

BUSH

Instruction manual

ELED22FHDS



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Safety information 1





Safety information

Important - Please read these instructions fully before installing or operating



Don't operate your TV in extreme ambient conditions as this may cause damage to your TV.

Preparation

Place the device on a solid even surface. For ventilation, leave a free space of at least 10 cm all around the set. To prevent any fault and unsafe situations, do not place any objects on top of the set. Use this device in moderate climates.

Operation temperature and operation humidity: 0°C up to 40°C, 85% rel. humidity max. (not blocking ventilation openings).

Intended Use

This device is used to receive and display TV programmes. The different connection options make an additional expansion of the reception and display sources possible (various external devices). This device is only suitable for dry interior use. This appliance is intended solely for private domestic use and may not be used for industrial and commercial purposes. We exclude liability in principle, if the device is not used as intended, or unauthorized modifications have been made. To operate your TV in extreme ambient conditions may cause the damage of the device.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

Children may not recognize dangers. The swallowing of batteries can be fatal. Keep batteries always out of reach of small children. If a battery is swallowed, seek immediate medical attention. Keep the packaging films out of reach of children, there is a risk of suffocation.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock of persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Note: Follow the on screen instructions for operating the related features.

Use this TV set at an altitude of less than 2000 meters above the sea level, in dry locations and in regions with moderate or tropical climates.

To avoid danger of suffocation, keep plastic bags out of the reach of the babies, children and domestic animals.

Carefully attach the stand to the TV. If the stand is provided with screws, tighten the screws firmly to prevent the TV from tilting. Do not over-tighten the screws and mount the stand rubbers properly.

SOME DO'S AND DON'TS ON THE SAFE USE OF EQUIPMENT

Please read the following recommended safety precautions carefully for your safety.

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

DO read the operating instructions before you attempt to use the equipment.

DO ensure that all electrical connections (including the mains plug, extension leads and inter-connections between the pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug before making or changing connections.

DO consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

DO be careful with glass panels or doors on equipment.

DO route the mains lead so that it is not likely to be walked on, crushed, chafed, or subjected to excessive wear and tear or heat.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.



Safety information

Important - Please read these instructions fully before installing or operating

DON'T remove any fixed cover as this may expose dangerous voltages.

DON'T obstruct the ventilation openings of the equipment with items such as newspapers, tablecloths, curtains, etc. Overheating will cause damage and shorten the life of the equipment.

DON'T allow electrical equipment to be exposed to dripping or splashing, or objects filled with liquids, such as vases, to be placed on the equipment.

DON'T place hot objects or naked flame sources such as lighted candles or nightlights on, or close to equipment. High temperatures can melt plastic and lead to fires.

DON'T use makeshift stands and NEVER fix legs with wood screws - to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.

DON'T listen to headphones at high volume, as such use can permanently damage your hearing.

DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a stand-by mode. Switch off using the switch, on the equipment and make sure that your family know how to do this. Special arrangements may need to be made for infirm or handicapped people.

DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way - switch off, withdraw the mains plug and consult your dealer.

ABOVE ALL



NEVER let anyone especially children push anything into holes, slots or any other opening in the case - this could result in a fatal electrical shock.



NEVER guess or take chances with electrical equipment of any kind.



It is better to be safe than sorry!

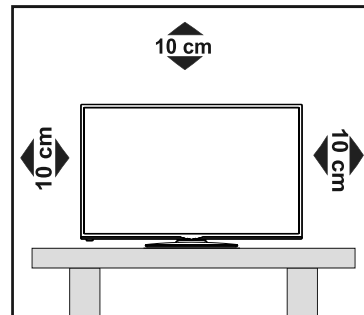
Power source

• The TV should be operated only from a 220-240 V AC, 50 Hz outlet.

▲ WARNING: Do not leave your TV in standby or operating mode when you leave your house.

Positioning the TV

• For ventilation, please leave a clear space of at least 10cm all around the TV.



- **Do not** block the ventilation openings.
- **Do not** place the TV on sloping or unstable surfaces, the TV may tip over.
- To prevent damage to the TV, do not place any objects on top of the TV.

Power cord and plug

- Do not place the set, a piece of furniture, etc. on the power cord (mains lead) or pinch the cord. Handle the power cord by the plug. Do not pull the plug by holding its neck, as this could result in damage to the plug. Do not unplug the appliance by pulling from the power cord and never touch the power cord with wet hands as this could cause a short circuit or electric shock. Never make a knot in the cord or tie it with other cords. The power cords should be placed in such a way that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electric shock. When it is damaged and needs to be replaced, it should be done by qualified personnel.
- This TV receiver is supplied with a moulded mains plug. The mains plug must not be cut off, as it may contain a special radio interference filter, the removal of which could lead to impaired performance. If you wish to extend the lead, obtain an appropriate safety approved extension lead or consult your dealer.
- Observe the manufacturers instructions when connecting extension leads to the set. Check the fuse rating on the new plug; this should be fitted with a 5 Amp fuse which conforms to either ASTA or BSI (BS1362) approvals, these are easily identifiable by either the ⚡ or ⚡ symbols. If you are in any doubt about the installation of an extension lead, please consult a competent electrician.



Safety information

Important - Please read these instructions fully before installing or operating

Moisture and Water

- **Do not** use this TV in a humid or damp place (avoid bathrooms, the sink in the kitchen, and near the washing machine).
- **Do not** expose this TV to rain or water.
- **Do not** place objects filled with liquids, such as flower vases, on top of the TV. Avoid from dripping or splashing.
- If any solid object or liquid falls into the cabinet, unplug the TV and have it checked by qualified personnel before operating it any further.

Ventilation

- The slots and openings on the TV set are intended for ventilation and to ensure reliable operation.
- To prevent overheating, these openings must not be blocked or covered in anyway.

Heat sources and Flames

- **Do not** expose the TV to direct sunlight or other heat sources.
- The TV should not be placed near to open flames and sources of intense heat such as an electric heater.
- Ensure that no open flame sources, such as lit candles, are placed on top of the TV.



Headphone Volume

- Excessive sound pressure from earphones and headphones can cause hearing loss, please take care.



Wall Mounting (optional)

- To prevent injury, this TV must be securely attached to the wall in accordance with the installation instructions (if the option is available).

LCD Screen

- Occasionally, a few non-active pixels may appear on the screen as a fixed blue, green or red point. Please note that this does not affect the performance of your product.
- Take care not to scratch the screen with fingernails or other hard objects.

Cleaning

- Before cleaning, unplug the TV from the wall socket.
- **Do not** use liquid or aerosol cleaners. Only use a soft, dry cloth.

Batteries

⚠ WARNING: Incorrect installation of batteries may cause battery leakage and corrosion, resulting in damage to the remote control.

- **Do not** mix old and new batteries, or batteries of different types.
- **Do not** dispose of batteries in a fire.
- **Do not** dispose of batteries with normal household waste, take to a local recycling centre.



⚠ CAUTION: Insert the batteries / rechargeable batteries in the correct polarity. Don't try to recharge non rechargeable batteries and under no circumstances throw them into fire. Danger of explosion. Do not use unequal batteries (old and new, Alkaline and carbon, etc.) simultaneously. If you will not use the device for a long time, remove the batteries and store the device in a dry and dust free place. Improper use of batteries may cause an explosion or leakage. If the batteries have leaked, use gloves and clean the appliance thoroughly with a dry cloth! Batteries should not be exposed to heat, such as sunshine, fire or the like.

Replacement Parts

When replacement parts are required, make sure that the service technician has used replacement parts, which are specified by the manufacturer or have the same specifications as the original one. Unauthorised substitutions may result in fire, electrical shock or other hazards.

Taking out of service and storing

Unplug the TV from the mains and pack the TV in an appropriate cardboard box. Remove the batteries from the remote control and pack the remote control with the TV set.

✎ NOTE: The TV set should be stored in a dry and dust-free room.

Connection to a Television Distribution System (Cable TV etc.) from Tuner

Device connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing-and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard.

Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.



Safety information

Important - Please read these instructions fully before installing or operating

below a certain frequency range (galvanic isolator, see EN 60728-11).

CAUTION

Do not put your fingers in the middle between the TV and stand, especially when you carry the TV, as they may be injured.

WARNING

Do not ingest the battery, Chemical Burn Hazard

This product or the accessories supplied with the product may contain a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children.

If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

WARNING

Never place a television set in unstable or inclined locations. A television set may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as;

- Using cabinets or stands recommended by the manufacturer of the television set.
- Only using furniture that can safely support the television set.
- Ensuring the television set is not overhanging the edge of the supporting furniture.
- Not placing the television set on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television set to a suitable support.
- Not standing the television set on cloth or other materials placed between the television and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the television set or its controls. If your existing television set is being retained and relocated, the same considerations as above should be applied.

WALL MOUNTING WARNINGS

- Read the instructions before mounting your TV on the wall.
- The wall mount kit is optional. You can obtain from your local dealer, if not supplied with your TV.
- Do not install the TV on a ceiling or on an inclined wall.
- Use the specified wall mounting screws and other accessories.
- Tighten the wall mounting screws firmly to prevent the TV from fall. Do not over-tighten the screws.

WARNING

Apparatus connected to the protective earthing of the building installation through the MAINS connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator)

Symbols in this Instruction Book

The following symbols are used in the Instruction Book as a marker for restrictions and precautions and safety instructions. Note such information for security reasons.

WARNING

If you do not pay attention to such a marked warning, it can cause serious injury or death. Note these warnings strictly, in order to ensure a safe operation.

CAUTION

Such a precaution is marked, you should take up or note, to avoid injury or property damage. Note these instructions strictly, in order to ensure a safe operation.

IMPORTANT

Warnings on the appliance and restrictions are displayed like this. Read this information strictly in order to operate the system correctly and avoid damage.

NOTE

Information about the operation and additional explanations are marked like this. To be aware of such information is recommended to ensure that the functions can be used optimally.



Safety information

Important - Please read these instructions fully before installing or operating

Markings on the Product

The following symbols are used **on the product** as a marker for restrictions and precautions and safety instructions. Each explanation shall be considered where the product bears related marking only. Note such information for security reasons.



Class II Equipment: This appliance is designed in such a way that it does not require a safety connection to electrical earth.



Hazardous Live Terminal: The marked terminal(s) is/are hazardous live under normal operating conditions.



Caution, See Operating Instructions: The marked area(s) contain(s) user replaceable coin or button cell batteries.



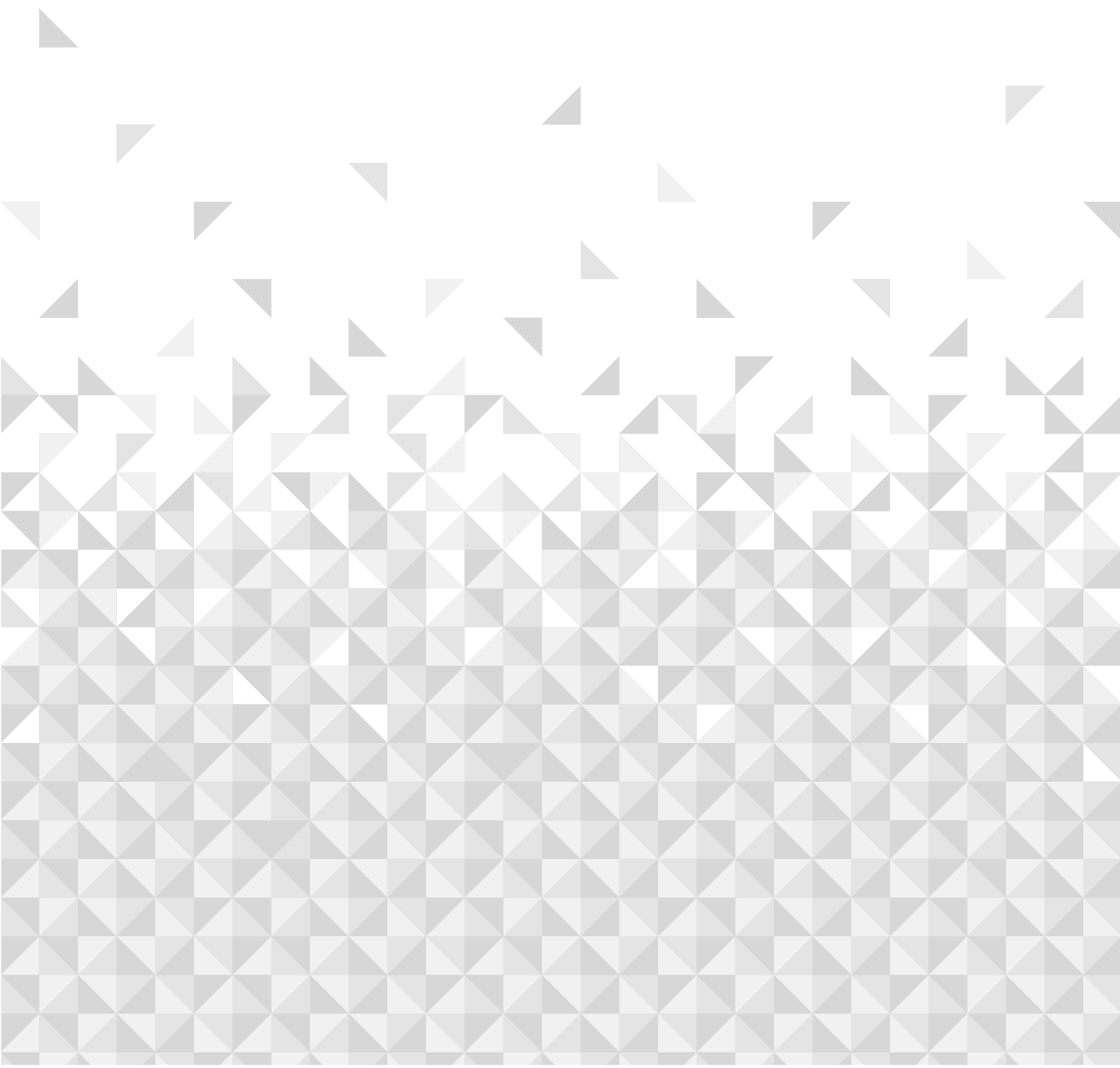
Class 1 Laser Product: This product contains Class 1 laser source that is safe under reasonably foreseeable conditions of operation.

Hereby, VESTEL Elektronik Sanayi ve Ticaret A.Ş., declares that the radio equipment type TFT IDTV is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: doc.vosshub.com

The illustrations and the OSD in this operation manual are for explanation purposes and may vary slightly from the actual operations. Product design and specifications may be changed without notice.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Getting to know your TV 2



Getting to know your TV

You'll be up and running in no time

Ready? Let's begin...

Please read these instructions carefully. They contain important information which will help you get the best from your TV and ensure safe and correct installation and operation.

If you require any further assistance, our technical experts are happy to help. For full details, refer to the product support section at the end of these instructions.

Accessories Included

- Remote Control
- Batteries: 2 x AAA
- Instruction Book
- Quick Start Guide

Features

- Remote controlled colour TV
- Fully integrated digital terrestrial TV (DVB-T-T2)
- HDMI inputs to connect other devices with HDMI sockets
- USB input
- OSD menu system
- Back AV inputs for external devices (such as DVD Players, PVR, video games, etc.)
- Stereo sound system
- Teletext
- Headphone connection
- Automatic programming system
- Manual tuning
- Automatic power down after up to eight hours.
- Sleep timer
- Child lock
- Automatic sound mute when no transmission.
- NTSC playback
- AVL (Automatic Volume Limiting)
- PLL (Frequency Search)
- PC input
- Game Mode (Optional)
- Picture off function
- Ethernet (LAN) for Internet connectivity and service
- 802.11 a/b/g/n built in WLAN Support
- Audio Video Sharing

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If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Getting to know your TV

You'll be up and running in no time

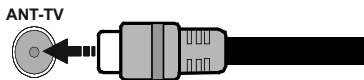
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Antenna Connection

Connect the aerial TV plug to the AERIAL INPUT (ANT-TV) socket located on the rear side of the TV.

Rear side of the TV



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.

Inserting the Batteries into the Remote

Remove the back cover to reveal the battery compartment. You need to do the followings in order to do that:

- Place the tip of a pen or some other pointed object in the hole above the cover and press it down.
- Then press firmly on the cover and slide in the direction of the arrow.

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.

Batteries should not be exposed to excessive heat such as sunshine, fire or the like.

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.

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.

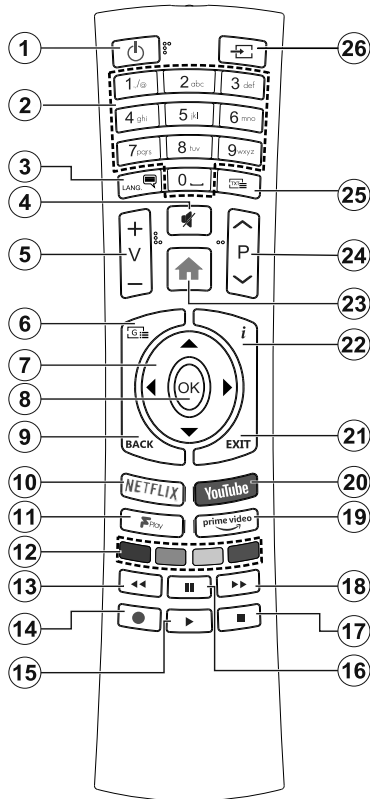
To power down the TV completely, unplug the power cord from the mains socket.

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

Getting to know your TV

You'll be up and running in no time

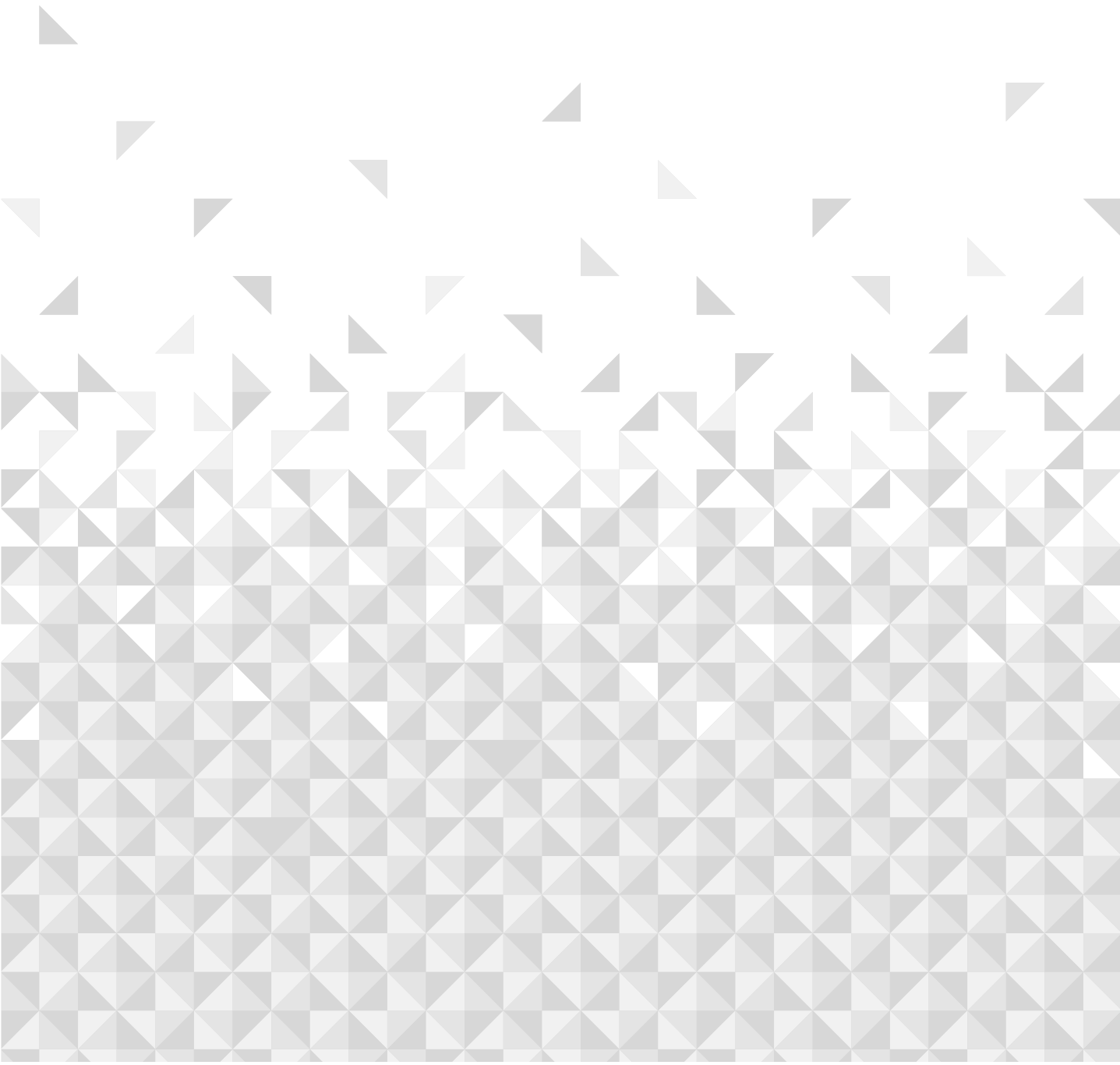
Remote Control



- 1. Standby:** Switches On / Off the TV
- 2. Numeric buttons:** Switches the channel, enters a number or a letter in the text box on the screen.
- 3. Language:** Displays and changes audio/subtitle language and turns subtitles on or off (digital TV, where available)
- 4. Mute:** Completely turns off the volume of the TV
- 5. Volume +/-**
- 6. Guide:** Displays the electronic programme guide
- 7. Directional buttons:** Helps navigate menus, content etc. and displays the subpages in TXT mode when pressed Right or Left
- 8. OK:** Confirms user selections, holds the page (in TXT mode), views **Channels** menu (DTV mode)
- 9. Back/Return:** Returns to previous screen, previous menu, opens index page (in TXT mode). Quickly cycles between previous and current channels or sources
- 10. Netflix:** Launches the Netflix application
- 11. Freeview Play:** Connects to the Freeview Play platform where you can access available catch-up TV services
- 12. Coloured Buttons:** Follow the on-screen instructions for coloured button functions
- 13. Rewind:** Moves frames backwards in media such as movies
- 14. No function**
- 15. Play:** Starts to play selected media
- 16. Pause:** Pauses the media being played
- 17. Stop:** Stops the media being played
- 18. Fast Forward:** Moves frames forward in media such as movies
- 19. Prime Video:** Launches the Amazon Prime Video application
- 20. YouTube:** Launches the YouTube application
- 21. Exit:** Closes and exits from displayed menus or returns to previous screen
- 22. Info:** Displays information about on-screen content, shows hidden information (reveal - in TXT mode)
- 23. Home:** Displays TV menu
- 24. Programme +/-**
- 25. Text:** Displays teletext (where available), press again to superimpose the teletext over a normal broadcast picture (mix)
- 26. Source:** Shows available broadcast and content sources

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Connections 3











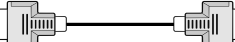








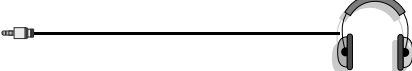







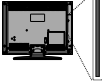





Connections

Bringing it all together

Connections

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, 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.

Connector	Type	Cables	Device
	VGA Connection (back)		
AUDIO IN 	PC/YPbPr Audio Connection (back)	 YPbPr/PC Audio Cable	
	HDMI Connection (side&back)		
SPDIF 	SPDIF (Coaxial 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	

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Connections

Bringing it all together

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 smarttvsecurity@vosshub.com.

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.

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

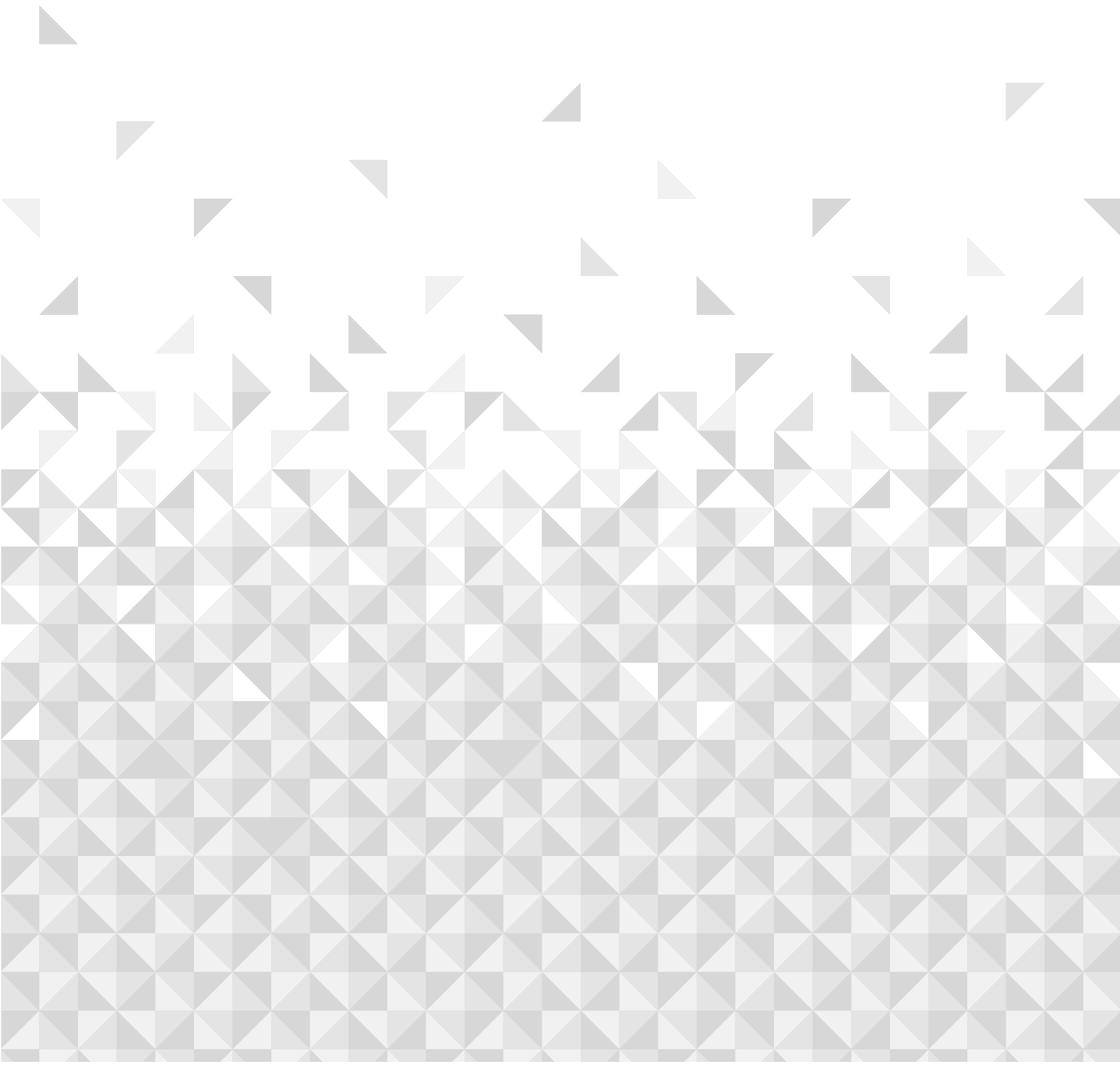
While the search continues current scan results will be displayed at the bottom of the screen. After all the available stations are stored, **Channels** menu will be displayed. You can edit the channel list according to your preferences using the **Edit** tab options or press the **Home** button to quit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

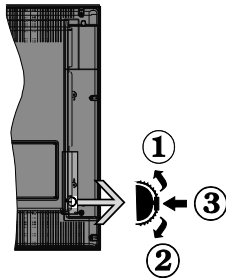
Standard features 4



Standard features

Simple everyday use

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

When the **Home** 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.

4. 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 **Delete** or **Move** option 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**.

5. TV

5.1. Guide

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

5.2. Channels

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

5.3. 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.

Standard features

Simple everyday use

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.

6. Settings

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

7. 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.

8. Sources

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**.

8.1. Source Settings

Edit the names, enable or disable selected source options. You can reset your customisations on the **Home** and **Apps** menus to defaults using the **Reset Menu** option in the **Settings** menu (availability depends on TV model and its features). Highlight this option and press **OK**. A confirmation message will be displayed. Highlight **Yes** and press **OK** to proceed. Note that you will not be able to perform this operation again within the next 2 minutes.

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.

Using the Channel List

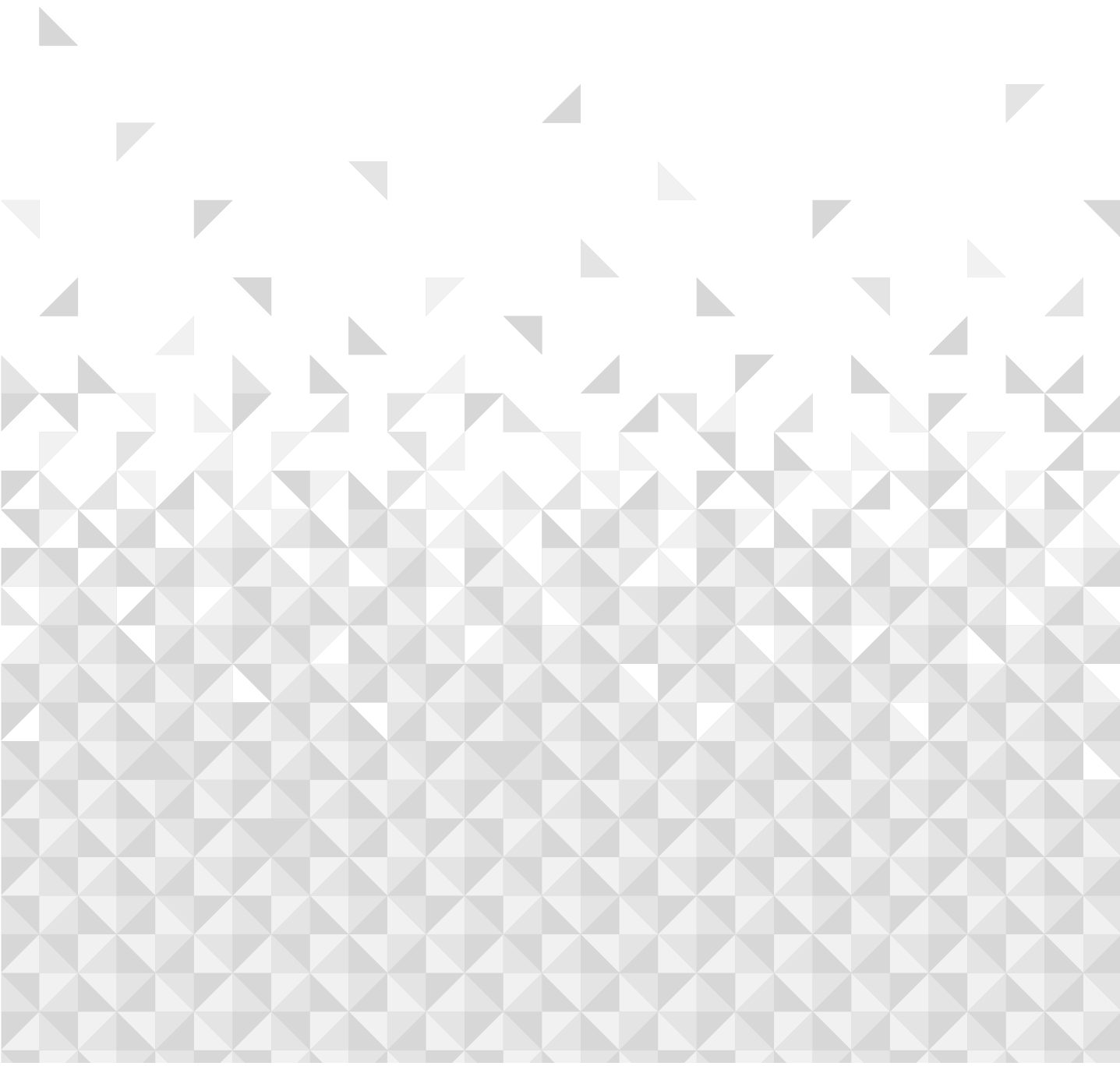
The TV sorts all stored stations in the channel list. You can edit this channel list, set favourites or set active stations to be listed by using the **Channels** menu options. Press the **OK** button to open the channel list. You can filter the listed channels or make advanced changes in the current 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.

Advanced features 5



Advanced features

Getting the most from your TV

Media Playback via USB Input

You can connect 2.5" and 3.5" inch (HDD with external power supply) external hard disk drives or USB memory stick to your TV by using the USB inputs of the TV.

IMPORTANT! Back up the files on your storage devices before connecting them to the TV. Manufacturer will not be responsible for any file damage or data loss. Certain types of USB devices (e.g. MP3 Players) or USB hard disk drives/memory sticks may not be compatible with this TV. The TV supports FAT32 and NTFS disk formatting.

Wait a little while before each plugging and unplugging as the player may still be reading files. Failure to do so may cause physical damage to the USB player and the USB device itself. Do not pull out your drive while playing a file.

You can use USB hubs with your TV's USB inputs. External power supplied USB hubs are recommended in such a case.

It is recommended to use the TV's USB input(s) directly, if you are going to connect a USB hard disk.





Note: When viewing image files the **Media Browser** menu can only display 1000 image files stored on the connected USB device.

Media Browser

You can play back music and movie files and display photo files stored on a USB storage device by connecting it to your TV. Connect a USB storage device to one of the USB inputs located on the side of the TV.

After connecting a USB storage device to your TV **Media Browser** menu will be displayed on the screen. You can access the content of the connected USB device any time later from the **Sources** menu. Select the related USB input option from this menu and press **OK**. Then select the file of your choice and press **OK** to display or play it back.

You can set your **Media Browser** preferences by using the **Settings** menu. **Settings** menu can be accessed via the information bar which is displayed on the bottom of the screen when pressed the **Info** button while playing back a video file or displaying a picture file. Press the **Info** button, highlight the gear wheel symbol positioned on the right side of the information bar and press **OK**. **Picture Settings, Sound Settings, Media Browser Settings** and **Options** menus will be available. The contents of these menus may change according to the type of the currently open media file. Only **Sound Settings** menu will be available while playing back audio files.

Loop/Shuffle Mode Operation	
Start playback and activate 	All files in the list will be continuously played in original order
Start playback and activate 	The same file will be played continuously (repeat)
Start playback and activate 	All files in the list will be played once in random order
Start playback and activate 	All files in the list will be continuously played in the same random order.

To use the functions on the information bar highlight the symbol of the function and press **OK**. To change the status of a function highlight the symbol of the function and press **OK** as much as needed. If the symbol is marked with a red cross, that means it is deactivated.

FollowMe TV

With your mobile device you can stream the current broadcast from your smart TV using the **FollowMe TV** feature. Install the appropriate Smart Center application to your mobile device. Start the application.

For further information on using this feature refer to the instructions of the application you use.

Note: Depending on model, your TV may not support this function. The application may not be compatible with all mobile devices. UHD (4K, Ultra HD) channels are not supported and both of the devices must be connected to the same network.

CEC

This function allows to control the CEC-enabled devices, that are connected through HDMI ports by using the remote control of the TV.

The **CEC** option in the **Settings>System>More** menu should be set as **Enabled** at first. Press the **Source** button and select the HDMI input of the connected CEC device from the **Sources List** menu. When new CEC source device is connected, it will be listed in source menu with its own name instead of the connected HDMI ports name(such as DVD Player, Recorder 1 etc.).

The TV remote is automatically able to perform the main functions after the connected HDMI source has been selected. To terminate this operation and control the TV via the remote again, press and hold the "0-Zero" button on the remote control for 3 seconds.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

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Getting the most from your TV

You can disable the CEC functionality by setting the related option under the **Settings>System>More** menu accordingly.

The TV supports ARC (Audio Return Channel). This feature is an audio link meant to replace other cables between the TV and an audio system (A/V receiver or speaker system). When ARC is active, the TV does not mute its other audio outputs automatically. You will need to decrease TV volume to zero manually if you wish to hear the ARC audio only (same as optical or co-axial digital audio outputs). If you want to change connected device's volume level, you should select that device from the source list. In that case volume control keys are directed to connected audio device.

Note: ARC is supported only via the HDMI2 input.

System Audio Control

Allows an Audio Amplifier/Receiver to be used with the TV. The volume can be controlled using the remote control of the TV. To activate this feature set the **Speakers** option in the **Settings>System>More** menu as **Amplifier**. The TV speakers will be muted and the sound of the watched source will be provided from the connected sound system.

Note: The audio device should support System Audio Control feature and **CEC** option should be set as **Enabled**.

E-Manual

You can find instructions for your TV's features in the E-Manual.

To access the E-Manual, enter **Settings** menu, select **Manuals** and press **OK**. For quick access press **Home** button and then **Info** button.

By using the directional buttons select a desired category. Every category includes different topics. Select a topic and press **OK** to read instructions.

To close the E-Manual screen press the **Exit** or **Home** button.

Note: Depending on model, your TV may not support this function. The contents of the E-Manual may vary according to the model.

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.

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**.

Some apps will have their own Parental settings.

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.

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Getting the most from your TV

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.

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

It is not possible to set 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 timeline-based 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 return 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.

Advanced features

Getting the most from your TV

Firmware Update via the Internet

Note: Connect TV to the internet (via WLAN or Ethernet)

Manual Download (Pull)

1. Press **Menu** on your remote control and continue through to **System > Settings > More > Software Upgrade > Scan for Upgrade**
2. The TV will download and run the upgrade automatically
3. Please make sure to keep your TV on for the duration of the upgrade – do not power off!
4. During the upgrade, the picture will turn off but don't worry as this means the update has started. The standby light will flash slowly at first to download and then fast as the upgrade starts.
5. After the download is complete, your TV will reboot and show a pop-up screen of how to launch the Freeview Play portal via your remote control
6. Press **Exit** to leave the pop-up screen, then press **Freeview Play** button on the remote control to bring up the Freeview Play Manufacturer T&Cs
7. The Freeview Play Manufacturer T&Cs will appear
8. Press **Programme +** to scroll through the T&Cs quicker; you must accept the T&Cs in order for Freeview Play to work.
9. After accepting the T&Cs, you will be able to access Freeview Play and enjoy everything it has to offer.

Automatic Download (Push)

1. Turn your TV on, a pop-up menu about the upgrade will show after 10 - 20 minutes
2. Press **OK** to start upgrading your TV
3. Please make sure to keep your TV on for the duration of the upgrade – do not power off!
4. During the upgrade, the picture will turn off but don't worry as this means the update has started. The standby light will flash slowly at first to download and then fast as the upgrade starts.
5. After the download is complete, your TV will reboot and show a pop-up screen of how to launch the Freeview Play portal via your remote control
6. Press **Exit** first and then FPlay button on the remote control to bring up the Freeview Play Manufacturer T&Cs
7. The Freeview Play Manufacturer T&Cs will appear

8. Press **Programme +** to scroll through the T&Cs quicker; you must accept the T&Cs in order for Freeview Play to work.
9. After accepting the T&Cs, you will be able to access Freeview Play and enjoy everything it has to offer.

Advanced features

Getting the most from your TV

Settings Menu Contents

Picture Menu Contents	
Mode	You can change the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: Cinema, Game (optional), Sports, Dynamic and Natural .
Contrast	Adjusts the light and dark values on the screen.
Brightness	Adjusts the brightness values on the screen.
Sharpness	Sets the sharpness value for the objects displayed on the screen.
Colour	Sets the colour value, adjusting the colours.
Energy Saving	For setting the Energy Saving to Custom, Minimum, Medium, Maximum, Auto, Screen Off or Off . Note: Available options may differ depending on the selected Mode .
Backlight	This setting controls the backlight level. The backlight function will be inactive if the Energy Saving is set to an option other than Custom .
Advanced Settings	
Dynamic Contrast	You can change the dynamic contrast ratio to desired value.
Noise Reduction	If the signal is weak and the picture is noisy, use the Noise Reduction setting to reduce the amount of noise.
Colour Temp	Sets the desired colour temperature value. Cool, Normal, Warm and Custom options are available.
White Point	If the Colour Temp option is set as Custom , this setting will be available. Increase the 'warmth' or 'coolness' of the picture by pressing Left or Right buttons.
Picture Zoom	Sets the desired image size format.
Picture Shift	This option may be available depending on the Picture Zoom setting. Highlight and press OK , then use directional buttons to shift the picture upwards or downwards.
Film Mode	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.
Skin Tone	Skin tone can be changed between -5 and 5.
Colour Shift	Adjust the desired colour tone.
HDMI Full Range	While watching from a HDMI source, this feature will be visible. You can use this feature to enhance blackness in the picture.
PC Position	Appears only when the input source is set to VGA/PC.
Autoposition	If the image is not centered in VGA mode use this option to automatically adjust the position of the image. Press OK to start the auto adjustment.
H Position	This item shifts the image horizontally to the right hand side or left hand side of the screen.
V Position	This item shifts the image vertically towards the top or bottom of the screen.
Dot Clock	Dot Clock adjustments correct the interference that appear as vertical banding in dot intensive presentations like spreadsheets or paragraphs or text in smaller fonts.
Phase	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.
Reset	Resets the picture settings to factory default settings (except Game mode).
While in VGA (PC) mode, some items in Picture menu will be unavailable. Instead, VGA mode settings will be added to the Picture menu while in PC mode.	

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

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Getting the most from your TV

Sound Menu Contents	
Volume	Adjusts the volume level.
Equalizer	Selects the equalizer mode. Custom settings can be made only when in User mode.
Balance	Adjusts whether the sound comes from the left or right speaker.
Headphone	Sets headphone volume. Please ensure before using headphones that the headphone volume is set to a low level, to prevent damage to your hearing.
Sound Mode	You can select a sound mode (If the viewed channel supports).
AVL (Automatic Volume Limiting)	Sets the sound to obtain fixed output level between programmes.
Headphone/Lineout	When you connect an external amplifier to your TV using the headphone jack, you can select this option as Lineout . If you have connected headphones to the TV, set this option as Headphone . Please ensure before using headphones that this menu item is set to Headphone . If it is set to Lineout , the output from the headphone socket will be set to maximum which could damage your hearing.
Dolby Audio	Smart, Movie, Music, News and Off options will be available. Set as Off to disable. Note: Some items in Sound menu will be grayed out and unavailable if set to an option other than Off.
Dynamic Bass	Enables or disables the Dynamic Bass.
DTS TruSurround HD	Enables or disables the DTS TruSurround HD .
DTS DRC	Dynamic Range Control provides gain adjustment of the source to maintain suitable audible range at both low and high playback levels. It will function only if the source audio format is DTS. Enable or disable the DTS DRC by setting as On or Off .
Sound Output	Sets the sound output preference. TV, S/PDIF and HDMI ARC options will be available. There will be no sound output except through the selected option. If HDMI ARC option is selected, CEC feature will be enabled. Note: Depending on the selected option some items in Sound menu will appear as grayed out and will be unavailable.
Digital Out	Sets digital out audio type.

Advanced features

Getting the most from your TV

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

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Advanced features

Getting the most from your TV

Installation Menu Contents	
Automatic channel scan (Retune)	Displays automatic tuning options. D. Aerial: Searches and stores aerial DVB stations.
Manual channel scan	This feature can be used for direct broadcast entry.
Network channel scan	Searches for the linked channels in the broadcast system. D. Aerial: Searches for aerial network channels.
Signal Information	You can use this menu item to monitor signal related information such as signal level/quality, network name etc for available frequencies.
First time installation	Deletes all stored channels and settings, resets TV to factory settings.

Advanced features

Getting the most from your TV

System Menu Contents	
Conditional Access	Controls conditional access modules when available.
Language	You may set a different language depending on the broadcaster and the country.
Privacy Settings (*)	Manage your privacy privileges for smart TV related applications. Press OK to enter the menu and set according to your preferences.
Parental	Enter correct password to change parental settings. You can easily adjust Menu Lock , Maturity Lock , Child Lock or Guidance in this menu. You can also set a new PIN or change the Default CICAM PIN using the related options. Note: Some menu options may not be available depending on the country selection in the First Time Installation . 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.
Date/Time	Sets date and time.
Sources	Edit the names, enable or disable selected source options.
Accessibility	Displays accessibility options of the TV.
Hard of Hearing	Enables any special feature sent from the broadcaster.
Audio Description	A narration track will be played for the blind or visually impaired audience. Press OK to see all available Audio Description menu options. This feature is available only if the broadcaster supports it.
Netflix	If this feature is supported by your TV, you can view your ESN(*) number and deactivate Netflix. (*) ESN number is a unique ID number for Netflix, created especially to identify your TV. Note: For 4K video streaming, a minimum 25Mb/s internet connection speed is required – For an example of the requirements for streaming 4K content you may find more information on the Netflix website (https://help.netflix.com/en/node/13444). When you start to stream video content via the internet the quality of your connection will be analysed and the full HD or 4K quality may take a short time to be realised, or in the event of a slow connection not be possible. You should check your internet capabilities with your internet provider if you are at all unsure.
More	Displays other setting options of the TV.
Menu Timeout	Changes timeout duration for menu screens.
Standby LED	If set as Off the standby LED will not light up when the TV is in standby mode.
Software Upgrade	Ensures that your TV has the latest firmware. Press OK to see the menu options.
Application Version	Displays current software version.
Auto TV OFF	Sets the desired time for the TV to automatically go into standby mode when not being operated. This option can be set from 1 to 8 hours in steps of 1 hour. You can also disable this option by setting as Off .

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Advanced features

Getting the most from your TV

Store Mode	Select this mode for store display purposes. Whilst Store Mode is enabled, some items in the TV menu may not be available.
AVS (Audio Video Sharing)	AVS 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.
Power Up Mode	This setting configures the power up mode preference. Last State and Standby options are available.
Virtual Remote	Enable or disable the virtual remote feature.
CEC	With this setting you can enable and disable CEC functionality completely. Press Left or Right button to enable or disable the feature.
CEC Auto Power On	This function allows the connected HDMI-CEC compatible device to turn on the TV and switch to its input source automatically. Press Left or Right button to enable or disable the feature.
Speakers	To hear the TV audio from the connected compatible audio device set as Amplifier . You can use the remote control of the TV to control the volume of the audio device.
Show All Cookies (*)	Displays all saved cookies.
Delete All Cookies (*)	Deletes all saved cookies.
OSS	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.

Advanced features

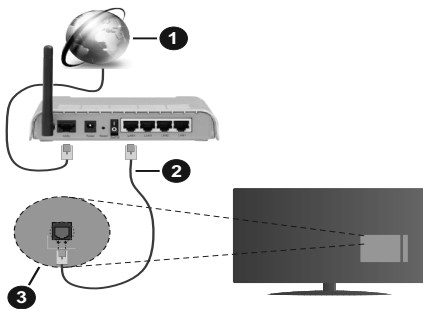
Getting the most from your TV

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.



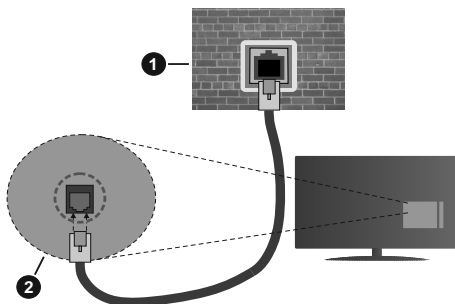
10. Broadband ISP connection

11. LAN (Ethernet) cable

12. 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.

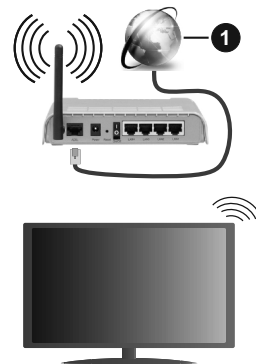
Advanced Settings

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.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Advanced features

Getting the most from your TV

- 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 section 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.

The performance of some devices in the market, may vary due to the software architecture. In order to use Wake On feature with a better performance, please make sure that your device has latest firmware version.

Advanced features

Getting the most from your TV

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.

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.

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.

Distruption 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.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Advanced features

Getting the most from your TV

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. Please 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).

Apps

You can access the applications installed on your TV from **Apps** menu. Highlight an app and press **OK** to launch.

In order to manage the apps installed on your TV, add new apps from the market or to see all available apps in full screen mode highlight the **Add More** option and press **OK**. Using this menu option you can add an installed app to **Home** menu, launch or remove it. Removed apps will no longer be accessible from **Apps** menu. You can also add new apps from the market. In order to enter the market highlight the shopping basket logo located on the upper left side of the screen and press **OK**. Available apps in the market will be displayed. Use directional buttons to highlight an app and press **OK**. Highlight **Add to Apps**

option and press **OK** again to add the selected app to **Apps** menu.

For quick access to **Add More** menu you can press the **Internet** button on the remote, if this button is available.

Notes:

Possible application dependent problems may be caused by the content service provider.

Third party internet services may change, be discontinued or restricted at any time.

Freeview Play Platform

Freeview Play platform provides integrated catch-up TV services. Simply press the **Freeview Play** button on your remote control to connect to the Freeview Play platform.

You will have to agree to the terms and conditions for Freeview Play services first if you did not agree them during the **First Time Installation**. Highlight **Yes** and press **OK** on the remote to confirm and proceed.

Integrated TV Player applications will be displayed. Select one and press the **OK** button. Then select a content that you want to play back and press the **OK** button to watch.

Catch-up contents can also be accessed and played back directly from the TV Guide. Refer to the section **Electronic Programme Guide** for more information.

Integrated Catch-Up Services

Note: Before connecting to the Freeview Play platform, make sure that you follow the steps below, otherwise you will not be able to access the Freeview Play platform:

- Connect TV to the internet (via WLAN or Ethernet)
- Accept the T&Cs to enable Freeview Play services
- A minimum broadband speed of 2Mbps is required to watch catch up and on demand services

This will count towards any monthly broadband data allowance. Only selected channels provide 7-day catch up.

Without the internet connection you will not be able to access the Freeview Play platform.

Accessing Freeview Play catch-up TV services

1. Freeview Play via the Electronic Programme Guide

Simply scroll backwards in your programme guide to access Freeview Play. Available catch-up content will be marked with a Play icon. Highlight the content and press the **OK** button and select playback option.

Note: The content available on the electronic programme guide is driven by TV channels themselves and will only

Advanced features

Getting the most from your TV

display if the channel content is available. When you select a programme, Freeview Play will directly launch the catch up service. If you wish to watch Demand 5 on Freeview Play, please use the other options listed below to access the catch up service.

2. Freeview Play via the 'FPlay button'

Click **Freeview Play** button on your remote control.

This will bring up the Freeview Play portal, where you can choose the channel and programme to watch with ease.

3. Freeview Play via the TV Menu


Click the **Home** button, **Home** menu will be displayed and Freeview Play will be one of the options you can choose. It will also be available in the **Apps** menu, you can scroll down to access this menu after pressing the **Home** button. Highlight Freeview Play app and press **OK**. You will see the familiar Freeview Play portal and be able to choose the channel and programme you'd like to watch.

Internet Browser

To use the internet browser, enter the **Apps** menu first. Then launch the internet browser application which has an orange coloured logo with earth symbol on it.

In the initial screen of the browser, the thumbnails of the predefined (if any) links to web sites available will be displayed as **Speed Dial** options along with the **Edit Speed Dial** and the **Add to Speed Dial** options.

To navigate the web browser, use the directional buttons on the remote or a connected mouse. To see the browser options bar, move the cursor to the top of the page or press the **Back/Return** button. **History**, **Tabs** and **Bookmarks** options and the browser bar which contains previous/next buttons, the refresh button, the address/search bar, the **Speed Dial** and the **Vewd** buttons are available.

To add a desired website to the **Speed Dial** list for quick access, move the cursor to the top of the page or press the **Back/Return** button. The browser bar will appear. Highlight the **Speed Dial** -  button and press the **OK** button. Then select **Add to Speed Dial** option and press the **OK** button. Fill in the blanks for **Name** and **Address**, highlight **OK** and press the **OK** button to add. Whilst you are on the site you wish to add to the **Speed Dial** list, highlight the **Vewd** button and press the **OK** button. Then highlight **Add to Speed Dial** option in the submenu and press the **OK** button again. **Name** and **Address** will be filled automatically according to the site you are visiting. Highlight **OK** and press the **OK** button to add.

You can also use the **Vewd** menu options to manage the browser. Highlight the **Vewd** button and press the **OK** button to see available page specific and general options.

There are various ways to search or visit websites using the web browser.

Enter the address of a website(URL) into the search/address bar and highlight the **Submit** button on the virtual keyboard and press the **OK** button to visit the site.

Enter keyword/s into the search/address bar and highlight the **Submit** button on the virtual keyboard and press the **OK** button to start a search for the related websites.

Highlight a Speed Dial thumbnail and press the **OK** button to visit the related website.

Your TV is compatible with USB mice. Plug your mouse or wireless mouse adaptor into the USB input of your TV for easier and quicker navigation.

Some web pages include flash content. These are not supported by the browser.

Your TV does not support any download processes from the internet via the browser.

All sites on the internet might not be supported. According to the site; content problems may occur. In some circumstances video contents might not be able to be played.

Smart Centre

Smart Centre is a mobile application running on iOS and Android platforms. With your tablet or phone, you can easily stream your favourite live shows and programmes from your smart TV. Also; you can launch your portal applications, use your tablet as a remote control for your TV and share media files.

Note: Being able to use all functions of this application depends on the features of your TV.

Getting Started

To be able to use internet based features, your modem/router must be connected to the internet.

IMPORTANT: Make sure the TV and mobile device are connected to the same network.

For media sharing feature **Audio Video Sharing** option should be enabled(if available). Press the **Home** button on the remote, select **Settings>System>More** menu and press **OK**. Highlight **AVS** and change as **Enabled**. Your TV is ready to connect to your mobile device now.

Install the **Smart Centre** application onto your mobile device.

Advanced features

Getting the most from your TV

Start the Smart Centre application. If all connections are configured properly, you will see your TV's name on your mobile device. If your TV's name doesn't appear on the list, wait a while and tap on the **Refresh** widget. Select your TV from the list.

Mobile Device screen

On the main screen you can find tabs to access various features.

The application retrieves actual channel list from TV first when it starts.

MY CHANNELS: The programmes of first four channels from the channel list retrieved from the TV are shown. You can change the listed channels. Press on the channel thumbnail and hold. A list of channels will be displayed and you can choose your desired channel to be replaced.

TV: You can watch content through the TV tab. In this mode you can navigate through the channel list retrieved from your TV and click on thumbnails to view the detail pages.

RECORDINGS: You can view your active recordings(if available) and reminders through this tab. To delete any item, simply press on the delete icon found on each row.

EPG (Electronic programme guide): You can view the broadcast schedules of selected channel lists through this tab. You can also navigate through channels by pressing on the selected channel on the EPG grid. Please note that updating / refreshing the EPG information may take a while depending on your network and web service quality.

Note: Internet connection is required for WEB based EPG information.

SETTINGS: Configure the application to your liking. You can change;

Auto-lock (Only in IOS): The screen of the device automatically turns off after a certain amount of time. Default is off, which means the screen will always stay on.

Auto-enable FollowMeTV: FollowMeTV function (if available) will start automatically when this setting is enabled. Default is disabled.

Auto-connection to TV: When enabled, your mobile device will automatically connect to last connected TV and skips the TV search screen.

Change TV (Only in IOS): Shows the currently connected TV. You can press on this setting to go to the "TV search" screen and change to a different TV.

Edit custom channel list: You can edit your custom channel list using this setting.

Choose channel list source: You can choose the channel list source to be used in the application. The options are "TV List" and "Custom List". Additionally you can activate "Remember my choice" option to set the selected channel list source as a constant choice. In this case if the selected source is available it will be used in the application.

Version No: Displays the current version of the application.

Detail Page

To open detail page tap on a programme. On the detail page screen you can get detailed information of the programmes you select. There are "Details", "Cast&Crew" and "Videos" tabs to find on this page.

DETAILS: This tab provides summary and information about the selected programme. Also there are links to Facebook and twitter pages of the programme selected.

CAST&CREW: Shows all the people contributed to the current programme.

VIDEOS: Provides videos on YouTube related to the selected programme.

Note: For some functions an internet connection may be required.

Advanced features

Getting the most from your TV

FollowMe TV Feature (if available)

Tap on the **FOLLOW ME TV** widget located at the bottom left of the screen of your mobile device to change the layout for **FollowMe TV** feature.

Tap the play icon to start streaming of the content from the TV to your mobile device. Available if your device is in your routers operation range.

Mirror Mode

This mode of FollowMe TV feature is enabled by default and allows streaming the content from any other selected TV sources and Media Browser.

Notes:

Note that only digital(DVB-T/C/S) SD and HD channels are supported.

Multilanguage audio support and subtitle on/off features are not functional.

The streaming performance may change depending on the quality of your connection.

Media Share Page

To access the **Media Share** widget tap on the **Up-arrow** on the bottom left side of the screen.

If the Media Share widget is pressed, a screen is displayed where you can select the media file type to share with your TV.

Note: Not all image file formats are supported. This function will not work if Audio Video Sharing feature is not supported.

Smart Remote Feature

You can use your mobile device as a remote control for your TV once it has connected to the TV. To use smart remote's full features tap on the **Up-arrow** on the bottom left side of the screen.

Voice Recognition

You can tap on the **Microphone** widget and manage your application, giving voice commands such as "Volume Up/Down!", "Programme Up/Down!".

Note: This feature is only for android based devices available.

Keyboard Page

The keyboard page can be opened in two ways; by pressing the **Keyboard** widget on the application screen or automatically by receiving a command from the TV.

Requirements

1. Smart TV
2. Network connection

3. Mobile Device based on Android or iOS platform (Android OS 4.0 or higher; IOS 6 or higher version)
4. Smart Centre app.(to be found on online application stores based on Android and iOS platforms)
5. Router modem
6. USB storage device in FAT32 format (required for USB Recording feature, if available)

Notes:

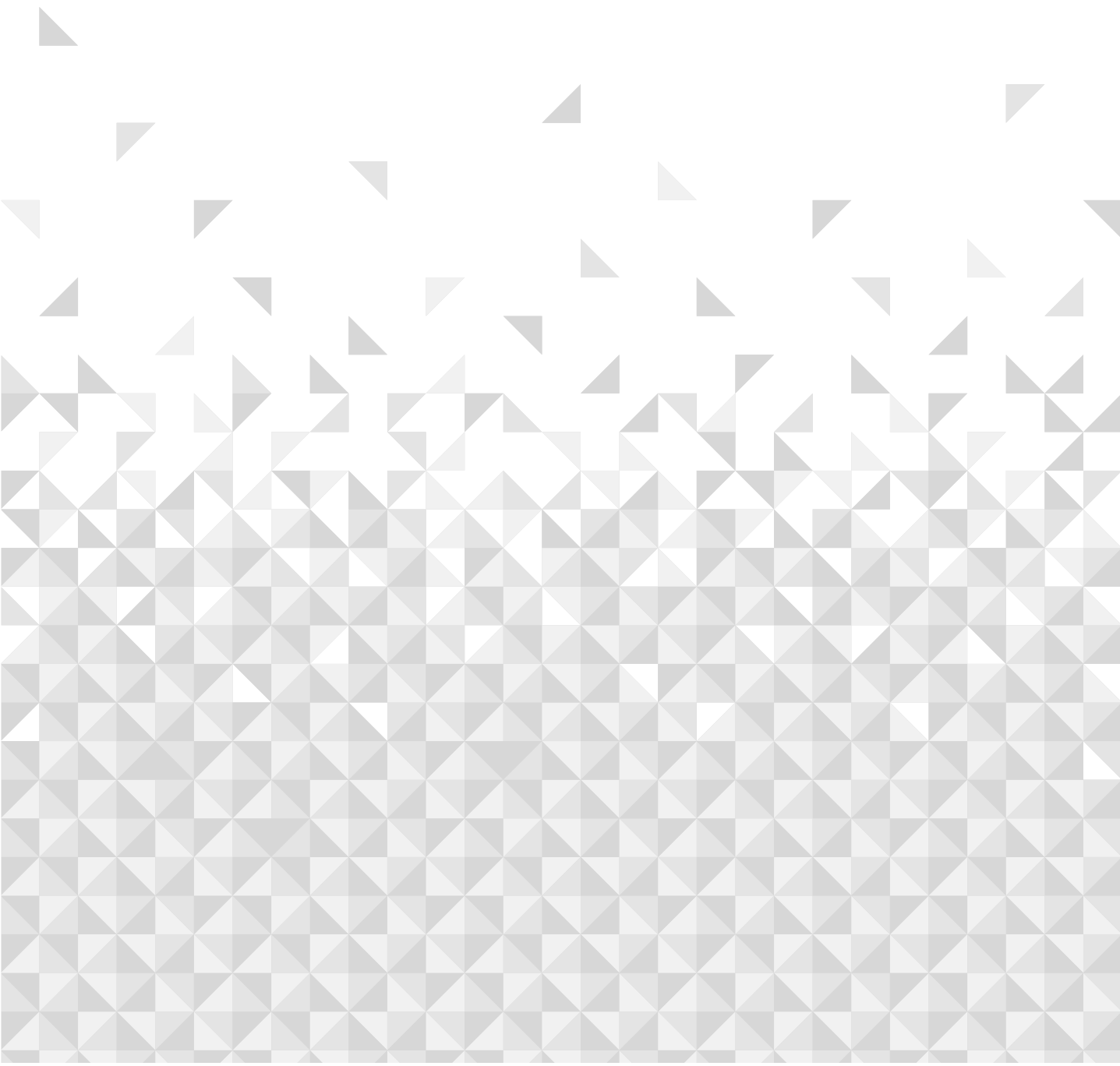
For Android devices, Normal(mdpi), Large(hdpi) and Extra Large(xhdpi) screen sizes are supported. Devices with 3" or smaller screen sizes are not supported.

For iOS devices, all screen sizes are supported.

User interface of the Smart Centre application is subject to change according to version installed on your device.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Other information 6



Other information

Helpful technical information

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.

Other information

Helpful technical information

Specification

TV Broadcasting	PAL BG/I/DK
Receiving Channels	VHF (BAND I/III) - UHF (BAND U) - HYPERBAND
Digital Reception	Fully integrated digital terrestrial TV(DVB-T)
Number of Preset Channels	1 000
Channel Indicator	On Screen Display
RF Aerial Input	75 Ohm (unbalanced)
Operating Voltage	220-240V AC, 50Hz.
Audio	DTS TruSurround DTS-HD
Audio Output Power (WRMS.) (10% THD)	2 x 2,5
Power Consumption (W)	45 W
Networked Standby Power Consumption (W)	< 2
TV Dimensions DxLxH (with foot) (mm)	135 x 506 x 345
TV Dimensions DxLxH (without foot) (mm)	40/56 x 506 x 313
Display	22"
Operation temperature and operation humidity	0°C up to 40°C, 85% humidity max

Wireless LAN Transmitter Specifications

Frequency Ranges	Max Output Power
2400 - 2483,5 MHz (CH1-CH13)	< 100 mW
5150 - 5250 MHz (CH36 - CH48)	< 200 mW
5250 - 5350 MHz (CH52 - CH64)	< 200 mW
5470 - 5725 MHz (CH100 - CH140)	< 200 mW

Country Restrictions

This device is intended for home and office use in all EU countries (and other countries following the relevant EU directive) without any limitation except for the countries mentioned below.

Country	Restriction
Bulgaria	General authorization required for outdoor use and public service
France	In-door use only for 2454-2483.5 MHz
Italy	If used outside of own premises, general authorization is required

or online at www.bush-support.co.uk If you still require further assistance, call one of our experts on **0345 604 0105**.

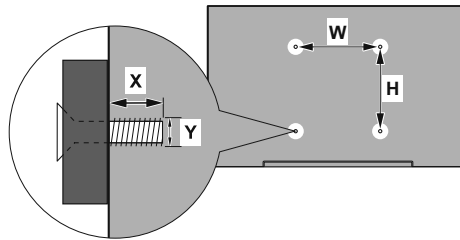
Other information

Helpful technical information

Country	Restriction
Greece	In-door use only for 5470 MHz to 5725 MHz band
Luxembourg	General authorization required for network and service supply(not for spectrum)
Norway	Radio transmission is prohibited for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian Federation	In-door use only

The requirements for any country may change at any time. It's recommended that user checks with local authorities for the current status of their national regulations for both 2.4 GHz and 5 GHz wireless LAN's.

VESA WALL MOUNT MEASUREMENTS		
Hole Pattern Sizes (mm)	W	H
	75	75
Screw Sizes		
Length (X)	min. (mm)	5
	max. (mm)	8
Thread (Y)	M4	



Product fiche

Commercial Brand	BUSH
Product No.	10123651
Model No.	ELED22FHDS
Energy efficiency class	A+
Visible screen size (diagonal,approx.) (inch/cm)	22 inches / 55 cm
On mode average power consumption (Watt)	17,0 W
Annual energy consumption (kWh/annum)	24 kWh
Standby power consumption (Watt)	0,50 W
Off mode power consumption (Watt)	N/A
Display resolution (px)	1920 x 1080

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Other information

Helpful technical information

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	640x480	60Hz
2	640x480	75Hz
3	800x600	56Hz
4	800x600	60Hz
5	800x600	72Hz
6	800x600	75Hz
7	1024x768	60Hz
8	1024x768	70Hz
9	1024x768	75Hz
10	1152x864	75Hz
11	1280x768	60Hz
12	1360x768	60Hz
13	1280x960	60Hz
14	1280x1024	60Hz
15	1280x1024	75Hz
16	1400x1050	60Hz
17	1440x900	60Hz
18	1440x900	75Hz
19	1920x1080	60Hz

Other information

Helpful technical information

AV and HDMI Signal Compatibility

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

(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.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Other information

Helpful technical information

Supported Video File Formats for USB Mode

Extension	Video Codec	Max. Resolution & Frame Rate & Bit Rate
.mpg, .mpeg, .dat, .vob	MPEG1/2, H.264, VC1	H.264: 1080Px2@30fps - 50Mbps, 1080P@60fps - 50Mbps Other: 1080P@60fps - 50Mbps
.ts, .trp, .m2ts		
.avi	MPEG1/2, MPEG4, H.264, MJPEG	
.mp4, .m4a, .m4v, .mov, .qt, .3gp, .3g2, .3gpp	MPEG1/2, H.263, MPEG4, H.264	
.mkv	MPEG 1/2, MPEG4, H.264	
.flv	Sorenson Sp, MPEG4, H.264	
.ogm, .ogg	MPEG1/2, MPEG4	
.asf, .wmv	MPEG4, WMV3, VC1	
.rm, .rmvb	RV30, RV40	
.webm	VP9, VP8	
.mp4, .mov, .3gpp, .3gp, MPEG transport stream, .ts, .trp, .tp, .mkv	HEVC/H.265	

Other information

Helpful technical information

Supported Picture File Formats for USB Mode

Extension	Specification	Resolution (width x height)
.jpg, .jpeg	Baseline	8192 x 8192
	Progressive	3000 x 3000
.bmp	RGB 1/4/8/16/24/32 bit	8192 x 8192
	RLE 4/8 bit	
.gif	87a	
	89a (Only 1 picture at animation format)	
.png	Grayscale, 24/32 bit per pixel	
	Interlace format	
	Progressive	
.tiff, .tif	Tagged image file format	
.webp	Lossy compression VP8 key frame version number support 0~3	
	Lossless compression	

Supported Audio File Formats for USB Mode

Extension	Format
.mp3	.mp3
.ac3	.ac3
.aac	.AAC
.wma	.WMA
.amr	.AMR-NB, .AMR-WB
.wav	.MPEG La, .AAC, .PCM
.flac	.FLAC

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Other information

Helpful technical information

Supported Subtitle File Formats for USB Mode

External Subtitles	
Extension	Specification
.ssa	SubStation Alpha
.ass	Advanced SubStation Alpha
.srt	Subripper
.sub	Micro DVD / SubViewer
.sub + .idx	VOBSub
.txt	Micro DVD / TMPlayer / MPL2
.mpl	MPL2
.smi	Sami
.jss	JACOSUB
.ttml	TTML
.txt / .sub	DVDSUBTITLE
.lrc	-

Internal Subtitles	
Extension	Specification
.mkv	VOBSub
.mkv	ASS / SSA / TEXT
.dat, .mpg, .mpeg, .vob	DVD Subtitle
.mp4	DVD Subtitle, TEXT

Other information

Helpful technical information

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
640x400				☑		
640x480		☑	☑		☑	☑
800x600	☑	☑		☑	☑	☑
832x624						☑
1024x768		☑	☑	☑	☑	☑
1152x864		☑		☑		☑
1152x870						☑
1280x768		☑				☑
1360x768		☑				
1280x960		☑				☑
1280x1024		☑				☑
1400x1050		☑				☑
1440x900		☑				☑
1600x1200		☑				
1680x1050		☑				
1920x1080		☑				

DVB-T functionality information

This DVB receiver is only suitable for use in the country which it was designed to be used in.

Although this DVB receiver conforms to the latest DVB specifications at the time of manufacture, we cannot guarantee compatibility with future DVB transmissions due to changes that may be implemented in broadcast signals and technologies.

Some digital television functions may not be available in all countries.

We continually strive to improve our products; therefore, specifications may change without prior notice.

For advice on where to purchase accessories, please contact the store where you purchased your equipment.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Other information

Helpful technical information

Quick UI Launcher functionality information

The content and services available through the Quick UI Launcher are provided by third-party providers and may be altered, suspended or discontinued at any time without notice.

Bush is not responsible for any of the content or services and does not warrant the availability of or access to such content or services.

For information on a particular service or on any content, please visit the service/content provider's website. If you have any questions concerning, or problems with, any content or services then please contact the relevant service/content provider directly. Bush is not responsible for providing customer service in relation to content or services and accepts no liability in this regard.

Product support 7



Product support

Help is always at hand

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 may be coming from only one speaker. Check the balance settings from **Sound** menu.

Remote control - no operation

- The batteries may be exhausted. Replace the batteries.

Input sources - can not be selected

- If you cannot select an input source, it is possible that no device is connected. If not;
- Check the AV cables and connections if you are trying to switch to the input source dedicated to the connected device.

The Image is not centered in VGA source

To have your TV automatically center the image, enter the **PC Position** menu in **Picture** menu highlight **Autoposition** and press **OK**. Wait for it to finish. In order to set the position of the image manually you can use **H Position** and **V position** options. Select the desired option and use Left and Right directional buttons on the remote to set.

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions.

Product support

Help is always at hand

Help and assistance

If you require any technical guidance or find that your TV is not operating as intended, a simple solution can often be found in the **Troubleshooting** section of these instructions or online at **www.bush-support.co.uk**

If you still require further assistance, call one of our experts on **0345 604 0105***. To help give us give you a fast and efficient service please have the following information ready:

Model Ref.	<input type="text"/>	You can find these on the rating plate - a small information panel (usually a sticker or metal plate) on the rear of your TV
Serial number	<input type="text"/>	
Date of purchase	<input type="text"/>	This will be shown on your receipt

Local call rates applies*

Lines open 8am-7pm Monday to Saturday and 10am-4pm Sunday.

*Calls to Bush enquiry lines may attract a charge and set up fee from residential lines depending on your call plan/tariff. Mobile and other providers costs may vary, see www.bt.com/pricing for details.

For security and training purposes, telephone calls to and from customer service centres may be recorded and monitored. Calls from Republic of Ireland will attract international call charges.

or online at **www.bush-support.co.uk** If you still require further assistance, call one of our experts on **0345 604 0105**.

Product support

Help is always at hand

Disposal information

[European Union]

These symbols indicate that the electrical and electronic equipment and the battery with this symbol should not be disposed of as general household waste at its end-of-life. Instead, the products should be handed over to the applicable collection points for the recycling of electrical and electronic equipment as well as batteries for proper treatment, recovery and recycling in accordance with your national legislation and the Directive 2012/19/EU and 2013/56/EU.

By disposing of these products correctly, you will help to conserve natural resources and will help to prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of these products.

For more information about collection points and recycling of these products, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

[Business users]

If you wish to dispose of this product, please contact your supplier and check the terms and conditions of the purchase contract.

[Other Countries outside the European Union]

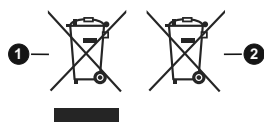
These symbols are only valid in the European Union.

Contact your local authority to learn about disposal and recycling.

The product and packaging should be taken to your local collection point for recycling.

Some collection points accept products free of charge.

Note: The sign Pb below the symbol for batteries indicates that this battery contains lead.



1. Products
2. Battery

Product support

Help is always at hand

BUSH

Call us now and activate your 12 month guarantee

Thank you for choosing Bush. Your new product is guaranteed against faults and breakdowns for 12 months. Don't forget to register it with us today so we can provide you with our best possible after-sales service and useful updates.

www.bushregistration.co.uk

FREEPHONE*

0800 597 8548

Lines are open 8am - 8pm, 365 days a year. *Calls may be recorded and monitored.

Your Bush Guarantee

This product is guaranteed for twelve months from the date of original purchase. Any defect that arises due to faulty materials or workmanship will be repaired free of charge (or if applicable the product will be replaced or the purchase price refunded) where possible during this period by the dealer from who your purchased the unit.

The guarantee is subject to the following provisions:

- The guarantee does not cover accidental damage, misuse, cabinet parts, knobs or consumable items.
- The product must be correctly installed and operated in accordance with the instructions contained in the manual.
- It must be used solely for domestic purposes. The guarantee will be rendered invalid if the product is re-sold or has been damaged by inexpert repair.
- Specifications are subject to change without notice.
- Bush disclaim any liability for loss or damage arising from the breakdown of the product.
- This guarantee is in addition to and does not diminish your statutory or legal rights.

Important Data Protection Information

To find out how we and Domestic & General Insurance Plc use your data please refer to the guarantee registration material or visit www.bushregistrations.co.uk.

Guarantor: Bush Limited - 489 - 499 Avebury Blvd. - Milton Keynes - MK9 2NW

or online at www.bush-support.co.uk If you still require further assistance, call one of our experts on **0345 604 0105**.

BUSH

Contact:

www.bush-support.com

Helpline: 0345 604 0105



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