

# OWNER'S MANUAL LED LCD TV

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

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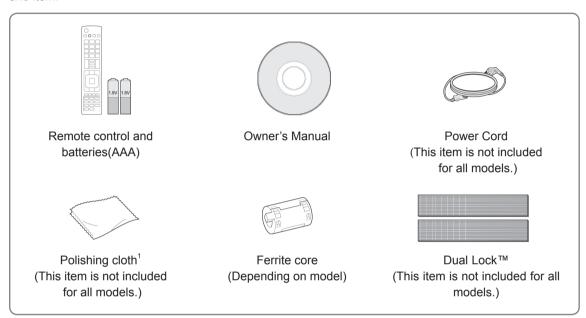
# 85 OPEN SOURCE LICENSE

85 Open source software notice

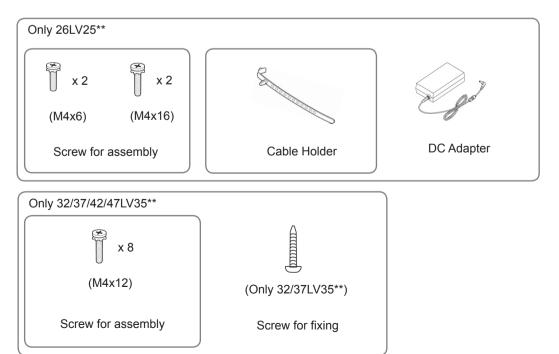
# ASSEMBLING AND PREPARING

# 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.



1 Gently wipe the spots on the cabinet with the polishing cloth.





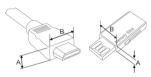
# **CAUTION**

- 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 items supplied with your product may vary depending on the model.
- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.
- For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm thick and 18 mm width.



\*A ≦ 10 mm
\*B ≦ 18 mm

# Parts and buttons



#### 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.

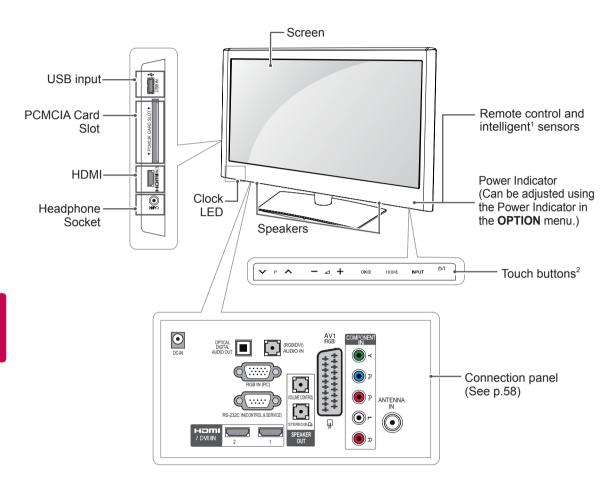


# **CAUTION**

- 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.

• Image shown may differ from your TV.

Only 26LV25\*\*

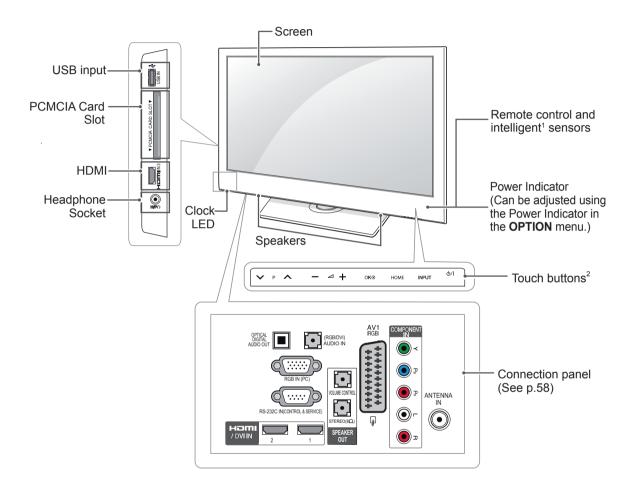


Button	Description	
<b>V</b> P <b>^</b>	Scrolls through the saved programmes	
<b>-</b> ⊿ +	Adjusts the volume level	
ок⊚	Selects the highlighted menu option or confirms an input	
HOME	HOME Accesses the main menus, or saves your input and exits the menus	
INPUT	Changes the input source	
ტ/I	Turns the power on or off	

- 1 Intelligent sensor Adjusts the image quality corresponding to the surrounding environment.
- 2. Touch Button You can use the desired button function by touching.

· Image shown may differ from your TV.

Only 32/37/42/47LV35\*\*



Button	Description
<b>∨</b> P <b>∧</b>	Scrolls through the saved programmes
- 4+	Adjusts the volume level
OK⊚	Selects the highlighted menu option or confirms an input
номе Accesses the main menus, or saves your input and exits the menus	
INPUT	Changes the input source
Ф/I	Turns the power on or off

- 1 Intelligent sensor Adjusts the image quality corresponding to the surrounding environment.
- 2. Touch Button You can use the desired button function by touching.

# 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.

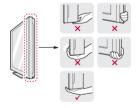


# CAUTION

- · Avoid touching the screen at all times, as this may result in damage on the screen 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
- 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 prevent the screen from scratches.



 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

· Image shown may differ from your TV. Put your TV on a pedestal stand and mount the TV on a table.

# Attaching the stand

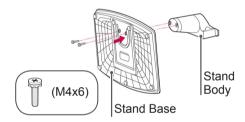
(Only 26LV25\*\*)

Lay the TV with the screen side down on a flat surface.

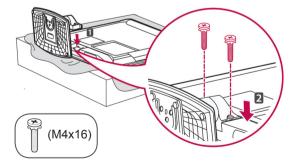


# **CAUTION**

- Lay a foam mat or soft protective cloth on the surface to protect the screen from damage.
- 2 Assemble the parts of the **Stand Body** with the Stand Base of the TV.



Secure the TV and the stand with the 2 screws.





# **CAUTION**

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

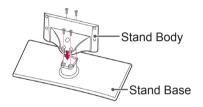
# (Only 32/37/42/47LV35\*\*)

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

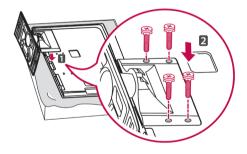


# **CAUTION**

- Lay a foam mat or soft protective cloth on the surface to protect the screen from damage.
- 2 Assemble the parts of the Stand Body with the Stand Base of the TV.



3 Secure the TV and the stand with the 4 screws.



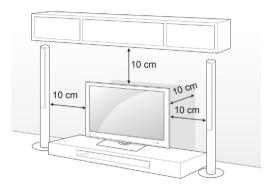


#### CALITION

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

# Mounting on a table

- · Image shown may differ from your TV.
- 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.



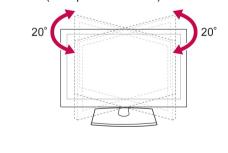
# **CAUTION**

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



# **NOTE**

 Swivel 20 degrees to the left or right and adjust the angle of the TV to suit your view.(Except for 26LV25\*\*)

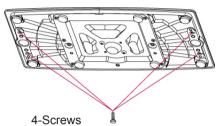


# Securing the TV to a table

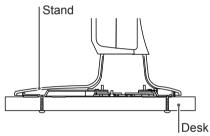
· Image shown may differ from your TV. (Only 32/37/42/47LV35\*\*)

Fix the TV to a table to prevent from tilting forward, damage, and potential injury.

Mount the TV on a table, and then insert and tighten the supplied screw on the rear of the stand.



(not provided as parts of the product)





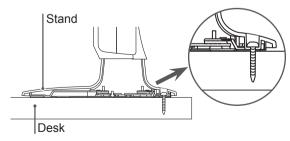
#### NOTE

 Screws: M5 x L (\*L: Table depth + 8-10 mm) ex) Table depth: 15mm, Screw: M5 x 25

# (Only 32/37LV35\*\*)



1-Screw (provided as parts of the product)



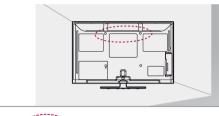


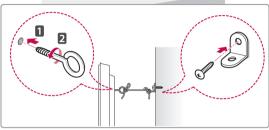
# WARNING

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

#### Securing the TV to a wall

· Image shown may differ from your TV.





- 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.

# Using the Kensington security system (This feature is not available for all models.)

• Image shown may differ from your TV. 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 <a href="http://www.kensington.com">http://www.kensington.com</a>.

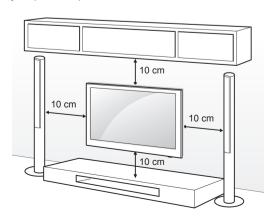
Connect the Kensington security system cable between the TV and a table.



# 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)

26LV25**	32LV35**
100 x 100	200 x 100
M4	M4
4	4
	00BG
37LV35**	42/47LV35**
200 x 200	400 x 400
M6	M6
4	4
LSW200B, LSW200BG	LSW400B, LSW400BG,
	100 x 100 M4 4 LSW100B, LSW1 37LV35** 200 x 200 M6 4 LSW200B,



# **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.



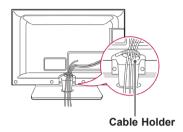
- Use the screws that are listed on the VESA standard screw specifications.
- The wall mount kit includes an installation manual and necessary parts.
- The length of screws may differ depending on the wall mount. Make sure to use the proper length.
- For more information, refer to the manual supplied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

# Tidying cables

· Image shown may differ from your TV.

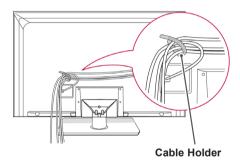
(Only 26LV25\*\*)

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



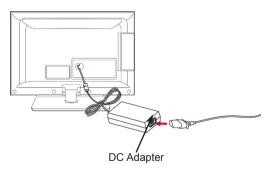
(Only 32/37/42/47LV35\*\*)

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



# Connection of TV

· Image shown may differ from your TV. (Only 26LV25\*\*)

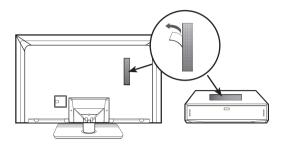


- 1 Connect the antenna cable to the antenna input port on the TV.
- 2 Connect the DC adapter plug to the power input jack on the TV.
- 3 Connect the power cord to the DC adapter first, then plug the power cord into the wall power outlet.

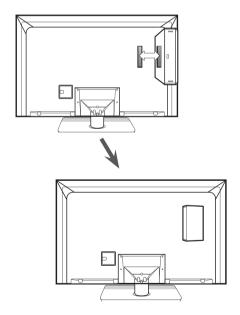
# How to use Dual Lock™

(This feature is not available for all models.) Fix the set-top box to the TV and use it when you want to.

1 After removing the protection paper from the Dual Lock, stick it to the TV and the set-top box as shown.



2 Attach the set-top box to the TV by pressing the Velcro strips together.





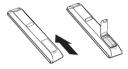
- Please make sure no foreign substances exist on the surface of the product, and then firmly attach the Dual Lock.
- Before attaching the set-top box to the TV set, let the attached Dual Lock dry for at least three days.

# 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  $\oplus$  and  $\bigcirc$  ends to the label inside the compartment, and close the battery cover. Be sure to point the remote control to the remote control sensor on the TV.

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





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



# ம்(POWER)

Turns the TV on or off.

ENERGY SAVING (See p.44)

Adjusts the brightness of the screen to reduce energy consumption .

AV MODE (See p.28)

Selects an AV mode.

INPUT (See p.28)

Changes the input source; Turns the TV on .

#### TV/RAD

Selects Radio, TV and DTV programme.



#### **Number buttons**

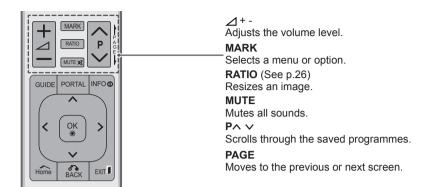
Enters numbers.

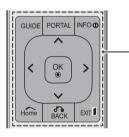
LIST (See p.23)

Accesses the saved programme list.

#### Q.VIEW

Returns to the previously viewed programme.





# **GUIDE**

Shows programme guide.

#### **PORTAL**

Displays and removes hotel interactive menu.

# INFO (See p.24)

Views the information of the current programme and screen.

#### Navigation buttons (up/down/left/right)

Scrolls through menus or options.

# ΟK

Selects menus or options and confirms your input.

#### Home

Selects a menu.

Clears all on-screen displays and returns to TV viewing from any menu.

#### **BACK**

Returns to the previous level.

Clears all on-screen displays and return to TV viewing.



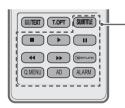
# **Coloured buttons**

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



# TELETEXT BUTTONS (See p.66)

These buttons are used for teletext. For further details, see the 'Teletext' section.



#### SUBTITLE

Recalls your preferred subtitle in digital mode.

# Control buttons( ■, ▶, II, ◀ ◀, ▶ ▶)

Controls the MY MEDIA menus, or the SIMPLINK compatible devices (USB,SIMPLINK).

# SIMPLINK (See p.65)

Accesses the AV devices connected to the TV;

Opens the SIMPLINK menu.

# Q. MENU (See p.30)

Accesses the quick menus.

Switches the Audio Description On or Off.

# **ALARM**

Sets the alarm function.

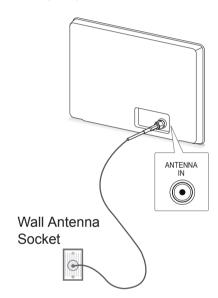
# WATCHING TV

# Connecting 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.

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





# NOTE

- · For optimum picture quality, adjust antenna direction.
- In poor signal areas, to achieve better picture quality it may be necessary to install a signal amplifier to the antenna.
- 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.

- Connect the power cord to a power outlet.
- 2 In Standby mode, press **(POWER)** to turn the TV

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** in the main menus.
- 3 Follow the on-screen instructions to customize your TV settings according to your preferences.

Language	Selects a language to display.
Û	
Country	Selects a country to display.
Û	(Depending on model)
Time Zone	Selects the time zone and daylight saving.
Û	(When Russia is selected for Country)
Set Password	Set the password.
Û	(When France is selected for Country)
Auto Tuning	Scans and saves available programmes automatically.



- · For those countries without confirmed DTV broadcasting standards, some DTV features might not work, depending on the DTV broadcasting environment.
- · When France is selected for Country, password is not '0', '0', '0', '0' but '1', '2', '3', '4'.

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 **ψ**(**POWER**).

# Watching TV

- 1 In Standby mode, press **(POWER)** to turn the TV on
- 2 Press INPUT and select Antenna.
- 3 To turn the TV off, press ψ(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 **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Auto Tuning and press OK.
- 4 Select Start to start automatic tuning. The TV scans and saves available programmes automatically.
- When you are finished, press EXIT.
  When you return to the previous menu, press
  BACK



- If the TV scans a blocked programme, you will be prompted to enter your password to keep the programme scanned.
- The number of programmes that you can store differs depending on the broadcasting signal environment.
- If you wish to keep on auto tuning select Start using the ∧ ∨ button. Then, press the OK button. Otherwise select Close.
- When select Italy in the Country menu, if the pop up is displayed when the conflicted programme after Auto Tuning, select a broadcaster for conflicting programme number to solve.

# Manually setting up programme (In digital mode)

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

# Selecting **DTV**.

- 1 Press Home to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Manual Tuning and press OK.
- 4 Press the Navigation buttons to scroll to DTV and press OK.
- 5 Scroll through the programme types, and then add or delete programmes.
- 6 When you are finished, press EXIT. When you return to the previous menu, press **BACK**.



#### NOTE

- If the TV scans a blocked programme, you will be prompted to enter your password to keep the programme scanned.
- You can select SBAND when the country is set to "Norway, Latvia."

# Selecting Cable DTV,

- 1 Press Home to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Manual Tuning and press OK.
- 4 Press the Navigation buttons to scroll to Cable DTV and press OK.
- 5 Scroll through the programme types, and then add or delete programmes.
- 6 When you are finished, press EXIT. When you return to the previous menu, press BACK.



#### NOTE -

- If the TV scans a blocked programme, you will be prompted to enter your password to keep the programme scanned.
- Symbol rate: Enter a user-defined symbol rate (Symbol rate: Speed at which a device such as modem sends symbols to a channel).
- · Modulation : Enter a user-defined modulation. (Modulation: Loading of audio or video signals onto carrier).

# Manually setting up programme (In analogue mode)

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

- Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Manual Tuning and press OK.
- 4 Press the Navigation buttons to scroll to TV or Cable TV and press OK.
- 5 Scroll through the programme types, and then add or delete programmes.
- 6 Press the Navigation buttons to scroll to TV System.
- 7 Press the Navigation buttons to scroll to V/UHF or Cable.
- 8 Press the Navigation buttons or Number buttons to scroll to the desired channel number.
- 9 Press the Navigation buttons to scroll to commence searching.
- 10 Press the Navigation buttons to scroll to Store and press OK.
- 11 When you are finished, press EXIT. When you return to the previous menu, press BACK.



- If the TV scans a blocked programme, you will be prompted to enter your password to keep the programme scanned.
- L : SECAM L/L' (France)
- BG: PAL B/G, SECAM B/G (Europe / East Europe / Asia / New Zealand / M.East / Africa)
- I: PAL I (U.K. / Ireland / Hong Kong / South
- DK: PAL D/K, SECAM D/K (East Europe / China / Africa / CIS)
- · To store another channel, repeat steps 5 to 10.

# Assigning a station name

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

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Manual Tuning and press OK.
- 4 Press the Navigation buttons to scroll to TV or Cable TV.
- 5 Press the Navigation buttons to scroll to Name and press OK.
- 6 Press the Navigation buttons to scroll 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.
- 7 Press the Navigation buttons to scroll to Close and press OK.
- 8 Press the Navigation buttons to scroll to Store and press OK
- When you are finished, press EXIT.
  When you return to the previous menu, press BACK.

# Fine Tuning

Normally fine tuning is only necessary if reception is poor.

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Manual Tuning and press OK.
- 4 Press the Navigation buttons to scroll to **TV or Cable TV**.
- 5 Press the Navigation buttons to scroll to **Fine**.
- 6 Fine tune for the best picture and sound.
- 7 Press the Navigation buttons to scroll to Store and press OK
- 8 When you are finished, press EXIT.
  When you return to the previous menu, press BACK.

# Editing your programme list

When a programme number is skipped, it means that you will be unable to select it using P A, v 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 Home to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to Programme Edit and press OK.
- 4 Press the Navigation buttons to select a programme to be stored or skipped.
- 5 When you are finished, press EXIT. When you return to the previous menu, press BACK.

#### In TV mode

# Deleting a programme

- 1 Press the Navigation buttons to scroll to select a programme number to be deleted.
- 2 Press Red button to turn the programme number.



#### NOTE -

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

#### Moving a programme

- 1 Press the Navigation buttons to scroll to select a programme number to be moved.
- 2 Press the Green button to turn the programme number and press the Navigation buttons.
- 3 Press Green button to release

#### Skipping a programme number

- 1 Press the Navigation buttons to scroll to select a programme number to be skipped.
- 2 Press Blue button to turn the programme number.
- 3 Press Blue button to release.



# NOTE -

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

#### Locking a programme number

- 1 Press the Navigation buttons to scroll to select a programme number to be locked.
- 2 Press Yellow button to turn the programme number.
- 3 Press Yellow button to release.



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

# CI [Common interface] Information

· This feature is not available in all countries.

This function enables you to watch some encrypted services (pay services). If you remove the CI Module, you cannot watch pay services.

When the module is inserted into the CI slot, you can access the module menu.

To purchase a module and smart card, contact your dealer. Do not repeatedly insert or remove a CI module from the TV. This may cause a malfunction. When the TV is turned on after inserting a CI Module, you may not have any sound output.

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

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

When using a CAM(Conditional Access Module), please make sure it meets fully the requirements of either DVB-CI or CI plus.

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to SETUP and press OK.
- 3 Press the Navigation buttons to scroll to CI Information and press OK.
- 4 Select the desired item: Module information, smart card information, language, or software download etc and press OK.
- 5 When you are finished, press **EXIT**.



#### NOTE -

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

# Selecting the programme list

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

# Displaying programme LIST

- 1 Press **LIST** to access the Programme List.
- 2 Press Blue button to turn the programme edit.



#### NOTE -

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

# Selecting a programme in the programme list

- 1 Press Navigation buttons to select programme.
- 2 Press **OK** to switch to the chosen programme number.



#### NOTE -

 Press TV/RAD. (The mode will be switched between TV, DTV, and Radio from the programme you are currently watching.)

# Paging through a programme list

- 1 Press the **P** ∧ ∨ buttons to turn the pages.
- 2 Press LIST to return normal TV viewing.

# EPG (Electronic Programme Guide) (In digital mode)

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

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

This function can be used only when the EPG information is broadcast by broadcasting companies. You must set the Clock in the **Time** menu, before using EPG function.

The EPG displays the programme details for 8 days.



Press INFO to show current programme information.

Ě	Displayed with a TV or DTV Programme.	
Œ	Displayed with a Radio Programme.	
MHEG	Displayed with a MHEG Programme.	
HE-AAC	Displayed with a HE-AAC Programme.	
4:3	Aspect ratio of broadcasting programme.	
16:9	Aspect ratio of broadcasting programme.	
≡	Displayed with a Teletext Programme.	
	Displayed with a Subtitle Programme.	
×	Displayed with a Scramble Programme.	
<b>M</b> D	Displayed with a Dolby Digital Programme.	
<b>T</b> D+	Displayed with a Dolby Digital PLUS Programme.	
576i/p, 72	576i/p, 720p, 1080i/p: Resolution of broadcasting programme	
×	Broadcasted programme with the icon may not be displayed in Monitor Out depending on the information of the programme.	
	in a management of the programmer	

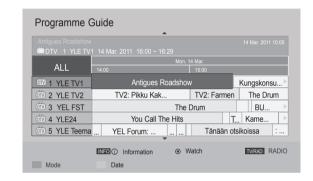
>	Shows next programme information.
v or ^	Shows other programme information.

# Switch on/off EPG

1 Press **GUIDE** to switch on or off EPG.

# Select a programme

 Press Navigation buttons or P ∧ ∨ to select desired programme.



# NOW/NEXT Guide Mode

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

Button	Description	
Red button	Change EPG mode.	
ок	When 'Now' is selected, it is moved to selected programme and EPG disappears When 'Next' is selected, a reservation pop-up window appears.	
< >	Select NOW or NEXT Programme.	
^ ~	Select the Broadcast Programme.	
P ^ V	Page Up/Down.	
GUIDE		
BACK	Switch off EPG.	
EXIT	]	
TV/RAD	Select DTV or RADIO Programme.	
INFO	Detail information on or off.	

# **Extended Description Box**

Button	Description	
INFO	The detail information on or off.	
^ ~	Text Up/Down.	
< >	Select Timer Record/Remind setting mode.	
GUIDE	Switch off EPG.	
EXIT		

# 8 Day Guide Mode

Button	Description	
Red button	Change EPG mode.	
Green button	Enter Date setting mode.	
ок	When 'Currently broadcasting programme is selected, it is moved to selected programme and EPG disappears When 'Future broadcasting programme is selected, a reservation pop-up window appears.	
< >	Select Programme.	
^ ~	Select the Broadcast Programme.	
P^V	Page Up/Down.	
GUIDE		
BACK	Switch off EPG.	
EXIT		
TV/RAD	Select DTV or RADIO Programme.	
INFO	Detail information on or off.	

# Date Change Mode

Button	Description	
Green button		
<b>v</b>	Switch off Date setting mode.	
BACK	-	
ОК	Change to the selected date.	
< >	Select a date.	
GUIDE	Outtable of EDO	
EXIT	Switch off EPG.	

# 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 pressing Q. MENU or accessing Aspect Ratio in the Picture menus.
- · For Zoom Setting, select 14:9, Zoom and Cinema Zoom in Ratio Menu. After completing Zoom Setting, the display goes back to Q.Menu.
- You can only select 4:3, 16:9 (Wide), 14:9, Zoom/Cinema Zoom in Component mode.
- You can only select 4:3, Original, 16:9 (Wide), 14:9, Zoom/Cinema Zoom in HDMI mode.
- You can only select 4:3, 16:9 (Wide) in RGB-PC, HDMI-PC mode only.
- In DTV/HDMI/Component (over 720p) mode, Just Scan is available.
- In Analogue/DTV/AV/Scart mode, Full Wide is available.

16:9: Resizes images to fit the screen width.



Just Scan: Displays video images in the original size without removing parts at the edge of the image.





# **NOTE**

 If you select Just Scan, you may see image noises at the edge of the original signal.

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



- Full Wide: When TV receives the wide screen signal, it will let you adjust the picture horizontally or vertically, in a linear proportion, to fill the entire screen fully.
  - 4:3 and 14:9 video is supported in full screen without any video distortion through DTV input.



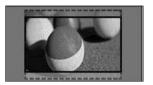
4:3: Resizes images to the previous standard 4:3.



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**: Enlarges an image to fit the screen width. The top and bottom of the image may not appear.





# **NOTE**

- · If you access, Aspect Ratio in the quick menus.
  - Press the Navigation buttons to stretch an image vertically.
  - Press the Navigation buttons to move the zoom focus up or down.
- Cinema Zoom: Enlarges an image in the cinemascope ratio, 2.35:1.
- To change the ratio of the cinema zoom, press the Navigation buttons and its range is from 1 to 16.
- To move the zoom focus up or down, press the Navigation buttons.





#### **NOTE**

· If you enlarge or reduce an image, the image may be distorted.

# Changing AV modes

Each AV mode has the optimized image and sound settings.

Press **AV MODE** repeatedly to select an appropriate mode.

Mode	Description
Off	Changes to the previously customized settings
Cinema	Use the optimized image and sound settings for the cinematic look
Sport	Use the optimized image and sound setting for dynamic action sports
Game	Use the optimized image and sound settings for fast gaming When playing a video game using PlayStation or Xbox, it is recommended to use the <b>Game</b> mode. When in <b>Game</b> mode, functions related to picture quality will be optimized for playing games.



#### **NOTE**

 If you select Off in AV mode, the picture and image which you initially set will be selected.

# Using the input list

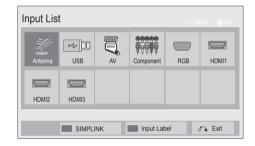
#### Selecting an input source

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



# NOTE

- You can also access the input source list by selecting INPUT in the main menus.
- 2 Press Navigation buttons to scroll to one of the input sources and press **OK**.
  - Image shown may differ from your TV.



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

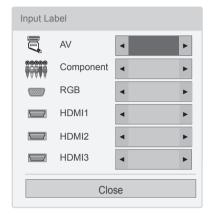
The connected input sources display in black and the disconnected input sources in grey.

- To add an input label, press the Blue button.
   You can easily identify a device connected to each input source
- To access the SIMPLINK, press the Red button. If you select "SIMPLINK and On", the pop-up window for the HDMI input will not display.

# Adding an Input label

Add a label to an input source so that you can easily identify a device connected to each input source.

· Image shown may differ from your TV.



- 1 Press **INPUT** to access the input sources.
- 2 Press the Blue button.
- 3 Press the Navigation buttons to scroll to one of the input sources.
- 4 Press the Navigation buttons to scroll to one of the input labels.
- When you are finished, press EXIT.
  When you return to the previous menu, press BACK.

# Locking the buttons on the TV (Child Lock)

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

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

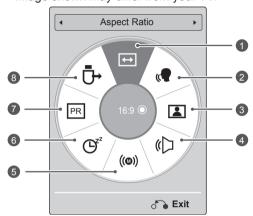


- The TV is programmed to remember the last setting after you turn the TV off.
- If you turn the TV off with the Key Lock feature activated, press the ₺, INPUT, P
   ¬ or Number buttons on the remote control.
- If you press any button on the TV with the Key lock feature activated, Key Lock appears on the screen.

# Using the quick menu

Customize the frequently used menus.

- 1 Press Q. MENU to access the quick menus.
- 2 Press Navigation buttons to scroll through the following menus and press OK.
  - · Image shown may differ from your TV.



	Menu	Description
0	Aspect Ratio	Changes the image size (16:9, Just Scan, Original, Full Wide, 4:3, 14:9, Zoom, Cinema Zoom)
2	Clear Voice II	By differentiating the human sound range from others, it helps users listen to human voices better.
3	Picture Mode (Depending on model)	Changes the image mode (Vivid, Standard, Cinema, Sport, Game, Expert1, Expert2)
4	Sound Mode	Changes the sound mode (Standard, Music, Cinema, Sport, Game)
6	Audio or Audio Language	Changes the sound output.
6	Sleep Timer	Sets the length of time until the TV to turns off
0	Skip Off/On	Sets the Skip Off/On.
8	USB Device	Ejects a USB device when a USB device is connected



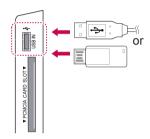
- The available menus and options may differ from the input source that you are using.
- 3 Press Navigation buttons to scroll to the option you want.
- 4 When you are finished, press Q. MENU.

# **ENTERTAINMENT**

# Connecting USB storage devices

Connect USB storage devices such as a USB flash memory, external hard drive to the TV and use multimedia features (See "Browsing files" on p.32).

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



To disconnect a USB storage device, make sure to end the connection properly to prevent damages to the TV or files.

- 1 Press **Q.MENU** to access the quick menus.
- 2 Press the Navigation buttons to scroll to USB Device and press OK.
- 3 Press the Navigation buttons to scroll to Eject and press OK.
- 4 Disconnect the USB storage device only when the message says that it is safe to remove.

# **CAUTION**

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

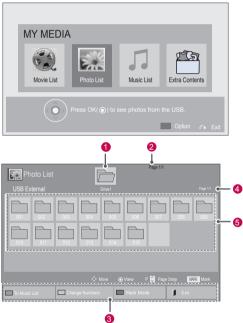
cable for an external power source.

- · If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- If a USB memory device is connected to a USB multi-card reader, its volume data may not be detected.
- If the USB memory device does not work properly, disconnect and reconnect it.
- How fast a USB memory device is detected differs from device to device.
- If the USB is connected in Standby Mode. specific hard disk will automatically be loaded when the TV is turned on.
- The recommended capacity is 1 TB or less for a USB external hard disk and 32 GB or less for USB memory.
- Any device with more than the recommended capacity may not work properly.
- If a USB external hard disk with a "Energy Saving" function does not work, turn the hard disk off and on again to make it work properly.
- USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- Maximum of 999 folders or files can be recognized under one folder.

# Browsing files

Access the photo, music, or movie lists and browse files.

- Connect a USB storage device. 1
- Press Home to scroll to main menus.
- 3 Press the Navigation buttons to scroll to My Media and press OK.
- 4 Press Navigation buttons to scroll to **PHOTO** LIST, MUSIC LIST, MOVIE LIST or Extra Contents and press OK.
- · Image shown may differ from your TV.



•		
No.	Description	
0	Moves to upper level folder	
2	Current page/Total pages	
3	Corresponding buttons on the remote control	
4	Current page/ total pages of contents under the folder focused on 1	
5	Contents under the folder focused on	
Buttom	Description	
Green button	Repeatedly, press the GREEN button to converted to Photo List->Music List, Music List->Movie List or Movie List->Photo List.	
Yellow button	A method to view in 5 large thumbnail or simple list.	
Blue button	Convert to Mark Mode.	

# Supported file format

Type	Supported file format
Movie	DAT,MPG,MPEG,VOB,AVI,DIVX,MP4,MKV,TS,TRP,TP,ASF,WMV,FLV)
	Movie(*.mpg/*.mpeg/*dat/*.ts/*.trp/*.tp/*. vob/*.mp4/*.mov/*.mkv/* divx/*.avi/*.asf/*. wmv/*.flv/*.avi(motion-jpeg)/*. mp4(motion-jpeg)/*.mkv(motion-jpeg))sup- porting file
	Video format: DivX3.11, DivX4.12, DivX5.x, DivX6, Xvid1.00, Xvid1.01, Xvid1.02, Xvid1.03, Xvid1.10 beta-1/beta-2, Mpeg-1, Mpeg-2, Mpeg-4, H.264/AVC, VC1, JPEG, Sorenson H.263
	Audio format : Dolby Digital, AAC, Mpeg, MP3, LPCM, HE-AAC, ADPCM, WMA
	Bit rate : within 32 kbps to 320 kbps(MP3)
	External Subtitle format: *.smi/*.srt/*.sub (MicroDVD,Subviewer1.0/2.0)/*.ass/*.ssa/*. txt(TMPlayer)/*.psb(PowerDivX)
	Internal Subtitle format : only, XSUB (It is the subtitle format used in DivX6 files)
Photo	JPEG
	Baseline : 64 x 64 to 15360 x 8640 Progressive : 64 x 64 to 1920 x 1440
	You can play JPEG files only.     Non-supported files are displayed in the form of predefined icon.
Music	MP3
	Bit rate 32 to 320 • Sampling rate MPEG1 Layer3 : 32 kHz, 44.1 kHz, 48 kHz • Sampling rate MPEG2 Layer3 : 16 kHz, 22.05 kHz, 24 kHz • Sampling rate MPEG2.5 Layer3 : 8 kHz, 11.025 kHz, 12 kHz

# Viewing movies

Play video files on the TV. Your TV displays all of the video files saved in a USB storage device or shared folder on a PC.

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to My Media and press OK.
- 3 Press the Navigation buttons to scroll to Movie List and press OK.
- 4 Select **Drive1** to access the connected USB storage device.
- 5 Press the Navigation buttons to scroll to a folder you want and press OK.
- 6 Press the Navigation buttons to scroll to a file you want and press **OK**.





Menu	Description
Play Marked	Play the selected movie file. Once a movie file finishes playing, the next selected one will be played automatically.
Mark All	Mark all movie files on the screen.
Unmark All	Deselect all marked movie files.
Exit Mark Mode	Exit the Mark Mode.

Play a movie.



# NOTE

- · Non-supported files are displayed the preview image by icon only
- · Abnormal files are displayed in the form of bitmap 55.
- 8 Control playback by using the following buttons.



Button	Description
•	Stops the playback
•	Plays a video
П	Pauses or resumes the playback
4	Scans backward in a file
•	Scans forward in a file
Home or Q.MENU	Show the <b>Option</b> menu.
BACK	Hide the menu on the full-sized screen.
EXIT	Return to Movie List.
< or >	Skips to specific points in a file during playback. The time of a specific point will appear on the status bar. In some files, this function may not work properly.
ENERGY SAVING	Press the <b>ENERGY SAVING</b> button repeatedly to increase the brightness of your screen.
AV MODE	Press the <b>AV MODE</b> button repeatedly to select the desired source.

#### Tips for using playing video files

- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Subtitles in languages other than the supported languages are not available.
- The screen may suffer temporary interruptions (image stoppage, faster playback, etc.) when the audio language is changed.
- A damaged movie file may not be played correctly, or some player functions may not be usable.
- Movie files produced with some encoders may not be played correctly.
- If the video and audio structure of recorded file is not interleaved, either video or audio is outputted.
- HD videos with a maximum of 1920x1080@25/30P or 1280x720@50/60P are supported, depending on the frame.
- Videos with resolutions higher than 1920X1080@25/30P or 1280x720@50/60P may not work properly depending on the frame.
- · Movie files other than the specified types and formats may not work properly.
- Max bitrate of playable movie file is 20 Mbps. (only, Motion JPEG: 10 Mbps)
- · We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264/ AVC.
- · DTS Audio codec is not supported.
- A movie file more than 30GB in file size is not supported for playback. The file size limit is dependent on the encoding environment.
- A DivX movie file and its subtitle file must be located in the same folder.
- A video file name and its subtitle file name must be identical for it to be displayed.
- Playing a video via a USB connection that doesn't support high speed may not work properly.
- Files encoded with GMC(Global Motion)
- Compensation) may not be played. When you are watching the movie by Movie List function, you can adjust an image by Energy Saving and AV Mode key on the remote control. User setup for each image mode does not operate.

# Video options

- 1 Press Q. MENU to access the Pop-Up menus.
- 2 Press the Navigation buttons to scroll to Set Video Play., Set Video. or Set Audio. and press OK.



# NOTE -

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

Sync	Adjusts the time synchronisation of the subtitle from -10 secs to +10 secs by steps of 0.5 secs during movie play.
Position	Changes the position of the subtitle either up or down during movie play.
Size	Selects your desired Subtitle size during movie play.
Repeat	Turn on/off repeat function of movie playback. When turned on, the file within the folder will be played back repeatedly. Even when the repeated playback is turned off, it can run the playback if the file name is similar to the previous file.

When you select the Set Video Play,,

- 1 Press the Navigation buttons to scroll to show the Picture Size, Audio Language, Subtitle Language or Repeat.
- 2 Press the Navigation buttons to scroll to make appropriate adjustments.

Menu	Description
Picture Size	Selects your desired picture format during movie play.
Audio Lan- guage	Changes the Language Group of the audio during movie play. Files with a single audio track cannot be selected.
Subtitle Language	Turn on/off the subtitle.
Language	Activated for SMI subtitle and can select the language within the subtitle.
Code Page	Can select the font for subtitle. When set to default, same font as general menu will be used.

0 .4:41	0
Subtitle	Support Language
Language	
Latin1	English, Spanish, French, German, Italian, Swedish, Finnish, Dutch, Portuguese, Danish, Romanian, Norwegian, Albanian, Gaelic, Welsh, Irish, Catalan, Valencian
Latin2	Bosnian, Polish, Croatian, Czech, Slovak, Slovenian, Serbian, Hungarian
Latin4	Estonian, Latvian, Lithuanian
Cyrillic	Bulgarian, Macedonian, Russian, Ukrainian, Kazakh
Greek	Greek
Turkish	Turkish



# NOTE -

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

When you select the Set Video,,

1 Press the Navigation buttons to scroll to make appropriate adjustments. (See p.45)

When you select the Set Audio,,

- 1 Press the Navigation buttons to scroll to show the Sound Mode, Auto Volume, Clear Voice II or Balance.
- 2 Press the Navigation buttons to scroll to make appropriate adjustments. (See p.49)



View image files saved in a USB storage device or shared folder on a PC through the network connection. The displays on the screen may differ from the model.

- 1 Press Home to access the main menus.
- 2 Press the Navigation buttons to scroll to My Media and press OK.
- 3 Press the Navigation buttons to scroll to **Photo** List and press OK.
- 4 Press the Navigation buttons to select **Drive1** to access the connected USB storage device.
- 5 Press the Navigation buttons to scroll to a folder you want and press OK.
- 6 Press the Navigation buttons to scroll to a file you want and press OK.





Menu	Description
View Marked	Display the selected photo file.
Mark All	Mark all photo files on the screen.
Unmark All	Deselect all marked photo files.
Exit Mark Mode	Exit the Mark Mode.

7 View photos.



- · Non-supported files are displayed the preview image by icon only
- · Abnormal files are displayed in the form of bitmap **=**

### Using photo options

Use the following options while viewing 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 <b>Option</b> .
BGM	Turns the background music on or off. To set the background music folder, select <b>Option</b> . You can adjust Option by Q.MENU or Home button on the remote control.
<b>じ</b> (Rotate)	Rotates photos clockwise (90°, 180°, 270°, 360°).  NOTE  • 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.
Q	View the photo by zoom in 2, 4 times.
ENERGY SAVING	Press the <b>ENERGY SAVING</b> button repeatedly to change the brightness of your screen.

Option	Slide Speed: Selects a slideshow speed (Fast, Medium, Slow).     BGM: Selects a music folder for the background music.     NOTE     You cannot change the music folder while the background music is playing.     You can only select the MP3 folder saved on the device that currently displays the photo.				
Hide	Hides the option window. To display the options, press <b>OK</b> .				
EXIT	Return to <b>Photo List</b> .				

### Photo options

- 1 Press Q. MENU or Home to show the Option menus.
- 2 Press the Navigation buttons to scroll to Set Photo View., Set Video. or Set Audio. and press OK.



### NOTE

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

When you select the Set Photo View,

- 1 Press the Navigation buttons to scroll to select Slide Speed or BGM..
- 2 Press the Navigation buttons to scroll to make appropriate adjustments.

When you select the Set Video,

1 Press the Navigation buttons to scroll to make appropriate adjustments. (See p.45)

When you select the Set Audio,,

- 1 Press the Navigation buttons to scroll to show the Sound Mode, Auto Volume, Clear Voice II or Balance.
- 2 Press the Navigation buttons to scroll to make appropriate adjustments. (See p.49)

### Listening to music

- 1 Press Home to access the main menus.
- 2 Press the Navigation buttons to scroll to My Media and press OK.
- 3 Press the Navigation buttons to scroll to Music List and press OK.
- 4 Press the Navigation buttons to select **Drive1** to access the connected USB storage device.
- 5 Press the Navigation buttons to scroll to a folder you want and press OK.
- 6 Press the Navigation buttons to scroll to a file you want and press OK.





Menu	Description	
Play Marked	Display the selected music file.	
Mark All	Mark all music files on the screen.	
Unmark All	Deselect all marked music files.	
Exit Mark Mode	Exit the Mark Mode.	

- 7 Play music.
- 8 Control playback by using the following buttons.



Button	Description			
	Stops playback			
· ·	Plays a music file			
II	Pauses or resumes playback			
**	Skips to the next file			
4	Skips to the previous file			
« or »	When playing, When you press the button, the previous music file will be played. When you press the button, the next music file will be played.			
Green button	Start playing the selected music files and then move to the <b>Photo List</b> .			
ENERGY SAVING	Press the <b>ENERGY SAVING</b> button repeatedly to change the brightness of your screen.			
Home or Q.MENU	Show the Option menu.			
Hide	Hides the option window. To display the options, press <b>OK</b> .			
EXIT	When you press the <b>EXIT</b> button while the Music player is displayed, only the music will be stopped and the player will not return to normal TV viewing. When you press the <b>EXIT</b> button while the music is stopped or while the music player is hidden, the player will return to normal TV viewing.			
< or >	When using the < or > button during playback a cursor indicating the position can be played.			

### Tips for playing music files

· This unit cannot support the ID3 Tag embedded MP3 files.



### NOTE -

- Non-supported files are displayed the preview image by icon only
- Abnormal files are displayed in the form of bitmap .
- A damaged or corrupted music does not play but displays 00:00 in playtime.
- A music downloaded from a paid service with copyright protection does not start but displays inappropriate information in playtime.
- If you press OK, buttons, screen saver is stopped.
- The PLAY( ), Pause( ), , , ,
   buttons on the remote control are also available in this mode.
- You can use the button to select the next music and the button to select the previous music.



### Music options

- 1 Press Q. MENU to access the Pop-Up menus.
- 2 Press the Navigation buttons to scroll to Set Audio Play. or Set Audio. and press OK.



#### NOTE

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

When you select the Set Audio Play.,

- 1 Press the Navigation buttons to scroll to select the Repeat or Random.
- 2 Press the Navigation buttons to scroll to make appropriate adjustments.

When you select the Set Audio,,

- 1 Press the Navigation buttons to scroll to select the Sound Mode, Auto Volume, Clear Voice II or Balance.
- 2 Press the Navigation buttons to scroll to make appropriate adjustments. (See p.49)

### Extra contents

You can play application files on USB device. Application files your device can be played by this unit.

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

### FLASH (\*.SWF) / GEM supporting file

An SWF file complied with Flash Lite 3.0 or earlier (the 3.0 version is recommended)

- The Pro:Centric application is required, which starts automatically in the flash memory when the TV is turned on.
- The folder called /hcapfs/as/abs service/ must exist in USB drive root directory.
- The file called xait.xml must exist in the / hcapfs/as/abs service/ folder.
- · If the above conditions are not met, the following error message is displayed when selecting the Extra Contents option: Failed to execute file in the USB. Please check the files in the USB.
- · When the flash file does not run even if the above all conditions are met, refer to the Download Extra Contents of Installation Guide.
- · GEM is composed of JAVA application.

#### When playing Application files

- 1 Press Home to access the main menus.
- 2 Press the Navigation buttons to scroll to My Media and press OK.
- 3 Press the Navigation buttons to scroll to Extra Contents and press OK.
- 4 Application files are played.

### To stop playing the Application file

1 Remove the USB from the USB IN jack of the TV set.



#### **NOTE**

- When playing the Application files(FLASH) or GEM files), the buttons are controlled according to the settings of the Extra Contents option.
- · If Pro:Centric Mode is set to Off, Extra Contents icon does not appear.

### DivX® VOD Guide

### DivX® VOD Registration

In order to play purchased or rented DivX® VOD contents, you should register your device with 10 digit DivX registration code from your device at www.divx.com/vod.

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to MY MEDIA and press OK.
- 3 Press the Blue button.
- 4 Press the Navigation buttons to scroll to DivX VOD Registration and press OK.
- 5 View the registration code of your TV.
- 6 When you are finished, press EXIT. When you return to the previous menu, press BACK.



# **NOTE**

- Movie files are supported as follows Resolution: under 1920x1080 WxH pixels Frame rate: under 30 frames/ sec(1920x1080), under 60 frames/ sec(under 1280x720)
- Video Codec: DivX3.11, DivX4.12, DivX5.x, DivX6, Xvid1.00, Xvid1.01, Xvid1.02, Xvid1.03, Xvid1.10 beta-1/ beta-2, Mpeg-1, Mpeg-2, Mpeg-4, H.264/ AVC, VC1, JPEG, Sorenson H.263

### DivX® VOD Deregistration

You should deregister your device with 8 digit DivX deregistration code from your device at www.divx. com/vod.

- 1 Press Home to access the main menus.
- 2 Press the Navigation buttons to scroll to MY MEDIA and press OK.
- 3 Press the Blue button.
- 4 Press the Navigation buttons to scroll to DivX Deregistration and press OK.
- 5 Press the Navigation buttons to select **Yes** to confirm.



6 When you are finished, press EXIT. When you return to the previous menu, press BACK.



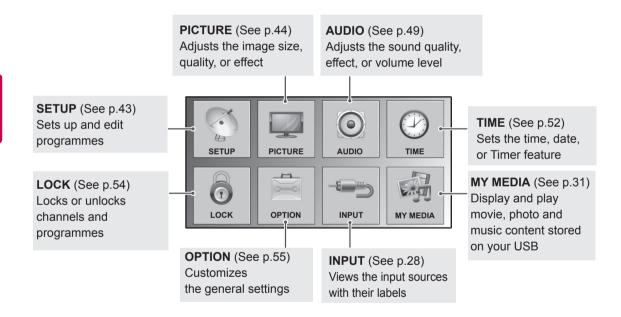
#### NOTE

 Once the deregistration is executed, you must register your device again to see DivX® VOD contents.

# **CUSTOMIZING TV SETTINGS**

# Accessing main menus

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



# **Customizing settings**

# **SETUP** settings

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

· Image shown may differ from your TV.



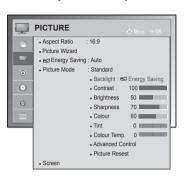
The available Programme settings are described in the following:

Setting	Description			
Auto Tuning	Tunes and stores all available programmes through antennas or cable inputs (See p.19).			
Manual Tuning	Tunes and stores the programmes you want manually (See p.20).			
Programme Edit	Edits programmes. (See p.22).			
CI information	Enables you to watch some encrypted services (pay services).(See p.23).			

# PICTURE settings

· Image shown may differ from your TV.

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



The available picture settings are described in the following

	T	lescribed in the following.			
Setting	Description				
Aspect Ratio	Changes the image size to view images at its optimal size (See p.26).				
Picture Wizard	Adjusts the image quality and calibrates the screen by following the on-screen instructions. The customized options will be saved as <b>Expert1</b> in the <b>Picture Mode</b> .				
	Standard	Mode to set standard picture quality. (Black Level, White Level, Tint, Colour, Horizontal Sharpness, Vertical Sharpness, Backlight)			
	Preferred	Mode to set user preferred picture quality rather than standard picture. (Black Level, White Level, Tint, Colour, Sharpness, Dynamic Contrast, Colour Temperature, Backlight)			
	<ul> <li>NOTE</li> <li>If you stop the setting before the final stage, the changes will not be applied.</li> <li>If you use Picture Wizard, the Energy saving feature will turn off automatically.</li> <li>To reset changes made by Picture Wizard, operate Picture Reset when Picture Mode is on Expert1.</li> <li>In RGB-PC/HDMI-PC/DVI-PC mode, the changed Colour, Tint and H/V Sharpness values are not applied.</li> </ul>				
Energy Saving	Reduces the power consumption by adjusting the screen brightness.				
	Option				
	Auto	*This feature is not available for all models. The most suitable brightness is automatically adjusted according to the surrounding conditions.			
	Off	The Energy Saving is off			
	Minimum/Medium/ Maximum	Selects the brightness level.			
	Screen off	The screen turns off in 3 seconds.			
	will start.  If you adjust 'feature will not When selection	lect Screen Off, the screen will be turned off in 3 seconds and Screen Off  'Energy Saving-Auto(Depending on model), Maximum", Backlight on work. Ing Auto, Backlight is automatically adjusted through intelligent sensor the surrounding condition when intelligent sensor is in the TV. (Depending on			

Setting	Description				
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				
	Intelligent sensor	Adjusts picture according to the surrounding conditions.			
	Vivid	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 image for a cinematic look to enjoy movies as if you are in a movie theater.			
	Sport	Optimizes the video image for high and dynamic actions by emphasizing primary colours such as white, grass, or sky blue.			
	Game	Optimizes the video image for a fast gaming screen such as PCs or games.			
	Expert	Adjusts the detailed video image settings for video experts as well as general viewers.			
	<ul> <li>Picture Mode adjusts the TV for the best picture appearance. Select the preset value in the Picture Mode menu based on the programme category.</li> <li>When the Intelligent sensor function is on, the most suitable picture is automatically adjusted according to the surrounding conditions.</li> <li>You can also adjust Picture Mode in the Q. Menu.</li> </ul>				
SCREEN	Customizes the PC	display options.			
	Option				
	Resolution	Selects a proper resolution when your PC uses.			
	Auto Configure	Sets the TV to optimize the options automatically for the TV display.			
	Position	Locates the image at the proper position.			
	Size	Adjusts the image size.			
	Phase	Eliminates horizontal streaking.			
	Reset	Restores the options to the default setting.			

### Basic image options

Setting	Description			
Adjusts the brightness of the screen by controlling the LCD backlight. If you ded brightness level, the screen becomes darker and the power consumption will be out any video signal loss.  • If you use the "Energy saving - Auto, Maximum", Backlight will not be • Benefits of using Backlight  - The electricity consumption is reduced by up to 60 %.  - The black brightness is reduced. (As the black has greater depth, you consumption.)  - You can adjust brightness with maintaining original signal resolution.				
Contrast	Increases or decreases the gradient of the video signal. You may use <b>Contrast</b> when the bright part of the picture is saturated.			
Brightness	Adjusts the base level of the signal in the picture.			
Sharpness	Adjusts the level of crispness in the edges between the light and dark areas of the picture. The lower the level, the softer the image.			
Colour	Adjusts intensity of all colours.			
Tint	Adjusts the balance between red and green levels.			
Colour Temp.	Set to warm to enhance hotter colours such as red, or set to cool to enhance cooler colours such as blue.			
Advanced Control or Expert Control	Customizes the advanced options			
Picture Reset	Restores the options of each mode to the factory default			



# NOTE

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

# 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, green and white look more vivid.				
Clear White	Makes the white area of the screen brighter and clearer.				
Skin Colour	Adjusts skin colour of the picture so that user can set his favourite skin colour.				
Noise Reduction	Reduces screen noise without compromising video quality.				
Digital Noise Reduction	Reduces noise regarding MPEG compressed video.				
Gamma	You can adjust brightness of dark area and middle gray level area of the picture.  » Low: Make the dark and middle gray level areas brighter.  » Medium: Express the original picture level.  » High: Make the dark and middle gray level area darker.				
Black Level	Sets black level of the screen to proper level. This function is available in the following modes: AV (NTSC-M), HDMI, Component.  » Low: The reflection of the screen gets darker.  » High: The reflection of the screen gets brighter.  » Auto: Sets black level of the screen to High or Low automatically according to the input signal level.				
Eye Care	Adjusts the brightness of the screen to prevent the screen from being too bright. Dims extremely bright pictures.  This feature is disable in "Picture Mode-Vivid, Cinema, Expert1, Expert2, Intelligent Sensor."				
Real Cinema or Film Mode	Makes video clips recorded in film look more natural by eliminating judder effect.  DVD and Blu-ray movies are filmed at 24 frames per second (fps). With LG RealCinema, every frame is consistently processed 5 times in 1/24 of a second producing 120 fps with TruMotion or 2 times in 1/24 of a second producing 48 fps without TruMotion, thus totally eliminating the judder effect.				
Colour Gamut	Maximizess the utilization of colour to increase colour quality.  » Standard: Displays standard set of colours.  » Wide: Increase number of colours used.				
Edge Enhancer	Shows clearer and distinctive yet natural edges of the video.				
XVYCC (available in Cinema and Expert modes)	*This feature is not available for all models. This is the function to express richer colours. This feature represents rich colours as much as a conventional video signal. This function is enabled in "Picture Mode - Cinema, Expert" when xvYCC signal is inputted through HDMI.				
Expert Pattern (available in Expert mode)	This is the pattern necessary for expert adjustment. This function is enabled in "Picture Mode - Expert" when you watch DTV.				
Colour Filter	This is the function to filter the specific colours of the video. You can use the RGB filter to set colour saturation and hue accurately.				

# Advanced image options (Depending on model)

Setting	Description				
Colour Temperature	Adjusts the overall color of the screen by changing the white baseline.				
	Pattern: Inner, Outer Red/Green/Blue Contrast, Red/Green/ Blue Brightness: The adjustment range is -50 to +50.	. Method: 10 Point IRE Pattern: Inner, Outer IRE (Institute of Radio Engineers) is the unit to display the size of the video signal and can be set among 10, 20, 30 to 100. You can adjust Red, Green or Blue according to each setting. Luminance: This function displays calculated luminance value for 2.2 gamma. You can input luminance value you want at 100 IRE, than the target luminance value for 2.2 gamma is displayed at every 10 steps from 10 IRE to 90 IRE. Red/Green/Blue: The adjustment range is -50 to +50. Apply to all inputs			
Colour Management System	As the tool used by the experts to make adjustments by using the test patterns, this does not affect other colours but can be used to selectively adjust the 6 colour areas (Red/Green/Blue/Cyan/Magenta/Yellow).  Colour difference may not be distinctive even when you make the adjustments for the general video.  Adjusts Red/Green/Blue/Yellow/Cyan, Magenta.  Red/Green/Blue/Yellow/Cyan, Magenta Colour: The adjustment range is -30 to +30.  Red/Green/Blue/Yellow/Cyan, Magenta Tint: The adjustment range is -30 to +30.  This feature is disable in RGB-PC and HDMI-PC mode.				

# **AUDIO** settings

· Image shown may differ from your TV.

- Press **Home** to access the main menus.
- Press the Navigation buttons to scroll to AUDIO and press OK.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **OK**.
  - To return to the previous level, press BACK.
- When you are finished, press **EXIT**.



The available audio settings 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.					
Clear Voice II	Sets whether to enhance human voice clarity. You can adjust the level of clarity when you set this feature on.  NOTE  If you select "On" for Clear Voice II, Infinite Surround feature will not work.  Select levels from '-6' to '+6'.					
Balance	Adjust balance between the left and right speakers according to your room environment.					
Sound Mode	Selects one of the	Selects one of the preset sound modes or customizes options in each mode.				
	Mode	Mode				
	Standard	Select when you want standard-quality sound.				
	Music	Select when you listen to music.				
	Cinema Select when you watch movies.  Sport Select when you watch sports events.					
	Game Select when you play games.					
	Option					
	Infinite Surround	<b>Infinite Surround</b> is a patented LG proprietary sound processing technology that strives immersive 5.1 surround sound impression with front two loudspeakers.				
	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	Reset Resets the sound mode to the default setting.				

Setting	Description			
Digital Audio Out	When Dolby Digital Philips Digital Interl If Auto is selected in be PCM(Pulse-cod Even if both Dolby	is av Face) n the e mod Digita	output to Dolby Digital. digital audio out menu when Dolby dulation).	io Output. Audio Out menu will set SPDIF(Sony Digital is not available, SPDIF output will et in a channel which broadcast Dolby
	Item		Audio Input	Digital Audio output
	Auto		MPEG Dolby Digital Dolby Digital Plus HE-AAC	PCM Dolby Digital Dolby Digital Dolby Digital Dolby Digital
	PCM		All	PCM
DTV Audio Setting(In Dig- ital Mode only)	When different audio types exist in an input signal, this function allows you to select the audio type you want.  Mode			tion allows you to select the audio type
	Auto	Automatically outputs in the order HE-AAC > Dolby Digital > Dolby Digital > MPEG.(Except for Italy) Automatically outputs in the order HE-AAC > Dolby Digital+ > MPEG > Dolby Digital.(Only Italy)		
	HE-AAC, Dolby Digital+, Dolby Digital, MPEG  Allows users to select the audio type they want.  ex) If MPEG is selected, MPEG is always outputted.  If MPEG is not supported, another audio type is set in that order.			
	See p.55 (Audio Language Selectio			

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

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

- 1 Press Q. MENU and press the Navigation to access the Audio or Audio Language and press OK.
- 2 Press the Navigation button to scroll to the sound output and press **OK**.

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

#### Mono sound selection

If the stereo signal is weak in stereo reception, you can switch to mono. In mono reception, the clarityof 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 (In Analogue Mode Only)

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

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

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

· Image shown may differ from your TV.

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



The available time settings are described in the following

Setting		Description	
Clock		nd daylight-saving time feature.  v according to a digital channel signal which includes time dcasting station. If not, set the time and date manually.	
	• The TV time is set by the time offset information based on Time Zone and GMT (Greenwich Mean Time) which is received with the broadcast signal and the time is set automatically by		
	<ul> <li>a digital signal.</li> <li>When if the city name in Time Zone is changed into offset, you can change time by 1 hour.</li> <li>Time Zone menu can be changed in Auto mode.</li> </ul>		
	Time Zone	This Table means the Time Zone table of 9 area of Russia.	
		and when the user selects the Time Zone for his or her	
	Magadan, Kamchatka	area, it automatically sets the time for the corresponding area.	
	Vladivostok	_	
	Yakutsk	However, even though the user selected his or her area, if	
	Irkutsk	the broadcasting station's local time offset is not offered, or if the region information does not match, then the user may	
	Krasnoyarsk	select the Offset from the Time Zone to set the correct time	
	Omsk		
	Yekaterinburg	_	
	Moscow, Samara		

Setting	Description
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.
	• 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.
ALARM	The alarm sound will go off when the designated time passes. When 60 seconds pass, the alarm sound will stop. If you do not want Alarm function, select "Off".  • When the alarm is set to "On" with the power on, alarm icon will be displayed on the clock LED on the front of the TV.  • When the time reaches the alarm time when the power is turned on, the screen to notify the alarm time will be displayed on the TV and the TV volume will be muted for 60 seconds to generate the alarm sound. When you press the OK button, the alarm will be dismissed.  • When alarm operates in standby mode, press the any button to stop alarm.
Automatic Standby (Depending on model)	If you do not press any button when Automatic Standby function is on, the TV automatically switches to the standby mode.  NOTE  This function does not work on Demo mode or while software update.

# LOCK settings

• Image shown may differ from your TV.

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



The available lock settings are described in the following.

Setting	Description
Set Password	Changes the 4-digit password. The default PIN is "0 0 0 0".  When France is selected for Country, password is not '0','0','0','0' but '1','2','3','4'.  When France is selected for Country, password cannot be set as '0','0','0','0'.  If you forget your password, press '0', '3','2', '5' on the remote control handset.
Lock System	Activates or deactivates the lock system.
Block Programme	Blocks the programmes that contain inappropriate contents for children by pressing the Green button. The Lock icon appears in front of the blocked programmes. The programmes can be selected but the screen blank and the audio is muted.  To watch a locked channel, enter the password.  It is available to use this function in <b>Lock System</b> "On"
Parental Guidance (In Digital Mode only)	This function operates according to information from the broadcasting station. Therefore if the signal has incorrect information, this function does not operate.  A password is required to gain access to this menu.  This set is programmed to remember which option it was last set to even if you switch the set off. Prevents children from watching certain adult's TV programmes, according to the ratings limit set. Enter a password to watch a blocked programme.  Rating differs by country.
Input Block	Block the input sources. It is available to use this function in <b>Lock System</b> "On"
Key Lock	Locks or unlocks the buttons on the TV.

# **OPTION** settings

· Image shown may differ from your TV.

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



The available general settings are described in the following.

Setting	Description			
Language	Selects a language for the display or audio.			
	Option			
	Menu Language	Select your o	desired language.	
	Audio Language	The Audio function allows selection of a preferred language. If audio data in a selected language is not broadcast, the default lar guage audio will be played.		
		Audio	Language OSD Information	on
		Display	Status	
		N.A	Not Available	
		MPEG	MPEG Audio	
		<b>M</b> D	Dolby Digital Audio	
		₽->	Audio for "Visual Impaired"	
		ABC	Audio for "Hearing Impaired"	
		<b>™</b> D+	Dolby Digital Plus Audio	
		HE-AAC	HE-AAC Audio	
	broadcast. If subtitle data in a selected language is not broadcadefault language subtitle will be displayed.  Subtitle Language OSD Information			
		Display	Status	
		N.A	Not Available	_
		ТХТ	Teletext Subtitle	7
		ABC	Subtitle for "Hard of Hearing"	
	Text Language	languages ar	de, use the Text language function re broadcast. If teletext data in a ne default Text language page wi	selected language is not
	<ul> <li>and Text Languag</li> <li>The audio/subtitle the service provid</li> </ul>	e are not supported s can be displayed er. supplementary Aud	s the primary for Audio Language d, you can select language in se in a simpler form with 1 to 3 cha lio (Audio for "Visual/Hearing Imp	condary category. aracters broadcast by

Setting	Description				
Country	the OSD (On Scree	the set-up Insta	allation Guide by pressing BACK or if you time out on installation menu will continuously appear until the set		
	and some problems The CI (Common Ir circumstances. DTV mode control I circumstances. In country that Digit work depending on The Country Setting If the country setting	ong local counts may occur du terface) function buttons may no al broadcasting digital broadcasting "UK" should og is set to "", l	ry, teletext may not appear correctly on the screen ring teletext operation. on may not be applied based on country broadcasting of function based on country broadcasting gregulation isn't fixed, some DTV function may not asting circumstances. only be activated in UK. European terrestrial digital standard broadcasting me DTV functions may not work properly.		
Disabled Assist- ance (In Digital	Option				
Mode only)	Hard of Hearing	This function	if for the hearing impaired.		
,	Audio Description	This function is for the blind, and provides explanatory audio describing the current situation in a TV programme in addition to the basic audio.  When <b>Audio Description On</b> is selected, basic audio and Audio Description are provided only for those programmes that have Audio Description included.			
		Volume	Changes the Audio Description volume		
		Веер	Beeps when a programme with Audio Description information is selected		
Power Indicator	Sets to turn on or off the indicator light on the TV.				
	Option				
	Standby Light	Set to turn or	or off the indicator light in Standby mode.		
	Power Light	Set to turn or	Set to turn on or off the indicator light when you turn on the power.		

Setting	Description	
Data Service (only in Ireland.)	This function allow users to choose between MHEG (Digital Teletext) and Teletext if both exist at the same time.	
Factory Reset	This function initializes all settings.	
	NOTE  In Lock System "On", if you forget your password, press '0', '3', '2', '5' on the remote control handset.	
Set ID	Adds an ID to the connected devices	
Demo Mode	Sets to show special features of the TV. You can cancel the demo mode by pressing any buttons except the Volume and Mute buttons.  NOTE  • The screen is reset automatically after 5 minutes in Demo Mode.	

# MAKING CONNECTIONS

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

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



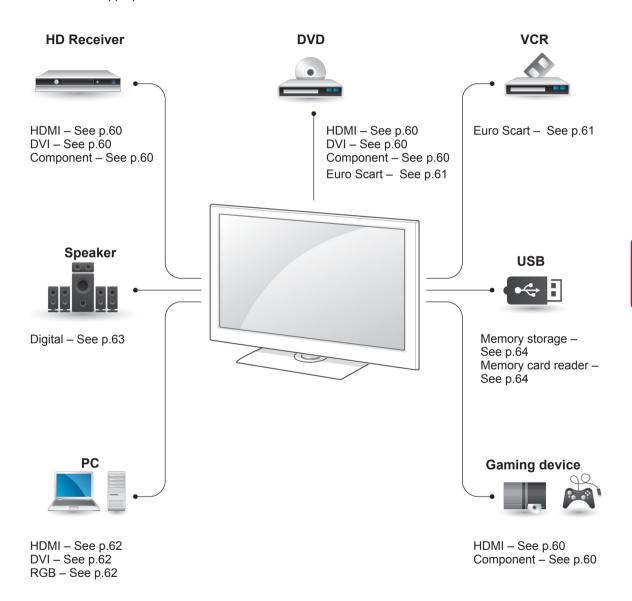
### NOTE

- · 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.





### NOTE

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

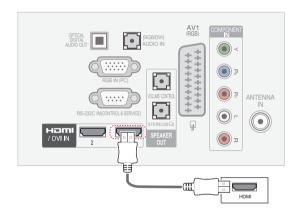
- This section on MAKING CONNECTIONS mainly uses diagrams for the 32/37/42/47LV35\*\* models.
- · Image shown may differ from your TV.

# 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.



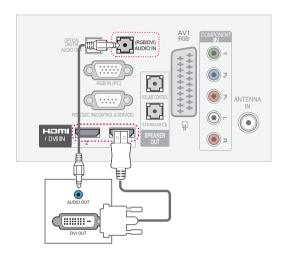
# 0

### NOTE

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

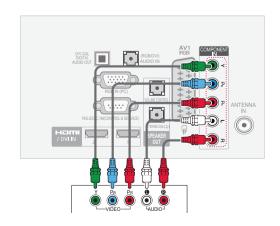
### DVI to HDMI connection

Transmits the digital video signal from an external device to the TV. Connect the external device and the TV with the DVI-HDMI cable as shown in the following illustration. To transmit an audio signal, connect an audio cable.



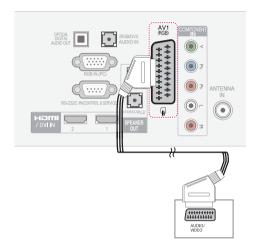
# Component connection

Transmits the analogue video and audio signals from an external device to the TV. Connect the external device and the TV with the component cable as shown in the following illustration.



### **Euro Scart connection**

Transmits the video and audio signals from an external device to the TV set. Connect the external device and the TV set with the Euro Scart cable as shown on the following illustration. To display images by using progressive scan, make sure to use the Euro Scart cable.



AV1 (TV Out¹)
X
Analogue TV
Analogue TV
Analogue TV

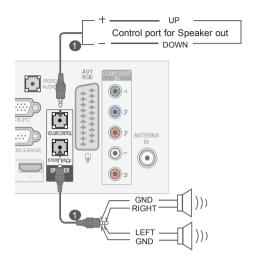
1 TV Out: Outputs analogue TV signals.



### NOTE

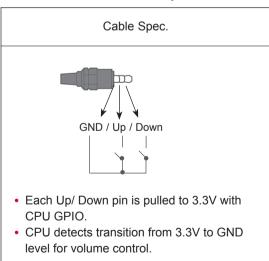
 Any Euro scart cable used must be signal shielded.

# Speaker output Setup



 Connect the external speaker to the Speaker output(STEREO) jack on the TV.

### Method of Volume control port



# Connecting to a PC

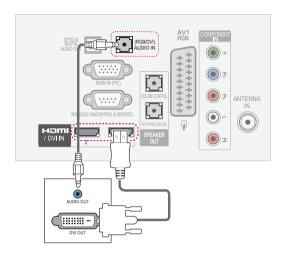


#### **NOTE**

· It is recommended to use the TV set with the HDMI connection for the best image quality.

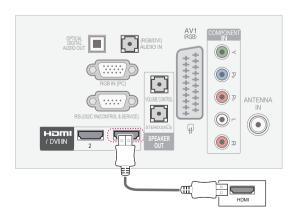
### DVI to HDMI connection

Transmits the digital video signal from your PC to the TV. Connect the PC and the TV with the DVI-HDMI cable as shown in the following illustration. To transmit an audio signal, connect an audio cable.



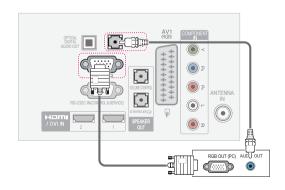
### **HDMI** connection

Transmits the digital video and audio signals from your PC to the TV. Connect the PC and the TVwith the HDMI cable as shown in the following illustrations.



### **RGB** Connection

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





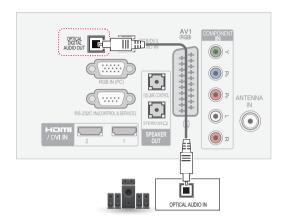
#### NOTE

- Avoid keeping a fixed image on the set's screen for prolonged periods of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- There may be interference relating to resolution, vertical pattern, contrast or brightness in PC mode. Change the PC mode to another resolution or change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the PC graphic card can not be changed, change the PC graphic card or consult the manufacturer of the PC graphic card.
- The synchronization input waveform for Horizontal and Vertical frequencies are separate.
- We recommend using 1920x1080, 60
  Hz(Except for 26LV25\*\*) 1360 x768, 60
  Hz(Only 26LV25\*\*) for the PC mode, this
  should provide the best picture quality.
- Connect the signal cable from the monitor output port of the PC to the RGB (PC) port of the TV or the signal cable from the HDMI output port of the PC to the HDMI IN (or HDMI/DVI IN) port on the TV.
- Connect the audio cable from the PC to the Audio input on the TV. (Audio cables are not included with the TV).
- If using a sound card, adjust PC sound as required.
- If the graphic card on the PC does not output analogue and digital RGB simultaneously, connect only one of either RGB or HDMI IN (or HDMI/DVI IN) to display the PC output on the TV.
- DOS mode may not work depending on the video card if you use an HDMI to DVI cable.
- If you use too long an RGB-PC cable, there may be interference on the screen. We recommend using under 5m of cable. This provides the best picture quality.

# Connecting to an audio system

### Digital optical audio connection

Transmits the digital audio signal from the TV to an external device. Connect the external device and the TV with the optical audio cable as shown in the following illustration.



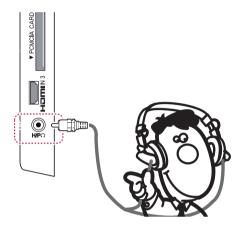


#### NOTE

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

### Headphone connection

Transmits the headphone signal from the TV to an external device. Connect the external device and the TV with the headphone as shown on the following illustration.



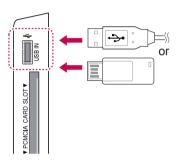


### NOTE

- AUDIO menu items are disabled when connecting a headphone.
- When changing AV MODE with a headphone connected, the change is applied to video but not to audio.
- Optical Digital Audio Out is not available when connecting a headphone.
- Headphone impedance: 16 Ω
- Max audio output of headphone: 10 mW to 15 mW
- · Headphone jack size: 0.35 cm

# Connecting to a USB

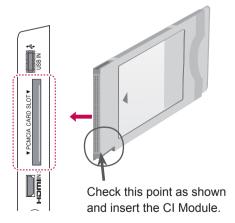
Connect a USB storage device such as s USB flash memory, external hard drive or a USB memory card reader to the TV and access the My media menu to use various multimedia files. See "Connecting USB storage devices" on p.31 and see "Browsing files" on p.32.



# Connecting to a CI Module

View the encrypted (pay) services in digital TV mode.

See p.23.





### NOTE

 Check if the CI module is inserted into the PCMCIA card slotin the right direction. If the module is not inserted properly, this can cause damage to the TV and the PCMCIA card slot.

### SIMPLINK connection

Use the TV remote control to play and control the AV device connected with the HDMI cable through HDMI-CEC. Your TV only works with the devices that support HDMI-CEC.

Connect one end of the HDMI cable to the HDMI/DVI IN or HDMI IN terminal on the rear of the TV and the other end to the SIMPLINK device.

In wireless external output, SIMPLINK function is not supported.

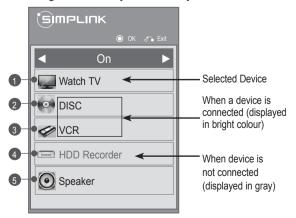


### NOTE

- If the connected device does not support HDMI-CEC, the SIMPLINK feature is unavailable.
- To operate SIMPLINK, an High Speed HDMI Cable with \*CEC function should be used. (\*CEC: Consumer Electronics Control).

# Activating the SIMPLINK feature

- Press SIMPINK to access the SIMPLINK menus.
- 2 Press the Navigation buttons to scroll to On.
- 3 Press the Navigation buttons to scroll to one of the devices and press OK.
  - · Image shown may differ from your TV.



No.	Description
1	Displays the previously viewed TV channel.
2	Plays discs. When multiple discs are available, the title of the disc appears at the bottom of the screen.
3	Controls the connected VCR.
4	HDD recordings playback: Controls the recording stored in HDD.
5	Audio out to home theater speaker or Audio out to TV: Changes the audio output between Home theater speaker and TV speaker.

- A check mark appears in front of the selected device.
- Available devices display in a bright colour.
- Unavailable devices display in grey.
- 4 Control the selected AV device.
  - Direct Play: After connecting AV devices to the TV, you can directly control the devices and play media without additional settings.
  - Select AV device: Enables you to select one of the AV devices connected to the TV.
  - Disc playback: Control connected AV devices by pressing the Navigation buttons, OK,
  - **▶**, **■**, **I I**, **◄ ◄** and **▶ ▶** buttons.
  - Power off all devices: When you power off the TV, all connected devices are turned off.
  - Switch audio-out: Offers an easy way to switch audio-out.
  - **Sync Power on**: When the equipment with SIM-PLINK function connected HDMI terminal starts to play, The TV will automatically turn on.



#### **NOTE**

- If you change the input source by pressing INPUT, the progressing function of the SIMPLINK device will stop.
- If you select a device that has the home theater feature, the sound output automatically switches to the home theater speaker and the TV speaker turns off.
- If a connected SIMPLINK home theater system does not play the audio from the TV, connect the DIGITAL AUDIO OUT terminal on the rear of the TV to the DIGITAL AUDIO IN terminal on the back of the SIMPLINK device with an optical cable.

# **TELETEXT**

 This feature is not available in all countries. Teletext is a free service broadcast by most TV stations which gives up-to-theminute 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

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 reenter the correct page number.
- 2 The P ∧ ∨ button can be used to select the preceding or following page.

# Top Text

The user guide displays four fields-red, green. vellow 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.
- 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. The red button returns to the previous selection. Alternatively the **P** v 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 T.OPT button and then use Navigation buttons to select menu. Display the index page.
- 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**

Press the **T. OPT** button and then use Navigation buttons to select the **Text Option** menu.



**■ Index** 

Select the each index page.



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

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

Hold

Stops the automatic page change which will occur if a teletext page consists of 2 or more sub pages.

The number of sub pages and the sub page displayed is, usually, shown on the screen below the time. When this menu is selected the stop symbol is displayed at the top left-hand corner of the screen and the automatic page change is inactive.

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

### ■ Update

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



### NOTE

 In UK(In digital mode), T. OPT button does not work.

# **DIGITAL TELETEXT**

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

# Teletext within digital service



- 1 Press the numeric or **P**  $\wedge$   $\vee$  button to select a digital service which broadcasts digital teletext.
- 2 Follow the indications on digital teletext and move onto the next step by pressing TEXT, OK, Navigation button, Red, Green, Yellow, Blue or NUMBER buttons and etc.
- 3 To change digital teletext service, select a different service by the numeric or P ∧ ∨ button.

# Teletext in digital service



- 1 Press the numeric or P ∧ ∨ button to select a certain service which broadcasts digital teletext.
- 2 Press the TEXT or coloured button to switch on teletext.
- 3 Follow the indications on digital teletext and move onto the next step by pressing OK, Navigation button, Red, Green, Yellow, Blue or NUMBER buttons and so on.
- 4 Press the TEXT or colour button to switch off digital teletext and return to TV viewing.
  - Some services may allow you to access text services by pressing the Red button.

# **MAINTENANCE**

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

# 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) to prevent image burn.

# **TROUBLESHOOTING**

### General

Problem	Resolution
Cannot control the TV with the remote control.	<ul> <li>Check the remote control sensor on the product and try again.</li> <li>Check if there is any obstacle between the product and the remote control.</li> <li>Check if the batteries are still working and properly installed (+) to +, - to -).</li> </ul>
No image display and no sound is produced.	<ul> <li>Check if the product is turned on.</li> <li>Check if the power cord is connected to a wall outlet.</li> <li>Check if there is a problem in the wall outlet by connecting other products.</li> </ul>
Image appears slowly when the TV turns on.	<ul> <li>The image is muted during the product startup 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 center in your local area.</li> </ul>
Cannot connect external devices.	Refer to the "Connection overview" and connect an external device.
The TV turns off suddenly.	<ul> <li>Check the power control settings. The power supply may be interrupted.</li> <li>Check if the Auto sleep feature is activated in the Time settings. Refer to the "Sleep Timer".</li> </ul>

### Audio

Problem	Resolution
No sound is produced while images are displaying.	<ul> <li>Press ∠ + or - button.</li> <li>Check if the sound is muted by pressing MUTE.</li> <li>Scroll to other channels. There may a problem with the broadcast.</li> <li>Check if the audio cables are connected properly.</li> </ul>
One of the speakers produce noises or does not produce sound.	<ul> <li>A change in ambient humidity or temperature may result in an unusual noise when the product turns on or off.</li> <li>There is no problem with your product.</li> </ul>

# Video

Problem	Resolution
An image displays in black and white or the colour quality is poor.	<ul> <li>Adjust the colour setting in the PICTURE menu.</li> <li>Keep a sufficient distance between this product and other electronic products.</li> <li>Scroll to other channels. There may a problem with the broadcast.</li> </ul>
Horizontal or vertical bars appears or images blur	Check if there are local interferences such as an electrical appliance or power tool.
Lines or streaks appear on images	Check the antenna or aim the antenna to the proper direction.
Afterimages (ghosts) appear when the product turns off	<ul> <li>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.</li> </ul>
The power is on but the screen appears extremely dark.	Adjust the brightness and contrast in the PICTURE menu.
"No Signal" appears on the screen.	<ul> <li>Check if the signal cable is connected between the TV and products properly.</li> <li>Check the selected input source by pressing INPUT.</li> </ul>
Black spots appear on the screen.	<ul> <li>Several pixels in red, green, white, or black may appear on the screen that can attribute to the characteristics of the LCD panel.</li> <li>This is normal.</li> </ul>
The display offset is wrong.	<ul> <li>Adjust the position setting in the PICTURE menu.</li> <li>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.</li> </ul>
Thin lines appear in the background of the screen.	Check the video cable connections.
Horizontal noises appear or characters blur.	Adjust the Phase setting in the <b>PICTURE</b> menu. Refer to the "SCREEN".
The reception on some channels is poor	<ul> <li>Scroll to other channels. There may a problem with the broadcast.</li> <li>The station signal may be weak. Aim the antenna to the proper direction.</li> <li>Check if there is local interference such as an electrical appliance or power tool.</li> </ul>

# **SPECIFICATIONS**

MODELS		26LV25**				
MC	DDELS	26LV255H-ZA				
Dimensions With stand		635.6 mm x 475.0	635.6 mm x 475.0 mm x 178.0 mm			
(W x H x D)	Without stand	635.6 mm x 413.5 mm x 40.9 mm				
Weight	With stand	5.6	kg			
	Without stand	5.0	) kg			
Power requirement		DC 24 V, 1	I.8 A, 50 W			
		AC-DC adaptor : 24 V , 3.4	12 A / AC 100-240 V~ 50 / 60 Hz			
MC	DDELS	32LV35**	37LV35**			
IVIC	DELS	32LV355H-ZA	37LV355H-ZA			
Dimensions	With stand	764.0 mm x 545.0 mm x 240.0 mm	888.0 mm x 614.0 mm x 240.0 mm			
(W x H x D)	Without stand	764.0 mm x 484.0 mm x 35.4 mm	888.0 mm x 553.0 mm x 35.4 mm			
Weight	With stand	11.4 kg	13.5 kg			
	Without stand	9.6 kg	11.7 kg			
Power requirement		AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz			
Power Consumptio	n	80 W	100 W			
NAC	NDEL C	42LV35**	47LV35**			
MC	DDELS	42LV355H-ZA	47LV355H-ZA			
Dimensions	With stand	998.0 mm x 684.0 mm x 256.0 mm	1108.0 mm x 746.0 mm x 256.0 mm			
(W x H x D)	Without stand	998.0 mm x 615.0 mm x 30.4 mm	1108.0 mm x 677.0 mm x 30.4 mm			
Weight	With stand	15.5 kg	20.9 kg			
	Without stand	13.3 kg	18.7 kg			
Power requirement	•	AC 100-240 V~ 50 / 60 Hz	AC 100-240 V~ 50 / 60 Hz			
Power Consumptio	n	110 W	140 W			
CI Module Size (Width x Height x Depth)		100.0 mm x 55.0 mm x 5.0 mm				

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

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 %	

	Digital TV	Analogue TV		
Tolovinian Custom	DVB-T	PAL/SECAM B/G/D/K, PAL I/II,		
Television System	DVB-C	SECAM L/L'		
Drogramma Cayaraga	VAE TIE	VHF: E2 to E12, UHF: E21 to E69,		
Programme Coverage	VHF, UHF	CATV: S1 to S20, HYPER: S21 to S47		
Maximum number of storable	1.086			
programmes	1,31			
External Antenna Impedance	rce 75 Ω 75 Ω			

## RGB-PC, HDMI/DVI-PC supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720x400	31.468	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1280x720	45	60
1280x768	47.78	59.87
1360x768	47.72	59.80
1280x1024	63.981	60.02
1920x1080 (RGB-PC)	66.587	59.93
1920x1080 (HDMI-PC)	67.5	60.00

(Except for 26LV25\*\*)

### Component port connecting information

Component ports on the TV	Y	P <sub>B</sub>	P <sub>R</sub>
---------------------------	---	----------------	----------------

	Y	P <sub>B</sub>	P <sub>R</sub>
Video output ports	Υ	B-Y	R-Y
on DVD player	Υ	Cb	Cr
	Υ	Pb	Pr

Signal	Component
480i/576i	0
480p/576p	0
720p/1080i	0
1080p	O (50 Hz / 60 Hz only)

### HDMI/DVI-DTV supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	
720x480	31.469	59.94	
7208460	31.5	60	
720x576	31.25	50	
	37.5	50	
1280x720	44.96	59.94	
	45	60	
	33.72	59.94	
	33.75	60	
	28.125	50	
	26.97	23.97	
1920x1080	27	24	
192031000	33.716	29.976	
	33.75	30.00	
	56.25	50	
	67.43	59.94	
	67.5	60	

### Video supported mode

File Extension name	Video Decoder	Audio Codec	Max Resolution
mpg, mpeg	MPEG1, MPEG2	MP2,MP3,Dolby Digital,LPCM	
dat	MPEG1	MP2	
ts,trp,tp	MPEG2, H.264/AVC, VC1	MP2,MP3,Dolby Digital, AAC,HE-AAC	
vob	MPEG1, 2	MP2,MP3,Dolby Digital,LPCM	
mp4, mov	MPEG4,DivX 3.11, DivX 4.12, DivX 5.x, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2, H.264/AVC	AAC,HE-AAC,MP3	1920x1080@30p (only , Motion JPEG
mkv	H.264/AVC, MPEG-1,2,4	MP2,MP3,Dolby Digital,AAC HE-AAC,LPCM	
divx, avi	MPEG2, MPEG4,DivX 3.11, DivX 4. DivX 5, DivX 6, Xvid 1.00, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10- beta1/2, H.264/AVC	MP2,MP3,Dolby Digital,LPCM, ADPCM,AAC,HE-AAC	640x480@30p)
Motion JPEG (avi, mp4, mkv)  JPEG		LPCM, ADPCM	
asf, wmv VC1		WMA	
flv	Sorenson H.263, H.264/AVC	MP3, AAC	

# **IR CODES**

• (This feature is not available for all models.)

Code (Hexa)	Function	Note
08	<b>O</b> (POWER)	Remote control Button (Power On/Off)
95	ENERGY SAVING	Remote control Button
30	AV MODE	Remote control Button
0B	INPUT	Remote control Button
F0	TV/RAD	Remote control Button
10-19	Number Key 0-9	Remote control Button
53	LIST	Remote control Button
1A	Q.VIEW	Remote control Button
02	⊿+	Remote control Button
03	⊿ -	Remote control Button
1E	MARK	Remote control Button
79	RATIO	Remote control Button
09	MUTE	Remote control Button
00	PA	Remote control Button
01	Pv	Remote control Button
AB	GUIDE	Remote control Button
0C	PORTAL	Remote control Button
AA	INFO	Remote control Button
43	Home	Remote control Button
28	BACK	Remote control Button
5B	EXIT	Remote control Button
44	ОК	Remote control Button
40	^	Remote control Button
41	v	Remote control Button
07	<	Remote control Button
06	>	Remote control Button
72	RED	Remote control Button
71	GREEN	Remote control Button
63	YELLOW	Remote control Button
61	BLUE	Remote control Button
20	TEXT	Remote control Button
21	T.OPT(T.Option)	Remote control Button
39	SUBTITLE	Remote control Button
B1		Remote control Button
В0	<b>&gt;</b>	Remote control Button
ВА	II	Remote control Button
8E	<b>&gt;&gt;</b>	Remote control Button
8F	44	Remote control Button
7E	SIMPLINK	Remote control Button
45	Q.MENU	Remote control Button
91	AD	Remote control Button
E8	ALARM	Remote control Button

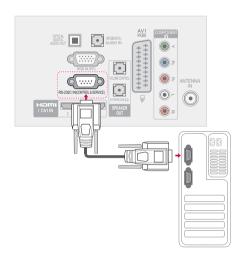
# **EXTERNAL CONTROL DEVICE SETUP**

## RS-232C Setup

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

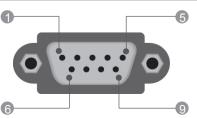
Connect the serial port of the control device to the RS-232C jack on the product back panel.

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

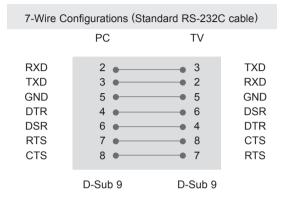


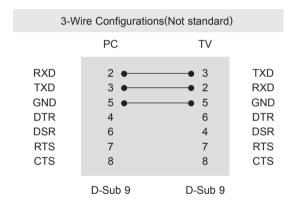
# Type of Connector; D-Sub 9-Pin Male

No.	Pin Name
1	No connection
2	RX RS232
3	TX RS232
4	IR from TV
5	GND
6	No connection
7	+5V
8	No connection
9	+12V



# **RS-232C Configurations**





#### Set ID

Set ID number. "Real Data Mapping" on See p.84

- 1 Press **Home** to access the main menus.
- 2 Press the Navigation buttons to scroll to OPTION and press OK.
- 3 Press the Navigation buttons to scroll to SET ID and press OK.
- 4 Scroll left or right to select a set ID number and select **Close**. The adjustment range is 1-99.
- 5 When you are finished, press **EXIT**.

# **Communication Parameters**

• Baud rate: 9600 bps (UART)

· Data length: 8 bits • Parity : None

• Stop bit: 1 bit

· Communication code: ASCII code • Use a crossed (reverse) cable.

## Command reference list

	COMMAND1	COMMAND2	DATA (Hexadeci- mal)		COMMAND1	COMMAND2	DATA (Hexadeci- mal)
01. Power	k	а	00 to 01	13. Treble	k	r	00 to 64
02. Aspect Ratio	k	С	(See p.81)	14. Bass	k	s	00 to 64
03. Screen Mute	k	d	(See p.81)	15. Balance	k	t	00 to 64
04. Volume Mute	k	е	00 to 01	16. Colour Temperature	x	u	00 to 64
05. Volume Control	k	f	00 to 64	17. Energy Saving	j	q	00 to 05
06. Contrast	k	g	00 to 64	18. Auto Configuration	j	u	01
07. Brightness	k	h	00 to 64	19. Tune Com- mand	m	а	(See p.83)
08. Colour	k	i	00 to 64	20. Programme Add/Skip	m	b	00 to 01
09. Tint	k	j	00 to 64	21. Key	m	С	Key Code
10. Sharpness	k	k	00 to 64	22. Control Back Light	m	g	00 to 64
11. OSD Select	k	I	00 to 01	23. Input select (Main)	x	b	(See p.84)
12. Remote Control Lock Mode	k	m	00 to 01				

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

## Transmission / Receiving Protocol

### Transmission

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

: First command to control the TV.(j, k, m or x)

[Command 2] : Second command to control the TV.

[Set ID] : You can adjust the set ID to choose desired monitor ID number in option menu.

Adjustment range is 1 to 99. When selecting Set ID '0', every connected set is controlled.

Set ID is indicated as decimal (1 to 99) on menu and as Hexa decimal (0x0 to 0x63) on

transmission/receiving protocol.

: To transmit command data. Transmit 'FF' data to read status of command. [DATA]

: Carriage Return [Cr]

ASCII code '0x0D'

[ ] : ASCII code 'space (0x20)'

### **OK Acknowledgement**

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

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

### Error Acknowledgement

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

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

### Data 00: Illegal Code

### 01. Power (Command: k a)

▶ To control Power On/Off of the set.

### <u>Transmission[k][a][ ][Set ID][ ][Data][Cr]</u>

Data 00 : Power Off 01 : Power On

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

► To show Power On/Off.

# Transmission [k][a][ ][Set ID][ ][FF][Cr] Ack [a][ ][Set ID][ ][OK/NG][Data][x]

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

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

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

### <u>Transmission [k][c][ ][Set ID][ ][Data][Cr]</u>

Data 01 : Normal screen 07 : 14:9 (4:3) 09 : Just Scan

04 : Zoom 06 : Original

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

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

### 03. Screen Mute (Command: k d)

► To select screen mute on/off.

### <u>Transmission [k][d][ ][Set ID][ ][Data][Cr]</u>

Data 00: Screen mute off (Picture on)

Video mute off

01: Screen mute on (Picture off)

10: Video mute on

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

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

### 04. Volume Mute (Command: k e)

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

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

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

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

### 05. Volume Control (Command: k f)

▶ To adjust volume.

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

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

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 06. Contrast (Command: k g)

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

### <u>Transmission [k][g][ ][Set ID][ ][Data][Cr]</u>

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 07. Brightness (Command: k h)

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

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

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 08. Colour (Command: k i)

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

### <u>Transmission</u> [k][i][ ][Set ID][ ][Data][Cr]

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 09. Tint (Command: k j)

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

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

Data Red: 00 to Green: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 10. Sharpness (Command: k k)

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

### <u>Transmission [k][k][ ][Set ID][ ][Data][Cr]</u>

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

#### 11. OSD Select (Command: k I)

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

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

Data 00: OSD off 01: OSD on

### Ack [I][ ][Set ID][ ][OK/NG][Data][x]

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

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

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

Data 00: Lock off 01: Lock on

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

- \* If you are not using the remote control, use this mode. When main power is on/off, external control lock is
- \* In the standby mode, if key lock is on, TV will not turn on by power on key of IR & Local Key.

### 13. Treble (Command: k r)

To adjust treble.

You can also adjust treble in the AUDIO menu.

### <u>Transmission [k][r][ ][Set ID][ ][Data][Cr]</u>

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 14. Bass (Command: k s)

To adjust bass.

You can also adjust bass in the AUDIO menu.

### <u>Transmission [k][s][ ][Set ID][ ][Data][Cr]</u>

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84...

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

#### 15. Balance (Command: k t)

To adjust balance.

You can also adjust balance in the AUDIO menu.

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

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 16. Colour Temperature (Command: x u)

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

### <u>Transmission [x][u][ ][Set ID][ ][Data][Cr]</u>

Data Min: 00 to Max: 64

\* Refer to 'Real data mapping'. See p.84.

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

### 17. Energy Saving (Command: j q)

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

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

Power Saving Function			ng		Level			Description	
7	6	5	4		3	2	1	0	
0	0	0	0	Low Power	0	0	0	0	Off
0	0	0	0	Low Power	0	0	0	1	Minimum
0	0	0	0	Low Power	0	0	1	0	Medium
0	0	0	0	Low Power	0	0	1	1	Maximum
0	0	0	0	Low Power	0	1	0	1	Screen Off
0	0	0	0	Low Power	0	1	0	0	Auto (Depending on models)

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

### 18. Auto Configure(Command: j u)

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

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

Data 01: To set

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

### 19. Tune Command (Command: m a)

► Select channel to following physical number.

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

Data00 : High channel data
Data01 : Low channel data
ex. No. 47 -> 00 2F (2FH)
No. 394 -> 01 8A (18AH),

DTV No. 0 -> Don't care
Data02 : 0x00 : Analogue Main
0x10 : DTV Main
0x20 : Radio

Channel data range - Min: 01 to Max: 1086 (1 to 1086)

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

Data Min: 00 to Max: 7DH

### 20. Programme Add/Skip(Command: m b)

▶ To set skip status for the current Programme.

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

Data 00 : Skip 01 : Add

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

### 21. Key(Command: m c)

▶ To send IR remote key code.

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

Data Key code - Refer to page 77.

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

#### 22. Control Back Light (Command: m g)

► To Control the back light.

### <u>Transmission [m][g][ ][Set ID][ ][Data][Cr]</u>

Data: data Min: 00 to Max: 64

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

### 23. Input select (Command: x b)

(Main Picture Input)

▶ To select input source for main picture.

### <u>Transmission [x][b][ ][Set ID][ ][Data][Cr]</u>

Data Structure

MSB							LSB
0	0	0	0	0	0	0	0
L	Externa	l Input	٦	Lır	nput Nu	ımber	

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

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

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

### \* Real data mapping

00: Step 0

:

A : Step 10 (Set ID 10)

:

F: Step 15 (Set ID 15) 10: Step 16 (Set ID 16)

:

64: Step 100

:

6E: Step 110

73: Step 115 74: Step 116

:

CF: Step 199

FE: Step 254 FF: Step 255

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Version 2.1, February 1999

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