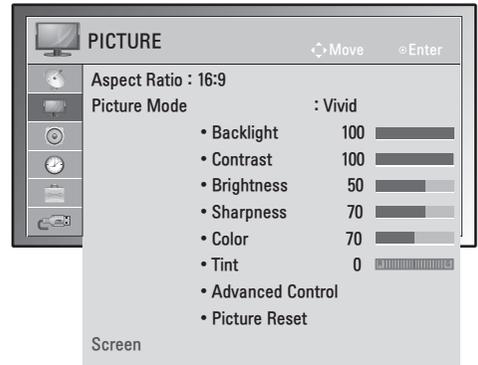


The available channel settings are described in the following:

Setting	Description
Auto Tuning	Tunes and stores all available channels through antennas or cable inputs. (See p.13)
Manual Tuning	Tunes and stores the channels you want manually. (See p.13)
Channel Edit	Edit the channel list. (See p.14)

PICTURE settings

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **PICTURE** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **MENU**.
- 4 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.



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. The available preset picture modes vary depending on the TV .	
	Mode	
	Vivid	Adjusts the video image for the retail environment by enhancing the contrast, brightness, Color, and sharpness.
	Standard	Adjusts the image for the normal environment.
	Cinema	Optimizes the video image for a cinematic look to enjoy movies as if you are in a movie theater.
Screen	Customizes the PC display options in RGB mode.	
	Option	
	Resolution	Selects a proper resolution. See "Specification" See p.41 for the recommended resolution for each model.
	Auto Configure	Sets to adjust the screen position, clock, and phase automatically. The displayed image may be unstable for a few seconds while the configuration is in progress.
	Position/Size/Phase	Adjusts the options when the picture is not clear, especially when characters are shaky, after the auto configuration.
Reset	Restores the options to the default setting.	

Basic image options

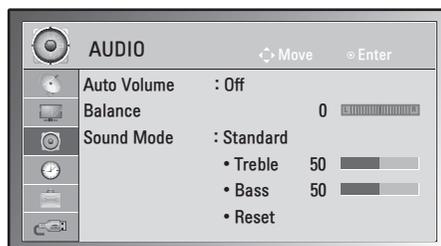
Setting	Description
Backlight	Adjusts the brightness of the screen by controlling the LCD backlight. If you decrease the brightness level, the screen becomes darker and the power consumption will be reduced without any video signal loss.
Contrast	Increases or decreases the gradient of the video signal. You may use Contrast when the bright part of the picture is saturated.
Brightness	Adjusts the base level of the signal in the picture. You may use Brightness when the dark part of the picture is saturated.
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.
Color	Adjusts intensity of all Colors.
Tint	Adjusts the balance between red and green levels.
Advanced Control	Customizes the advanced options.
Reset	Restores the options to the default setting.

Advanced image options

Setting	Description
Color Temperature (Medium/Warm/Cool)	This is the function to adjust the overall color of the screen to the feeling you want.
Dynamic Contrast (Off/Low/High)	Adjusts the contrast to keep the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker.
Dynamic Color (Off/Low/High)	Adjusts screen colors so that they look more lifelike, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue, green and white look more vivid.
Noise Reduction (Off/Low/Medium/High)	Reduces screen noise without compromising video quality.
Black Level (Low/High/Auto)	<ul style="list-style-type: none"> • Low: The picture of the screen gets darker. • High: The picture of the screen gets brighter. • Auto: Realizing the black level of the screen and set it to High or Low automatically. Set black level of the screen to proper level. This function enables to select 'Low' or 'High' in the following mode: TV, AV(NTSC-M), HDMI. Otherwise, 'Black level' is set to 'Auto'.
Film Mode (On/Off)	You can watch a cinema-like video by eliminating judder effect. Use this function when you watch movies.
Color Filter (Red/Green/Blue)	This is the function to filter the specific Colors of the video. You can use the RGB filter to set Color saturation and hue accurately.

AUDIO settings

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **AUDIO** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **MENU**.
- 4 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.



The available audio options are described in the following:

Setting	Description	
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	Adjusts balance between the left and right speakers according to your room environment.	
Sound Mode	Selects one of the preset sound modes or customize each option 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.

TIME settings

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **TIME** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **MENU**.
- 4 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.



The available time settings are described in the following:

Setting	Description
Clock	You must set the time correctly before using on/off time function. If current time setting is erased by a power failure or the TV is unplugged, reset the clock.
Off Time/On Time	<p>Sets the time to turn on or off the TV automatically. To use this function, you should set the current time and date in the Clock menu.</p> <div style="border: 1px solid black; padding: 5px;"> <p>NOTE</p> <ul style="list-style-type: none"> • 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 the On Time feature and turn the TV off by disconnecting Main power, the On Time feature will not work. To activate the On Time feature, the TV must be in Standby mode. • If you set both Off Time and On Time features to the same time, the Off Time function works in on use and on time function works in off case. </div>
Sleep Timer	Sets the length of time until the TV to turned off. When you turn the TV off and then turn it on again, the Sleep Timer will be set to off.
Auto Off	If the set is switched on and there is no input signal, it will switch off automatically after 15 minutes.

OPTION settings

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **OPTION** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **MENU**.
- 4 When you are finished, press **EXIT**.
 - When you return to the previous menu, press **MENU**.



The available option settings are described in the following:

Setting	Description				
Language	Selects a language for the display (See p.16).				
Key Lock	<p>The TV can be set so that the remote control is required to control it. This feature can be used to prevent unauthorized watching.</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p>NOTE</p> <ul style="list-style-type: none"> • In Key Lock 'On', if the TV is turned off, press the / button on the TV or POWER buttons on the remote control for turning the TV on. • With the Key Lock On, the display ' Key Lock On ' appears on the screen if any button on the TV is pressed while viewing the TV. </div>				
Caption/Text	Text services give a wide variety of information on all kind of subjects (ex. captioned program lists, weather forecasts, stock exchange topics, news for hearing-impaired....) on up to half of the screen. But not all stations offer text services, even though they might offer captioning. In the event you are receiving a poor signal, an empty black box may appear and disappear, even when the text mode is selected. This is a normal when receiving a poor signal. This set is programmed to remember the Caption/Text mode it was last set to, when you turn the power off.				
Power Indicator	Sets to turn on or off the Power indicator on the TV.				
Mode Setting	Customizes the TV settings to suit your preference. The initial setup screen will appear when you turn on the TV for the first time.				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Setting</th> </tr> </thead> <tbody> <tr> <td style="width: 30%;">Mode Setting</td> <td>Selects Home Use mode for the home environment. Selects Store Demo mode for the retail environment.</td> </tr> </tbody> </table>	Setting		Mode Setting	Selects Home Use mode for the home environment. Selects Store Demo mode for the retail environment.
Setting					
Mode Setting	Selects Home Use mode for the home environment. Selects Store Demo mode for the retail environment.				
Factory Reset	This function initializes all settings.				

USB settings

- 1 Press **MENU** to access the main menus.
- 2 Press the Navigation buttons to scroll to **USB** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **MENU**.
- 4 When you are finished, press **EXIT**.
When you return to the previous menu, press **MENU**.



The available usb settings are described in the following:

Setting	Description
Photo List	You can view photo files on USB storage device. (See p.23)
Music List	You can play music files on USB storage device. (See p.24)

MAKING CONNECTIONS

Connect various external devices to the TV and switch input modes to select an external device. For more information about an external device's connection, refer to the manual supplied with each device.

Available external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, camcorders or cameras, gaming devices, and other external devices.



NOTE

- If you record a TV program on a DVD recorder or VCR, make sure to connect the signal input cable to the TV through a DVD recorder or VCR. For more information about recording, refer to the manual supplied with the connected device.
- The external device connection may differ from the model.

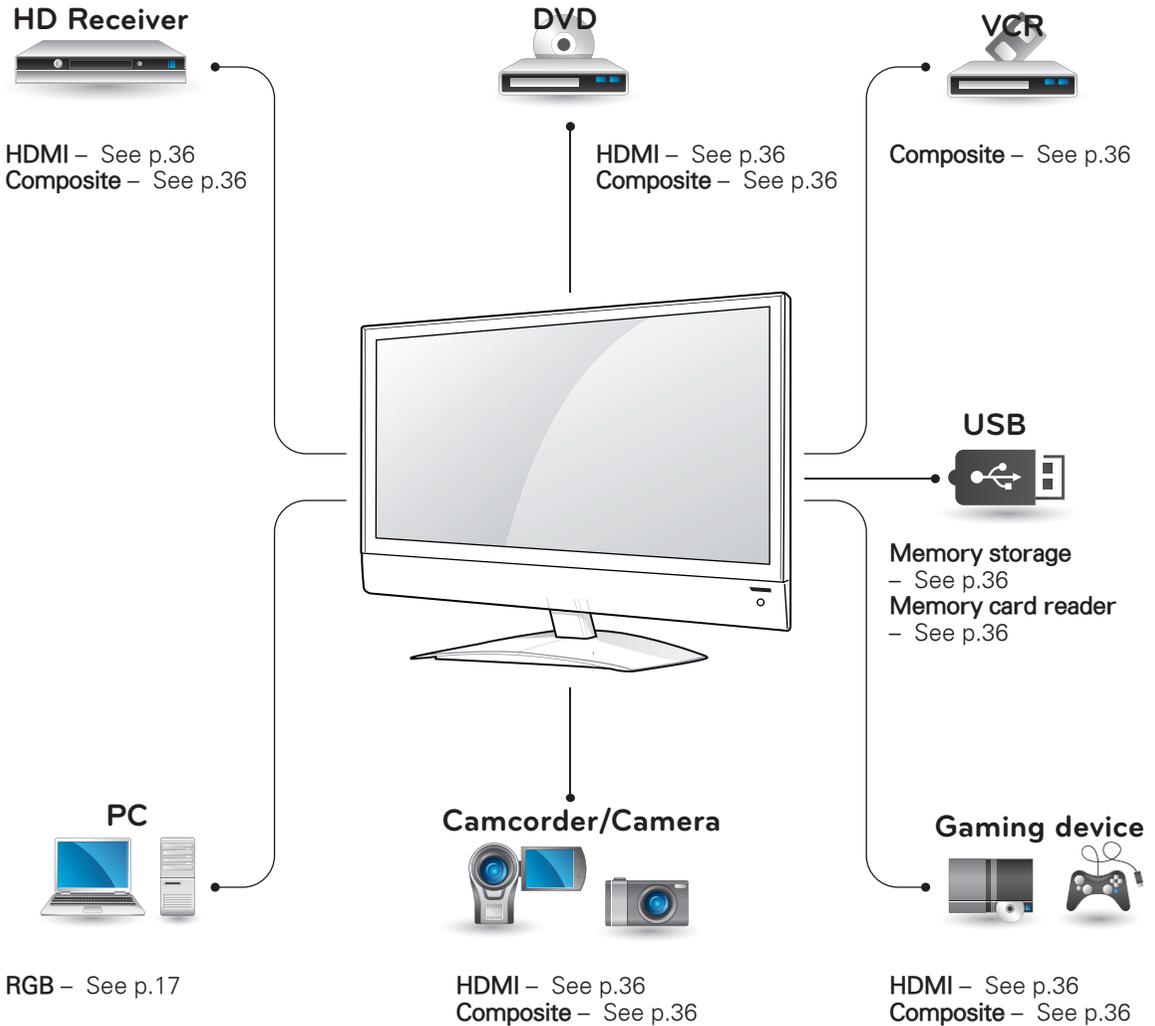
Connect external devices to the TV by referring to the following table.

Connection overview

Connection type	Video		Audio	
	Digital	Analog	Digital	Analog
HDMI (highly recommended)	○	-	○	-
RGB	-	○	-	○
Composite	-	○	-	○

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

- 1 Find an external device you want to connect to your TV 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.



NOTE

If you connect a gaming device to the TV, use the cable supplied with the gaming device.

Connecting to a Camcorder, Camera, HD receiver, DVD or VCR player, Gaming device

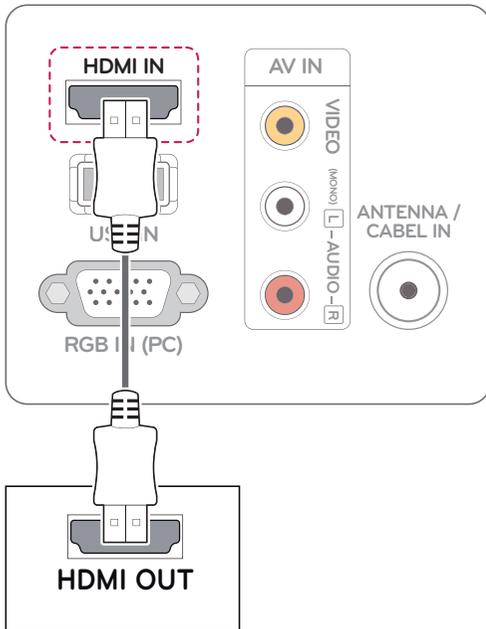
Connect a Camcorder, Camera, HD receiver, DVD or VCR player, Gaming device to the TV and select an appropriate input mode.

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 on the following illustration.

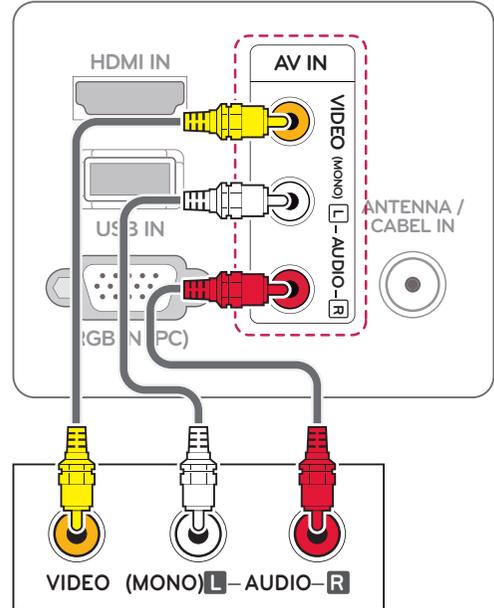
NOTE

- Use a High Speed HDMI™ Cable.
- High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher.



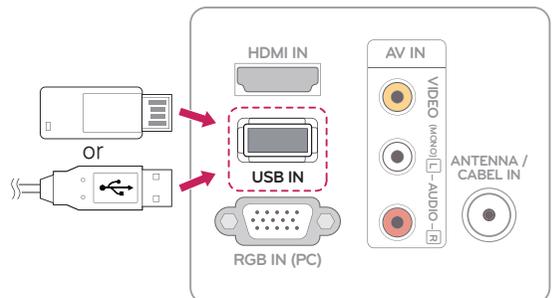
Composite connection

Transmits the analog 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.



Connecting to a USB

Connect a USB storage device such as a USB flash memory, external hard drive, MP3 player or a USB memory card reader to the TV and access the USB menu to use various multimedia files. "Connecting USB storage devices" on See p.21 and "Browsing files" on See p.22



MAINTENANCE

Clean your TV regularly to keep the best performance and to extend the product lifespan.



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, wipe the surface with a dry 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 clean and 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 as these may damage the screen's finish and cause discolorations.

Cabinet and stand

To remove dust, wipe the cabinet with a dry 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.



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.

TROUBLESHOOTING

General

The TV does not operate properly

Problem	Resolution
The remote control doesn't work	<ul style="list-style-type: none"> • Check to see if there is any object between the product and the remote control causing obstruction. Ensure you are pointing the remote control to the TV. • 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	<ul style="list-style-type: none"> • Is the sleep timer set? • Check the power control settings. Power interrupted. • If the TV is switched on and there is no input signal, it will switch off automatically after 15 minutes to save the power consumption. • When a broken file was played in the USB mode, the TV may turn off. Please check the file in your usb storage.

The video function does not work.

Problem	Resolution
No picture & No sound	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes.
No color, poor color, or poor picture	<ul style="list-style-type: none"> • Adjust Color 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	<ul style="list-style-type: none"> • Check for local interference such as an electrical appliance or power tool.
Poor reception on some channels	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Check antenna (Change the direction of the antenna).
No picture when connecting HDMI	<ul style="list-style-type: none"> • Check that your HDMI cable is High Speed HDMI Cable. If the HDMI cables are not High Speed HDMI Cable, flickering or no screen display can result. Please use the High Speed HDMI Cable.

The audio function does not work.

Problem	Resolution
Picture OK & No sound	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Adjust Balance in menu option.
Unusual sound from inside the product	<ul style="list-style-type: none"> • 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.
No sound when connecting HDMI or USB	<ul style="list-style-type: none"> • Check HDMI cable is High Speed HDMI Cable. • Check USB cable over version 2.0. • If the sound is abnormal in the HDMI, check the audio format in your external equipments. » Audio Supported format: PCM

There is a problem with PICTURE settings.

Problem	Resolution
When the user changes the picture settings, the TV automatically converts back to the initial settings after a certain period of time.	<ul style="list-style-type: none"> • It means that the TV is currently set to Store Demo mode. To switch to Home use mode you should do the followings: From the TV Menu, choose OPTION → Choose Mode Setting → Choose Home use. Now, you have completed switching to the Home use mode.

PC mode**No image is displayed.**

Problem	Resolution
Power is on, power indicator is blue but the screen appears extremely dark.	<ul style="list-style-type: none"> • Adjust brightness and contrast again.
Does the 'Check signal cable' message appear?	<ul style="list-style-type: none"> • 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.

'Unknown Product' message appears when the product is connected.

Problem	Resolution
Did you install the driver?	<ul style="list-style-type: none"> • Install the product driver, which is provided with the product, or download it from the web site. (http://www.lg.com) • See if the plug & play function is supported by referring to the video card user's guide.

After-image appears on the product.

Problem	Resolution
After-image appears when the product is turned off.	<ul style="list-style-type: none"> 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.

Problem	Resolution
Screen has poor color resolution (16_Colors).	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Check the connection status of the signal cable.
Do back spots appear on the screen?	<ul style="list-style-type: none"> 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.

The screen image looks abnormal.

Problem	Resolution
Is the screen position wrong?	<ul style="list-style-type: none"> 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?	<ul style="list-style-type: none"> Adjust the Clock menu in OSD.
Horizontal noise appears or the characters look blurred.	<ul style="list-style-type: none"> Adjust the Phase menu in OSD.

SPECIFICATIONS

LCD Panel	Screen Type	546.86 mm Wide (21.53 inch) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel. Visible diagonal size : 546.86 mm
	Pixel Pitch	0.248 mm (H) x 0.248 mm (V)
Video Signal	Max. Resolution	1920 × 1080 @ 60Hz
	Recommended Resolution	1920 × 1080 @ 60Hz
	Horizontal Frequency	30 kHz to 69 kHz
	Vertical Frequency	56 Hz to 61 Hz
	Synchronization Type	Separate Sync
Input Connector		TV, D-Sub Analog, CVBS, HDMI, USB
Power	Rated Voltage	AC 100-240 V~ 50/60 Hz 0.8 A
	Power Consumption	On Mode : 30 W (typ.) Sleep Mode 1 W (RGB) Off Mode ≤ 0.5 W
Dimensions (Width x Height x Depth) Weight		520.8 mm x 422.7 mm x 166.4 mm 3.6 kg
Environmental conditions	Operating Temperature	10°C to 35 °C
	Operating Humidity	20 % to 80 %
	Storage Temperature	-10°C to 60 °C
	Storage Humidity	5 % to 90 %

Product specifications shown above may be changed without prior notice due to upgrade of product functions.

RGB (PC) supported mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
640 x 480	31.469	59.940
800 x 600	37.879	60.317
1024 x 768	48.363	60.000
1152 x 864	54.34	60.050
1280 x 960	60.000	60.000
1280 x 1024	63.981	60.020
1680 x 1050	64.674	59.883
1680 x 1050	65.290	59.954
1920 x 1080	67.500	60.000

HDMI (DTV) mode

Resolution	Horizontal Frequency(kHz)	Vertical Frequency(Hz)
720 x 480	31.470	59.940
720 x 480	31.500	60.000
720 x 576	31.250	50.000
1280 x 720	44.960	59.940
1280 x 720	45.000	60.000
1280 x 720	37.500	50.000
1920 x 1080	33.720	59.940
1920 x 1080	33.750	60.000
1920 x 1080	28.125	50.000
1920 x 1080	67.432	59.940
1920 x 1080	67.500	60.000
1920 x 1080	56.250	50.000

 **NOTE**

- There may be interference relating to resolution, vertical pattern, contrast or brightness in PC mode. Change the PC mode to another resolution or change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
- The synchronization input waveform for Horizontal and Vertical frequencies are separate.
- Connect the signal cable from the TV output port of the PC to the RGB (PC) port of the TV.
- If using a sound card, adjust PC sound as required.
- If the graphic card on the PC does not output analogue and digital RGB simultaneously, connect only one of either RGB to display the PC output on the TV.
- If the graphic card on the PC does output analogue and digital RGB simultaneously, TV to either RGB. (The other mode is set to Plug and Play automatically by the TV.)
- If you use an RGB-PC cable that is too long, there may be interference on the screen. We recommend using under 5 m of cable. This provides the best picture quality.



Make sure to read the Safety Precautions before using the product.

Keep the Owner's Manual (CD) in an accessible place for future reference.

The model and serial number of the TV is located on the back and one side of the TV.

Record it below should you ever need service.

MODEL _____

SERIAL _____