

## Environmental Information

This television is designed to be environment friendly. To reduce energy consumption, you can follow these steps:

If you set the **Energy Saving** to **Minimum, Medium, Maximum** or **Auto** the TV will reduce the energy consumption accordingly. If you like to set the Backlight to a fixed value set as **Custom** and adjust the **Backlight** (located under the **Energy Saving** setting) manually using Left or Right buttons on the remote. Set as **Off** to turn this setting off.

**Note:** Available **Energy Saving** options may differ depending on the selected **Mode** in the **Settings>Picture** menu.

The **Energy Saving** settings can be found in the **Settings>Picture** menu. Note that some picture settings will be unavailable to be changed.

If pressed Right button or Left button consecutively, “**Screen will be off in 15 seconds.**” message will be displayed on the screen. Select **Proceed** and press **OK** to turn the screen off immediately. If you don't press any button, the screen will be off in 15 seconds. Press any button on the remote or on the TV to turn the screen on again.

**Note:** **Screen Off** option is not available if the Mode is set to **Game**.

When the TV is not in use, please switch off or disconnect the TV from the mains plug. This will also reduce energy consumption.

## Disposal Information

The following information is only for EU-member states:

### Disposal of products

The crossed out wheeled dust bin symbol indicates that products must be collected and disposed of separately from household waste. Integrated batteries and accumulators can be disposed of with the product. They will be separated at the recycling centres.

The black bar indicates that the product was placed on the market after August 13, 2005.

By participating in separate collection of products and batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.

For more detailed information about the collection and recycling programmes available in your country, please contact your local city office or the shop where you purchased the product.

### Disposal of batteries and/or accumulators

The crossed out wheeled dust bin symbol indicates that batteries and/or accumulators must be collected and disposed of separately from household waste.

If the battery or accumulator contains more than the specified values of lead (Pb), mercury (Hg), and/or cadmium (Cd) defined in the European Battery Directive, then the chemical symbols for lead (Pb), mercury (Hg) and/or cadmium (Cd) will appear below the crossed out wheeled dust bin symbol.

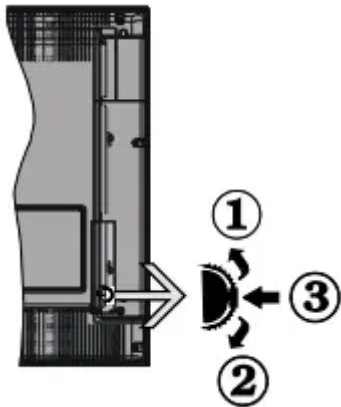
By participating in separate collection of batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health. For more detailed information about the collection and recycling programmes available in your country, please contact your local city office or the shop where you purchased the product.

## Standby Notifications

If the TV does not receive any input signal (e.g. from an aerial or HDMI source) for 3 minutes, it will go into standby. When you next switch-on, the following message will be displayed: **“TV switched to stand-by mode automatically because there was no signal for a long time.”**

The **Auto TV OFF** option (in the **Settings>System >More** menu) could have been set to a value between 1 and 8 hours by default. If this setting is not set as **Off** and the TV has been left on and not been operated during the set time, it will switch into standby mode after the set time has expired. When you next switch-on the TV, the following message will be displayed. **“TV switched to stand-by mode automatically because no operation was made for a long time.”** Before the TV switches into standby mode a dialogue window will be displayed. If you do not press any button the TV will switch into the standby mode after a waiting period of about 5 minutes. You can highlight **Yes** and press **OK** to switch the TV into standby mode immediately. If you highlight **No** and press **OK**, the TV will remain on. You can also choose to cancel the **Auto TV OFF** function from this dialogue. Highlight **Disable** and press **OK**, the TV will remain on and the function will be cancelled. You can enable this function again by changing the setting of the **Auto TV OFF** option from the **Settings>System>More** menu.

## TV Control Switch & Operation



1. Up direction
2. Down direction
3. Volume / Info / Sources List selection and Standby-On switch

The Control button allows you to control the Volume / Programme / Source and Standby-On functions of the TV.

**To change volume:** Increase the volume by pushing the button up. Decrease the volume by pushing the button down.

**To change channel:** Press the middle of the button in, the information banner will appear on the screen. Scroll through the stored channels by pushing the button up or down.

**To change source:** Press the middle of the button in twice (for the second time in total), the source list will appear on the screen. Scroll through the available sources by pushing the button up or down.

**To turn the TV off:** Press the middle of the button in and hold it down for a few seconds, the TV will turn into standby mode.

**To turn on the TV:** Press the middle of the button in, the TV will turn on.

### Notes:

- If you turn the TV off, this cycle starts again beginning with the volume setting.
- Main menu OSD cannot be displayed via control button.

### Operation with the Remote Control

Press the **Menu** button on your remote control to display main menu. Use the directional buttons and **OK** button to navigate and set. Press **Return/Back** or **Menu** button to quit a menu screen.

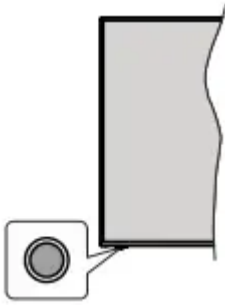
### Input Selection

Once you have connected external systems to your TV, you can switch to different input sources. Press the **Source** button on your remote control consecutively to select the different sources.

### Changing Channels and Volume

You can change the channel and adjust the volume by using the **Programme +/-** and **Volume +/-** buttons on the remote.

### TV Control Button & Operation (optional)



**Note:** The position of the control button may differ depending on the model.

Your TV has a single control button. This button allows you to control the Standby-On / Source / Programme and Volume functions of the TV.

### Operating with the Control Button

- Press the control button to display the function options menu.
- Then press the button consecutively to move the focus to the desired option if needed.
- Press and hold the button for about 2 seconds to activate the selected option. The icon colour of the option changes when activated.
- Press the button once again to use the function or enter the sub menu.
- To select another function option, you will need to deactivate the last activated option first. Press and hold the button to deactivate it. The icon colour of the option changes when deactivated.
- To close the function options menu do not press the button for a period of about 5 seconds. The function options menu will disappear.

**To turn the TV off:** Press the control button to display the function options menu, the focus will be on the **Standby** option. Press and hold the button for about 2 seconds to activate this option. The icon colour of the option changes when activated. Then press the button once again to turn the TV off.

**To turn on the TV:** Press the control button, the TV will turn on.

**To change volume:** Press the control button to display the function options menu and then press the button consecutively to move the focus to **Volume +** or **Volume -** option. Press

and hold the button for about 2 seconds to activate the selected option. The icon colour of the option changes when activated. Then press the button to increase or decrease the volume.

**To change channel:** Press the control button to display the function options menu and then press the button consecutively to move the focus to **Programme +** or **Programme -** option. Press and hold the button for about 2 seconds to activate the selected option. The icon colour of the option changes when activated. Then press the button to switch to the next or previous channel in the channel list.

**To change source:** Press the control button to display the function options menu and then press the button consecutively to move the focus to **Source** option. Press and hold the button for about 2 seconds to activate this option. The icon colour of the option changes when activated. Then press the button once again to display the sources list. Scroll through the available sources by pressing the button. TV will automatically switch to the highlighted source.

*Note: Main menu OSD cannot be displayed via the control button.*

## Operation with the Remote Control

Press the **Menu** button on your remote using main tv control to display main menu. Use the directional buttons and **OK** button to navigate and set. Press **Return/Back** or **Menu** button to quit a menu screen.

## Input Selection

Once you have connected external systems to your TV, you can switch to different input sources. Press the **Source** button on your remote control consecutively to select the different sources.

## Changing Channels and Volume

You can change the channel and adjust the volume by using the Programme +/- and Volume +/- buttons on the remote. Using Main TV Menu

## Using Main TV Menu

When the **Menu** button is pressed, the main TV menu will appear at the bottom of the screen. You can navigate through the menu items using the directional buttons on the remote. To select an item or see the sub-menu options of the highlighted menu press **OK** button. When you highlight a menu option some of the sub-menu items of this menu may appear on the upper side of the menu bar for quick access. To use a quick access item highlight it, press **OK** and set as desired using the Left/Right directional buttons. When finished press **OK** or **Back/Return** button to exit.

Press **Exit** button to close the main menu.

## 1. **Home**

When main menu is opened **Home** menu bar will be highlighted. The content of the **Home** menu can be customised by adding options from other menus. Just highlight an option and press the Down direction button on the remote. If you see **Add to Home** option you can add it to the **Home** menu. Same way you can delete or change the position of any item in the **Home** menu. Press the Down direction button and select the delete or move icon and press **OK**. In order to move a menu item use the Right and Left direction buttons to select the position that you want the item to move to and press **OK**.

## 2. **TV**

### 2.1. **Guide**

You can access the electronic programme guide menu using this option. **Refer to Electronic Programme Guide** section for more information.

### 2.2. **Channels**

You can access the **Channels** menu using this option. Refer to **Using the Channel List** section for more information.

### 2.3. **Timers**

You can set timers for future events using the options of this menu. You can also review the previously created timers under this menu.

To add a new timer select the **Add Timer** tab using the Left/Right buttons and press **OK**. Set the sub-menu options as desired and when finished press **OK**. A new timer will be created.

To edit a previously created timer, highlight that timer, select the **Edit Selected Timer** tab and press **OK**. Change the sub-menu options as desired and press **OK** to save your settings.

To cancel an already set timer, highlight that timer, select **Delete Selected Timer** tab and press **OK**. A confirmation message will be displayed. Highlight **Yes** and press **OK** to proceed. The timer will be cancelled. It is not possible to set timers for two or more events that will broadcasted in different channels at the same time interval. In this case you will be asked to choose one of these timers and cancel others. Highlight the timer you want to cancel and press **OK**, Options menu will be displayed. Then highlight **Set/Cancel** and press **OK** to cancel that timer. You will have to save changes after that. In order to do that press **OK**, highlight Save Changes and press **OK** again.

### 2.4. **Recordings (optional)**

You can manage your recordings using the options of this menu. You can playback, edit, delete or sort previously recorded events. Highlight a tab by using the Left or Right direction button and press **OK** to see available options.

## **Recording Settings**

You can also configure your recording preferences using the Settings tab in the **Recordings** menu. Highlight **Settings** tab by using **Left** or **Right** button and press **OK**. Then select the desired item in the sub-menu and set by using **Left** or **Right** button.

**Start early:** You can set recording timer's starting time to start earlier by using this setting.

**End late:** You can set recording timer's end time to end later by using this setting.

**Max Timeshift:** This setting allows you to set the maximum duration for the timeshift recording. Available options are approximate and the actual recording time may change in practice depending on the broadcast. The reserved and free storage space values will change according to this setting. Make sure that you have enough free space otherwise instant recording may not be possible.

**Auto discard:** You can set the **Discard** type as **None**, **Oldest**, **Longest** or **Shortest**. If it is not set to **None**, you can set the **Unplayed** option as **Included** or **Excluded**. These options determine the preferences for deleting the recordings in order to obtain more storage space for ongoing records.

**Hard disk information:** You can view detailed information about the USB storage device connected to your TV. Highlight and press **OK** to see and press **Back/Return** to close.

**Format Disk:** If you want to delete all files on the connected USB storage device and convert the disk format to FAT32, you can use this option. Press **OK** button while the **Format Disk** option is highlighted. A menu will appear on the screen, requiring you to enter the **PIN(\*)**. After you enter the PIN, a confirmation message will be displayed. Select **Yes** and press **OK** to start formatting the USB storage device. Select **No** and press **OK** to cancel.

*(\*) Default PIN could have been set to **0000** or **1234**. If you have defined the PIN(is requested depending on the country selection) during the First Time Installation use the PIN that you have defined.*

### **3. Settings**

You can manage the settings of your TV using the options of this menu. Refer to **Settings Menu Contents** section for more information.

### **4. Apps**

When your TV is connected to the Internet related contents will also be available, including **Apps** related contents. Using the **Apps** menu you can access and manage your applications. You can add new apps from the market or delete the existing ones. Refer to **Apps** section for more information.

### **5. Source**

You can manage your input source references using the options of this menu. To change the current source highlight one of the options and press **OK**.

#### **5.1. Source Settings**

Edit the names, enable or disable selected source options. There are also **Regular**, **Enhanced** and **Disabled** options available for HDMI sources. **Regular** and **Enhanced** options are affecting the colour settings of the selected HDMI source. To be able to watch 4K or HDR/HLG images from an HDMI source related source setting should be set as **Enhanced** if the connected device is compatible with HDMI 2.0 and subsequent versions. Set as **Regular** if the connected device is HDMI 1.4 compatible. Set accordingly or disable the related HDMI source by setting as **Disabled**.

## Inserting the Batteries into the Remote

Remove the back cover to reveal the battery compartment. Insert two size **AAA** batteries. Make sure the (+) and (-) signs match (observe correct polarity). Do not mix old and new batteries. Replace only with same or equivalent type. Place the cover back on. A message will be displayed on the screen when the batteries are low and must be replaced.

Note that when the batteries are low, the performance of the remote control may be impaired.

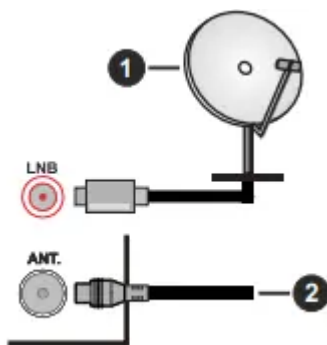
## Power Connection

**IMPORTANT:** The TV set is designed to operate on a **220-240V AC, 50 Hz** supply. After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains. Plug the power cable to the mains socket outlet.

## Antenna Connection

Connect the aerial or cable TV plug to the AERIAL INPUT (ANT.) socket or satellite plug to the SATELLITE INPUT (LNB) socket located on the rear side of the TV.

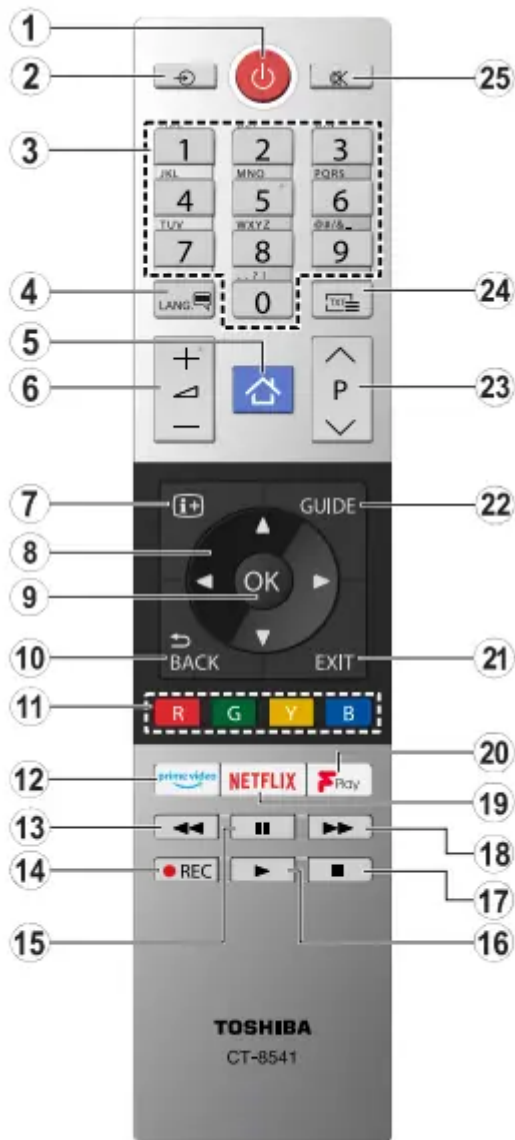
## Rear side of the TV



1. Satellite
2. Aerial or cable

If you want to connect a device to the TV, make sure that both the TV and the device are turned off before making any connection. After the connection is done, you can turn on the units and use them.

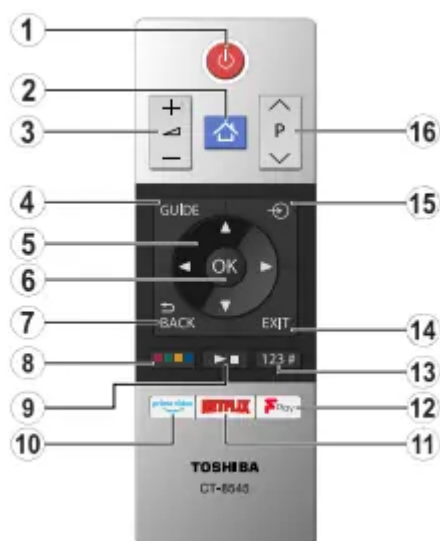
## Remote Control



1. **Standby:** Switches On / Off the TV
2. **Source:** Shows available broadcast and content sources
3. **Numeric buttons:** Switches the channel, enters a number or a letter in the text box on the screen.
4. **Language:** Switches among sound modes (analogue TV), displays and changes audio/subtitle language and turns subtitles on or off (digital TV, where available)
5. **Menu:** Displays TV menu
6. **Volume +/-**
7. **Info:** Displays information about on-screen content, shows hidden information (reveal - in TXT mode)
8. **Directional buttons:** Helps navigate menus, content etc. and displays the subpages in TXT mode when pressed Right or Left

9. **OK**: Confirms user selections, holds the page (in TXT mode), views Channels menu (DTV mode)
10. **Back/Return**: Returns to previous screen, previous menu, opens index page (in TXT mode). Quickly cycles between previous and current channels or sources
11. **Coloured Buttons**: Follow the on-screen instructions for coloured button functions
12. **Prime Video**: Launches the Amazon Prime Video application
13. **Rewind**: Moves frames backwards in media such as movies
14. **Record**: Records programmes
15. **Pause**: Pauses the media being played, starts timeshift recording
16. **Play**: Starts to play selected media
17. **Stop**: Stops the media being played
18. **Fast Forward**: Moves frames forward in media such as movies
19. **Netflix**: Launches the Netflix application
20. **Freeview Play**: Connects to the Freeview Play platform where you can access available catch-up TV services
21. **Exit**: Closes and exits from displayed menus or returns to previous screen
22. **Guide**: Displays the electronic programme guide
23. **Programme +/-**
24. **Text**: Displays teletext (where available), press again to superimpose the teletext over a normal broadcast picture (mix)
25. **Mute**: Completely turns off the volume of the TV

## Remote Control- 2



1. **Standby**: Switches On / Off the TV

**2. Menu:** Displays TV menu

**3. Volume +/-**

**4. Guide:** Displays the electronic programme guide

**5. Directional buttons:** Helps navigate menus, content etc. and displays the subpages in TXT mode when pressed Right or Left

**6. OK:** Confirms user selections, holds the page (in TXT mode), views **Channels** menu (DTV mode)

**7. Back/Return:** Returns to previous screen, previous menu, opens index page (in TXT mode). Quickly cycles between previous and current channels or sources

### **8. Coloured Buttons**

Select the coloured button you want to use from the dialogue box and press **OK**. Follow the on-screen instructions for coloured button functions

### **9. Media Playback, Record and Language Buttons**

Select the button you want to use from the dialogue box and press **OK**

Use the media buttons to control the playback of the media. Control elements to play, pause, stop, rewind and fast forward the media will be available.

Select the **REC** button and press **OK** to record a programme or select the **Pause(II)** button and press **OK** to start timeshift recording

Select the **LANG.** button and press **OK** to switch among sound modes (analogue TV), display and change audio/subtitle language and turn subtitles on or off (digital TV, where available)

**10. Prime Video:** Launches the Amazon Prime Video application

**11. Netflix:** Launches the Netflix application

**12. Freeview Play:** Connects to the Freeview Play platform where you can access available catch-up TV services

### **13. Numeric, Text and CEC Buttons**

Select the button you want to use from the dialogue box and press **OK**

Use the numeric buttons to switch the channel, enter a number or a letter in the text box on the screen.

Select the **TEXT** button and press **OK** to display teletext (where available). Press again to superimpose the teletext over a normal broadcast picture (mix)

Select the **CEC** button and press **OK** to terminate the function that enables you to control the connected CEC device with the TV remote.

14. **Exit:** Closes and exits from displayed menus or returns to previous screen































15. **Source:** Shows available broadcast and content sources

16. **Programme +/-**

### Inserting the Batteries into the Remote

Remove the back cover to reveal the battery compartment. Insert two size **AAA** batteries. Make sure the (+) and (-) signs match (observe correct polarity). Do not mix old and new batteries. Replace only with same or equivalent type. Place the cover back on.

## Connections

Connector	Type	Cables	Device
	VGA Connection (back)		
AUDIO IN 	PC/YPbPr Audio Connection (back)	 YPbPr/PC Audio Cable	
	HDMI Connection (side&back)		
SPDIF 	SPDIF (Optical Out) Connection (back)		
BACK AV 	Back AV (Audio/Video) Connection (back)	 Audio Video Cable	
HEADPHONE 	Headphone Connection (side)		
YPBPR 	YPbPr Video Connection (back)	 PC to YPbPr Connection Cable	
	USB Connection (side)		
	CI Connection (side)		
LAN 	Ethernet Connection (back)	 LAN / Ethernet Cable	



See the illustrations on the left side. You can use YPbPr to VGA cable to enable YPbPr signal via VGA input. You cannot use VGA and YPbPr at the same time. To enable PC/YPbPr audio, you will need to use the back audio inputs with a YPbPr/PC audio cable for audio connection. When using the wall mounting kit (available from a third party in the market, if not supplied), we recommend that you plug all your cables into the back of the TV before mounting on the wall. Insert or remove the CI module only when the TV is SWITCHED OFF. You should refer to the module instruction manual for details of the settings. The/ Each USB input of your TV supports devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV. When connecting equipment using a HDMI cable to your TV, to guarantee sufficient immunity against parasitic frequency radiation and trouble-free transmission of high definition signals, such as 4K content, you have to use a high speed shielded (high grade) HDMI cable with ferrites.

If you want to connect a device to the TV, make sure that both the TV and the device are turned off before making any connection. After the connection is done, you can turn on the units and use them.

## Switching On/Off

### To Switch the TV On

Connect the power cord to a power source such as a wall socket (220-240V AC, 50 Hz).

To switch on the TV from standby mode either:

- Press the **Standby** button, **Programme +/-** or a numeric button on the remote control.
- Press the middle of the side function switch on the TV in.

### To Switch the TV Off

Press the **Standby** button on the remote control or press the middle of the side function switch on the TV in and hold it down for a few seconds, the TV will switch into standby mode.

**To power down the TV completely, unplug the power cord from the mains socket.**

***Note:** When the TV is switched into standby mode, the standby LED can blink to indicate that features such as Standby Search, Over Air Download or Timer is active. The LED can also blink when you switch on the TV from standby mode.*

## Switching On/Off (optional)

### To Switch the TV On

Connect the power cord to a power source such as a wall socket (220-240V AC, 50 Hz).

To switch on the TV from standby mode either:

- Press the **Standby** button, **Programme +/-** or a numeric button on the remote control.

- Press the control button on the TV.

### To Switch the TV Off

- Press the **Standby** button on the remote control.
  - Press the control button on the TV, the function options menu will be displayed. The focus will be on the **Standby** option. Press and hold the button for about 2 seconds to activate this option. The icon colour of the option will change. Then press the button once again, the TV will switch into standby mode.

### To power down the TV completely, unplug the power cord from the mains socket.

***Note:** When the TV is switched into standby mode, the standby LED can blink to indicate that features such as Standby Search, Over Air Download or Timer is active. The LED can also blink when you switch on the TV from standby mode.*

### First Time Installation

When turned on for the first time, the language selection screen is displayed. Select the desired language and press **OK**. In the following steps of the installation guide, set your preferences using the directional buttons and **OK** button.

On the second screen set your country preference. Depending on the Country selection you may be asked to set and confirm a PIN at this point. The selected PIN cannot be 0000. You have to enter it if you are asked to enter a PIN for any menu operation later.

You can activate **Store Mode** option in the next step. This option will configure your TV's settings for store environment and depending on the TV model being used, the supported features of it may be displayed on the side of the screen as an info banner. This option is intended only for store use. It is recommended to select **Home Mode** for home use. This option will be available in **Settings>System>More** menu and can be turned off/on later. Make your selection and press OK to continue.

Depending on the model of your TV and the country selection **Privacy Settings** menu may appear at this point. Using this menu you can set your privacy privileges. Highlight a feature and use Left and Right directional buttons to enable or disable. Read the related explanations displayed on the screen for each highlighted feature before making any changes. You can use **Programme +/-** buttons to scroll up and down to read the entire text. You will be able to change your preferences at any time later from the **Settings>System>Privacy Settings** menu. If the **Internet Connection** option is disabled **Network/Internet Settings** screen will be skipped and not displayed. If you have any questions, complaints or comments regarding this privacy policy or its enforcement, please contact by email at [\[email protected\]](mailto:[email protected])

Highlight **Next** and press **OK** button on the remote control to continue and the **Network/Internet Settings** menu will be displayed. Please refer to **Connectivity** section to configure

a wired or a wireless connection. If you want your TV to consume less power in standby mode, you can disable the **Wake On** option by setting it as **Off**. After the settings are completed highlight **Next** and press **OK** button to continue.

On the next screen you need to agree to the terms and conditions of Freeview Play to make use of the related services. Scroll the page to read the entire text using the up/down directional buttons or **Programme +/-** buttons. Highlight **Yes** and press **OK** on the remote to confirm and proceed. Highlight **No** and press **OK** to proceed without confirmation. For further requirements for Freeview Play services refer to the **Freeview Play Platform** section.

On next screen you can set broadcast types to be searched, set your encrypted channel searching and time zone (depending on the country selection) preferences. Additionally you can set a broadcast type as your favourite one. Priority will be given to the selected broadcast type during the search process and the channels of it will be listed on the top of the channel list. When finished, highlight **Next** and press **OK** to continue.

### About Selecting Broadcast Type

To turn a search option for a broadcast type highlight it and press **OK**. The checkbox next to the selected option will be checked. To turn the search option off clear the checkbox by pressing **OK** after moving the focus on the desired broadcast type option.

**Digital Aerial:** If **D. Aerial** broadcast search option is turned on, the TV will search for digital terrestrial broadcasts after other initial settings are completed.

**Digital Cable:** If **D. Cable** broadcast search option is turned on, the TV will search for digital cable broadcasts after other initial settings are completed. A message will be displayed before starting to search asking if you want to perform cable network search. If you select **Yes** and press **OK** you can select **Network** or set values such as **Frequency**, **Network ID** and **Search Step** on the next screen. If you select **No** and press **OK** you can set **Start Frequency**, **Stop Frequency** and **Search Step** on the next screen. When finished, highlight **Next** and press **OK** button to continue.

***Note:** Searching duration will change depending on the selected **Search Step**.*

**Satellite:** If **Satellite** broadcast search option is turned on, the TV will search for digital satellite broadcasts after other initial settings are completed. Before satellite search is performed some settings should be made. **Antenna Type** menu will be displayed first. You can select **Antenna Type** as **Direct**, **Single Satellite Cable** or **DiSEqC switch** by using Left or Right buttons. After selecting your antenna type press **OK** to see the options to proceed. **Continue**, **Transponder list** and **Configure LNB** options will be available. You can change the transponder and LNB settings using the related menu options.

- **Direct:** If you have a single receiver and a direct satellite dish, select this antenna type. Press **OK** to continue. Select an available satellite on the next screen and press **OK** to scan for services.

- **Single Satellite Cable:** If you have multiple receivers and a single satellite cable system, select this antenna type. Press **OK** to continue. Configure settings by following instructions on the next screen. Press **OK** to scan for services.
- **DiSEqC switch:** If you have multiple satellite dishes and a **DiSEqC switch**, select this antenna type. Then set the DiSEqC version and press **OK** to continue. You can set up to four satellites (if available) for version v1.0 and sixteen satellites for version v1.1 on the next screen. Press **OK** button to scan the first satellite in the list.

**Analogue:** If **Analogue** broadcast search option is turned on, the TV will search for analogue broadcasts after other initial settings are completed.

After the initial settings are completed TV will start to search for available broadcasts of the selected broadcast types.

While the search continues current scan results will be displayed at the bottom of the screen. After all the available stations are stored, **Channels** menu will be displayed. You can edit the channel list according to your preferences using the **Edit** tab options or press the **Menu** button to quit and watch TV.

While the search continues a message may appear, asking whether you want to sort channels according to the LCN(\*). Select **Yes** and press **OK** to confirm.

*(\*) LCN is the Logical Channel Number system that organizes available broadcasts in accordance with a recognizable channel number sequence (if available).*

**Note:** Do not turn off the TV while initializing first time installation. Note that, some options may not be available depending on the country selection.

## Settings Menu Contents

Picture Menu Contents	
<b>Mode</b>	You can change the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: <b>Cinema</b> , <b>Game</b> (optional), <b>Sports</b> , <b>Dynamic</b> and <b>Natural</b> . <i>Dolby Vision Modes: If Dolby Vision content is detected Dolby Vision Dark and Dolby Vision Bright picture mode options will be available instead of Cinema and Natural modes.</i>
<b>Contrast</b>	Adjusts the light and dark values on the screen.
<b>Brightness</b>	Adjusts the brightness values on the screen.
<b>Sharpness</b>	Sets the sharpness value for the objects displayed on the screen.
<b>Colour</b>	Sets the colour value, adjusting the colours.
<b>Energy Saving</b>	For setting the <b>Energy Saving</b> to <b>Custom</b> , <b>Minimum</b> , <b>Medium</b> , <b>Maximum</b> , <b>Auto</b> , <b>Screen Off</b> or <b>Off</b> . <i>Note: Available options may differ depending on the selected Mode.</i>
<b>Backlight</b>	This setting controls the backlight level. The backlight function will be inactive if the <b>Energy Saving</b> is set to an option other than <b>Custom</b> .
<b>Advanced Settings</b>	
<b>Dynamic Contrast</b>	You can change the dynamic contrast ratio to desired value.
<b>Tru Micro Dimming</b>	<b>Low</b> , <b>Medium</b> , <b>High</b> and <b>Off</b> options are available. While <b>Tru Micro Dimming</b> is active, it will enhance contrast locally for each defined zone.
<b>Noise Reduction</b>	If the signal is weak and the picture is noisy, use the <b>Noise Reduction</b> setting to reduce the amount of noise.
<b>Tru Contour</b>	<b>Low</b> , <b>Medium</b> , <b>High</b> and <b>Off</b> options are available. While <b>Tru Contour</b> is active, it will decrease the contour effects in low resolution contents and auto streaming services.
<b>Colour Temp</b>	Sets the desired colour temperature value. <b>Cool</b> , <b>Normal</b> , <b>Warm</b> and <b>Custom</b> options are available.
<b>White Point</b>	If the <b>Colour Temp</b> option is set as <b>Custom</b> , this setting will be available. Increase the 'warmth' or 'coolness' of the picture by pressing Left or Right buttons.
<b>Picture Zoom</b>	Sets the desired image size format.
<b>Picture Shift</b>	This option may be available depending on the <b>Picture Zoom</b> setting. Highlight and press <b>OK</b> , then use directional buttons to shift the picture upwards or downwards.
<b>Tru Flow</b>	Press left/right buttons to set <b>Tru Flow</b> to <b>Low</b> , <b>Medium</b> , <b>High</b> or <b>Off</b> . While <b>Tru Flow</b> is active, it will optimize the TV's video settings for motion images to acquire a better quality and readability.
<b>Tru Flow Demo</b>	When <b>Tru Flow</b> option is set to <b>Low</b> , <b>Medium</b> or <b>High</b> , this option will be available. Press <b>OK</b> button to activate the demo mode. While demo mode is active, the screen will be divided into two sections, one displaying the Tru Flow activity, the other displaying the normal settings for TV screen.
<b>Film Mode</b>	Films are recorded at a different number of frames per second to normal television programmes. Turn this feature on when you are watching films to see the fast motion scenes clearly.
<b>Skin Tone</b>	Skin tone can be changed between -5 and 5.
<b>Colour Shift</b>	Adjust the desired colour tone.
<b>Gamut Mapping</b>	You can use this option to set the range of colours displayed on your TV screen. When set as <b>On</b> , colours are set according to the source signal. When set as <b>Off</b> , the TV's maximum colour capacity is used by default (recommended option). <i>Note: This option may not be available depending on the TV model and its features.</i>
<b>HDMI Full Range</b>	While watching from a HDMI source, this feature will be visible. You can use this feature to enhance blackness in the picture.

Active  
Go to 5

<b>Dolby Vision Notification</b>	Sets the notification appearance preference for Dolby Vision contents. When set as <b>On</b> , Dolby Vision logo will be displayed on the lower right side of the screen when Dolby Vision content is detected.
<b>PC Position</b>	Appears only when the input source is set to VGA/PC.
<b>Autoposition</b>	If the image is not centered in VGA mode use this option to automatically adjust the position of the image. Press <b>OK</b> to start the auto adjustment.
<b>H Position</b>	This item shifts the image horizontally to the right hand side or left hand side of the screen.
<b>V Position</b>	This item shifts the image vertically towards the top or bottom of the screen.
<b>Dot Clock</b>	Dot Clock adjustments correct the interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts.
<b>Phase</b>	Depending on the input source(computer etc.) you may see a hazy or noisy picture on the screen. You can use phase to get a clearer picture by trial and error.
<b>Reset</b>	Resets the picture settings to factory default settings (except <b>Game</b> mode).
<i>While in VGA (PC) mode, some items in <b>Picture</b> menu will be unavailable. Instead, VGA mode settings will be added to the <b>Picture</b> menu while in PC mode.</i>	

<b>Sound Menu Contents</b>	
<b>Volume</b>	Adjusts the volume level.
<b>Equalizer</b>	Selects the equalizer mode. Custom settings can be made only when in <b>User</b> mode.
<b>Balance</b>	Adjusts whether the sound comes from the left or right speaker.
<b>Headphone</b>	Sets headphone volume. Please ensure before using headphones that the headphone volume is set to a low level, to prevent damage to your hearing.
<b>Sound Mode</b>	You can select a sound mode (If the viewed channel supports).
<b>Bluetooth</b>	Press <b>OK</b> to open the Bluetooth menu screen. Using this screen you can discover and connect the Bluetooth wireless technology enabled sound devices to your TV.
<b>AVL (Automatic Volume Limiting)</b>	Sets the sound to obtain fixed output level between programmes. If the <b>Dolby Audio</b> menu item is set to an option other than <b>Off</b> the <b>AVL</b> setting options will change. <b>Auto</b> , <b>Night</b> , <b>Normal</b> and <b>Off</b> options will be available. In <b>Auto</b> mode the TV will switch to <b>Normal</b> or <b>Night</b> mode automatically according to the current time information. If no time information is available this option will always function as <b>Normal</b> . When the TV switches to <b>Night</b> mode for the first time after setting this option as <b>Auto</b> , an information bar will pop up on the screen. Please note that compared to <b>Normal</b> mode <b>Night</b> mode provides more aggressive dynamic compression control which is suitable for silent environments.
<b>Headphone/Lineout</b>	When you connect an external amplifier to your TV using the headphone jack, you can select this option as <b>Lineout</b> . If you have connected headphones to the TV, set this option as <b>Headphone</b> . Please ensure before using headphones that this menu item is set to <b>Headphone</b> . If it is set to <b>Lineout</b> , the output from the headphone socket will be set to maximum which could damage your hearing.
<b>Dolby Audio</b>	<b>Smart</b> , <b>Movie</b> , <b>Music</b> , <b>News</b> and <b>Off</b> options will be available. Set as <b>Off</b> to disable. <i>Note: Some items in <b>Sound</b> menu will be grayed out and unavailable if set to an option other than <b>Off</b>.</i>
<b>DTS TruSurround</b>	Enables or disables the <b>DTS TruSurround</b> .
<b>Digital Out</b>	Sets digital out audio type.
<b>Bass Gain (optional)</b>	Controls the bass gain level. Use Left or Right button to set.

<b>Network Menu Contents</b>	
<b>Network Type</b>	Disable the network connection or change the connection type.
<b>Scan Wireless Networks</b>	Start a search for wireless networks. This option will be available if the <b>Network Type</b> is set as <b>Wireless Device</b> .
<b>Press WPS on your wifi router</b>	If your modem/router device has WPS, you can directly connect to it using this option. Highlight this option and press <b>OK</b> . Go to your modem/router device and press the WPS button on it to make the connection. This option will be available if the <b>Network Type</b> is set as <b>Wireless Device</b> .
<b>Internet Speed Test</b>	Start a speed test to check your connection bandwidth. The result will be displayed on the screen when finished.
<b>Advanced Settings</b>	Change the IP and DNS configurations of your TV.
<b>Wake On</b>	Enable or disable this feature by setting it as <b>On</b> or <b>Off</b> .
<i>Note: For detailed information on the options of this menu refer to the <b>Connectivity</b> section.</i>	

Installation Menu Contents	
<b>Automatic channel scan (Retune)</b>	Displays automatic tuning options. <b>D. Aerial:</b> Searches and stores aerial DVB stations. <b>D. Cable:</b> Searches and stores cable DVB stations. <b>Analogue:</b> Searches and stores analogue stations. <b>Satellite:</b> Searches and stores satellite stations.
<b>Manual channel scan</b>	This feature can be used for direct broadcast entry.
<b>Network channel scan</b>	Searches for the linked channels in the broadcast system. <b>D. Aerial:</b> Searches for aerial network channels. <b>D. Cable:</b> Searches for cable network channels. <b>Satellite:</b> Searches for satellite network channels.
<b>Analogue fine tune</b>	You can use this setting for fine tuning analogue channels. This feature is not available if no analogue channels are stored and if currently watched channel is not an analogue channel.
<b>Satellite Settings</b>	Displays satellite settings. <b>Satellite list:</b> Displays available satellites. You can <b>Add, Delete</b> satellites or <b>Edit</b> satellite settings on the list. <b>Antenna installation:</b> You can change satellite antenna settings and/or start a satellite scan.
<b>Installation Settings (optional)</b>	Displays installation settings menu. <b>Standby Search (*):</b> Your TV will search for new or missing channels while in standby. Any new found broadcasts will be shown. <b>Dynamic Channel Update(*):</b> If this option is set as Enabled, the changes on the broadcasts such as frequency, channel name, subtitle language etc., will be applied automatically while watching. <i>(* Availability depends on model.</i>
<b>Clear Service List</b>	Use this setting to clear channels stored. This setting is visible only when the <b>Country</b> option is set to Denmark, Sweden, Norway or Finland.
<b>Select Active Network</b>	This setting allows you to select only the broadcasts within the selected network to be listed in the channel list. This feature is available only for the country option of Norway.
<b>Signal Information</b>	You can use this menu item to monitor signal related information such as signal level/quality, network name etc for available frequencies.
<b>First time installation</b>	Deletes all stored channels and settings, resets TV to factory settings.

System Menu Contents	
<b>Conditional Access</b>	Controls conditional access modules when available.
<b>Language</b>	You may set a different language depending on the broadcaster and the country.
<b>Privacy Settings (*)</b>	Manage your privacy privileges for smart TV related applications. Press <b>OK</b> to enter the menu and set according to your preferences.
<b>Parental</b>	Enter correct password to change parental settings. You can easily adjust <b>Menu Lock</b> , <b>Maturity Lock</b> , <b>Child Lock</b> or <b>Guidance</b> in this menu. You can also set a new <b>PIN</b> or change the <b>Default CICAM PIN</b> using the related options. <i>Note: Some menu options may not be available depending on the country selection in the <b>First Time Installation</b>. Default PIN could have been set to 0000 or 1234. If you have defined the PIN(is requested depending on the country selection) during the <b>First Time Installation</b> use the PIN that you have defined.</i>
<b>Date/Time</b>	Sets date and time.
<b>Sources</b>	Edit the names, enable or disable selected source options. There are also <b>Regular</b> , <b>Enhanced</b> and <b>Disabled</b> options available for HDMI sources. <b>Regular</b> and <b>Enhanced</b> options are affecting the colour settings of the selected HDMI source. To be able to watch 4K or HDR/HLG (optional) images from an HDMI source related source setting should be set as <b>Enhanced</b> if the connected device is compatible with HDMI 2.0 and subsequent versions. Set as <b>Regular</b> if the connected device is HDMI 1.4 compatible. Set accordingly or disable the related HDMI source by setting as <b>Disabled</b> .
<b>Accessibility</b>	Displays accessibility options of the TV.
<b>Hard of Hearing</b>	Enables any special feature sent from the broadcaster.
<b>Audio Description</b>	A narration track will be played for the blind or visually impaired audience. Press <b>OK</b> to see all available <b>Audio Description</b> menu options. This feature is available only if the broadcaster supports it. <i>Note (optional): Audio description sound feature is not available in recording or time shifting mode.</i>
<b>Netflix</b>	If this feature is supported by your TV, you can view your ESN(*) number and deactivate Netflix. <i>(*) ESN number is an unique ID number for Netflix, created especially to identify your TV.</i>
<b>More</b>	Displays other setting options of the TV.
<b>Menu Timeout</b>	Changes timeout duration for menu screens.
<b>Standby LED</b>	If set as <b>Off</b> the standby LED will not light up when the TV is in standby mode.
<b>HBBTV (*)</b>	You can enable or disable this feature by setting it as <b>On</b> or <b>Off</b> .
<b>Software Upgrade</b>	Ensures that your TV has the latest firmware. Press <b>OK</b> to see the menu options.
<b>Application Version</b>	Displays current software version.
<b>Subtitle Mode</b>	This option is used to select which subtitle mode will be on the screen ( <b>DVB subtitle / Teletext subtitle</b> ) if both is available. Default value is <b>DVB subtitle</b> . This feature is available only for the country option of Norway.
<b>Auto TV OFF</b>	Sets the desired time for the TV to automatically go into standby mode when not being operated.
<b>Biss Key</b>	Biss is a satellite signal scrambling system that is used for some broadcasts. If you need to enter Biss key on a broadcast, you can use this setting. Highlight <b>Biss Key</b> and press <b>OK</b> to enter keys on the desired broadcast.
<b>Store Mode</b>	Select this mode for store display purposes. Whilst <b>Store Mode</b> is enabled, some items in the TV menu may not be available.
<b>AVS (Audio Video Sharing)</b>	<b>AVS</b> feature allows you to share files stored on your smartphone or tablet pc. If you have a compatible smartphone or tablet pc and the appropriate software is installed, you can share/play photos on your TV. See instructions of your sharing software for more information.

<b>Power Up Mode</b>	This setting configures the power up mode preference. <b>Last State</b> and <b>Standby</b> options are available.
<b>Virtual Remote</b>	Enable or disable the virtual remote feature.
<b>CEC</b>	With this setting you can enable and disable CEC functionality completely. Press <b>Left</b> or <b>Right</b> button to enable or disable the feature.
<b>CEC Auto Power On</b>	This function allows the connected HDMI-CEC compatible device to turn on the TV and switch to its input source automatically. Press <b>Left</b> or <b>Right</b> button to enable or disable the feature.
<b>Speakers</b>	To hear the TV audio from the connected compatible audio device set as <b>Amplifier</b> . You can use the remote control of the TV to control the volume of the audio device.
<b>Smart Remote (optional)</b>	Press <b>OK</b> to open the Smart Remote menu screen. Using this screen you can discover and connect the Bluetooth wireless technology enabled remote controller devices to your TV.
<b>Show All Cookies (*)</b>	Displays all saved cookies.
<b>Delete All Cookies (*)</b>	Deletes all saved cookies.
<b>OSS</b>	Displays Open Source Software license information.

(\*) These features may not be available depending on the model of your TV and the selected country in the First Time Installation.

## General TV Operation

### Using the Channel List

The TV sorts all stored stations in the channel list. You can edit this channel list, set favourites or set active stations to be listed by using the **Channels** menu options. Press the **OK** button to open the channel list. You can filter the listed channels or make advanced changes in the current list using the **Filter** and **Edit** tab options. Highlight the tab you want and press **OK** to see available options.

### Managing the Favourite Lists

You can create four different lists of your favourite channels. Enter the **TV>Channels** menu or press the **OK** button in order to open the Channels menu. Highlight the **Edit** tab and press **OK** to see the editing options and select the **Tag/Untag channel** option. Select the desired channel on the list by pressing the **OK** button while the channel is highlighted. You can make multiple choices. You can also use the **Tag/ Untag all** option to select all channels on the list. Then press **Back/Return** button to return to the Edit menu options. Select **Add/Remove Favourites** option and press the **OK** button again. Favourite channel list options will be displayed. Set the desired list option to **On**. The selected channel/s will be added to the list. In order to remove a channel or channels from a favourite list follow the same steps and set the desired list option to **Off**.

You can use the filtering function in the **Channels** menu to filter the channels in the channel list permanently according to your preferences. For instance, using the options of the **Filter** tab, you can set one of your four favourite lists to be displayed every time the channel list is opened.

## Configuring Parental Settings

The **Parental** menu options can be used to prohibit users from viewing of certain programmes, channels and using of menus. These settings are located in the **Settings>System>Parental** menu.

To display parental lock menu options, a PIN should be entered. After coding the correct PIN, **Parental** menu will be displayed.

**Menu Lock:** This setting enables or disables access to all menus or installation menus of the TV.

**Guidance:** This setting enables or disables access some of the MHEG applications. Disabled applications can be released by entering the right PIN.

**Internet Lock:** If this option is set to **On**, the internet using applications will be disabled. Set to **Off** to release these applications again.

**Set PIN:** Defines a new PIN number.

**Default CICAM PIN:** This option will appear as greyed out if no CI module is inserted into the CI slot of the TV. You can change the default PIN of the CI CAM using this option.

***Note:** Default PIN could have been set to **0000** or **1234**. If you have defined the PIN(is requested depending on the country selection) during the First Time Installation use the PIN that you have defined. Some options may not be available depending on the model and/or on the country selection in the First Time Installation.*

## Electronic Programme Guide

By means of electronic programme guide function of your TV you can browse the event schedule of the currently installed channels on your channel list. It depends on the related broadcast whether this feature is supported or not.

To access the programme guide, press the Guide button on your remote. You can also use the Guide option under **TV** menu.

There are 2 different types of schedule layouts available, **Timeline Schedule** and **Now/Next**. To switch between these layouts highlight the tab with the name of the alternative layout on the upper side of the screen and press **OK**.

Use the directional buttons to navigate through the programme guide. Use the **Back/Return** button to use the tab options on the upper side of the screen.

### Timeline Schedule

In this layout option, all events of the listed channels will be displayed by timeline. You can use the directional buttons to scroll through the list of the events. Highlight an event and press **OK** to display event options menu.

Press **Back/Return** button to use available tab options. Highlight Filter tab and press **OK** to see the filtering options. To change the layout highlight **Now/Next** and press **OK**. You can use the **Previous Day** and **Next Day** options to display the events of the previous and next day.

Highlight **Extras** tab and press **OK** to access below options.

**Highlight Genre:** Displays **Highlight Genre** menu. Select a genre and press **OK**. The events in the programme guide matching the selected genre will be highlighted.

**Guide Search:** Displays searching options. Using these options, you can search the programme guide database in accordance with the selected criteria. Matching results will be listed.

**Now:** Displays current event of the highlighted channel.

**Zoom:** Highlight and press **OK** to see events in a wider time interval.

### Now/Next Schedule

In this layout option, only the current and next events of the listed channels will be displayed. You can use the directional buttons to scroll through the list of the events.

Press **Back/Return** button to use available tab options. Highlight **Filter** tab and press **OK** to see the filtering options. To change the layout highlight **Timeline Schedule** and press **OK**.

### Event Options

Use the directional buttons to highlight an event and press **OK** button to display **Options** menu. The following options are available.

**Select Channel:** Using this option, you can switch to the selected channel in order to watch it. The programme guide will be closed.

**More Info:** Display detailed information on the selected event. Use up and down directional buttons to scroll through the text.

**Set Timer on Event / Delete Timer on Event:** Select **Set Timer on Event** option and press **OK**. You can set timers for future events. To cancel an already set timer, highlight that event and press the **OK** button. Then select Delete Timer on Event option. The timer will be cancelled. **Record / Delete Rec. Timer:** Select the Record option and press the **OK** button. If the event is going to be broadcasted at a future time, it will be added to **Timers** list to be recorded. If the selected event is being broadcasted at the moment, recording will start immediately.

To cancel an already set record timer, highlight that event and press the **OK** button and select the option **Delete Rec. Timer**. The record timer will be cancelled.

**IMPORTANT:** Connect a USB disk to your TV while the TV is switched off. You should then switch on the TV to enable the recording feature.

**Notes:** You cannot switch to any other channel while there is an active recording or timer on the current channel.

It is not possible to set timer or record timer for two or more individual events at the same time interval.

### **Integrated Catch-Up Services**

You can enjoy Freeview Play catch-up TV services that work directly through the electronic programme guide. Whilst you are on a channel use the directional buttons to scroll back in time through the timelinebased guide. You will see contents from last few days. Available catch-up contents may change according to broadcasters and will be marked with a play icon. Highlight the content you want to play back and press the **OK** button.

Make sure that your TV is connected to your home network in order to use the catch-up services. For further information regarding this matter and other requirements for Freeview Play services refer to the **Connectivity** and **Freeview Play Platform** sections.

### **Teletext Services (where available)**

Press the Text button to enter. Press again to activate mix mode, which allows you to see the teletext page and the TV broadcast at the same time. Press once more to exit. If available, sections in the teletext pages will become colour-coded and can be selected by pressing the coloured buttons. Follow the instructions displayed on the screen.

### **Digital Teletext**

Press the **Text** button to view digital teletext information. Operate it with the coloured buttons, cursor buttons and the **OK** button. The operation method may differ depending on the contents of the digital teletext. Follow the instructions displayed on the digital teletext screen. When the **Text** button is pressed again, the TV returns to television broadcast.

### **MHEG Teletext**

With digital terrestrial broadcasting (DVB-T), in addition to pictures and sound, you can also view digital teletext. Digital teletext is sometimes broadcast at the same time with the normal broadcasting.

- Press the **Text** or **Red** button
- The digital teletext information appears
- Operate it with the coloured buttons, directional buttons and **OK** button

The operation method may differ depending on the contents of the digital teletext. Follow the instructions displayed on digital teletext screen. Press the Text button to returns to television broadcast.

## BBC Red Button+ (RB+)

While watching BBC channels, press the **Red** button or **Text** button to access **Red Button+** services provided by the BBC. On the opening page you can access to BBC's main services such as BBC iPlayer, BBC News, BBC Sport and many others. There are also links to the home pages of the related applications available. Use the navigation buttons on the TV's remote control to move through the application. Press Exit button to close and exit.

## Software Upgrade

Your TV is capable of finding and updating the firmware automatically via the broadcast signal or via Internet.

### Software upgrade search via user interface

On the main menu select **Settings>System** and then **More**. Navigate to **Software upgrade** and press the **OK** button. Then select **Scan for upgrade** and press **OK** button to check for a new software upgrade.

If a new upgrade is found, it starts to download the upgrade. After the download is completed, a warning will be displayed, press **OK** button to complete software upgrade process and restart TV.

### 3 AM search and upgrade mode

Your TV will search for new upgrades at 3:00 o'clock if **Automatic scanning** option is set to **Enabled** and if the TV is connected to an aerial signal or to Internet. If a new software is found and downloaded successfully, it will be installed at the next power on.

***Note:** Do not unplug the power cord while led is blinking during the reboot process. If the TV fails to come on after the upgrade, unplug, wait for two minutes then plug it back in.*

*All updates are automatically controlled. If a manual search is carried out and no software is found then this is the current version.*

## Troubleshooting & Tips

### TV will not turn on

Make sure the power cord is plugged in securely to a wall outlet. Press the Power button on the TV.

### Poor picture

- Check if you have correctly tuned the TV.
- Low signal level can cause picture distortion. Please check antenna connections.
- Check if you have entered the correct channel frequency if you have performed manual tuning.

## No picture

- TV is not receiving any signal. Make sure the correct source has been selected.
- Is the antenna connected properly?
- Is the antenna cable damaged?
- Are suitable plugs used to connect the antenna?
- If you are in doubt, consult your dealer.

## No sound

- Check if the TV sound is muted. Press the **Mute** button or increase the volume to check.
- Sound is coming from only one speaker. Check the balance settings from **Sound** menu.

## Remote control - no operation

- The batteries may be exhausted. Replace the batteries.
- The batteries maybe inserted incorrectly. Refer to the section “Inserting the Batteries into the Remote”.

## No signal on an input source

- It is possible that no device is connected.
- Check the AV cables and connections from your device.
- Check the device is switched on.

## Recording unavailable

To record a programme, you should first correctly connect a USB storage device to your TV, while the TV is switched off. You should then switch on the TV to enable the recording feature. If you cannot record, check the storage device is correctly formatted and there is sufficient space.

## USB is too slow

If a “USB storage device writing speed too slow to record” message is displayed on the screen while starting a recording, try restarting the recording. If you still get the same error, it is possible that your USB storage device does not meet the speed requirements. Try using a different USB storage device.

## PC Input Typical Display Modes

The following table is an illustration of some of the typical video display modes. Your TV may not support all resolutions.

Index	Resolution	Frequency
1	640x350	85Hz
2	640x480	60Hz
3	640x480	72Hz
4	640x480	75Hz
5	800x600	56Hz
6	800x600	60Hz
7	800x600	72Hz
8	800x600	75Hz
9	1024x768	60Hz
10	1024x768	70Hz
11	1024x768	75Hz
12	1024x768	85Hz
13	1152x864	75Hz
14	1280x768	60Hz
15	1280x768	75Hz
16	1280x960	60Hz
17	1280x960	75Hz
18	1280x1024	60Hz
19	1280x1024	75Hz
20	1360x768	60Hz
21	1366x768	60Hz
22	1400x1050	59Hz
23	1400x1050	60Hz
24	1400x1050	75Hz
25	1440x900	60Hz
26	1440x900	75Hz
27	1600x1200	60Hz
28	1680x1050	59Hz
29	1680x1050	60Hz
30	1920x1080	60Hz

## AV and HDMI Signal Compatibility

Source	Supported Signals	Available	
Back AV	PAL	O	
	SECAM	O	
	NTSC4.43	O	
	NTSC3.58	O	
YPbPr	480i, 480p	60Hz	O
	576i, 576p	50Hz	O
	720p	50Hz,60Hz	O
	1080i	50Hz,60Hz	O
HDMI	480i	60Hz	O
	480p	60Hz	O
	576i, 576p	50Hz	O
	720p	50Hz,60Hz	O
	1080i	50Hz,60Hz	O
	1080p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O
	3840x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O
	4096x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz	O

(X: Not Available, O: Available)

In some cases a signal on the TV may not be displayed properly. The problem may be an inconsistency with standards from the source equipment (DVD, Set-top box, etc. ). If you do experience such a problem please contact your dealer and also the manufacturer of the source equipment.

## Supported File Formats for USB Mode

### Video File Formats

Video Codec	Resolution	Bit Rate	Container
MPEG1/2	1080Px2@30fps, 1080P@60fps	40Mbps	MPEG program stream (.DAT, .VOB, .MPG, .MPEG), MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf)
MPEG4			MPEG program stream (.MPG, .MPEG), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf)
XviD			MP4 (.mp4, .mov), AVI (.avi), MKV (.mkv), ASF (.asf)
Sorenson H.263			FLV (.flv), AVI (.avi), SWF (.swf)
H.263			MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv)
H.264	3840x2160@30fps, 1080P@60fps	135Mbps	FLV (.flv), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), ASF (.asf), AVI (.avi), MKV (.mkv)
Motion JPEG	720P@30fps	10Mbps	AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), MKV (.mkv), ASF (.asf)
VP8	1080P@30fps	20Mbps	MKV (.mkv), WebM (.webm)
HEVC/H.265	4K2K@60fps	100Mbps	MP4 (.mp4, .mov), MKV (.mkv), MPEG transport stream (.ts, .trp, .tp)
	1080P@60fps	50Mbps	MP4 (.mp4, .mov), MKV (.mkv), MPEG transport stream (.ts, .trp, .tp), 3GPP (.3gpp, .3gp)
VP9	4K2K@30fps	100Mbps	MKV (.mkv), WebM (.webm)

## Picture File Formats

Image	Photo	Resolution (width x height)	Remark
JPEG	Base-line	15360x8640	
	Progressive	1024x768	
PNG	non-interlace	9600x6400	
	interlace	1200x800	
BMP		9600x6400	

## Audio File Formats

Audio Codec	Sample rate	Bit Rate	Container
MPEG1/2 Layer1	16KHz ~ 48KHz	32Kbps ~ 448Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), Matroska (.mkv, .mka), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WAV (.wav)
MPEG1/2 Layer2	16KHz ~ 48KHz	8Kbps ~ 384Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), Matroska (.mkv, .mka), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WAV (.wav)
MPEG1/2 Layer3	16KHz ~ 48KHz	8Kbps ~ 320Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), WAV (.wav), SWF (.swf)
AC3	32KHz, 44.1KHz, 48KHz	32Kbps ~ 640Kbps	AC3 (.ac3), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG)
EAC3	32KHz, 44.1KHz, 48KHz	32Kbps ~ 6 Mbps	EAC3 (.ec3), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG)

Audio Codec	Sample rate	Bit Rate	Container
AAC, HEAAC	8KHz ~ 48KHz		AAC (.aac), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), RM (.ra)
WMA	8KHz ~ 48KHz	128bps ~ 320Kbps	ASF (.wma, .asf), AVI (.avi), Matroska (.mkv, .mka)
WMA 10 Pro M0	48KHz	< 192kbps	
WMA 10 Pro M1	48KHz	< 384kbps	
WMA 10 Pro M2	96KHz	< 768kbps	
G711 A/mu-law	8KHz	64Kbps ~ 128Kbps	WAV (.wav), AVI (.avi), Matroska (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)
LBR (cook)	8KHz, 11.025KHz, 22.05KHz, 44.1KHz	6Kbps ~ 128Kbps	RM (.ra)
FLAC	8KHz~96KHz	< 1.6Mbps	Matroska (.mkv, .mka)

## Subtitle File Formats

Internal Subtitles		
Extension	Container	Subtitle Code
dat, mpg, mpeg, vob	MPG, MPEG	DVD Subtitle
ts, trp, tp	TS	DVB Subtitle
mp4	MP4	DVD Subtitle UTF-8 Plain Text
mkv	MKV	ASS SSA UTF-8 Plain Text VobSub DVD Subtitle
avi	AVI (1.0, 2.0), DMF0,1, 2	XSUB XSUB+

External Subtitles		
Extension	Subtitle Parser	Remark
.srt	Subrip	
.ssa/ .ass	SubStation Alpha	
.smi	SAMI	
.sub	SubViewer MicroDVD DVDSubtitleSystem Subidx (VobSub)	SubViewer 1.0 & 2.0 Only
.txt	TMPlayer	

## Supported DVI Resolutions

When connecting devices to your TV's connectors by using DVI converter cable(DVI to HDMI cable - not supplied), you can refer to the following resolution information.

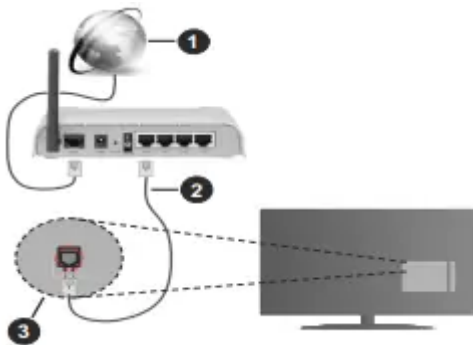
	56Hz	60Hz	66Hz	70Hz	72Hz	75Hz
640x480		x				x
800x600	x	x				x
1024x768		x		x		x
1280x768		x				x
1280x960		x				
1360x768		x				
1366x768		x				
1280x1024		x		x		x
1400x1050		x				
1600x900		x				
1920x1080		x				

## Connectivity

### Wired Connectivity

#### To Connect to a Wired Network

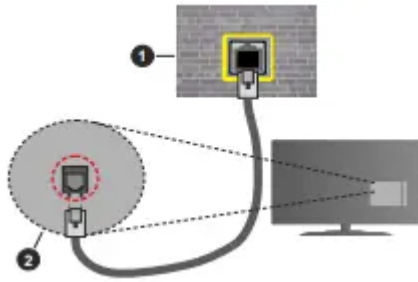
- You must have a modem/router connected to an active broadband connection.
- Connect your TV to your modem/router via an Ethernet cable. There is a LAN port at the rear (back) of your TV.



1. Broadband ISP connection
2. LAN (Ethernet) cable
3. LAN input on the rear side of the TV

#### To configure wired settings refer to the Network section in the Settings menu.

- You might be able to connect your TV to your LAN depending on your network's configuration. In such a case, use an Ethernet cable to connect your TV directly to the network wall outlet.



1. Network wall socket
2. LAN input on the rear side of the TV

## Configuring Wired Device Settings

### Network Type

The **Network Type** can be selected as **Wired Device**, **Wireless Device** or **Disabled**, in accordance with the active connection to the TV set. Select this as **Wired Device** if you are connecting via an Ethernet cable.

### Internet Speed Test

Highlight **Internet Speed Test** and press the **OK** button. TV will check the internet connection bandwidth and display the result when complete.

### Advanced Settings

Highlight **Advanced Settings** and press the **OK** button. On the next screen you can change the IP and DNS settings of the TV. Highlight the desired one and press Left or Right button to change the setting from **Automatic** to **Manual**. Now you can enter the **Manual IP** and / or **Manual DNS** values. Select the related item in the drop down menu and enter the new values using the numeric buttons of the remote. Highlight **Save** and press the OK button to save settings when complete.

## Wireless Connectivity

### To Connect to a Wireless Network

The TV cannot connect to the networks with a hidden SSID. To make your modem's SSID visible, you should change your SSID settings via the modem's software.



### 1. Broadband ISP connection

A Wireless-N router (IEEE 802.11a/b/g/n) with simultaneous 2.4 and 5 GHz bands is designed to increase bandwidth. These are optimized for smoother and faster HD video streaming, file transfers and wireless gaming.

- The frequency and channel differ depending on the area.
- The transmission speed differs depending on the distance and number of obstructions between the transmission products, the configuration of these products, the radio wave conditions, the line traffic and the products that you use. The transmission may also be cut off or may get disconnected depending on the radio wave conditions, DECT phones or any other WLAN 11b appliances. The standard values of the transmission speed are the theoretical maximum values for the wireless standards. They are not the actual speeds of data transmission.
- The location where the transmission is most effective differs depending on the usage environment.
- The Wireless feature of the TV supports 802.11 a,b,g & n type modems. It is highly recommended that you should use the IEEE 802.11n communication protocol in order to avoid any possible problems while watching videos.
- You must change your modem's SSID when there are any other modems around with the same SSID. You can encounter connection problems otherwise. Use a wired connection if you experience problems with a wireless connection.

### Configuring Wireless Device Settings

Open the **Network** menu and select **Network Type** as **Wireless Device** to start connection process.

Highlight **Scan Wireless Networks** option and press **OK** to start a search for available wireless networks. All found networks will be listed. Highlight your desired network from the list and press **OK** to connect.

**Note:** *If the modem supports N mode, you should set N mode settings.*

If the selected network is password-protected, enter the correct key by using the virtual keyboard. You can use this keyboard via the directional buttons and the OK button on the remote control.

Wait until the IP address is shown on the screen.

This means that the connection is now established. To disconnect from a wireless network, highlight **Network Type** and press Left or Right buttons to set as **Disabled**.

If your router has WPS, you can directly connect to the modem/router without entering a password or adding the network first. Highlight **Press WPS on your wifi router** option and press **OK**. Go to your modem/router device and press the WPS button on it to make the connection. You will see a connection confirmation on your TV once the devices have paired. Select **OK** to proceed. No further configuration is required.

Highlight **Internet Speed Test** and press the **OK** button to check your internet connection speed. Highlight **Advanced Settings** and press the **OK** button to open the advanced setting menu. Use directional and numeric buttons to set. Highlight **Save** and press the **OK** button to save settings when complete.

## Other Information

The status of the connection will be displayed as **Connected** or **Not Connected** and the current IP address, if a connection is established.

## Connecting to your mobile device via WLAN

- If your mobile device has WLAN feature, you can connect it to your TV via a router, in order to access the content in your device. For this, your mobile device must have an appropriate sharing software.

Connect your TV to your router following the steps mentioned in the sections above.

Afterwards, connect your mobile device to the router and then activate the sharing software on your mobile device. Then, select files that you want to share with your TV.

If the connection is established correctly, you will be able to access the shared files installed on your mobile device via the AVS(audio video sharing) feature of your TV.

Highlight the **AVS** option in the **Sources** menu and press **OK**, available media server devices in the network will be displayed. Select your mobile device and press the **OK** button to continue.

- If available, you can download a virtual remote controller application from the server of your mobile device application provider.

**Note:** *This feature may not be supported on all mobile devices*

## Wake ON

Wake-on-LAN (WoL) and Wake-on-Wireless LAN (WoWLAN) are standards that allow a device to be turned on or woken up by a network message. The message is sent to the device by a program executed on a remote device connected to the same local area network, such as a smartphone.

Your TV is WoL and WoWLAN compatible. This feature might be disabled during the First Time Installation process. To enable this feature set the **Wake On** option in the **Network** menu as **On**. It is necessary that both the device, from which the network message will be sent to the TV, and the TV are connected to the same network. Wake On feature is only supported for Android OS devices and can only be used via YouTube and Netflix applications.

In order to use this feature the TV and the remote device should be connected at least once while the TV is on. If the TV is powered off, the connection should be re-established, the next time it is switched on. Otherwise this feature will be unavailable. This does not apply, when the TV is switched into the standby mode.

If you want your TV to consume less power in standby mode, you can disable this feature by setting the **Wake On** option as **Off**.

## Wireless Display

Wireless Display is a standard for streaming video and sound content. This feature provides the ability to use your TV as wireless display device.

### Using with mobile devices

There are different standards which enable sharing of screens including graphical, video and audio content between your mobile device and TV.

Plug the wireless USB dongle to TV first, if the TV doesn't have internal WLAN feature.

Then press the **Source** button on the remote and switch to **Wireless Display** source.

A screen appears stating that the TV is ready for connection.

Open the sharing application on your mobile device. These applications are named differently for each brand, refer to the instruction manual of your mobile device for detailed information.

Scan for devices. After you select your TV and connect, the screen of your device will be displayed on your TV.

**Note:** This feature can be used only if the mobile device supports this feature. If you experience problems with the connection check if the operating system version you use supports this feature. There may be incompatibility problems with the operating system

versions which are released after the production of this TV. Scanning and connecting processes differ according to the programme you use.

## Connecting Bluetooth Devices (optional)

Your TV supports Bluetooth wireless connection technology too. A pairing is required before using Bluetooth devices with the TV set. You should do the following to pair your device with the TV:

- Set the device to pairing mode
- Start device discovery on the TV

**Note:** Refer to the user manual of the Bluetooth device to learn how to set the device to pairing mode.

You can connect audio devices or remote controllers to your TV using the Bluetooth wireless technology. Unplug or switch off any other connected audio device in order for wireless connection feature to work correctly. For audio devices you should use the **Bluetooth** option in the **Settings>Sound** menu, for remote controllers the **Smart Remote** option in the **Settings>System>More** menu. Select the menu option and press the **OK** button to open the related menu. Using this menu you can discover and connect the devices that use the Bluetooth wireless technology and start to use them. Follow the onscreen instructions. Start the device discovery. A list of available Bluetooth devices will be displayed. Select the device you want to connect from the list and press the **OK** button to connect. If “**Device connected**” message is displayed, the connection is successfully established. If the connection fails try it again.

## Image transfer and audio streaming

You can also use Bluetooth connection to transfer images or stream audio from your mobile device to your TV.

Pair the mobile device and the TV as described before. Start a device search in your hand-held device. Select your TV from listed devices. Confirm the request for connection on your TV screen and do the same on your hand held device screen. If no pairing is done, image transfer or audio streaming to the TV will not be possible.

The images sent by mobile device will be displayed on the TV without confirmation request, if the image file is suitable. You can also save the image file to a connected USB memory drive or set as boot logo, if this feature is supported and the file is suitable. Press the **Exit** button to terminate displaying the image.

The audio will be routed through the speakers of the TV, after confirmation is given. To start audio streaming unpair the device from your TV if it is paired with your TV previously. After pairing is completed, a confirmation message will be displayed asking whether you want to start audio streaming from your mobile device. Select **Yes** and press the **OK** button on the

remote of the TV. If the connection is succeeded, all audio will be routed through the speakers of the TV. A symbol will appear on the upper side of the TV screen as long as the audio streaming connection is active. To terminate the audio streaming, you should turn off the Bluetooth connection of your mobile device.

Close all running applications and all the menus on the TV for a trouble-free transfer. Only image files with sizes smaller than 5 MB and in the following file formats are suitable; *.jpg, .jpeg, .png, bmp*. If a file sent by the mobile device does not suit these requirements, it will not be displayed on the TV.

**Note:** *Wireless devices may operate within the same radio frequency range and may interfere with one another. To improve the performance of your wireless device place it at least 1 meter away from any other wireless devices.*

## Connectivity Troubleshooting

### Wireless Network Not Available

- Ensure that any firewalls of your network allow the TV wireless connection.
- Try searching for wireless networks again, using the **Network** menu screen.

If the wireless network does not function properly, try using the wired network in your home. Refer to the **Wired Connectivity** section for more information on the process.

If the TV does not function using the wired connection, check the modem (router). If the router does not have a problem, check the internet connection of your modem.

### Connection is Slow

See the instruction book of your wireless modem to get information on the internal service area, connection speed, signal quality and other settings. You need to have a high speed connection for your modem.

### Disruption during playback or slow reactions

You could try the following in such a case: Keep at least three meters distance from microwave ovens, mobile telephones, Bluetooth devices or any other WLAN compatible devices. Try changing the active channel on the WLAN router

### Internet Connection Not Available / Audio Video Sharing Not Working

If the MAC address (a unique identifier number) of your PC or modem has been permanently registered, it is possible that your TV might not connect to the internet. In such a case, the MAC address is authenticated each time when you connect to the internet. This is a precaution against unauthorized access. Since your TV has its own MAC address, your internet service provider cannot validate the MAC address of your TV. For this reason, your TV cannot connect to the internet. Contact your internet service provider and request information on how to connect a different device, such as your TV, to the internet.

It is also possible that the connection may not be available due to a firewall problem. If you think this causes your problem, contact your internet service provider. A firewall might be the reason of a connectivity and discovery problem while using the TV in Audio Video Sharing mode or while browsing via Audio Video Sharing feature.

### **Invalid Domain**

Ensure that you have already logged on to your PC with an authorized username/password and also ensure that your domain is active, prior to sharing any files in your media server program on your PC. If the domain is invalid, this might cause problems while browsing files in Audio Video Sharing mode

## **Using Audio Video Sharing Network Service**

Audio Video Sharing feature uses a standard that eases the viewing process of digital electronics and makes them more convenient to use on a home network.

This standard allows you to view and play photos, music and videos stored in the media server connected to your home network.

### **1. Server Software Installation**

The Audio Video Sharing feature cannot be used if the server programme is not installed onto your PC or if the required media server software is not installed onto the companion device. Prepare your PC with a proper server programme

### **2. Connect to a Wired or Wireless Network**

See the **Wired/Wireless Connectivity** chapters for detailed configuration information.

### **3. Enable Audio Video Sharing**

Enter the **Settings>System>More** menu and enable the **AVS** option.

### **4. Play Shared Files via Media Browser**

Highlight the **AVS** option in the Sources menu by using the directional buttons and press **OK**. Available media server devices in the network will be listed. Select one and press **OK** to continue. The media browser will then be displayed.

Refer to the **Media Browser** menu section for further information on file playback.

If a problem occurs with the network, switch your television off at the wall socket and back on again. Trick mode and jump are not supported with the Audio Video Sharing feature.

PC/HDD/Media Player or any other devices that are compatible should be used with a wired connection for higher playback quality.

Use a LAN connection for quicker file sharing between other devices like computers.

**Note:** *There may be some PC's which may not be able to utilize the Audio Video Sharing feature due to administrator and security settings (such as business PC's).*

**Warning**

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.

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